



Final Report of the Interim Zoning Committee to the South Burlington City Council

Final report – 6 March 2020

Committee Members:

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Executive Summary

The Interim Zoning Open Space Committee was appointed by the City Council on 17 December 2018. The Committee was charged with “the prioritization for conservation of existing open spaces, forest blocks, and working landscapes in South Burlington in the sustenance of our natural ecosystem, scenic viewsheds, and river corridors.” We used a two-tiered approach to assess the natural resource and environmental attributes of parcels in South Burlington in support of this charge. The first tier included parcel size (> 4 acres), percent impervious surface (< 10%), and parcels included in the VT Agency of Natural Resources BioFinder “highest priority” and “priority” areas. Tier 2 included natural resource attributes directly aligned with the City Council’s charge to the committee: water resources, wildlife habitat, forest resources, viewsheds, and agricultural areas. We assessed 190 parcels using a variety of spatial data sources, relying primarily on the South Burlington Natural Resource Inventory Map developed by the Chittenden County Regional Planning Commission and the VT Agency of Natural Resource’s BioFinder map. The assessment process led to the distillation of a list of 25 highest priority parcels for open space conservation. Twenty are privately-owned properties and five are owned by the University of Vermont. The 25 parcels total approximately 1,300 acres. The highest priority parcels are focused on three critical natural resources within South Burlington: the great swamp, the Potash Brook watershed, and the Muddy Brook and Winooski River watersheds. The high priority UVM properties do not fit neatly into these categories, but we suggest that the city work with UVM to better understand their long-term goals for properties within South Burlington.

We feel confident in our final recommendations; however, we recognize limitations of our process and the data sources used. Most important to note is that we used a parcel-based approach in assessing natural resource attributes. Thus, if 10% of a parcel contained a wetland, that parcel received a positive overall score for water resources. Although this approach overestimates the importance of the entire parcel to natural resource protection, it is aligned with our charge to prioritize the conservation of existing open spaces.

We see our recommendations for conserving these parcels as an important opportunity to minimize the effect of South Burlington’s growth on the city’s natural resources. We hope that this document can guide the City Council, Natural Resources Committee, the Planning Commission, and the Development Review Board to direct developers away from these high priority areas with sensitive natural resources.

Acknowledgements

We would like to thank the South Burlington Planning and Zoning Department, particularly Paul Conner who was extraordinarily helpful in providing resources and advice. Jens Hawkins-Hilke volunteered his time in helping our committee become comfortable with using ANR’s BioFinder program. Melanie Needle and Pam Brangan at the Chittenden County Regional Planning Commission provided expert assistance in getting spatial datasets online for committee use. We thank the citizens of South Burlington and representatives from various committees who provided comments and critiques of our work.

Preface

South Burlington has undertaken many efforts in past decades to plan for development in a manner consistent with the best planning principles of the time. The history of South Burlington’s zoning and planning efforts are impressive, as each new iteration of Comprehensive Plans and Land Development Regulations included another attempt to balance land preservation with pressures for population and economic growth. Some efforts were innovative, such as the idea of Transfer of Development Rights; other efforts were proactive, such as the recommendation that the City seek compatible new developments—a golf course for example—to both allow new housing and preserve open space. There have also been many citizen study committees formed in reaction to a proposed or active development that threatened a resource cherished by citizens in surrounding neighborhoods. The “Save the View” citizen committee (circa 1985) for example, lost their primary battle, but “Overlook Park” on Spear Street was formed as a response to the near total blockage of a once magnificent 180 degree vista. In short, generations of volunteers and staff have given us their best effort and hard work to shape the City in the best ways that community planning innovation and technology would allow. Notable efforts to characterize the City’s open space resources with the goal of protecting environmental attributes and natural resources include:

- 2002: The architectural landscape firm, T.J. Boyle and Associates produced the report “South Burlington Open Space Strategy” which highlighted key areas throughout the city for protection.
- 2002: Alicia Daniel and Patricia Fontaine from the Winooski Valley Park District produced the report “Where the Wild Things Are: Large Mammal Habitats and Corridors in South Burlington.”
- 2004: South Burlington contracted with Arrowwood Consulting to produce a report entitled “Wildlife and Natural Communities Assessment of the South East Quadrant, South Burlington, Vermont.”
- 2004: “A Study of Breeding Birds of the Southeast Quadrant of South Burlington, Vermont”
- 2011 “Open Space Natural Resource Scorecard”
- 2011 “Recreation Site Evaluation Matrix”
- 2013: “South Burlington Sustainable Agriculture / Food Security Action Plan”
- 2014: “Open Space, Special Places: Our Legacy, Our Future – A report of the South Burlington Open Space Committee (also in conjunction with T.J. Boyle and Associates), this Open Space Report included proposed Land Development Regulations (Appendix D) and was referenced by the City Council as providing a partial basis for the work to be accomplished by the current Open Space Committee of 2018-2019.

The 2014 Open Space Committee also formed during an interim zoning period. That Committee worked with a consulting team to produce a professionally prepared 110-page hard copy report comprised of seven chapters and four appendices. It had a lengthy list of references to the literature on land use and urban planning. It contained many specific suggestions for changes to the Comprehensive Plan, amendments to the bylaws, and four lengthy appendices, including one containing guidelines for conducting an inventory of scenic resources.

The 2014 report was comprehensive in its consideration of open space types; 32 different types of open spaces were defined that range from primary areas for “conservation only” to City parks, school playgrounds, plazas, and rooftop terraces. The report had a notably “functional” emphasis for open space. The 2014 “suggestions and guidelines” for open space use included a “palette” of open space types designated as functional within developments and contexts “...for incorporation in subdivision, site and development design...[and] for consideration in the acquisition, development and sustainable, long-term management of open space.” The 2014 report provided a great deal of attention to preserving open space within various other forms of development. Their operational definition was that open space was “an outdoor area designated for resource conservation and management; for food production, forest management and the retention of tree cover; for outdoor recreation; or for public access and civic use” (South Burlington Open Space Committee Report, April 14, 2014, page A-1).

The current Open Space Interim Zoning Committee was formed by the City Council shortly after Interim zoning went into effect on November 13, 2018 with the following specific, formal charge:

“The prioritization for conservation of existing open spaces, forest blocks, and working landscapes in South Burlington in the sustenance of our natural ecosystem, scenic viewsheds, and river corridors.”

This charge makes clear that the purpose of this study has been to identify and prioritize the protection and conservation of important tracts of land that warrant special attention for the City to consider as we continue to grow and develop in the coming decades. Our charge was not to identify parcels as strict “no build zones” nor to identify areas of the City for more or less density. We were not charged with suggesting changes either in the Comprehensive Plan nor Land Use Regulations. Ultimately, this report identifies open space parcels which include areas with high priority for protection; our findings are recommendations to the City Council and indirectly to the Planning Commission and other deliberative bodies of the City.

We conducted this work in hopes that this report would be a useful inventory of resources for all interested parties to allow for more informed planning. Our high priority parcels can be interpreted by readers as possessing significant natural resources which are appropriate for purchase or protection by the City or a land trust. Additionally, potential buyers could make more informed decisions based on the understanding that development on a given parcel could run counter the city’s conservation goals. However, we must at the same time underscore that, without public ownership or a conservation easement, our priority parcels alone cannot hinder or prevent a land purchase and subsequent development.

Accordingly, we see this report as beneficial to:

- City policy makers (e.g., City Council and Planning Commission), advisory committees (e.g., Affordable Housing Committee, Bicycle & Pedestrian Committee, Dog Park Committee, Energy Committee, Natural Resources Committee, and Recreation and Parks Committee), and the Development Review Board;
- Potential buyers or sellers of each property (e.g., individual homeowners, businesses, developers, realtors);

- Neighbors (and would-be neighbors) who may wish to better evaluate the resource potential of the neighboring land in making buying decisions.

Conservation can take many forms. Perhaps the most familiar form of land conservation falls into the “regulatory” category including local, regional and state land use regulations and permitting. But there are also private forms of conservation that have become better known in South Burlington in the recent past. Some of these include:

- Transfer of Development Rights;
- Conservation easements with a third party such as the Vermont Land Trust, a local government, or other entity. These easements can vary in the level of restricted activity;
- Purchase of land for conservation by either the government or non-profit;
- Deed restrictions or restrictive covenants, such as we see with homeowner associations or conservation PUDs.

The following is a list of existing land areas with open space protection that limits development:

- Nine University of Vermont owned parcels, some of which are natural areas
- 19 City parks
- The Winooski Gorge Natural Area
- Muddy Brook Park
- City owned conservation land
 - The Underwood property
 - The Scott Preserve property
 - Wheeler Nature Area
 - Goodrich property
- The Auclair property with third party protection
- High School Woods

As we considered our work of identifying priority open spaces, the Committee was cognizant of the many spaces in the City that are already restricted and protected from further development. For example, approximately 50% of the SEQ is already under Natural Resource Protection (NRP; Office of Planning and Zoning City, Council Presentation, “Development Trends in South Burlington, presented October 1, 2018) and 584 TDRs have been allocated thereby severing development rights in these areas (TDR Interim Zoning Committee Report, dated August 1, 2019). Additionally, there are many other zoning restrictions in the rest of the City as well. Cemeteries and golf courses are developed in one sense, but still provide open views and opportunities for limited water and wildlife connectivity. Still other open spaces have been contractually set aside within and contiguous to housing developments that are protected in perpetuity from further development. In some cases these are fairly large tracts of land that are permanently protected. City, regional and state law also prohibit development on some parcels (e.g., parcels containing wetlands) and need not be singled out as an open space with a high priority for further protection.

Introduction

South Burlington – The Broader Context

South Burlington is Vermont’s third most populous municipality and second largest city. South Burlington and Chittenden County continue to be under development pressure. This area is a popular destination for people seeking a quality community in an attractive area, including those from areas of the state that are in population decline. Within Chittenden County from 2010 to 2017, South Burlington grew at one of the fastest rates (6.9%) along with Shelburne (8.2%) Essex (9.9%) and Williston (10.8%). Table 1 presents some of the average annual growth rates for the city over the past 26 years.

Table 1. South Burlington population and housing trends, 1990-2016.

South Burlington Population and Housing Trends, 1990 - 2016		
	Average Annual Population Growth	Average Annual Growth in Dwelling Units
1990-2016	1.50%	1.75%
2000-2016	1.50%	1.9%
2010-2016	0.075	1.50%
2016 Comp Plan objective: Anticipated and prepared for growth rate	1% to 1.5%	1.5% to 2%

¹ Source: Office of Planning and Zoning, City Council Presentation, “Development Trends in South Burlington, presented October 1, 2018

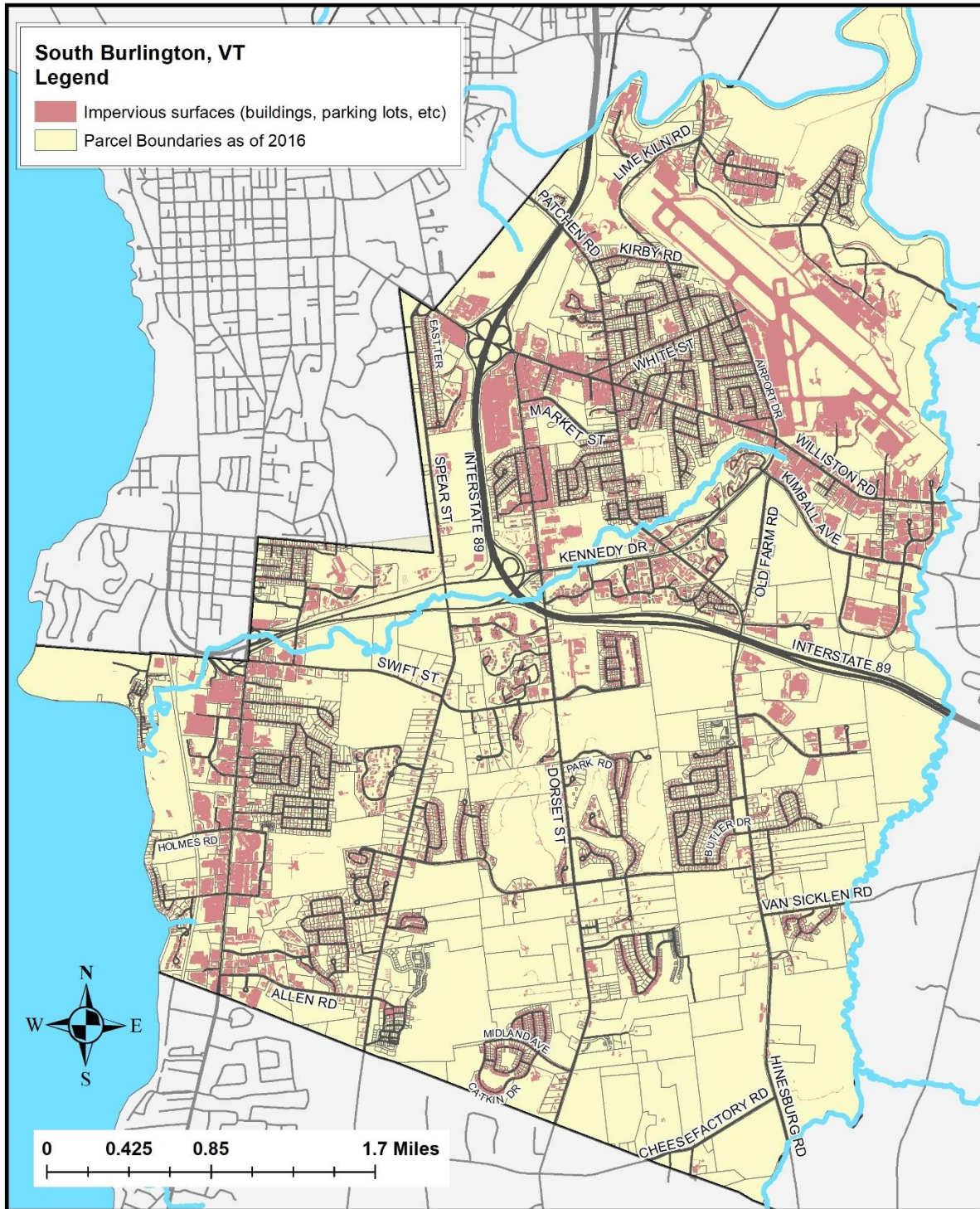
These annual growth rates are unusual within Vermont, but not unusual in the United States in aggregate and in particular for American cities in the size range of 10,000 to 50,000. Snow Belt cities in the recent past have grown more slowly (0.2% to 0.4% per year) while cities in the Sun Belt have grown at a much more rapid rate. Of additional importance, the data in Table 1 show that South Burlington is building housing units at a greater rate than our population is increasing, challenging natural resource protection and maintaining functional ecosystems.

Statewide, South Burlington’s population, is greater than 19,000, just less than our neighboring towns of Burlington and Essex. Given our central position in this growth node of Chittenden County, development pressures are significant and not likely to change in the near term. According to a Planning and Zoning report, the Southeast Quadrant alone already has some 600 approved (“vested”) dwelling units yet to be constructed (Office of Planning and Zoning, City Council Presentation, “Development Trends in South Burlington, presented October 1, 2018). For many reasons, the Chittenden County Regional Planning Commission has also designated our City as a growth center for future development.

Development in South Burlington has come at a cost to the city’s natural resources and environmental quality. Two centuries of human presence in South Burlington has overwhelmed the natural environment that existed two centuries ago when resource use by humans was extremely limited. Could we go back a century or more in time, our city’s streams and wetlands, forests and farmlands would be barely recognizable to today’s citizen. Today’s [Grand List](#) of assessed properties shows that the natural landscape has been fragmented into nearly 7,700

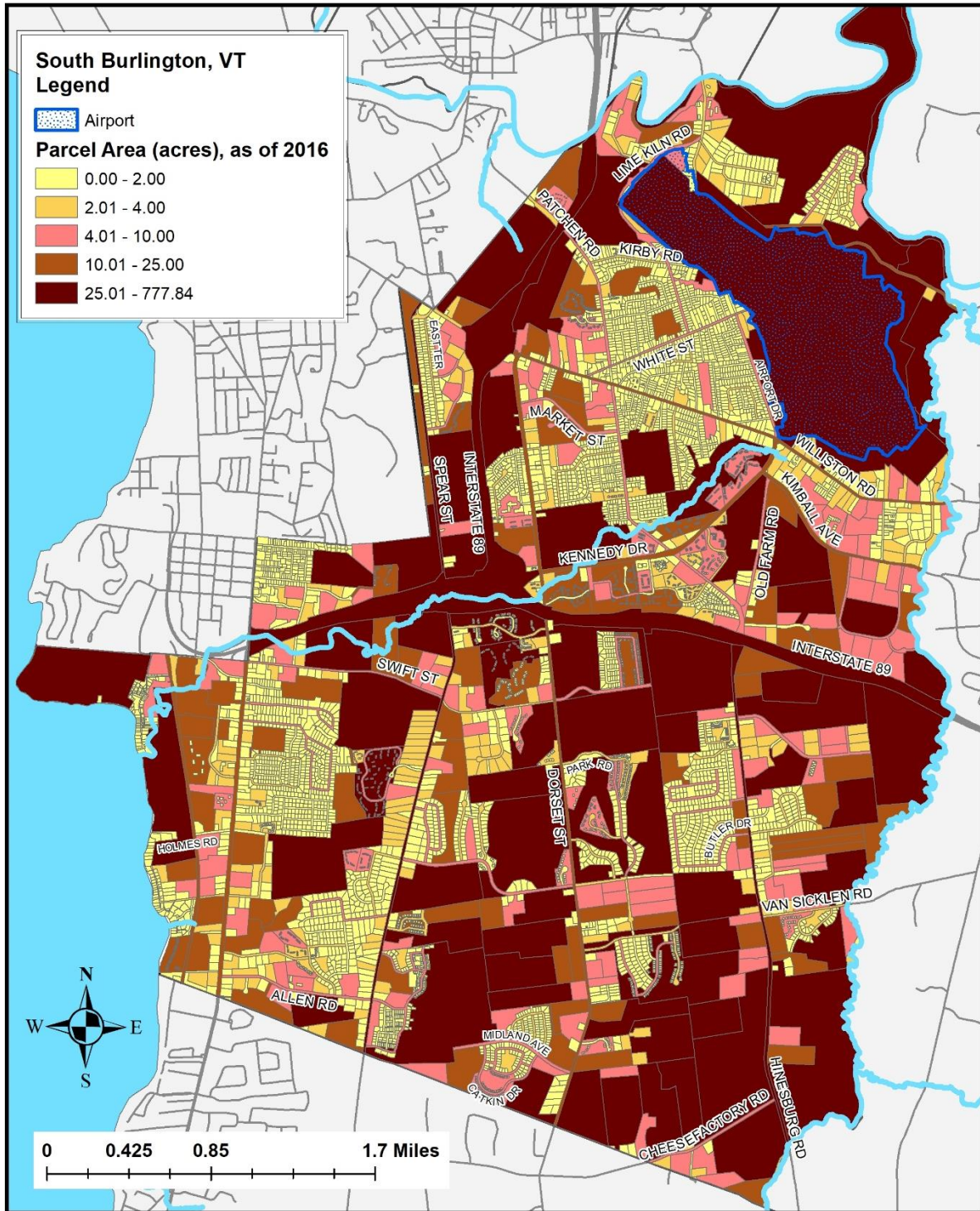
separate land parcels developed over generations of demographic and economic change (Figs. 1 and 2). South Burlington is now home to an enormous array of successful commercial enterprises, voluntary associations and some of the best schools in the state. The state's largest airport is near our city center. We are cheek by jowl with the state's largest city, and three of the five contiguous suburbs have growth rates that approach or exceed our own. At the same time, South Burlington also suffers from commercial strip development and significant traffic congestion in several travel corridors (Shelburne and Williston roads, and I-189) as some of the county's major arteries move commuters through our City to and from the more distant suburbs. It is frequently noted that it is difficult to drive most places in Chittenden County without going through South Burlington.

Consequently, South Burlington's natural ecosystem, open spaces, forests, farms, river and stream corridors have been gradually fragmented and degraded over decades of growth and development. Although City planning and other regulatory bodies have been working to shape and control growth and prevent resource further degradation, each generation—and each study—needs to start its conservation planning where the last plan left off. As we undertook our research, we were well aware that we were starting with a city map that includes significant development, rather than starting with an environmentally clean slate. These comments on the context should not be interpreted as an argument that 2019 is “too late” and that the City should simply yield to development pressures. On the contrary, the relative shrinkage of open space and loss of valuable natural resources in South Burlington make conservation efforts all the more important, but also more complex.



This map is for planning purposes only. Map created by Amanda Holland for the South Burlington Interim Zoning Open Space Committee, January 2020.

Fig. 1. Parcel boundaries and impervious surface in South Burlington, Vermont.



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Fig. 2. Distribution of parcels of various sizes across South Burlington, Vermont.

Methodology

The Open Space Committee was guided at every step by the City Council’s charge to the committee:

The prioritization for conservation of existing open spaces, forest blocks, and working landscapes in South Burlington in the sustenance of our natural ecosystems, scenic viewsheds, and river corridors.

The Open Space Committee developed criteria to evaluate South Burlington’s remaining open space parcels that addressed these qualities. We used a two-tiered approach.

In Tier 1, we wanted to capture larger scale ecosystem functionality to help focus conservation efforts on parts of the city that would best maintain the ecological functionality of our natural resources, knowing that any conservation efforts would be undertaken with finite and limited financial resources. We included three attributes to assess broader scale conservation value to the city: parcel size, proportion of impervious surface on the parcel, and contribution to local and regional ecological function (Table 2).

- For parcel size and percent impervious surface, we used a mapping layer developed by the City of South Burlington and the Chittenden County Regional Planning Commission that identified 190 parcels that were both greater than 4 acres and covered by less than 10% impervious surface (Fig. 3). These parcels represent those areas that are both of moderate size and have experienced the least degradation of environmental quality.
- To address local and regional ecological functionality, we used Vermont’s Agency of Natural Resources BioFinder 2016 database and included the “highest priority” and “priority” layers (Fig. 4). Highest priority areas are critical for maintaining an ecologically functional landscape and priority areas are important for ecological functionality at the local scale. This follows the principles articulated in the Agency of Natural Resources publication *Mapping Vermont’s Natural Heritage* “the highest likelihood of maintaining an ecologically functional landscape will be achieved by conservation of both highest priority and priority components” (Przyperhart et al. 2018).

In Tier 2 we addressed the attributes specified in the City Council’s charge. i.e., water resources, wildlife habitat, forest resources, aesthetics, and agriculture. The committee spent considerable time deliberating on how best to capture these attributes given available data sources (Table 2).

- For water resources, we included riparian connectivity, wetlands, water source protection area, 100-year floodplains, and the Lake Champlain coastline.
- For wildlife habitat, we included rare/uncommon species, large habitat blocks (interior forest), road crossings, vernal pools, and grasslands.
- For forests, we included large blocks and rare/uncommon natural communities.
- For aesthetics, we included viewsheds and aesthetic natural features.
- For agriculture, we included prime agricultural soil and farmland.

The rating of the natural resource attributes of the South Burlington open space parcels was carried out by the Committee members. We first created a detailed instruction sheet for how to access each data layer and worked through a number of parcels as a group to ensure consistency in the assessment process. One important aspect of the assessment process was that each parcel

was reviewed holistically. For example, if a wetland made up 10% of the surface area of a parcel, that parcel received a “check” (here, a “1”) for wetlands. Our reasoning for this approach was that our charge from the City Council was to prioritize existing open spaces for conservation. Consequently, we believed that a liberal approach to the scoring of natural resources was better aligned with our charge, rather than take a reductionist approach to try to estimate the proportion of a parcel that held a particular resource. Using the detailed instruction sheet, committee members developed ratings for each parcel. Each committee member was assigned a portion of the 190 parcels in the > 4 acre, < 10% impervious surface data layer.

Table 2. Sources of data used by the Interim Zoning Open Space Committee to assess conservation and natural resource values for parcels in South Burlington.

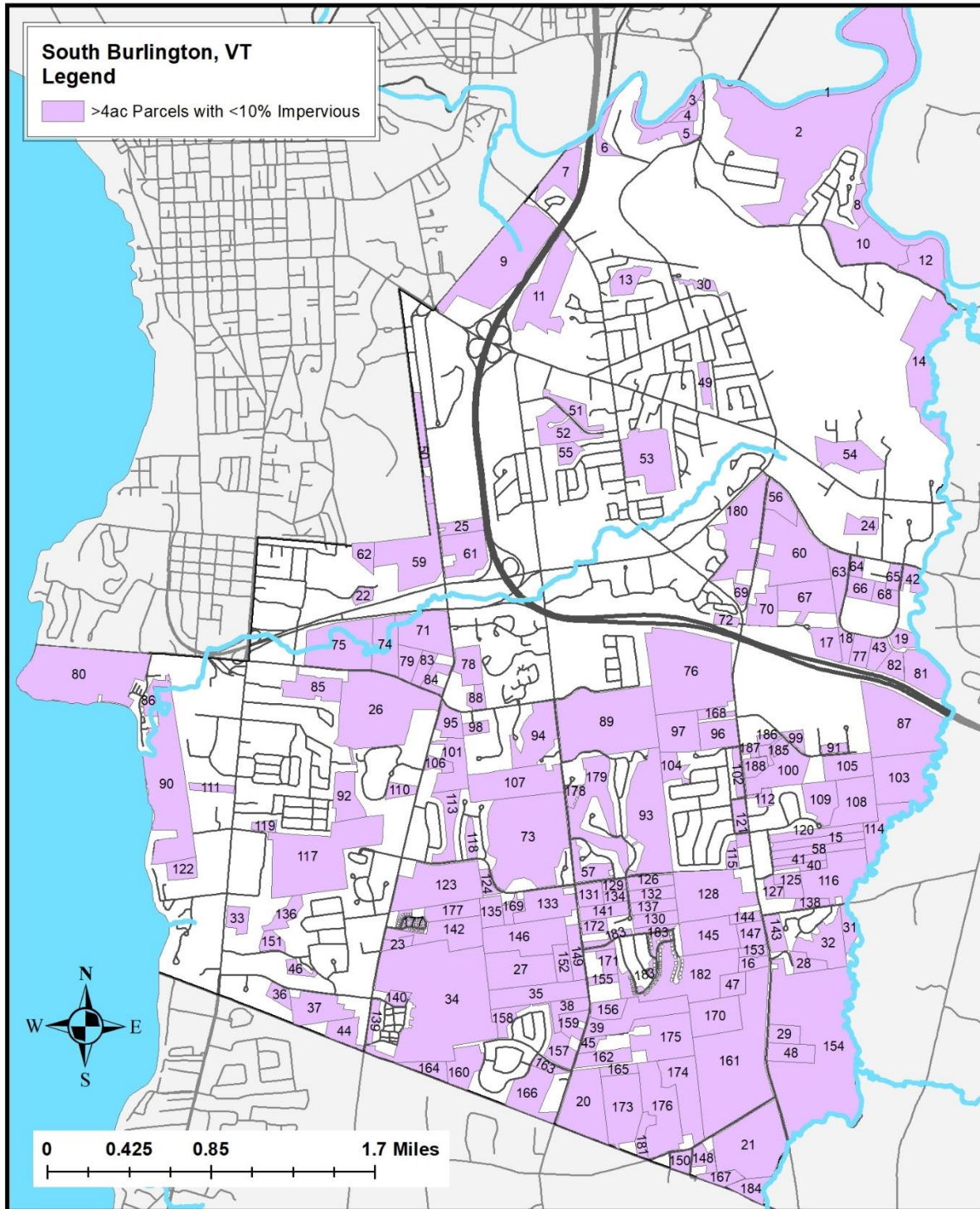
Tier 1		<p>Purpose: Large scale conservation framework for conserved land in South Burlington. Our goal was to be able to look at South Burlington from space and actually see a thoughtful planning process around conserved/protected open space.</p> <p>Scoring: A parcel must receive positive scores for size threshold, impervious surface, and connectivity (BioFinder).</p>	Where to View
	Size Threshold and low extent of impervious surface	The minimum acreage for an individual parcel is 4 acres and less than 10% of the parcel can have existing impervious surfaces. This follows the principle of conservation biology that all else being equal, larger parcels are better.	South Burlington Natural Resource Inventory Map -> Open Space IZ Committee -> Parcels over four acres with less than 10% impervious surface.
	Connectivity of conserved land	As defined by BioFinder, the purpose of this dataset is to represent the "big picture" or a landscape scale component that shows the way several components work together to create a base area needed to support ecological interactions across the community and region. The design is based on five datasets: Interior Forest Blocks, Connectivity Blocks, Riparian Wildlife Connectivity, Surface Water and Riparian Areas, and Physical Landscape Diversity.	BioFinder -> Prioritization -> Overall Priorities: VT Conservation Design -> Landscape Scale (components combined) -> Both Priority Ranks

Tier 2		<p>Purpose: Conservation of key natural and social resources. Each site was evaluated for the presence of the following criteria: Water, Wildlife, Forests, Aesthetics, and Agriculture, based on the charge from the City Council.</p> <p>Scoring: A parcel would only need to score “Yes” on one of the sub-components in any one of the 5 areas to receive a “check” for that criterion. For example, the parcel would score positively for Water if it had a wetland, but did not have any of the other components.</p>	Where to View
Water	Riparian Connectivity	Includes all non-developed cover classes within the Surface Waters and Riparian Area (A1) dataset. Developed land classes were filtered-out from the surface waters dataset to create the riparian connectivity component	BioFinder -> Prioritization -> Component Layers -> Landscape Scale Components -> Riparian Wildlife Connectivity
	Wetlands	Includes: Class 2 Wetlands (Vermont State Wetlands Inventory), 50-foot Buffer (50 foot buffer around Class 2 wetlands), Potential Class 2 Wetlands (Non- jurisdictional wetlands completed by various consulting services Includes Class 3 wetlands)	South Burlington Natural Resource Inventory Map -> Surface Waters & Wetlands -> Class 2 Wetlands (VSWI) + Wetland 50 ft. Buffer + Potential Class 2 Wetlands (State Wetlands Advisory Layer)
	Water Source Protection Area	Surface Water Source Protection Area Zone 1 is isolation area around point of intake and Zone 2 is primary recharge area.	South Burlington Natural Resource Inventory Map -> Surface Waters & Wetlands -> Surface Water Source Protection Area
	100-year Floodplains	Special Flood Hazard Area addresses expected inundation areas from uncommon storm events; does not address fluvial erosion hazards	South Burlington Natural Resource Inventory Map -> Surface Waters & Wetlands -> Special Flood Hazard Area or 100-year Flood

Wildlife	Lake Champlain Coastline	Lakeshore Setback Areas: Includes 100 foot and 250 foot buffer measured from high water elevation of Lake Champlain	South Burlington Natural Resource Inventory Map -> Surface Waters & Wetlands
	Rare/Uncommon Species	Rare species are generally considered to be those with 20 or fewer populations statewide; uncommon species are considered those with more than 20 but 80 or fewer populations statewide	BioFinder -> Prioritization -> Component Layers -> Community and Species Scale Components -> Rare species + Uncommon Species
	Large Habitat Blocks (Interior Forest)	This represents areas of the most highly contiguous forest and other natural habitats that are unfragmented by roads, development, or agriculture. While these areas defined as interior forest blocks are primarily forests, they may also include wetlands, rivers and streams, lakes and ponds, cliffs, and rock outcrops.	BioFinder -> Prioritization -> Component layers -> Landscape Scale Components -> Priority Interior Forest Blocks
	Road Crossing	These areas provide a preliminary look at where wildlife are most likely to cross roads based upon expert opinion (US Fish & Wildlife Service and computer modeling) to locate areas with a high concentration of the landscape features most closely associated with wildlife crossing areas. The road segments were given a score of 1 to 5; highest priority is given to those crossings ranked as 3, 4, or 5 in which a section of the crossing is located in either a riparian area or a Highest Priority Connectivity Block.	BioFinder -> Prioritization -> Component layers -> Community and Species Scale Components -> Highest Priority Wildlife Crossings + Priority Wildlife Crossings

Forests	Grassland	These areas represent grassland and shrubland and will include parks, golf courses, etc. These areas are considered as potential connecting habitat for various wildlife species. This was developed by tracing all open space that have not been developed.	Map digitized by Duncan Murdoch: https://tinyurl.com/qnoaytt Fields/Shrublands
	Vernal Pools	Vernal pools are small, ephemeral pools that occur in natural basins within upland forests. They typically have no permanent inlet or outlet streams and generally last only a few months and then disappear by the end of summer. The only mapped occurrence in City is Red Rocks Park.	BioFinder -> Inventory -> Water -> Vernal Pools & Vernal Pools Potential
	Contiguous Forest Blocks	Habitat blocks are defined as forested areas. For the BioFinder, forested areas need to be at least 20 acres with no roads, little or no development such as buildings, parking areas, lawns, active agricultural land, and so forth, but can be composed of any natural land cover type: various successional stages of forest, wetland, old meadow, among others.	Map digitized by Duncan Murdoch: South Burlington Natural Resource Inventory Map Open Space IZ Committee -> Forested Areas
	Rare/Uncommon	A natural community is a group of plants, animals, physical features, and natural processes that can be found together wherever similar environmental conditions exist. Natural communities can therefore act as a filter for long- range conservation efforts by showing us locations worthy of	BioFinder -> Prioritization -> Component Layers -> Community and Species Scale Components -> Rare Natural Communities + Uncommon Natural

Aesthetics	Viewsheds	As identified in the 2014 Open Space Report of potential scenic viewsheds of the Adirondacks, Green Mountains or Lake Champlain	2014 Open Space Report Pg 20 https://tinyurl.com/r3uzxez
	Aesthetic Nat Features	The Natural Resources Scorecard identifies this criteria as preserving some other resource of aesthetic value (for example, a pond, shoreline, or a waterfall)	Knowledge of property features (used only for a few parcels)
Agriculture	Prime Ag Soil	As identified by the NRCS, USDA. Prime farmland is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses. It could be cultivated land, pastureland, forestland, or other land, but it is not urban or built-up land or water areas.	South Burlington Natural Resource Inventory Map -> Agriculture -> Primary Agricultural Soils (Prime)
	Farmland	Draft Land Cover UVM Spatial Analysis Lab created for VT ANR	BioFinder -> Inventory -> Land Cover -> Cultivated crops + Pasture Hay



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Figure 3. One hundred and ninety parcels evaluated by the Interim Zoning Open Space Committee for environmental and natural resource attributes. Each parcel is greater than 4 acres in size and covered with less than 10% impervious surfaces.

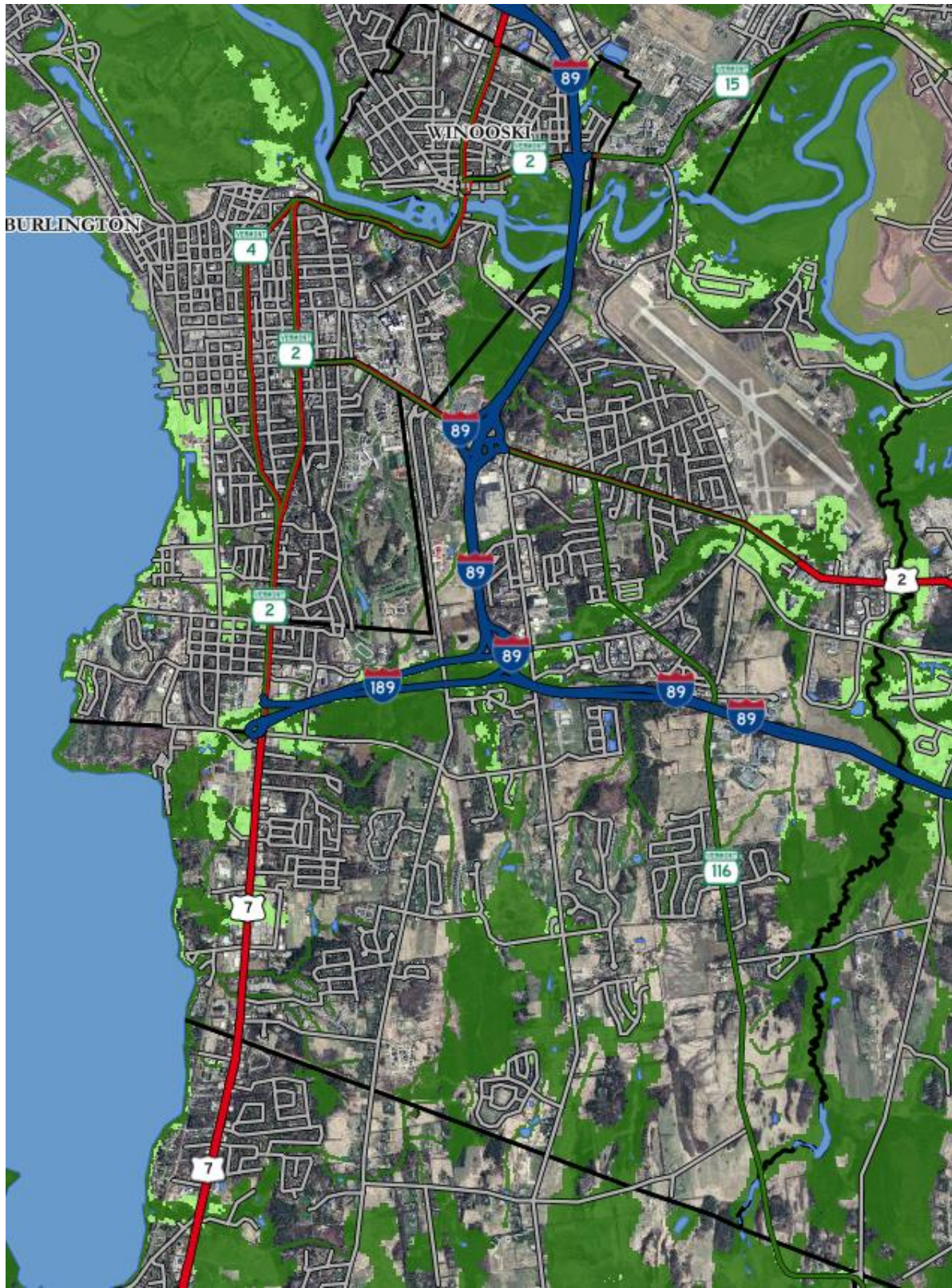


Figure 4. Highest priority (dark green) and priority areas in South Burlington from the VT Agency of Natural Resources BioFinder 2016.

Once all parcels were assessed, we used the scores in Tier 1 and Tier 2 to create a set of high priority parcels for open space conservation. The prioritization considered only the 190 parcels that were larger than 4 acres and had less than 10% of the area covered by an impervious surface. In Tier 1, the parcel had to be at least partially included in the BioFinder highest priority or priority layers. In Tier 2, the parcel had to include resources in a minimum of three of the five categories (water, wildlife, forests, aesthetics, and agriculture). In these cases, a parcel only needed to receive a “1” in one of its subcategories to be counted as having that natural resource, again following our approach of liberal scoring with respect to natural resource values in a parcel

To be thorough, we assessed all 190 parcels regardless of their current degree of protection in South Burlington. We then eliminated parcels that were already conserved through 1) permit requirements which restrict development, 2) publicly-owned parks or lands with conservation designation, and 3) third party conservation ownerships or easements. However, we did include parcels with regulatory restrictions on development (primary parcels zoned as natural resource protection) that met the Tier 1 and Tier 2 criteria noted above, recognizing that regulatory restrictions may change over time. After we developed this list of priority parcels, we made some adjustments to the final list of properties, moving some to a lower priority grouping if they had characteristics that made them less appropriate as conservation priorities. These included characteristics such as smaller size, currently approved for development, or already included a moderate level of development (Table 3).

There are a number of caveats that are important in interpreting our results. Understanding these caveats will enable the reader to understand how to use these findings to develop appropriate action to achieve the resource protection effectively.

First, the ratings in this report for each parcel were primarily done using mapping, not on-site visits by professionals. The maps did not always align with City, State and County databases. As the 2014 report by the previous Open Space Committee noted, field surveys will be ultimately required to verify the existence or absence of the resources. Second, many of the members of the Committee were amateurs in the discipline of interpreting maps of natural areas. Training was undertaken so that most members felt comfortable with their assigned parcel classifications, but for the most part, each parcel was rated by a single individual, although we undertook a significant data proofing effort once the assessment process was completed.

Third, the ANR’s VT BioFinder maps—the basis for most of our ratings—are not perfect representations of the every parcel evaluated. See <https://anr.vermont.gov/node/984> For example, under the “Community and Species Scale” one finds this caution: “As you interact with this map, please remember that all data were collected for use at the state or town level. Though you can zoom in to individual parcels, for example, you need to understand the limitations of each of the datasets you're using.” Likewise in the section on interpreting “Scale and Accuracy” this appears: “The accuracy for other components (Interior Forest) can diminish as one zooms in. Because of these accuracy issues at the local scale, BioFinder cannot replace site visits or site-specific data and analyses and should only be used to gain a general understanding of components likely to be at play.” Another paragraph titled “Component Limitations” also reminds us that while the centerline of streams is thought to be quite accurate, the “standardized

buffer” the maps portray created inaccuracies, and so site-specific surveys are recommended prior to making land-use decisions.

Finally, it is important to note that the maps we employed were created at a discrete point in time, while the character of the city’s natural resources may change between map construction and our use of the spatial data. Likewise, land use will change in the future. Conserved land will increase the value of adjacent properties, farmland will succeed to forests, and additional development will impact the movement patterns of our city’s wildlife. Although we cannot predict the future land use patterns of the city, we believe our recommendations provide a means to protect the city’s important natural resources and maintain or improve the ecological integrity of South Burlington.

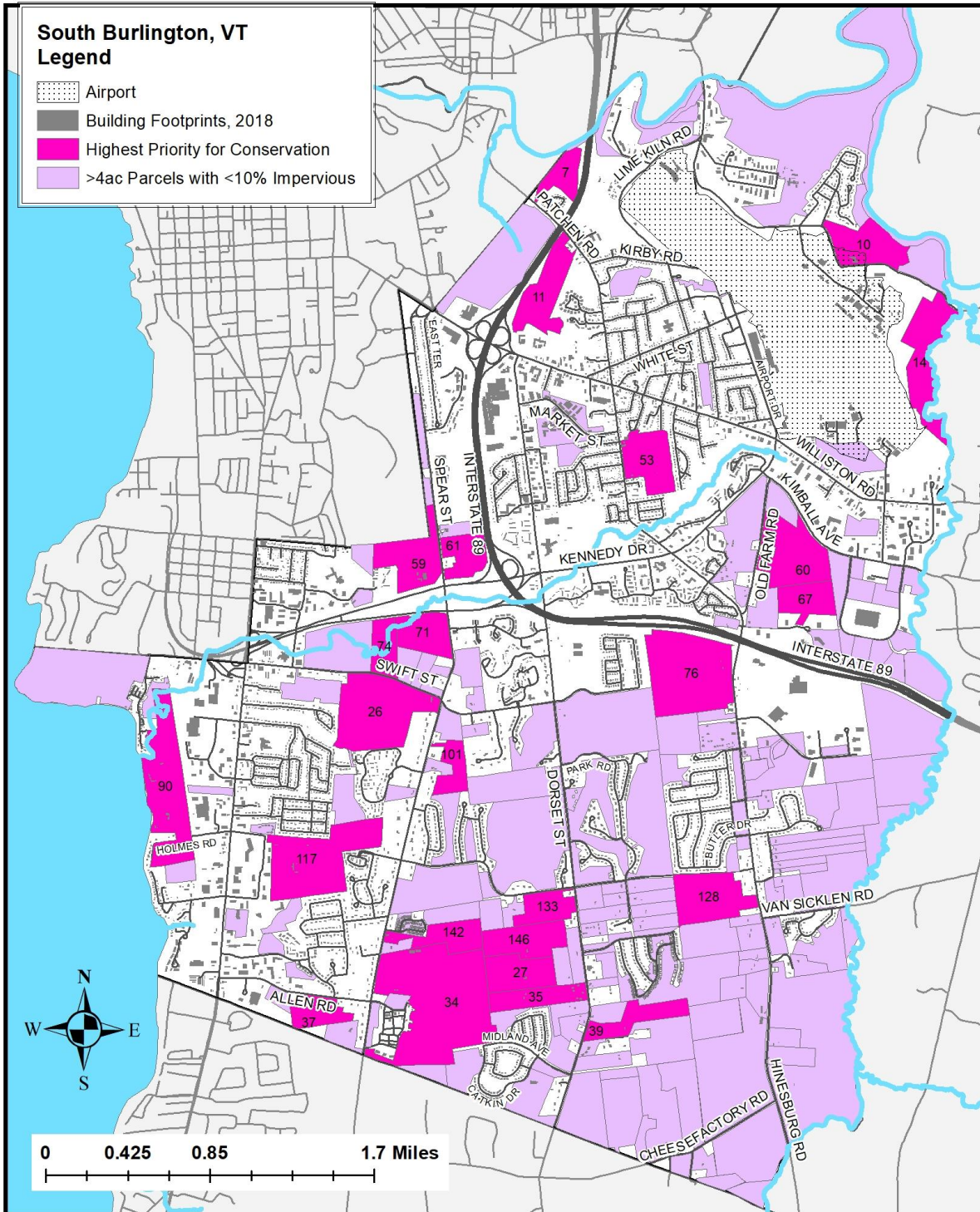
Results

Of the 190 parcels we evaluated, 133 (70%) were included in high priority and priority areas as defined in BioFinder. Of those 133 parcels, 94 (71%) contained natural resource attributes in 3 of our 5 categories, suggesting strong alignment between BioFinder and our parcel-based assessment criteria. We removed already conserved parcels, reducing the list to 72 parcels (38% of all parcels). We then reduced this list to 25 parcels (Fig. 5, Table 4) by eliminating parcels that had attributes that reduced their value for conservation, particularly if they were to be purchased with public funds (Table 3). This larger group of 72 parcels does have conservation value for South Burlington and we support their long-term protection, but they do not have the same level of importance as our grouping of 25 priority parcels (Fig. 6).

Table 3. Justification for removal of 47 parcels from our priority list. These parcels were within the BioFinder “high priority” and “priority” areas and had natural resource attributes in 3 of our 5 categories.

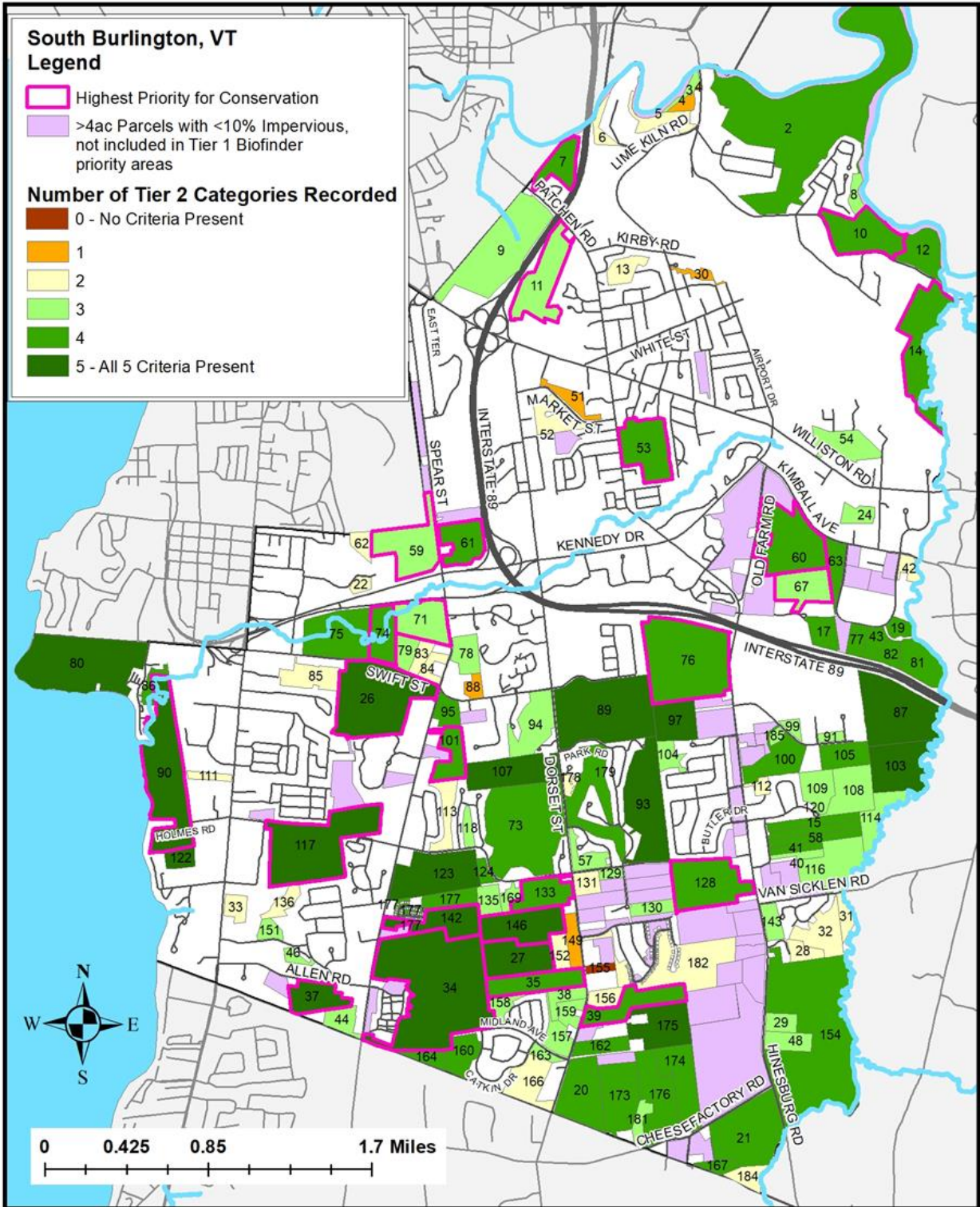
Justification for removal from priority list	Number of parcels	Total acreage
Small parcel size	16	166
100% of parcel within Natural Resource Protection area	10	210
Within Technology Park	5	68
Within Meadowlands Industrial Park	4	58
Contains single family home	3	41
Golf course	3	170
Development already approved	2	24
Within Winooski River floodplain	1	286
Solar farm	1	33
Half of parcel in Shelburne	1	9
Total	47	1065

Top 25 Highest Priority Parcels for Conservation



This map is for planning purposes only. Map created by Amanda Holland for the South Burlington Interim Zoning Open Space Committee, January 2020.

Fig. 5. Highest priority parcels for open space conservation as assessed by the Interim Zoning Open Space Committee.



This map is for planning purposes only. Map created by Amanda Holland for the South Burlington Interim Zoning Open Space Committee, January 2020.

Figure 6. Highest priority areas for conservation and final Tier 2 rankings for all 190 parcels assessed by the Interim Zoning Open Space Committee. Parcels with lilac fill were not included in the BioFinder “high priority” and “priority” areas.

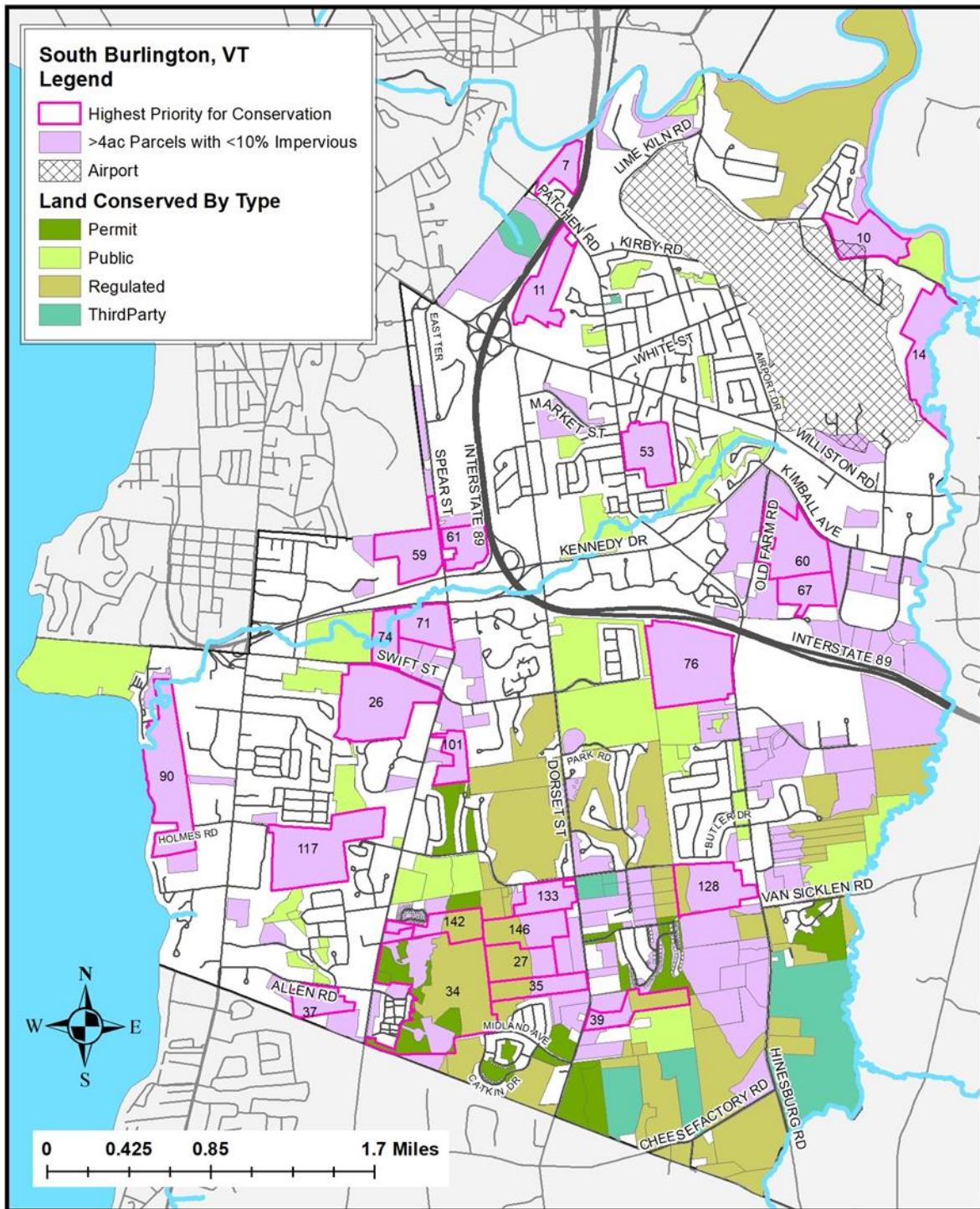
We classified our priority parcels for conservation into two categories. Those owned by the University of Vermont and those owned by private landowners. These parcels are distributed throughout the city, with the greatest concentration around the Great Swamp and the Potash Brook watershed (Figs. 2 and 3). The 20 non-UVM parcels total 1040 acres and the 5 UVM parcels total 304 acres.

Not including areas within the Natural Resource Protection area, South Burlington currently has about 1300 acres of conserved land, roughly equally dispersed between three categories of conservation (permit requirements that restrict development, publicly-owned parks or lands with conservation designation, and third party conservation ownerships or easements; Fig. 7). We believe that additional protection is necessary to maintain the remaining ecological functionality in South Burlington as our charge from City Council was founded on the backdrop of a municipality that already supports significant residential and commercial development. As such, our recommendations are to conserve the most ecologically valuable parcels of those parcels that currently have no, or minimal development.

Although we did not prioritize our parcel list, we provide some suggestions for ways to consider prioritization of parcels assuming that there will be opportunities to protect these areas through purchase or development restrictions. These are organized around the most significant ecological features of South Burlington: the Great Swamp, Potash Brook and the Shelburne Bay shoreline, Muddy Brook and South Burlington's relatively small border with the Winooski River.

1) **The Great Swamp** (OSIZ# 34, 142, 35, 27, 146, 133) –Most of the parcels that are recommended for conservation in the Great Swamp ecosystem have both some regulatory protection through zoning (NRP) and some degree of development (single family homes). The connection between South Village and Dorset Farms has fragmented this ecosystem and further development will continue to degrade its functionality. Creating a “Great Swamp preserve” would maintain the ecological values of this part of South Burlington and could provide a buffer from disturbance resulting from further development pressure.

2) **Potash Brook Watershed** (OSIZ# 26, 53, 59, 60, 61, 67, 71, 74, 76, 90, 101, 126) – The Potash Brook watershed covers roughly half of the area of South Burlington and the watershed is nearly 100% within the city boundary. As such, the impaired status of the watershed is entirely South Burlington's responsibility. Twelve of 25 priority parcels fall within this watershed. Some parcels are unlikely to see further development (e.g., the Resurrection Park cemetery), but given the proposed UVM sale of the Edlund tract, implicit assumptions about a parcel's conservation status is misleading. We doubt that the city will be able to conserve all of these parcels, but given that the watershed is already impaired, further inputs from new impervious surfaces will challenge the city to meet its TMDL targets for phosphorus and other pollutants. We include the Farrell property in this group, which includes both the terminus of Potash Brook and the most significant portion of undeveloped, privately owned shoreline along Shelburne Bay.



This map is for planning purposes only. Map created by Amanda Holland for the South Burlington Interim Zoning Open Space Committee, January 2020.

Figure 7. Highest priority areas for conservation as identified by the Interim Zoning Open Space Committee and all parcels that have some degree of development restriction in South Burlington, Vermont.

3) **Muddy Brook and the Winooski River watershed** (OSIZ# 7, 10, 11, 14) – Although the Committee did not set out to suggest conservation targets throughout the city, we hoped that our process would find parcels with valuable natural resources north of Route 2. The four parcels are adjacent or contain the Winooski River (7, 10), Muddy Brook (14), or Centennial Brook (11). It may be unlikely that development occurs in these parcels, but given their proximity to the downstream portions of significant watersheds, these parcels should be protected from both residential/commercial development and additional disturbance.

4) **Remaining parcels** (OSIZ# 37, 39, 117) – These parcels do not fit neatly into any category, but provide wildlife habitat, connectivity of forested tracts (37, 39), and water quality attributes (117) for the city.

5) **UVM properties** (OSIZ# 26, 59, 61, 71, 117) – The University of Vermont owns a significant amount of land in South Burlington and their contributions to the city’s open space are highly valuable. UVM land is diverse, including agricultural land, natural areas, and forested land, many of which also provide important recreational opportunities for the community. Currently, most of the UVM land is zoned as Institutional and Agricultural, which puts some restrictions on development options. However, as the University’s financial health changes over time, these properties might be sold, such as the recent RFP to sell the Edlund tract. We strongly suggest that the city work with UVM to better understand their long-term goals for properties within South Burlington and perhaps add these parcels to the official map such that the city has the right of first refusal in the event of a sale.

Table 4. Twenty-five priority parcels recommended for protection by the Interim Zoning Open Space Committee. Parcel number does not always match the grand list, therefore alignment to Figs. 5 and 6 is through the OSIZ number. All parcels were within the BioFinder “high priority” and “priority” areas; in addition a parcel needed to contain resources in a minimum of three categories. The categories on which parcels were assessed had a variable number of criteria (Water = 5, Wildlife = 5, Forest = 2, Aesthetics = 1, and Agriculture = 2). Aesthetics was the most conservative as parcels needed to be within scenic viewsheds identified in the 2014 South Burlington Open Space Report, with the exception of a few parcels for which committee members made strong arguments for other aesthetic values. Additional information on each parcel can be found in the appendix.

Parcel Number	OSIZ Number	Parcel Size	Conservation Status	Number of “checks” within IZ Open Space Conservation Categories					Total # categories for which resources are present	Notes/location
				Water	Wildlife	Forest	Aesthetics	Agriculture		
1290-00600	7	22		3	2	2	0	1	4	Wedge-shaped parcel between Patchen Rd. and I-89
1380-00000	10	46		3	2	1	0	1	4	Along Winooski River adjacent to Muddy Brook Park
1810-01076	11	49		2	1	1	0	0	3	Windjammer property, separated from Centennial Woods by I-89
1460-00000	14	64		3	3	1	0	1	4	Downstream terminus of Muddy Brook
0570-01575	27	39	NRP (~50%)	2	1	1	1	1	5	Great Swamp

1640-01840	34	181	NRP (~75%)	3	3	1	1	2	5	Eastern side of South Village development
0570-01675	35	31	NRP (~50%)	2	2	1	0	1	4	Great Swamp
0040-00201	37	26		3	1	1	1	2	5	South side of Allen Road
0085-00197	39	33	NRP (~50%)	2	1	1	0	1	4	East of Dorset St., south of Cider Mill
0860-00160	53	45		3	1	1	0	1	4	Resurrection Park Cemetery
1260-00200F	60	64		3	2	1	0	1	4	O'Brien property, east side Old Farm Rd.
0860-RR750	67	31		4	0	1	0	1	3	O'Brien property, west of Technology Park
1700-00150	74	25		4	2	1	0	1	4	150 Swift St.
0860-00835	76	108		3	2	1	0	1	4	Hill Farm
1540-01195	90	95		5	1	1	1	2	5	Farrell property along Shelburne Bay
1640-01340	101	22		3	1	0	1	1	4	Spear Meadows
0860-01499	128	56	NRP (~15%)	3	1	0	1	2	4	Hinesburg Road south of Butler Farms
0570-01475	133	27		2	2	0	1	1	4	Dorset Meadows
1640-01720	142	33	NRP (~50%)	3	2	1	1	2	5	Great Swamp

0570-01505	146	43	NRP (~50%)	2	2	1	1	1	5	Great Swamp
1640-01251	26	96	UVM	3	1	1	1	1	5	Wheelock West
1640-00699	59	49	UVM	3	2	0	0	2	3	UVM Forest Science lab
1640-00650	61	29	UVM	3	1	1	0	2	4	UVM
1640-01195	71	34	UVM	4	2	1	0	0	3	Edlund tract
0720-00065	117	96	UVM	3	2	1	1	1	5	Horticultural Farm

Discussion

Functionally and aesthetically, South Burlington is the most central of the suburbs surrounding the larger Burlington metropolitan area. As such, we understand that there are myriad pressures on each remaining parcel of open space. However, because our charge was specifically “the prioritization for conservation of existing open spaces,” we intentionally kept that charge at the center of our work. Our methodology and results are available to other committees or working groups to use and modify for their own work. In a regional context, no town is an island; in the complex ecological system, a change in one town impacts the ecology of another.

Currently, South Burlington has a substantial amount of conserved land, but the city also faces a number of challenges with respect to maintaining its ecological functionality. Water quality is a significant issue, with both Potash Brook and Bartlett Brook having impaired waterway status and both falling nearly entirely within the boundaries of South Burlington. Significant barriers to wildlife movement include I-89, I-189, Williston Road, Shelburne Road, Spear St., Dorset St., and Hinesburg Road. Loss of open space has become a significant concern of South Burlington residents; at the same time Chittenden County continues to have low housing/rental vacancy rates that challenge would-be residents’ ability to live in the city. South Burlington recently signed on to the Vermont Climate Pledge Coalition vowing to meet or exceed the obligations for the United States in the Paris Agreement, which could prove difficult to achieve with substantial loss of open space and the potential for carbon sequestration coupled with increased emissions from home heating/cooling and transportation.

As noted in the methods section, we believe our charge from City Council: “The prioritization for conservation of existing open spaces...” gave us license to be liberal with respect to the presence of natural resource attributes on a parcel. However, it is important to note that even though all categories have been scored as either a “1” or a “0,” it should not be assumed that all categories are of equivalent importance, nor that the resource in question is always amenable to a discreet rating of “yes” or “no,” “1” or “0.” Gradients are possible, and in many cases, likely. Additionally, some categories are imprecise. For example, the maps that identify a block of forest land as having between “20 to 500 acres of forest” may only touch on a corner of any given parcel. The “quality” of forest may also vary greatly—from prized stands of Sugar Maples to mixes of softwoods or invasive species. The five categories we used for assessment had different numbers of sub-categories. Water and Wildlife each had 5 sub-categories, in the end, aesthetics only had one (viewsheds). As such, it was somewhat easier for a parcel to be assessed positively for the presence of water or wildlife attributes (most priority parcels scored positively in these two categories), whereas only 11 parcels scored positively for aesthetics.

The ratings in this report for each parcel were primarily done by Committee members reviewing readily available mapped data, therefore our accuracy can only be as valid as data sources. Depending on the location of the parcel, some Committee members were able to drive to the site and view the parcel from the roadway for primitive ground truthing. As the 2014 report by the previous Open Space Committee noted, field surveys will be ultimately required to verify the existence or absence of the resources. Property boundary lines rarely correlate with ecological areas as manifest in nature, making incompatibilities inevitable. Property lines create straight and rigid polygons while ecological areas are more organic and diffuse. Some parcels have valuable natural resources on a small fraction of the acreage, others are dominated by sensitive areas, yet

we classified priority areas according to the full ownership parcel. It is possible that careful planning—especially on large parcels—can protect the most valued ecological resource while allowing limited development.

Although we are relatively certain that all of 25 our priority parcels will not remain undeveloped, we see our recommendations for conserving these parcels as important opportunities to minimize the effect of South Burlington’s growth on the city’s natural resources. To be fair and equitable to landowners, we have used individual parcels as the unit of conservation. Thus, if a landowner is interested in selling their land for conservation, they should be able to receive fair market value for land that is developable and land that has development restrictions (i.e., NRP areas). However, there will likely be situations where landowners or developers propose developments on these properties. We hope that this document can guide the Natural Resources Committee, the Planning Commission, and the Development Review Board to direct developers away from areas with sensitive natural resources.

**Appendix 1.
Assessment of
Environmental and
Natural Resource
values of the Interim
Zoning Open Space
Committee's highest
priority parcels for
open space
conservation**

Detailed assessments of highest priority parcels

We have used our environment and natural resource assessment database to provide write-ups for each of the 25 priority parcels. These assessments include the following information:

Parcel Number: Refers to City of South Burlington database #

IZ Open Space Number: See Figure 3

Location: Description of general location and nearest roadway or intersection.

Size: Parcel size in acres

Land cover/land use: General narrative about the land cover on the parcel.

BioFinder (Tier 1): States presence of criteria (highest priority or priority)

NR values (Tier 2): # of Tier 2 criteria that are positive

Water: Presence of water criteria (riparian connectivity, wetlands, source protection areas, 100-year floodplain, and Lake Champlain coastline)

Wildlife: Presence of wildlife criteria (rare/uncommon species, large habitat blocks, priority road crossings, vernal pools, and grasslands)

Forest: Presence of forest criteria (large forest blocks, rare/uncommon natural communities)

Aesthetics: Presence of aesthetic criteria (primarily viewsheds)

Agriculture: Presence of agricultural criteria (prime agricultural soil or land currently being used for agriculture)

Adjacency: Describes the location of other conserved lands in relation to this parcel.

Connectivity: Describes how this parcel may provide connectivity to other conserved or open space areas.

Other notes: General notes about the parcel and surrounding area.

Parcel Number: 1290-00600

IZ Open Space Number: 7

Location: Off Patchen Road. Best glimpsed from I-89, and west across the interstate from the CSWD Environmental Depot and the SBSB school bus garage. It may also be seen beyond the back yards of the single dwelling units on Valley Ridge Road, which are to the south. The parcel also bordered on the north by the Winooski River.

Size: 22.4 acres

Land cover/land use: About 1/3 is forested, the remainder seems to be new growth, steep slopes and wetlands on each side of two minor streams.

BioFinder (Tier 1): Highest priority and priority

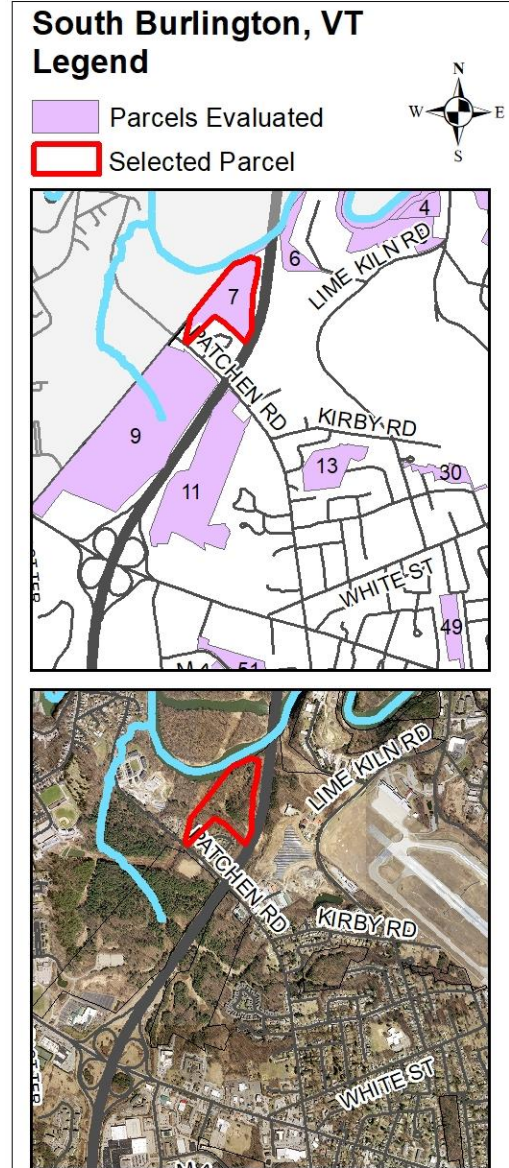
NR values (Tier 2): 3 of 5

- Water:** Positive for riparian connectivity, wetlands, and 100-year floodplain
- Wildlife:** Positive for large habitat blocks and road crossing
- Forest:** Positive for large forest block and rare and/or uncommon species
- Aesthetics:** no rating
- Agriculture:** Positive for prime agricultural soils.

Adjacency: On the north where it touches the Winooski River, there are significant natural communities and class 2 wetlands. The 2002 Open Space Reports rates it as an open space priority area.

Connectivity: To the Winooski River on the north, and Centennial Woods Natural Area on the south side on the other side of Patchen Road. Two minor streams cut across the parcel on their way to the Winooski River.

Other notes: The land is association land owned by the Valley Ridge Association to its south, conserved by the City as “ConPublic.” There is no automobile access into the parcel and the steep slopes of 25% or more are easily seen from I-89 and as they extend to the Winooski River.



Parcel Number: 1380-00000

IZ Open Space Number: 10

Location: North off of Poor Farm Rd and West of WVPD Muddy Brook Park

Size: 46.2 acres

Land cover/land use: The northern portion of the property is a riparian forest, the middle is managed power line transection. The south west is forest and southeast has an agricultural field.

BioFinder (Tier 1): Highest priority

NR values (Tier 2): 5 of 5

Water: Positive for riparian connectivity, 100 year flood

Wildlife: Positive Rare/Uncommon species, Road Crossing

Forest: Positive for large forest blocks, rare/uncommon natural community

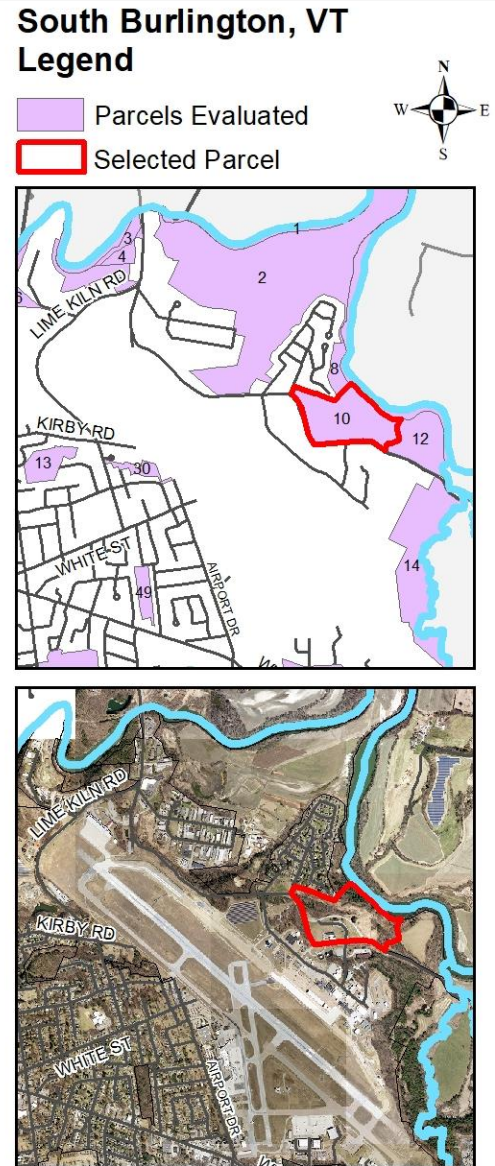
Aesthetics: Positive for viewshed, aesthetic natural features

Agriculture: Positive for prime agricultural

Adjacency: WVPD conserved Muddy Brook Park to the east.

Connectivity: Riparian wildlife connectivity along the bank of the Winooski River provides east/west movement.

Other notes: It is a “2002 Open Space Priority area.” It has some slopes that exceed 25% and afford pleasant views of the Winooski, but the transection of the power lines dominate the view. Riparian buffer is important to maintain and increase for flood protection and water quality.



Parcel Number: 1810-01076

IZ Open Space Number: 11

Location: 1076 Williston Road, behind Windjammer

Size: 49.3

Land cover/land use: Mixed woodland with two stream tributaries; some steep slopes present.

BioFinder (Tier 1): Highest Priority occurs along the stream corridors

NR values (Tier 2): 3 of 5

Water: Positive for riparian connectivity and wetlands

Wildlife: Positive for wildlife road crossing

Forest: Positive for large forest blocks

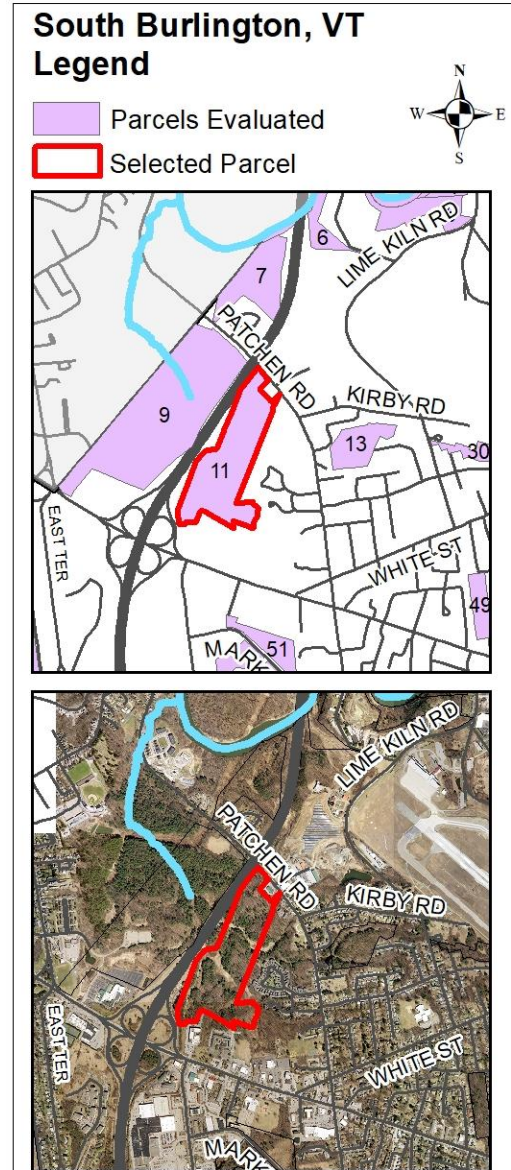
Aesthetics: None

Agriculture: None

Adjacency: No formally conserved properties adjacent to this parcel.

Connectivity: Provides connectivity via Centennial Brook under I-89 to the west to connect with the UVM Centennial Woods property in Burlington. This property to the west is noted as “priority interior forest block” in BioFinder.

Other notes: This parcel includes two tributaries of Centennial Brook, including its “headwaters” at the eastern edge of the parcel. As value to wildlife, this parcel may only have moderate value at larger spatial scales given the lack of adjacent conserved land. However, it provides a significant wildlife crossing for I-89 with a road culvert. This property was identified as an open space priority area in the 2002 South Burlington Open Space Plan. There are limited opportunities for active and passive recreational development due to steep slopes and presence of I-89 to the west.



Parcel Number: 1460-00000

IZ Open Space Number: 14

Location: South of National Guard Avenue and east of the airport.

Size: 63.8 acres

Land cover/land use: The north is a riparian forest, the middle is managed power line transection. The south west is forest and southeast has an ag field.

BioFinder (Tier 1): Highest priority

NR values (Tier 2): 4 of 5

Water: Positive for riparian connectivity, wetlands, and 100 year floodplain

Wildlife: Positive rare/uncommon species, large habitat blocks, and road crossing

Forest: Positive for large forest blocks, rare/uncommon natural community

Aesthetics: None

Agriculture: Positive for prime agricultural



Adjacency: WVPD conserved Muddy Brook Park to the north.

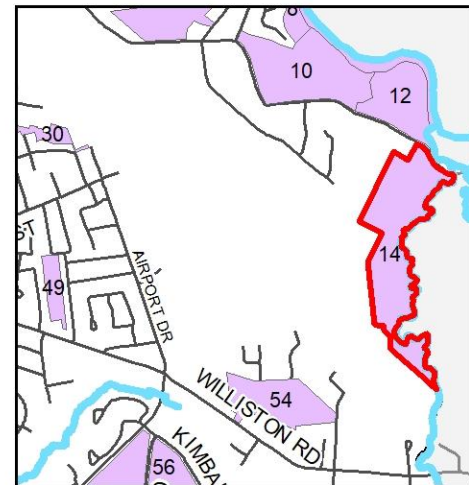
Connectivity: Riparian wildlife connectivity along the bank of Muddy Brook provides north/south movement.

Other notes: It has some slopes that exceed 25%. Riparian buffer is important to maintain and increase for flood protection and water quality particularly along the eastern border of the airport.

South Burlington, VT

Legend

-  Parcels Evaluated
-  Selected Parcel



Parcel Number: 1640-01251

IZ Open Space Number: 26

Location: This property is UVM's Wheelock tract – West and located on the southwest corner of Swift St. and Spear St. To the west, the parcel extends roughly halfway to Shelburne Road along Swift St. To the south, the parcel contains limited frontage on Spear St.

Size: 95.6 acres

Land cover/land use: The property is a mix of agricultural land and forest. Agricultural land is in two sections on the eastern and northern parts of the property. The south-central portion of the property is forested.

BioFinder (Tier 1): Highest priority (along two riparian corridors), small section of priority on northern edge of parcel.

NR values (Tier 2): 5 of 5

Water: Positive for riparian connectivity, wetlands, and source protection area

Wildlife: Positive for wildlife road crossing

Forest: Positive for large forest block

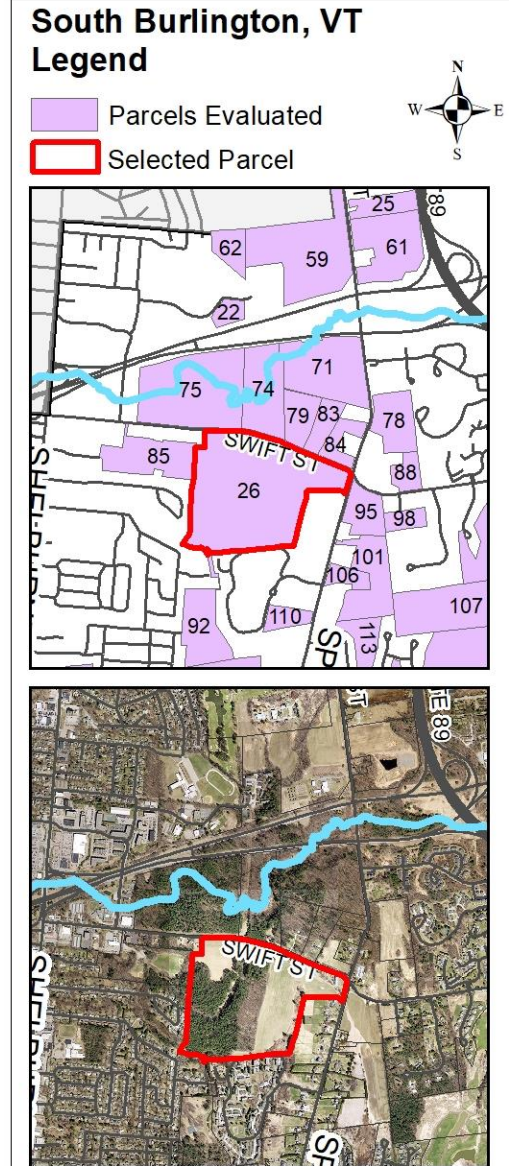
Aesthetics: Positive for viewshed

Agriculture: Positive for farmland (pasture/hay and cultivated crops according to BioFinder/Land Cover data)

Adjacency: This parcel is adjacent to the city-owned Farrell Park and is connected via city-owned bikepath to Syzmanski Park. North of the property, across Swift St., is the UVM Natural Area East Woods.

Connectivity: The parcel is among a number of fragmented forested patches that surround Potash and its main tributaries. All of these parcels are fragmented by major roadways: Swift St., Spear St., Kennedy Dr., I-89, and I-189.

Other notes: The property is used by UVM's College of Agriculture and Life Science for agricultural cropland and research. It also is the location of the University's Adventure Ropes. The Wheelock Barn is used for Physical Plant storage and surplus equipment. Easements have been given to the City of South Burlington for the South Burlington Recreation Path, a nature trail, and Burlington Area Community Gardens.



Parcel Number: 0570-01575

IZ Open Space Number: 27

Location: 1575 Dorset Street

Size: 38.9 acres

Land cover/land use: Approximately 2/3 forested and the remainder in grassland/hayfield.

BioFinder (Tier 1): Highest priority

NR values (Tier 2): 5 of 5

Water: Positive for riparian connectivity and wetlands (Class 2).

Wildlife: Positive for grasslands.

Forest: Positive for large forest block.

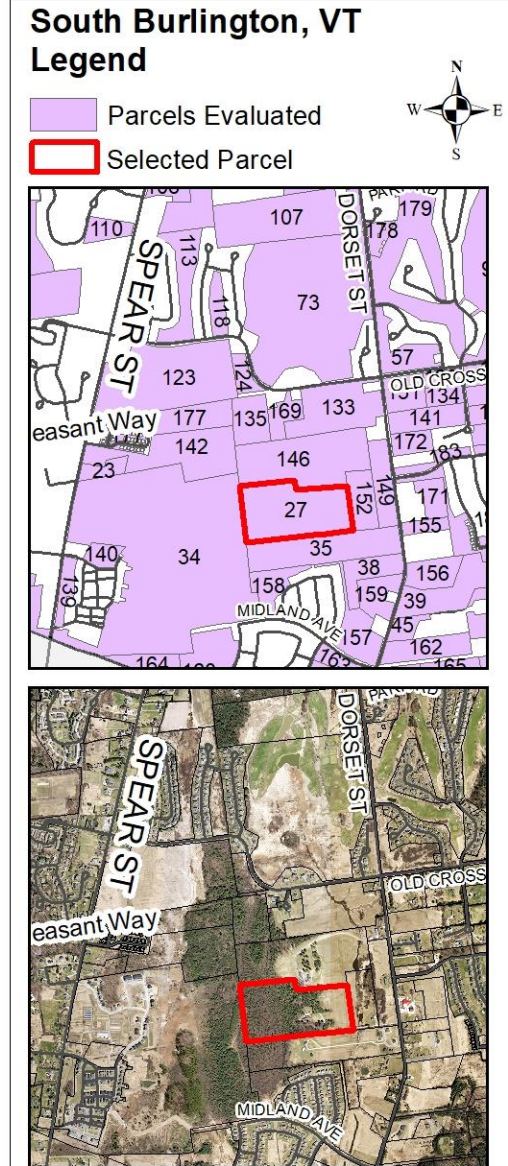
Aesthetics: Positive for viewshed.

Agriculture: Positive for hay pasture.

Adjacency: This parcel is within an area called the Great Swamp that is rich in natural resources.

Connectivity: As part of the Great Swamp, the parcel provides significant connectivity to the south. The soils are very rich in clay. Being a wetland, it is an important habitat for wildlife. It acts as a wildlife corridor between Shelburne Pond and Eastwoods.

Other notes: Approximately 60% is classified NRP and the remainder in NRT. Approximately 25% on east side and west side is classified as Open Space Priority area in the 2002 open space plan.



Parcel Number: 1640-01840

IZ Open Space Number: 34

Location: This parcel is located along Spear Street from Preserve Road to Allen Road East. It encompasses the Preserve Road development, Common Roots Farmstand and includes the undeveloped property behind the existing South Village development.

Size: 180.7 acres

Land cover/land use: Approximately ¼ of the parcel is developed and active farmland. The remainder is undeveloped forest/grassland with a stream that runs down the center.

BioFinder (Tier 1): Highest priority covers 75% of the parcel

NR values (Tier 2): 5 of 5

Water: Positive for riparian connectivity, wetlands, and source protection area.

Wildlife: Positive for rare/uncommon species, large blocks and grasslands.

Forest: Positive for large forest block.

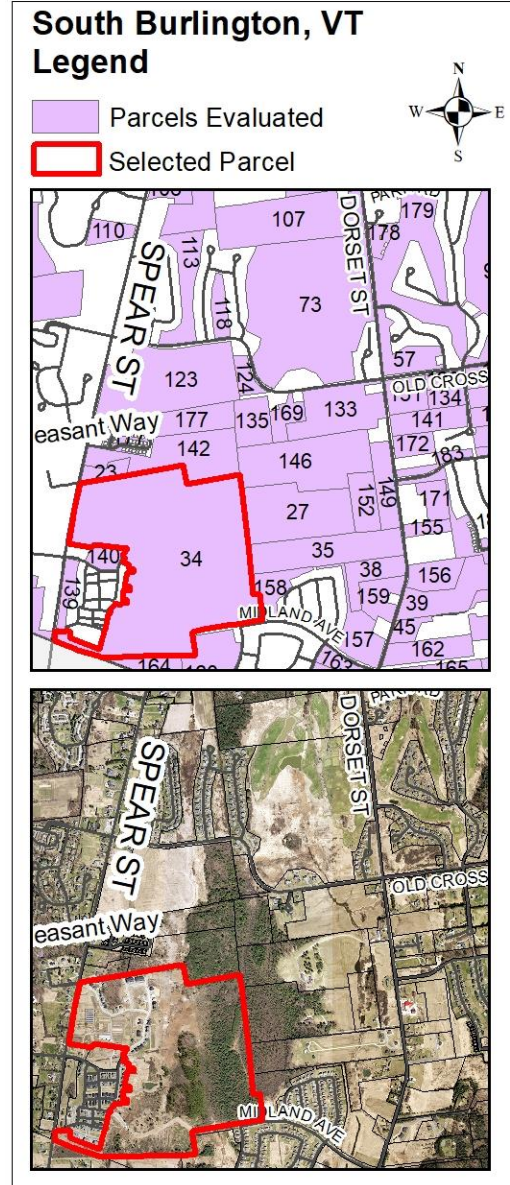
Aesthetics: Positive for viewsheds.

Agriculture: Positive for prime agricultural and farmland.

Adjacency: There are several small conserved areas (by permit) within and adjacent to this parcel. There are also adjacent parcels that have conserved by regulation in close proximity.

Connectivity: This parcel does provide connectivity from south to north with a string of other parcels that are conserved based on regulation or permit. This segment would provide a wide swath of conserved land.

Other notes: The undeveloped portion of this parcel will be bisected to create new roadway as a part of the larger South Village development plan. This roadway will connect to the Dorset Farms development.



Parcel Number: 0570-01675

IZ Open Space Number: 35

Location: 1675 Dorset Street (this is separated from Dorset Street by a small parcel on the east boundary that includes several residences). The parcel is situated on the northern boundary of the Dorset Farms residential development.

Size: 31.3 acres

Land cover/land use: Approximately 1/3 forested, the remainder in grassland, with a house and out-buildings located in western third of the parcel

BioFinder (Tier 1): Highest priority

NR values (Tier 2): 3 of 5

Water: Positive for riparian connectivity, and wetlands

Wildlife: Positive for large habitat blocks and grassland

Forest: Positive for large forest block

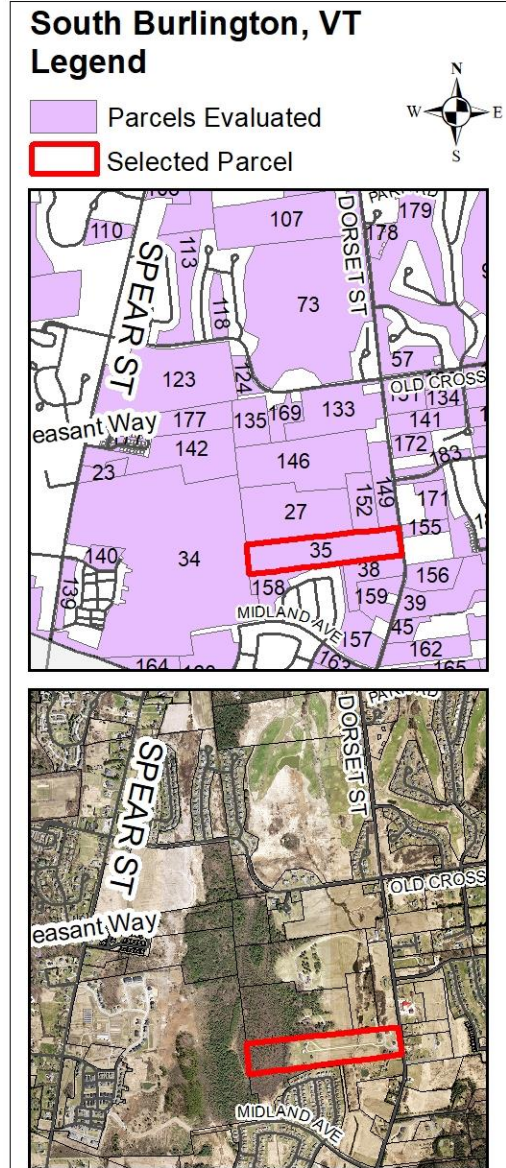
Aesthetics: None

Agriculture: None

Adjacency: The western third of this parcel may be considered part of the “great swamp” that lies between Dorset and Spear Streets. The “great swamp” area is protected by regulation. This protected portions of this parcel are part of the larger “great swamp” natural resource protection (NRP) area, which also include contiguous adjacent parcels located west, north and south of this parcel

Connectivity: The western third of the parcel may be considered part of the “great swamp” wildlife corridor and a small stream runs north-south in the east end of the parcel and may be considered part of the related north-south wetland and wildlife corridor that follows that small stream.

Other notes: The eastern 2/3 is largely grassland, which may provide value to grassland birds. Substantial portions of this parcel were prioritized in the 2002 open space report.



Parcel Number: 0040-00201

IZ Open Space Number: 37

Location: 201 Allen Road; parcel on south side of Allen Road

Size: 26 acres

Land cover/land use: Approximately 1/3 forested and the remainder in grassland/hayfield.

BioFinder (Tier 1): Highest priority

NR values (Tier 2): 5 of 5

Water: Positive for riparian connectivity, wetlands, and source protection area.

Wildlife: Positive for grasslands.

Forest: Positive for large forest block.

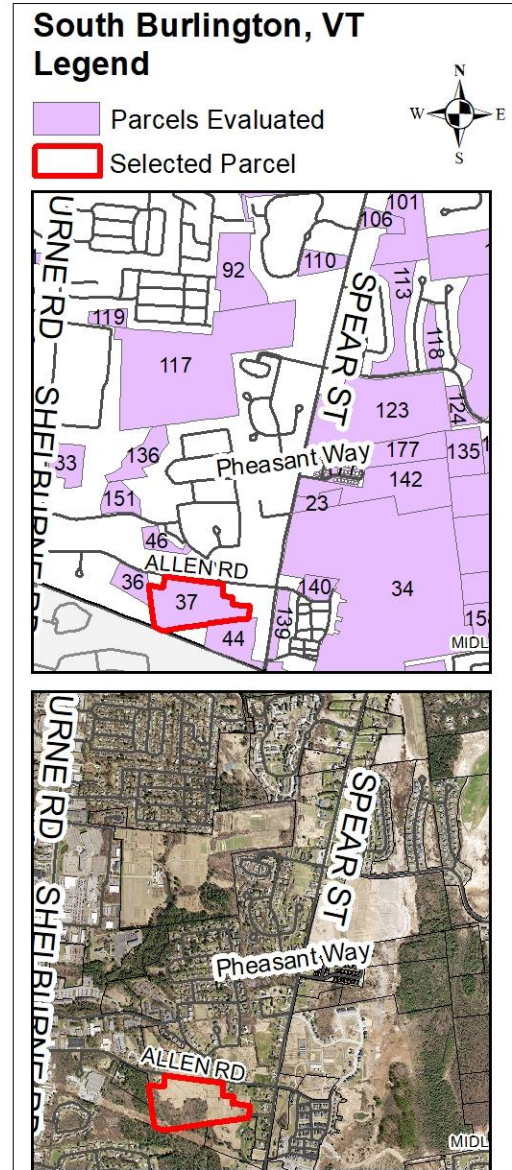
Aesthetics: Positive for viewshed.

Agriculture: Positive for prime agricultural soil and agricultural land use.

Adjacency: No formally conserved properties adjacent to this parcel. The Ascension Lutheran church to the west have been excellent stewards of the forested part of their properties with their Meditation Trail open to the community.

Connectivity: The parcel provides significant connectivity to the south. With just one road crossing (Webster Road in Shelburne), this parcel represents the northernmost portion of a linkage between the Bartlett Brook watershed and the LaPlatte River watershed. There is limited connectivity northward.

Other notes: This parcel includes the southernmost tributary to Bartlett Brook, including its “headwaters” at the eastern edge of the parcel. As value to wildlife, this parcel has only moderate value at larger spatial scales. However, the hayfields may provide value to grassland birds. There are likely opportunities for active and passive recreational development as well as community gardens with the presence of prime agricultural soil.



Parcel Number: 0085-00197

IZ Open Space Number: 39

Location: The parcel lies on the east side of Dorset Street, 197 Autumn Hill Road.

Size: 32.6 acres

Land cover/land use: Most of the parcel is grassland, with a forested area that includes a residence in the middle of this long, east – west parcel. There are two additional buildings adjacent to Dorset Street.

BioFinder (Tier 1): Highest priority

NR values (Tier 2): 4 of 5

Water: Positive for riparian connectivity and wetlands

Wildlife: Positive for grasslands

Forest: Positive for large forest blocks

Aesthetics: None

Agriculture: Positive for farmland

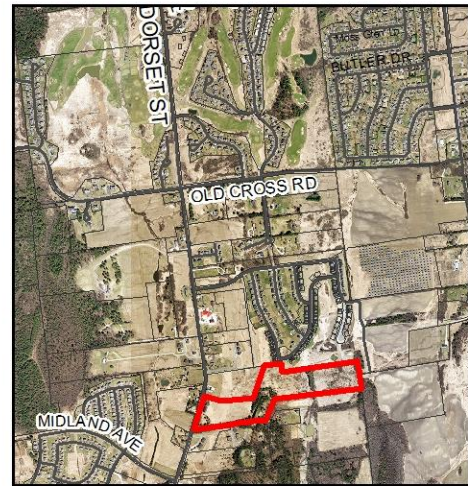
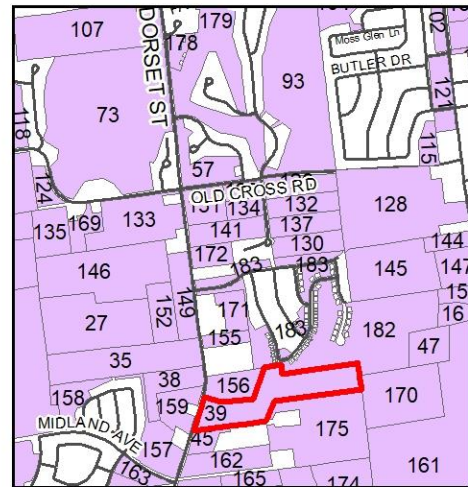
Adjacency: The eastern half of this parcel is conserved by regulation as natural resource protection (NRP) area. The parcel adjoining the NRP area of this parcel to the north is an area of the Cider Mill residential development that is protected by permit restrictions. The parcel to the south of the NRP protected area is also protected, described by the CCRPC map as a publicly owned NRP area (the “Scott property”).

Connectivity: The eastern half of this parcel, the NRP area, contributes significant connectivity to the north and south.

Other notes: The NRP eastern half of the parcel appears to be regenerating as a shrub-land to forest. There is a small portion of the parcel which connects two large forest blocks, one to the north and one to the south. There is one tributary on the east end of the property, and one on the west end which both feed into Shelburne Pond. A small stream, with adjoining potential class 2 wetland, flows south from the eastern NRP area of the parcel. A second small stream flows north to south in the western portion of the parcel, outside the NRP area. A significant portion of this property has been identified as priority open space in the 2002 Open Space Plan, as well as five additional parcels directly south of this parcel

South Burlington, VT Legend

- Parcels Evaluated
- Selected Parcel



Parcel Number: 0860-00160

IZ Open Space Number: 53

Location: 160 Hinesburg Rd.

Size: 45 acres

Land cover/land use:

BioFinder (Tier 1): Highest priority

NR values (Tier 2): 4 of 5

Water: Positive for riparian connectivity, wetlands, source protection area

Wildlife: Positive for grasslands

Forest: Positive for large forest block.

Aesthetics: None



Agriculture: Positive for prime agricultural

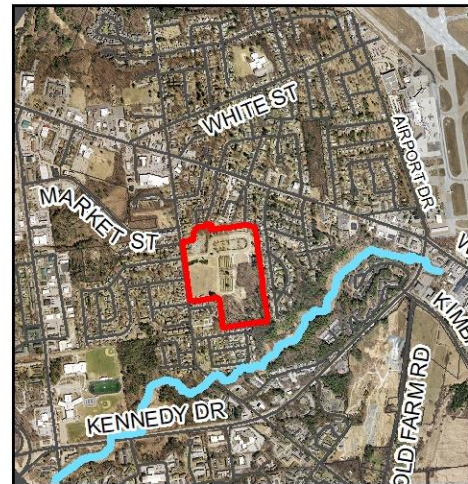
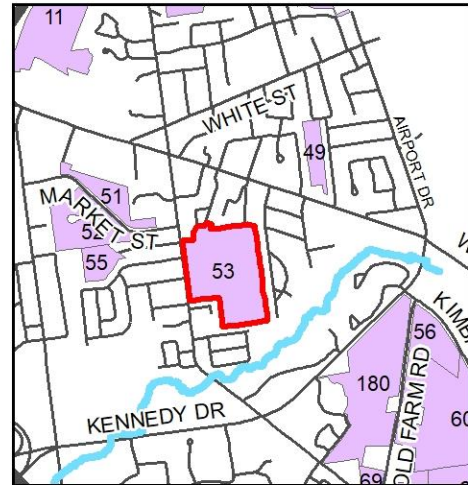
Adjacency: Conserved property adjacent to this parcel on the south, along Potash Brook, designated as “publicly owned” parks or conservation. The parcel is roughly 50% forested.

Connectivity: The parcel provides riparian connectivity to the south as the stream joins potash brook and the forest provides additional protection for the riparian habitat.

Other notes: This parcel includes a cemetery in the center and north. On the western portion, there is an open space that is likely mowed to create a lawn. This area could perhaps provide habitat for pollinators and birds if managed to include such priorities.

South Burlington, VT Legend

-  Parcels Evaluated
-  Selected Parcel



Parcel Number: 1640-00699

IZ Open Space Number: 59

Location: 699 Spear Street, including the George D. Aiken Forestry Sciences Laboratory

Size: 49.3 acres

Land cover/land use: Primarily open field

BioFinder (Tier 1): Highest priority and priority

NR values (Tier 2): 3 of 5

Water: Riparian connectivity, wetlands, and source protection area

Wildlife: positive for priority road crossings and grasslands

Forest: None

Aesthetics: None

Agriculture: Prime Ag soils and current agricultural land.



Adjacency: No formally conserved properties adjacent to this parcel. The University of Vermont have been excellent stewards of the farmland.

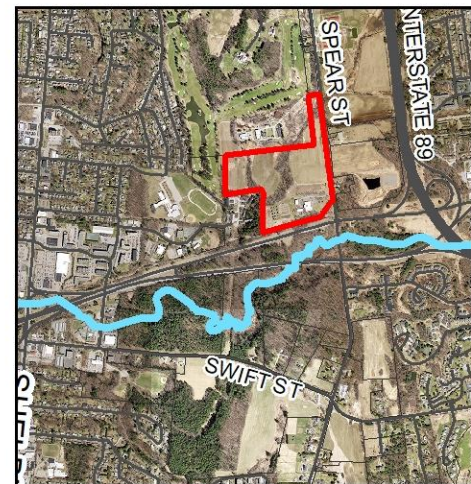
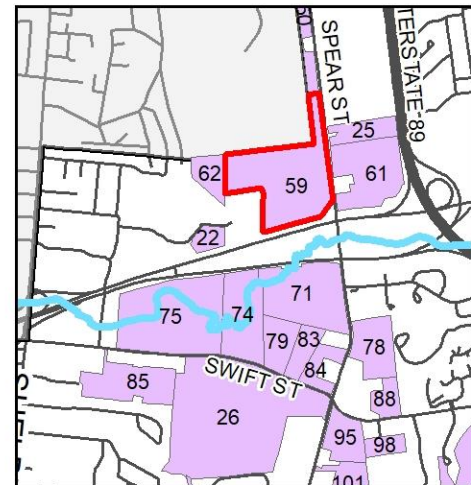
Connectivity: Parcel provides connectivity to the south to Potash Brook which is a major riparian corridor.

Other notes: This parcel includes the northernmost tributary to Potash Brook. As value to wildlife, this parcel has only moderate value at larger spatial scales. However, the hayfields may provide value to grassland birds. There are likely opportunities for active and passive recreational development as well as community gardens with the presence of prime agricultural soil. The property houses a research facility (buildings, greenhouses, and active experimental areas outdoors, as well as solar panels).

South Burlington, VT

Legend

-  Parcels Evaluated
-  Selected Parcel



Parcel Number: 1260-00200F

IZ Open Space Number: 60

Location: 205 Old Farm Road

Size: 64.5 acres

Land cover/land use:

BioFinder (Tier 1): Highest priority (northern and eastern portions of property)

NR values (Tier 2): 4 of 5

Water: Positive for riparian connectivity, 100-year floodplain, and source protection area.

Wildlife: Positive for priority road crossings and grasslands.

Forest: Positive for large forest block.

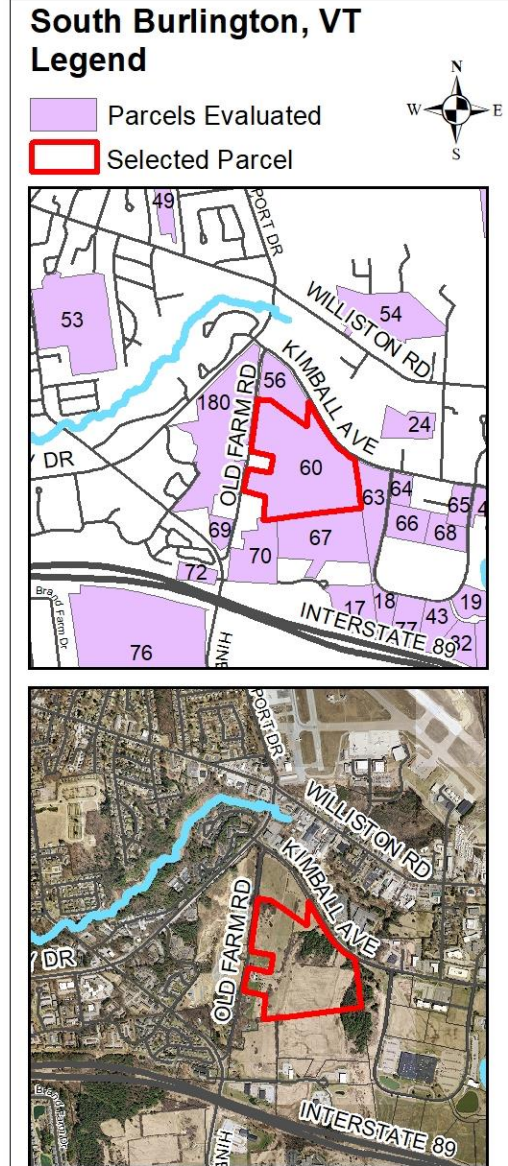
Aesthetics: None

Agriculture: Positive for agricultural land

Adjacency: No publicly conserved properties adjacent to this property.

Connectivity: The parcel connectivity along the Potash Brook tributary along the eastern part of the parcel. Parcels 56, 60, and 67 represent the most significant block of open space between I-89 and the airport.

Other notes: Eastern part of the parcel was noted as a priority for conservation in the 2002 open space report.



Parcel Number: 1640-00650

IZ Open Space Number: 61

Location: 650 Spear Street, east of Spear backs up to 89

Size: 28.5 acres

Land cover/land use: Property is zoned Institutional/Agriculture.

BioFinder (Tier 1): Highest priority (southern part of parcel).

NR values (Tier 2): 4 of 5

Water: Positive for riparian connectivity, wetlands, and source protection area.

Wildlife: Positive for grasslands.

Forest: Positive for large forest block. Concentrated along 89 and Kennedy Drive.

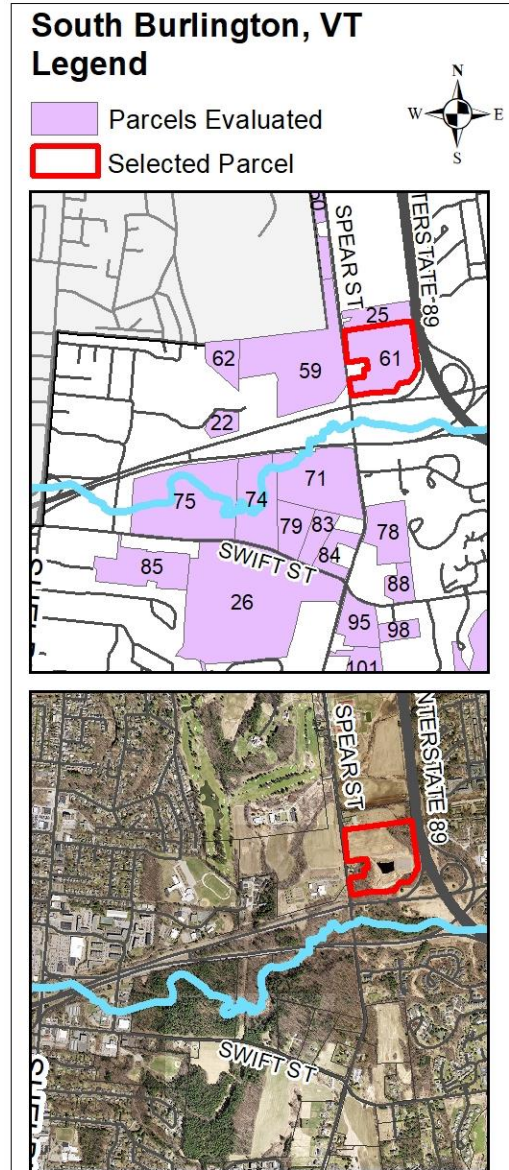
Aesthetics: None

Agriculture: Positive for prime agricultural soil and agricultural land.

Adjacency: No formal conserved properties adjacent to this property.

Connectivity: The parcel provides significant connectivity in multiple directions. Crossing west over Spear Street connects to the larger UVM and Country Club owned properties and extends west to the Rice playing fields. Moving north there is connectivity toward the UVM Miller Farm but no further. The heaviest concentration of connectivity is along Potash Brook (south and west) connecting to UVM's East Woods.

Other notes: There is a pond located on the west side of the property very close to 89.



Parcel Number: 0860-RR750

IZ Open Space Number: 67

Location: Parcel is situated between Kimball Avenue to the north, I-89 to the south, Community Drive to the east, with an access corridor along the south side of the parcel that connects it to Tilley Drive.

Size: 30.7 acres

Land cover/land use: Most of the parcel is grassland with a patch of woodland in the northeast quadrant.

BioFinder (Tier 1): Highest priority

NR values (Tier 2): 3 of 5

Water: Positive for riparian connectivity, wetlands, source protection, and 100-year flood plain

Wildlife: Positive for grasslands

Forest: None

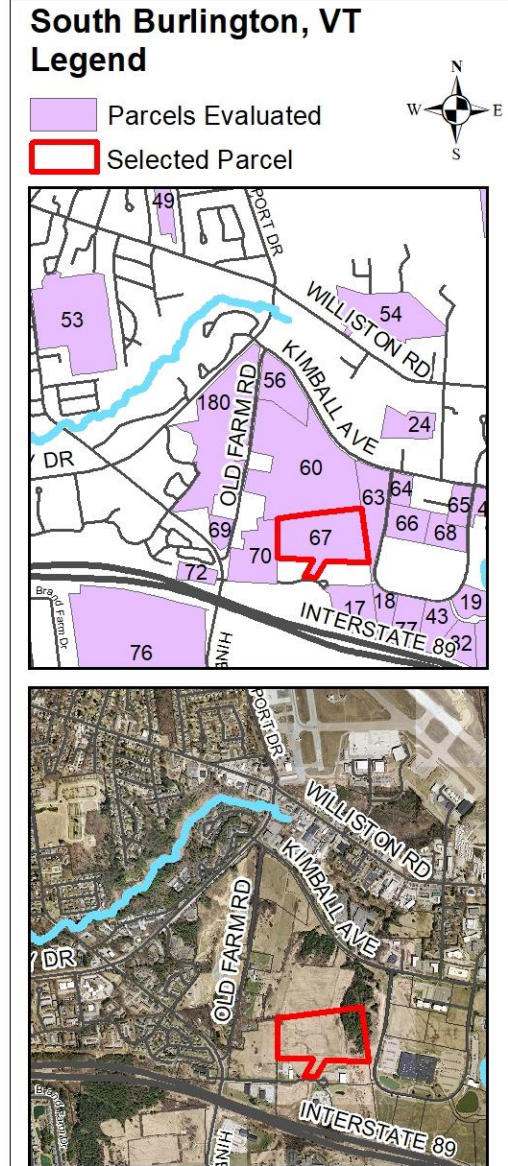
Aesthetics: None

Agriculture: Positive for agricultural lands

Adjacency: No formally conserved properties adjacent to this parcel.

Connectivity: A tributary of Potash Brook crosses this parcel in the southeast corner. Parcels 56, 60, and 67 represent the most significant block of open space between I-89 and the airport.

Other notes: A Zone 2 water resource protection area extends along the east boundary of the parcel, including some portion of the parcel itself. The eastern portion of the property was noted as a conservation priority in the 2002 open space report.



Parcel Number: 1640-01195

IZ Open Space Number: 71

Location: 1195 Spear Street UVM and State Agricultural College

Size: 34.4 acres

Land cover/land use: Land cover is completely forested. “Social” trail system used by nearby residents and college students for study and recreation.

BioFinder (Tier 1): Highest Priority

NR values (Tier 2): 4 out of 5

Water: Positive for Riparian connectivity, wetlands, surface water source protection area, 100 year floodplain

Wildlife: Positive for large wildlife block, wildlife crossing

Forest: Positive for large forest block

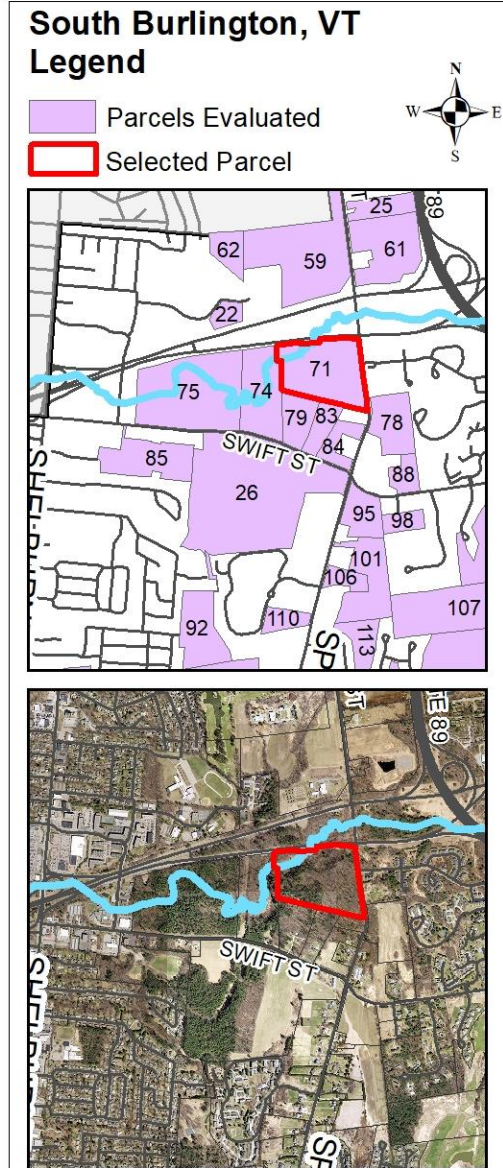
Aesthetics: Positive for aesthetics, uninterrupted forest block

Agriculture: No attributes scored

Adjacency: This parcel is east of East Woods, and is located just north of the corner of Spear and Swift. This parcel is adjacent to 4 other parcels which have a significant amount of forest cover. Two parcels south of this have homes close to Swift Street with large areas of forest connected to this parcel. This parcel is one of six parcels which together make up a large block of forest, significant in South Burlington for its size.

Connectivity: Known as the Edlund property, owned by UVM, this parcel is forested with a variety of deciduous trees and conifers. The Potash Brook runs through the parcel, which makes it an important habitat for wildlife. It is important for connectivity since it is located at the junction of two tributaries of the brook.

Other notes: The sand dunes are a unique feature and are the remains of the Winooski delta, which make it geologically significant.



Parcel Number: 1700-00150

IZ Open Space Number: 74

Location: North side of Swift Street, immediately east of East Woods, I-189 marks the north border.

Size: 24.6 acres

Land cover/land use: One residence. Roughly half is fairly mature dense cover forest, remaining half is new growth.

BioFinder (Tier 1): Highest priority

NR values (Tier 2): 4 of 5

Water: Positive for riparian connectivity, wetlands, source protection area, and 100 year flood plane

Wildlife: Positive for large habitat block, and road crossing

Forest: Positive for large block forest

Aesthetics: None



Agriculture: Positive for prime agriculture soils

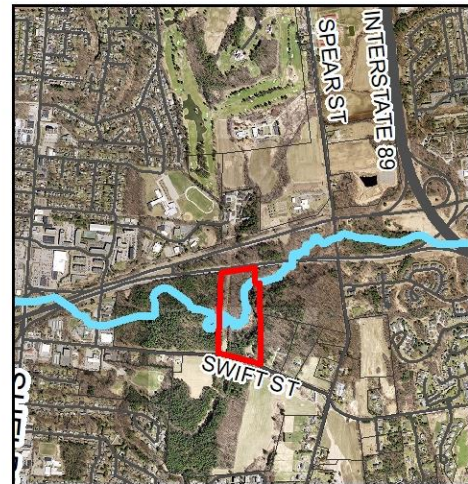
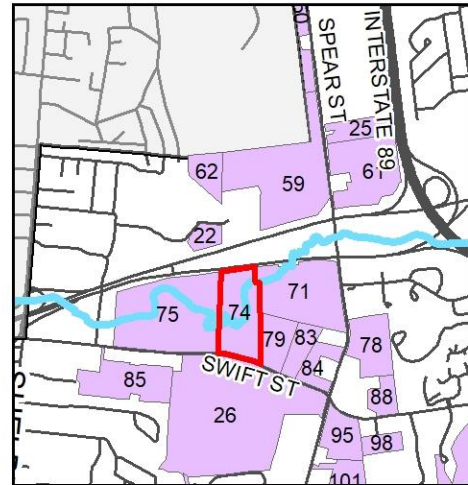
Adjacency: Protected East Woods adjacent to the west

Connectivity: There are many surrounding parcels on this side of I-189 are large parcels that include UVM agricultural land, and very few residences.

Other notes: Potash Brook meanders across this property after being joined by a minor stream under I-189

South Burlington, VT Legend

-  Parcels Evaluated
-  Selected Parcel



Parcel Number: 0860-00835

IZ Open Space Number: 76

Location: 725 Hinesburg Road. Property immediately south of the interstate and west of Hinesburg Road.

Size: 108.1 acres

Land cover/land use: Approximately 1/3 forested and remainder in grassland/hayfield.

BioFinder (Tier 1): Highest Priority occurs along the western edge of the parcel, coinciding with the stream.

NR values (Tier 2): 4 of 5

Water: Positive for riparian connectivity, wetlands, and source protection area.

Wildlife: Positive for rare/uncommon species and grasslands.

Forest: Positive for large forest block.

Aesthetics: No attributes scored.

Agriculture: No attributes scored.


Adjacency: This parcel has public land to the west with Dorset Park and Wheeler Property as well as some smaller public parcels to the south.

Connectivity: This parcel links to public conserved land as well as land conserved by regulation. It would serve as a northern terminus of conserved land as it sits immediately adjacent to the interstate where there is limited conserved land to the immediate north.

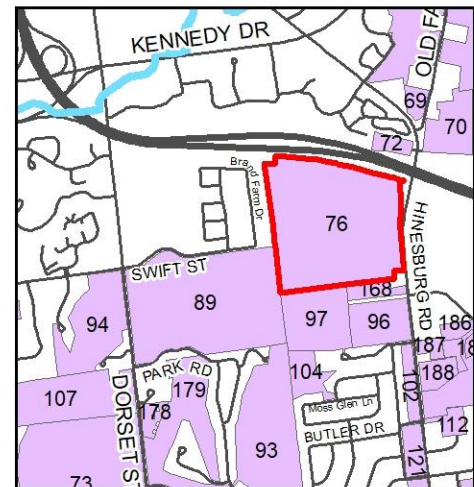
Other notes: This parcel contains several natural resources and viewsheds have been identified adjacent to the parcel along Hinesburg Road as well as Wheeler Park. There are likely opportunities for active recreation as well as solar.

South Burlington, VT

Legend

 Parcels Evaluated

 Selected Parcel



Parcel Number: 1540-01195

IZ Open Space Number: 90

Location: South of Red Rocks along eastern shore of Shelburne Bay

Size: 95.3 acres

Land cover/land use: Forested over much of property with some open fields on the eastern edge and a handful buildings are present on the property itself.

BioFinder (Tier 1): Highest priority (approx. 2/3 of parcel)

NR values (Tier 2): 5 of 5

Water: Positive for riparian connectivity, wetlands, source protection area, 100-year floodplain, and Lake Champlain coast.

Wildlife: Positive for rare and uncommon species (plant and animal)

Forest: Positive for large forest block

Aesthetics: Positive for viewshed and other aesthetic features



Agriculture: Positive for prime agricultural soil and farmland

Adjacency: This parcel is in close proximity to Red Rocks Park and runs along the shoreline of Lake Champlain.

Connectivity: There is evidence of mammal movement between this parcel and Red Rocks Park through the electrical substation to the north.

Other notes: This parcel contains a significant area of Lake Champlain shoreline with minimal development.

South Burlington, VT Legend

-  Parcels Evaluated
-  Selected Parcel



Parcel Number: 1640-01340

IZ Open Space Number: 101

Location: East of Spear Street (behind row of residences on large lots). South of Swift Street

Size: 22.0 acres

Land cover/land use: primarily active corn field

BioFinder (Tier 1): Partly highest priority

NR values (Tier 2): 4 of 5

Water: Positive for riparian connectivity, wetlands and source protection

Wildlife: Positive for grasslands

Forest: none

Aesthetics: Positive for viewshed and aesthetic natural features

Agriculture: Positive for farmland (active cornfield)



Adjacency: Three upscale large lot residential neighborhoods surround this parcel on the west, east and south. The minor stream starts in the south portion of the fields and eventually connects to Potash Brook.

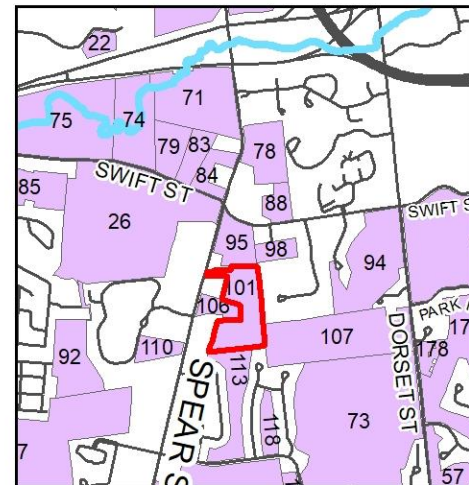
Connectivity: Tributary to Potash Brook. Connects to a similar agricultural parcel on the north which is farmed by the same farmer.

Other notes: It was an Open Space Priority Area in the 2002 Open Space Plan. This land has been approved for development but has been under appeal for a very long period of time.

South Burlington, VT

Legend

-  Parcels Evaluated
-  Selected Parcel



Parcel Number: 0720-00065

IZ Open Space Number: 117

Location: Between Shelburne Road and Spear St., just east of Green Mountain/IDX Drive (this is the UVM Horticultural Farm).

Size: 96.5 acres

Land cover/land use: The parcel is roughly 20% forested (central corridor along Bartlett Brook and the southeastern portion of the property). The remainder is in active agricultural or horticultural use. There are some buildings on the property.

BioFinder (Tier 1): Highest priority (along riparian corridors)

NR values (Tier 2): 4 of 5

Water: Positive for riparian connectivity, wetlands, and source protection area.

Wildlife: Positive for rare/uncommon species (plant) and grassland

Forest: Positive for large forest block

Aesthetics: Positive for viewshed and aesthetic features.

Agriculture: NA (based on our criteria, although clearly a working farm)



Adjacency: Syzmanski Park borders this property to the north and there is conserved land along Bartlett Brook to the south.

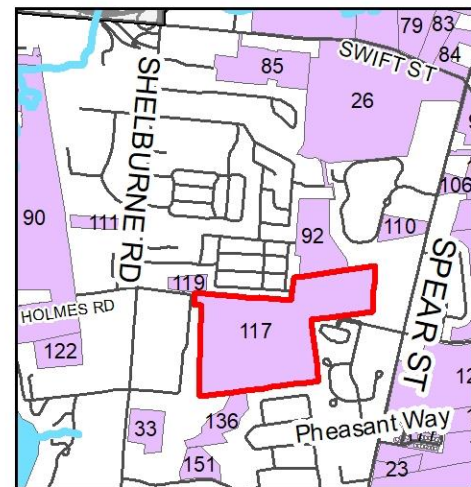
Connectivity: There is a loose, semi-connected corridor from Potash Brook tributaries on UVM's Wheelock west tract, connecting through Syzmanski Park, through the UVM Horticultural Farm to Shelburne Road. The UVM Horticultural Farm is fenced around its border.

Other notes: The Blasberg Horticultural Research Center is used by the College of Agriculture and Life Sciences for croplands, agricultural instruction, and research. The Hort Farm contains special collections of ornamental trees and shrubs that are uncommon or unique and represent some of the largest known collections in the Northeast. Also located on the property is a Community Supported Agriculture (CSA) farm, known as the Common Ground Student-Run Educational Farm. It is organized and run by UVM students with the guidance of faculty & staff advisors. Easements have been granted to the City of South Burlington for the South Burlington Recreation Path on the northerly north boundary, drainage on the north and east side of the property, and an 80' right of way on the easterly side of the Hort Farm.

South Burlington, VT

Legend

-  Parcels Evaluated
-  Selected Parcel



Parcel Number: 0860-01499

IZ Open Space Number: 128

Location: 1499 Hinesburg Road. This property is south of Butler Farms along Old Cross Road, a small portion of the property lays along Hinesburg Road in between four individual properties that are not part of this evaluation.

Size: 56.4 acres

Land cover/land use: Natural Resource Protection, Conserved land (Regulatory Restriction on Development), Residential, and Village Residential

BioFinder (Tier 1): Highest Priority

NR values (Tier 2): 4 of 5

Water: Positive for riparian connectivity, wetlands, and surface water source protection.

Wildlife: Positive for grasslands.

Forest: None

Aesthetics: Positive for viewshed.

Agriculture: Positive for prime agriculture soil and farmland.

Adjacency: The majority of the property to the south and a portion of the property to the west are zoned Natural Resource Protection.

Connectivity: The parcel provides connectivity from the north and to the south and into the Cider Mill neighborhood.

Other notes: The west side of the property is part of the 2002 Open Space Plan. This is Conserved land with Regulatory Restriction on Development and is approximately ¼ of the parcel which includes the Potash Brook tributary that runs from the north (Butler Farms).

Water: This parcel includes a tributary of the Potash Brook with Class 2 Wetlands running from the property to the north (Butler Farms). This same portion is also designated as a Surface Source Water Protection Area. A majority of the property running from the north (Butler Farms) to south with a small diagonal slice through the middle are considered Potential Class 2 Wetlands (State Wetlands Advisory).

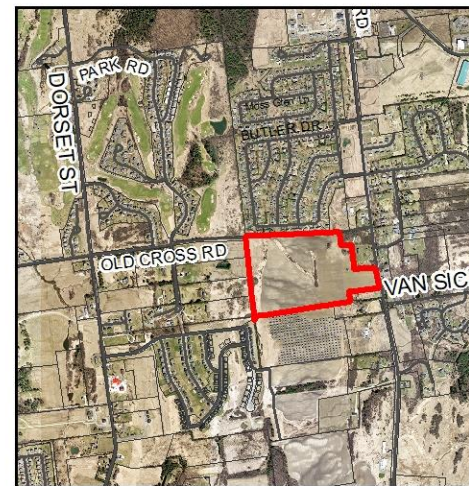
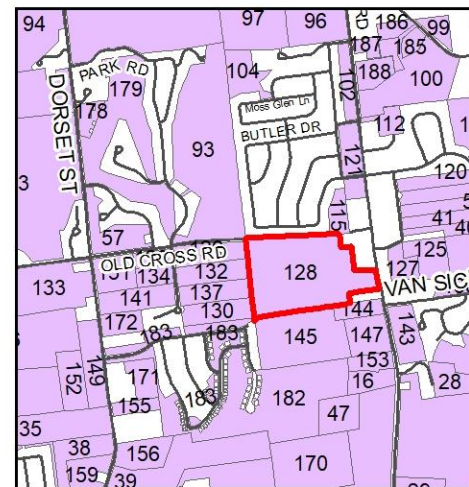
Agriculture: The east side of the property is positive for Primary Agriculture Soils. This section is less than ¼ of the property and includes the area where the non-rated properties are located along Hinesburg Road.

Aesthetics: As part of the Potential Scenic Views outlined in the Open Space Study (2014) this parcel is located in the Current View Protection Overlay Zone.

South Burlington, VT Legend

 Parcels Evaluated

 Selected Parcel



Parcel Number: 1640-01720

IZ Open Space Number: 142

Location: 1720 Spear Street

Size: 32.7 acres

Land cover/land use: A homestead exists on the property; grasslands lie behind the houses to the east and it is approximately 20% forested.

BioFinder (Tier 1): Highest priority

NR values (Tier 2): 4 of 5

Water: Positive for riparian connectivity, wetlands (Class 2), and source protection.

Wildlife: Positive for large habitat block and grasslands.

Forest: Positive for large forest block.

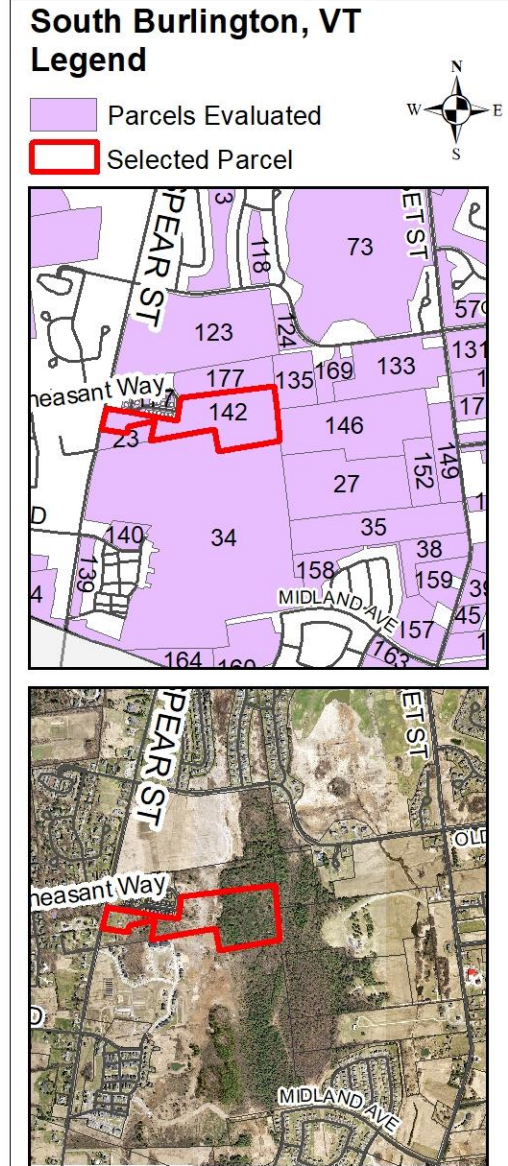
Aesthetics: Positive for viewshed

Agriculture: Positive for prime ag and farmland.

Adjacency: This is adjacent to parcels within an area called the Great Swamp that is rich in natural resources.

Connectivity: As part of the Great Swamp, the parcel provides significant connectivity to the south. The soils are rich in clay. Being a wetland, it is an important habitat for wildlife. It acts as a wildlife corridor between Shelburne Pond and conserved land to the north (e.g., South Burlington's Underwood property).

Other notes: The eastern portion (approximately 50%) of the parcel, classified as NRP, is located in the Great Swamp, which should be left undisturbed. Approximately 90% of the parcel was classified as an Open Space Priority in the 2002 Open Space Report. The middle portion of the parcel is shrubby second growth habitat which support some declining species of birds (e.g., Field Sparrow and Eastern Towhee).



Parcel Number: 0570-01505

IZ Open Space Number: 146

Location: Great Swamp between Dorset and Spear and South of Nowland Farms Dr. (Dorset Meadows)

Size: 42.9 acres

Land cover/land use: Field, forest, and residential

BioFinder (Tier 1): Highest priority

NR values (Tier 2): 5 of 5

Water: Positive for riparian connectivity, wetlands.

Wildlife: Positive for large habitat block and grasslands

Forest: Positive for large forest blocks.

Aesthetics: Positive for viewshed

Agriculture: Positive for agricultural land use



Adjacency: Publicly owned with parks or conservation designation on the western side which includes the forest of the great swamp.

Connectivity: The large parcel is an important link in two north-south wildlife corridors, one on the west end with the forest and the other on the east along a small north south stream. The land on both sides of the small stream is wetland or potential wetland.

Other notes: This parcel's open fields can be managed to support pollinator and bird habitat with timed mowings or allowing it to go fallow. A piece of forest that has a conservation designation has been cut into for a field. Both the east and west are "Open Space Priority Areas"

South Burlington, VT

Legend

-  Parcels Evaluated
-  Selected Parcel

