CITY PLAN 2024 – OUR CITY. OUR VOICES. OUR FUTURE.

southburlington
VERMONT

CITY PLAN 2024

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INTRODUCTION

Entering 2024, South Burlington is at an historic inflection point. We are facing the existential threat of a global climate crisis with ramifications that touch every corner of the planet. Reducing greenhouse gas emissions, protecting our natural resources, and building community resiliency are critical to the future of our city and our world.

We are facing a housing crisis locally and nationally with all types of households struggling to find adequate shelter. We are also facing a crisis of community stemming from physical and mental health challenges, disconnectedness and loneliness, and increasing income disparities.

We face these challenges all at once. We are engaged, optimistic, and ready to meet them head on. While the causes and complete solutions extend far beyond our borders, we know leadership, innovation, and action must start locally.

City Plan 2024 is an expression of our values as a community, our goals for the future, and high-level actions identified to meet these goals. The overriding guiding principle of this Plan is to make every policy decision through the lens of climate resilience and reduction in greenhouse gas emissions, while recognizing other important goals in our diverse community. The Plan increases the City's emphasis on the climate crisis and takes a stronger stance on how we need to both mitigate climate change itself and counter the effects of a changing climate. The Plan places greater emphasis on inclusivity and equity throughout, including through governance structures, through how we undertake daily decision making. This Plan speaks more directly about building community by increasing connection opportunities and building a South Burlington identity. These themes were brought up repeatedly through the community outreach. South Burlington holds high the following guiding principles in every action we take as a community.

GUIDING PRINCIPLES

- **Climate-Resilient.** Prioritize mitigating climate change impacts and reducing greenhouse gas emissions. Emphasize sustainability by rapidly shifting our energy profile to renewable and carbon-free sources and increasing energy efficiency. Promote clean air, clean water, historic conservation, environmental conservation, and recreational space for all residents.
- **Inclusive, Fair, and Just.** Be equity-oriented, transparent, equitable and fiscally responsible in governance. Support high quality of life, community belonging, public safety, housing affordability, and education for all people of varying incomes, lifestyles, and stages of life.
- **People-Oriented, Thoughtful, and Sustainable Built Environment.** Invest in a welcoming and walkable built environment, thriving neighborhoods, and a vibrant, pedestrian-oriented City Center. Build community through housing, parks, facilities, and infrastructure. Support a safe, resilient, and varied transportation system that promotes our built areas.
- **Collaborative and Engaged.** Be a leader and collaborator in the regional and statewide community. Support the city's role as an economic engine for Vermont by encouraging community businesses and local job creation. Make decisions considering future implications on tomorrow's South Burlington, Chittenden County, and Vermont.

South Burlington is now Vermont's second-most-populous city and its third-largest employment center. We provide amenities and parks that serve northwest Vermont and beyond. We offer some of the most significant education, transportation, healthcare, and manufacturing facilities in the State. South Burlington is home to working lands, delicate ecosystems, and networks of wildlife habitat.

Through consistent effort spanning several decades, our built environments have been evolving.

Car-oriented strip commercial development along Shelburne and Williston Roads is transitioning site by site into a people-oriented environment. On Market Street, the City and private partners are realizing a long-held vision for creating a dynamic downtown. Historically single- and two-family neighborhoods are being reinvigorated by the ideas and energy of their third generation of residents. Half of our city's residents now live in multi-family buildings. Key businesses continue to grow and invest in innovations in technology and medical treatment.

Our City is working to strengthen the resiliency of our natural resources. The City has applied regulatory and non-regulatory tools to identify and conserve wildlife and working lands at both the landscape and resource level. Over time, these efforts will continue to strengthen the balance between human and natural environments.

Our community is changing. Our population now exceeds 20,000 residents. We are becoming more diverse; those identifying as BIPOC or two or more races make up 70% of our population increase in the past decade. We're trending slightly younger owed to growth in our 20- to 35-year-old population. We're increasingly becoming a cultural hub with regionally-based faith groups, arts organizations, and community groups establishing their headquarters here.

This Plan is a continuation and an acceleration of our community's guiding policies of the past thirty years. Since adoption of the 2016 Comprehensive Plan, a great deal has changed in our community and beyond. We evaluated the core values embodied by the 2016 Comprehensive Plan and determined the values are on the right track but needed to be said more clearly and with more urgency.

Throughout this Plan, we have made decisions through an equity lens and considered impacts on individuals, families, and groups. Further study of how our actions and goals disproportionately impact some community members is critically needed.

Our City needs to understand what to expect for the future and how we can sustainably plan for it. As required under 24 VSA § 4302(b)(3), this Plan will "consider the use of resources and the consequences of growth and development for the region and the State, as well as the community in which it takes place." It is essential to consider the City's sustainability and ability to provide facilities and services which meet residents' expectations and maintain our community's quality of life.

There is a tremendous amount of work to be done. This Plan embraces ambitious science-based targets laid out in the City's first-ever Climate Action Plan (2022), sets clear and far-reaching goals for climate-change mitigation and adaptation, housing, transportation, equity, our natural environment, and building a strong sense of community. These goals are paired with specific actions for the next decade as we reach towards our vision of sustainability, vitality, and human well-being.

HOW TO USE THIS PLAN

This Plan includes background information, analysis, and future policies divided by topic areas, land use types, and (where applicable) physical area of the city. Each section includes specific Goals and Actions and an "Inventory, Analysis, & Challenges" section discussing the topic or land use subject. The Goals are the benchmarks by which we will measure progress over time. The Actions are specific steps to take to reach the Goals. The Actions are not paired with specific Goals, as Actions may support several Goals and several Actions support each Goal. The Future Land Use section and accompanying map (Map 9) describe the City's long-range vision for land use across the city.

Sitting atop each of these sections and all Goals and Actions are the City's Guiding Principles. The four guiding principles are intended to be applied together and are the foundation of the analyses, Goals, and Actions of each section.

All parts of this Plan are used to guide City policy and decision making, communicate the City's long-range vision to the public and neighboring municipalities, support grant and other funding applications, and to indicate the City's policy intentions in other regulatory processes.

AUTHORITY AND PURPOSE

The authority to prepare and implement the comprehensive plan is granted to the City through the Vermont Planning and Development Act, Title 24 of the Vermont Statutes Annotated, Chapter 117.

City Plan 2024 is a municipal plan authorized by State of Vermont law under 24 VSA § 4381. A municipal plan includes "a statement of the objectives, policies, and programs of the municipality to guide future growth and development of land, public services, and facilities, and to protect the environment." 24 VSA § 4382. Under 24 V.S.A. § 4382, the City is also required to include several elements in its municipal plan, including, but not limited to, a land use plan and series of maps, a transportation plan, a utility and facility plan, a statement of natural, scenic, and historic resource protection, educational facilities plan, energy plan, housing element, economic development element, and a flood resilience plan, plus accompanying policies and maps.

Having a City Plan enables the City to use regulatory and non-regulatory tools outlined in 24 VSA § 4401, including bylaws like South Burlington's Land Development Regulations. Several types of bylaws are authorized, which include zoning, site plan, subdivision, official map, and impact fees (specifically by 24 VSA § 4402). Zoning regulations govern the details of how the City Plan is implemented on a case-by-case basis, including adopting zoning districts and a zoning map, establishing specific designation areas, setting design review standards, determining overlay districts, protecting natural resources, and enabling inclusionary zoning, among many others, under 24 VSA § 4414. The City Plan is implemented partially by adoption of bylaws that regulate the specifics of land use.

The Official Map is another regulatory document enabled by the municipal plan that shows the location and width of existing and proposed streets and drainageways and the location of all existing and proposed parks, schools, and other public facilities, enabled by 24 VSA § 4421. Showing a proposed facility on an Official Map is neither a taking or acceptance of the land by the municipality nor does it obligate the municipality to open, establish, or maintain a street or facility shown. Maps included in the City Plan direct future changes to the Official Map, but are not regulatory maps on their own.

This Plan also serves as the City's enhanced energy plan as enabled by 24 V.S.A. § 4352, including the requisite planning, greenhouse gas reduction, and renewable energy goals and actions contained therein.

TOPIC SECTIONS

The Plan includes ten topic-focused sections: People & Population; Housing; Economy; Energy; Environment; Transportation; Community, History & Culture; Recreation; Community Services & Facilities; and Water & Public Utilities. Each discusses the policies of the City to better South Burlington in each topic area. The sections have considerable overlap with one another. Efforts have been made to cross-reference other sections when topics are more fully discussed elsewhere, but it is impossible to reference every overlapping topic. All topic sections include the threads of the four Guiding Principles that drive City policy.

LAND USE & FUTURE LAND USE MAP

This Plan describes six land use types that share similarities in current land use and are

envisioned to be similar in the future. Different parts of the city in a Land Use Type may require different investment, policy change, or planning to achieve the long-range vision. The areas will likely have visual and physical differences, but they are similar enough in type to group together. We are shifting to focusing on land use types from focusing solely on geographic areas to highlight similarities between areas divided by geography that would benefit from similar vision and policy moving forward.

Land Use Types are divided by intended type of use and by scale of build out. Full descriptions of these areas are in the Future Land Use section of this Plan.

- Principally Residential: Lower Scale
- Principally Residential: Higher Scale
- Balanced Mixed Residential and Commercial: High-Scale Commercial with Supporting Uses
- Principally Commercial/Industrial with Supporting Uses
- Commercial/Industrial
- Principally Conservation & Open Space

The Future Land Use Plan is accompanied by Future Land Use Map (Map 9). This map reflects the overall goals of the City and balances the various goals and actions of this Plan involved in land use. The land use types are the organizing feature of the Future Land Use Map. The areas on this map are purposefully blended to show logical transition and not focus on specific parcels as delineation between land use types. That level of specificity is left to the Official Zoning Map.

The purpose of the Future Land Use Map is not to define residential building density or other factors in land development intensity, but to guide the related Land Development Regulations in keeping with the City's overall goals.

The Future Land Use Plan also discusses key planning issues that are specific to one or more parts of the City. Five broadly-defined planning areas (Central, Northwest, Northeast, Southwest, and Southeast) are identified and assessed for this area-specific issues.

STAKEHOLDER PARTICIPATION

The development of this Plan is the culmination of a planning process building directly on the 2016 Comprehensive Plan that began at that Plan's adoption in February 2016. Since then, the City has undertaken numerous studies, convened task forces, and continued City planning as the City has evolved. The work since 2016 has involved significant public participation, work of the City's numerous volunteer policy committees, Planning Commission, and City Council, feedback from the Development Review Board, engagement with our local, regional and statewide community, and operations and policy work by City staff. Hundreds of stakeholders have contributed leading up to publication of this Plan through direct input in the Plan process, but also in public processes, outreach, and volunteer committees for other plans and policy decisions since 2016.

The City Council and Planning Commission worked together in the summer and fall of 2022 to evaluate the vision statements from the 2016 Comprehensive Plan. Through their joint work, the Council and Commission advanced a draft set of four Guiding Principles to guide the development of this Plan.

Beginning in the fall of 2022, the City's policy committees were invited to provide initial feedback on the big, policy-scale opportunities and challenges for South Burlington. These committees are the Affordable Housing Committee, Bicycle & Pedestrian Committee, Common Areas for Dogs Committee, Economic Development Committee, Energy Committee, Library Board of Trustees, Natural Resources & Conservation Committee, Public Art Committee, Recreation & Parks Committee, and the Sextons. Seven of these committees hosted sessions

of the Community Conversation series.

Concurrent with the initial committee feedback, Staff met with each City Department to collect feedback in their areas of expertise and to learn what they hear from different segments of our community.

Direct public outreach on the Plan itself took place in the winter of 2023, first with an online poll, followed by an eleven-session Community Conversation series, and an open-ended webform. These avenues for feedback were publicized through the City's website, postings in City Hall, publication in The Other Paper, advertisement through Front Porch Forum, and word of mouth by committee and board members. The professionally-facilitated Community Conversation series included seven topic-focused sessions and four area-focused sessions. In total, approximately 250 people participated in the Community Conversation series, 300 responded to the poll, and about a dozen submitted additional comments at initial phases. City Staff met with stakeholders in the community, including community groups, residents, and business owners to gather feedback.

The Planning Commission reviewed each section of this Plan individually and in the whole document in the winter and spring of 2023. City policy committees reviewed and provided feedback on the first draft of sections relevant to their roles and provided ideas for Goals and Actions. Through July and August 2023, the Planning Commission discussed and sought public comment on the full draft Plan before moving it for formal public hearing. After publication of the full draft Plan, the City held four additional listening sessions and accepted additional written comment from the public and the committees. Approximately 50 people participated in the listening sessions and 50 provided additional written comment.

NOTABLE CHANGES

The 2024 Plan continues much of the general policy direction adopted in the 2016 Comprehensive Plan, but does reframe, tweak, and modify policy throughout to reflect current conditions and changes in City priorities since 2016 and, as described in the introduction, push the topic areas forward. Each topic section includes Goals and Actions to guide work in the coming years and decades.

As South Burlington has grown, it is no longer feasible (or beneficial) for all details of the City's policy direction to be included in the City Plan. The intention, as is noted throughout this Plan, is to create and use a series of subject-specific and potentially area-specific plans to analyze, study, discuss detail, and set specific action steps. For example, the 2022 Climate Action Plan's carbon targets are incorporated into this Plan but High Impact Actions and Supporting Actions are not re-stated in this Plan.

IMPLEMENTATION

The City can use many tools and techniques to implement the City Plan. Specific mechanisms for implementation are identified throughout. Implementation must occur in an inclusive, fair, and just manner, equitably including and supporting all of our residents. The timing and funding of the following tasks will be determined by the annual Policy Priorities and budget processes.

The Municipal Budget

The annual budget is the among the most significant policy tools the City has. Each year, the City Council approves a budget and submits it to the voters for their consideration. The budget reflects the overall investment and policy priorities of the City. This includes the general fund and enterprise funds and may include special bond votes or funds established for specific purposes.

Policy Priorities and Strategies

The City Council each year, in consultation with staff and its committees, prepares and adopts its Policy Priorities and Strategies for the coming year.

Land Development Regulations

Zoning and subdivision regulations control the use of land and structures as allowed by 24 VSA Chapter 117. Several optional tools are allowed by state statute including zoning and overlay districts, site plan and conditional use standards, performance standards, form based code inspired standards, inclusionary zoning, planned unit development, and transfer of development rights.

Official Map

The Official Map is a local bylaw enabled by state legislation which reserves land for streets, recreation paths, drainage, parks, schools and other public facilities. The City's Official Map should be reviewed and revised as needed to reflect this Plan.

State-Level Designations

South Burlington has State-level designations for a Neighborhood Development Area and a New Town Center. Fully utilizing the benefits that come with those designations is key to implementation of this Plan.

Municipal Ordinances

Multiple municipal ordinances are used to implement the comprehensive plan. Among those most closely related to land use include, but are not limited to, the sign ordinance, ordinance regulating the use of public and private sanitary sewerage, peddlers ordinance, backyard chicken ordinance, control and prevention of fire ordinance, public nuisance ordinance, tree ordinance, and impact fee ordinance.

Land/Property Interest Acquisition

The acquisition of land enables the implementation of several goals and recommendations such as the construction of public facilities including parks, schools, sewer and water facilities, conservation, roads and recreation paths.

Capital Budget and Program

The City maintains a capital budget and program in accordance with 24 VSA §4426. The capital budget describes the capital projects to be undertaken during the coming fiscal year, including the estimated costs and method of financing. The capital program is a ten-year plan describing the capital projects to be undertaken in the ten years and is updated annually.

Impact Fees

The City has adopted an impact fee program in accordance with 24 VSA Chapter 131. Impact fees are a means by which developments are required to pay for their "fair share" of public capital expenditures needed as a result of their development.

Tax Increment Financing

The City has designated City Center as a Tax Increment Financing (TIF) district. In TIF districts, the cost of infrastructure improvements are funded through the tax revenue generated by new development within the district.

Special Assessment Districts

Special Assessment Districts are designated areas in which property owners are charged to cover the costs of installing capital improvements from which the property owners will exclusively benefit. Typical improvements funded by special assessment include water and sewer service, stormwater infrastructure, sidewalk construction, and street improvements.

Regional, State, and Federal Coordination

The City will continue to cooperate with regional, state, and federal entities and agencies as necessary to further the goals and policies of this plan. Regional partners include the Chittenden County Regional Planning Commission, Chittenden Solid Waste District, Champlain Water District, Greater Burlington Industrial Corporation, Lake Champlain Chamber of Commerce, Green Mountain Transit, and many more.

Ongoing Planning and Studies

The City will continue to update the City Plan as required by 24 VSA §4387. This Plan includes recommendations for future action and studies to be undertaken to help implement its overall goals.

Other Non-Regulatory Tools

The City has a host of tools to engage in non-regulatory programs and initiatives. These can include, but are not limited to, funding programs, education, community engagement, optional standards, and other incentives for certain outcomes. There is significant room for additional innovation here.

BACKGROUND

Location.

The City of South Burlington covers approximately 10,600 acres in western Chittenden County. It is bounded to the northwest by Burlington, the most populous city in Vermont. The Winooski River forms the northern boundary between South Burlington and Colchester, Essex, and Essex Junction. To the east, Muddy Brook runs the entire length of the boundary with Williston. Shelburne bounds the city on the south. The southwest section of the city lies on Lake Champlain with 2 ¼ miles of shoreline.

History.

South Burlington's location and natural resources have made the area naturally suited to occupation by humans for thousands of years. Archaeological evidence suggests human populations occupied the area as early as 8000 BC. The City's area is included within the traditional territory of the Abenaki and Wabanaki (N'dakina). Beginning in the 18th century, colonizing Europeans settled in the area now called South Burlington. Construction of the Winooski Turnpike (now Williston Road) and a stagecoach route along modern Hinesburg Road created a transportation hub here in the early 19th century.

Many early public services and utilities grew as part of the Burlington systems as Burlington became the financial and service center of the area. In 1865, South Burlington and Burlington separated, with South Burlington remaining a largely agrarian area. Summer tourism came with the railroad along Lake Champlain and Queen City Park became a popular destination.

With the automobile, development shifted to major roads like Williston Road. In 1919, work began on the airport (now Leahy Burlington International Airport). Post-World War II economic expansion brought rapid commercial/industrial and residential development. Between 1940 and

1950, the city's population more than doubled. Between 1950 and 1960, the population doubled again.

South Burlington adopted zoning in 1947. Municipal water service from Burlington was extended along Williston Road. Businesses sprang up along Williston Road and Shelburne Road. Farmland nearby was quickly converted to dense development.

South Burlington was granted city status in 1971, and 2015 marked the community's 150th anniversary.

Current.

South Burlington is a regional employment, trade, housing, and transportation center. It is located at a transportation nexus between road, path, and air, including Vermont's largest airport and direct access to Interstates 89 (I-89) and 189 (I-189). Large employers include large manufacturers, engineering firms, the University of Vermont Medical Center, the school system, and the numerous consumer-oriented retail establishments.

The City's population is growing and diversifying. As a city of over 20,000 people facing a climate crisis, land use patterns need to shift to being more dense and more focused in areas served by bicycle and pedestrian ("bike/ped") and transit infrastructure. These subjects are assessed extensively throughout this plan.

PEOPLE & POPULATION

South Burlington strives to be an active, inclusive, and responsive city, where high quality of life for all of our residents is supported by the environments we build. Changes in total population affect our community, but changes in demographics are also important to understand how to help South Burlington thrive into the future. Household income levels and geographic distribution across the city also affect how we allocate resources equitably.

The 2020 US Census tracts map closely onto four planning areas in the city: Northwest area and City Center, Northeast, Southeast, and Southwest. These tracts are not exactly the same as the planning areas, but are close and do provide useful insight into how our city varies.

POPULATION GOALS

Goal 1: Anticipate and prepare for an average annual population growth rate of approximately 1-1.5%, and a housing growth rate of 1.5-2%.

POPULATION ACTIONS

Action 1: Monitor the rate of population growth, changing demographics, and land use development for consideration in allocation of City resources and improving public outreach

Action 2: Monitor household income over time in our four populated US Census tracts for consideration in allocation of City resources and improving public outreach

Action 3: Study the population carrying capacity of our city to maintain a high quality of life

POPULATION INVENTORY, ANALYSIS, & CHALLENGES

South Burlington is the second largest municipality by population in Vermont and is growing faster than the state as a whole. The 2020 US Census counted 20,292 people living in South Burlington, a 13.3% increase from 2010's inventory of 17,904 residents. Vermont's population grew by 17,336 from 2010-2020: a 2.77% increase. Over the past decades, South Burlington has gained population by an average 1-1.5% annually, which appears to be continuing.

AGE DISTRIBUTION

The table below shows a breakdown of population change by age category.

Age Category	Total Population, 2010	% of Total Population, 2010	Total Population, 2020	% of Total Population, 2020	Change, 2010-2020	Share of population increase
All Ages	17904	-	20292	-	13%	-
0-19	3660	20%	3983	20%	9%	14%
20-34	4008	22%	4510	22%	13%	21%
35-49	3839	21%	3998	20%	4%	7%
50-64	3510	20%	3927	19%	11%	17%
65-79	1813	10%	2756	14%	52%	39%
80+	1074	6%	1118	6%	4%	2%

Data source: US Census, 2010 & 2020

Between 2010 and 2020, our age distribution has remained fairly stable, with the greatest increase in the number of people 65-79 (by percentage of total population). An aging population is consistent with the rest of Vermont, whose median age has been climbing steadily for years. It also does not necessarily indicate widespread in-migration of older people into South Burlington — such an increase is likely longtime residents aging in place. The city's aging population will place a higher demand on medical and social services. South Burlington residents should have opportunities to age in place. An aging population can also affect our land use. The City can take actions to support new investment in retirement housing and neighborhood-scale medical facilities, and emphasizing accessibility city-wide. The Southeast area is currently 28% people 65 and older, meaning the most car-dependent area of the city is also its oldest.

In the Northwest area and City Center, more than half of the population is between the ages of 20 and 49. These people are in their prime earning years and are the most likely group to have children at home. This population group is likely to grow in this area with further housing investment in City Center. Affordable housing with multiple bedrooms, infrastructure investment in safe bike/ped routes, and investment in community gathering spaces and public amenities will support this group. Increased multi-modal options for commuters traveling to other municipalities is also prioritized.

RACE & ETHNICITY

Along with its overall population, South Burlington's racial and ethnic diversity continues to grow and evolve. While the city's population continues to be majority white, the fastest-growing groups of people living in South Burlington identify as BIPOC and/or two or more races.

Racial Category	Total Population, 2010	% of Total Population, 2010	Total Population, 2020	% of Total Population, 2020	Change, 2010-2020	Share of population increase
Total	17904	-	20292	-	13%	-
White	16116	90.0%	16835	83.0%	4%	30.1%
Black or African American	348	1.9%	639	3.1%	84%	12.2%
American Indian & Alaska Native	35	0.2%	25	0.1%	-29%	-0.4%
Asian	969	5.4%	1364	6.7%	41%	16.5%
Native Hawaiian & Other Pacific Islander	6	0.0%	7	0.0%	17%	0.0%
Some Other Race	65	0.4%	251	1.2%	286%	7.8%
Two or More Races	365	2.0%	1171	5.8%	220%	33.8%

Data source: US Census, 2010 & 2020

Statewide, Vermonters are overwhelmingly white, with over 93% of the state identifying as such in the 2020 US Census. South Burlington is now 83% white and 17% BIPOC or multiple races, making it significantly more racially diverse than the average Vermont community. Burlington, Winooski, and Essex also have higher-than-statewide-average racial diversity, making western Chittenden County the most diverse region in the state. Incorporating our growing diversity into the City's public outreach efforts, community building programs, and City governance as a whole is critical as we pursue greater inclusivity, justice, and equity.

LANGUAGES

Linguistic diversity has increased along with racial diversity in South Burlington. According to the American Community Survey, 87% of South Burlington households speak only English at home. A full 9% of households are functionally multilingual, speaking at least one language other than English at home. However, 4% of South Burlington households speak little or no English at home. There is significant linguistic diversity, with households speaking Spanish, Arabic, Chinese dialects, Hindi, Tagalog, Oromo, Somali, Korean, and Nepali, among others.

Cultural and linguistic diversity is likely to continue to increase. Public engagement in policymaking relies on mutual understanding and trust. Isolated linguistic groups may feel left out of English-centric policymaking processes. Increasing accessibility for non-English speakers is important in reaching our inclusivity, justice, and equity goals.

HOUSEHOLD INCOME

South Burlington has a wide range of household income levels and those levels vary significantly by area of the City. This chart shows the percentage of people who fall into each of the following income categories, according to the 2021 American Community Survey. The median income for the Burlington-South Burlington, VT MSA (which includes Chittenden, Franklin, and Grand Isle Counties) was $95,900.

	SE	SW	NW	NE
$0 to $34,999	5.1%	12.7%	31.3%	22.0%
$35,000 to $74,999	15.7%	25.3%	25.4%	29.6%
$75,000 to $99,999	11.6%	20.0%	12.6%	16.2%
$100,000 and over	67.7%	41.9%	30.7%	32.2%

The Southeast census tract is the wealthiest by income in the city, with at least two-thirds of households earning over the median for the MSA and a median income that is nearly double those of the other Census Tracts in South Burlington. The Northwest census tracts and the Northeast census tract are the opposite — approximately two-thirds of households in these areas are under the area median for household income. This affects personal autonomy and quality of life. For example, the Northwest and Northeast census tracts have 342 (14.1%) and 114 (6.1%) households without a vehicle; the Southeast census tract has 7 (0.4% of total households). We have significant income disparity across a relatively small area. As a City, we need to pay close attention to how City resources are expended in infrastructure investment, programming, and resource dedication to work to provide equitable services.

PEOPLE

No statistical or demographic analysis can sum up the diversity and variation amongst our community members. In order to meet the challenges we face, South Burlington needs to be a place where neighbors know each other and will help each other in crisis. We need to build layers of community networks based on common interests, common backgrounds, family status, religious tradition, language, and neighborhood, for example. We acknowledge that individuals will have varying engagement in different social networks and it is the web of these networks that increases our community resilience and sense of belonging. This is what creates a place where people want to live and feel seen for who they are.

PETS

In addition to our human population, our community members have pets in their households,

including dogs, cats, and other small animals. Pets can add meaning and happiness to our neighbors' lives and can increase personal resiliency. The City requires dogs and cats to be registered. As our population continues to grow, we should anticipate the pet population to grow.

HOUSING

South Burlington, and Vermont as a whole, are facing an unprecedented housing shortage and affordability problem. Housing retention and development are fundamental elements of this Plan. Safe and affordable housing well-matched to circumstances supports a high quality of life, retains existing businesses, supports economic prosperity, and attracts future residents. Diverse housing options for a range of lifestyles and life stages allows our residents to remain in South Burlington as they move through life, provides housing for our children to remain here, and attracts young people, young families, multi-generational families, and seniors, adding to community vibrancy.

Meeting housing needs relies on both affordability and availability of safe housing. We need an increased supply of housing affordable to middle- and lower-income households. The challenge of availability of quality housing at lower price points has been a long-standing issue in Chittenden County and recently intensified with the COVID-19 pandemic. Increasing total supply of housing can tamp down excessive price growth that outstrips growth in earnings regionally. Providing both permanently affordable housing (through inclusionary zoning, public investment in low-income housing, and affordability covenants) and a greater variety of market-rate housing options makes housing more affordable. Greater housing supply must also go hand-in-hand with ensuring housing is safe and free from hazards from building materials, mold, pests, poor heating systems, and poor maintenance, among other concerns. Meeting community housing needs also includes addressing the needs of our most vulnerable homeless residents by improving access to services and very low-cost housing options.

Overall, housing is critical to maintaining a healthy, varied, and supportive community, growing our local businesses and economy, and meeting our Climate Action Plan goals. We acknowledge that increasing housing while avoiding isolated construction in currently unbuilt areas will require increasing allowed heights, increasing allowed densities, and changing other dimensional standards.

HOUSING GOALS

Goal 2: Increase number of affordable housing units by 1,000 units by 2035, including 750 units affordable to households earning up to 80% of AMI

Goal 3: Increase rental vacancy rate to 5% as a proxy for a healthy and well-supplied rental housing market

Goal 4: Decrease prevalence of homelessness and residents with insufficient housing and support residents in transition

Goal 5: Pursue larger-scale redevelopment and infill along transit-served corridors and smaller-scale strategic reinvestment, thoughtful infill, redevelopment, and adaptive reuse within neighborhoods citywide

Goal 6: Increase total "missing middle housing" units available by including in small-scale multi-family developments at a range of price points, in a variety of building types, and interspersed with single-family homes and larger multi-family buildings across the city

Goal 7: Encourage homeownership options in multi-family buildings alongside robust rental options

Goal 8: Reduce by half the percentage of households who spend more than 50% of their income on housing costs

Goal 9: Weatherize 600 homes annually, 2024-2030

Goal 10: Electrify 360 homes annually, 2024-2030

HOUSING ACTIONS

Action 4: Implement a variety of regulatory tools and programs to preserve and increase the city's supply of affordable and moderate-income housing throughout the city, including but not limited to: form-based codes, bonuses and incentives, waivers, expedited review processes, requiring minimum stories, increasing maximum height or stories within City Center and along transportation corridors, smaller lot sizes, and promoting accessory dwelling units

Action 5: Explore and implement non-regulatory programs, including public-private and non-profit partnerships, funding, incentivization in fee structures, use or acquisition of municipally-owned lands, and using the Housing Trust Fund to increase total housing, affordable housing, and transitional housing

Action 6: Research options from other communities, now or historically, for creative solutions

Action 7: Establish cooperative relationships with neighboring communities so housing development addresses climate change from a regional perspective

Action 8: Partner with Leahy Burlington International Airport and others to accelerate and complete the FAA-authorized Home Insulation Program

Action 9: Evaluate current inclusionary zoning regulations and thresholds for effectiveness of affordable housing creation, and modify as necessary

Action 10: Allow for well-designed, context-sensitive infill housing within existing established neighborhoods and commercial areas

Action 11: Require new homes to be compliant with Vermont's state energy codes for new construction and incentivize energy efficiency upgrades to existing homes

Action 12: Adopt additional ordinances for registration, life safety inspections, and regulation of long-term and short-term rentals, and consider applying life safety codes to single-family and duplex homes

Action 13: Encourage private inspections and educate the public about housing-related hazards like mold, radon, carbon monoxide, and VOCs

Action 14: Promote a built environment that supports affordable and convenient access to basic needs like healthy foods and inclusive health care

Action 15: Complete an updated Housing Needs Assessment

HOUSING INVENTORY, ANALYSIS, AND CHALLENGES

AFFORDABILITY.

Construction of new housing in Chittenden County has been outpaced by growth in demand. We have a significant deficit in available homes for a healthy and affordable housing market, including an undersupply of "Affordable" housing and housing affordable to moderate-income households. Capital "A" "Affordable" costs, per month, 30% or less of the household income of 80% of Area Median Income (AMI) for mortgage or rent, property taxes and/or HOA fees, and required utilities (heat, electric, water, and sewer). The City requires Affordable homes to be built through required inclusionary zoning.

Incentivization and regulation can result in more affordable homes (costing 30% or less of household income) for people at a wider range of middle incomes, including at 100% of AMI and 120% of AMI. In FY 2021, the AMI for a household of four in the Burlington-South Burlington area was $95,900, making housing costs affordable to a household making 100% AMI approximately $2,400 per month. For 120% of AMI ($115,080 for a family of four), affordable monthly housing could cost $2,875 per month. Relatively high consumer mortgage interest rates (approximately 6-7% in 2023, compared with approximately 3-4% in 2020/21) reduces buyer purchasing power by increasing monthly payments on the same purchase

price. For rentals, according to the 2021 American Community Survey, approximately 48% of renters in South Burlington are paying 30% or more of their household income on gross rent. Currently, we lack sufficient inventory in those cost ranges for a variety of reasons including both undersupply and high demand.

This shortfall in low- to middle-income housing is regional. South Burlington strives to be a place where its workforce can afford to live.

According to the 2020 US Census, South Burlington is a regional job center and is a net importer of jobs on a daily basis. It is part of a closely knit economic system of central Chittenden County, with residents and workers being broadly exchanged with our neighbors in Burlington, Williston, Winooski, Essex, Colchester, and Shelburne. We must provide a range of housing options in our community and acknowledge the need to address this issue regionally, as a cooperative and collaborative member of the Chittenden County community.

A housing shortfall restricts economic growth and hinders our ability to meet our climate-change-mitigation goals. If people cannot afford to live here and have to commute long distances, they may be less likely to accept a job in South Burlington, limiting our businesses' access to workers. If people do accept jobs but commute long distances, they are likely dependent on single-passenger vehicles, which increases vehicle miles traveled and increases vehicle traffic, counter to our climate-change-mitigation goals. This is another reason we need to think regionally about housing goals.

The City has taken significant first steps to improve access to, and distribution of, affordable housing. In 2003, the City adopted a system of bonuses and incentives for affordable housing in the Land Development Regulations. Through the 2010s, this system was replaced with an inclusionary zoning / supplemental bonus system. Inclusionary Zoning now applies city-wide. Complementing the regulatory tools, the City works to partner with private sector and non-profit housing developers to fund construction and conversion of existing buildings to permanently affordable housing, including through State programs, Federal grant programs, and the City's affordable housing trust fund. The City has no direct control over such cost factors as increases in labor, materials, down payments, mortgage rates, and availability of credit, but the City can influence housing development costs by changing allowed units per acre density, promoting mixed-use development, streamlining permitting and approval processes, developing a tiered impact fee system, and participating in State initiatives such as Neighborhood Development Areas.

Ten-Year Affordable Housing Targets.

Currently, there are approximately 900 permanently affordable housing units in South Burlington, including inclusionary zoning housing and other affordable housing systems. This plan includes ambitious targets of establishment of 1,000 new affordable housing units by 2035 – 750 housing units affordable to households earning up to 80% of the AMI and 250 housing units affordable to households earning between 80% and 120% of the AMI. This does not all have to come from new construction; conversion of existing housing to permanently affordable housing would also move us toward this goal.

EXISTING HOUSING STOCK.

Approximately 48% of existing housing units are single-family houses, 6% are duplexes (either side-by-side or stacked), and 46% are multi-family (three or more units in the building). This balance has dramatically shifted over the past two decades. In 2000, over two-thirds of all housing units in the city were single family homes and less than 30% were multi-family. Within a few years, based on known upcoming development, the majority of all housing units in the city will be multi-family.

Since 1980, South Burlington has averaged adding approximately 145 dwelling units per year

(with cyclical fluctuations). Newer housing since 2000 has been weighted toward multi-family structures (both apartment rental and condominium ownership). Single-family homes have trended toward being larger and more expensive than the stock of existing single-family homes. Vacancy rates for existing housing have remained stubbornly low for both owned homes and rental homes, contributing to ongoing price increases in this market.

South Burlington has significant aging housing stock. South Burlington experienced its first wave of residential development after WWII with construction of primarily single-family homes and duplexes. Approximately 16% of existing housing units were built prior to 1960. These include homes in neighborhoods like Chamberlin, Mayfair Park, and the Orchards. Homes from that era may have some deficiencies in insulation, energy efficiency, and building materials. The next wave of housing included a mix of single/two-family homes and mid-scale multi-family housing near Dorset Street, Kennedy Drive, and Shelburne Road. These also will need reinvestment. Approximately 35% of housing units in South Burlington were constructed prior to 1980 and risk having lead paint. These homes should be reinvested in, including options like weatherization and updates to the homes themselves and investment in the neighborhood infrastructure, community gathering spaces, and aesthetics.

Significant continued investment in additional housing is necessary to address residential costs, demand in this core employment area for the state, and equity in access to safe and affordable housing in the region. As part of our housing work, the City has participated in the region's Building Homes Together campaign since 2018 and will continue to do so.

CHANGING DEMOGRAPHICS.

Future housing must account for changing demographics and identify how the City can affect those trends. South Burlington has an increasing population of older residents, although with a lower percentage over 65 (16%) than in Vermont as a whole (20%). Some older residents want to move from high-maintenance, single-family homes into managed or supportive communities, including condominiums, 55+ communities, and assisted living facilities, but may be unable if units/spots are not available. This locks up housing stock with two, three, or more bedrooms with one or two residents and prevents turnover to families who desire additional space.

South Burlington housing stock is currently approximately 49% units with three or more bedrooms and 51% with two or less. This reflects our current population of one- and two-person households but also restricts the ability for residents to remain in South Burlington as they change life stage or lifestyle. It reflects what has been built and not necessarily what is desired or needed.

SMART GROWTH, INFILL HOUSING, AND CONVERSIONS.

A relatively small amount of undeveloped land is available. Housing needs to be increasingly located in higher-density, mixed-use development in targeted growth areas like City Center and other infrastructure-served portions of the community. The City has multiple opportunities to support these trends and reach goals of thriving mixed-use neighborhoods, affordability, and climate action. This Plan supports a combination of larger-scale redevelopment and infill along transit-served corridors, and smaller-scale strategic reinvestment and thoughtful infill within neighborhoods. The City must be a partner in the Chittenden County Regional Planning Commission's ECOS Plan goal of having 80% of new development take place in areas planned for growth, which amounts to 15% of the (Chittenden County's) land area.

The historic pattern of building new housing on undeveloped land is changing due to market forces and City policy. Infill development between buildings, both residential and mixed-use, is occurring along the City's major transportation corridors. Recently, several former hotels have been converted to residential housing. Older commercial buildings needing reinvestment have been re-developed at greater densities more aligned with the City's land use goals. Lot sizes in

many of the City's neighborhoods are typically larger than similar neighborhoods regionally and nationally, which presents opportunities for small-scale infill and investment in neighborhoods.

HOUSING LOSS.

Approximately two-hundred homes were purchased and removed between the late 1990s to the mid-2010s for noise mitigation adjacent to the Leahy Burlington International Airport. The City advocated diligently for the Airport and FAA to terminate this program and replace it with a sound insulation program for qualifying homes. This program, piloted in 2022 and underway in 2023, reinvests in the neighborhood and is directly consistent with this Plan. The now-vacant land is not currently eligible for new housing under FAA restrictions; instead, the City and Airport are collaborating to use the area to enhance quality of life for the neighborhood (further discussed in the Land Use Chapter of this Plan).

To a lesser extent, housing has been lost elsewhere in the city. In 2016, the City adopted housing preservation requirements, requiring replacement of any removed home in much of the city. This program maintains the number of homes and encourages retention of older (often more affordable) homes.

RENTAL MARKET.

Currently, approximately 60% of housing units are owner-occupied and 40% are renter-occupied. The rental stock is aging along with the single-family housing stock, especially in the multi-family housing from the 1970s and 1980s. As more housing stock ages, total population increases, and vacancy rates remain historically low, we need to develop a stronger toolbox to address health and safety, and to communicate with rental property owners. The City is exploring establishment of a rental registry and inspection program.

Construction of rental and multi-unit housing in the City is regulated by State of Vermont Fire Codes through the South Burlington Fire Marshal's Office. With increasing density of development in some areas of the city, the City should consider application of residential building codes to the construction of single-family homes as well. The existence of such codes can decrease insurance premiums, increase fire safety and standardization of necessary firefighting equipment, and provide more assurance to purchasers.

Short-term rentals and second home ownership.

The short-term rental industry grew significantly in the last twenty years. In 2023, approximately 75 homes in South Burlington were listed for short-term rental. Of these, approximately 60 were "entire house" rentals and of those a substantial number were available on a full-time basis. These full-time, entire-house rentals contribute to the City's housing shortage, as they are unavailable as primary residences. Some may be second homes (used by out-of-area residents for less than six months per year) which also (whether rented the rest of the year or not) removes housing units from the stock of available primary residences. The City is considering the adoption of an ordinance to restrict the use of entire homes for full-time, short-term rentals.

HOUSING TRUST FUND.

The South Burlington Housing Trust Fund was established by the City Council on November 17, 2014 to fund strategic participation in development increasing Affordable housing for households below 80% of AMI. The Trust Fund may, among other options, (1) participate in new affordable housing development through funding supporting project financing of a project undertaken by a private developer, (2) financially support projects preserving existing affordable housing, (3) provide pre-development funding to housing agencies or developers for a project feasibility assessment, and (4) support the purchase of land for affordable housing development. It is currently funded as a line item in the Annual Budget.

HOUSING: ADDITIONAL RESOURCES

- The Path to Affordability: South Burlington 2013 Affordable Housing Report
- Chamberlin Neighborhood Final Noise Report & Purpose Statement (2016)

ECONOMY

Employment and local business are integral components of the South Burlington community, with its location in central Chittenden County, access to major transportation systems, and historically strong investment in utility infrastructure. The vitality of South Burlington, the region, and Vermont, and the quality of life for South Burlington residents is closely connected to the continued prosperity of its numerous businesses and industries.

In support of a balanced, resilient, and vibrant economy and community, the City must continue to attract and retain new employers of varying sizes, sectors, and industries. Thoughtfully planning for housing growth, appropriate environmental protection and energy conservation, and thoughtful redevelopment of our built areas will support the economy, support housing our neighbors nearby, and contribute to meeting our community Climate Action goals. City investment, partnership, and facilitation of new and updated housing and infrastructure can help attract and retain a workforce for those businesses that can walk, bike, carpool, or take transit to work. We must also work with neighboring municipalities to plan for appropriate development of economic opportunities within short driving or public transit distance from South Burlington housing, and vice versa.

At a neighborhood scale, multi-decade investments in City Center and increased focus on infill housing along major transportation corridors are opening up new opportunities for small-scale services and businesses to complement the long-standing larger and national businesses in the community. Community interest supporting vibrant neighborhoods is also opening up ideas and opportunities for localized shops and services in areas that have previously been exclusively residential.

ECONOMY GOALS

Goal 11: Be a resilient and varied economic hub for the region, consistent with the City's land use goals

Goal 12: Invest in and grow a vibrant, mixed use, pedestrian-oriented City Center

Goal 13: Plan for and support appropriately-scaled local business growth, including retail and services, within walking distance of existing and planned residential areas

Goal 14: Plan for and support balanced mixed-use (residential & commercial) development in areas that can support both

Goal 15: Be a leader in regional planning for economic growth centers, live-work communities, commuting corridors, and environmental protection with neighboring municipalities

Goal 16: Increase local business ownership by members of underrepresented groups, including women, nonbinary and trans people, and BIPOC people.

Goal 17: Increase business growth in green technology, arts and entertainment, hospitality, technology and innovation, and pedestrian-scale retail and food service

Goal 18: Support thoughtful investment in the Leahy Burlington International Airport to continue its role as a regionally-significant transportation and economic hub

Goal 19: Increase total childcare programs and total slots to support the workforce

Goal 20: Electrify 8% of commercial/industrial square footage annually, 2024-2030

Goal 21: Promote distributed location of our retail food system and diversify types of businesses for groceries, including large and small stores, farm-to-consumer opportunities, community meals, and the food shelf

ECONOMY ACTIONS

Action 16: Encourage, incentivize, and/or require variation in commercial spaces (including location, size, appearance, and suitability for different purposes) to create opportunities for businesses of varying scales and industries to thrive and adapt over time

Action 17: Promote City Center as an economic hub emphasizing small-scale, locally-owned and operated businesses

Action 18: Advance State designations in City Center, including conversion of the New Town Center to a Designated Downtown and expanding/modifying the Neighborhood Development Area

Action 19: Seek State designations in other areas of the City including the Shelburne Road corridor

Action 20: Streamline, simplify, and modernize permitting requirements and processes to promote land use patterns and uses in this Plan

Action 21: Support state-level funding for high-quality childcare programs and seek opportunities to facilitate new and expanded facilities in South Burlington

Action 22: Examine municipal regulatory barriers to childcare, including the Land Development Regulations, and consider changes as appropriate

Action 23: Encourage connection between the business community and education system, including but not limited to alternative education, training, apprenticeships, technical programs, and innovative school-to-work connections

Action 24: Work with hospitality, business, and community leaders to enable cultural events, conventions, and athletic events

Action 25: Conduct a transit study examining connections to primarily commercial areas

Action 26: Invest in housing and transportation infrastructure to attract and retain a high-quality workforce for South Burlington businesses

Action 27: Develop a strategic economic development plan for the City, including conducting data-driven review of economic health of the South Burlington business community

Action 28: Encourage more value-added food businesses to start-up and/or locate in South Burlington

Action 29: Encourage business incubators, start-ups, and similar low-barrier-to-entry business opportunities

ECONOMY INVENTORY, ANALYSIS, & CHALLENGES

South Burlington is an economic hub in Chittenden County and the state of Vermont. Located at the intersection of major transportation routes by road, rail, and air, South Burlington's economy has significant hospitality and retail sectors, with light manufacturing, small contractor and service businesses, and shipping/logistics. We are a growing city, both in population and economy, and supporting intentional and sustainable economic growth must be a priority. In our efforts to be climate-resilient and community-focused, South Burlington embraces multi-use land use, multi-modal transportation networks, high quality of life for our workforce, and jobs in green industries. This economic growth must be accessible and available to all members of our community and must not disproportionately negatively impact any group or area.

LAND USE & ECONOMY

Creation of More Mixed-use Areas.

Traditionally, zoning separated incompatible uses like residential uses and many commercial uses. A modern approach should reflect that many commercial enterprises are not as disruptive

as their predecessors and have more varied needs.

South Burlington is zoned for primarily or exclusively commercial and/or industrial uses in areas near the Burlington International Airport, the east end of Williston Road, Technology Park, and the Meadowlands Business Park area off Hinesburg Road. Many of these areas are currently built with commercial spaces, but the changing needs of businesses may make them prime areas for infill, more dense building, and/or smaller lot sizes. Siting new commercial/industrial space in already-commercial areas makes sense. However, businesses have expressed a desire for more flexibility in how they use commercial areas for their business activities outside the historic idea of "commercial" use. It should enable enterprises like small business incubators that do not necessarily fit a traditional single-entity business model.

The City may explore integrating housing into some currently commercial areas. Currently, several large South Burlington businesses have more job openings than qualified applicants and are struggling to sustain and grow their operations. The tight housing market and lack of affordable options has resulted in applicants turning down employment offers because they could not locate housing. Even when housing is available, it is often not in South Burlington and requires a significant commute, which is incompatible with our climate action mitigation goals.

More housing units in some commercial areas would improve the housing shortage in Chittenden County and allow workers to live closer to their workplaces, supporting climate-change-mitigation goals by enabling more multi-modal transportation and reducing the need for a personal commuting vehicle. It can also improve vibrancy in neighborhoods, allowing human-scale commercial, retail, and food service facilities in areas within walking distance of homes. For further discussion of housing, please see the Housing section.

Some areas that may have capacity for some kind of residential use in primarily commercial areas include Technology Park, the University Mall area, areas of Shelburne Road, areas of Dorset Street, and areas of Williston Road. Exploring potential state designations for these areas could open new opportunities for adaptation and growth. However, housing can often displace commercial when both are allowed because housing is generally a more profitable use of land per square foot. Displacement of future commercial uses and expansion of existing businesses should be balanced with the need for housing.

Some commercial and industrial uses still generate significant noise, smell, or other noxious side effects that make them incompatible with residential use, including 24-hour operation and 24-hour trucking. We need to study how additional housing could be accommodated, but also where industrial uses could and should remain separated from housing. This would allow for some areas to become more mixed use while others remain industrial-only.

City Center Economy.

South Burlington continues to invest in its new downtown core, City Center, as an opportunity for integrated employment and housing in a walkable area. The City Center area has potential for high quality employment options in an urban setting. The City has not had a downtown core with professional employment opportunities in a walkable area with services, retailers, restaurants, and housing. We are optimistic that the City Center core will evolve over time into a thriving and energetic downtown, including high-quality employment either directly walkable or within easy reach via public transportation. The City will also explore options for redevelopment on San Remo Drive and Williston Road. The City intends to continue supporting economic growth, including housing growth, in the City Center area through investment and policy for the foreseeable future.

Transportation-Land Use Connection.

Future employment and mixed-use development will necessitate a transportation system that meets the demands of the local and regional area. Future mixed-use employment centers in

areas such as City Center, Kimball Avenue, Tilley Drive, Williston Road, and Shelburne Road should be planned with transportation improvements and to be walkable and bikeable.

Leahy Burlington International Airport.

Critically, the Leahy Burlington International Airport is located in South Burlington and provides both business opportunities and community challenges. The Airport supports numerous businesses in South Burlington with direct airport access, and many businesses in our region benefit from access to a nearby international airport. Easy air connection to other areas of the United States and therefore to the world directly benefits our economy and supports the future economic health of South Burlington.

The City and the Airport need to work as partners for the continued economic and social health of our community going forward. Internally, the Airport plans for its own future through its master plan process. However, collaboration and cooperation efforts between the City, community, and airport should reflect the coexistence between the community and the airport, making the most of our opportunities to work together. This should include utilizing the airport-owned land around Airport Parkway for projects that benefit both the airport and the community, support for airport-reliant businesses around the airport property, and improved transportation to the airport that avoids impacts on neighborhoods. For more discussion, see the Northwest Neighborhoods section.

Affordable Commercial Spaces

As we work to improve or redevelop areas especially around City Center and the Shelburne Road corridor, we will have to consider the impact on existing businesses and the cost of operation for small businesses. Improvements can drive up rent costs for commercial space, which can disproportionately impact small, local, and low-margin businesses, as well as women-owned businesses, BIPOC-owned businesses, and businesses owned by other marginalized groups. The City will need to consider how to mitigate gentrification effects of its land use goals and projects on both existing and future small businesses to allow those businesses to continue to have adequate space in our commercial and high-density areas.

DIRECT CITY PROCESS

Permitting and Governance.

Paired with more flexible and nuanced zoning in certain commercial and mixed-use areas, the City should explore ways to streamline, simplify, and modernize permitting requirements and processes to promote land use patterns and uses supported by the policies in this Plan. The City should study the effect of the current Form-Based Code area to see how effective it has been in encouraging development and if other areas should be considered for Form-Based Code zoning or similar tools that focus on impacts and the building's built form over specific uses. The City should consider its role in providing support for small start-up businesses, especially those BIPOC-owned or owned by members of other historically-marginalized groups.

Promotion and Marketing.

South Burlington and its partners should further brand and actively market the City with the current community vision expressed in this Plan. Additional marketing of the community as a place to grow a business could attract new economic investment and will support the hospitality and retail sector. The City has an opportunity to also highlight and expand its growing cluster of Green Technology businesses and promote further growth in that sector.

WORKFORCE SUPPORT & QUALITY OF LIFE

Economic viability and quality of life in South Burlington is intricately tied to many other aspects

of this plan. South Burlington currently hosts a workforce of almost 20,000 jobs. While it is demographically younger than most Vermont communities, South Burlington still faces the challenge of an aging workforce. In particular, South Burlington's economic future relies on attracting and retaining working-age people with a range of backgrounds, education levels, and areas of expertise. These workers will need, among other things, quality and affordable housing, childcare, and education and training.

Housing.

Quality jobs draw workers who need safe and affordable housing. South Burlington also strives to have our promising young people stay in Chittenden County and to be able to establish their lives here if they choose. Employers are struggling to attract workers to our region because of insufficient affordable housing. South Burlington also has a large number of lower-wage jobs in the retail, hospitality, and healthcare sectors that require housing for their workers. Housing should include rentals, but also owner-occupied homes and affordable "missing middle" housing. These residents will need public services, including emergency services, and access to multiple modes of transportation. For more information, see the Housing Section.

Childcare.

Childcare in Chittenden County and Vermont in general has become a pinch point for workforce participation. Shortage of childcare options for families will continue to prevent parents and caregivers from fully participating in the workforce to their desired level. We need to coordinate with large employers to provide or subsidize childcare, expand options for childcare, and enable new childcare centers to open and operate. This will require significant investment by both the public and private sectors. For more information, see the Community Facilities & Services Section.

Education and Training.

Increased connection between education and employment will both facilitate young people coming to and staying in South Burlington and grow our local businesses with trained employees. South Burlington should explore how the City and community can support training programs, apprenticeship programs, technical programs in the trades, and other creative connections between the business community and the school systems and college system. For more information, see the Community Facilities & Services Section.

ECONOMY: ADDITIONAL RESOURCES

- Kimball-Tilley Land Use and Transportation Study, 2020
- U.S. Census Bureau, Census 2020 Data
- American Community Survey 2021

ENERGY

We are facing an existential threat from a warming planet and worsening climatic conditions. We must incorporate greenhouse gas reduction, mitigation, and adaptation measures as a top priority Guiding Principle in the Plan. South Burlington's climate – and the global climate – has changed due to greenhouse gas (GHG) emissions. Dependence on fossil fuels is responsible for almost all South Burlington's emissions. Known effects have been documented and more are predicted in the future. To meet the City's climate goals, the community needs to reduce greenhouse gas emissions by 60% by 2030 and by 95% by 2050.

South Burlington has a policy objective and moral obligation to reduce its GHG emissions from building heating and transportation by transitioning to carbon-free energy sources and by making it safer and more convenient to walk, bike, or take transit through changes in development patterns and transportation infrastructure. We are fortunate in South Burlington that all new energy added to the grid for Green Mountain Power will be carbon-free. We also must increase renewable energy generation and local battery storage in South Burlington to support the shift to electrified heating and transportation. Through all this work, these changes must be made equitably and to help all our neighbors transition to cleaner energy and more sustainable practices, including regulations and non-regulatory programs.

In October 2022, following a Council resolution, engagement of a consultant, and work of a citizen Task Force, the City Council adopted the community's first-ever Climate Action Pan ("CAP"). The CAP identified targets, high impact actions, and supporting actions to significantly reduce South Burlington's share of Vermont's GHG emissions (in line with the Paris International Treaty on Climate Change and Vermont's Global Warming Solutions Act). The CAP also includes equity recommendations in that document's Appendix B: Equity Assessment.

The CAP lays out a strategy to meet the goals of Vermont Act 174, Enhanced Energy Plans, in order to be adopted as an Enhanced Energy Plan with this City Plan for the City to receive substantial deference in siting decisions by the Public Utility Commission (PUC). The 2022 CAP targets are incorporated as goals of this City Plan, and the CAP is interwoven throughout this Plan.

That 2021 City Council resolution charged City staff and Council with "accounting for greenhouse gas emissions and climate impacts when making any significant decision" and specified that the City's Chief Sustainability Officer "will annually report on the progress that the City is making on enacting the Climate Action Plan using standard tools and metrics and will verify that the City appropriately factors climate impacts into all applicable actions and decisions."

South Burlington is including in this Plan required elements to be an Enhanced Energy Plan under Act 174. Further information on required energy targets for the Enhanced Energy Plan are included in Appendix A. South Burlington's required equity assessment is included in Appendix B, as a compilation of the energy-related actions and policy statements made throughout this Plan to address equity. Three additional maps are included in Appendix C as required by Act 174: Solar Resource Areas, Wind Resource Areas, and State Constraints.

ENERGY GOALS

Goal 22: Weatherize 600 existing homes annually through 2030 to reduce emissions by 5%

Goal 23: Electrify 8% of existing commercial/industrial square footage annually to reduce emissions by 17%

Goal 24: Electrify 360 existing housing units annually through 2030 to reduce emissions by 9%

Goal 25: New homes to be greenhouse gas emissions-free to reduce emissions by 4%

Goal 26: Replace 75% of gas vehicles with all electric vehicles (EVs) and plug-in hybrid vehicles by 2030 to reduce emissions by 42%

Goal 27: Reduce vehicle miles traveled by 2.5% annually through 2030 to reduce emissions by 19%

Goal 28: Plan for compact high-density (greater than 12.5 dwelling units per acres) new housing development to reduce emissions by 4%

Goal 29: Increase renewable energy generation to between 30,794 to 55,549 Megawatt hours (MWh) by 2030 and 63,297 to 121,060 MWh by 2050.

Goal 30: Municipal operations meet or exceed our proportional share of citywide greenhouse gas emissions reduction targets and provide community demonstration projects

Goal 31: Meet or exceed South Burlington's renewable energy generation targets identified through Act 174 or its successors

Goal 32: Increase availability of local energy storage to support the other goals

Goal 33: Ensure the energy transition takes place equitably and is financially accessible to all members of our community

ENERGY ACTIONS

Action 30: Complete Implementation of the Transportation/Land Use, Buildings/Thermal, and Government Operations Sectors of the Climate Action Plan

Action 31: Incorporate sector-specific Implementation Plans into City's annual Policy Priorities and Strategies work plan

Action 32: Implement the Climate Action Plan's High Impact Actions and partner/advocate for implementation of Supporting Actions

Action 33: Amend Land Development Regulations to support or require a larger proportion of mixed-use development and transit-oriented development to reduce the need for vehicles

Action 34: Track and annually report on city-wide and Government Operation progress towards meeting Climate Action Plan targets

Action 35: Support applications for renewable energy generation projects to the Vermont PUC located on existing impervious surface, especially existing rooftops

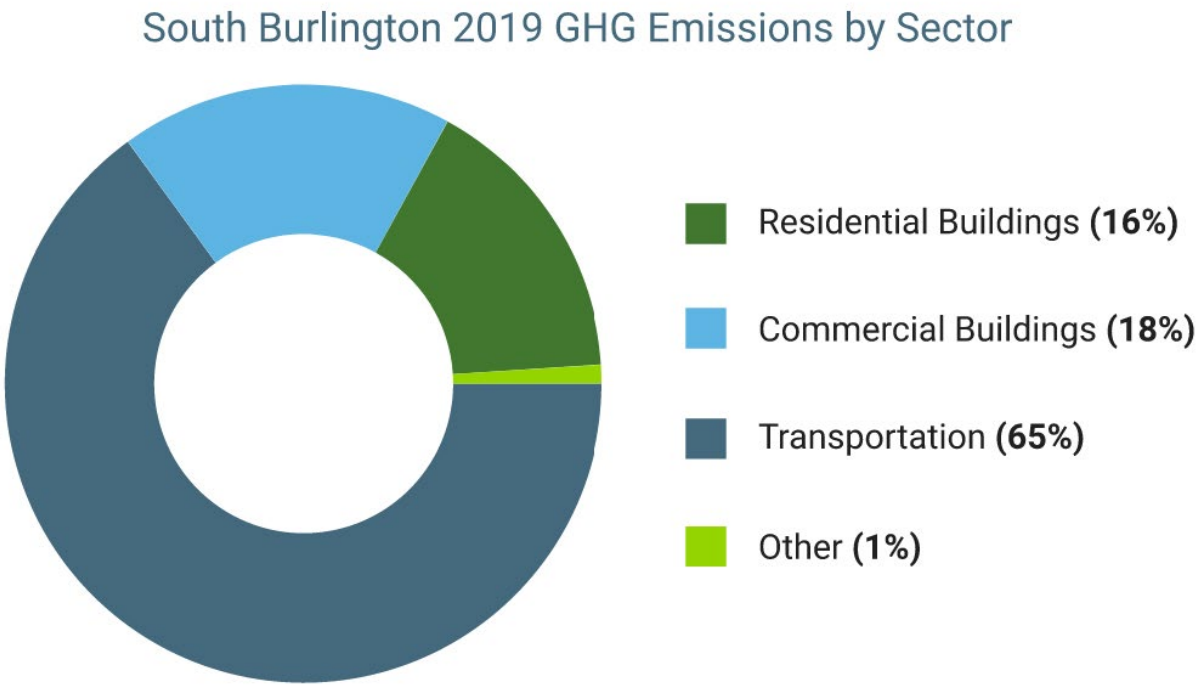
Action 36: Support projects that are sited to avoid state and local known constraints, mitigate impacts to state and local possible constraints, and prioritize projects sited on existing rooftops

Action 37: Support regulating renewable energy generation projects and all other forms of development equally through local and State (Act250/Section 248) permitting processes.

Action 38: Identify existing commercial roofs, parking areas and other areas that do not currently provide carbon sequestration or storage, wildlife habitat, water filtration, etc. where solar arrays would be compatible and should be prioritized.

ENERGY INVENTORY, ANALYSIS, & CHALLENGES

The overwhelming majority of emissions attributable to South Burlington come from two sectors: Transportation/Land Use (65%) and Buildings/Thermal (34%, split between residential and commercial). Other contributors, including small engines, solid waste, agriculture, and the offsetting effects of natural resources also present complementary opportunities. Meeting the overall reduction goals will require significant investment in staff resources, infrastructure, and planning, as well as education and regulatory changes in both our transportation and buildings.



Source: South Burlington Climate Action Plan, 2022

TRANSPORTATION ENERGY SECTOR

South Burlington will continue to be a transportation hub in Vermont at the intersections of major roadways and as home of the region's primary airport. The City is working, both internally and with regional partners, to reduce vehicle miles traveled ("VMT") and reduce single-occupancy commuter traffic.

To reduce overall vehicle miles traveled in our community, especially at the scale targeted in the CAP, the City will need to reorient its transportation network from passenger cars to walking, biking, using public transportation, and evolving personal transportation technologies. The physical design of the transportation network itself will also need to be shifted. As discussed in the Transportation Chapter, much of South Burlington's existing network is designed first for cars, and second (where available) for people on foot, on bicycle, or using transit. The growing popularity of e-bikes presents an opportunity to meet the City's targets and also exposes some of these infrastructure gaps. Examples of these gaps include four-lane roads with limited pedestrian crossings, wide vehicle lanes, lack of bike lanes, narrow greenbelts, a disconnected recreation path and sidewalk network, limited pedestrian lighting, and intersections that are designed with wide turn radii and/or slip lanes.

The City has taken important steps to begin a community-wide retrofit in recent years, including adopting updated cross-sections for new roadway construction, passing a Penny-for-Paths

ballot initiative to improve connections, establishing a dedicated path maintenance fund in the City budget, increasing funding for lane striping, and investing in staffing for capital projects throughout the City.

The City also needs to prioritize a land use pattern that provides homes, services, employment, parks, and other destinations within short distances of one another. The development of pedestrian and bicycle paths, greenways and other trails, changes in regulations that enable commercial services near or within neighborhoods, and investment in neighborhood-scale parks and facilities provide climate-resilient ways of building community.

The City's sustained commitment to creating a compact, multi-use, pedestrian-focused City Center is a strong example of the future of transportation and sustainable-transportation-driven land use. Public and private investments have begun to transform this core area by developing multi-family housing and pedestrian/human-scale commercial use. The pairing of higher-density residential living and pedestrian-oriented built environments, alongside municipal services at City Hall, creates a community hub that will, over time, become much less auto-dependent and community-focused. See the Land Use chapter for analysis and specific policies for advancing the City Center vision further, as well as land use goals throughout the City.

In addition to land use and infrastructure changes, the use of personal vehicles must be reduced or changed over to electric. South Burlington faces complex challenges in promoting and expanding access to electric vehicles due to our housing mix and housing affordability. Access to overnight charging is required for a personal electric vehicle to be practical. Over 50% of homes in South Burlington are in multi-family housing and nearly 40% of households rent their homes. In both cases, it is far less likely that a resident will have direct access to EV charging and control over the installation of EV charging than a resident of a single-family, owner-occupied home. For EV access to be equitable, South Burlington must take steps to encourage, promote, or require EV charging at multi-family buildings and for renters. In addition, South Burlington must take similar steps to incentivize or require EV charging in public and commercial parking spaces to support both rapid charging as well as slower charging. To do this equitably, pay-as-you-go charging (which can be significantly more expensive than at-home charging) cannot be the only option available to EV users.

Emissions generated by Leahy International Airport (formerly Burlington International Airport) are being considered and addressed by the City of Burlington and the airport administration. The City must collaborate, communicate, and engage with the Airport to reduce emissions and increase energy efficiency.

See the Transportation Chapter for analyses and specific policies for transforming the transportation network to meet these objectives.

BUILDINGS AND THERMAL ENERGY SECTOR

Reduction in emissions generated by buildings involves both changing new construction and updating existing buildings. South Burlington has a robust new construction market alongside the significant number of existing homes and buildings, unlike some communities in the state.

For new buildings, the City took an initial step in 2021 and 2022 by establishing regulatory standards for the orientation of streets and buildings for solar gain and requiring that new buildings meet the State's Stretch Energy Codes. In November 2022, the City adopted an ordinance that requires carbon-free / renewable fuel sourcing for primary heating systems and hot water systems in all new buildings. This will limit increases in carbon emissions from the buildings sector while complementary action on existing buildings will reduce existing annual carbon emissions in order to meet the CAP targets.

For existing buildings, the CAP includes targets for both weatherization (including insulation, air sealing, efficient windows and doors, etc.) and for electrification of a building's primary heating

system. Weatherization of 600 homes per year will result in 4,200 homes being weatherized in 7 years, which is nearly 45% of South Burlington's existing housing stock. Electrification of 360 existing homes per year will result in more than half of the homes being electrified within 15 years.

Weatherization, electrification of existing homes, and construction of highly-efficient new homes can have significant costs for homeowners. The City and its partners will need to support homeowners in making these changes in order to ensure an equitable, and successful, transition. This includes financial incentives and outreach to low-income homeowners. The City must design a system that will not cause economic hardship for people without resources to change over, benefit from, and then operate new systems.

Local utilities (Vermont Gas Systems and Green Mountain Power) and the state-level Efficiency Vermont have programs and resources to help customers reduce their monthly energy bills, including information about rebates and tax incentives available for energy-saving purchases. These programs are available for both income-eligible households and for all households, depending on the program. Regionally, Champlain Valley Office of Economic Opportunity also provides weatherization and heating assistance. In order to meet local and state climate targets, however, the implementation of these programs will need to be increased significantly, requiring financial support, staffing, and outreach.

The Climate Action Plan further identifies that a combination of incentives and regulatory tools will be necessary to meet climate targets. These approaches are detailed as High Impact and Supporting Actions within the Climate Action Plan. Neither approach on its own will likely achieve the magnitude of conversion and electrification enumerated in the CAP. Private-public partnerships will also have to play a significant role in meeting the CAP goals. An example of this kind of partnership is being implemented in the Chamberlin Neighborhood. There, a program advocated for by the City and funded by the Federal Aviation Authority to mitigate Airport noise through sound insulation of nearby homes and gathering places is being paired with investments from Vermont Gas Systems and other partners to achieve thermal insulation and extend the annual reach of the program.

Commercial buildings represent about 18% of the City's emissions and over half of the thermal energy demand. Weatherization and electrification of commercial spaces would have a major impact. New building codes address future buildings, but upgrading existing commercial buildings is a challenge that requires additional attention.

GOVERNMENT OPERATIONS ENERGY SECTOR.

The City government's operations account for approximately 0.7% of the citywide GHG emissions according to the 2022 CAP. The CAP identified that in 2019, the Department of Public Works emitted 65% of the City government's total GHG emissions, 74% of which goes to direct operations of the wastewater treatment plants. The Police Department emitted 17% of the total City government GHG emissions, and the Fire Department emitted 12%.

The CAP laid out a broad approach for Government Operations to meet our share of the citywide targets. This is being further developed through an Implementation Plan in 2023 and is being integrated into the City's Operations Budget and Capital Improvement Plan. Over time, the City plans to replace gas-powered and fossil-fuel powered vehicles, small engines, and building systems with more efficient and/or electrified options. The City has significant numbers of fleet vehicles that can be replaced with EVs over time as the market allows, building heating and cooling that can be made more efficient and/or electrified, and smaller structures and equipment that can be upgraded or retrofit with electric options. As these facilities, vehicles, and equipment need to be renovated or replaced, the City will need to budget for electrified replacements as they come up.

ENERGY PRODUCTION.

This Plan and the Climate Action Plan will serve as an Enhanced Energy Plan under Vermont Act 174; as part of that, and as part of the City's overall goal of reducing greenhouse gas emissions, this Plan provides pathways to meet identified targets established by the Regional Planning Commission for renewable Energy production in the City.

Demand for electricity is growing and electric system reliability will continue to be improved as we move forward with the goals of the Climate Action Plan, and as our neighboring municipalities pursue their own climate change mitigation plans. Two transmission line projects located South Burlington have upgraded the infrastructure serving Chittenden County: the Northwest Reliability Project included upgrading high voltage transmission lines and updating a number of substations; the East Avenue Loop and supporting projects installed a 34.5 kilovolt (kV) sub-transmission line from the McNeil generating plant to the VELCO substation at East Avenue and replaced two 115 kV transmission lines with single line. Additional upgrades to the electrical grid will be necessary in the coming years as electricity use increases with electrification of homes, buildings, and vehicles community-wide. Resilience to severe storms requires advanced system controls and redundancy. Electricity storage and generation/load management will be key.

Increasing solar energy generation is an opportunity for South Burlington to generate more clean energy locally. Generation of power close to where it is used reduces loss during transmission and stresses the regional power grid less, encouraging both local power generation for the regional grid and the use of local microgrids. South Burlington has taken significant steps forward in recent decades, but we must do more to meet our climate goals. In 2011, the largest solar array in Vermont (at the time) opened in the city, with an estimated output nearing two megawatts annually, followed by several other large solar facilities, medium facilities, and numerous small installations. As of 2022, renewable energy generation in South Burlington was 22,544 MWh. Solar-ready rooftops are now required on certain new buildings. To meet the goals in the CAP, the amount of renewable energy generation will need to increase by 300% to 600% by 2050 (63,297 to 121,060 MWh). Significant investment, incentivization, and regulation that promotes solar energy generation will be needed to meet those goals. Community solar projects provide opportunities for low-income households, multi-family residents, and renters to participate and invest in solar and should be encouraged.

Small-scale wind energy in South Burlington is limited by the high density of development and unfavorable climatic conditions.

This Plan recognizes that land in South Burlington is valuable, important, and faces multiple demands: natural resource conservation, housing, employment, services, education, transportation, agriculture, parks, and renewable energy production. As in the CAP, this Plan prioritizes the co-location of renewable energy production with other uses. The City needs to focus on rooftop solar, solar-over-parking, and creative opportunities such a solar-over-landfill, integrated with transportation systems, and integrated with agriculture.

There are no thermal power plants located in South Burlington.

OUTREACH AND IMPLEMENTATION ON ENERGY & CLIMATE

Community members, stakeholders, and City staff emphasized the challenges of implementing large scale physical and behavioral changes throughout the development of the CAP and during the public outreach for this Plan. Expertise, investment, and follow-through on weatherizing and electrifying have historically been significant obstacles for households. Community feedback pointed to a suite of tools – including regulations and enforcement, incentives, and neighbor-to-neighbor education and motivation – as keys to success. At the community scale, active community participation in decision-making will be critical. This includes decisions on all topics, including how to invest in vehicle charging systems, how to transform land use, and how to

update our transportation system to acknowledge the necessity of cars for some trips and users while prioritizing walking, biking, and transit in infrastructure enhancements.

Importantly, this work must be implemented in an equitable manner. This could include allowing for a reasonable time for adjustment to new systems when old systems need replacement. Pursuing equity will involve listening to the needs of the community, designing programs to facilitate transportation and home improvements for all users, and accounting for the uneven costs of climate change.

ENERGY FACILITY SITING

South Burlington supports the harnessing of renewable energy, particularly solar, and must dramatically increase the amount of renewable energy generation in the city to meet the CAP goals. Additional data on our renewable energy generation goals is included in this section and in Appendix A. South Burlington has significant amounts of existing impervious surface, including rooftops, parking lots, etc., that are high priority for solar generation sites. The City can reach its energy generation goals through installation of solar generation on existing impervious surface (see Appendix A and B for more data on the goals). It is the City's policy to support projects located over or on existing impervious surfaces and prefer them over energy generation proposed for undeveloped areas. This is also consistent with the State of Vermont's map of preferred sites, included for South Burlington at Appendix A-1.

The City also encourages other co-location of various types of renewable energy generation in ways that allow multiple uses of a property, including, but not limited to, energy generation with compatible grazing or other agriculture, thoughtful building design with innovative generation facilities, and integrating generation with community facilities.

Siting of renewable energy generation facilities must consider impacts on open spaces and wildlife corridors. Site renewable energy generation should avoid state and local known constraints and to minimize impacts to state and local possible constraints. State known and possible constraints should be avoided or mitigated. Local known and possible constraints map overlap with State known and possible constraints, but are defined at the local level as shown on Map A-2 and Map A-3.

Local Known Constraints:

- Class II Wetlands and buffer
- River Corridors
- Very Steep Slopes greater than 25%

Local Possible Constraints:

- Habitat Block and Corridor Overlay District – avoid encroachment or allow for minimal encroachment only if the parcel is 70% or more covered in habitat block or by mitigating impacts through exchanging an equal area of equivalent ecological potential to become forested habitat in the same habitat block
- Steep Slopes 15% to 25% - avoid encroachment or mitigate by ensuring the slope is stable
- 500-year Floodplain – avoid encroachment or only use flood-proofed structures and building standards
- SEQ Natural Resource Protection Area – avoid encroachment or minimize impact on wildlife passage and habitat connectivity

It is South Burlington's policy to not support energy facility siting applications to the Vermont Public Utility Commission that encroach on state and local known constraints or do not minimize impacts to state and local possible constraints.

This Plan has associated maps included in the Appendix. The maps and corresponding data are intended to be used to inform energy planning efforts by municipalities and regions. The maps may also be used for conceptual planning by those interested in developing renewable energy infrastructure. These maps do not take the place of site-specific investigation for a proposed facility and should not be used as "siting maps". These maps do not take all 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 facility. These maps shall not be used without the accompanying policies contained within the South Burlington City Plan.

ENERGY: ADDITIONAL RESOURCES

- South Burlington Climate Action Plan, 2022
- Chittenden County Regional Planning Commission, 2018 ECOS Plan

ENVIRONMENT

The world is facing an existential threat from a climate crisis, and protection of our natural resources is a priority of South Burlington. Protection of natural resources protects air and water quality, sequesters carbon, improves flood resiliency, and improves human health and well-being. Natural resource protection serves both climate resiliency and human resiliency. Natural resources are considered at two levels in this Plan: a landscape scale, and a site/resource-specific scale. Each is discussed in this section.

Approximately 41% of South Burlington is considered a "built" area – meaning the lot is small and/or has at least one home, commercial building, parking lot, other structure, or supporting infrastructure[1]. Approximately 51% of South Burlington consists of open land with some level of regulatory or legal restriction, public parks, condominium common land, land for schools, and similar conditions. The remaining 8% is a mix of types of unrestricted land, including unbuilt residential lots, open farmland, shrubland, forests, and unbuilt commercial lots.

Open lands have value partly because they are currently unbuilt. Its unbuilt state, not necessarily its ecological communities, gives it value. However, all open land does not have to be earmarked for conservation. Some sites in our currently built areas should be built while others will need to be used as park space. Some sites in our currently unbuilt areas should remain unbuilt while others, especially neighboring transit lines and other development, may be suitable for development.

At a resource/site scale, South Burlington has several brooks & streams, floodplain areas, wetland complexes and their buffers, shoreland to Lake Champlain and the Winooski River, certain potentially hazardous areas (including steeps slopes and river corridors), and a series of identified habitat blocks and habitat connectors. These natural resources have value regardless of their context and have largely been regulatorily conserved. To support the viability and effectiveness of these resources, practical and ecologically-beneficial connections between them are also prioritized for protection in some way.

A third category of land use to complement unbuilt and built are working lands. In South Burlington, where they exist, working lands are primarily farmland and hayfields, but also limited forms managed forest lands and fruit tree orchards. Working lands have been a significant part of the city's landscape for the past 200 years. Maintaining working agriculture is important to climate-resilience, security of our food system, and community connection to the land. The historic uses have shaped the location of habitat blocks and connectors, viewsheds, and land use patterns.

ENVIRONMENT GOALS

Goal 34: Protect at least 51% of the city's land area, prioritizing conservation of contiguos lands

Goal 35: Plan for a landscape that allows for continued viability of mammal species like bobcat, red and grey fox, white-tailed deer, river otter, beavers, coyote, muskrat, and fisher, and different types of birds including raptors, ground-nesting birds, songbirds, and others

Goal 36: Connect the City's natural resource areas to one another and to resource areas in adjacent communities

Goal 37: Ensure environmental protection, conservation, and other natural resource-related efforts are undertaken with public health, environmental justice, and equity in mind

1 Calculated as lots less than 4 acres in size, plus lots over 4 acres in size that have at least 10% impervious surfaces such as buildings, parking lots, driveways, etc.

Goal 38: Conserve or protect productive farmland and farming operations

Goal 39: Increase number of public community garden plots by 100% and add distributed locations within walking or biking distance for all City residents, with a priority for residents of housing unit types (e.g. condominiums and apartments) who do not have access to their own land for gardening

Goal 40: Improve organization and management of the existing and potential future public open spaces

Goal 41: Reduce light pollution

ENVIRONMENT ACTIONS

Action 39: Create and implement new Open Space Plan

Action 40: Periodically review environmental protection standards in the Land Development Regulations (currently primarily Article 12) to implement the goals of the Plan and adapt over time

Action 41: Work with adjoining municipalities and regional entities to enact complementary land use policies where wildlife habitat areas cross municipal boundaries

Action 42: Set citywide and district-level tree canopy targets and work with landowners to meet those targets

Action 43: Amend City regulations to address tree protection in connection with new development activity

Action 44: Create and implement management plans for all City-owned properties

Action 45: Conduct a study of environmental justice to determine if any neighborhoods or areas are unequally affected by environmental challenges

Action 46: Engage in opportunities for tree planting and ecosystem restoration along riparian corridors

Action 47: Actively promote replacement of lawns with native plants, pollinator species, shrubs, trees, and/or vegetable garden areas

Action 48: Actively engage in removal of non-native, invasive tree and plant species on public land and work with landowners to do the same with private land

Action 49: Educate the community about the public health, safety, and environmental impacts of the use of pesticides and herbicides

Action 50: Conserve mapped Habitat Block areas and seek opportunities to connect to adjacent natural resources

Action 51: Where appropriate, actively use city-owned land for agricultural education, and for urban agriculture and local food production

Action 52: Encourage and incentivize new residential and mixed-use development to include community gardens

Action 53: Create updated lighting ordinance

Action 54: Consider noise pollution reduction, including possible updates to the public nuisance ordinance

Action 55: Appropriately manage and regulate pet waste

ENVIRONMENT INVENTORY, ANALYSIS, & CHALLENGES

South Burlington's existing landscape has been heavily influenced by its glacial history, creating South Burlington's distinct ridgeline topography and geological features. South Burlington has an established climate with low winter temperatures, moderate summer temperatures, and relatively high humidity, but that climate is now changing.

CLIMATE AND CLIMATE CHANGE.

The region's current climate already burdens and benefits natural communities and humans with a wide temperature range. Winter conditions require snow storage on all properties and demands regular plowing services by the City. Rainfall must be accounted for to ensure stormwater runoff does not negatively affect water quality or stream bank erosion.

Climate change poses significant challenges for all communities, both in how to mitigate it and to respond to it. The City must address both by implementing the Climate Action Plan by improving land use patterns, transportation modes, and energy strategies to reduce the city's carbon footprint. Climate change is also affecting how waterways and ecosystems operate. The City will need to adapt to climate change via infrastructure updates, land use policy and regulation, public lands management, and City operations.

Air Quality.

Air quality has varied over the 20th century, but efforts to reduce pollution have resulted in generally stable, high-quality air. It currently meets all basic federal health (attainment) criteria. The primary sources of airborne pollutants are automobiles and trucks, industry, and residential/commercial heating. However, climate change has brought smoke plumes and poor air quality from forest fires great distances from Vermont, including Quebec, western Canada, and the American West. The community must continue to maintain or improve air quality conditions, including through promotion of electric vehicles and non-fossil-fuel building heating sources.

Topography.

South Burlington's landscape includes a series of ridgelines and river valleys. Five prominent north-south ridgelines shape the city's landscape, shaped historic transportation, settlement, and wildlife transit patterns, and provide spectacular views. North of the ridge system is a flat, well-drained deltaic deposit drained by a network of drainage ways towards Potash Brook to the south and tributaries of the Winooski River to the north. City Center and Leahy Burlington International Airport are located in this area. On a micro-scale, there are also locally steep slopes associated with water bodies, isolated cliffs, and very steep slopes on specific sites. There are also small defunct quarries, including on Spear Street south of I-189.

Geology.

Shallow depth to bedrock and location of bedrock outcrops (due to glaciation) dictate the location of roads and underground utilities and restricts location of building foundations. The city also contains interesting and unique geological formations like a Champlain Sea sand deposit. Most of the city is served by water and sewer with most remaining areas designated as conservation areas. Groundwater recharge areas into our bedrock aquifers is considered on a site-by-site basis when development is regulated or reviewed.

RESOURCE EXTRACTION

Resource extraction of non-renewable resources, like gravel, bedrock, and topsoil, as commodities (not associated with development projects) permanently removes land and materials from South Burlington and should be minimized.

Mineral Extraction.

South Burlington is currently home to two modern quarries: an active quarry/gravel pit near Meadowlands Business Park, accessed through Williston; and an inactive quarry/gravel pit at the south end of the Airport property. The location of the active quarry/gravel pit near the interstate, conservation areas, and existing development requires careful management. Access only through Williston remains the most appropriate route. It is possible that the active quarry/gravel pit, which opened to serve the construction of I-89, will reach the end of its useful life in the coming decades. When that occurs, mitigation will be required and should be planned for, including through coordination with the State of Vermont Act 250 process. New quarries or other mineral extraction is not expected.

Quarrying and production of gravel also occurs on large development sites serving the construction projects. These are very localized and short-lived for the construction duration. At the end of construction, these areas must also be properly mitigated.

Several defunct quarry/gravel pit sites exist in South Burlington on both public and private lands, but generally have little impact on current land use. Defunct quarries can be recreational and environmental resources, adding interest to walking trails and providing unique wildlife habitat.

WORKING LANDS

South Burlington has a long history of working lands, primarily for agriculture, but also for limited forestry. Since WWII, land use has shifted away from agriculture to residential and commercial (non-agricultural) development. Maintaining the working status of these lands supports a vibrant community through local agriculture, value-added agricultural products, education, and community events.

Forestry

South Burlington's existing land use patterns, land value, and limited remaining contiguous forest means commercial forestry is extremely limited. Where feasible, the City supports ecologically-oriented forestry operations. However, pursuant to 24 VSA Chapter 117, accepted silviculture practices are exempt from local zoning. New commercial-scale forestry is not expected.

Agriculture

The City of South Burlington has a small number of remaining traditional farms. Creative and varied agriculture, including small vegetable farms, Community Supported Agriculture (CSA) programs, and agritourism have become part of the City's economic and cultural base. Agricultural production in South Burlington faces several economic obstacles, including the cost of open land, conflict between agricultural uses and residential areas, and limited available land. To promote small-scale and creative agriculture, the City will need to continue to evolve and adapt, balance the positive and negative impacts for its residents, and have a role in supporting agricultural lands.

South Burlington's agricultural landscape is part of the City's cultural heritage. Prior to WWII, much of the land was rural farmland surrounding the more urban Burlington core. The remaining farmsteads and farmland reflect the community's strong agrarian past. These landscapes are important parts of our open space network as working lands and as conserved open spaces. Maintaining the few remaining active agricultural lands for agricultural operations is a priority for the City for food production, climate-resilience, and to preserve views and open space.

Commercial- & Institutional-Scale Agriculture.

Currently, four relatively large agricultural operations exist in South Burlington. UVM owns

large parcels of agricultural land, including the Miller Complex dairy farm on Spear Street, the Horticultural Farm on Shelburne Road, and supporting lands along Spear Street. Bread & Butter Farm operates currently on Cheesefactory Road and has recently partnered with Vermont Land Trust and the City of South Burlington to conserve the former Auclair Farm lands primarily for agricultural use. Common Roots is a smaller mixed agricultural operation in South Village, Hubbard Recreation & Natural Area, and Wheeler Homestead. Belter Farm is a dairy farm located on Country Club Drive working primarily in the Winooski River floodplain.

Relatively large farm operations support local food, open space, and community hubs, and contribute to a vibrant local community and economy. The City has invested funds into the conservation of agricultural lands currently farmed by Bread & Butter Farm (the former Leduc Farm) and being conserved through the efforts of Bread & Butter Farm (the former Auclair Farm). The City leases part of Hubbard Recreation & Natural Area and Wheeler Homestead to Common Roots at low rates. The City will continue to seek out and support the long-term agriculture ventures that meet City goals for environmental stewardship, regenerative practices, and sustainable agriculture.

Smaller commercial opportunities exist for smaller-scale agriculture throughout the City and a few small operations have emerged recently, but more space exists for new ventures. The City will continue to support and enable community-scale farms, value-added products, agritourism, community events, and educational opportunities.

Community Gardens.

Across cultures, community gardens provide a unique opportunity for community building and community resiliency. South Burlington has two sets of public community gardens: one on land owned by the University of Vermont at the corner of Swift and Spear Streets, and another at the Wheeler Nature Park Homestead on Dorset Street. Both of these have waiting lists. Both existing gardens are difficult to access without a personal vehicle. Many small private community gardens exist, and installing new private gardens is one option for new projects to meet open space requirements. Additional public community gardens would help meet the needs of our diverse community who may want to garden but may not have access to private garden space.

SOILS.

Most of the soils in South Burlington are classified as prime soils or soils of statewide importance by the federal Natural Resource Conservation Service (NRCS). Of the soils of statewide importance, very little unbuilt area is prime agricultural soil. Non-regulatory options like incentivization, financial support, and partnership could be used to minimize development of unbuilt prime agricultural soils for uses other than agriculture. Developers face State-level scrutiny of any development on soils of statewide importance outside the New Town Center (approximately half of City Center), including on Shelburne Road and other areas we seek to infill. The City should support projects that meet our goals in their State-level review processes.

ECOLOGICAL RESOURCES

South Burlington's landscape varies from Lake Champlain, its watershed, and associated wetlands to geological features ranging from lakeside cliffs to sandy soils. The City protects ecological resources for many purposes, including natural open space, wildlife habitat, stormwater management, agricultural benefit, and climate-change mitigation.

Vegetation.

Trees, shrubs, and other soil cover vegetation prevent erosion, provide stormwater benefits, improve air quality, provide visual and aural buffers, and furnish shade and protection from wind.

We must continue to remove non-native invasive species, promote vegetative biodiversity, and incorporate pollinator species into landscaping.

Forests and street trees contribute to a healthy and varied tree canopy, supporting our public health, energy conservation, water filtration, absorption of air pollutants, improved wildlife habitat, recreational enjoyment, aesthetic relief, and noise reduction. Conservation of mature and specimen trees is important and must be balanced with ensuring conserved natural areas have diversity in tree ages and species to protect from the impact of species-specific diseases and other die-off events. The City will minimize the trees removed from development sites and promote planting of replacement or additional mature trees in new development or redevelopment areas.

Due to South Burlington's geology and history, the forests are primarily deciduous forest. Much of the forest is localized blocks with limited interconnection. Many forested blocks have now been protected as regulated "habitat blocks" and development potential is extremely limited. The City will work to maintain these habitat blocks and promote appropriate forest management, education, and expansion of interconnection options.

Street trees can provide a safer and more pleasant pedestrian experience, calm traffic flow, contribute to urban beauty, improve air and water quality, and reduce noise. Street trees prevent the heat island effect and provide shade. Generally, they do not provide significant wildlife habitat, but the City should continue to promote trees in street landscaping, especially native and locally-sourced trees. Having healthy street trees also requires burying power lines where possible to prevent interaction between trees and power lines that require otherwise unnecessary trimming and removal.

Single-family residential development has created extensive lawn area and residential landscaping. Small residential lots provide private open space but can be problematic if not managed properly. The City encourages management practices like pollinator-supporting species, reductions in pesticide and herbicide use, participation in No-Mow May and Raise the Blade campaigns for lawn maintenance, and promotion of the "Homegrown National Parks" program. The City could also incentivize expansion of natural buffers in backyards and reduction in total lawn area and increased tree planting to further buffer natural resources like wetlands and reduce the effect of higher summer temperatures.

Wildlife.

South Burlington residents share densely populated urban areas, suburban areas, and open spaces with a diverse population of wildlife. Past studies have identified travel routes – or corridors – most often frequented by larger wildlife, primarily in streams, wetlands, bogs, and undeveloped forest blocks. Ecological resources and a varied landscape (including steep slopes and extensive bedrock outcroppings) are important to varied wildlife habitat. The nature of wildlife habitat areas in South Burlington (including the size of habitat areas, connections, and vegetation type) dictates that we strive to provide habitat for relatively small mammal species like bobcat, red and grey fox, white-tailed deer, river otter, beavers, coyote, muskrat, bats, opossum, and fisher, and different types of birds including raptors, ground-nesting birds, songbirds, and others. Interaction between wildlife and human communities will continue to be an issue and balancing wildlife needs with human needs will require ongoing problem solving.

Natural communities continue into our neighboring municipalities. Coordination with neighboring jurisdictions and regional and state entities is critical.

SURFACE AND GROUND WATER RESOURCES

Protection of our water resources is critical for our drinking water needs and for climate-change mitigation. All surface waters have climate-change-mitigation benefits as connectors for wildlife and plants across the landscape, stormwater mitigation, and flood control. With recent

regulatory changes, the City has expanded protections of these resources for environmental and property loss prevention reasons. Our standards generally exceed State-level standards.

Watersheds.

Seven main watersheds exist within South Burlington: Potash Brook, Muddy Brook, Bartlett Brook, Centennial Brook, Englesby Brook, Winooski River, and Lake Champlain. The flows from all of the surface and groundwater systems in South Burlington eventually reach Lake Champlain. Most of these watersheds are stormwater-impaired primarily due to impervious surface runoff. The City must continue to evaluate its own practices, continue expanding and improving the stormwater utility's projects, and strive to meet state and federal water quality goals.

Wetlands.

Class II and III wetlands throughout South Burlington serve as stormwater storage, control the flow of streams, filter sediments and surface runoff, support flood mitigation, and provide habitat for fish and wildlife. Wetlands cannot be replaced once they have been disturbed by mowing, fertilizers, or pesticides. Incremental loss of minor wetlands can cause cumulative damage to wetland function and values. Protection of wetlands and buffer areas around wetlands prevents damage and loss. No Class I wetlands exist within the City, but should any wetlands be reclassified the City would support these as having the highest level of protection. The City currently applies regulatory buffers of 50 feet or 100 feet on different types of properties. These buffers are critical for the maintenance and health of wetlands systems and must remain at least this width in the future.

Floodplains & River Corridors.

We must plan for greater frequency and intensity of flooding events with climate change. Floodplains are categorized based on the projected frequency of flooding, i.e., the 100-year floodplain will flood, on average, every 100 years. With the changing nature of storm events, South Burlington has chosen to regulate the 500-year floodplain as the possible equivalent of the future 100-year floodplain.

River Corridors.

River corridors include the area adjacent to a river channel where fluvial erosion, channel shape change, and channel meandering are most likely to occur. River corridors are specifically defined by the State of Vermont Department of Environmental Conservation. The City was among the first in the State to adopt River Corridor regulations following the State's program to map and provide model standards for these areas, and will maintain and revise as necessary.

Stream Channels and Riparian Buffers.

Alterations to rivers, streams and tributaries (including physical changes like straightening, rip-rapping banks, and dredging sediment, changes in land use, and adding impervious area) can often have unexpected downstream effects. The City has natural buffer requirements around perennial streams and brooks, but it does not account for changes in stream course over time. The City and Vermont Agency of Natural Resources have completed geomorphologic assessments of the City's various stream segments. The City should explore the development of more advanced stream channel protection standards or other strategies in response to the identified risk of damage.

Flood Resiliency.

The City of South Burlington All Hazards Mitigation Plan (AHMP) developed in conjunction with the Chittenden County Regional Planning Commission (adopted in 2011, updated in 2016

and 2022) identifies the most significant flooding hazards. This plan should be reviewed often to ensure accuracy and appropriate response. The mitigation strategies identified in the most recent All Hazards Mitigation Plan are adopted by reference in this Plan.

South Burlington protects from flood hazards through regulations limiting development and fill in floodplains. Restricting development on floodplains and river corridors also maintains natural open spaces and could enable needed recreation areas.

The City continues to take a proactive stance in regulating floodplains. Little development exists within the City's 100-year floodplain and it remains the City's policy to prevent new development there. The City anticipates greater flooding frequency in the current 500-year floodplain and new areas being added to both floodplain designations. Proactive planning for these areas will forestall future challenges.

A key component to achieving flood resiliency is a comprehensive approach to stormwater management. See the Stormwater section for more information.

Lake Champlain.

South Burlington has 2.3 miles of frontage along Lake Champlain, providing scenic views, recreation, and water supply. All of South Burlington's watersheds terminate at the lake.

Aquifers & Wells.

Groundwater is a source of potable water for a limited number of City residents on private wells or connected to the Fire District #1 water supply in Queen City Park. Contamination of groundwater with road salt, hydrocarbons, pesticides, herbicides, PFAS, and fertilizer can pose health hazards or other water quality problems. South Burlington must consider the location of groundwater aquifer recharge areas when planning for future land use.

Water Quality.

Water pollution comes from point sources and non-point sources. Point sources, such as wastewater treatment facilities, are less of an issue now than non-point sources, which occur throughout a watershed and include stormwater runoff, agricultural runoff, pet waste, and pesticides. Pesticide use is governed by the State, but the City does restrict the use of fertilizers and pesticides on City property. See also the Stormwater section for more information about stormwater runoff.

Culverts.

Properly-sized culverts have environmental, ecological, and water management benefits. We must anticipate more intense and more frequent storm events and must properly size culverts for management of additional water. Undersized culverts cause pooling and turbulence, are blocked more easily by debris, and cause increased sediment erosion. Culverts must allow wildlife passage as appropriate in each location.

QUALITY OF LIFE

Protection of natural resources serves environmental purposes but also bolsters human well-being and community building. Maintaining important scenic views and reducing light pollution can improve the lives of South Burlington residents and visitors. We also must determine how South Burlington is doing from an environmental justice perspective: do we have neighborhoods or populations who are disproportionately affected by environmental pressures?

Scenic Quality.

South Burlington has outstanding scenic views of the Green Mountains, the Adirondacks,

and Lake Champlain. Careful planning, appropriate development design, and acquisitions and easements protect important vistas and viewshed protection zones. Viewshed Protection Zones currently exist for six views and opportunities exist for additional zones. The City can also explore protection of lakeshore views, both from the shore and from the lake, especially of undeveloped lakeshore areas.

Preservation of open spaces can preserve the scenic quality of South Burlington's landscape. Maintaining open land can maintain the scenic quality of forestland, maintained agricultural land and shrubland, and a varied landscape. In addition to the recreational and environmental benefits, open land contributes to the scenery. However, not all currently unbuilt lands are appropriate for open space preservation, especially when amongst existing development, on small lots, or without particular scenic quality.

Light Pollution.

Light pollution can affect human health and the functioning of the natural world. South Burlington has taken regulatory steps to reduce light pollution by requiring roadway, sign, and high-output building lighting to be full-cutoff type (i.e. downcast and shielded). Generally, light pollution reduction is a policy goal of South Burlington while balancing safety needs on our roadways, aesthetic needs, and lights needed in our commercial and mixed-use areas. Other guidance exists in guidelines like IESNA Model Lighting Ordinance that the City can look to for guidance moving forward and for future ordinance updates.

Noise Pollution.

Noise pollution, like light pollution, affects human quality of life and the natural world. As the City's land use patterns evolve, noise pollution may also migrate and is worthy of examination.

Environmental Justice.

As we as a community focus more on equity and inclusiveness, we must also examine how we protect our environment and where people experience disproportionate impacts of environmental harms. Looking specifically at air pollution, noise pollution, poor drinking water quality, contaminated soils, lack of green space, and the urban heat island effect, are certain areas in the city disproportionately affected? We need to start by gathering information. We are at the very beginning of examining this issue and the City must start the process.

ENVIRONMENT: ADDITIONAL RESOURCES

- Natural Capital Valuation of Interim Zoning Parcels, April 2020
- Open Space Interim Zoning Committee Final Report, March 2020
- Arrowwood Habitat Block Assessment & Ranking, January 2020
- City Open Space Report, 2014
- Sustainable Agriculture Report, 2013

TRANSPORTATION

Transportation must serve the needs of pedestrians, wheelchair-users, bicyclists, public transit users, air travelers, commercial vehicles, and passenger vehicles. South Burlington's street network developed almost exclusively to meet the needs of passenger vehicles and to move people and goods quickly and efficiently. The road network includes several wide, fast-moving roads that fragment the community for other users. Transportation is the top contributor to greenhouse gas emissions in South Burlington. Transitioning to cleaner modes of transportation, reducing vehicle miles travelled, and accelerating the switch to electric and plug-in hybrid vehicles are key components of the City's Climate Action Plan. Reducing use of personal vehicles can also increase physical activity and improve health outcomes. Our current transportation system is unsustainable, and we need to continually explore options for how to transform it, including orienting our land use around a transformed transportation system.

As we transition to more sustainable modes of travel and are inclusive to all transportation modes, focus on vehicle throughput is no longer the priority. Infrastructure for other transportation modes has been retrofitted or included in recent projects, but has remained a secondary priority, with notable exceptions of the shared use path system, new streets in City Center, and some of the newest neighborhoods. Residents have long desired a strong sense of place and community and high-value land development patterns. Meeting these goals requires slowing vehicle traffic, encouraging pedestrian-scale commercial areas and housing, siting destinations in close proximity to housing, and improving connectivity with safe, comfortable, and direct multi-modal transportation options. Reliance on passenger cars and investment in car-centric infrastructure is inequitable for our neighbors who do not have access to a car or cannot drive.

We also recognize that South Burlington is a regional node for road, rail, and air transportation.

In 2021, an average of over 15,000 people commuted into South Burlington for work each day, approximately 2,300 lived and worked in the city, and approximately 7,700 lived in the city and worked elsewhere [source: US Census Bureau OnTheMap], a demonstration of how interconnected our communities are. Further, over 53% of all those working in South Burlington commuted less than 10 miles.

We must ensure that access to and across these systems is considered in transportation planning for the functioning of the regional transportation network and a vibrant business sector.

For the purposes of this section, we use the term "vehicle" for personal passenger cars/SUVs/trucks/motorcycles, commercial cars/SUVs/light trucks, and commercial heavy trucking. This does not include bicycles, e-bikes, motorized scooters, skateboards/scooters, and similar primarily single-user electric or manual vehicles.

TRANSPORTATION GOALS

Goal 42: Complete and maintain the network for bike/pedestrian travel by connecting shared use paths, bike/ped infrastructure, pedestrian trails, sidewalks, and roadways internally and to neighboring municipalities networks

Goal 43: Reduce fragmentation of the community by improving crossings over large streets and interstate highways

Goal 44: Reduce vehicle miles travelled by 2.5% annually through 2030 across all types of users

Goal 45: Replace 75% of gas vehicles with all-electric vehicles (EVs) and plug-in hybrid

vehicles by 2030

Goal 46: Prioritize infrastructure investments in existing and new neighborhoods that improve pedestrian, bicycle, transit, and carpool access and support neighborhood connectivity

Goal 47: Support access to and function of regionally-significant transportation systems consistently with the land use goals of this Plan

Goal 48: Build community by reconnecting population centers especially over large streets and the interstate with improved infrastructure and transit routes

Goal 49: Improve school transportation and reduce congestion encouraging school bus ridership and by reaching level of 60% of children walking or biking to school

TRANSPORTATION ACTIONS

Action 56: Complete and implement Bike/Ped Master Plan

Action 57: Regularly update the Official Map and Capital Improvement Program, consistent with this Plan

Action 58: Update Land Development Regulations and City Ordinances to ensure that transportation needs created by new development are accommodated consistently with the goals of this Plan and are designed to avoid adverse impacts to and fragmentation of our natural resources

Action 59: Install appropriate protected bike lanes and shared use paths on all major corridors to improve safety for vulnerable users, especially non-vehicular roadway users

Action 60: Slow vehicle speeds by implementing traffic-calming and signage on local roads to encourage bike/ped usage and improve safety

Action 61: Complete East-West Crossing (bike/ped bridge over I-89 adjacent to Exit 14) and associated network connections

Action 62: Reestablish and expand bikeshare program; increase usage through greater neighborhood distribution and exploring affordability for residents to use

Action 63: Create a City Center transit hub to serve the needs of South Burlington users

Action 64: Establish direct corridor shuttle-style routes and explore micro-transit options for efficient travel, especially connecting the Southwest area and City Center and the Northwest area, to complement and maintain the important GMT loop routes

Action 65: Work with GMT to assess and update routing as our land use patterns evolve

Action 66: Logically connect the South Burlington path and lane network to networks in neighboring communities by collaborating with neighboring municipalities

Action 67: Explore opportunities to reconfigure Airport Parkway/White Street/Airport Drive to reduce through-trips in residential areas

Action 68: Improve traffic flow through the City by exploring new technologies and synchronizing traffic lights and adjusting traffic light timing based on time of day and traffic volume while retaining balance with pedestrian needs

Action 69: Incentivize carpooling

Action 70: Explore options for reducing vehicle speed limits

Action 71: Increase availability and improve locations of EV charging

Action 72: Undertake design and capital planning to reorient Williston Road in City Center to local and non-vehicular users

Action 73: Initiate Exit 14 improvements identified in I-89 Corridor Study

Action 74: Complete roadway connections between Tilley Drive and Community Drive / Kimball Ave

Action 75: Explore bicycle-specific signaling at intersections as appropriate

Action 76: Work with the State of Vermont to scope and implement improvements from the Shelburne Road Corridor Study

Action 77: Work with the South Burlington School District and private schools to encourage use of school buses, walking, and biking to school

Acton 78: Conduct walkability audits to identify dangerous and inconvenient walking connections and prioritize improvements in areas with the most need

TRANSPORTATION INVENTORY, ANALYSIS, & CHALLENGES

ROAD TRANSPORTATION NETWORK.

Several major roadways, including I-89, I-189, Shelburne Road (U.S. Route 7), and Williston Road (U.S. Route 2), travel directly to and through South Burlington. The intersections of these roads are some of the busiest in the state. With changing travel needs, South Burlington is constantly reevaluating where arterial traffic should move efficiently through the city and where traffic should slow and be more pedestrian-oriented.

Two interstate highways, I-89 and I-189, are the backbone of regional and statewide vehicular transportation networks and connectors between nearby communities. These roads are also a divider, splitting South Burlington into sections with difficult interconnectivity.

South Burlington's primary road network has existed mostly unchanged for almost two hundred years, including Dorset Street, Spear Street, Shelburne Road, Hinesburg Road, Swift Street, and Williston Road. The only significant additions have been the Interstate highways, Kennedy Drive, Kimball Ave, Nowland Farm Road, and Fayette Drive. Over time, many historic roads were widened and made more direct, forming the basis of our current road network.

Different sections of the arterial roads serve different purposes, varying in use from the outer edges to the center of the city, and the entire lengths serve multiple purposes and users simultaneously.

For Williston Road to serve people living, working, shopping, and playing in South Burlington, especially in City Center, it must be re-oriented to local and non-vehicular users. This may include treatments like narrowing the 4-lane section in the City Center area (between Dorset Street and Kennedy Drive) to two lanes or other configurations which would make room for bicycles, pedestrians, and/or transit. The land uses and needs of the corridor shift east of Kennedy Drive, and its purpose is to facilitate more through traffic, while still accommodating non-vehicular users in safe and accessible facilities.

Hinesburg Road north of I-89 travels through established residential neighborhoods, new residential and mixed-use areas, and connects to Tilley Drive, serving medical and office buildings. South of I-89, Hinesburg Road currently focuses on serving through-traffic, despite increased residential development and changing traffic patterns and user needs. This corridor should be slower in speed, with better bike/ped infrastructure throughout, including over I-89,

traffic calming measures, and more focus on serving the uses and neighborhoods lining the road.

Shelburne Road serves both as a major north-south corridor for the Champlain Valley, and neighborhood needs near Farrell Street, the Orchards neighborhood, and residential areas on both sides of Shelburne Road. Connections across Shelburne Road are needed to improve connectivity between neighborhoods and commercial areas.

Two additional north-south corridors, Dorset Street and Spear Street, serve commercial areas and residential areas. Dorset Street is the primary transportation route to the high school and middle school campus. Between Kennedy Drive and Williston Road, Dorset Street functions like an arterial: it is multi-lane, serves significant commercial development, and has a wide shared use path off the street. This section was expanded as an investment in the early infrastructure of City Center in the 1980s. Recently, Dorset Street has received more than $2 million in investment to repave and is currently undergoing a project to upgrade the signal system. South of Kennedy Drive, Dorset functions as a collector for residential areas. Similarly, Spear Street serves primarily residential areas to the south, UVM properties and the East Terrace area to the north, and serves as a connection option between the City Center area and southern parts of Shelburne Road in tandem with Swift Street and Allen Road. New pedestrian and bike infrastructure investment in this corridor is critical to connect residential areas like South Village to the city's commercial areas.

Three key two-lane roads, Airport Parkway, White Street, and Airport Drive, link Essex and Colchester to South Burlington and the Leahy Burlington International Airport and pass through the lower-scale Chamberlin neighborhood. These streets, especially White Street, need to serve both the neighboring community and pass-through travelers. They should be modified to calm traffic on neighborhood streets, improve pedestrian and bike travel options, and direct most traffic to the airport onto Airport Parkway. The City has planned for Airport Parkway and Airport Drive to be re-aligned away from the neighborhood, funnel traffic to the airport with less disruption to the neighborhood, and delineate between airport and neighborhood uses.

The City recently participated in a corridor study of the utility, needs, and alternatives for I-89 and I-189 through Chittenden County. The study examined short-, medium-, and long-term transportation needs in the corridor and presented recommendations including short- and medium-term safety improvements to the Exit 14 and transportation demand management techniques. It also examined adding connections at Exit 13 and/or installation of a new Exit 12B at Hinesburg Road. The policy of this Plan, consistent with the corridor study, is to retain physical space for these possible future projects, but to not pursue them until other identified projects are implemented and evaluated, with Exit 13 being the next project to pursue and Exit 12B being the lowest priority option.

Other streets currently have a more local function and need to continue to serve those needs. Some serve important local connections with our neighboring municipalities, like Patchen Road to Burlington near the Burlington–Winooski border. The Patchen Road bridge over I-89 is one of two main roadway connections to Burlington from the Williston Road area of South Burlington.

MULTIPLE USER TYPES.

We must continue to encourage all types of roadway users, including pedestrians, bicyclists, wheelchair and scooter users, and transit riders. While facilities on or along roadways are needed, the City also needs to add off-street bike and pedestrian paths. Separated facilities are inclusive for pedestrians and bicyclists of all ages and abilities who may be less comfortable using a sidewalk, bike lane, or path adjacent to a road. These routes must be clear and unimpeded, including being well-maintained in all seasons, having proper water drainage/stormwater management, being uninterrupted by vegetation, and having appropriate sight lines. They must also comply with ADA dimension and surface requirements.

The City includes safe passage for pedestrians and bicyclists when constructing, modifying, and/or upgrading roadways. Along arterial streets, separate or shared facilities for bicycle and pedestrian use must be provided for both actual and perceived safety. On local collector streets, bike and pedestrian routes should, at minimum, be well-signed and painted lines should separate bike lanes from vehicle lanes. On local streets, lower traffic volumes and speeds require less separation between bikes, pedestrians, and vehicles, but good signage can indicate routes for bicyclists and pedestrians and remind drivers of the presence of other users.

To promote use, pedestrian and bicycle routes generally should follow direct travel routes (rather than only paralleling roadways) and should reduce conflicts with motorized vehicles. Sidewalks should be constructed on both sides of arterial streets and at least one side of collector streets and local streets. Streets with sidewalks on one side must have adequate crossing opportunities to reach transit stops, schools, residences, and pedestrian-scale commercial developments. All signalized intersections must include a pedestrian phase to provide adequate safety and time for users to cross any type of street.

Currently, the transportation network has approximately 13 miles of on-road bike lanes (varying in width and separation from the vehicle lanes), 22 miles of shared use paths (typically eight- to ten-feet wide), and 50 miles of sidewalks (used by both bikes and pedestrians). The lanes, paths, and sidewalks are not always well connected to each other; additional connections are required to complete the non-vehicle transportation network. For example, it is very inefficient to travel from the Shelburne Road corridor to City Center by bike or transit as key connections are missing, time-consuming, or difficult due to I-189 and I-89, missing transit options, and/or local topography. Sidewalks and paths constructed with new development often end at parcel boundaries, creating gaps in the network. Major sections of Spear Street, Williston Road, Allen Road, Airport Parkway, Kimball Avenue, and Swift Street lack sidewalks entirely and force vulnerable users to share space with fast-moving vehicles or traverse uneven ground along the roadway.

One major underdeveloped bike/ped connection is over I-89 along Williston Road. Existing crosswalks and sidewalks cross the entrance and exit ramps from I-89 North and South. With continuing investment into City Center, improvement of pedestrian and bike travel over I-89 is critical. The City has received significant federal funding and is designing a separated bicycle and pedestrian bridge called the East-West Crossing. When complete, it will make non-vehicular travel safer, easier, and more enjoyable while connecting destinations like the University Mall and the Quarry Hill residential area.

Pedestrian travel must be supported by land use policies encouraging dense mixed-use development. Enabling residents to walk to basic services, retail and restaurant options, and entertainment naturally increases pedestrian travel rates. Compact, interconnected city centers create a more pedestrian friendly environment than linear strip development patterns oriented to arterial roadways.

Specific upgrades to the bicycle and pedestrian transportation system will be determined through the development of a Bike/Ped Master Plan. The initial stages of that process began in FY2024.

TRANSIT SERVICES.

Transit best serves well-planned, intensively-used compact areas. Continued development of City Center will increase the need for public transit loop routes, shuttle routes along corridors, and frequency in the Williston Road/Dorset Street/Market Street area. Green Mountain Transit (GMT) provides transit service throughout greater Chittenden County through approximately twenty bus routes with a central hub in downtown Burlington. Special Services Transit Agency (SSTA) provides additional connectivity. GMT is funded through annual dues from member municipalities, state and federal programs, and fares. Three fixed routes serve South Burlington

(#1 Williston, #6 Shelburne Road, and #11 Airport) plus direct service from Burlington to Tilley Drive. No internal circulation routes exist within South Burlington and there is no direct connection from Shelburne Road to City Center and Williston Road. The timing and frequency of bus service must also be examined. At present, buses to the Airport do not run early enough for early-morning flights, which comprise a high percentage of the total flights each day. Generally, the timing and frequency prioritizes some work schedules over others and the relatively long span between buses can discourage use, especially for shorter trips.

Higher scale or intensity land use should occur in areas with existing bus service. Development has and will continue to occur in areas not presently well served by transit like Tilley Drive, new senior living facilities, and Meadowland Business Park. GMT and the City will need to both plan for meeting these needs and to strategically funnel development along existing transit corridors.

At the site level, specific site plan or subdivision applications should be carefully reviewed with an eye toward shelters for transit users and possible bus stop locations.

ACCESS MANAGEMENT.

Access management can improve safety and efficiency of arterial streets for both vehicles and for non-motorized users by reducing the conflict between through, local and turning traffic. On arterial streets, reducing curb cuts reduces hazards of turning traffic for bicyclists and prioritizes "through" traffic over access to frontage properties. The general pattern on Kennedy Drive is a reasonable configuration of an arterial highway (i.e., few curb cuts and provision of service roads) when accompanied by adequate separated bike/ped infrastructure. Along Williston Road and Shelburne Road, uncoordinated development has created conflict between "to" and "through" traffic. Improvements like installation of proper signing, striping, and control equipment can improve safety. Parallel access roads, such as San Remo Drive, can access areas off of a main transportation corridor. South Burlington has adopted regulations requiring access management practices during development projects and will continue to improve bike lane and traffic safety through these and similar measures.

AIR TRANSPORTATION.

Leahy Burlington International Airport (BTV), a joint civil-military public airport, is managed by the City of Burlington and the Federal government. The airport sits on nearly 950 acres in the northeastern quadrant of South Burlington. The Airport serves commercial passenger flights, general aviation, and military flights. Both major commercial parcel carriers (UPS Airlines and FedEx Express) fly into BTV, providing service for much of northern Vermont. Two military installations are based at the airport: Burlington Air National Guard Base 158th Fighter Wing and the Army Aviation Support Facility (AASF) of the Vermont Army National Guard. In total, the Airport reported over 600,000 enplanements in 2022, making it one of the busier regional airports in New England. The Airport Master Plan, most recently completed through 2030, documents the facility's existing status as well as future proposals through the next 20 years.

BTV is vital to economic development and transportation for Vermont. In economic development and transportation, the interests of the City and the Airport are very closely aligned. Improved roads and transit service enhances use of the Airport and can alleviate impacts on the Chamberlin neighborhood. The Airport is taking proactive steps toward improving green aviation in their own planning processes and in welcoming Beta Technologies pushing forward the future of EV flight. The attraction of further light industry (and associated jobs) to the City will depend on proximity to an airfield with the broadest possible range of air service.

The City and the Airport have taken concrete actions in recent years to improve coordination and communication between the two entities. Most notable is the agreed-upon policy change for sound mitigation from the buyout program (which removed over 200 nearby homes) to a sound insulation program that reinvests in the neighborhood. Open collaboration can result in more

effective, just, and equitable processes and outcomes on key issues like noise, traffic, reduction in GHG emissions, and airport use, and opportunities like innovation and job growth.

RAIL TRANSPORTATION.

The Vermont Railway and the Central Vermont Railway tracks are presently used for freight service, summer tourist trains, and reestablished Amtrak commuter rail service between New York City and Burlington via Albany, Rutland, Middlebury, and Vergennes. Additional Amtrak service travels through Vermont to Massachusetts and then to New York from the Essex Junction station. Future goals include extending passenger rail service to Montreal, which presents additional opportunity to connect South Burlington to its larger neighbors.

The Vermont Railway, which parallels Route 7, also has potential for direct service to the commercially-zoned properties fronting its east side. Rail siding potential should be maintained where feasible in the layout of proposed construction. As development continues west of the tracks, improvements to at-grade crossings (Bartlett Bay Road, Holmes Road, Inn Road) may be necessary.

VEHICLE CHARGING

Access to EV vehicle charging will be critical to meeting our climate action goals. This includes improving availability of charging stations in multi-family properties by working with property owners and HOAs. Commercial properties need to be encouraged, incentivized, or required by regulation to have adequate on-site EV charging.

TRANSPORTATION ADDITIONAL RESOURCES

- Chittenden County Regional Planning Commission Active Transportation Plan Update (2022)
- Various Bike/Ped studies, including South Burlington Pedestrian and Bicycle Feasibility Study (2017 & 2020)
- Greenlining Shared Electric Mobility (Carshare VT) (2022)
- City Center Parking & Movement Plan (2020)
- Chittenden County Shared Mobility Regional Analysis (2019)
- Tilley Drive/Kimball Ave/Community Drive Land Use and Transportation Plan (2019/20/21)
- Chamberlin Neighborhood-Airport Land Use & Transportation Plan (2016)
- Garden Street Project Definition Report (2015)
- Williston Road Transportation Network Study (2015 & 2017)
- Transportation Demand Management Policy Guide (2014)
- Williston Road Complete Streets Study (2012)
- Shelburne Road Corridor Study (2012)
- Cars to People Complete Reports (2011)
- I-89 Exit 12B Circulation Study & Analysis Reports (2010, 2011)

COMMUNITY, HISTORY, & CULTURE

Cultural resources and history are key to building community and identity. Providing and supporting opportunities for building personal connections are central to building a thriving South Burlington as we grow in population. As we support new cultural ventures, it is important to engage with the past and appropriately preserve historical buildings, landscapes, and scenic views. South Burlington also benefits from a diversity of cultures, languages, and artistic traditions amongst our community members, which we must do a better job supporting and including in community-wide arts and culture endeavors.

Recognizing history while developing our cultural future enriches the present and future. Instead of locking away historic resources, structures, and landscapes, South Burlington recognizes their current value and the need to engage with history as we promote cultural development. We must also recognize the indigenous history of the area and should engage with the Abenaki community for consultation about their history on this land and possible archaeological sites. The Western Abenaki people have inhabited this land (N'dakina) for thousands of years. What is currently called South Burlington was a crucial center, especially the area stretching east from what is now Burlington to the Airport and along the Winooski River and its tributaries, and south to Shelburne Pond. People have lived in this area for at least 12,000 years, since the time of the Champlain Sea.

Building community in South Burlington through investment and focus on arts and culture will nurture a vibrant, connected city. Arts and culture enrich lives of all ages, lifestyles, backgrounds, and cultural communities and stimulate creativity and innovation. Alongside parks, libraries, and schools, the arts contribute to a sense of place and community identity and raise the quality of life.

Culturally, South Burlington has developed as part of the Chittenden County and Vermont cultural communities. Creating a distinct South Burlington identity requires investment in cultural and artistic resources here. This includes an expansive view of arts including, but not limited to, visual and media arts, music, dance, theater, crafts, fiber arts, traditional skills, and creative writing. Progress will require both City-directed action and collaboration with community partners.

COMMUNITY, HISTORY, & CULTURE GOALS

Goal 50: Integrate South Burlington's history into its future through engagement with historic sites, structures, and landscapes

Goal 51: Protect important vistas and viewsheds, as viewed from public vantage points (public roads, paths, land); and designated landscapes, sites and structures of historic and cultural significance

Goal 52: Promote equitable and accessible cultural activities, development of the arts community, art creation, and public art display equitably and accessibly across all areas of the City

Goal 53: Support artistic diversity in South Burlington's cultural opportunities and integrate arts and culture into public buildings and spaces

COMMUNITY, HISTORY, & CULTURE ACTIONS

Action 79: Create an Arts & Culture Master Plan for South Burlington

Action 80: Improve engagement with marginalized and underserved populations to broaden and

improve cultural and arts experiences in the city

Action 81: Support more culturally diverse arts and culture events, art installations, and educational opportunities

Action 82: Grow arts education activities available, either run by or supported by the City

Action 83: Update the inventory of the City's historic resources, assess the significance of identified buildings, structures and landscapes

Action 84: Evaluate whether additional protections are required to preserve historic, cultural and archeological resources while balancing other goals

Action 85: Partner with historic society, Champlain Valley Heritage Partnership Area, Lake Champlain Byway, and other similar entities, when possible

Action 86: Create map and documentation of local Indigenous history

COMMUNITY, HISTORY, & CULTURE INVENTORY, ANALYSIS & CHALLENGES

COMMUNITY

Building an inclusive, fair, and just community is a primary goal for the future of South Burlington. Knowing your neighbors and connecting with others builds a more resilient and supportive community. Community facilities, cultural organizations, and gathering spaces enable more people to meet, build social groups, and thrive in their community. These community assets may range in scale and guiding mission, but opportunities for people to build overlapping and intersecting social webs increases both personal and community resiliency.

CULTURAL FACILITIES AND ORGANIZATIONS.

Engaging through arts-related activities, groups, and events can facilitate community connections. Cultural resources both need and attract population density, which supports our housing goals, climate-resiliency goals, and bike/pedestrian-friendly built environment.

Cultural facilities in South Burlington are owned and operated by both the public and private sectors. Since opening in 2021, the new City Hall has provided an auditorium, Senior Center, Library, and numerous meeting rooms rentable by the public. It also contains public art like the art gallery spaces and installation of art outside. The City has a role in providing facilities where artistic groups can meet and create art, expanding educational opportunities for all kinds of arts and crafts, and providing arts programming for all ages. Further community center space would provide much needed gathering space.

Cultural organizations in South Burlington include places of worship, service organizations, and community groups which draw people from our surrounding region and create a strong community network. Collaboration with these organizations can build community and connect us to the region. The City needs to seek community partnerships in the Shelburne Road area as we prioritize additional housing and community-building in the southwest part of the city.

Community building and community vibrancy must involve investment in the broader aesthetic and artistic vision of our community. The City supports (and requires) public art in new construction and redevelopment and encourages high-quality, climate-responsive design in buildings. As additional park spaces are developed in City Center, the City will consider and install public art to enrich the user experience and create welcoming areas for visitors. Future engagement opportunities could include with public infrastructure, recreation facilities and programs, and other public assets. The City also can serve as a municipal partner in funding applications for future artistic projects and investments where such cooperation is necessary or

desirable.

CROSS-CULTURAL ACTIVITIES

South Burlington and Chittenden County have residents from a wealth of cultures from around the world. Bolstering the arts community and public arts in South Burlington includes engaging with the diversity of cultures we have right in our own city. Public art events, performances, and installations should involve people of different backgrounds and with a range of cultural practices and arts. This will strengthen our community, connect neighbors, and support our community members with diverse cultural heritage, including New American and Native American community members.

HISTORIC SITES AND STRUCTURES.

The City of South Burlington has diverse historic resources, including Paleoindian archeological sites, stonewalls, historic farmsteads, Craftsman-style bungalows, International-style buildings, and post-World War II neighborhoods. We must remain sensitive to preserving the city's past as a record of South Burlington's evolution from an agricultural to a booming post-war suburban community.

South Burlington's early history is well-documented in annual reports, oral histories, and publications. The City should maintain a list of historic buildings potentially eligible for the National Register and may explore local historic registry options.

RECREATION

Recreation resources enable us to exercise, socialize, build community, and access open space. These resources include both physical spaces for recreation and structured programming that help people gather and share interests. Community resiliency increases when people have more local friends and neighbors to turn to when they need help. Building community networks begins with fostering person-to-person connections, which the City can encourage through recreational spaces and programs.

South Burlington must balance the need for recreational facilities (developed and natural) with other uses of land and must provide cost-effective recreation to residents of all ages, interests, and abilities. Our residents use both our developed parks and our natural areas for recreation and we need to plan for use by the public to continue increasing into the future for varied user groups. The City must also maintain and invest in the current system of parks, recreational facilities, and open spaces to keep those assets vibrant.

As population grows, especially in City Center and higher-scale areas, we intend to parallel that growth with growth in available recreation spaces and open lands. In the coming decade, we project the majority of all households will be living in multi-family dwellings, which increases reliance on accessible park space for basic recreational needs. Both new acquisitions and maintenance of existing areas needs to be done equitably and should consider our Climate Action Plan targets.

RECREATION GOALS

Goal 54: Provide for the varied recreational needs and interests of our community members by providing spaces and facilities for passive recreation, active sports, cultural and educational programs, and civic gatherings, distributed geographically and appropriate for surrounding context

Goal 55: Provide 7.5 acres of developed recreation land for every 1,000 residents

Goal 56: Provide 20 acres of natural recreation land for every 1,000 residents

Goal 57: Locate a recreational amenity within ¼ mile of every dwelling unit within our residential and mixed-use neighborhoods

Goal 58: Increase annual recreational programming and event participation to 40% of the total population

Goal 59: Have recreational programming and event participation mirror the city's demographic mix

Goal 60: Improve accessibility in recreational spaces and programs

Goal 61: Provide equitable access and investment in parks and programming

RECREATION ACTIONS

Action 87: Prepare a Parks Master Plan establishing the need and location of new parks, function of existing and planned parks, and identified amenities to serve the City's current and future population

Action 88: Construct a Community Recreation Center or a network of smaller centers that is easily accessible to the majority of the population, especially those in neighborhoods with a higher proportion of multi-unit buildings

Action 89: Complete ADA transition plan for public infrastructure, equity, and accessibility, including appropriate investment in parks and programming

Action 90: Pursue acquisition and investment in recreation spaces to meet goals of this Plan

Action 91: Target resources to reinvest in parks in city's older neighborhoods

RECREATION INVENTORY, ANALYSIS, & CHALLENGES

As South Burlington continues to evolve, the recreation space and programming needs of our residents will also continue to evolve.

RECREATION SPACES.

South Burlington values collective, publicly-available spaces. Community building requires functional gathering space, both outdoor and indoor, to allow residents to form connections and share interests. This must include both unstructured space and reservable space. Our community members use recreational spaces differently due to a range of ages, lifestyles (including single people, families, dog-owners, and those with unorthodox schedules) and interests (including community gardening, team sports, individual sports, passive recreation, socialization, and natural areas). Providing spaces for a range of community gathering styles and needs will strengthen our community as a whole.

Our recreational spaces must be accessible in every sense and be ADA-compliant. Spaces must be walkable, bikeable and/or accessible via transit lines from homes to reduce the distances driven by personal vehicle, both for climate-change mitigation and for reduction of financial barriers to access. Spaces must feel safe and welcoming to all community members. These goals are applicable to new construction and redevelopment, but also existing spaces.

As of 2023, 46% of dwelling units in the community are multi-family buildings, with 48% in single family homes and the remainder in duplexes. Over the past two decades, two-thirds of all homes built have been in multi-family buildings, and this trend is anticipated to continue. This change, alongside decreasing lot sizes for single-family homes in new neighborhoods and infill within neighborhoods, increases the need for varied accessible park and public spaces.

South Burlington's outdoor park spaces are not meeting current needs and will not meet the needs of a growing population. South Burlington owns significant acreage of park space, miles of shared-use path, and improved facilities, and currently meets the goal of 7.5 acres of developed recreation land per 1,000 residents, counting both City properties and other publicly-accessible properties. We also should strive for 20 acres of natural areas per 1,000 residents, for both passive recreation and conservation, which again we currently meet counting our community partners' lands. Counting City-owned properties, relevant portions of South Burlington School District properties, Winooski Valley Parks District properties, and UVM properties available for public recreation, there are currently approximately 165 acres of developed recreation land and 700 acres of passive recreation and conservation land in South Burlington. A large percentage of the total City-owned park acreage is in a single location – Veterans' Memorial Park and Wheeler Nature Park on Dorset Street. Several other larger properties are not developed as park spaces. The City considers both developed parks and natural recreation areas to be valuable and intends to improve and maintain significant amounts of both types of areas into the future as the City's population increases. Our future parks planning must also consider the needs of dogs and dog owners throughout the city.

A range of park sizes and functions creates a functioning park system. The park system must include a mix of city-wide parks, neighborhood parks, and regional parks (like Red Rocks Park) to serve the varied needs of our users. Large, city-wide parks are critical for large-format sports and other large events. The distribution of parks, while generally widespread, does not

provide for easy pedestrian access for all residents, so acquisition of new neighborhood-scale spaces must be prioritized in areas without existing park space. Inclusion of complementary commercial spaces adjacent to park spaces potentially creates new neighborhood destinations. Determining what a neighborhood park should include and what amenities (including community gardens, playgrounds, dog facilities, etc.) should be located in varying kinds of parks will be a core question for a Parks Master Plan. The Parks Master Plan must clearly delineate which City-owned lands are designated for natural areas and passive recreation and which are designated for active recreation and managed park spaces. The initial stages of creating a Parks Master Plan are intended to begin in FY2025.

Additional outdoor playing fields are needed to support programming desired by City residents. Many traditionally seasonal sports programs have become three-season sports and place huge demand on facility spaces and fields. Additional actively-programmed City park land is needed to adequately provide facility space to meet recreation needs for a wide range of South Burlington residents.

Further acquisitions can be funded by the Open Space Fund, a special dedicated property tax of 1 cent on the tax rate to purchase open space or development rights to open space. Recreation is also supported through the Impact Fee Ordinance, which is strictly limited to how and when it can be spent.

As the City's resources age, maintenance and safety are becoming increasingly important. The City will need to maintain facilities in an equitable way – making sure that all members of our community are being adequately and appropriately served by maintenance projects over time. The Conservation Fund was expanded in 2010 to allow for up to five percent to be used for maintenance perpetually. Improvements for three major natural areas have been authorized for 50% funding through FY 2026.

City residents need indoor recreation spaces during inclement weather and for indoor-oriented activities. The City has indoor space at City Hall, including the Library and the Senior Center, but, as fully discussed below, most other programs rely on the school system for indoor space.

In addition to publicly-owned spaces, private associations and neighborhoods provide additional recreation space for their residents. Development projects are now required to provide Civic Spaces and/or Site Amenities when they are subject to Site Plan and/or Subdivision rules. This requires some amount of space on a site to be dedicated at the time of construction or applicable re-development to amenities that serve the residents/users of site or the public at large.

RECREATION PROGRAMMING.

The City provides recreational programming and will continue to do so. These services, like youth sports programs, senior programming, and community events, provide opportunities for people from different parts of our city to gather and interact. They also provide structured exercise opportunities, mental health and cognitive support, and connection between people of shared interests. The Recreation and Parks Department offers a wide array of programs, including sports, art, hobby, and educational programs, play groups and fitness, and serves community members from pre-school to seniors. Programming is primarily targeted for school-age kids and seniors, so expanding programs for younger kids and adults would provide opportunities to more of our community.

The City will continue to adapt to equitably meet the need of our whole community. Access to recreation programming should not be unreasonably limited by transportation barriers, economic barriers, and time barriers. To have program and event participation reflect our community, the City should continue offering community events free-of-charge and explore options to remove financial barriers to participation in other types of programming. Locations should also be varied in the city and especially include locations that are accessible by transit or

to provide assistance for access.

With changing community needs, City recreation programs and events will need to continue to adapt to demand and interest. New sports and new interests may become popular in our community. Reevaluating programming periodically will ensure our community's needs are met.

INDOOR RECREATION

A major obstacle to recreational programming is the very limited indoor space available. The City Recreation and Parks Department depends on spaces within the schools for most of its indoor programs. The City programs receive the second highest priority for school spaces (after the schools themselves), these spaces are limited in space and time. The City lacks scheduling control and cannot provide recreational activities for young children and the elderly during the school day. The schools also have an increasing number of extracurricular and after school activities that restrict access by City programs to school spaces during and after school hours. Alternative building space to provide for these types of activities is essential.

In addition to its own direct programming, the City works with area community groups, nonprofits, neighboring municipalities, and the school district to coordinate and enhance programming available to the City's residents.

RECREATION: ADDITIONAL RESOURCES

- South Burlington Parks Access Improvement Study (2014)

COMMUNITY SERVICES

The core services provided by the City of South Burlington represent the long-term priorities of our residents to meet the needs of our community, its inhabitants, its businesses, its visitors, and its natural resources. The City invests in services that are professional, customer-oriented, innovative, and in partnership with our surrounding municipalities and partner service providers. These services support social connection, resiliency, and neighborhood-level community.

Services, and the processes used to identify and meet changing needs of the community, must be accessible, inclusive, and equitably provided to all members of our community.

This Plan also centers the climate-mitigation goals in the Climate Action Plan in our municipal decision-making and sets the goal to ensure that our services, policy, facilities, and equipment limit the impacts of climate change and increase our community's climate resilience.

Providing an environment of safety, welfare, and basic needs are core functions of the City that the City can address through its departments, outside partnerships, and with the school district.

COMMUNITY SERVICES GOALS

Goal 62: Promote a culture of collaboration and participation in City governance and planning by emphasizing transparency, inclusivity, and accessibility.

Goal 63: Achieve a City governance structure and public participation that reflects and represents the diversity of South Burlington's population

Goal 64: Enhance neighborhood-level engagement in City planning processes. Provide City Services accessible to and equitably serving the needs all residents and users of the City.

Goal 65: Orient Public Safety services to providing just and equitable first response

Goal 66: Provide quality indoor and outdoor public facilities and services, identified through collaborative strategic planning, that meet present-day needs and are anticipated to meet needs at least twenty years into the future

Goal 67: Plan for hazard and emergency preparedness

COMMUNITY SERVICES ACTIONS

Action 92: Continually improve comprehensive public outreach and communication through multiple channels, including print media, social media, physical postings, local news channels, e-newsletters, and others, to reach more members of our community

Action 93: Strengthen mechanisms for public engagement by creating an Equity Toolkit, predictable early involvement opportunities, and providing a range of public input methods

Action 94: Continuously evaluate and adapt engagement approaches to meet the needs of a changing community, incorporating feedback from residents and stakeholders. Promote community building through increasing usage and diversity of patronage of the Library circulation, public space reservation, and provision of varied and inclusive programming.

Action 95: Review and adjust fire/life safety ordinances and resources to meet the evolving needs of the community

Action 96: Account for both the long-term and accurate impacts of climate change in the6development and implementation of the City's All-Hazards Mitigation Plan

Action 97: Plan for nimble and efficient recovery of housing and other buildings after natural disasters or emergency

Action 98: Lead and collaborate with our partner municipalities on providing shared municipal services

Action 99: Be an active and equal participant in mutual aid partnerships for first response

Action 100: Seek opportunities to improve response and services for mental health and social service needs, and access to shelter and food

Action 101: Seek opportunities to increase engagement and participation in governance, committees, and programming offered by the City

Action 102: Fully integrate the Community Justice Center into municipal operations

Action 103: Identify long-term, stable funding to ensure that the Community Justice Center and the City's commitment to inclusivity, fairness, and justice are able to be realized

Action 104: Coordinate closely with the South Burlington School District to identify and track changes in student populations and engage in planning for school capital needs.

Action 105: Integrate cemeteries into greater community planning as facility, open space, and recreational asset

Action 106: Continue to work with UVM on both the City and the University's long-term planning goals

COMMUNITY SERVICES INVENTORY, ANALYSIS, & CHALLENGES

PUBLIC SAFETY, COMMUNITY JUSTICE, & SOCIAL SERVICES

The City recognizes that the community is stronger when our community members feel safe and are safe in the community and in their homes. Law enforcement and emergency response can strengthen our community through fair and impartial response, transparency, and building relationships. We can also strengthen our community by orienting ourselves to community-justice outside (or in addition to) traditional court proceedings. Community safety is further bolstered by robust fire prevention.

Our community has seen an increasing need, or increasing visibility of the need, for mental health, substance misuse, and other social services. This includes acute mental health crises, non-acute social services support, connection to other partner programs and services, and support for community members struggling with meeting their basic needs. Climate change will exacerbate these issues with changing weather events, changing stability in the food system, and changing temperatures over time. They will also be exacerbated by an increasing wealth divide at a national scale and in our community. The City is exploring new and creative approaches to meeting these increasing needs and possibly providing additional or different types of support for our community members.

Historically, law enforcement and emergency response has been the primary responsibility of the South Burlington Police Department and South Burlington Fire Department, with collateral support between mutual aid partners. More recently, the Community Justice Center has been established to meet some of the community justice needs of our community. South Burlington has also established a partnership with five neighboring municipalities and the Howard Center for a Community Outreach Team. The City will continue the commitment to this partnership. We

continue to look for flexible solutions to support public safety in our community.

Police.

The primary role of the Police Department in the City is for law enforcement and emergency response. The Police Department provides primary law enforcement services (except at Leahy Burlington International Airport, served by the Burlington Police Department), participates in mutual aid and collaboration with other agencies, and operates community outreach programs.

The Police Department has the potential to provide community outreach, education, and non-patrol activities, which can improve public safety and the perception of policing in the community. The Police Department values community partnerships and collaboration and plans to enrich these partnerships as operationally possible.

Community Justice Center.

The South Burlington Community Justice Center ("CJC") hosts reparative panels, provides mediation services, and assists with offender re-entry through Circles of Support and Accountability. The CJC is currently funded by grants from the State Department of Corrections, which leaves the program in a tenuous position with financial stability lying outside of South Burlington.

Fire and Rescue.

The South Burlington Fire Department ("SBFD") provides primary fire, medical and specialized rescue response. It serves the civilian buildings at the Burlington International Airport. SBFD supports and is supported by surrounding communities and the Air National Guard Fire Department as part of mutual aid agreements. The SBFD is staffed with full-time professional personnel. Two fire engines and one ambulance are staffed 24 hours per day, with support from additional call-outs.

SBFD operates from two fire stations:

- Station #1 is located on Dorset Street. This is the primary fire station for the City.
- Station #2 is located on Holmes Road, west of Shelburne Road. This station reduces response times to the southwestern end of the City, an area with a significant volume of emergency incidents.

The Air National Guard Fire Department's primary mission is to serve the airfield and non-civilian portions of the Airport; in recent years, and in close partnership with the City, it has expanded its mission to provide first response to the northern portion of the City. The City continues to strive for a more diverse firefighting and civilian staff, which will require some renovations to both stations to provide for additional bunkhouse space for non-male firefighters, additional shower and bathroom space, and overall updates. Physical changes are a step toward a goal of being a welcoming and supportive department.

Fire safety relies on response, but it begins with planning and protection. Currently, building inspections, new construction, electrical inspection, and fire code enforcement are provided by the South Burlington Fire Marshal's Office and the State of Vermont Division of Fire Safety, using the Vermont fire safety standards and other applicable Vermont building codes. The SBFD also annually inspects all businesses that apply for a liquor license and assists residents with safety equipment and information. As the City population continues to grow, City Center continues to be built out more densely, and commercial businesses continue to develop commercial areas, we recognize that the needs for this kind of fire protection will continue to increase and safety in our multi-family and rental housing will continue to be a City priority.

EMERGENCY PREPAREDNESS AND RESPONSE

Preparation for and response to emergencies is a core government service provided by the City of South Burlington. The City actively embraces a four-phase strategy of emergency preparedness and response: mitigation, preparedness, response, and recovery.

Mitigation.

Mitigation links emergency management, infrastructure maintenance, and land use planning. The City approaches mitigation as a multi-faceted issue. True mitigation starts with the development or redevelopment of land, design of buildings, location of emergency services, and collaboration with other agencies. It is also affected by climate change and increasing storm frequency and severity. The City has a current All-Hazards Mitigation Plan ("AHMP") that identifies potential risks with their likelihood and scale of damage. The AHMP presents actions for the City, its residents, and its businesses to lessen the risk of future incidents. The AHMP identifies severe winter storms, gas and/or electric service loss, and flooding as hazards that warrant the greatest attention.

The Department of Planning & Zoning, the Planning commission, and the Development Review Board are all involved in writing and assuring compliance with regulations that mitigate risk. The South Burlington Fire and Rescue Department and Department of Public Works regularly provide input regarding the location and access of buildings, roadways, and other safety-related issues in local development review through participation at the Development Review Board.

Preparedness.

Emergency preparedness and response in South Burlington are coordinated through the Fire Department and Police Department. In addition to ongoing training, the City regularly works with the School District, senior housing groups, and local organizations such as the Red Cross to enhance public preparedness. South Burlington has also been an active participant in the Chittenden County Regional Emergency Management Committee, a regional organization responsible for coordinating emergency preparedness.

The City maintains a Local Emergency Management Plan with public emergency alert strategies and description of the responsibility of various departments. It identifies several potential shelter locations, including schools, churches, and other large community buildings, approved by the American Red Cross to use in the event of an emergency. The City also maintains an Emergency Operations Center at the Public Works facility.

Response.

The Police Department and Fire Department are primarily responsible for emergency response in South Burlington, supported by the Department of Public Works, the Vermont Agency of Transportation, and mutual aid response partners and other support partners. Emergency dispatch is managed through the Police Department, and systems are redundant to Burlington.

Recovery.

Recoveries from large-scale incidents in the City have generally been related to flooding. South Burlington has worked diligently, through its Stormwater Division, to address the causes of wide-scale flooding incidents.

Climate resiliency.

Improving flood resilience reduces community vulnerability to flooding and supports recovery, especially in the face of climate change. Due to its geography and elevation, South Burlington doesn't face the same level of flood risk as many Vermont communities. The City has and shall continue to work to improve flood resiliency. The City has restricted development to natural

land uses within wetlands, habitat blocks, river and stream corridor buffers and setbacks, and mapped flood plains. The City has Low Impact Development stormwater standards and Vermont's first Stormwater Utility, a watershed approach to surface water and stormwater management, landscaping requirements and cyclical assessments of tree canopy, smart growth approaches including a designated New Town Center, coordination with neighboring communities, and active participation in the regional All Hazards Mitigation Plan.

MUNICIPAL GOVERNANCE

The role of municipal government in South Burlington is broad and is based on principles of good governance and decision-making. It supports both the basic needs of the community and the quality of life and work in the City. The City is committed to providing services to the community professionally, equitably, and customer-focused, while maintaining an efficient government that spends our tax dollars effectively. This leads to community trust in the City government, more participation in City governance processes, and hopefully a greater sense of community and civic pride. We recognize that the City has a way to go in appropriately interacting with and communicating with members of different groups in our community and we will continue to strive for better outreach and participation for all community members.

The City of South Burlington has established a government that provides core municipal services including running elections, maintaining land and vital records, tax assessment and collection, City employee management and benefits, legal support, and financial accounting and budgeting. The City recognizes both the need to provide core government services as required by State statute, but also the value of professional staffing in all of these areas for the vitality and future of South Burlington. We are committed to staffing and developing our capacity as a City to have robust municipal departments in all of these areas. Our staffing must also be nimble to changing and evolving community priorities. We are committed to providing adequate and appropriate compensation and benefits, a welcoming work environment and culture, and support to retain quality employees.

City Hall.

Municipal government is headquartered at the new City Hall building at 180 Market Street, which opened in 2021. This includes City Clerk, City Manager, City Attorney, Community Development, IT, HR, Planning & Zoning, Recreation & Parks, and Tax & Assessor. There is no current need for upgrading this facility.

City Clerk.

The City's Clerk's Office is located in City Hall at 180 Market Street. The Clerk's Office manages City elections, maintains land records, and provides vital records services. Changes in technology and access to online records have changed the number of in-person visitors, but members of the public use the Clerk's Office for notary public services, vital records services, and for general City information. South Burlington's ongoing population growth continues to require additional resources around elections and with day-to-day service.

PUBLIC WORKS AND MAINTENANCE

The South Burlington community relies on well-maintained transportation routes through the city for community movement and community safety. We value providing for these basic needs of community members and continuing to support our municipal services that meet these needs. Maintenance of our transportation network (including roads and paths), our water distribution system, stormwater system, sewer collection system, and our park systems provides safe transportation, safe drinking water and sewer services, and safe recreation opportunities to members of our community.

The Department of Public Works ("DPW") maintains City streets (including signs, lighting, and traffic signals), parks and shared use paths, stormwater systems, two water treatment plants and associated collection systems, water distribution systems, water storage tanks, and 32 wastewater pump stations. It maintains City and school district vehicles. DPW operates from a City facility and garage at 104 Landfill Road, constructed in 2001, which also leases space to the South Burlington School District.

The City's infrastructure needs are planned through both the DPW annual budget and the Capital Improvement Program. Fees for DPW services (including water and wastewater allocation fees) are enterprise funds of the City and must mirror the costs of maintenance, improvement, and expansion of the water and wastewater facilities and infrastructure. It is expected that revenues will cover expenses. DPW is currently undertaking a rate study to right-size fees with planned and necessary costs.

COMMUNITY QUALITY OF LIFE

Life in South Burlington is greater than the sum of a person's basic needs or of the city's individual services, programs, or infrastructure. A robust, welcoming, inclusive, and strong community is built on the foundation of strong community facilities and resources. Fostering inclusion and connectivity for residents is an essential building block for both individual and community health. The City of South Burlington is committed to supporting community development and community building amongst residents through support of our community facilities.

Library.

The City's public library is located in City Hall at 180 Market Street. The Library is a community hub for information, entertainment and social connection – in FY 2022, over 75,000 people visited the library (this number may be underestimated for large group programs) and had 10,027 cardholders. The Library provides community programming for all ages and stages of life, interest groups, media access, and technology access and education. Formal library programs served 8,068 attendees, up 24% from the prior year. The new Library contains rooms for meetings, performances, quiet reading space, collaborative learning areas, audio recording, telehealth, teen space, baby/toddler play space, and a community auditorium. The Library is open six days a week and has 18 staff, including 9 full-time employees. There are over 70,000 items in the collection and in FY 2022 the Library circulated over 158,000 items. It will remain a primary goal of the library to promote a love of reading.

The Library is a community asset on many levels. It provides equitable access to printed materials, technology resources, and media. It also serves as open meeting space and rest space available for members of the public during open hours. It is a welcoming and available space for learning, collaboration, and growth for community members. It is an ongoing goal of the Library to become a more equitable and inclusive community resource. This will continue to include outreach to people of all ages, people living in different neighborhoods, New Americans, people with disabilities, and other varied groups. The Library, alongside the Senior Center and the rest of the City Hall building, may be able to be utilized in the future as a warming or cooling center as we face more varied and extreme weather events due to climate change.

Senior Center.

In pursuit of being more inclusive, fair, and just, the City continues to seek ways to engage with underserved populations in our community. One underserved population in South Burlington has historically been our senior population. City Hall, completed in 2021, includes the Kevin Dorn Senior Center, which provides space and programming geared toward our seniors.

Community Open Space.

The City of South Burlington values open space, conservation, and recreational access for all members of the community. Our need for intentional open space will continue to increase with increasing housing densities in our development areas and to provide some mitigation of the effects of climate change. Having a publicly accessible open space within walking distance (approximately ¼ mile) from residential development is a goal of the City for both human-scale focus and climate-resilience needs.

In the pursuit of varied, accessible, and community-building open space, the City pursues several avenues for conservation and public access to land, including outright City ownership, partnering in conservation easement projects, and entering into public-private partnerships, as appropriate. The City owns several properties utilized for one or more of these public purposes, ranging from small neighborhood park spaces to large open spaces that are regional attractions.

Accessible and practical open space areas improve human quality of life. It is a critical piece of the City's climate resilience, human-focused, and inclusive, fair, & just vision statements. Access to green space without traveling by vehicle supports climate-resilient neighborhoods and reduces vehicle miles traveled.

The City of South Burlington's Recreation & Parks Department runs programming on several of the City-owned properties. For more details of the Recreation & Parks programming, please see the Recreational Resources section.

Cemeteries.

The City of South Burlington owns and operates two cemeteries: on Airport Drive and on Shelburne Road. Both are significant community assets for their intended purpose of providing publicly-managed burial grounds and will continue to serve that purpose into the future. Both do have some site constraints with wet areas and adjacent development that will guide how they are used. Future investment into appropriate mapping of sites, inventory of plot sales, and maintenance will be needed. In addition, both are located in high-traffic areas with significant need for quiet contemplation spaces. As the City looks at community assets holistically and examines how to better provide for high quality of life in our higher-density communities, putting these public green spaces to additional intentional use for quiet, reflective space will integrate them better into the community.

EDUCATION

The City of South Burlington values high-quality, just and equitable education for all children in the community. Our schools, especially the elementary schools, provide community gathering opportunities for the different areas of our city and build community amongst school-age families. The South Burlington School District actively plans for its future with a current Strategic Plan. The strong tradition of close cooperation and communication between the School Board and the various municipal boards and commissions should be maintained.

Primary and Secondary Schools.

The South Burlington School District ("SBSD") currently operates five schools that serve approximately 2,500 students in grades K-12: Rick Marcotte Central School, Orchard School, Gertrude Chamberlin School, Frederick H. Tuttle Middle School, and the South Burlington High School. Unlike many districts in Vermont, South Burlington has almost steady or increasing school populations. The SBSD hired McKibben Demographic Research, LLC, to produce a report, the South Burlington School District Demographic Study – November 2022 (the "Demographic Report") projecting school populations into the future. The Demographic Report states that in-migration in the 25-34 age group and the 0-9 age group into South Burlington, among other factors, leads to a projection of a school population of 2893 district-wide by 2032-

33. The Demographic Report also projects that by 2032-33, the population will have increased at all three school levels: PK-5, 6-8 and 9-12.

The school population may also shift location, with the continuing growth of the City Center area, additional housing in the Shelburne Road corridor, and the completion of already-permitted housing in the Southeast. The Demographic Report projects that population will grow in the areas served by all three elementary schools, with larger growth in the areas currently served by Central and Orchards Schools than the Chamberlin School. However, construction of additional housing in different areas of the city may change that projection into the future.

SBSD will continue to face changes in utilization of school spaces, needed facilities, and opportunities for alternative uses. Currently, the South Burlington School District is considering plans for updating and upgrading school facilities, including the South Burlington High School, Frederick H. Tuttle Middle School, and the three elementary schools. Many school facilities are aging and have varying levels of flexibility in changing uses of spaces and full utilization of the schools.

It is anticipated that significant investments across all facilities, including rehabilitation or replacement, will be needed in the coming years to meet current and future needs of the community.

In addition to the SBSD school system, several independent primary, secondary, and training schools operate in the community, including Rice Memorial High School, Vermont Commons School, the Schoolhouse, and the Welding Institute of America. The Burlington Tech Center is also currently located in South Burlington. The City coordinates efforts, services, and programing in various manners with each of these schools and supports policies and programs to enhance the experience of each student attending these schools.

University of Vermont.

The University of Vermont owns 571 acres of land in South Burlington that is part of its South Campus area. The South Campus is currently utilized primarily for instruction and research focused on bioresearch, agricultural, horticultural and natural areas management. UVM has recently updated its Campus Master Plan for 2022-32, including the designation of land bank areas in South Burlington, looking forward to growth and reservation of lands for future needs. UVM also owns several areas of open space or agricultural space, including Centennial Woods Natural Area and East Woods Natural Area, that provide benefits to South Burlington and the region. The City will continue to work with UVM on both the City and the University's long-term planning goals.

Childcare.

Childcare is an underserved need in South Burlington, Chittenden County, and Vermont as a whole. Thousands of children require daycare or after school care in the region and the number of available spots is limited. Private, licensed childcare centers, registered family childcare homes, licensed family childcare homes, licensed after-school programs, and licensed preschool programs provide care for children of varying ages. The provision of safe, local, and accessible childcare and pre-school is a vital element in attracting families to South Burlington. High-quality, affordable, and reliable child care strengthens local economics as more residents are capable of entering the workforce; promotes equity by narrowing socioeconomic, gender, and racial/ethnicity-based inequalities; and improves long-term educational and health outcomes for children. The City endeavors to ensure that high-quality, affordable, and equitable childcare is available within its borders, as a possible partner with private and non-profit childcare providers.

COMMUNITY SERVICES ADDITIONAL RESOURCES & EXISTING PLANS

- UVM Campus Plan 2022-2032
- South Burlington School District Demographic Report (2022)
- Feasibility Study for Residential Solid Waste Collection Contracts (2020)
- Chittenden County Regional Dispatch: Feasibility Study (2016), Public Safety Authority (2018-2023)
- Chittenden County All Hazards Multi-Jurisdictional Mitigation Plan (and South Burlington Annex) 2022
- South Burlington Emergency Operations Plan
- School + Community Master Planning Task Force Report (2015)
- South Burlington Open Space Report (2014)

WATER & UTILITIES

Management of our water supply, wastewater, and stormwater management is critical to ensure the health of South Burlington. Alongside water needs, two semi-private utilities — solid waste management and telecommunications — keep our community clean and connected. We must support these resources in a climate-resilient and equitable way.

WATER & UTILITY GOALS

Goal 68: Public infrastructure capital investment accounts for and accommodates anticipated infill land use and reuse

Goal 69: All South Burlington watersheds are off the list of stormwater-impaired watersheds by 2033

Goal 70: Reduce nutrient loading into Lake Champlain to provide a more resilient water supply

Goal 71: Assure planning and management of water, wastewater, and stormwater systems is done in a manner that protects our most vulnerable populations and distributes focus and funding equitably

Goal 72: Plan for facilities that mitigate a changing climate for all residents in all parts of the City

Goal 73: Advance all areas of the City to have adequate cell coverage and broadband/cable/fiber internet access, and support competition between carriers for provision of those services

WATER & UTILITY ACTIONS

Action 107: Pursue opportunities for acquisition and restoration of open space along year-round streams in South Burlington and actively enforce against encroachments to protect these resources

Action 108: Plan culvert replacements that consider both aquatic organism passage and geomorphic compatibility for any undersized culverts in conjunction with roadway improvements

Action 109: Partner with neighborhoods and businesses to deploy best stormwater treatment practices

Action 110: Improve efficiency and lessen impacts of solid waste hauling on quality of life and greenhouse gas emissions

Action 111: Utilize stormwater treatment facilities and practices to provide public amenities and park space, where feasible

Action 112: Complete generational upgrade to Bartlett Bay Wastewater Treatment Facility and continue exploring opportunities in innovative technologies to meet water quality and Climate Action Plan goals

Action 113: Construct an additional Water Tank adjacent to the existing tower on Dorset Street to provide capacity and volume to serve anticipated needs in the High Service Area

Action 114: Seek opportunities to reduce potable water use by household, business, and industrial users

Action 115: Seek opportunities for regionalization and coordination with other entities to provide efficient water services

Action 116: Foster choice among telecommunications providers to spur innovation in technology, service alternatives, and cost competitiveness

Action 117: Regulate or invest in sufficient space to allow for telecommunications and internet carriers as areas are re-developed or infilled

Action 118: Explore opportunities for advocacy in reduction of single-use plastics and plastic packaging

WATER & UTILITIES INVENTORY, ANALYSIS, & CHALLENGES

Planning, design, installation, and maintenance of public and regulated private utilities reinforce and support the City's land use and development objectives. The cost, permanence, and key role of these utilities warrants strategic planning and cooperation with private sector providers, neighboring municipalities, and the State.

STORMWATER

Management of stormwater runoff is key to the City's commitment to water quality and climate change mitigation. Properly capturing and treating stormwater prevents contaminants from flowing into our waterways, reduces flooding, and supports biodiversity and quality of life. Water quality is critical in the face of changing climate conditions and is core to equitably providing basic government services to all.

Stormwater Runoff.

Five streams (Bartlett Brook, Centennial Brook, Englesby Brook, Munroe Brook and Potash Brook) impaired by stormwater runoff are fully or partially in South Burlington. Stormwater-impaired watersheds cover approximately 61% of the City. There is also chloride impairment in certain streams and Lake Champlain has a phosphorus TMDL. Management of stormwater runoff can help alleviate these impairments and help maintain the water quality of other streams and water bodies.

Construction of impervious surfaces (roads, rooftops, parking lots, sidewalks, shared use paths, etc.) prevents stormwater from soaking into the ground, increasing the amount of stormwater runoff, resulting in higher stream flows and velocity, stream bank erosion, flooding, and flow of chemicals on surfaces into local waterways. Failure of undersized or poorly maintained stormwater management systems exacerbates flooding and inadequate stormwater treatment increases water quality issues.

Stormwater can be managed on a property-by-property basis with on-site structures, facilities, and passive treatment or in a larger centralized treatment facilities managing runoff from multiple properties. The City has actively engaged in establishing and maintaining stormwater systems to better manage stormwater runoff and conveyance of streams through drainage infrastructure. The City has encouraged or required on-site stormwater infiltration in the Land Development Regulations and through grant funding opportunities for management projects. While some stormwater management techniques support compact development (e.g. reduced pavement widths), others may be contradictory to other land use goals (e.g. using relatively large open areas for stormwater management).

Stormwater Utility.

To manage the City's stormwater, the City established the first stormwater utility in Vermont in 2005. The utility manages stormwater infrastructure and provides a stable source of revenue to

complete required maintenance and management. The utility employs full-time staff dedicated to stormwater management, developing a comprehensive stormwater program, and planning for needed capital improvements.

The stormwater utility manages drainage infrastructure and culverts, assists residents with state permitting, conducts watershed planning, and oversees maintenance of the City's stormwater infrastructure. The stormwater utility also maintains the City's compliance with the Municipal Separate Storm Sewer System (MS4) permit. The MS4 permit is a federally-mandated permit administered in Vermont by the Agency of Natural Resources. In 2014, the federal government issued the updated MS4 permit, giving the City twenty years to make necessary improvements to its impaired watersheds by implementing Flow Restoration Plans (FRPs) for Potash, Bartlett, Centennial, Englesby, and Munroe Brooks. All FRP projects must be constructed by December 5, 2032. The City needs to make further improvements to its stormwater management to meet FRP flow reduction targets.

The City of South Burlington owns and maintains its stormwater system separately from the sanitary sewer system. It includes conveyance piping, storm drains, culverts, stormwater outfalls and stormwater treatment infrastructure. South Burlington contains approximately 180 total miles of pipes, ditches, culverts, or other means of stormwater conveyance; approximately 100 miles are City-owned. There are over 6,750 storm drains within the City and approximately 3,400 of which are publicly owned. The City (through the stormwater utility) will continue to upgrade these systems with community growth and required improvements in water quality standards. This involves planning for treatment systems to reduce phosphorus, sediment, and other pollutants, and practices to reduce application of chloride. We can also reduce chemical application to private, public, and institutional properties through education and outreach, reduction in lawn sizes, and modification and reduction of existing asphalt to reduce total impervious surface to reduce the amount of chemicals entering the stormwater system. Currently, the State regulates application of pesticides and herbicides, but the City can explore non-regulatory options for reducing use of pollutants.

All developed properties in South Burlington are assessed a stormwater utility user fee. Fees for commercial properties are calculated using a careful analysis of impervious surface area. There is a set fee for single-family homes, duplexes and triplexes. All other developed properties are assessed a fee based on the actual amount of impervious surface.

POTABLE WATER

Reliable potable drinking water is a basic human need required for human consumption, household use, commercial use, and fire suppression. The City needs to continue maintaining, upgrading, and replacing parts of the water treatment and water distribution systems. This work must be done equitably and must reflect increased weather variation and drought due to climate change. We also need water allocated to City Center to support increasing residential density and commercial use.

Water Distribution System.

The availability of municipal water is a significant factor in locating new development and infill redevelopment in built areas. Planning for the future of the water distribution system must balance demand for new housing with conservation goals to determine where extensions of service lines are and are not appropriate. The Water Department maintains a Master Plan specifying the location and size of future planned water mains to meet future needs.

The City Water Department's water distribution system includes almost 100 miles of distribution pipeline. Three small areas do not have City water supply through the distribution system: Queen City Park, some residents in the Bartlett Bay area, and some residents in the Southeast Quadrant. Fire District #1 supplies potable water to approximately 80 households in Queen

City Park from a deep rock well and an independent storage tank. Fire service to the Queen City Park area is from a dedicated fire line served from the South Burlington Main Service transmission main. Other unserved homes are generally on private wells.

Since 1978, the City has contracted with the Champlain Water District (CWD) to provide management, administration, and operational services for the City's water distribution system. CWD is a regional water supplier serving 12 municipal water systems. Water is sourced from the Champlain Water District (CWD) owned Peter L. Jacob Water Treatment Plant on Queen City Park Road, which draws and treats water from Shelburne Bay in Lake Champlain. It has capacity to treat 20 million gallons per day with filtration, disinfection, and corrosion control. CWD assures the safety of the water through multi-barrier approach monitoring and planning for watershed protection to protect its source in Shelburne Bay.

Distribution piping in the water distribution system varies in age and quality. Substantial portions of the infrastructure are beginning to reach replacement age, notably in the neighborhoods built from the 1940s through 1960s. However, in older neighborhoods, relatively compact housing creates greater maintenance cost efficiency than in less compact areas. Efforts to replace old, undersized pipes are important for continued reliability in providing drinking water and water for fire suppression.

Water is stored in the South Burlington West Tanks, a twin set of 0.5-million-gallon welded steel storage tanks north of Allen Road, and in the South Burlington East Tank, a 2.1-million-gallon tank on Dorset Street. The West Tanks have approximately 66% remaining capacity as of 2023. The South Burlington East Tank has commitments representing 98% of volume and capacity in that system as of 2023. The City is actively working to design additional storage adjacent to the existing east tank to meet anticipated needs within that service area, including City Center. This planned tank is being designed to meet the City's water volume, pressure, and storage needs within this service area for the next 25 years and beyond.

Allocation fees are charged to new development and for increased water demand on existing properties. The City uses these fees to pay for capital upgrades related to the water distribution system. Developers must provide for water supply with adequate flow and pressure for fire protection, residential use, and standard commercial use. If a water line expansion is required, costs are borne by requestors except in rare cases. Maintenance costs are paid for by user fees.

One planned new development area is City Center. The City's water supply ordinance has currently set aside 50,000 gallons per day for the future City Center area. It is now estimated that this will not meet actual need. Regular review of allocations and the water ordinance are needed to assure that sufficient water supply infrastructure is installed to meet future needs. Currently, in 2023, the City is working on a significant revision to the Water Ordinance.

The City is committed to maintaining high standards for public health and environmental protection through the wastewater systems it operates and maintains. The City is committed to investing in maintaining and improving its collection and treatment systems, utilizing innovation, energy conservation, and to having no violations of the National Pollution Discharge Elimination System permits (NPDES).

Water Use.

As part of an overall strategy to make our potable water system more sustainable, further efforts can be made to reduce potable water use. This could include consumer education, regulation of water usage in new construction, study of the metering system to incentivize reduced use, and incentivization of use of rainwater and other non-potable water for landscaping, lawns, and other uses. However, the water system has operating costs that do not vary based on water use, placing a floor on the reduction in costs to individual users.

WASTEWATER TREATMENT

Adequate wastewater treatment is required for public health and environmental protection. Much of South Burlington is served by a wastewater collection system and two wastewater treatment facilities. Maintaining and upgrading these facilities limits our impact on the environment and provides stable public services in the face of climate change. Modern wastewater collection and treatment facilities enable housing and other uses to be built more compactly, providing for a more human-scale, bikeable, and pedestrian-friendly built environment. Wastewater treatment is a core government service that allows us to meet our land use and redevelopment goals.

South Burlington is required to treat wastewater and discharge treated effluent that meets federal discharge permits and the federal Lake Champlain TMDL (total maximum daily load) for phosphorus. To meet these environmental standards, South Burlington operates two wastewater treatment facilities: Airport Parkway and Bartlett Bay. Airport Parkway, the larger facility, serves approximately 75% of South Burlington and discharges to the Winooski River. It was upgraded in 2012 to 3.3 million gallons treated per day, with 1.0 million gallons per day allocated to Colchester Fire District #1 by intermunicipal agreement. An increase in clarifier capacity at this facility was approved by the voters in 2023 and will be constructed in the near future.

Bartlett Bay serves approximately 25% of South Burlington with a permitted capacity of 1.25 million gallons per day. In 2019, the Eastwood neighborhood, which had been served by wastewater facilities in Burlington, were re-routed to the Bartlett Bay treatment facility, resulting in reduced user fees in South Burlington and new capacity in Burlington's facility. Funding for an upgrade to the Bartlett Bay treatment facility and to nearby pump stations was approved by the voters in 2023 and is in the design stages.

Current use (as of 2022) is at 57% of capacity at the Airport Parkway treatment facility and 54% at the Bartlett Bay treatment facility. Capacity improvements should begin when a facility reaches 80% of capacity. At this time, no capacity upgrades are anticipated to be needed within the Capital Improvement Plan's 10-year planning horizon. The City will continue to track and monitor capacity.

The City has set aside 150,000 gallons per day of capacity for the City Center area. This should be evaluated and right-sized. Adding density in this New Town Center designation area requires available wastewater capacity. As with water supply, the City will continue to monitor and allocate sufficient capacity to support this planned area of growth.

As we upgrade and maintain the wastewater system, there are locations where new sewer lines are not appropriate. Sewer connections are not recommended for designated Habitat Blocks, Conservation & Open Space Land Use Type areas, or currently unserved areas planned for only extremely low-density residential use. The limited number of housing units and low densities planned for residential areas not already served by sewer can be served by on-site septic systems if development occurs. Infrastructure lines through these areas should be strictly limited, reserved only for exceptional circumstances.

Planning for sewer service areas also presents an opportunity for thoughtful, coordinated efforts with our neighboring communities and regional partners. Our neighboring municipalities discharge treated effluent and pull water to treat for drinking water from the same bodies of water we do. Shelburne Bay receives treated effluent from the Bartlett Bay treatment plant and Town of Shelburne wastewater treatment facilities and is the raw water source for the Champlain Water District. The Winooski River receives sewage plant outfall from several municipalities. The capacity of the Winooski River to receive effluent and remain under water quality standards is limited. The City must continue to collaborate with neighboring municipalities and to reduce the loading in discharged effluent even as water usage increases.

A small number of City homeowners rely on soil-based septic systems. Less than five percent of City residents have on-site septic disposal systems, a majority of which predate infrastructure being located in the area.

TELECOMMUNICATIONS

Access to adequate telecommunications services is key to the community's education, medical care, employment, and day-to-day needs. Reliance creates an equity challenge in South Burlington. Provision of services accessible to all income levels, English-language levels, and ages must be a priority because of this heavy reliance on the internet.

South Burlington residents and businesses have access to the telecommunications services (land line telephone, cell phone, cable television, and broadband internet) from various providers. However, broadband access and reliable mobile access are not universal throughout the city and gaps have become increasingly problematic. Areas with service are often served by a single provider which can lead to high consumer costs, limited choice, and poor service. South Burlington joined Essex, Essex Junction, Shelburne, and Williston to form the Chittenden County Communications Union District to harness federal funding and work toward reaching small pockets of residences without broadband internet service.

Maintaining a high-level of service requires continuous upgrades to telecommunications infrastructure. The siting of telecommunications infrastructure should consider aesthetics, safety and efficiency. Use of existing structures, sites and utility corridors is preferred over new development. We must also remain nimble to adjust to new technologies that improve service and reduce aesthetic impacts and energy use.

SOLID WASTE

Solid waste management is a core service for a clean city. Reducing the production of solid waste in the community through incentivization, education, regulation, or other methods is a first step to a more sustainable solid waste management system.

Solid waste management is handled by the Chittenden County Solid Waste District (CSWD), which includes 18 member municipalities. It collectively provides for the efficient, economical, and environmentally sound management of solid waste. CSWD is governed by its charter, a Waste Management Ordinance, Solid Waste Management Fee Ordinance, and further regulations.

CSWD delivers solid waste to two transfer stations or directly to lined landfills outside the district. CSWD identified a site located on Redmond Road in Williston for a proposed regional landfill, but currently the only operating landfill in Vermont is in Coventry. Future development of additional facilities in the state, especially closer to Chittenden County, will be required for more sustainable solid waste management.

CSWD currently operates a drop-off center at the City's former landfill site on Patchen Road that accepts solid waste, recyclables, and special wastes such as tires, scrap metal, leaves and brush. Compost (approximately 1/3 of household waste) is collected at the drop-off center and processed at Green Mountain Compost in Williston.

Waste hauling – trash, recycling, and compost – is entirely undertaken by the private sector, by individuals or by professional haulers. The structure does not include any form of allocation of service areas or types. Several private trash hauling services serve the same streets, which is a redundancy referenced in the 2022 Climate Action Plan. In 2020, the Cities of Burlington and South Burlington completed a Feasibility Study for Residential Solid Waste Collection Contracts, which explored options for managing allocation. Continuing to study this issue with the goal of reducing redundancy will involve the City, homeowners' associations, and the private sector.

LAND USE PLAN

The Land Use Plan ties together South Burlington's vision for the future and the goals in the other sections. Land use decisions greatly influence our residential neighborhoods, economic vitality, transportation efficiency and safety, accessibility, environmental quality, and the character of a community. The land use plan is the fundamental element of the overall municipal plan. It provides guidance for all future decision making in the community and directly affects all other elements contained in the plan.

CURRENT LAND USE

DEVELOPMENT PATTERNS

South Burlington has become a city with a diversity of settings and land use patterns. The city is located at a transportation crossroads in the core of Chittenden County and is the second-most populous municipality in the State. South Burlington hosts many high-employment industries and is part of the greater Chittenden County economic community. It is the site of Leahy Burlington International Airport and the busiest exit on Interstate 89. It is home to several operating farms, open lands, and wildlife habitat blocks and corridors connected by streams and brooks throughout the landscape. South Burlington also contains significant amounts of land owned by the University of Vermont.

South Burlington's land use pattern does not mimic much of Vermont and did not naturally settle as compact villages with rural surroundings. South Burlington has never had a historic center and was shaped uniquely by originally being part of Burlington. Construction of infrastructure, homes, and businesses in South Burlington followed street connections to Burlington and continues to be concentrated along the Route 2 (Williston Road) and Route 7 (Shelburne Road) corridors. Post-war suburbanization created predominantly single-family home neighborhoods in these corridors. Strip commercial development came with greater vehicle use. As the region's economy grew, demand for single-family housing spilled over into the Southeast Quadrant by the late 1980s and 1990s.

Since the 1990s, the City has redirected construction into planned districts and existing corridors. Balancing residential and commercial growth has been a goal since the early 1990s. Recently, South Burlington has begun targeting infill and redevelopment in built corridors and creating a greenspace network throughout the city.

FUTURE LAND USE

South Burlington's current planning priorities date back to the 1980s. Creation of a mixed-use, vibrant, high-density City Center and encouraging more pedestrian- and transit-friendly development along the City's major arterials appeared in the 1985 Comprehensive Plan. Plans through the 1990s and 2000s started the City's current path toward protection of natural areas and open spaces. Since the mid-2000s, the City has made efforts to shift focus to infill in built areas and conservation of natural resources and working lands outside these built areas. Throughout, South Burlington has adapted and modified the specific strategies and plans, but the goals of having a dense, walkable, vibrant City Center, reinvestment in mixed-use infill along arterial corridors, thriving residential neighborhoods, and environmental resource protection have remained and continue to be the City's primary goals.

This plan has identified six primary land use types in South Burlington.

- Principally Residential: Lower Scale
- Principally Residential: Higher Scale

- Balanced Mixed Residential and Commercial: High-Scale
- Principally Commercial/Industrial with Supporting Uses
- Commercial/Industrial
- Principally Conservation & Open Space

These types occur in different locations across the City, but are tied together by future land use goals. Not all areas in each type are the same; where they have been built they often share some physical components, and where they are unbuilt their surroundings and settings have similarities. They face different challenges, however, and require different approaches to reach the stated goals for the land use type. It is important to show how similar areas of our city are, instead of artificially dividing them by geography alone.

There are also geography-specific planning issues to address. These include specific features of a geographic area, regardless of the land use type, and transitions between land use types within the geographic area. This plan designates five planning areas by geography.

- Central Area, including City Center and surrounding areas
- Northwest Area, including areas west of the Airport and north of I-89, exclusive of the Central District
- Northeast Area, including the Burlington International Airport and areas north of I-89, plus Meadowlands Business Park area south of I-89
- Southwest Area, including the Shelburne Road corridor, Farrell Street, and Queen City Park
- Southeast Area, including areas south of 1-89 and east of Spear Street

FUTURE LAND USE MAP

The future land use plan includes a future land use map (Map 9). This map shows the future land use type and priority for future work and planning. The future land use map is not regulation, but instead provides guidance to the Planning Commission as it changes Land Development Regulations, recommends non-regulatory programs and investment, and upholds the City's overall goals.

The Future Land Use Map ties together the rest of this Plan. It shows where the different land use types are anticipated and planned for into the future. This also directs where changes in general land use from existing to future uses are intended and where they are not. While significant variation exists within the types, this map shows the broad scale of the future of South Burlington.

LAND USE TYPES

PRINCIPALLY RESIDENTIAL: LOW SCALE

Lower-Intensity residential neighborhoods across the City of South Burlington share commonalities in development patterns and history, but also, and more importantly, they share goals for the future.

The City's earliest neighborhood, Queen City Park, was initially built primarily as seasonal camps which have been converted over time to year-round homes. Beginning in earnest after the end of World War II, relatively low-scale residential neighborhoods sprang up primarily along the existing transportation corridors of Williston Road and Shelburne Road, but were not integrated with those commercial corridors. These early neighborhoods include Chamberlin, The Orchards, Mayfair Park, Brookwood, Shunpike Road, and East Terrace. Over the following decades, neighborhoods with similar development patterns — primarily single-family homes and duplexes on approximately ¼-acre lots with backyards and driveways from local-traffic streets

— were constructed. Generally, heights and building sizes are lower in these areas and the land use is overwhelmingly residential. In some cases, small-scale non-residential uses, including places of worship, stores, cemeteries, or pre-existing businesses are lightly interspersed.

Neighborhoods built in the following decades, such as Butler Farms, Country Club Estates, the Golf Course, and Quarry Ridge Road share similar characteristics but often have larger homes on larger lots, are further removed from commercial areas, and have homes that are more oriented to rear yards than to the street.

Most recently, some trends have been reversed through City policies and residents' wishes. Neighborhoods such as South Village, Rye Circle, and O'Brien Hillside are returning to smaller homes on smaller lots, a greater street presence, neighborhood parks, and, most recently, incorporation of neighborhood-scale commercial activities.

Primarily residential neighborhoods can enable a strong sense of community and identity if well laid out and built. Nearby elementary schools and parks, front porches, yards, and low-traffic streets can be attractive to young families. In some cases — notably in the older neighborhoods — homes are smaller and have remained comparatively affordable. Some residents in these neighborhoods have lived there for decades after buying their homes as "starter homes".

PRINCIPALLY RESIDENTIAL: LOW SCALE GOALS

Goal 74: Maintain and invest in vibrant, diverse, walkable, primarily-residential neighborhoods with community focal points, neighborhood-scale limited commercial uses, parks, transit, and other amenities.

Goal 75: Build community in neighborhoods through greater opportunities for gathering and interpersonal connection

PRINCIPALLY RESIDENTIAL: LOW SCALE ACTIONS

Action 119: Build adequate public infrastructure for bike/ped network

Action 120: Support thriving neighborhoods by allowing and encouraging infill and small-scale commercial use

Action 121: Allow small-scale multi-family housing to blend in with single-family homes and duplexes to support thriving neighborhoods

Action 122: Acquire, maintain, and program neighborhood-scale recreational amenities within 1/4 mile of residential units within each residential neighborhood

Action 123: Use the other actions in this Plan to support thriving neighborhoods

Action 124: Maintain affordability of housing and enable people to adapt housing to lifestyle needs over time

Analysis & Challenges

The relatively low density – typically two to four dwellings units per acre — means fewer people live within walking distance of each other, the schools, any nearby commercial areas, or recreational areas. Intense demand for housing and employment growth in Chittenden County and other pressures over several decades have upended the economics of these neighborhoods. New development at these densities has consistently been of larger, higher-priced housing, and prices for homes in neighborhoods are significantly outpacing income growth in the area.

As the City's first residential neighborhoods reach the 80-year mark, reinvestment in public

infrastructure to meet society's changing needs is necessary. This includes retrofitting of road rights-of-way to meet ADA standards, supporting pedestrian and bicycle transportation, and accounting for changes in travel and work patterns; rebuilding existing parks; and improving access and availability of neighborhood-scale facilities and services. Fostering the thriving of these neighborhoods into the future requires allowing and investing in community gathering spaces, whether publicly or privately owned, and clean, safe, and welcoming streetscapes.

These low-scale neighborhoods vary in location but share similar transportation challenges. All were developed to be car-centric, without significant commercial activity co-located with residential uses and requiring a car (or using limited transit) to reach essential shopping, services, medical offices, and similar. Streets were designed for car traffic and many streets lack sidewalks, bike lanes, and other bike/ped infrastructure. Public transit services generally do not travel into these neighborhoods and they are served by transit only via stops along transportation corridors on their edges, if at all. The location of these neighborhoods places them adjacent to transportation corridors like Shelburne Road, Williston Road, and Hinesburg Road that can both connect the neighborhoods and isolate them.

Current regulations in many of these neighborhoods have maximum density of four residences per acre and require the same amount of land per dwelling unit regardless of building type, but this was not always the case. For example, the Chamberlin neighborhood has a sprinkle of duplexes and a few triplexes on lots the same size as adjacent single-family homes, and numerous undersized lots that would not be permittable today. These current nonconformities have had so little impact on the character of the area that many would be hard-pressed to identify their locations. Allowing duplexes and similar-scale multi-family housing by right where single-family homes are allowed would have little impact on the character of these neighborhoods, would allow more flexibility for families to live together but separately on the same property, and could provide more affordable housing and more rental opportunities.

These neighborhoods generally do not contain much, if any, commercial use. Adding small amounts of pedestrian-scale, neighborhood-serving commercial uses supports the future health and thriving of the neighborhood. It is not intended that the primary character of the neighborhood should shift from residential to commercial. Commercial uses could include small-scale uses like neighborhood-serving stores, cafes, and shops, small business offices, arts & culture-related businesses and non-profits, and community spaces. Adding a small amount of this kind of small commercial use would improve the walkability/bikeability of the neighborhood and could become community hubs.

Some of these neighborhoods have City-maintained park spaces either in the neighborhood or on the edges (e.g., Szymanski Park, Jaycee Park, Farrell Park, and Baycrest Park), but many do not or are underserved by spaces or amenities within walking distance of their homes. Supporting these neighborhoods into a thriving future requires investment into neighborhood-scale park spaces with amenities appropriate to the setting within walking distance from the homes. Supporting these parks will require a higher population within walking distance that results from allowing a more diverse range of housing types, increasing allowed density, reducing dimensional requirements, or all of these.

To help residents to stay in their neighborhoods through the various stages of their lives, and create affordable opportunities for future generations, this Plan supports a combination of thoughtful and context-sensitive infill housing, investment in public infrastructure and parks, and allowances for neighborhood-scale retail and services.

PRINCIPALLY RESIDENTIAL: HIGHER SCALE

Like the lower-scale residential neighborhoods, higher-scale neighborhoods also share some common development patterns and history, and share goals for the future.

South Burlington has primarily residential areas that are moderate to high scale and have

some different characteristics, considerations, and challenges from the lower scale primarily residential areas. A shift in development patterns starting in the late 1960s started an increase in more dense residential development and in multi-family housing development that has continued to the present. The first iterations of these neighborhoods included two-story townhomes / flats in areas along Kennedy Drive, Hinesburg Road between Kennedy and Tilley Drive, portions of Dorset Street north of Swift Street, and in some locations like Joy Drive and Stonehedge. Later iterations transitioned to multi-story residential buildings in areas like Farrell Street, Quarry Hill Road, Olde Orchard Park, portions of Allen Road, and Lime Kin Road.

Most recently, these neighborhoods are becoming more blended, integrated, or placed adjacent to within the City's historically commercial corridors, including in City Center, along Kennedy Drive near Kimball Ave, and along the Shelburne Road corridor.

Many townhouse and condominium developments have been constructed close to transportation corridors and reasonably well located close to services, retail, and employment opportunities. Some areas have light levels of integrated commercial uses, but these tend to be small-scale (e.g., single offices or small office buildings, single retail establishments, educational facilities and childcare) and/or neighborhood-serving.

PRINCIPALLY RESIDENTIAL: HIGHER SCALE GOALS

Goal 76: Create, maintain, and invest in vibrant, diverse, walkable, primarily-residential mid-scale neighborhoods with community focal points, limited commercial uses, parks, and other amenities

PRINCIPALLY RESIDENTIAL: HIGHER SCALE ACTIONS

Action 125: Focus on infill and redevelopment in these areas at a higher, urban-style scale

Action 126: Support existing businesses and affordability of commercial spaces for new businesses, especially low-traffic and small-scale retail and services

Action 127: Develop vibrant streetscapes and public gathering spaces to enable events and community gathering

Action 128: Invest in park spaces and dedicate programming resources proportionally to the higher population within walking or biking distance using the spaces

ANALYSIS AND OBJECTIVES

Some higher-scale developments are up to forty years old and some have been built in just the last few years. This range in ages creates a range of development styles, ripeness for update or redevelopment, and compliance with current building codes and standards. The transportation network, streetscape, and community gathering spaces also range widely and need to be evaluated for the potential to be brought up to current community goals and guiding principles.

Transportation to and from areas of higher-scale residential must focus on multi-modal transportation options. This allows parking for these areas to be reduced and for the areas to become more pedestrian-scaled and welcoming. Some areas are connected well by sidewalks, shared use paths, and bike lanes, but other areas need their bike/ped network to be completed. Because of the inherently higher population density than the lower-scale residential areas (on average), higher-scale residential areas tend to be better served by public transit, but this is not universally true. Higher-scale areas can also enable greater transit service due to higher population densities. The higher number of residents in these areas also means that more people are affected by investment (and failure to invest) in construction and maintenance of the transportation network, necessarily making them a priority for City operations.

As in the low-scale residential, additional neighborhood-scale and neighborhood-serving commercial use can be integrated into the higher-scale residential areas. Small retail and restaurant establishments, health and wellness businesses, childcare and education facilities, community gathering spaces and arts businesses, medical offices, and service businesses (e.g., hair salons, massage therapists, and similar) can add to the vibrancy of a neighborhood and reduce the need to drive to other areas for goods and services. The higher population density in these areas can support more of these small businesses and entities, increasing the diversity of establishments included.

Due to both City regulations and aesthetic considerations, many existing higher-scale and/or multi-family housing developments include some amount of common green space, but many are not designed for particular functions or to be used for community gathering. Maximizing site usage, reducing costs, and complying with environmental regulations, developers have historically left wetlands, slopes, and similarly unbuildable areas open. Those kinds of areas are not generally suitable or attractive for community uses like play space, gatherings, or gardening, leaving less area available for those kinds of amenities on-site. New regulations require more intentional site amenities and/or civic spaces in developments, but it remains to be seen how effective those regulations are at creating usable and desirable semi-public spaces.

Higher-scale residential living necessarily provides for less individually- or household-controlled outdoor space. This increases the need for intentional, well-maintained, and appropriately-sized recreational amenities. Some higher-scale areas are in walking distance to a recreational amenity, but several are not, and the continued growth of these areas will require more public outdoor space. Space is required both for personal recreation (passive, active, or otherwise) but also for community gathering, and a range of types of gathering spaces will be required for different age groups, lifestyles, and needs. This should include seated conversation areas, active play spaces, dog facilities, trails, maintained green space, accessible facilities, and similar, as appropriate for the size of space, location, and surrounding community.

BALANCED MIXED RESIDENTIAL AND COMMERCIAL: HIGH-SCALE AREAS

The city's Balanced Mixed Residential and Commercial: High-Scale Areas share some features among their origins but vary over time and by City policy and investment. The current and future intent for these areas have diverged substantially.

The first wave of commercial development in the city began before WWII with the establishment of the Burlington Airport. Following the War and continuing through the 1950s and 1960s commercial corridors built up quickly along Shelburne Road, Williston Road, Dorset Street, and portions of Hinesburg Road. I-89 and I-189 were built in this same time period. Business parks north and south of the Airport followed shortly after. In the 1970s, the City began to consider the creation of a downtown for South Burlington, in the area that is becoming City Center.

Twentieth-century development patterns and zoning designed cities where residential uses and commercial uses were completely separated from each other to prevent incompatible uses from conflicting. What began as a tool to separate industry from housing evolved to create commercial-only strips in many cities. Over time the negative impacts of many types of commercial uses have declined as intensive manufacturing and other industrial uses with nuisance-level noise, smoke, odor, and dust have become less prevalent. This means that for most commercial uses being located near residential uses is less likely to cause conflict.

In parallel, the negative effects of commercial-only strips began to be evident: they provide limited opportunities for community building, are inefficient uses of land, and foster auto-dependent travel and land use. A shift in City policy and regulations began to see residential components added to Dorset Street in the 1990s and subsequently to the Farrell Street areas in the 2000s. Most recently, the City has placed an emphasis on mixed use development along

the Shelburne Road Corridor, and along Williston Road west of Hinesburg Road/Patchen Road.

As our needs for housing increase and we pursue goals to reduce vehicle miles traveled, increase walkability, and create vibrant spaces in South Burlington, the timing is appropriate to review past policy and consider assigning more areas of the city to allow a mix of uses. This Plan opens the next iterations of this evolution: considering allowing some residential activity with certain business parks and, in parallel, reviewing whether some areas of the city should be reserved only for certain industrial and heavy commercial activities that are truly incompatible with housing.

As noted, very few areas of South Burlington originally developed as true mixed-use areas. South Burlington is intentionally changing that pattern. The deliberate and long-standing goal to develop City Center into a vibrant, walkable downtown with dense residential uses, pedestrian-scale commercial uses, and inviting public spaces is the first intentionally mixed-use environment to be constructed. This is facilitated in part by the fact that the core portion of City Center was effectively unbuilt until recently.

A parallel effort and evolution of landscape in underway along the Shelburne Road corridor. The future of South Burlington will include City Center, and similar spaces and intentional development in other areas including nodes along Shelburne Road. It will take continued, focused effort by the City to fully establish City Center, but the next focus should be other development areas for similar projects.

BALANCED MIXED RESIDENTIAL AND COMMERCIAL: HIGH-SCALE AREA GOALS

Goal 77: Create cohesive, diverse, dynamic and people-oriented places with a strong identity and "sense of place"

Goal 78: Establish urban-style vibrant streetscapes, civic spaces, public art and public facilities to create a destination

Goal 79: Support mixed-use development that realize the vision of this Plan

BALANCED MIXED RESIDENTIAL AND COMMERCIAL: HIGH-SCALE AREA ACTIONS

Action 129: Minimize overall demand for parking through design, regulations, and investments that foster pedestrian, bicycle, and transit use and provide efficient, aesthetically pleasing shared parking options

Action 130: Focus infill and redevelopment in these areas and at a higher scale and urban-level of density

Action 131: Support existing businesses and affordability of commercial spaces

Action 132: Develop vibrant streetscapes and public gathering spaces to enable events and community gathering

Action 133: Incorporate green spaces, street trees, and other strategies to reduce the heat island effect

Action 134: Streamline regulations and explore options to incentivize development in line with the vision of this Plan

Action 135: Establish future Right-of-Way standards for streetscapes

Action 136: Align landscaping and lighting land development regulations with this Plan to build quality public spaces and compact mixed-use communities

ANALYSIS AND OBJECTIVES

Balanced Mixed Residential and Commercial: High-Scale areas, including City Center, rely on robust public living spaces for residents and visitors. These areas will orient development to community-oriented, pedestrian-scale, small public areas to develop a network of walkable park and public amenity spaces with a full slate of events, programs, and private rentals. Utilization of existing properties and amenities, like the University Mall property, also provides opportunities for redevelopment and private investment in public-oriented events, programs, retail, and restaurants open into the evenings. Utilization of public rights-of-way for street events and public art adds to the sense of the streetscape being a community living room.

These areas will be, with investment and focus, South Burlington's urban areas. Businesses and residences will be co-located and complementary to each other. Small commercial establishments, like cafes, coffeeshops, locally-owned retail, small offices and startups, and innovative commercial spaces, serve the dense residences above and around. Signage, parking, public spaces, and public art are more urban in scale, type, and character. Landscaping should be thoughtful and maintain a healthy tree canopy and streetscape while recognizing the urban character of the area. Residents here will be able to walk, bike, or take transit to employment, shopping, and entertainment. These areas should be well connected by transit and be hubs for both the transit system and bike/ped network. Parking is intentionally required to be behind buildings and designed to serve the area, not individual businesses. This will also improve walkability and urban appearance.

These formerly commercial areas share common challenges. The current built environment consists principally of large-lot development, larger-format single story buildings with parking in front. Sidewalks have been installed along the principal roads, but the street rights-of-way remain dominated by vehicular travel lanes with minimal green strips and limited presence of street trees. Off the principal roads, pedestrian facilities exist only in part. Park space is limited and, where they are do exist, they are not directly accessible from the commercial areas.

Even considering those challenges, the opportunity for re-development in these areas is substantial and is being realized parcel by parcel. South Burlington has invested significantly in City Center and invested in infrastructure projects that will support realizing the vision of City Center through TIF District financing. It has to be a primary goal of the City to support growth within the TIF District to reach the revenue target to finance these projects.

COMMERCIAL WITH SUPPORTING USES AREAS

While the City's principal transportation corridors – notably Shelburne Road and Williston Road west of Kennedy Drive/Airport Drive – have begun a transition to mixed use areas, the City has many areas that are presently exclusively commercial/industrial. These include Technology Park, Tilley Drive, the Meadowland Business Park, Kimball Ave, the east end of Williston Road, and areas north of the Airport, among others.

COMMERCIAL WITH SUPPORTING USES AREA GOALS

Goal 80: Reduce commuting distance and daytime vehicle travel by integrating supporting services to commercial areas

Goal 81: Make commercial areas more diverse in spaces, styles, and uses to enable more nimble commercial use

COMMERCIAL WITH SUPPORTING USES ACTIONS

Action 137: Evaluate existing business park areas for appropriately integrated housing opportunities

ANALYSIS AND OBJECTIVES

In recent decades, most business uses have become quieter and less noxious, like retail, office space, and light manufacturing. For most modern commercial uses, being located near residential uses is less likely to cause conflict. As the need for housing has increased and the desire (for many reasons) for people to live closer to their workplaces has increased, planning for commercial areas also must shift to allow more residential uses in formerly commercial-only areas. The timing is appropriate to review past policy and consider assigning more areas of the city to allow a mix of uses.

It is not the intention of this plan that commercial areas will transform to residential areas. Instead, we recognize that some limited residential uses will enhance and support the future of our primarily commercial areas. In these areas with more commercial visual character, housing may take on a non-traditional appearance and have more flexibility for innovative design to fit with the area.

In addition to adding mixed/residential use to commercial areas, the commercial areas need to adapt to the future of work, employment, and commuting. Many of our commercial areas are not well connected to the bike/ped transportation network or are located on busy transportation corridors that could be improved for bike/ped safety and efficiency. Business parks are designed for large buildings on large lots. These spaces are necessary, but we must also have a healthy range of building sizes, lot sizes, and intensities of building on commercial lots. South Burlington needs to have land, lots, and buildings that accommodate a range of commercial entities from small retail shops to startups to large manufacturing. A sufficient supply of commercial spaces will ensure commercial costs remain competitive. Maintaining such a supply requires planning for land and space for those uses.

COMMERCIAL/INDUSTRIAL AREAS

Some important commercial and manufacturing uses are still traffic-generating and noise-generating. These uses are not compatible with being located near residential uses. For that reason, South Burlington proposes to reserve areas for heavy commercial/industrial uses only. This allows space to remain for heavy commercial uses in the future, instead of having no areas available for future flexibility. These uses should include uses with heavy truck traffic (especially if 24/7) or large-scale manufacturing or airport-related operations with peak operations at off-hours that would be disruptive to residential character. Generally, these kinds of uses are located on larger lots and with similar kinds of uses.

These areas on the future land use map are the areas that make the most sense to be dedicated to industrial/heavy commercial uses only. They are currently primarily or fully commercial, are located farther from currently residential areas or planned mixed use areas, and are compatible with heavy commercial and industrial uses.

COMMERCIAL/INDUSTRIAL AREA GOALS

Goal 82: Enable future businesses with operations incompatible with housing to locate in South Burlington

COMMERCIAL/INDUSTRIAL AREA ACTIONS

Action 138: Identify and plan for areas of the ity to be reserved exclusively for businesses that must be located away from housing, such as uses with heavy truck traffic and/or 24-hour operation

PRINCIPALLY CONSERVATION & OPEN SPACE AREAS

South Burlington's landscape was dominated by agricultural uses in the 19th and first half of the 20th Centuries. No land was set aside specifically as State or Federal park or forest land in South Burlington. Over the last half century, the City and its partners have acquired or placed conservation easements on a number of parcels throughout the city, including land conserved by the Vermont Land Trust. Regulations establishing conservation zones, including landscape-level habitat blocks, habitat corridors, and agricultural land, and resource-level requirements for floodplains, river corridors, steep slopes, and wetlands have complemented these efforts.

Key landowners, including notably the University of Vermont, hold substantial tracts of land that remain open and/or used for educational purposes.

PRINCIPALLY CONSERVATION & OPEN SPACE GOALS

Goal 83: Appropriately conserve ecologically-important lands through acquisitions and/or partnerships, as consistent with the other Goals in this Plan

Goal 84: Allow for landowners to make use of their land with conservation, agricultural, renewable energy development and/or very limited residential use

Goal 85: Maintain farmland open and available for agricultural use — principally food production — and seek opportunities to establish small-scale farms

Goal 86: Maintain generally visually open character of the area

PRINCIPALLY CONSERVATION & OPEN SPACE ACTIONS

Action 139: Support landowners in applications for Conservation PUDs

Action 140: Work actively with non-profit, governmental, and private partners in conservation projects

ANALYSIS AND OBJECTIVES

Approximately 51% of South Burlington (by lot) is currently not developable due to permanent legal conservation or regulatory protection. However, the built area is not all currently built on with asphalt, buildings, or other structures – there is significant underdeveloped land and opportunity for infill in the developed areas. Because of this potential and the goals to enable more compact development to promote vibrancy in South Burlington's neighborhoods and commercial areas, there are significant areas of the city that can remain undeveloped. This flexibility paired with the environmental, quality of life, and climate change mitigation benefits of having open space and recreational space, allows the City to prioritize conservation.

These areas, however, are not necessarily pristine. Many have had a century or more of heavy use and are, in many cases, prone to erosion or to invasive species impacts. How these lands are used by members of the community (whether privately owned or public-owned) is also an important discussion for the future. The City has allocated certain areas of the City to remain unbuilt without significant development. Some of these areas are appropriate for recreational (active or passive), agricultural uses, or environmental restoration. Conservation areas should allow only extremely limited residential development on a minimal number of lots, will not have sewer and water lines and connections, and are not priority areas for transit, bike/ped infrastructure (except to access Citywide recreational amenities like Veterans Park), further public safety service and infrastructure, or commercial development (except in very limited village centers).

GEOGRAPHIC LAND USE AREAS

CENTRAL AREA

The Central District is the planned civic, social, and economic core of South Burlington. It includes the core area of focus along Market Street and Garden Street where in 2021 the new City Hall and Library were built, the Williston Road corridor from I-89 to Hinesburg Road, the north Dorset Street corridor, and the Hinesburg Road corridor north of Kennedy Drive. The area also includes Rick Marcotte Central School. The vision for City Center is to create a true downtown including an integrated mix of civic space, housing, retail/services, and employment that is a primary focus point for compact, walkable development. The Central District will support City Center's transition to surrounding residential areas, like the Brookwood and Barrett Street neighborhoods.

CENTRAL AREA ACTIONS

Action 141: Continue to focus City resources on nimbly developing City Center as South Burlington's downtown

Action 142: Create a village streetscape, including a village green

Action 143: Encourage highest-scale use in City Center

Action 144: Actively program and support events in City Center public spaces throughout the year

Action 145: Support the establishment of a Main Street-style, community-based organization to nurture, promote and otherwise support City Center

Action 146: Evaluate and update form-based code and Land Development Regulations as needed to adapt over time

ANALYSIS & CHALLENGES

City Center.

The core of the Central District is City Center. Vision for a dense, walkable, vibrant City Center appeared in the 1985 Comprehensive Plan and has been adapted over time. The creation of City Center is a unique opportunity to build South Burlington's identity and create a new, recognizable destination. City Center will anchor the entire city and play an important role in meeting demand for a human-scale destination home to smaller-scale commercial spaces, multi-family housing, and park and civic space through new construction and infill redevelopment.

Reconstruction of Market Street and Garden Street, construction of hundreds of multi-family homes on Market Street and Garden Street, construction of South Burlington City Hall and Library, and purposeful reinvigoration of retail spaces advances the long-term vision for this area. Market Street and Garden Street will connect the existing corridors of Williston Road, Dorset Street, and Hinesburg Road.

Public and civic space in City Center will be a walkable network of small, programmable spaces. This will include parklets and gathering spaces, but also a street network capable of supporting block closures for events. Public art will add to the welcoming streetscape. The network will be connected by the shared use path through City Center Park, wide and pedestrian-friendly sidewalks throughout the area, and low-speed roads.

As City Center develops, the City must keep an eye on maintaining affordability of housing and commercial spaces in the area. High-quality infill could raise prices of neighboring homes and

commercial spaces. The City needs to explore additional methods for retaining and constructing new affordable housing and commercial spaces in the core of City Center.

Use of commercial areas, parking lots, underused land, and other areas in the Central District needs to be done in a compact, walkable, and welcoming manner to discourage driving short distances within City Center. Traffic along Williston Road and Dorset Street is generally heavy and current surface parking patterns has discouraged walking and multi-modal transport. Compact, pedestrian-friendly urban areas must prioritize pedestrians, cyclists, and transit. Slowing vehicular traffic on most roads in City Center and the Central District can encourage safety and a welcoming walkable environment.

Existing Commercial Uses

This area includes historic commercial strip development along Williston Road, historic industrial area on San Remo Drive, and the existing University Mall and surrounding commercial complex. Currently, small commercial/retail establishments along Williston Road and Dorset Street host small and/or independent businesses. Larger retail centers (the University Mall and Blue Mall), hotels, and grocery stores anchor the Dorset Street corridor.

The existing land use pattern in the City Center area opens the door for infill and redevelopment. New commercial and residential uses will complement and support existing businesses. Multi-family housing with ground-floor commercial will provide new opportunity for small business development and add significantly to South Burlington's housing stock. Over time, current strip development will be modernized, replaced, or infilled with compact, efficient, walkable commercial uses. Buildings with historic character should be reused as possible, especially for restaurant and consumer retail spaces. However, we must continue to focus on locally-owned businesses that currently use some of the smaller and lower-cost commercial spaces and make sure they have homes into the future.

Transition Areas. Adjacent to City Center, the Central District transitions from the Balanced Mixed Residential and Commercial: High-Scale City Center to the wider Principally-Residential community. Residential neighborhoods surrounding the primarily commercial core should remain visually residential, but may begin to incorporate small-scale commercial uses. Connection between City Center and the rest of the Central District can be challenging due to wide principal arterial roads (Williston Road and Dorset Street) that are barriers to safe pedestrian and other non-vehicular travel.

The Central District around City Center must appropriately transition to adjacent areas. Nearby neighborhoods provide a built-in market for commercial uses in City Center and City Center provides new walkable destinations from these neighborhoods. This symbiosis requires reinvestment in the Williston Road corridor for improved pedestrian crossings and functional and attractive streetscape and increased private investment in private businesses along the corridor. Williston Road will prioritize the experiences of pedestrians, bicyclists, and other users by reducing traffic speeds and improving connections and welcoming aesthetics. Updating and adapting GMT bus service will connect City Center with the greater transit network.

Infrastructure Investment & State Designations

This area has State-level designations for a New Town Center and a TIF District that support compact, pedestrian and bicycle-friendly infill development. The TIF District allows anticipated tax revenue to be invested in critical infrastructure projects to improve public infrastructure in the area. Full utilization of the Tax Increment Financing District supports transportation infrastructure improvements, including the redevelopment of Market Street and Garden Street, Williston Road streetscape improvements, and the East-West Crossing over I-89. The Central District includes the larger State-designated Neighborhood Development Area around the New Town Center. State designations are shown in Map 10.

NORTHWEST AREA

The Northwest Area includes multiple distinct residential neighborhoods bounded by Burlington to the west, I-89 to the south, the Burlington International Airport to the northeast, and industrial/open space areas to the east. The Central Area is contained within this larger Northwest Quadrant and is discussed separately. The Northwest Area includes distinct neighborhoods like Mayfair Park, Pine Tree Terrace, Chamberlin, O'Brien Farm, northern Spear Street, East Terrace, Valley Ridge, Tree Tops, Twin Oaks, Winding Brook, and others.

NORTHWEST AREA ACTIONS

Action 147: Create transitions from the Burlington International Airport in areas identified for redevelopment that serve or buffer nearby neighborhoods; establish a community vision for the future of this area

Action 148: Explore opportunity for appropriate residential and commercial infill along Williston Road

Action 149: Engage in a holistic community-driven planning process for the land in South Burlington owned by the City of Burlington as part of, related to, or in proximity to Leahy Burlington International Airport, with particular focus on the lands abutting the Chamberlin neighborhood

Action 150: Explore context-sensitive infill opportunities along Williston Road between Hinesburg Road and Kennedy Drive

ANALYSIS & CHALLENGES

The Northwest Quadrant consists predominantly of residential neighborhoods dissected by several major transportation routes. Most neighborhoods north of Kennedy Drive are primarily single- and two-family homes on typically one-quarter acre lots developed mostly between 1945 and 1970. One neighborhood, Quarry Ridge, was built in the 2000s. Neighborhoods immediately adjacent to Kennedy Drive were built beginning in the 1970s and are primarily multi-family homes. The Old Farm Road area is currently being constructed as a mixed residential neighborhood with single-family through multi-family homes, including Eastview, a 100% fossil fuel- and carbon-free microgrid community.

The Northwest Quadrant contains few unbuilt areas for future neighborhoods, but does contain a handful of larger individual parcels with infill potential with or without buildings on them and several areas with above-average-size house lots.

Transportation Connections

Williston Road, Kennedy Drive, and I-89 provide transportation links and fragment the area. These roads also separate the Northwest area from the Central, Southeast, and Northeast Areas. The principal streets that currently carry high traffic volumes can be difficult to cross for pedestrians, bicyclists, and wheelchair users and do not always contain sidewalks. This disconnects established neighborhoods from City Center and hinders the walkability from these neighborhoods to services, retail, restaurants, and events. Specific to the Chamberlin neighborhood, White Street and portions of Airport Parkway are considered collector streets linking Route 15 northeast of the city to employment centers and neighboring towns.

The Williston Road corridor serves multiple purposes, but the City's goal is to have it serve the needs of South Burlington first. Williston Road west of Hinesburg Road in the Central Area should serve human-scale commercial goals. East of Hinesburg Road, in the Northwest area, Williston Road accesses primarily residential areas on both sides, with interspersed commercial development fronting on the road. This area is one of the best-served by transit in the city and

could support additional residential and small-scale commercial use in a way that respects current context. It also is the primary route east to the Leahy Burlington International Airport and Williston, giving it more of an arterial use and feel. Infill use and reuse should be human-scaled and inviting with appropriate and safe access for residents.

The plan's future transportation map (Map 6) includes future potential connections including an east-west street parallel to Williston Road from Patchen Road towards Dorset Street. The City is in the process of design and construction of the East-West Crossing, a bike/ped bridge across I-89 that would connect Quarry Hill and East Terrace with City Center and the rest of the Northwest area of South Burlington. The City is also planning to realign Airport Parkway to connect directly to Airport Drive and remove commuter and airport traffic from the residential neighborhood.

Interface with the Airport

The interface between the Leahy Burlington International Airport and the adjacent Chamberlin neighborhood has been a community issue since the construction of the neighborhoods primarily in the 1940s through 1960s. Between the 1990s and 2016, the Airport purchased and removed approximately 200 homes from one of South Burlington's older and more affordable neighborhoods within a noise contour line of 65 decibels (average day-night, or dnl) as a principal voluntary strategy of the Airport's noise compatibility plan. Some homeowners within the original 65 dnl elected not to not sell, leaving scattered homes amongst the now-vacant lots. While the properties have been cleared, graded, and maintained, the loss of these homes has left a wound in the neighborhood. It also left the challenge of planning for future use of the now-vacant land.

Following substantial community engagement and collaboration between the cities of South Burlington and Burlington, the Airport received approval from the FAA to conduct sound insulation for all eligible properties. The Sound Insulation program began in 2022 and includes 810 homes in South Burlington to be evaluated for possible insulation. It is a voluntary program offering insulation to eligible homeowners and implemented if accepted.

In 2015, the City, in collaboration with the CCRPC, School District, and Airport, initiated a Chamberlin Neighborhood Airport Vision & Plan project. It strived to establish productive communications between the Airport and the neighborhood and to develop a neighborhood land use/transportation plan that retains affordable housing and connects the neighborhood to development of City Center. Many of these goals appear in the Chamberlin Neighborhood Area Plan Report. Some have been implemented, but many more remain. Implementing these in the coming years can meet this Plan's objective to support thriving a neighborhood in the Chamberlin area.

In 2016, the City Council provided feedback to the Airport supporting planned relocation/realignment of Airport Parkway at least 300 feet from the remaining neighborhood. This is approximated by the pre-2016 65-db line. This Plan reflects these recommendations while also taking into consideration headwaters of the Centennial Brook.

In 2022, an Airport Rezoning Task Force set up by the Planning Commission considered the Airport's request to rezone approximately ten acres of land east of Airport Parkway around Kirby Road Extension. The Task Force made a series of findings, recommended the Planning Commission not rezone the area at this time, and offered the following next step to the Planning Commission.

> *Further community-driven planning for all the land in the City of South Burlington owned by the City of Burlington as part of, related to, or in proximity to BIA is needed, along with updates and revisions to the South Burlington Comprehensive Plan to incorporate the recommendations of the Chamberlin Neighborhood Land Use and Transportation Plan and subsequent work.*

Based on the 2016 City Council recommendation of 300 feet and the recommendations of the 2022 Airport Rezoning Task Force, the City will engage in a community-driven planning process for the future of the lands east of the potential path of a relocated Airport Parkway, which is 300 feet or more from the neighborhood (delineated by the former 65db line) except near where it connects with current Airport Parkway. This Plan designated the wide strip between the potential realignment and the neighborhood as an open, green, park-like space. The Airport and City are advancing a project to incorporate amenities such as trails, community gardens, and rest areas for residents and travelers to use.

Currently, retaining the future possibility of adding housing in this area is important to holding options open. Using today's green space and path connections does not preclude future housing possibilities if housing becomes appropriate for this area again. A holistic community-driven planning process will engage with members of the Chamberlin neighborhood, South Burlington residents, and other stakeholders to determine what current use of the area would be compatible with the community's current needs, how to add more vibrancy back to this area, and how and where to retain future housing options. Incompatible airport-related uses should not be allowed to negatively impact the neighborhood. This process will allow residents to shape the community vision for this area as it integrates with the existing neighborhood, the airport area, and the Northwest Area as a whole.

Using the potential location of realigned Airport Parkway as the delineation between the committed-to green/park strip does not commit the City to constructing that realigned roadway. It is a logical divider that meets the 300-foot recommendation and reserves space for a realigned road. Commuter traffic from Colchester, Winooski, and Essex to Williston Road and the nearby commercial areas have increased traffic on traditionally residential streets in this area. As the City considers how to meet transportation and land use needs of the Airport and City, consideration should be given to minimizing through-traffic on residential roads.

UVM Interface

The Northwest Quadrant includes the University of Vermont along Spear Street and along Patchen Road abutting residential neighborhoods on Spear Street, East Terrace, and in the Quarry Hill neighborhood. These areas are physically close to UVM's athletic facilities and student housing, and are home to students and faculty in the neighborhoods. The City and UVM should work together to develop long-range plans for this area. UVM has also partnered with private developers to invest significantly in new housing in City Center. These residential/commercial buildings will inject significant population into City Center and also provide first-floor commercial spaces.

NORTHEAST AREA

The Northeast Area stretches from Lime Kiln Road to I-89, including the Leahy Burlington International Airport, the eastern portion of Williston Road, Technology Park, Tilley Drive, and Meadowland Business Park.

NORTHEAST AREA ACTIONS

Action 151: Foster the establishment of high-density business, technology, and mixed use centers, recognizing the importance of this area to the economic and employment health of South Burlington

Action 152: Promote consumer-oriented commercial along transit lines, especially on Williston Road, through potential amendments to the Land Development Regulations or non-regulatory means

Action 153: Reserve the land space for a potential Exit 12B for consideration by future generations

Action 154: Connect Tilley Drive area to Community Drive and Kimball Avenue area

ANALYSIS & CHALLENGES

Land use is predominately commercial, with Ethan Allen Industrial Park north of the Airport, retail and services along Williston Road, offices along Kimball Avenue and Community Drive, and medical facilities along Tilley Drive. Southern sections, like Technology Park and Meadowland Business Park, are a mix of open land and businesses. The Airport property includes commercial and private aviation facilities, Federal military facilities, and airport-related businesses. Large lots in this area are designed for large-footprint industries and offices.

The Area includes a handful of residential areas, notably the Country Club Estates neighborhood north of the airport, two small neighborhoods along Shunpike Road and Milham Court, and new neighborhoods along Old Farm Road. The Area is also home to the Belter Farm, located adjacent to and within the Winooski River floodplain that forms the northernmost corner of the city.

Transportation Connections

The Northeast Area is largely automobile dependent, lacks sufficient transit connections outside of the Williston Road corridor, and needs further bike/ped connections. Shared use paths have been added in the Community Drive and Tilley Drive areas, and lanes have been established along Williston Road and portions of Kimball Ave and National Guard Road, but connections are sparse. Commuter traffic, truck traffic, and airport traffic from Williston, Essex and Colchester to the north (and access to I-89 at Exit 15) to Williston Road travels through a neighborhood road network. Potential improvements and realignment of the Airport Parkway/Airport Drive corridor could relieve some of this pressure through the neighborhood.

Access to and within the business parks and adjacent neighborhoods is not sufficient to meet long term needs; this was assessed in the 2020 VT 116/Kimball Ave/Tilley Drive Land Use and Transportation Plan. The Plan identifies improvements to accommodate anticipated growth in a manner that implements the City's transportation mode goals.

Infill

The predominant land use pattern in the Northeast area is large lots with large commercial users and extensive parking. There is significant open area around and between the existing commercial buildings, including on the large parking lots, that is available for infill development. Smaller commercial buildings and related uses could be constructed in between, making the entire area more walkable and efficiently used.

Diversification of Uses

Use of the Northeast Quadrant has focused on businesses that are compatible with an airport and/or not be easily compatible with residential areas. Future land use should continue to focus on employers and ancillary services. Employment concentration in this quadrant has increased demand for support services such as restaurants and childcare facilities. Limited commercial-supporting residential use may be appropriate for some of this area.

Commercial and industrial uses that truly are incompatible with homes need a place in South Burlington. Reserving space for heavy industrial uses and trucking-reliant uses with noise and operating hours that would negatively impact residential users is key to keeping our commercial options open. Such areas are rare in the core of South Burlington and should be appropriately located adjacent to transportation and away from homes. Generally, these areas are on the east

side of the Meadowland Business Park, the southeast side of Technology Park, and immediately around the Airport. Additionally, the Ireland Quarry continues operations along the interstate near the Muddy Brook, accessed through Williston.

The Northeast Quadrant comes into contact with residential neighborhoods in a handful of key places, notably to the west and northeast of the Burlington International Airport. Sufficient transition tools – in the form of lower intensity uses, buffering, or screening – should be provided to foster the continued compatibility of these areas. These residential areas must be buffered from the incompatible uses, but also integrated into improvements to the bike/ped network and connected to nearby consumer-focused commercial areas. This area should be well-connected to City Center by a pedestrian- and transit-friendly east-west corridor.

The City intends to reserve land area for a potential future Interstate interchange ("12B") accessing Hinesburg Road. There is no current intention for construction of Exit 12B, but reservation of space for future generations to have the option is sound planning practice. This subject is discussed further in the Transportation Chapter of this Plan.

SOUTHWEST AREA

The Southwest Quadrant stretches from Lake Champlain to Spear Street, including Red Rocks Park, Queen City Park, Holmes Road, Swift Street, Allen Road, the Orchards, and Stonehedge, among others. Long-standing single- and multi-family neighborhoods, natural areas fronting Lake Champlain, light industrial areas, and commercial areas all connect via the Shelburne Road corridor.

SOUTHWEST AREA ACTIONS

Action 155: Connect and transition residential, mixed-use, and commercial areas to create a better sense of identity, local use, and place

Action 156: Reconnect community across major transportation corridors to build cohesiveness and connection

Action 157: Improve local neighborhood connection across the Shelburne Road corridor and I-189

Action 158: Improve transportation connections parallel to Shelburne Road to connect neighborhoods, schools, parks, and commercial areas

Action 159: Establish a hub of activity & public gathering place along Shelburne Road Corridor

Action 160: Establish a community-level park along the Shelburne Road corridor

Action 161: Establish mixed-use nodes at intervals along Shelburne Road through innovative land use tools, changes in regulations, increased heights, and investment in public facilities

Action 162: Explore opportunities for community access to undeveloped shoreline along Lake Champlain

ANALYSIS & CHALLENGES

The Shelburne Road corridor consists predominantly of commercial uses. Residential and industrial uses are mixed throughout the area and appropriate mixed-use development is encouraged. Shelburne Road is the main north-south arterial through the west side of Vermont. A railway runs parallel to the road dividing the lake-facing neighborhoods and the Shelburne Road corridor. The Farrell Street area is a well-developed mixed-use area served by transit, retail, employment, and emergency services.

Reconnection of Residential and Mixed-Use Areas

The Southwest area has a long strip of residential areas east of Shelburne Road and some residential use west of Shelburne Road separated by the road itself and commercial strip development. Future use and reuse of properties along Shelburne Road should accommodate both local and regional users and provide bike/ped connection to the neighborhoods. Consumer-oriented and pedestrian-scale commercial uses will support the neighborhoods' future thriving. The neighborhood residential uses could support small, locally-oriented businesses along corridor, counterbalancing the regional draws of large stores, car dealerships, and gas stations. Re-connecting the neighborhoods with the commercial areas would support the thriving of both.

The Farrell Street area has housing, retail, and services. The future of the Farrell Street area includes creating a recognizable node of activity by adding additional housing, green recreational space, and neighborhood-supporting commercial, and replacing existing parking lots with mixed use buildings. The Eastwoods area to the north is not intended to be replaced with higher-scale use, but it does support and is supported by the nearby retail, restaurant, and service uses. The Orchards neighborhood borders the mixed-use Shelburne Road corridor. In The Orchards, the neighborhood and the commercial strip feel disconnected and function as two separated areas. Future investment along Shelburne Road supports the vitality of The Orchards neighborhood by connecting residential areas and supporting walkability, bikeability, and transit. Planning for recreational areas and community gathering spaces is critical to quality of life in that area.

Mixed Use Corridor

The Shelburne Road corridor is generally already developed, so growth will mostly occur as infill or redevelopment. Encouraging mixed-uses along Shelburne Road will reduce vehicle miles traveled by residents for services, retail, and possibly employment, attract visitors to retail and restaurants, encourage use of public transportation services, and reduce parking needs. Retail uses in the corridor are intended to meet both local and regional shopping and employment needs.

Along the Shelburne Road corridor, large properties with large commercial businesses leave significant unused or underused space. This includes the Hannaford Drive area, several car dealerships, and the large commercial buildings on IDX Drive and Green Mountain Drive. Infill development and redevelopment should be encouraged in this prime commercial corridor.

Shelburne Road (US Route 7) is State owned and controlled. It is the primary north-south travel route along Vermont's western corridor. Use will remain both regional and local. The City supports the continued implementation of pedestrian crossings at intersections, improved bike/ped lanes and safety along Shelburne Road, and has promoted the development of a parallel route, Fayette Drive, to serve local needs alongside Shelburne Road.

The rail line runs north-south here and provides a significant long-term opportunity. Future land use must continue to reserve space for direct rail access by adjacent commercial properties and to design development to minimize the visual, noise, and other impacts of the railway.

Lakefront Neighborhoods and Access

Along the lakefront area, residential and open space uses should continue to predominate, but with improved public access to Lake Champlain. A shared use path should be established in this area, either along the lake or parallel to the railroad tracks, to connect to Burlington and Shelburne. A large minimally-developed property remains bordering Lake Champlain. With adoption of Conservation PUDs and the Habitat Blocks, and expansion of wetland and river corridor protection, several natural resources on the property have now been protected. A public park appears on the current Official Map in this area and should be considered to complement Red Rocks Park.

East of the Shelburne Road corridor, Principally Residential: Low Density areas predominate and will into the future. The intersections of Swift Street and Allen Road with Shelburne Road are part of the Shelburne Road corridor and are planned for principally commercial use.

SOUTHEAST AREA

The Southeast Area (commonly called the Southeast Quadrant or SEQ) is bounded by Spear Street to the west, Interstates 89 and 189 to the north, the Williston town line to the east, and the Shelburne town line to the south.

SOUTHEAST AREA ACTIONS

Action 163: Assess and manage interface between human use and wildlife use areas

Action 164: Balance low-scale residential uses, City-wide recreational assets, and environmental protection

Action 165: Continue to support working lands in this area

Action 166: Complete walking network

ANALYSIS & CHALLENGES

The SEQ contains a variety of land uses, including significant natural areas, open land used currently or historically for agriculture, the Vermont National Country Club (which is both recreational space and visually open land), and significant numbers of existing and permitted homes. The SEQ contains areas of Principally Residential: Lower-Scale, Principally Residential: Higher-Scale, Principally Commercial, and Conservation land uses.

The landscape of the SEQ is characterized by rolling hills and visibly open spaces, created by roadways on ridgelines, recreational lands, agricultural lands, conservation areas, and the golf course. Taken together, a significant amount of the land in the SEQ is the Conservation land use type, with other uses, especially Lower-Scale Residential, located near roadways and existing developed areas.

City Recreational Assets

The SEQ contains most of the City's large recreational assets which all require greater, more equitable access from the rest of the city. The need for recreation and open space opportunities continues to grow City-wide. As discussed more fully in the Recreation section, the community needs varied recreation space, both by use and by size/focus (Citywide, neighborhood-scale, etc.). Veterans Memorial Park and Wheeler Nature Park are important community gathering places for the entire City, with constant use for active and passive recreation, community gardens, community events, a dog park, and hub of recreation path connections, but it lacks transit connection. Veterans is planned to continue to be used and updated primarily for active and organized recreation. The City intends to maintain Wheeler as a natural area, with unpaved walking trails the only type of improvement to be constructed within the property except in the Wheeler Homestead area. Hubbard Park conserves formerly agricultural land on the east side of Spear Street, is a key connector for the off-road bike/ped network in the SEQ, and is planned for accessible passive recreation. The City is committed to permanent conservation of the City-owned Wheeler Nature Park and Hubbard Park properties for preservation of the natural communities, recreational opportunities, scenic views, and open space provided by the Parks for the public and will be pursuing that conservation in the near future. The City also acquired the 40-acre Scott Property, which lacks transit connection, safe and welcoming bike/ped connection, or signage and amenities for recreational access. The Scott property, part of "The Bowl" area identified for conservation, is planned to be part of a conserved network of natural areas and farmland with public walking paths extending south to Shelburne Pond.

Housing and Commercial

Most new housing built in the SEQ since 1992 has been built at an overall density of 1.2 housing units per acre clustered at 4 housing units per acre. Clustering has changed development patterns, away from the standard, larger-lot developments like Butler Farms, Oak Creek, or Ledge Knoll to a more compact pattern exemplified in Stonehouse Village. Building neighborhoods at higher densities and utilizing underused land in the built areas conserves more open space lands. This also can lead to better integration of affordable housing, with smaller single-family homes, duplexes, and multi-family buildings on smaller lots. Adopting of Inclusionary Zoning requirements city-wide now requires affordable housing to be built in any project twelve units or larger.

Commercial uses are concentrated near the Mill Market & Deli on Dorset Street and along Hinesburg Road. The area immediately around the Mill Market & Deli property has been planned to be a small retail and service sub-district, limited in size and type, and neighborhood-focused.

Views and Visibly Open Spaces

The SEQ affords some of the City's most scenic views of the Adirondacks, Camel's Hump, and the ridges and valleys stretching south to Shelburne Pond. The City has protected what are deemed to be the most important public views from existing and proposed public properties through the View Protection Overlay Zone (VPZ). The Vermont National Country Club contains 450 acres straddling Dorset Street from Swift Street south to Nowland Farm Road, including residences, an 18-hole golf course, and a clubhouse complex. This large and very visible golf course has helped protect wetland areas from encroachment and has kept land visually open.

Large commercial agricultural uses (like monocropping or dairy production) are generally not commercially viable in the SEQ. However, Common Roots Farm (in South Village) and Bread & Butter Farm (on Cheesefactory Road) have developed richly varied agricultural operations integrating different ventures like vegetable, flowers, and meat production with education, community events, and food service.

Wildlife Interface with Humans

The land development pattern in the Southeast area makes it the most likely place for significant interaction between wildlife and humans. Human roads run through the area and in some places interrupt wildlife corridors and habitat. Backyards abut wetlands used by wildlife. Recreation areas and trails are used by humans and animals alike. Land use, recreation, and transportation decisions for this area in particular should consider reducing potential interaction between humans and wildlife, including through thoughtful land use, transportation design like pass-through culverts, and on-leash dog rules in natural areas.

Shared Use Path Network

An integrated network of roadways, shared use paths, sidewalks, and walking trails must balance the needs of the City as a whole, the City's natural environment, and SEQ residents. The City cannot meet its climate change mitigation goals without reduction of personal automobile use through and around the SEQ. Shared use paths connect some areas of the SEQ, but they are primarily geared toward recreational users, not commuters or for transportation into commercial areas. Designing future shared use path connections in the SEQ must enable commuting and transportation in addition to recreational use. The City is engaging in a Bike/Ped Master Plan process to identify and prioritize missing connections and complete the bike/ped network citywide.

Transportation Options

With the relatively low residential density but relatively high distances to some residential

areas, the SEQ will remain at least partially dependent on passenger vehicles into the future. Spear Street acts as a quasi-rural corridor carrying substantial amounts of commuter traffic and serves needs of local residents. Community members have expressed a strong desire to keep Spear Street as two-lane throughout South Burlington with improvements to the Spear and Swift intersection and with better shared use path connections.

East-West and Neighborhood Connector Roads: East-west roads have been shown on the City's Official Map and included in the Comprehensive Plan for over 40 years and the network has been connected in pieces over time. Lacking connector roads lengthens school bus routes and emergency service responses, and disconnects neighborhoods. However, new roadways have environmental impacts and potentially create more cut-through traffic. Establishment of habitat blocks in 2021 and increased natural resources protection means that fewer east-west roads are viable.

NEIGHBORING MUNICIPALITIES LAND USE PLANS

CITY OF BURLINGTON

The City of Burlington adopted its current planBTV: Comprehensive Plan on March 25, 2019. Where Burlington and South Burlington border, especially on Patchen Road, Williston Road, Spear Street, and Shelburne Road/Street and surrounding areas, the land uses on two sides of the boundary are often very similar. The two Cities work closely on transportation, land use planning, and planning around our large institutions (notably UVM and UVMMC). Burlington is also planning for more housing, infill, greater focus on inclusion and equity, and a focus on human-scale environments.

The Plans for these two communities are compatible.

TOWN OF WILLISTON

The Town of Williston adopted its current Comprehensive Plan on August 22, 2017, with amendments adopted on November 5, 2018 and September 1, 2020. Williston borders South Burlington along Muddy Brook between the Shelburne Pond area and the Winooski River, forming South Burlington's eastern boundary. The Muddy Brook corridor is buffered by both communities, dividing development on the two sides by a strip of natural resource protection area.

Future land use in Williston and South Burlington are generally compatible along their boundary.

North of I-89, both municipalities include lands for commercial and industrial uses, including along Shunpike Road and Williston Road. Williston states: "3.3 – Industrial Lands- The Town of Williston will continue in its role as an industrial center and the site of the proposed regional landfill. The policies adopted here facilitate continuing industrial use with bylaw amendments and permitting of the landfill." In South Burlington, these areas are Commercial/Industrial Only or Principally Commercial with Supporting Residential.

South of I-89, both prioritize natural resources conservation and rural/low scale residential use, except at the location of the quarry located in South Burlington accessed from Williston. Williston states: "3.2- Rural Williston- The Town of Williston will maintain a rural character outside the sewer service area, and protect open space resources, including productive agricultural lands, open meadows, ridgelines, riparian corridors and wetlands, view corridors, and wildlife habitat." This is compatible with South Burlington's Principally Residential: Low-Scale and Conservation areas along this boundary.

South Burlington and Williston collaborate on numerous fronts, including emergency response, transportation corridors, and administration.

The Plans for these two communities are compatible.

TOWN OF SHELBURNE

The Town of Shelburne adopted its current Comprehensive Plan on February 12, 2019. Shelburne borders South Burlington along South Burlington's southern boundary. The communities are directly connected by Shelburne Road, Spear Street, Dorset Street, and Cheesefactory Road. West of Spear Street, both communities plan for low-scale residential use with mixed use along the Shelburne Road corridor. Shelburne states: "The Town aspires for [the Shelburne Road corridor] to feature more diverse residential and commercial uses, to enhance livability in surrounding neighborhoods, and to introduce community identity that will enhance arrival to Shelburne." This is very similar to South Burlington's goals for the Balanced Mixed Residential and Commercial: High-Scale areas, with an appropriate reduction in scale, and reflects many of the same challenges.

In the residential area, Shelburne states: "Pursuing new development in compact, walkable patterns establishes a framework for preserving watershed function and health, enables more compatible relationships among new and existing buildings and landscapes, and will help to retain the scenic integrity of abutting rural lands. Ideally, as neighborhoods develop in this area, housing should be sited to reserve spaces for neighborhood residents and children to gather and play." Again, this is very similar to the goals for Principally Residential: Low-Scale in South Burlington that border these areas in Shelburne.

East of Spear Street, both communities plan for some version of rural/very low-scale residential use with conservation. The two communities have partnered recently on large conservation projects in this area to support Shelburne Pond and the Great Swamp. For these areas, Shelburne states: "Some development is anticipated in the Rural Area, but it should be limited, of low density, and carefully sited to avoid negative impacts to scenic and natural resources. To prevent the undermining of irreplaceable town assets, the highest priority shall be given to identifying and preventing undue adverse impacts to the area's scenic and natural features and resources." This is compatible with South Burlington's adjacent Conservation areas.

South Burlington and Shelburne collaborate on multiple fronts, including emergency response, administration, natural resource conservation, and water quality.

The Plans for these two communities are compatible.

TOWN OF COLCHESTER

The Town of Colchester adopted its current Town Plan on March 26, 2019. A short section of the Winooski River forms the border between South Burlington and Colchester and the communities are connected by the Lime Kiln Road bridge between the airport area and VT-15.

Future land use immediately on the South Burlington side is categorized as Principally Residential: Higher-Scale with Commercial/Industrial Only nearer to the airport. Conservation area covers the Winooski River floodplain. On the Colchester side, the area is known as "The Fort" and Colchester states "The neighborhood is designated as mixed-use on the Future Land Use Map and the majority is zoned General Development Two." The purpose of General Development Two in Colchester's current Development Regulations is "To provide a range of commercial, light industry and compatible multi-family dwellings and related uses for the Fort Ethan Allen neighborhood and vicinity," which is compatible with South Burlington's neighboring areas.

South Burlington and Colchester continue to collaborate on a range of subjects including wastewater, administration, transportation, and emergency response.

The Plans for these two communities are compatible.

TOWN OF ESSEX

The Town of Essex adopted its current Town Plan on March 1, 2016. The two communities share a portion of the Winooski River as a municipal boundary but have no land or bridge connections. The boundary is largely floodplain on both sides of the Winooski River. The City and Town share similar and comparable goals for watershed and floodplain conservation.

The Plans for these two communities are compatible.

CITY OF ESSEX JUNCTION

The City of Essex Junction adopted its current Comprehensive Plan as the Village of Essex Junction on August 13. 2019. The two communities share a portion of the Winooski River as a municipal boundary but have no land or bridge connections. The boundary is largely floodplain on both sides of the Winooski River. South Burlington and Essex Junction share similar and comparable goals for watershed and floodplain conservation.

The Plans for these two communities are compatible.

CITY OF WINOOSKI

The City of Winooski adopted its current Master Plan on March 18, 2019. South Burlington and Winooski share a portion of the Winooski River as a municipal boundary but have no land or bridge connections.

The boundary is largely floodplain on both sides of the Winooski River. The City and Town share similar and comparable goals for watershed and floodplain conservation.

The Plans for these two communities are compatible.

2018 CHITTENDEN COUNTY ECOS PLAN

The Chittenden County Regional Planning Commission adopted the 2018 ECOS Plan on June 20, 2018. The ECOS Plan focuses primarily on smart development in areas planned for growth, investment in our transportation system (including supporting regional programs and connectivity), continued focus on the Building Homes Together campaign, assisting municipalities with enhanced energy planning, reduction in stormwater impairment and improvement in water quality, emergency management planning through All Hazards Mitigation Plan and related plans, supporting municipal efforts to improve community health, monitoring autonomous vehicles, coordinate between municipalities toward shared goals, and monitoring shift demographics and workforce development.

This plan is compatible with the ECOS plan. This Plan focuses on multi-modal transportation connections and investment, thoughtful infill in our neighborhoods, natural resource protection, renewable energy generation, affordable housing programs and regulatory approaches, emergency management, stormwater and water quality management, and collaboration with our regional partners.

APPENDIX A: ACT 174 ENHANCED ENERGY PLAN ADDITIONAL TARGET DATA

This guide supports municipal enhanced energy planning and provides the required data for the energy planning analysis and targets standards necessary to be considered for an affirmative determination of energy compliance by the CCRPC board.

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. Targets for intermediate years are also provided to aid each municipality with checkpoints along the way toward meeting these goals. Data used in this Plan may differ from data used in the City's Climate Action Plan (2022). Data used here specifically complies with Act 174 requirements.

Data in section A represents the best available data for understanding current energy use across transportation, heating, and electric sectors. Data in sections B and C establish future targets for efficiency improvements and renewable energy use in the heating, transportation, and electric sectors. Future targets are derived from the Low Emissions Analysis Platform (LEAP). LEAP is a transparent and user-friendly tool for energy and climate mitigation planning that was used to inform targets in the Vermont Global Warming Solutions Act of 2020 and the 2022 Vermont Comprehensive Energy Plan.

LEAP data consistent with the Global Warming Solutions Act and Vermont's 2022 Comprehensive Energy Plan are not available at the municipal level currently. The LEAP targets in this guide are consistent with the 2018 ECOS Plan's Metropolitan Transportation Plan scenario and the Vermont's 2016 Comprehensive Energy Plan. The cold climate heat pump, residential weatherization, and electric vehicle targets in this memo have been updated to align with the targets found in the South Burlington Climate Action Plan.

CURRENT ENERGY USE AND GENERATION

Table A2. Number of Homes Heating with Delivered Fuels, 2021

Number of homes heating with Fuel oil, Kerosene	803 homes (+/- 227)
Number of homes heating with Propane	462 (+/- 135)
Number of homes heating with utility gas	5,848 (+/- 392)
Number of homes heating with electricity	1,403 (+/-301)
Number of homes heating with coal	34 (+/- 54)
Number of homes heating with wood	103 (+/-86)
Number of homes heating with solar energy	18 (+/- 25)
Number of homes heating with other fuel	41 (+/- 47)
No fuel used	15 (+/- 24)

Sources: American Community Survey 2021 5-Year Estimate, Table B25040

Table A1. Current Municipal Transportation Energy Use

Fossil Fuel Burning Light Duty Vehicles, 2021	13,697
All Electric Vehicles, Year 2021	174
Hybrid Electric Vehicles, Year 2021	166

Sources: Department of Motor Vehicles

The data below are from various sources and represent actual data for the thermal and transportation sectors. Data for the electricity sector can be found in the 2021 Efficiency Vermont Energy Data for Municipalities report.

Table A6. Existing Renewable Electricity Generation

	Installed Capacity (MW)	Annual Production (MWh)
Solar	15.72	20,653
Wind	.4	788
Hydroelectric*	1.8	9,000
Biomass	.33	2,024
Total	18.25	32,465

*Source: Department of Public Service Generations Scenarios Tool April 2023 version; Cities & Towns Tab, current as of January 2023; *half of the capacity/production of Green Mountain Power's No. 18 is counted in South Burlington*

Table A3. Current Thermal Energy Use from Natural Gas, 2022

Total Residential Natural Gas Consumption (MMBtu)	551,479
Percentage of Total Natural Gas Consumption	49%
Total Commercial/Industrial Natural Gas Consumption (MMBtu)	570,470
Percentage of Total Natural Gas Consumption	51%
Total Natural Gas Consumption	1,121,948

Sources: Vermont Gas, CCRPC

PROJECTED ENERGY USE

Projected future energy use targets are drawn from the 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 use 90% of energy from renewable sources by 2050). These targets show the direction and magnitude of change needed to meet local, regional, and state energy goals.

Table B1. Projected Transportation Energy Use, 2025-2050

	2025	2035	2050
Total Light Duty Transportation Energy Use (MMBtu)	760,919	481,992	210,071
Electricity Used for Light Duty Transportation (MMBtu)	10,147	69,943	147,618
Light Duty Electric Vehicles (% of Vehicle Fleet)**	10%	80%	89%
Biofuel Blended* Energy Used for Light Duty Transportation (MMBtu)	750,772	412,049	62,454
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.*
***Targets align with the South Burlington Climate Action Plan. Targets were generated with ICLEI's Clearpath tool for Year 2030 then expressed in terms of milestone years to align with the analysis and target energy planning standard requirements.*

Sources: VTrans, LEAP Model

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

	2025	2035	2050
Total Residential Thermal Energy Use (MMBtu)	736,934	624,834	432,608
Percent of Residences Weatherized by Target Year**	18%	62%	100%
Energy Saved by Weatherization by Target Year (MMBtu)	34,400	93,960	294,095
Percent of Residences Using Heat Pumps**	11%	37%	71%
Residential Thermal Energy Use from Heat Pumps (MMBtu)	47,763	98,267	144,072
Residences Using Wood Heating (%)	14%	14%	14%
Residential Thermal Energy Use from Wood Heating (MMBtu)	135,329	135,459	119,016

Sources: LEAP Model, Department of Public Service
***Targets align with the South Burlington Climate Action Plan. Target were generated with ICLEI's Clearpath tool for Year 2030. then expressed in terms of milestone years to align with the analysis and target energy planning standard requirements.*

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

	2025	2035	2050
Total Commercial and Industrial Thermal Energy Use (MMBtu)	752,689	716,936	634,14
Percent of Commercial and Industrial Establishments Weatherized by Target Year	22%	25%	43%
Energy Saved by Weatherization by Target Year (MMBtu)	40,462	56,101	135,2(
Commercial and Industrial Establishments Using Heat Pumps (%)	14%	22%	25%
Commercial and Industrial Thermal Energy Use by Heat Pumps (MMBtu)	35,461	70,099	104,73
Commercial and Industrial Establishments Using Wood Heating (%)	11%	12%	13%
Commercial and Industrial Thermal Energy Use Attributable to Wood Heating (MMBtu)	91,075	125,443	183,65

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

Table B4. Projected Electrical Energy Use, 2025-2050

	2025	2035	2050
Without Industrial (MWh)	166,936	212,772	275,742
Industrial Only (MWh)	54,168	70,041	94,017
Total (MWh)	221,104	282,813	369,759
Total Electric Energy Saved (MWh)	13,964	28,188	52,722
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)	3,107,538	3,004,949	2,788,721	2,538,438
Population	18,791	19,873	20,562	21,574
Total Energy Use Per Capita (MMBtu)	165	151	136	118
Reduction in Total Energy Use Per Capita since 2015	--	-9%	-18%	-29%

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)	2,977,254	2,820,127	2,549,741	2,217,652
Population	18,791	19,873	20,562	21,574
Total Energy Use Per Capita (MMBtu)	158	142	124	103
Reduction in Total Energy Use Per Capita since 2015	--	-10%	-22%	-35%

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.*

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 South Burlington. 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.

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 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."*

South Burlington's local known constraints (most restrictive for development) are the .2% B2 floodplain, river corridors, very steep slopes, and wetland buffers. The local possible constraints (development impacts must be mitigated-less restrictive compared to known constraints) include the habitat overlay district, steep slopes, natural resource protection district, and 0.2% B1 Zone See table C4 for the state known and possible constraints.

South Burlington's reported land available for wind and solar generation and associated total energy generation potential are based on models of the elevation, slope, and aspect of land, or the modeled wind speed. These models remove existing rooftops but do not remove other existing impervious surfaces. Therefore, land-based generation potential may be over-estimated for South Burlington due to a high percentage of impervious surface.

Table C1. Land Available for Wind and Solar Generation

	Prime Potential	**Base Potential**
Solar	139 acres	1,966 acres
Wind	340 acres	4,162 acres

Source: CCRPC, Department of Public Service, Vermont Center for Geographic Information, updated in 2023

Table C2. Estimated Renewable Electricity Generation Potential from Land Available for Wind and Solar Energy Generation

	Power (MW)	**Energy (MWh)**
Total Rooftop Solar*	58.8	158,793
Total Ground-Mounted Solar	57.3	75,349
Total Wind	112.6	221,852

Source: Ground-Mount Solar + Wind, CCRPC, Generation Scenarios Tool (April 2023), Department of Public Service; Rooftop Solar, Vermont Center for Geographic Information

**Existing rooftop solar generation has not been subtracted out due to data availability.*

Table C3. Renewable Electricity Generation Targets

	2032	2040	2050
Total Generation Targets (MWh)	58,360	75,429	85,931
Incremental Targets* (MWh)	25,895	44,746	53,465

Sources: Department of Public Service, CCRPC

These targets are in addition to what the municipality is already generating. As of 1/31/23, South Burlington generates 32,465 MWh of energy annually from renewable technologies.

Table C4. State Known and Possible Constraints

State Known Constraints	State Possible Constraints
FEMA Floodways	Agricultural Soils + Hydric Soils
DEC River Corridors	Unconfirmed Vernal Pools
National Wilderness Areas	Act 250 Ag. Soil Mitigation Areas
State-significant Natural Communities and Rare, Threatened, and Endangered Species	FEMA Special Flood Hazard Areas
Vernal Pools (confirmed)	VT Conservation Design Highest Priority Forest Blocks (Forest Blocks – Connectivity, Forest Blocks – Interior, Forest Blocks-Physical Land Division)
Class 1 and 2 wetlands (VSWI and advisory layers)	Highest Priority Wildlife Crossings
	Highest Priority Surface Water and Riparian Areas
	Protected Lands (State fee lands and private conservation lands)
	Deer Wintering Areas

APPENDIX B: ACT 174 ENHANCED ENERGY PLAN EQUITY ASSESSMENT

Throughout this Plan, South Burlington has considered the implications of energy-related policy decisions, regulations, and proposed non-regulatory programs on marginalized groups and communities. We have to make decisions through an equity lens throughout and have considered impacts on individuals, families, and groups as we can. We also acknowledge that we have significant work to do, including further study of how our actions to meet our stated goals impact all of our community members, and disproportionately impact some more than others. As part of compliance with Act 174, we have compiled energy and equity policy statements made throughout the Plan in this Appendix.

- People & Population – Basic demographic and language assessment and acknowledgement that the City must serve our diverse population and consider variation across the City.
- Energy – Generally, changes must be made equitably and to help all our neighbors transition to cleaner energy and more sustainable practices.
- Energy: Transportation – City will encourage, promote, or require EV charging at multi-family buildings and for renters, and not have only pay-as-you-go charging available.
- Energy: Buildings and Thermal – City will support homeowners in weatherization, electrification of existing homes, efficient construction of new homes, including financial incentives and outreach to low-income homeowners. "The City must design a system that will not cause economic hardship for people without resources to both changeover and then operate new systems."
- Energy: Outreach and Implementation – "Importantly, [climate action] work must be implemented in an equitable manner. This could include allowing for a reasonable time for adjustment to new systems when old systems need replacement. Pursuing equity will involve listening to the needs of the community, designing programs to facilitate transportation and home improvements for all users, and accounting for the uneven costs of climate change."
- Environment – Goal: Ensure environmental protection, conservation, and other natural resource-related efforts are undertaken with environmental justice and equity in mind.
- Environment: Environmental Justice – City "must also examine how we protect our environment and where people experience disproportionate impacts of environmental harms. Looking specifically at air pollution, noise pollution, poor drinking water quality, contaminated soils, lack of green space, and the urban heat island effect, are certain areas in the city disproportionately affected? We need to start by gathering information. We are at the very beginning of examining this issue and the City must start the process."
- Transportation: Multiple User Types – Acknowledgment that bike/ped facilities separated from the road can be more welcoming and inclusive for a range of users, including ADA compliance and proper location for efficient bike/ped travel
- Recreation – "Both new acquisitions and maintenance of existing areas needs to be done equitably and should consider our Climate Action Plan targets."
- Community Services – City will be inclusive, equitable, and accessible in provision of all City services, including energy regulations and programs
- Community Services: Library, Senior Center – City will provide inclusive facilities that serve underserved populations like seniors, New Americans, etc., and are warmed/cooled.
- Community Services: Community Open Space – Acknowledgement that it is critical to be able to access open space without a personal vehicle.
- Water & Utilities – Goal: "Assure planning and management of water, wastewater, and

stormwater systems is done in a manner that protects our most vulnerable populations and distributes focus and funding equitably"

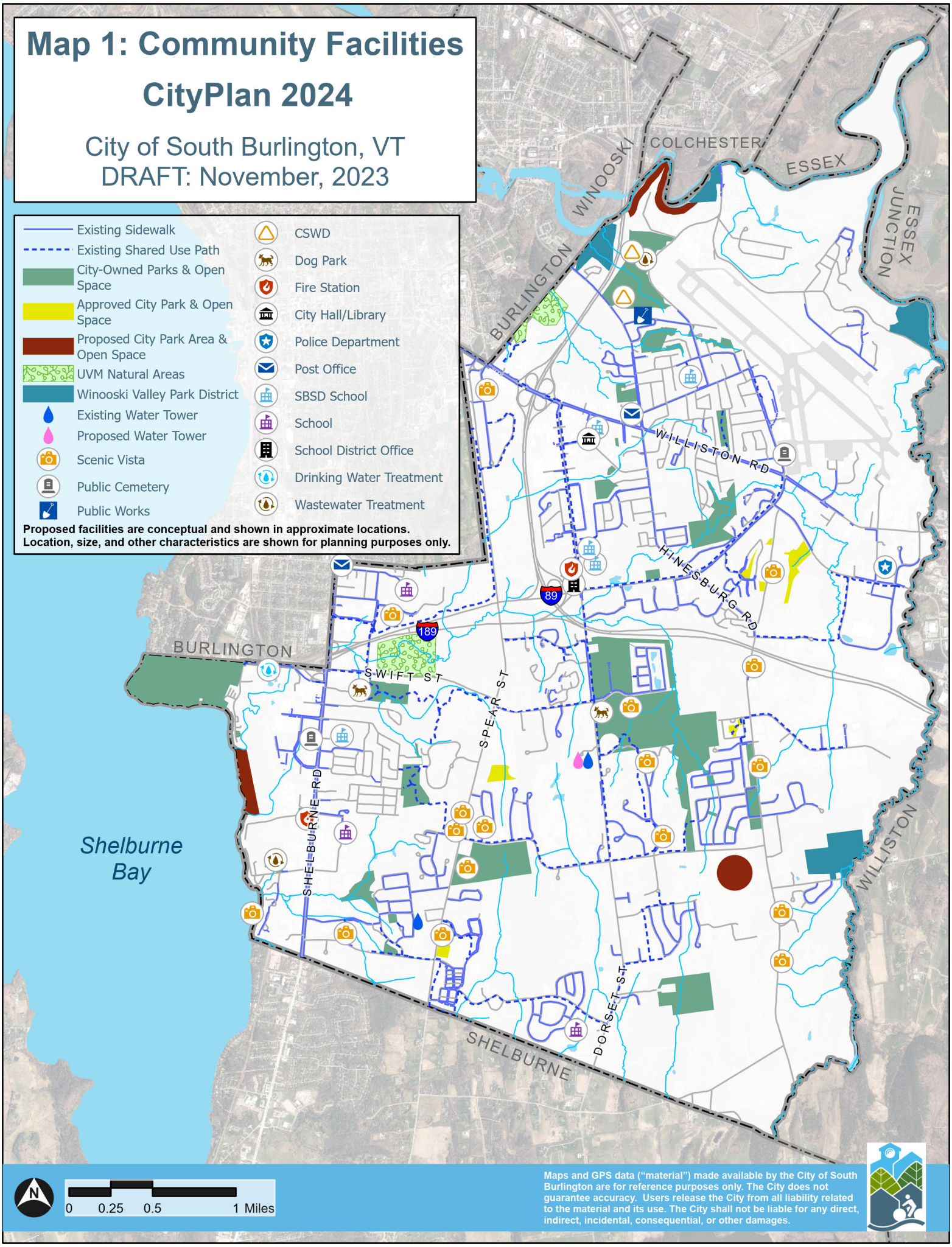
- Water & Utilities: Potable Water – "The City needs to continue maintaining, upgrading, and replacing parts of the water treatment and water distribution systems. This work must be done equitably and must reflect increased weather variation and drought due to climate change."

Map 1: Community Facilities
CityPlan 2024

City of South Burlington, VT
DRAFT: November, 2023

- Existing Sidewalk
- Existing Shared Use Path
- City-Owned Parks & Open Space
- Approved City Park & Open Space
- Proposed City Park Area & Open Space
- UVM Natural Areas
- Winooski Valley Park District
- Existing Water Tower
- Proposed Water Tower
- Scenic Vista
- Public Cemetery
- Public Works
- CSWD
- Dog Park
- Fire Station
- City Hall/Library
- Police Department
- Post Office
- SBSD School
- School
- School District Office
- Drinking Water Treatment
- Wastewater Treatment

Proposed facilities are conceptual and shown in approximate locations. Location, size, and other characteristics are shown for planning purposes only.

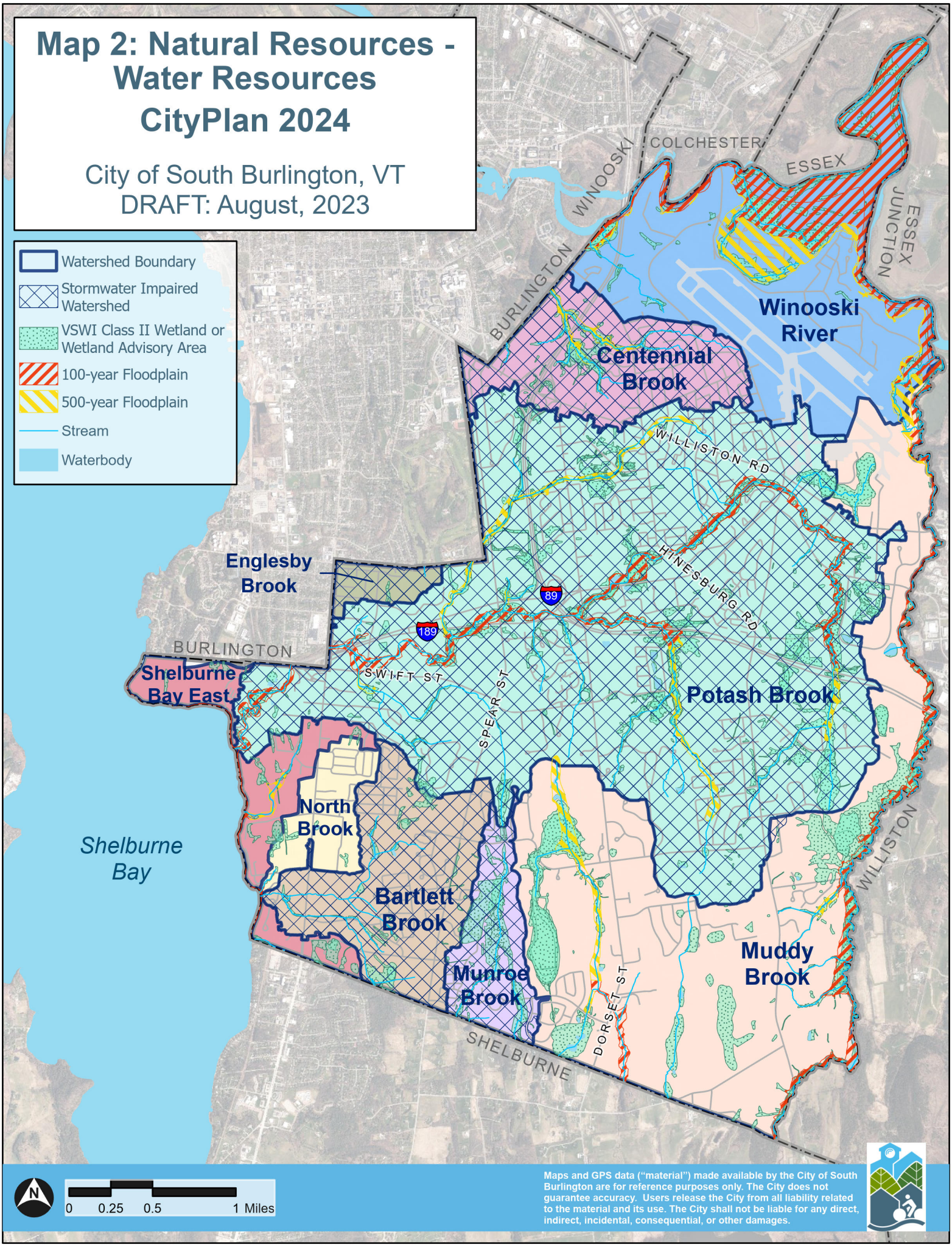


N

0 0.25 0.5 1 Miles

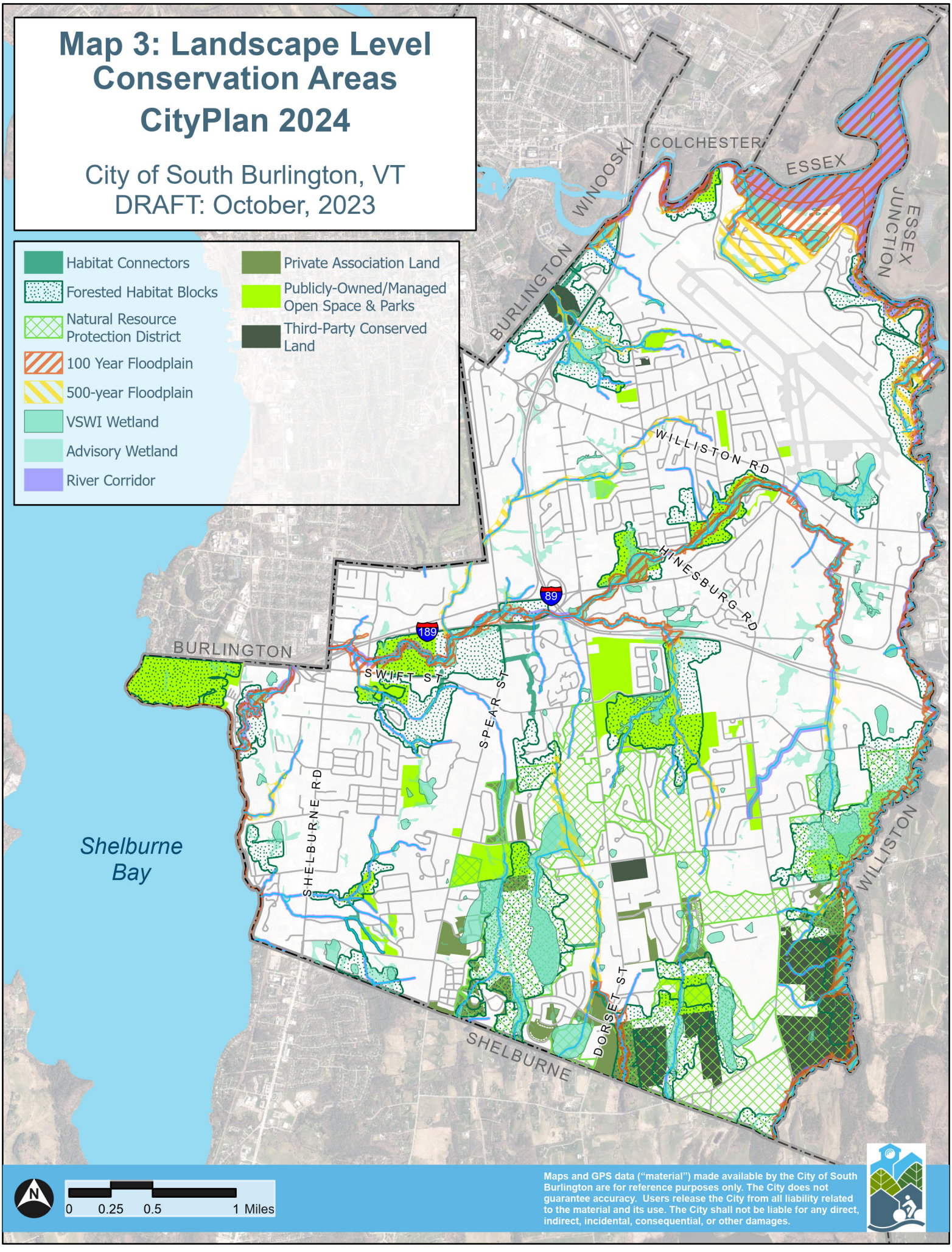
Map 2: Natural Resources - Water Resources
CityPlan 2024

City of South Burlington, VT
DRAFT: August, 2023



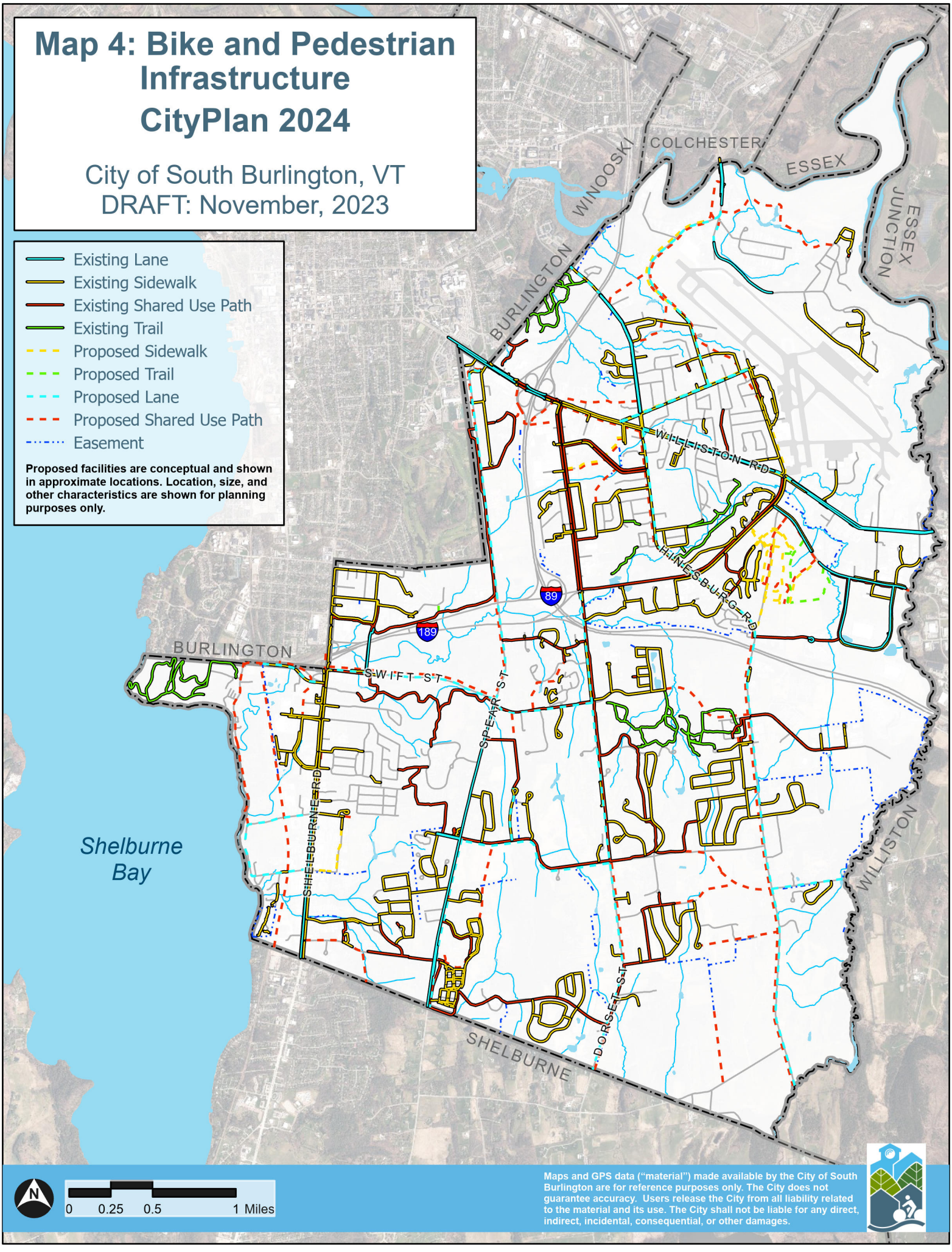
Map 3: Landscape Level Conservation Areas
CityPlan 2024

City of South Burlington, VT
DRAFT: October, 2023



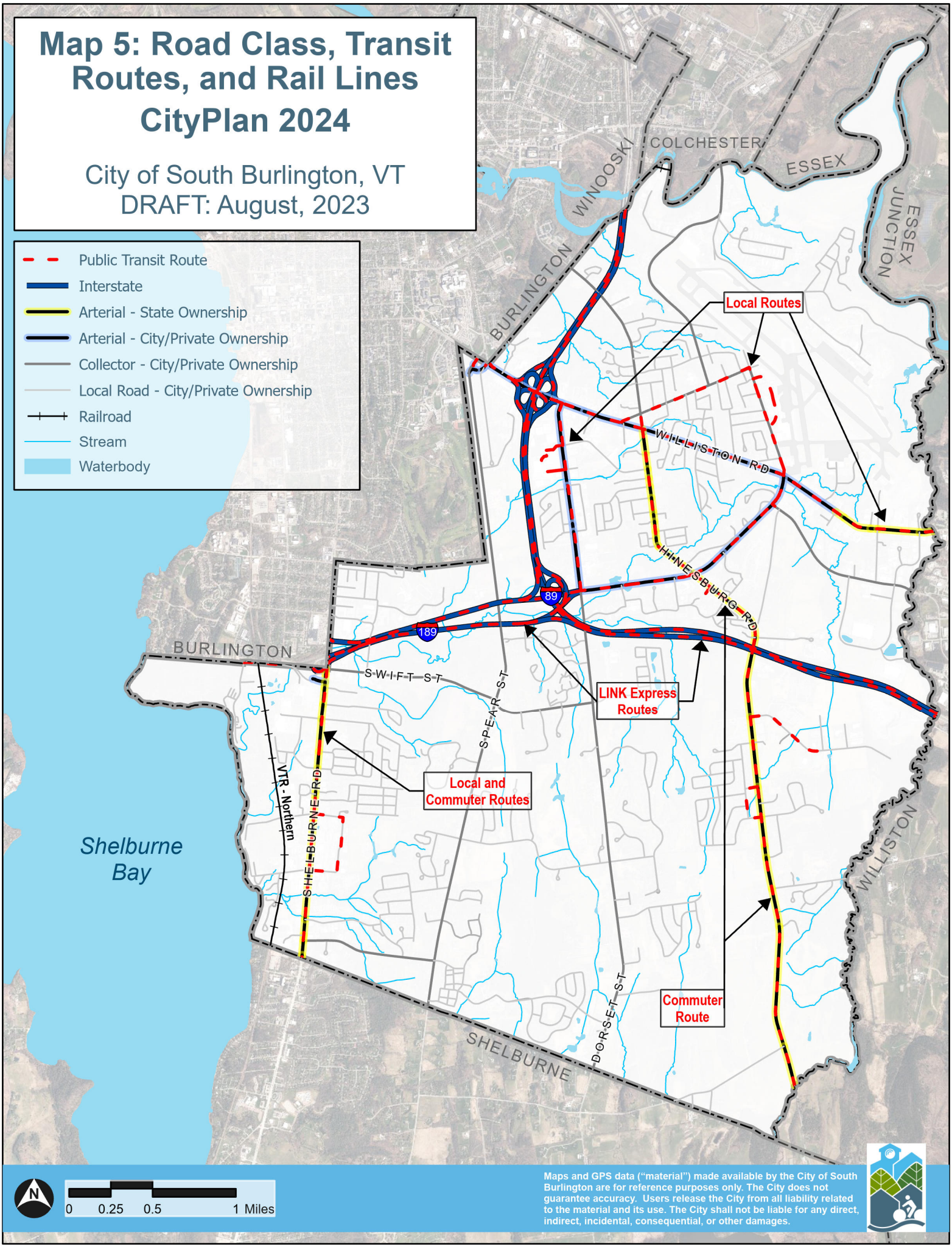
Map 4: Bike and Pedestrian Infrastructure
CityPlan 2024

City of South Burlington, VT
DRAFT: November, 2023



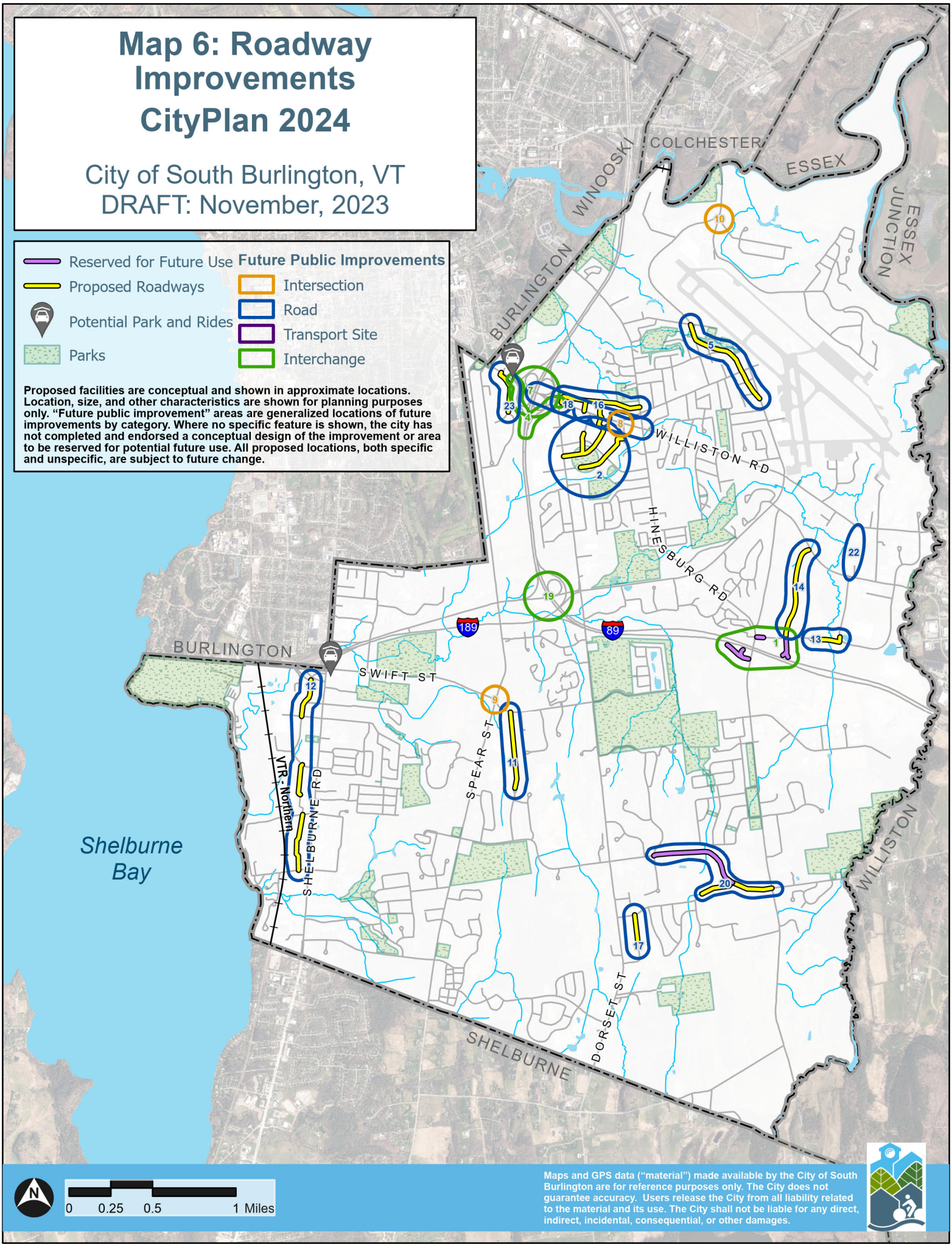
Map 5: Road Class, Transit Routes, and Rail Lines
CityPlan 2024

City of South Burlington, VT
DRAFT: August, 2023



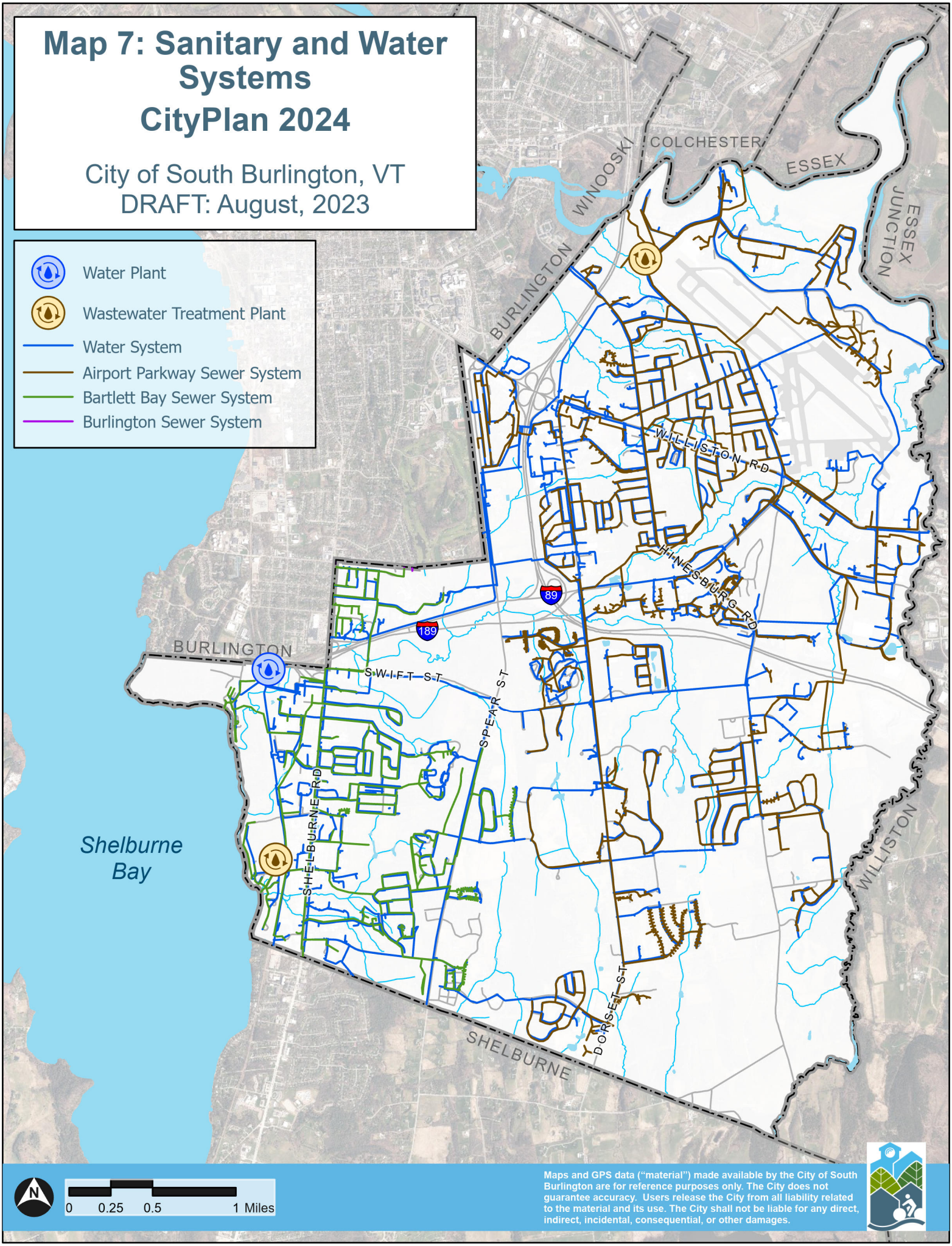
Map 6: Roadway Improvements CityPlan 2024

City of South Burlington, VT
DRAFT: November, 2023



Map 7: Sanitary and Water Systems
CityPlan 2024

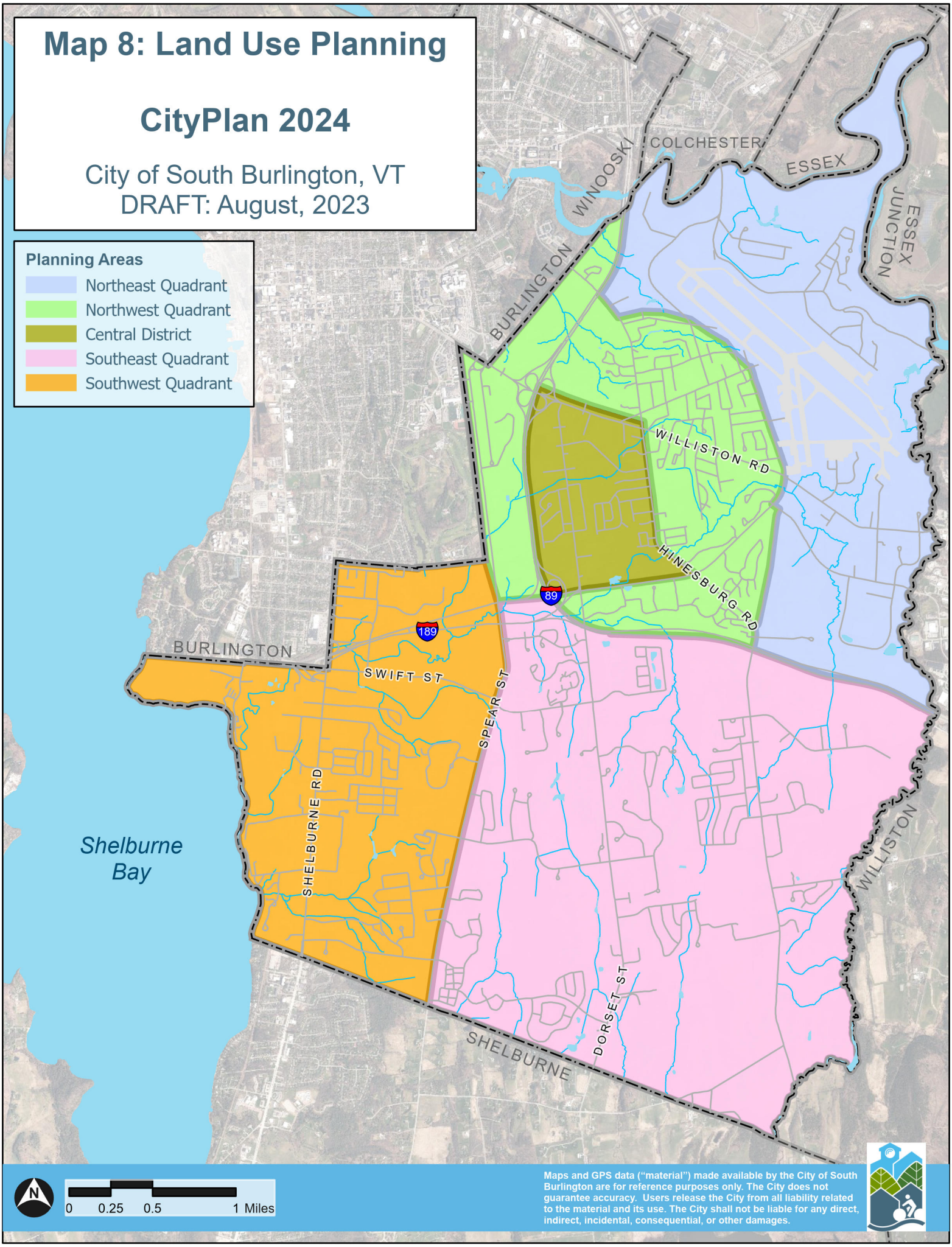
City of South Burlington, VT
DRAFT: August, 2023



Map 8: Land Use Planning

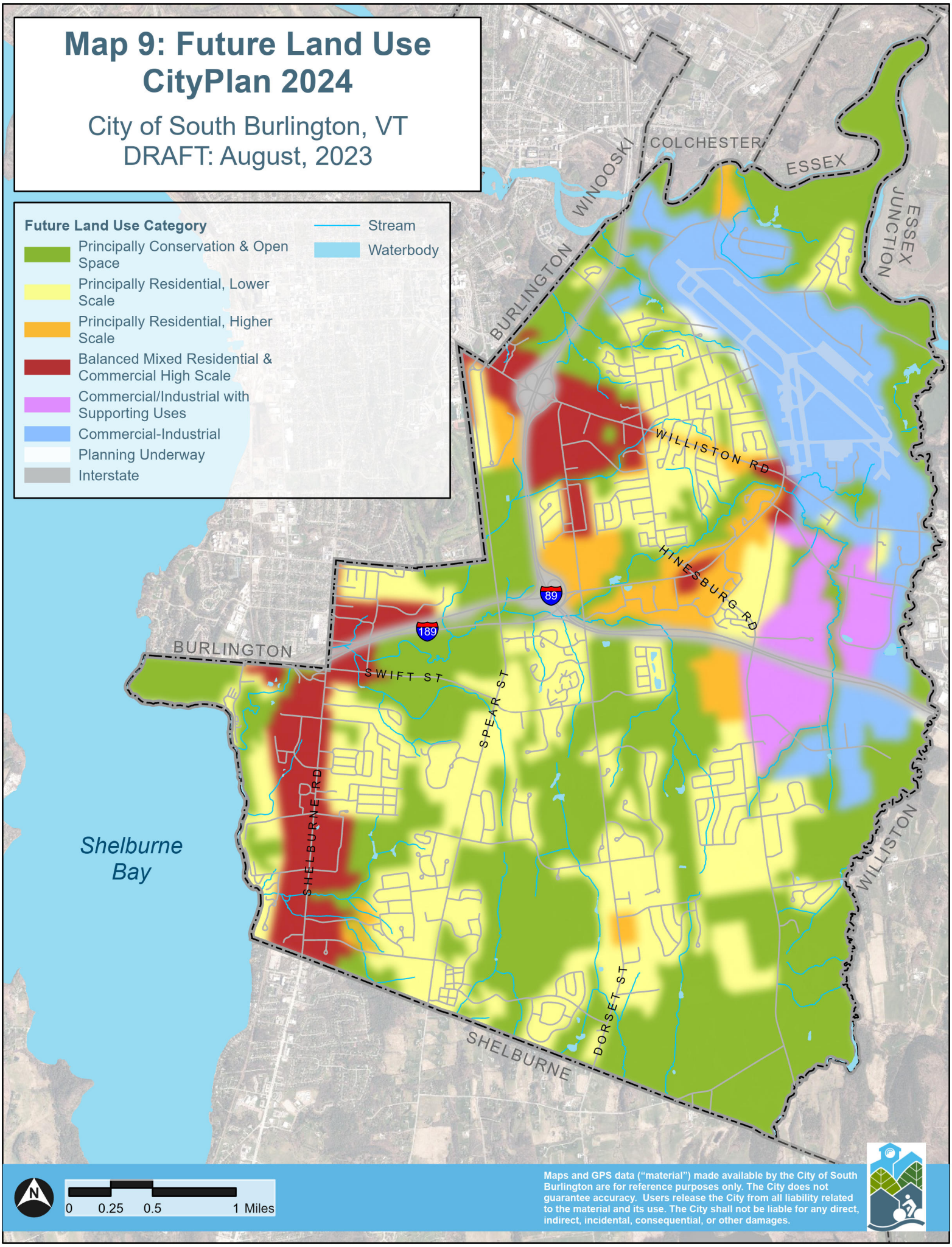
CityPlan 2024

City of South Burlington, VT
DRAFT: August, 2023



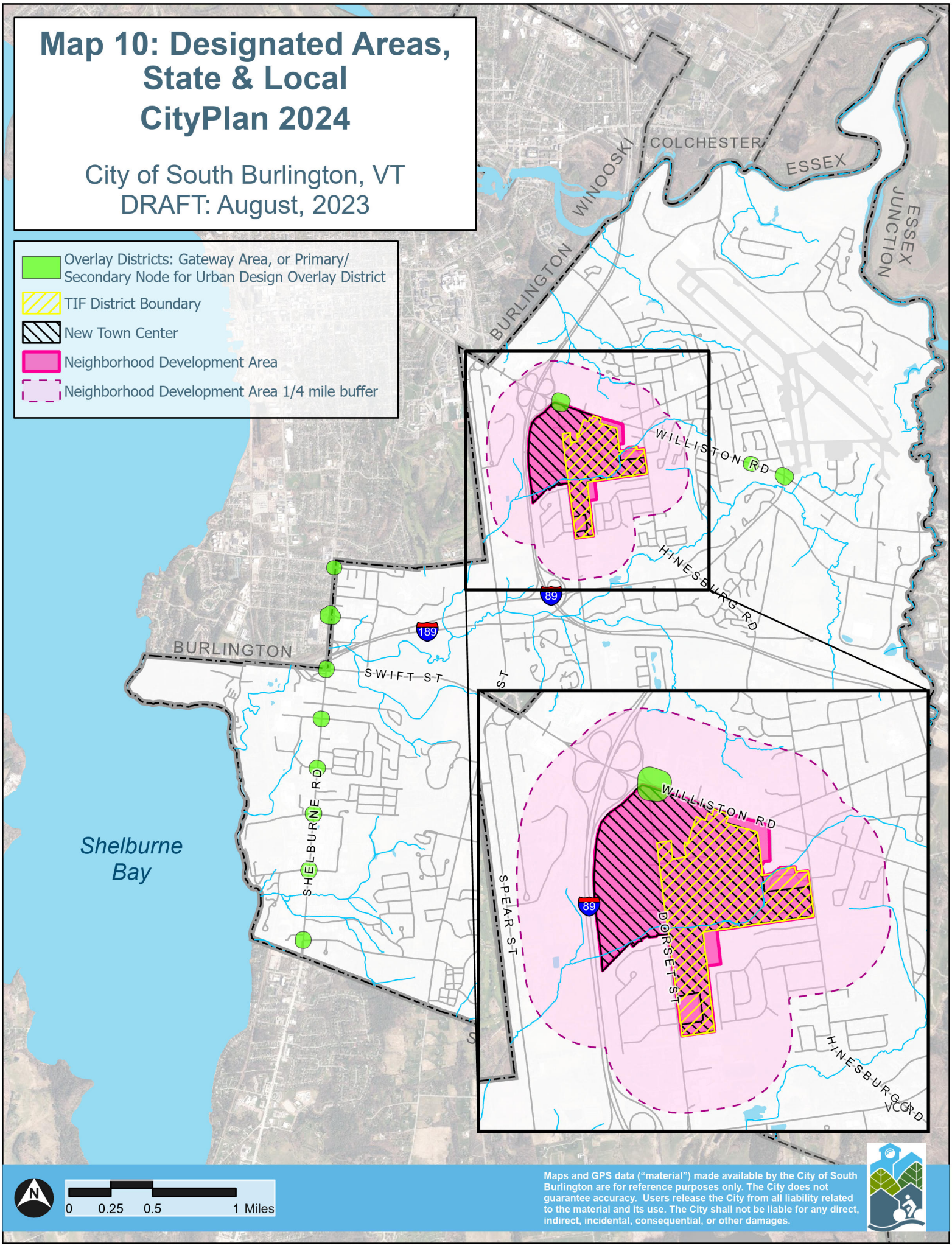
Map 9: Future Land Use CityPlan 2024

City of South Burlington, VT
DRAFT: August, 2023



Map 10: Designated Areas, State & Local CityPlan 2024

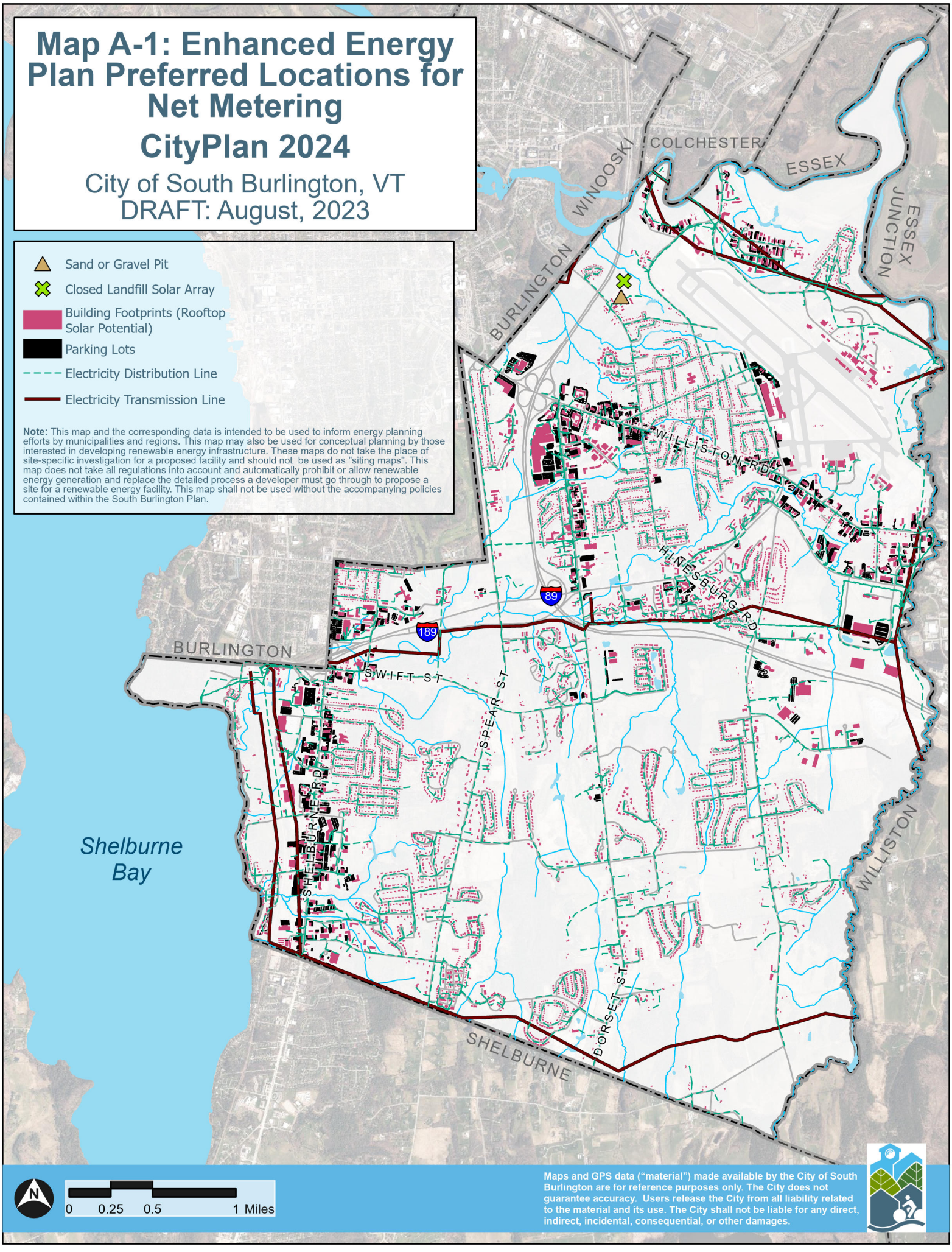
City of South Burlington, VT
DRAFT: August, 2023



Map A-1: Enhanced Energy Plan Preferred Locations for Net Metering

CityPlan 2024

City of South Burlington, VT
DRAFT: August, 2023



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Map A-2: Enhanced Energy Plan Known State Constraints CityPlan 2024

City of South Burlington, VT
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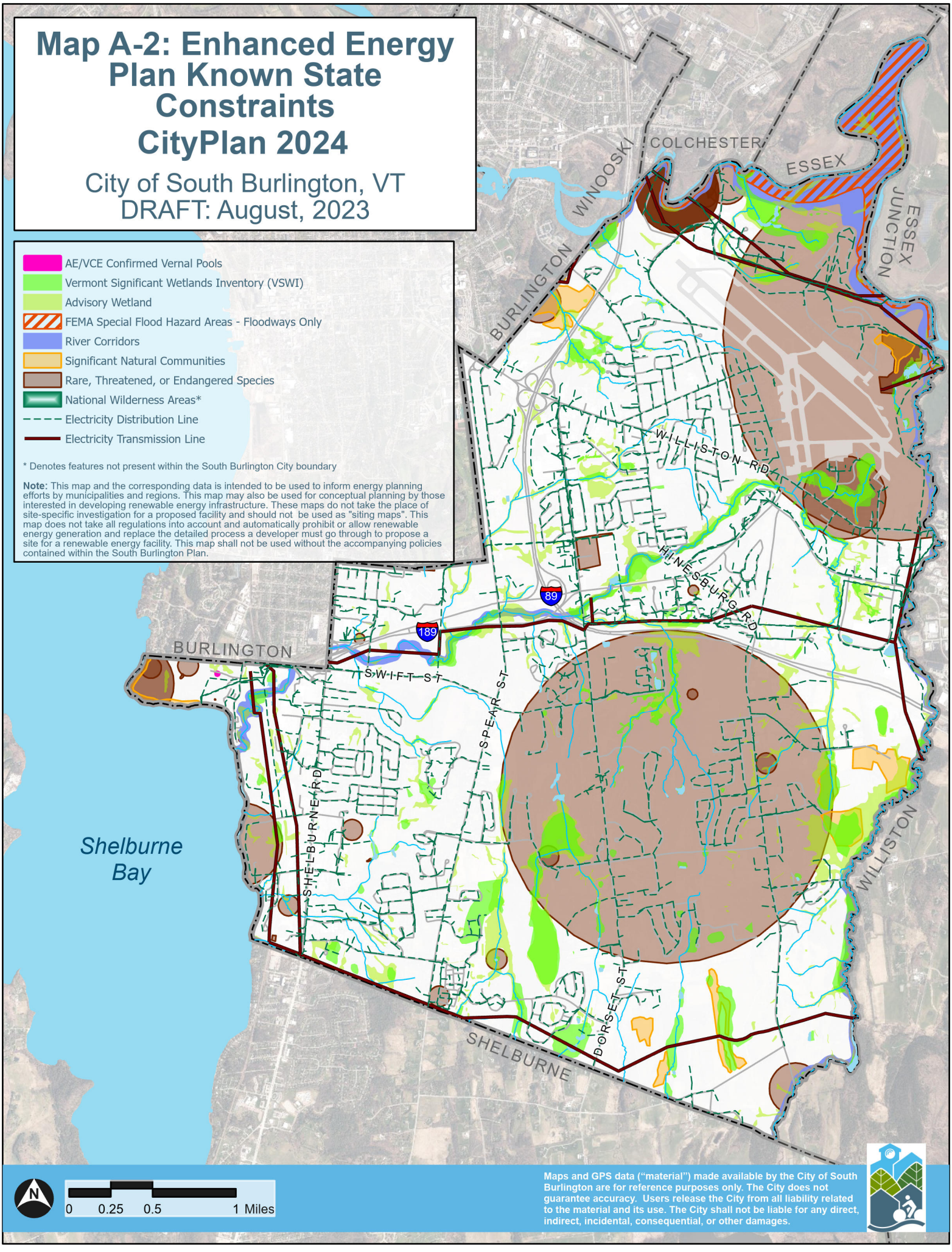
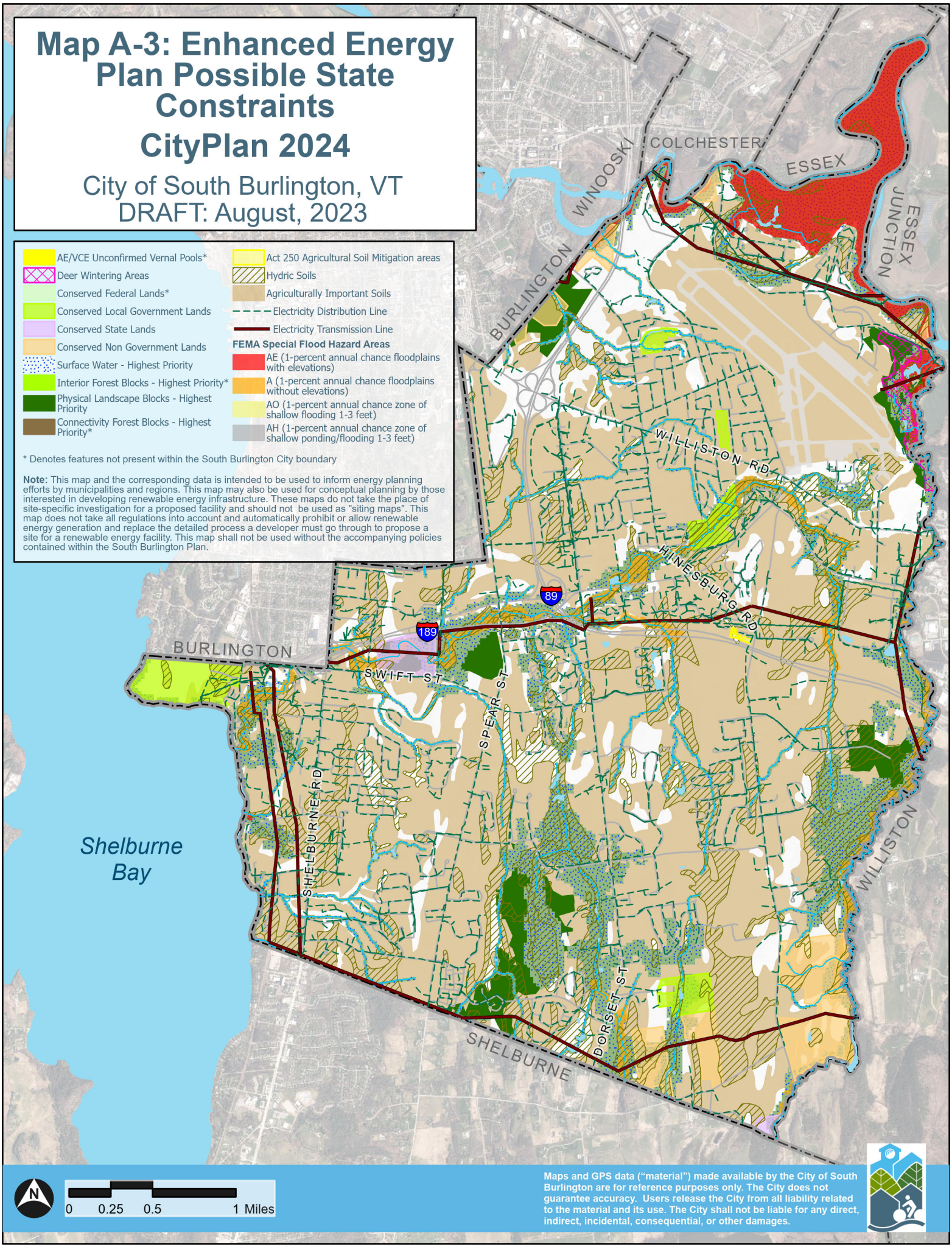


Map A-3: Enhanced Energy Plan Possible State Constraints

CityPlan 2024

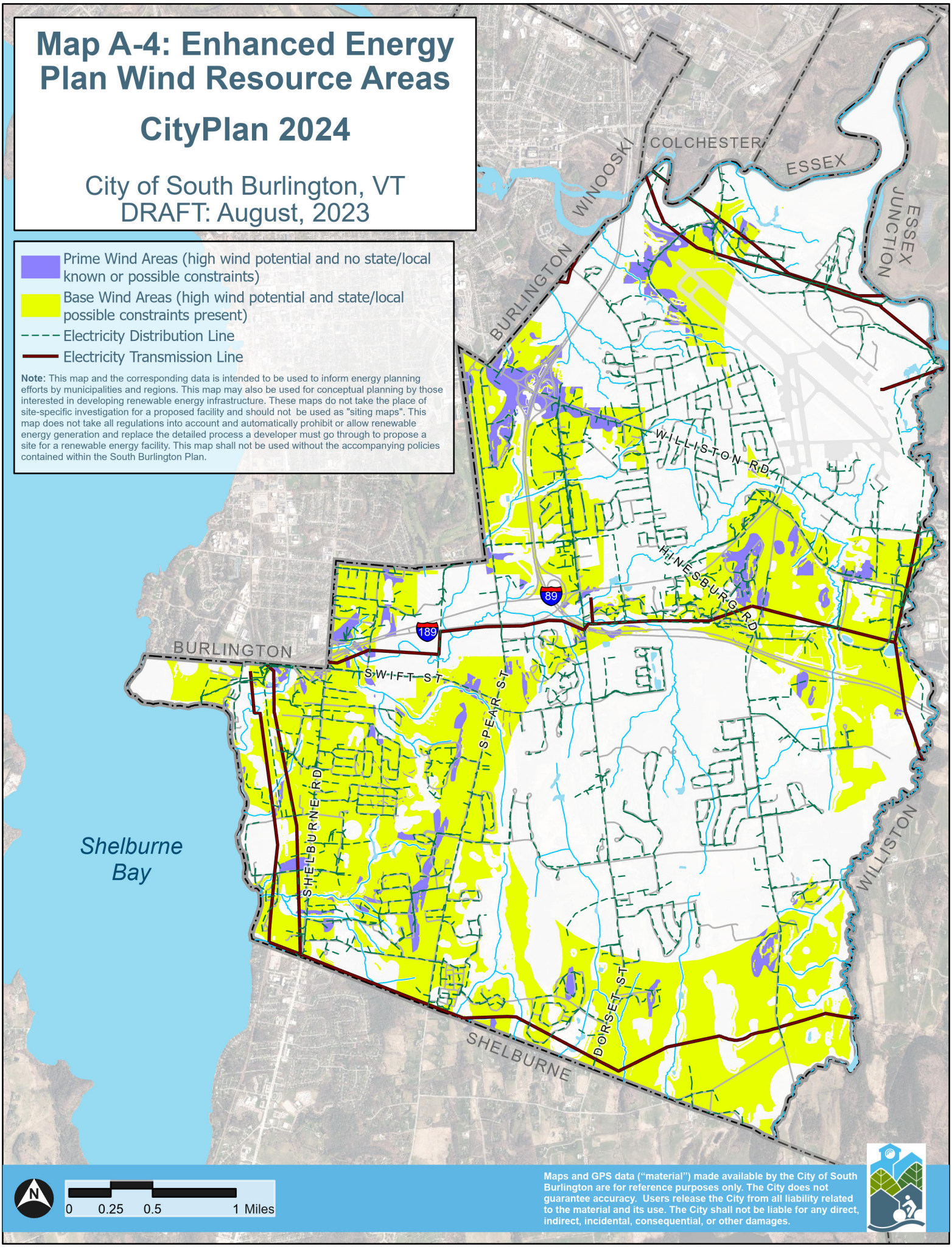
City of South Burlington, VT
DRAFT: August, 2023



Map A-4: Enhanced Energy Plan Wind Resource Areas

CityPlan 2024

City of South Burlington, VT
DRAFT: August, 2023



Map A-5: Enhanced Energy Plan Solar Resource Areas

CityPlan 2024

City of South Burlington, VT
DRAFT: August, 2023