

Essex Open Space Plan 2008



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**This plan was prepared for the
Town of Essex Conservation Committee by:**

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in association with
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Cover photo: Alita Nelsonmaggiani.

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∞ Open Space Planning

Overview

Essex has long worked as a community to protect the quality of its natural environment – since at least the early 1970s, when a major planning effort resulted in the preparation of the *1973 Quality Environmental Plan for the Town of Essex and Village of Essex Junction*. This study was last comprehensively updated for the town in the *1989 Essex Open Lands Study*, prepared by the town's former Open Lands Committee with help from Humstone & Squires, New England Land Plan, and the University of Vermont. These plans formed the basis for many of the town's subsequent conservation initiatives.

Now, nearly twenty years later, the Essex Conservation Committee is building on past efforts to identify, conserve and sustainably manage the town's open space resources by overseeing the development of a new open space plan for the community, funded through a 2007 Municipal Planning Grant from the state. Grant funds were used during this planning process to:

- update resource inventories and maps from available information,
- identify and document development trends and associated impacts on the town's open space resources,
- host two community forums, and to
- prepare a new open space plan that includes priorities and strategies for resource conservation and open space protection.



Photo: Karen Frizzell

View from Old Stage Road–1st Place, 2007 Photo Contest

This plan was prepared for the committee by Sharon Murray, AICP, of Front Porch Community Planning & Design, in association with Arrowwood Environmental, LLC, who conducted the natural heritage inventory summarized in Chapter 2 (Resources), and described in their accompanying report, *Natural Heritage Element Inventory and Assessment for the Town of Essex, Vermont* (2007). Town staff also provided valuable information and assistance.

Initial findings and recommendations were presented at two public forums to inform and inspire community discussion, and to help define conservation priorities and strategies found in Chapter 3 (Conservation). The Conservation Committee also sponsored a photo contest, encouraging local residents to document the town's important open spaces.

OPEN SPACE

The importance of the Essex's remaining open spaces to local residents has been well documented over the years – as places to relieve some of the tensions of suburban life (in 1973), as valuable and irreplaceable assets (in 1989) and, as simply stated by a local resident in 2007, “the town’s heart and soul.”

This edition of the Essex Open Space Plan is intended to guide local conservation and resource protection efforts for the next five to ten years, as a supplement to the 2006 Essex Town Plan. If formally adopted as an amendment to the town plan, it can also be used as the policy basis for the adoption of new and expanded conservation initiatives, as recommended for further consideration in Chapter 3.



“Quality Environment” is the keynote to a healthful and satisfying way of life. Suburban dwellers are becoming more and more conscious for the need for open space to relieve some of the tensions of the 20th century.

– 1973 Essex Quality Environmental Plan

The Town of Essex has a wealth of important, productive open land that should be protected and conserved. This includes lands of scientific, economic environmental and aesthetic value. Through survey responses and participation in public meetings, town residents have expressed strong support for open lands conservation.

– 1989 Open Lands Study

The town’s open spaces are its heart and soul...

– 2007 Community Forum Participant

Open Space Defined

For the purposes of this planning process, “open space” is land that is valued for natural processes and wildlife, for agricultural and sylvan production, for active and passive recreation, and/or for providing other public benefits.
 – Essex Conservation Committee 2006

“Open land,” as initially defined in previous plans and studies, included all land in the Town of Essex outside the Village of Essex Junction that was not yet built upon or developed. This definition has evolved over years to include different categories or types of open space, i.e.:

- public and private outdoor recreation areas (parks, recreation fields, trail corridors, golf courses),
- working lands (farm and forest land),
- natural areas (floodplains, wetlands, wildlife habitat, conservation areas), and
- scenic areas (overlooks, viewsheds, roads).

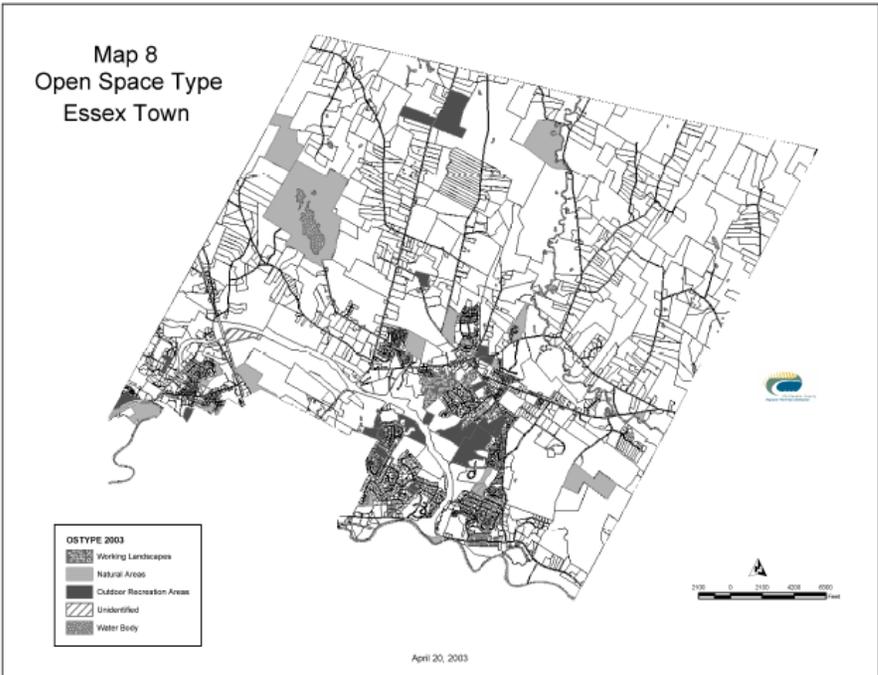
These categories describe not just open land, but “functional” open land– undeveloped land that benefits the community and the environment beyond its value for development.

For purposes of this planning process, the Conservation Committee adopted the above working definition, as established by the Chittenden County Regional Planning Commission for regional open space planning efforts. This definition recognizes open space as land that is valued for the many benefits it provides. The Regional Commission’s 2003 countywide inventory of open space tracts, subject to this definition, identified 1,724 acres of open land in Essex outside of Essex Junction – representing only 2% of the county total. This inventory, however – which excluded much of the town’s forest and farmland – clearly underestimated the total amount of open land remaining in Essex.

Essex Open Space Areas

(CCRPC 2003 Open Space Inventory)

<u>Acreage</u>	<u>Ownership</u>
(1,724 acres = 2.0% county)	
<ul style="list-style-type: none"> ● 66% Natural Areas ● 27% Recreation Areas ● 5% Working Landscape ● 2% Unknown 	<ul style="list-style-type: none"> ● 64% Municipal ● 12% State ● 10% Other Public ● 10% Private for Profit ● 4% Private Nonprofit



∅ Benefits of Open Space

- Open spaces serve critical environmental functions for maintaining air and water quality and ecological diversity, at no cost to the community. They moderate climate, filter pollutants, and provide habitat for a variety of native plant and animal species.
- Parks, trail networks and other opportunities for outdoor recreation provide for a healthier community and a better quality of life.
- Open spaces make the community a more desirable place to live – increasing property values and attracting new homebuyers.
- Open space provides important economic benefits – agriculture, tourism and outdoor recreation are big business. Open space also attracts new business and investment opportunities – especially “green businesses” being courted by the state.
- Land conservation is often less expensive than land development – open land requires few municipal services. “Cost of service” studies consistently show that open land generates more in taxes than it costs in services, especially when compared to residential and commercial development.
- Open space conservation also promotes more land- and energy-efficient patterns of development.
- Open space is an integral component of long-term, sustainable community development that meets present needs without compromising the ability of future generations to meet their needs.

Communities around the country are learning that open space conservation is not an expense but an investment that produces important economic benefits.

– Trust for Public Land

Photo of Chapin Orchard, Alita Nelsonmaggiani

The population of Essex has grown rapidly in recent years. From an essentially rural area, Essex has developed into a thriving residential and business community.
 – 2006 Essex Town Plan

Development Trends

The Town of Essex has experienced considerable growth and development since the 1950s, spurred by the arrival of IBM, the completion of Interstate 89, and demographic shifts that brought an influx of new residents to the region. By the early 1970s, development was already having a noticeable affect on the town's rural landscape and resources – the 1973 Quality Environmental Plan reported that, as a result of increasing suburbanization, many areas of town were in need of conservation to prevent further misuse of resources and environmental degradation.

As reported in 1989 Open Lands Study, Essex during the 1980s continued to experience significant development due to its location in Vermont's fastest growing county – and, concomitantly, declining farm numbers, more rural subdivisions, and the loss of valuable open land. Development pressure resulting from the anticipated completion of the Circumferential Highway through Essex and neighboring communities was also cited as a major concern. It was noted, however, that the municipal sewer system (completed in 1984) and related zoning changes were having an effect on the distribution of new development – most new development was locating in the town's sewer service area.

Ongoing development concerns were identified in a 1998 Rural Lands Study, prepared for a previous town plan update. These included the increasing scarcity of land suitable for



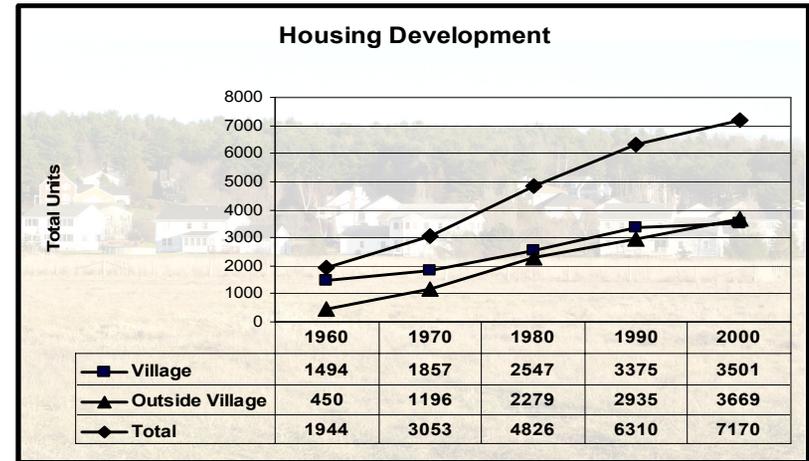
“Housing Sprawl In Essex”

Photograph by Alex MacLean, Landslides Aerial Photography

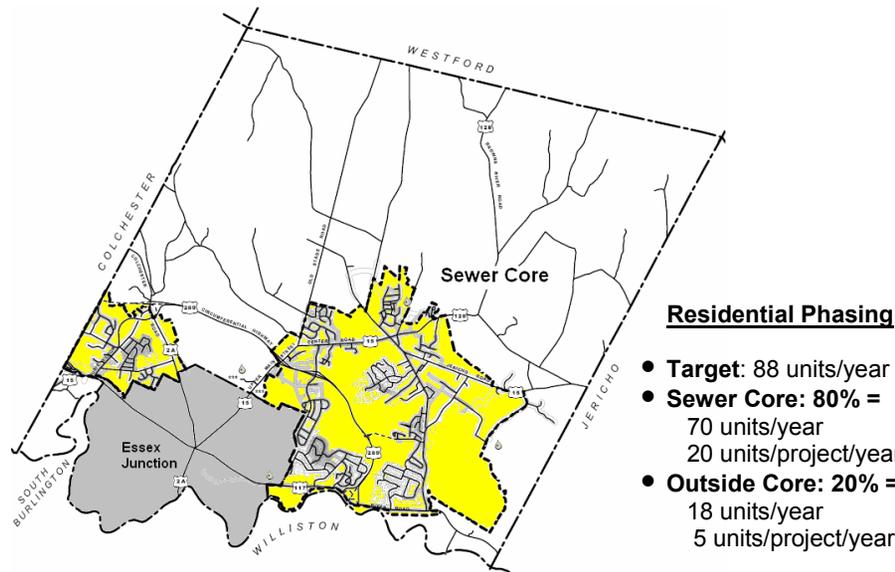
development within the town's designated sewer service area; proposed changes to the state's on-site wastewater treatment rules that would open up more rural land to development (since enacted); increased demand for housing with the coming of a major new employer (Husky); and again, the eventual completion of the Circumferential Highway.

Little has changed over the past two decades with regard to the types of development pressure the town is facing, as suggested from more recent growth and development. Development trends, and their associated impacts on the town's remaining open spaces, were evaluated for this plan using available information – federal and state demographic data, mapped information, local studies and plans, and grand list and permit data – and from windshield surveys conducted in the summer and fall of 2007. The results of these analyses were presented to the Conservation Committee, the Planning Commission, and in public forums. Key findings are highlighted as follows:

- *The Town of Essex, including the Village of Essex Junction, is the second most populated municipality in the state, behind Burlington.* As reported in the 2000 US Census, the town’s population numbered 18,626, of which the majority– 10,035 or 54% – lived outside the Village of Essex Junction. The town’s population as of 2006 was estimated at 19,264 – including 10,362 residents living outside the village (US Census Bureau).
- *Since 1990 the majority of the town’s population growth (91%) and housing development (85%) has occurred outside the Village of Essex Junction.* During the 1990s, the town’s population outside the village increased, on average, by 86 new residents per year; while the number of new housing units increased by 73 units per year (US Census Bureau).



Housing development remains the primary form of development in town. By 2000, the number of housing units outside the Village of Essex Junction finally surpassed the number of units in the village. According to local permit data, the majority of housing development since 2000 has occurred in the sewer service area, consistent with the town’s residential phasing requirements.



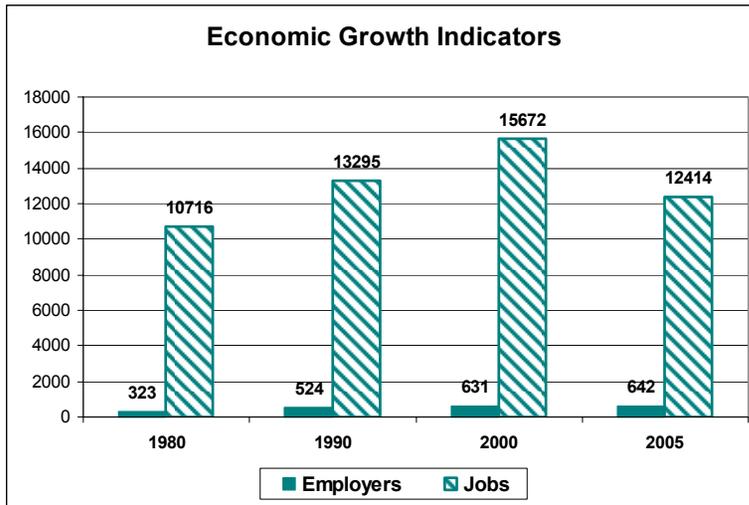
- *The majority (68%) of new housing permitted in town since 2000 is townhouses and condominiums located in the sewer service area.* Permit data indicate that, since 2000, an additional 385 housing units have been approved outside the village – including 260 condominiums and townhouses within the sewer core. The amount of higher density housing being developed in this area reflects residential phasing requirements (first enacted in 1998) that target the sewer core for 80% of new housing; and also suggests, according to local developers, that this area is now largely built out. The shift toward higher density multi-family housing also reflects increased market demand for smaller, more affordable units to serve both new households and an aging population– including more housing options for empty nesters and seniors.

Since 1990, the rate of local employment growth has continued to exceed rates of population and housing growth. The arrival of IBM in 1957 heralded the transformation of Essex into a regional employment center. Economic growth has both fueled and relied on population and housing growth locally and within the larger region. According to state employment data, between 1990 and 2000 the number of employers in Essex (town and village) increased by more than 20%, while the number of jobs increased by nearly 18%.¹ The majority of growth in employers and employment during this period occurred in the town’s service sector (Vermont Department of Labor).



Illustration courtesy of Green Mountain Geographics, Ltd.

In September 2003, the Essex Selectboard appointed a committee to review zoning and land use issues pertaining to the **Essex Town Center** – the area of town planned and zoned to accommodate much of the town’s anticipated growth, including a mix of residential and commercial development. As part of this process, Green Mountain Geographic Ltd used 3D mapping to help the committee evaluate the impacts of increased building heights on surrounding views of the Green Mountains, which have long been considered an important asset to the community. This offers one example of tools and processes that can be applied locally to help evaluate the impacts of development on the town’s open space and scenic resources.



¹ As reported by the Vermont Department of Labor, for employment covered by unemployment insurance. This does not include most self-employed persons, and therefore under estimates total employment.

IBM remains the state’s largest private employer – at its height in 2001 it employed 8,500 people. Today, following a major reorganization, the Essex Junction plant currently employs around 5,700, representing 47% of all local jobs. Major job reductions since 2001 and a significant decrease in the plant’s assessed value in 2007 highlight the town’s dependency on this one industry, and underlie its ongoing efforts to diversify the local economy and tax base.

The effects of the recent reassessment on the local tax base, which shifted the tax burden to other taxpayers, has also raised very real concerns about the town's short-term ability to pursue conservation strategies funded through property taxes.

Zoning regulations confine most new commercial and industrial development outside the Village of Essex Junction to planned growth areas served by municipal infrastructure. These include the **Essex Town Center** – long planned for higher density mixed residential and commercial development, and the **Saxon Hill Industrial Park** area (RPD-1 District) which is zoned and managed for both industrial development and open space protection.

Economic development strategies identified in the 2006 Essex Town Plan include:

- Completion of the Circumferential Highway and improvements to the Route 15 corridor to provide better access to local businesses.
- Further development of vacant, industrially-zoned land (e.g., Saxon Hill).
- Expansion of the town's service sector, including businesses and commercial retail, within designated growth centers served by municipal infrastructure (e.g., the Essex Town Center).

The completion of **the Circumferential Highway** has been both a long-term community goal – for improved traffic management and access to serve planned growth areas – and a long-term concern with regard to its potential effect on development patterns in more rural areas of the community and region. The highway is now substantially complete through Essex. The environmental impact statement for remaining segments of the project, as updated for the Agency of Transportation in 2006-07 by the Louis Berger Group, indicates that Essex, under any of the proposed alternatives, will likely experience no additional housing development, and little additional job growth, as a result of highway completion.



Development Impacts

The town's ongoing efforts to manage growth – its plans, policies, land use regulations, allocation ordinances, and investments in public land and infrastructure – have well served both the community, and the town's remaining open land. Programs enacted over many decades have successfully directed new growth and development to areas planned for development, and alleviated the pressure of development outside these areas. Nevertheless, development continues to occur – and to affect – remaining open lands and resources within and beyond planned growth areas.

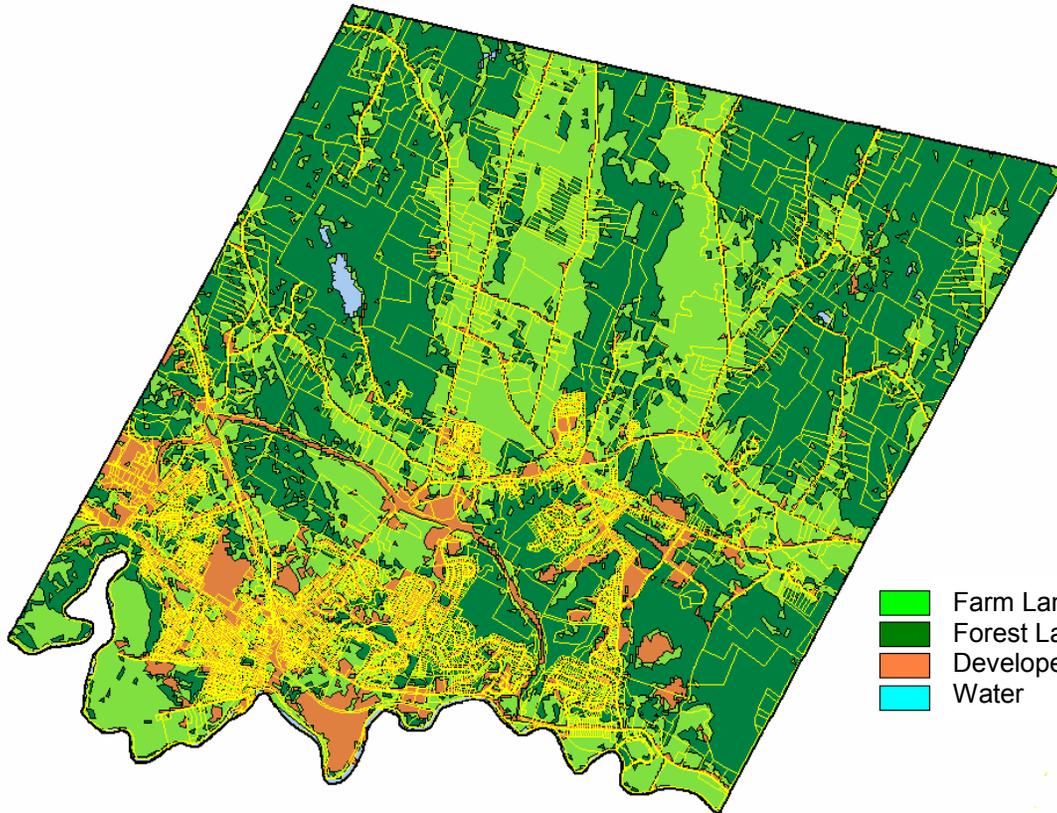
The major impacts of development on the town's open spaces and resources observed as part of this planning process include:

- The continued subdivision or “parcelization” of open land which results in increasingly fragmented land ownership, management and use.
- The conversion (and abandonment) of farm and forest land to other uses – mostly large lot residential development.
- The ongoing encroachment of development into environmentally and visually sensitive areas, affecting wildlife, scenic and other open space resources that are currently unprotected under local regulations.



The subdivision and conversion of open land and resources as illustrated above– in this case former farmland and primary agricultural soils (shaded) that have been converted to large residential parcels– is evident in many rural areas of town. Much of the land remains “open” since most houses are located near roads, but patchwork ownership results in fragmented land management and use. Farmland converted to residential use is often abandoned to second growth– few homeowners have the time, resources, or interest needed to keep the land open.

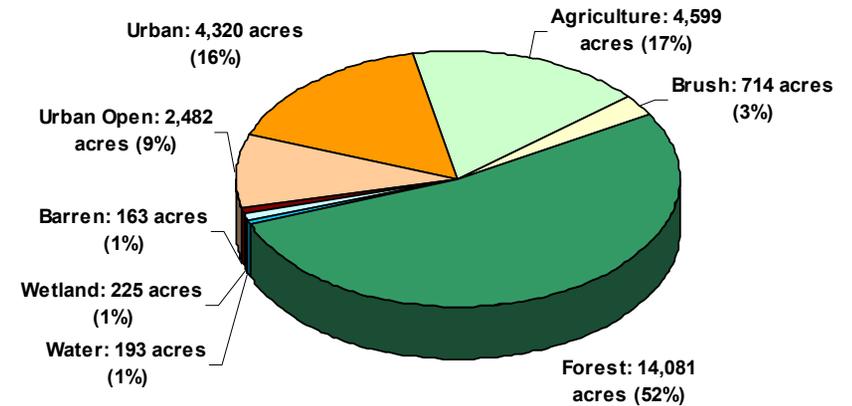
Inefficient patterns of rural development – governed by the town's zoning and subdivision regulations – make it increasingly difficult to maintain tracts of land large enough to sustain a working landscape, to protect resources that extend across lot lines, or to negotiate with an ever expanding number of landowners for access and use.



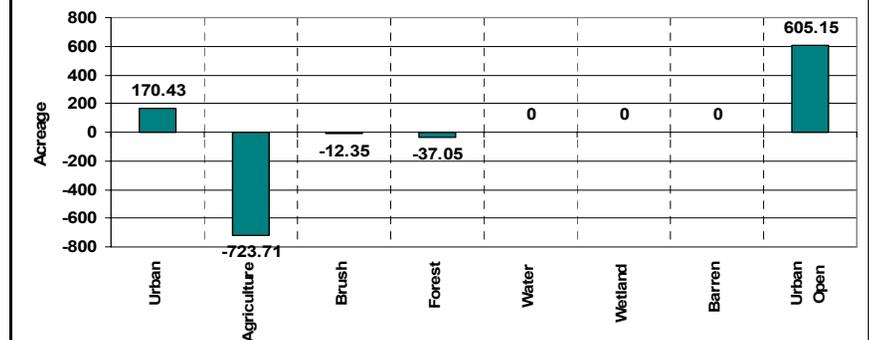
2001 Land Use/Cover

The Town of Essex remains largely undeveloped if measured only by land cover. A UVM analysis of 2001 satellite data shows that roughly 52% of the town is forested, 17% is in agriculture and 25% is developed at visible “urban” densities of development. *A comparison of these data to 1992 data however, suggests that during this period the town has lost around 72 acres of farmland, and 4 acres of forestland, to development each year.*

Essex Land Use/Cover 2001

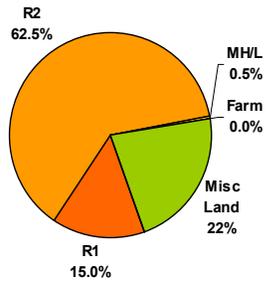


Change in Land Use/Cover 1992-2001

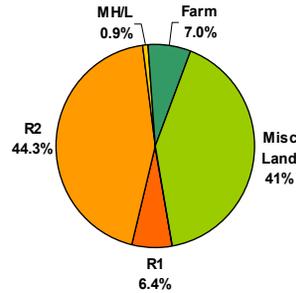


Source: UVM Spatial Analysis Lab (enhanced Landsat imagery).

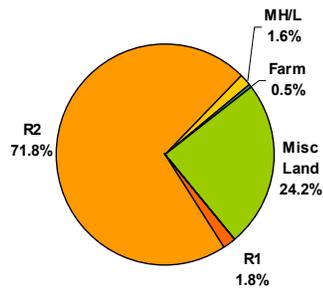
Ag Res District: Acreage
[Total Acreage: 3,297]



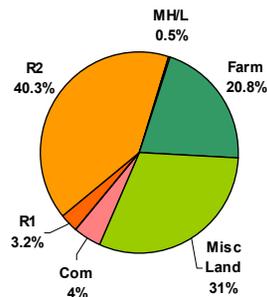
Rural 1 District: Acreage
[Total Acreage: 1,837]



Conservation 1 District: Acreage
[Total Acreage: 4,834]



Conservation 2 District: Acreage
[Total Acreage: 3,309]

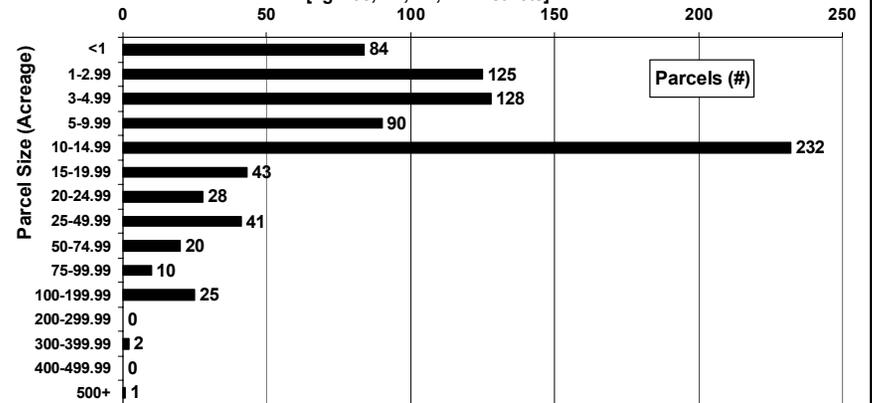


Grand list data from 2006-07 provide some indication of the degree of land conversion and fragmentation in the town's more rural zoning districts. Of particular note:

- *There are no longer any listed farm parcels in the Agricultural-Residential District.* Most of the town's listed farmland is located in the Floodplain (C2) District. There also are no listed "woodland" parcels in town. Most remaining open land is classified as "miscellaneous" land.
- *The majority of acreage in three of the four districts is in residential use.* Residential parcels of six acres or more (R2 parcels) comprise the majority of listed acreage in two of the four districts, and the largest percentage of acreage in the other two districts.
- *There are only 28 parcels remaining of 100 acres or more.* Many are between 10 and 15 acres – due in large part to the former "10 acre loophole" that exempted parcels larger than ten acres from state wastewater regulation.

Rural Lot Sizes

[Ag/Res, R1, C1, C2 Districts]



∞ Important Places

How much open space do we need?

It's a reasonable question – one that came up several times during the planning process. It was agreed that – at least for conservation planning purposes – it's the quality more than a quantity of open space that should be considered for protection. The amount of land involved may vary depending on its location and resource value – ranging from large contiguous acreages of farm and forest land to small, isolated remnants of a rare plant community. The methods available for protection also will vary depending on the type and extent of resources to be conserved.

There was no question, however, among those participating in the planning process, that:

- The town will continue to grow and develop, though likely at a slower rate than it has in the past.
- There remains strong public support for conserving the town's most important places – those open spaces and resources of significance to the community – from the adverse effects of future development.

To that end, the town's remaining open space resources have been inventoried from available information, as presented in the next section. This is followed by strategies for conserving and managing these resources.

The Burlington Metropolitan Statistical Area, of which Essex is a part, underwent rapid growth over the past two decades, and Essex experienced a proportional share of that growth. As a result, this once quiet farm community has become a bustling, growing town, and the changes are expected to continue...

– 2006 Essex Town Plan

∞ Natural Heritage

A natural heritage inventory and assessment of Essex was conducted in 2007 by Arrowwood Environmental, Inc. (AE) in association with the preparation of this open space plan. The results of this assessment, highlighted here, are presented in more detail in their accompanying presentation, maps and report: *Natural Heritage Element Inventory and Assessment of the Town of Essex Vermont* (October 2007).

The purpose of this inventory was to map and assess elements of the town's natural heritage – to help document natural features that are important to preserve the town's biological diversity – and to provide information that will inform local planning and conservation efforts, and help establish priorities for preserving the community's significant natural resources. Inventory work, as defined by the project budget and the Conservation Committee, focused on the following:

- **Wetlands** – updating existing wetlands maps.
- **Significant Natural Communities** – updating 1991 natural communities maps.
- **Wildlife Habitat** – identifying critical habitat features and potential travel corridors.

Much of the assessment was done remotely – through the review and analysis of existing databases, maps, and aerial photographs. Remote assessments were supplemented by limited field work conducted during the summer of 2007.



Winooski River Corridor

Identified threats to the natural environment and local resources include poorly planned and executed land subdivision, site disturbance and development; resource fragmentation and encroachments into environmentally sensitive areas; the introduction of invasive, nonnative species; and, on a much larger scale, climate change.

The Town of Essex is perhaps unique in the Champlain Valley in that it has retained a significant amount of remote, forested lands and open space despite experiencing tremendous growth in the last 25 years.

– Arrowwood Environmental

Wetlands

Wetlands, once considered undesirable, disease-ridden swamplands, are now known to serve a variety of important environmental functions – for flood and erosion control, maintaining surface and ground water quality, and providing wildlife and fisheries habitat. Wetlands also contribute to the beauty of the local landscape, and offer settings for outdoor recreation and education.

Wetlands and wetland values were assessed remotely from available sources, including soils maps, topographic maps, state wetlands maps, color infrared aerial photos and more recent black and white orthophotos. Field assessments of some wetlands were conducted in 2007.

Site Name	Natural Communities Present	Total Acreage	Justification for Significance	Level of Significance
Browns River Swamp	Red Maple –Black Ash Swamp Alder Swamp	362	Natural Communities, Functions and Values	State (in part)
Lost Nation Swamp	Red Maple –Black Ash Swamp	39	Natural Community	Local
Winooski Oxbow Wetlands	Red Maple –Black Ash Swamp Shallow Emergent Marsh Floodplain Forest Deep Broadleaf Marsh	36	Functions and Values	Local
Saxon Hill Swamp	Red Spruce-Hardwood Swamp	29	Natural Community	Local
Essex Center Swamp	Red Spruce-Hardwood Swamp	91	Natural Community	Local
Westford Swamp	Spruce-Fir-Tamarack Swamp	22	Natural Community	State
Indian Brook Wetlands	Beaver Wetlands Shallow Emergent Marsh Open Water Wetland	44	Functions and Values	Local
Alder Brook Wetlands	Spruce-Fir-Tamarack Swamp Shallow Emergent Marsh Alder Swamp	169	Natural Community Functions and Values	Local
68 Acres Wetland	Floodplain Forest Cattail Marsh Red Maple –Black Ash Swamp Shallow Emergent Marsh	148	Natural Community Functions and Values	State (in part)



The inventory and assessments identified:

- **430 wetland sites**, representing 16 different wetland types, totaling approximately 3,081 acres – a significant increase in previously mapped wetland acreage (1,660 acres). Town wetland maps have been updated accordingly, however field verification is needed.
- **34 significant wetland areas**, covering 1,760 acres, which are considered significant locally or statewide for their natural communities, functions and values, or both. These include many of Essex’s larger wetland areas (see above).



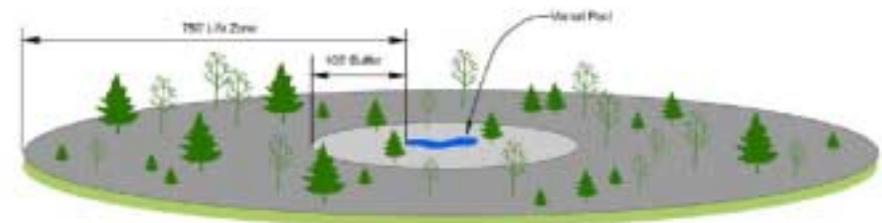
Floodplain Forest along the Winooski River

A variety of diverse wetland communities are found in Essex. Of special note are **floodplain forest communities** along the Winooski River (e.g., the Winooski Oxbow Wetlands and the 68 Acres Site) that are uncommon in Vermont because most have been cleared for agriculture. These natural communities are one of the most highly functioning because of their location along the river – they filter excessive nutrients during flood events and provide critical riparian habitat. They are also one of the most degraded – in many places all that remains of these floodplain forests is a thin strip of trees along the riverbank.

Vernal Pools are seasonal wetlands that contain water during wet, spring months but dry out as the summer progresses. These isolated wetlands are typically found under forest canopies, and provide important habitat to a wide variety of wildlife – including many amphibians such as wood frogs and spotted salamanders. Because of their “temporary” nature, vernal pools are especially susceptible to disturbance from development and other human activities. Nineteen vernal pool sites were identified and mapped in Essex through remote inventories and limited field work.

Management Recommendations:

- Maintain buffers around wetlands – a minimum of 100 feet for significant wetlands, and 50 feet for others.
- Avoid activities that may degrade natural communities or decrease natural functions.
- Avoid ditching or filling within wetlands and wetland buffers.
- Log forested wetlands only in winter, or not at all.
- Floodplain Forests – maintain or re-establish vegetative buffers along streams and rivers, control invasive species and pursue conservation efforts with local landowners.
- Vernal Pools – establish and maintain undisturbed 100-foot canopied buffer zones, and 750-foot amphibian “life zones” around pools.

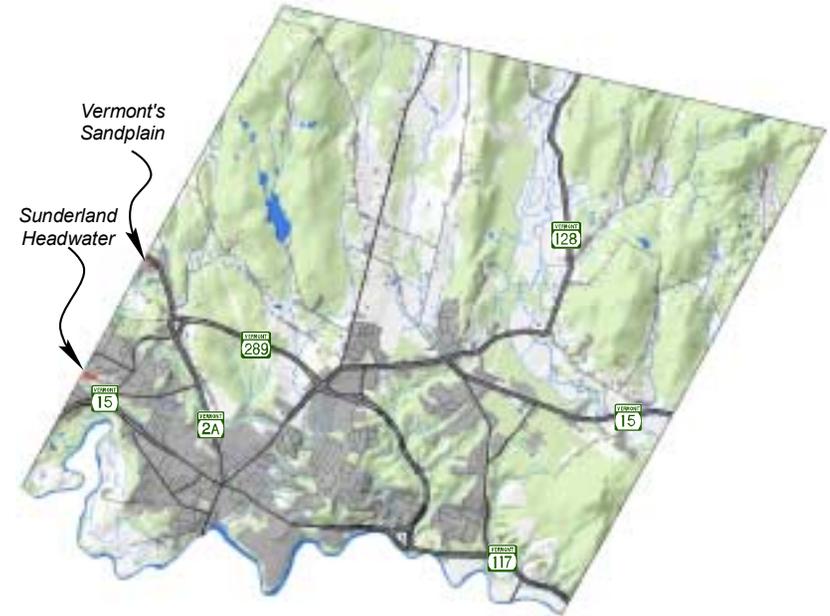


Upland Communities

Significant upland natural communities in Essex were first identified and mapped in 1991 as part of a state inventory of Chittenden County’s biological natural areas. These areas were re-evaluated but, due to time constraints, no effort was made to identify and map additional upland communities.

The state’s inventory currently includes two significant upland community sites in Essex: Sunderland Headwater Woods (Little Gap Woods) and Vermont’s Sandplain Forest site. Both are remnants of “sandplain forests” (Pine-Oak-Heath Sandplain Forests) – one of the state’s rarest and most threatened natural communities. Sandplain forest communities are found only on glacial sand terraces in the Champlain and Connecticut River Valleys – areas historically favored for development. Many of the state’s rare, threatened or endangered plant species are associated with these communities.

Sandplain forests once occupied a large portion of Essex. A review of known Essex sites found that a portion of the Vermont Sandplain site, which once occupied slightly less than five acres, has been developed – reducing its size to three acres. The Sunderland site, at the headwaters of Sunderland Brook, totals around seven acres and appears intact. This site is likely the least disturbed occurrence of this community remaining in Essex.



Significant Upland Natural Communities

Other sites identified in the 1991 inventory (e.g., Sandhill Slope and Overlook Park) are so fragmented or degraded that they are no longer included in the state’s inventory. These remnants however, and several other sites identified in 1991, are still home to numerous rare plant species.

Management Recommendations:

- Carefully review development on Adams and Windsor soils – these soils host remnant sandplain forest communities and rare plants.
- Work with willing landowners to conserve remaining sites through easements, management plans.

To date, 37 rare plant sites and one rare animal site have been identified in Essex. Most are found in the southern, more developed portions of town, in areas associated with remnants of sandplain forest communities.

Wildlife Habitat

The Essex landscape is constantly changing as the result of human activity – including land subdivision, clearing, development, abandonment and reforestation – requiring local wildlife populations to adapt accordingly. In broadly stated terms, the Essex landscape includes:

- A developed “urban core” concentrated in the southern portion of town which, for wildlife, presents highly fragmented and isolated backyard, woodlot, wetland and streamside environments marked by a strong human presence. Southern Essex is home to wildlife species that can live where roads, houses, industry, people and their pets are found. This is also where most Essex residents view and enjoy local wildlife.
- An agricultural landscape in the north central part of town, broken by forests, hedgerows, wetlands and streams that provide diverse habitats for a variety of field, riparian and woodland species.
- Extensive, relatively remote forested uplands in northern portions of town, including evergreen and deciduous forests that provide critical, unfragmented habitat for wide-ranging species such as black bear, bobcat and fisher, and also protective interior habitat for birds such as hawks, owls and forest songbirds.

Photograph: Linda Everett



In addition to habitat destruction from site disturbance and development, identified threats to local wildlife and wildlife communities include land subdivision (parcelization) and habitat fragmentation from development and roads, encroachments into sensitive areas, and the introduction of domestic animals and invasive nuisance species.

Wildlife habitat does not mean the grassy strip between the sidewalk and the road.

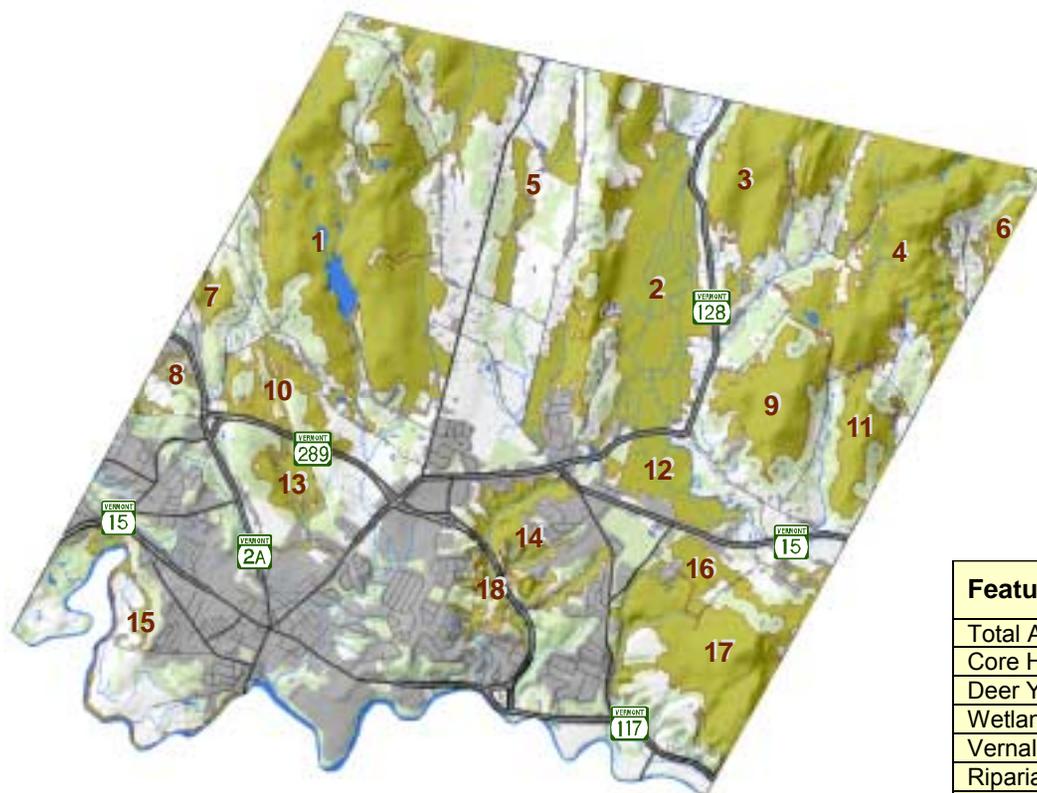
– Community Forum Participant



Deer Wintering Area

Significant Habitat Features assessed and mapped as part of the natural heritage inventory included:

- ***Core Habitat Areas***– Forested wildlife habitats far removed from human activities and development that are often important source, or breeding, areas. Approximately 7,625 acres of core habitat were identified in Essex.
- ***Forested Riparian Habitat***– Forested streamside areas that support both aquatic and terrestrial species. There are 167 miles of mapped rivers and streams in Essex, and approximately 3,435 acres of forested riparian habitat.
- ***Deer Wintering Areas***– Evergreen stands that provide winter cover for white-tailed deer, and are also home to bobcat, coyote, and scavenging bears. A total of 4,891 acres of deer winter habitat were mapped in Essex.
- ***Mast Stands***– Beech stands mapped by the state that, in more remote locations, provide a critical food source for black bear populations and also deer, wild turkey and squirrels. There are two known mast stands in Essex.
- ***Wetlands***– Important transitional areas between aquatic and terrestrial habitats that support a variety of wildlife. 430 wetland sites, totaling 3,081 acres, were mapped.
- ***Travel Corridors*** – Places where landscape features and land uses allow wildlife to move between habitats within their home ranges or territories. Twenty-two potential corridors were identified, based on land cover characteristics, but were not field verified.



■ Contiguous Habitat Unit



□ Potential Corridors

Contiguous Habitat Units (CHUs) are larger, relatively continuous wildlife habitat areas that have been defined and mapped based on the presence of a combination of significant habitat types or features, as described above. Arrowwood Environmental identified 18 CHUs in Essex, based largely on a remote assessment of habitat features. These CHUs comprise a total land area of 9,569 acres, of which 5,428 acres are considered core habitat. More detailed descriptions and information for each CHU are included in the accompanying inventory report. On-site investigation is needed to document the location and extent of habitat features.

Features	Contiguous Habitat Area (CHU)								
	#1	#2	#3	#4	#5	#6	#7	#8	#9
Total Area (Acres)	2,486	1,566	731	1,365	214	86	73	53	452
Core Habitat (Acres)	1,990	431	563	1,301	209	67	65	7	377
Deer Yards (A7cres)	1,295	382	497	822	0	0	0	0	198
Wetlands (Acres)	312	1,144	43	107	0	10	0	13	4
Vernal Pools (#)	10	1	0	3	0	0	0		2
Riparian Habitat									
Ledge Habitat	•	•	•	•		•			
Mast Stand(s)	•			•		•			
Potential Corridor(s)	•	•	•	•		•		•	
Features	Contiguous Habitat Area (CHU)								
	#10	#11	#12	#13	#14	#15	#16	#17	#18
Total Area (Acres)	227	262	287	186	333	111	119	894	121
Core Habitat (Acres)	0	198	0	0	0	0	0	698	85
Deer Yards (Acres)	189	66	0	125	317	0	115	349	0
Wetlands (Acres)	52	14	281	4	7	63	34	38	0
Vernal Pools	0	1	0	0	0	0	0	0	0
Riparian Habitat	•	•	•	•	•	•		•	•
Ledge Habitat		•						•	•
Mast Stand(s)									
Potential Corridor(s)	•		•	•	•		•	•	•

Management Recommendations:

Contiguous Habitat Units:

- Discourage forest fragmentation in these areas. Limit roads, houses and most other human activities to the periphery.
- Promote forest management activities that support a diversity of forest and early successional natural communities.
- Maintain connections between various wildlife habitats/elements within contiguous habitat units.
- Maintain deep forest habitat for many declining songbird species by limiting heavy forest cutting and the creation of edge habitat in these areas.
- In smaller CHUs dominated by forested riparian areas, wetlands, and potential travel corridors, avoid further fragmentation and development, maintain connections between habitats/elements, and adequate water flow in streams and wetlands.

Bear Habitat:

- Maintain large, unfragmented, non-road areas to sustain black bear populations.
- Provide continued access to mast stands and forested wetlands. Beech stands and wetlands used by bears should be protected from development by buffers at least ¼ mile in extent. A professional wildlife biologist should address potential development impacts. Discourage harvesting of beech stands.

Ledge, Talus & Cliff Habitats:

- Discourage development activities in the vicinity of ledges, taluses and cliffs used by nesting birds, resting wildlife and denning bobcats and porcupines. A buffer at least 100 feet in width should be maintained between these habitats and human activities.

Deer Winter Habitat:

- Protect deer yards with buffers at least 300 feet in width. A professional wildlife biologist should assess potential impacts from development within 300 feet of deer yards.

Forested Riparian Communities:

- Avoid further fragmentation of forested riparian areas.
- Maintain a continual forest cover in these areas through the use of selective harvesting techniques.

Travel Corridors:

- Conduct field studies to verify and further assess significant wildlife travel corridors in Essex.
- Set priorities for corridor protection, and establish isolation buffers along the most important travel corridors to maintain wildlife movement patterns. Black bear corridors may need to be buffered up to ¼ mile.
- Limit development to the edge of corridor buffers, and encourage the use of screening, natural color schemes and other techniques to limit adverse impacts of development.
- Improve vegetated buffers along the Winooski and Browns Rivers, and associated tributaries, for travel corridors.

Working Landscape



Despite being one of the most populated and developed communities in the state, outside of its historic settlements and planned growth areas the Town of Essex retains much of its rural character – including a significant amount of farm and forest land.

Identifying and preserving the town's working landscape was a key component of the 1989 Open Lands Study, which identified and mapped nearly 70 significant farm and forest parcels, many of which still appear on the town's "Significant Features Map." Farmland was identified through a Land Evaluation and Site Assessment (LESA) system that categorized and ranked farm parcels for potential conservation based on both the productivity of their soils (land evaluation) and site characteristics such as location and acreage (site assessment). Forest parcels included larger, undeveloped parcels that were enrolled in the state's Use Value Appraisal (Current Use) Program.

Previously identified farm and forest parcels, as shown on the town's current parcel map and grand list, were evaluated, along with other available information for the preparation of this plan. Key findings are presented below.

Farmland is most scenic when it's being farmed – preserve the remaining working landscape...

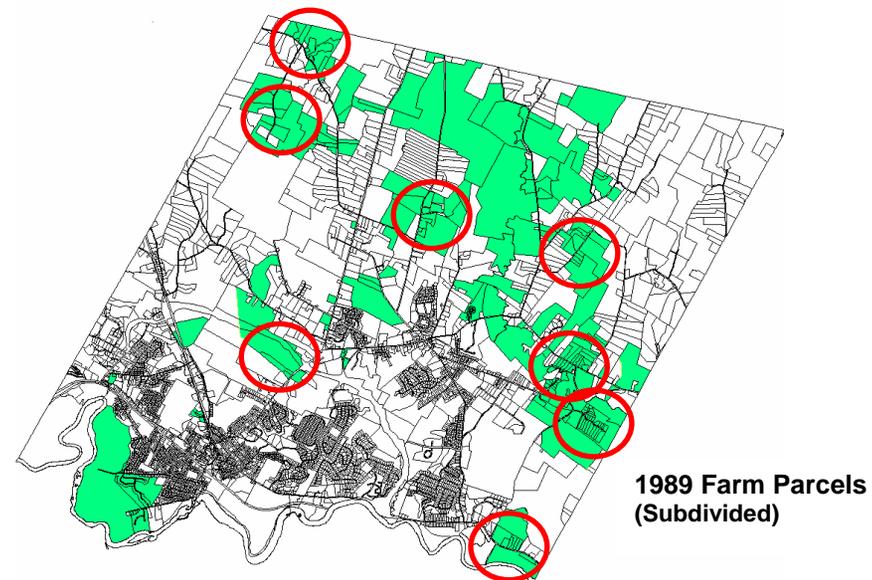
– Community Forum Participant

Farmland

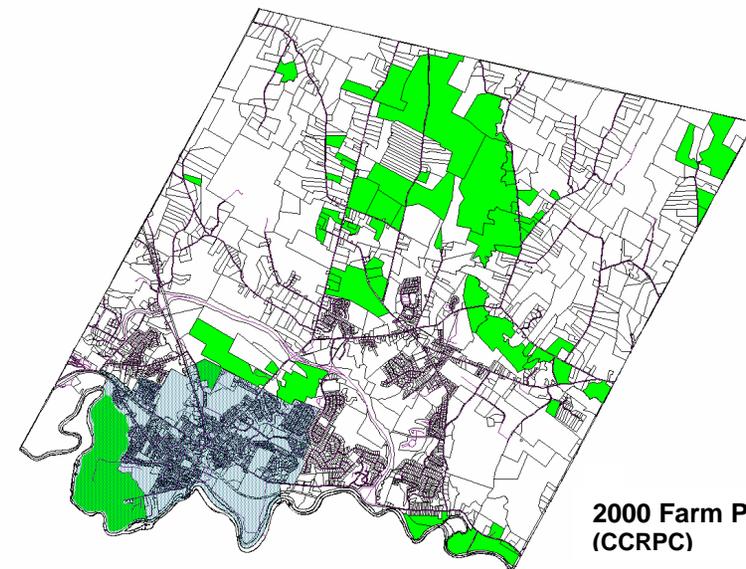
The 1989 Open Lands Study identified 53 remaining tracts of farmed land in town. Though direct comparisons are difficult given boundary and ownership changes, of the 53 parcels identified, at least 24 (45%) have since been subdivided (as shown in the accompanying figure) and, according to current grand list information, all but six (89%) have been developed or at least partially converted to other, mostly residential, uses. Of the 53 parcels evaluated in 1989, 20 were identified as “prime” farmland, comprising around 2,000 acres (70% in floodplains). As then anticipated, farmland was taken out of production for the construction of the Circumferential Highway (I-289), and for two large residential subdivisions.

In the early 1990s there were 26 farm parcels on the town’s grand list. Notably, by 2007 only seven parcels, totaling 1,312 acres, were listed as “farm” parcels – and none were located in the Agricultural-Residential Zoning District. Over the same period, however, the number of parcels enrolled in the town’s Farm Tax Stabilization Program increased – from 5 in 1989 to 9 in 2007. Enrolled farm acreage currently totals 2,143 acres.

By other measures, Essex still has a significant amount of land in production in the Browns River valley and along the Winooski River. A 2000 parcel-based assessment of land use in Chittenden County, conducted by the Chittenden County Regional Planning Commission, identified more than 60 parcels in town that still supported some agricultural function or activity. Most of these are included in the town’s grand list as larger residential (R2) or “miscellaneous” parcels – a listing category that includes undefined or transitional open land.



1989 Farm Parcels (Subdivided)



2000 Farm Parcels (CCRPC)



A recent University of Vermont analysis of enhanced 2001 satellite (Landsat) imagery identified approximately 4,600 acres of farmland remaining in town, comprising roughly 17% of the town’s total area. *As noted earlier, a comparison of these data to 1992 data indicates that the town has been losing, on average, around 72 acres of farmland per year – largely to low density residential development (“urban open space”) – as supported under local zoning.*

Farmland conversion reflects in part ongoing changes in the local farm economy – many of which were identified in the 1989 study. By 2007 there were only two dairy farms left in town. On the other hand, USDA Agricultural Census data suggest that there are a growing number of smaller, more diverse farming operations in the area – such as Mazza’s vegetable farm and Chapin’s Orchard– that market and sell their products locally through direct sales, farm stands, farmers markets and Community Supported Agriculture

(CSA) operations. No local or statewide inventory of these types of farms has been undertaken to date.

Also of note is the ongoing fragmentation and development of the town’s agricultural resource base – its primary agricultural soils (shaded below) as defined and mapped by the U.S. Natural Resource Conservation Service. There is no mechanism in place, outside of state Act 250 review, to conserve this resource in support of local food production. State guidelines for agricultural land adopted in 2007 include recommendations for the local review and regulation of farmland development – to preserve remaining concentrations of undeveloped primary agricultural soils, and to maintain the availability and viability of land for farming.



Forestland

At the time the 1989 Open Space Study was done, the majority of Essex (53%) was forested. The 1989 study identified key forested parcels in five areas of town, totaling nearly 8,300 acres, as “prime forestland” for potential conservation:

- Upper Indian Brook/Brigham Hill (3,000 acres)
- Osgood Hill (2,600 acres)
- Bixby Hill (600 acres)
- Saxon Hill (1,100 acres)
- Lower Alder Brook (950 acres)

These forest tracts were selected in consultation with county and state foresters, based primarily on their size (50+ acres), potential for commercial timber production, ownership and management, and included several publicly owned parcels – e.g., Indian Brook Reservoir (450 acres), Saxon Hill (90 acres), and the Essex Town Forest (76 acres). Most privately owned forest parcels were enrolled in the state’s current use program, which requires the preparation of forest management plans.

At the time, the Saxon Hill and Lower Alder Brook forests were considered the most vulnerable to development because of their proximity to existing development, utilities and highways. Lower Alder Brook forests were expected to be impacted by the construction of the Circumferential Highway. The Saxon Hill area – a former pine plantation that once protected the Essex Center water supply – was mostly in private ownership and, in 1977, had been specially zoned for both conservation (60%) and industrial development (40%).

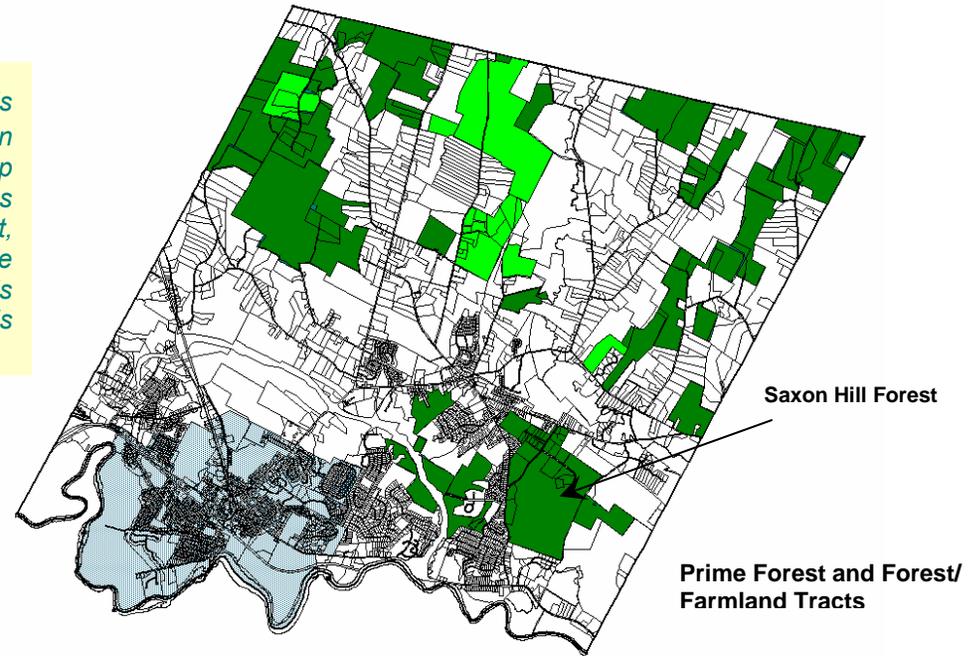


Saxon Hill Pine Plantation

Saxon Hill Forest– Given the ongoing importance of this area to the community, the Saxon Hill area is now regulated (within the Resource Preservation-Industrial District) under a 2001 map approved by the Planning Commission that specifically identifies areas designated for conservation and development. At present, 60% of the land is to be retained as open space, 25% may be developed for additional industrial use, and the remaining 15% is to be used for recreation and conservation until such time as it is approved for development by the Planning Commission.

A number of prime forest parcels on the town’s “Significant Features Map” have been further subdivided and fragmented since the 1989 study was completed. As then anticipated, tracts in the Lower Alder Brook area have been bisected by the Circumferential Highway, and industrial development has continued, under strict regulation, in the Saxon Hill area. Conversely, forestland in the vicinity of Indian Brook Reservoir, linking this area to Colchester Pond, was recently conserved through the efforts of the Winooksi Valley Park District.

Despite the amount of development that has taken place in intervening years, the majority of the Essex landscape remains forested. UVM’s recent analysis of land cover from 2001 satellite data identified more than 14,000 acres of forestland, covering 52% of the town’s total area – 22% in deciduous forest, 13% in evergreen forest, and 17% in mixed forest. Forested wetlands made up another 3% of the town’s land cover.



According to UVM’s analysis, since 1992, the town has lost an average of roughly four acres of forestland per year to development. A similar analysis of land cover change between 1996 and 2001, conducted from satellite data by the US National Oceanic and Atmospheric Association, suggests that the local rate of deforestation may have doubled in recent years – from 4 to 8 acres annually.

Notably, there are also no “woodland” parcels listed on the town’s 2007 grand list – forestland, as most farmland, is listed as either as large residential (R2) or “miscellaneous” open space parcels.

RESOURCES

As part of its inventory, Arrowwood Environmental mapped 7,625 acres of “core forest” in Essex, which generally coincide with significant forest areas identified in the 1989 Open Lands Study. Core forests are defined by the state as areas of contiguous forest that are uninterrupted by roads and other human development. As described earlier, these areas provide critical habitat for wildlife species that require large, remote areas to survive, such as black bear, bobcat, and many of the state’s native migratory songbirds – including the Vermont state bird, the hermit thrush.



■ Core Forest



Essex Loggers c. 1929

The town’s forests continue to support commercial logging operations, but are also increasingly valued for the variety of other functions they serve – for wildlife habitat, for hunting and outdoor recreation and, perhaps most importantly, for maintaining local water and air quality. In addition to limiting stormwater runoff and soil erosion, it is now recognized that forest cover serves as a critical “carbon sink” that traps and reduces the amount of carbon dioxide in the atmosphere.

If managed for long-term sustainability, through selective cutting and reforestation, Essex forests can support a variety of functions and help moderate the local effects of climate change. It is also expected that, because of warming trends, the composition of the town’s forests will continue to change over the coming years.

∞ Recreation Resources

Up until the 1970s, local residents relied largely on the generosity of private landowners to access land for hunting, fishing, hiking, and other traditional outdoor pursuits. As Essex developed from a rural to an increasingly suburban community, many large private holdings were subdivided for commercial and residential use – and then developed or posted, barring continued public access. Even large tracts of land once in public ownership – including town and village water supply areas – were sold to private interests. Fragmented ownership has made the process of gaining access to land for recreation increasingly difficult and expensive.



Since the 1970s, the Town of Essex has actively acquired land and easements for public use, with ongoing public support. 1973 Quality Environment Plan recommendations focused mainly on acquiring land for public parks and outdoor recreation – including the reacquisition of Indian Brook Reservoir. The 1989 Open Lands Study included related recommendations for the development of an extensive, town-wide trail network linking these areas within town, and beyond. These recommendations have helped guide ongoing efforts to develop the town’s recreational resource base.



72% of Essex households responding to a 2003 survey indicated that the availability of local parks and recreational opportunities is extremely important (31.6%) or important (39.9%) to them. At the time, more than half of local residents were willing to pay additional taxes for more recreational land.

– 2004 Recreation Needs Assessment

Indian Brook Reservoir Conservation Area

Recreation Areas

Fortunately, a variety of public and private outdoor areas are now available for recreational use in Essex outside the Village of Essex Junction – including town-owned land and facilities maintained by the Parks and Recreation Department, regional facilities under the management of the Winooski Valley Park District (of which the town is a member), and privately-owned recreation facilities. The detailed *2004-2010 Recreational Needs Assessment* was prepared for the town by Recreation & Leisure Services Consultants, and referenced in the 2006 Essex Town Plan. The findings of this inventory and assessment are summarized here as they relate to the town’s open space planning process. Public recreational resources were inventoried and classified by the town as follows:

Type	Number	Acreage
Neighborhood Parks	4	9.89
Community Parks/Play Areas	9	181.02
Natural Areas	11	717.37
Public Open Space (Undeveloped)	7	105.58
Regional Parks/Natural Areas (WVPD)	3	190.01
Total	37	1,203.87

Sources: 2006 Essex Town Plan; 2004 Recreation Needs Assessment.

Larger holdings in the current inventory include:

- Indian Brook Conservation Area (500+ acres)
- Colchester Pond Natural Area/WVPD (127 acres)
- Tree Farm Recreational Facility (99 acres)
- Saxon Hill/ School District (90 acres)
- Mathieu Town Forest (76 acres)
- Woodside Park (“68 Acres”)/WVPD (now 58 acres)



In addition to these areas, there are three private outdoor facilities in town, including two 18-hole golf courses – the Essex Country Club and the Links at Lang Farm – and the Family Fun Center, a miniature golf course and driving range. These facilities contribute to both the outdoor recreational opportunities available to local residents, and to the town’s inventory of open space. The town also holds deeded easements to trails on two privately owned properties – the Saxon Hill Forest and Lussier properties.

The most significant acquisition by the town to date, as reported in the 1989 study, was the 1986 purchase of **Indian Brook Reservoir** – once the public water supply for the Village of Essex Junction – from a private landowner. The public purchase and improvement of the 500+-acre Indian Brook Conservation Area was funded through a \$16,000 donation from the Nature Conservancy, and a \$750,000 bond paid for through local property taxes.



The recent acquisition by the Winooski Valley Park District of land linking the Indian Brook Conservation Area to the Districts' 683-acre Colchester Pond Natural Area provides critical connecting links – including trail and wildlife corridors – between these two natural areas.

Indian Brook is the most visited park in the town's inventory. In response to increasing public use, the Essex Conservation Committee developed a management plan for the property that was adopted by the Selectboard in 2000. The town has also enacted a park ordinance, and enlisted the services of the Vermont Youth Conservation Corps, to better manage the impacts of public use on the reservoir, the local trail network and the area's natural resources.

The 743-acre **Saxon Hill Forest**, described above as significant forestland, is also an important outdoor recreation area. Only 90 acres of forest, including the top of Saxon Hill, are publicly owned – the town leases this land from the Essex Junction School District for non-motorized outdoor recreation, conservation and school programs. The remaining acreage is owned by Forestdale Heights, a private development firm. As noted above, zoning adopted for Saxon Hill in 1977 (the RPD-I District), and updated in 2001, requires that at least 60% of the total area be retained for conservation and outdoor recreation, while the remainder is intended for industrial development.

The 99-acre **Tree Farm Recreational Facility**, owned and until 1995 operated as a tree nursery by the State of Vermont, was leased to the Town of Essex and Village of Essex Junction in 2002 for recreational use. The Tree Farm Management Group, a nonprofit organization established that year, is responsible for developing and managing the facility. The Tree Farm is

RESOURCES

being developed as a regional soccer facility, and includes playing fields for use by local schools and clubs, and footpaths and hiking trails that are open to the general public. Funding for facility development and maintenance has come from a variety of sources – and in 2006 the TFMG embarked on a capital campaign to renovate an existing barn on the site for meeting and concession space.

The Winooski River, forming the southern border of town, provides opportunities for both riverside and water-based recreation. Public access to the river in Essex is currently limited to Woodside Park (58 acres) and Overlook Park (5 acres), both accessed from Route 15 near the Colchester town line. These parks are owned and managed by the Winooski Valley Park District.



In addition to these larger parcels, the town maintains a number of smaller community and neighborhood parks – some of which were dedicated to the town under permit approvals and associated development agreements. At one time the town required that 15% of land in any subdivision be set aside for recreational use by the residents of the development. While this is no longer a regulatory requirement, the town enacted impact fees in 2004 to help finance planned recreational facilities needed to serve new development. In lieu of paying fees, a developer can dedicate land, facilities or easements to the town for public use.

Recent inventories suggest that, at least for the near future, there is an adequate amount of public parkland and other outdoor recreation areas to meet the needs of local residents. Given the town's current fiscal situation, limited public resources will be directed toward capital improvements and ongoing maintenance programs that support the town's existing recreation areas.

Winooski Valley Park District – The Town of Essex was one of five founding members of the Winooski Valley Park District in 1972, and continues to help manage and financially support the district. The district's stated mission is *"the planning, acquisition and management of lands and waters within the boundaries of its member municipalities in the Winooski River valley for purposes of conservation, preservation of natural areas, establishment of parks, and passive recreation."*

Today the park district maintains 17 parks, over 1,700 acres of natural area, and more than 12 miles of lake and river shoreline. Stated goals under the district's current five year management plan (2004-2009) call for acquiring up to 400 acres of additional regional parkland, over a ten-year period, to serve the area's population.

Recreation Paths

There has also been a concerted effort in recent years by the Public Works Department, the Parks and Recreation Department, and the Essex Trails Committee (established by the Selectboard in 2000) to plan for and develop an integrated, town-wide trail network that includes multi-use trails, bicycle and pedestrian paths and sidewalks. The town currently maintains around 70 miles of sidewalk, several shared use paths, and more than a mile of bike lanes.



The town also holds a number of trail easements on private lands for pedestrian and non-motorized use, including deeded easements on private holdings in the Saxon Hill Forest. Twelve miles of forest roads in this area are used for cross-country skiing, snowmobiling, hiking, mountain biking and horseback riding. Current goals for Saxon Hill include the creation of a trail management plan.

The town's highest priority for the trail network, and associated bicycle and pedestrian projects, is to link residential neighborhoods to schools, parks, recreational facilities, natural areas, community centers and other neighborhoods. To these ends, the recreation needs assessment included a detailed list of eleven new bicycle/ pedestrian

projects to be undertaken between 2004 and 2010 as the availability of land and funds permit. These projects are also referenced in the 2006 Essex Town Plan. Future trail development is also envisioned within less populated areas of Essex– in the northwest and northeast corners of town, the Mathieu Town Forest, the Saxon Hill area, and along major brooks. The town is also working with neighboring towns, the Chittenden County Regional Planning Commission and Metropolitan Planning Organization to develop a county-wide path system.

Essex does not have an adopted “official map” that designates trail corridors for public acquisition, but development projects are reviewed by the Essex Trails Committee for conformance with the town plan. The 2006 Essex Town Plan includes fairly detailed maps for a proposed bicycle network, bridle trails, cross-country ski trails, footpaths, and snowmobile (VAST) trails (Plan Maps 7 – 11). Several path and trail easements have been obtained through the development review process.

There are also 3.4 miles of unimproved Class 4 roads in town. These public rights-of-way include historic town roads that are no longer maintained for year-round use, but still provide access to adjoining land and often serve as public trails. The town has the ability to re-designate one or more of these roads as “legal trails” for recreational use, but currently has no policies in place for this. There also may be other, unidentified “ancient roads” in town that could serve as public trails – the state has given towns until 2010 to identify old road rights-of-way from local land records for this or other purposes. Roads not identified by the town will be permanently abandoned.

64% of Essex residents responding to a 2004 Community Survey indicated that the construction of additional bicycle paths and recreation trails over the next five years was either very important (33.1%) or important (30.6%).

Scenic Resources

The town’s scenic resources have been well documented over the years – scenic overlooks were identified in the 1973 Quality Environmental Plan, a 1988 UVM inventory of the town’s scenic areas was referenced in the 1989 Open Lands Study and, in 1997, a town-appointed “Committee on Scenic Roads” inventoried the intrinsic scenic qualities of town roads, as required for local or state scenic road designation. The 2006 Essex Town Plan lists 22 scenic areas, most of which are generally depicted on the plan’s Scenic Resource and Significant Features Maps (Maps 17 and 18).

Given that a large portion of the town can be viewed as scenic, past efforts to identify and define the town’s most significant scenic resources have focused on “visually sensitive” areas most vulnerable to the visual impacts of development. These include views from public lands and road rights-of-way that are dominated in the foreground by open fields, pastures, wetlands and water bodies. These areas in themselves are scenic – they define “open space” as viewed by most town residents. They also offer no vegetative cover or topographic relief to lessen the visual impacts of development.

The 1989 Open Lands Study identified roughly 4,000 acres of visually sensitive areas or “viewsheds” – mostly floodplains and farmlands visible from town roads– including Brown’s River Road (north and south), Old Stage Road, Weed Road, River Road (west) and Towers Road. Several other roads and areas of town have since been added to this list.



A view from Chapin Road

Other features of the town’s more scenic landscapes include

- Mid-ground changes in topography or vegetation – such as copses and hedgerows – that add visual interest, and can screen development from view.
- Distant views of forested ridgelines and the Green Mountains – including Mount Mansfield, Camels Hump and the Bolton Range.
- Historic homesteads and farm buildings, and



Development within the town's "Golden Triangle" at the edge of municipal services, presents a distinct physical and visual boundary between development and the surrounding countryside.



Residential frontage development along rural roads can block scenic views, and often results in the regrowth of open fields that are no longer available or used for farming.

- Clearly defined "edges" between the town's built and natural environments – uninterrupted by low density rural sprawl or commercial strip development.

No attempt was made to re-inventory these areas – though a more detailed, GIS-based analysis of the town's scenic viewsheds is recommended as funds become available– but a windshield survey was conducted to identify changes that may be compromising the scenic value of previously identified areas. As observed, these include:

- Frontage development along town roads that blocks scenic views, and
- Abandonment and regrowth of farm fields that have been converted to low density residential use.

Despite these changes, the town's scenic, rural landscapes remain largely intact, due to very restrictive floodplain zoning that limits farmland conversion and development, and growth management programs that confine most new development, including all higher density development, to areas served by municipal infrastructure. Despite past recommendations, however, there currently are no regulations in place to protect the town's most vulnerable scenic features from the adverse effects of incremental, poorly sited development.

Highly visible ridgeline development in neighboring communities has raised local interest in also protecting the scenic qualities of the town's more prominent, undeveloped, ridgelines and hilltops – especially now that state septic regulations allow for development on steeper slopes.

More than 90% of local residents responding to the 2004 Community Survey agreed that "the protection of scenic roadside and ridgeline views" within the next five years is important to the Town of Essex.

Budget for more field work!

– Community Forum Participant

Apart from resources identified above, this resource inventory did not include a detailed assessment of open space resources within more developed areas of town due to the level of detail required. It's also important to emphasize once again that most of the inventory work was done remotely – not in the field – so additional site work is needed to document the location and extent of a particular resource on the ground

Planning participants cited the need to budget for ongoing inventories and assessments of the town's open space resources in order to determine their value for conservation. Strategies for doing this are presented in the next chapter.



∞ Goals

Essex was once a rural community, inhabited by people who made their living from the land. Today Essex is one of the most developed communities in the state, yet much of its traditional open land – its privately held farm and forest land – endures. Since the 1970s the town also has actively acquired public open space – public parks, trails and natural areas – to protect and enhance the quality of the local environment, to conserve critical resources, and to secure public access to land for outdoor recreation that might otherwise be lost to development. Today’s residents benefit from these efforts – past and present, public and private – to conserve and manage the community’s land and resources.

It’s clear that the Essex landscape – including its remaining open spaces – will continue to evolve with changing patterns of land ownership and use. Land will continue to be subdivided, developed and converted to other uses. As the town continues to grow and develop, it becomes ever more important to conserve those lands and resources – those special places – that make Essex a wonderful place to live. Not all undeveloped land can – nor should– be protected. It’s therefore important to clearly define and periodically reassess the town’s conservation goals, priorities and programs.



We recognize our duty to leave substantial land undeveloped for future generations...

∞ Our Vision

Important natural resources will be protected as part of a more extensive open lands policy. Strong encouragement will be given to those who continue productive use of farm and forestland. Other undeveloped lands will allow town residents to enjoy recreation and trail opportunities and will provide aesthetic benefits to the entire community.

–2006 Essex Town Plan

The Essex Town Plan, by law, is the legal policy document that guides local conservation programs and land use regulations. This open space plan supplements or, if formally adopted by the town, may amend the town plan. In either case, it's important that the two plans remain consistent in their goals, objectives and recommendations.

Conservation goals from the 2006 Essex Town Plan were reviewed as the policy basis for the development of this open space plan. Relevant plan goals include, but may not be limited to the following:

🌀 Natural & Scenic Resources

- Update and regularly maintain existing information and studies on the town's significant natural resources; implement study recommendations.
- Engage townspeople in protecting natural resources; encourage management of open lands for farming, forestry, recreation and conservation.
- Increase access to and opportunities for public enjoyment of the town's natural resources while protecting the rights and concerns of private property owners.
- Use effective development review standards that allow appropriate development while protecting significant resources.
- Update information on the town's scenic resources; protect and maintain the scenic character of the Essex landscape

🌀 Parks & Recreation

- Facilitate recreational and non-motorized transportation options by further developing and maintaining viable trails.
- Increase the amount of recreational space – indoor and outdoor – available to groups and individuals within the Essex community.

🌀 Land Use & Development

- **Fort Ethan Allen:** Maintain the parade grounds as open space.
- **Essex West:** Protect and enhance existing natural features; establish a conservation/buffer zone on either side of Indian and Sutherland Brooks; establish a trail network and greenbelt along Sunderland and Indian Brooks.
- **Neighborhood Growth Centers:** Encourage provisions for greenbelts, open space and recreational amenities within new residential development; encourage trail connections between old and new developments.
- **Saxon Hill:** Protect natural amenities for public enjoyment; establish fixed boundaries for conservation and development; better manage this area for its recreational and resource value.
- **Town Center:** Preserve significant features; encourage non-motorized, multiuse paths; provide separation between built-up areas and countryside; promote a settlement pattern that protects major open spaces and views.
- **Lowlands/Winooski River:** Protect the integrity of existing water courses and wetlands; ensure that development in the floodplain is avoided; wisely manage natural resources through careful placement of housing and the establishment of open space requirements; revise regulations to provide access to and along the Winooski River Corridor and develop a corridor path.
- **Rural Lands/Highlands:** Update natural resource inventories and studies; establish open space and resource protection standards to apply to all development in rural districts; revise planned residential development provisions to encourage use, include specific guidelines for the preservation of open space.

∞ Priorities

Identify priorities for land preservation based on the goals and objectives of the Essex Town Plan...

Two community forums were held during the course of plan development to help define the town’s conservation priorities over the next five to ten years. Participants at these forums were asked to identify their priorities for open space protection with regard to:

- Open space resources to be protected,
- Conservation strategies to be pursued,
- Responsible parties, groups and organizations, and
- Conservation financing options.

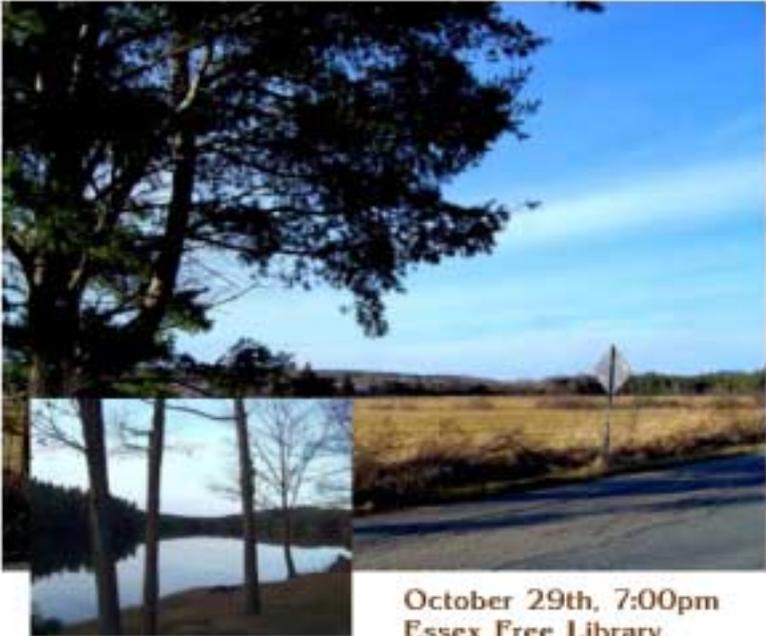
Public forum results, included in plan appendices, are by no means definitive, but they do generally confirm the results of past community surveys and, most importantly, open space conservation goals, priorities and strategies identified in the 2006 Essex Town Plan.

The town’s conservation priorities, first defined in the 1973 Environmental Quality Plan, have remained remarkably consistent over the years with regard to the resources identified for protection. Priorities have expanded – to address new information and concerns – and have shifted over the years, as protected resources give way in priority to those perceived to be most vulnerable to development.

Preserve the best, rather than trying to preserve everything.

–Community Forum Participant

Essex Community Forum: Open Spaces, Important Places



Please join the Essex Conservation Committee for a community discussion of the Town's remaining open spaces — and how to plan for their future use, management and long-term protection.

 Essex Conservation Committee
 Information: 878-1343

**October 29th, 7:00pm
Essex Free Library**

- Natural Resources?
- Wildlife habitat?
- Scenic Features?
- Rural Character?
- Working Landscapes?
- Outdoor Recreation?

CONSERVATION

The 1973 Environmental Quality Plan gave high priority to floodplain regulation and the acquisition of land for outdoor recreation – though wildlife and scenic resources also were noted. Floodplain regulations were enacted, and the town embarked on a successful, 30-year program of land acquisition for public parks and recreation.

The 1989 Open Space Plan emphasized conservation of significant farm and forest parcels, and the creation of a town-wide trail network, yet also continued to cite the need for wildlife and scenic resource protection. Enrollments in the town’s tax stabilization program for farm and open space parcels have since increased, farmland is now being conserved through the Vermont Land Trust, and there is a concerted effort, guided by the Essex Trails Committee, to develop a network of trails, bicycle and pedestrian paths.

For this plan, a much more detailed inventory and assessment of the town’s natural resources – in particular wildlife resources – was conducted, resulting in renewed interest in their protection. It also became apparent during the planning process that there are few mechanisms in place to protect the town’s scenic resources. There are no standards under local regulations or ordinances to protect mapped resources, nor to address the aesthetic impacts of higher density or poorly sited development in most areas of town. Ridgeline development is a particular concern for both its potential scenic and environmental impacts. At present the town’s upland areas are the least fragmented and developed areas of town– but new state regulations allowing septic systems on steeper slopes, and interest in these areas for siting homes, telecom towers and wind turbines, puts them at risk.



Photo: Karen Frizzell

Resource Protection Priorities Ranked by Community Forum Participants:

- | | |
|---|---|
| 1 – Scenic Resources | 5 – Public Parks
Wetlands |
| 2 – Wildlife Habitat | 6 – Biodiversity
Floodplains
Groundwater |
| 3 – Farmland
Surface Waters | 7 – Agricultural Soils |
| 4 – Forestland
Public Trails | |

[4/8/08]

The intent of this plan is to build upon the town’s past and present conservation efforts by adding to the inventory of open space resources to be protected, and the tools available to protect them. Those resources that have received the least protection to date were identified by forum participants as priorities for new or expanded conservation initiatives.

Strategies

Existing and proposed conservation strategies were evaluated and presented for public discussion as part of the planning process. A summary of conservation techniques is included in plan appendices. Many of these have been identified and recommended for consideration in previous open space plans – and were then either adopted, set aside, or rejected as inappropriate by the Selectboard or community at large. The most effective strategies pursued by the town to date – as identified by the Conservation Committee, town staff, and forum participants – include the following:



- ***Comprehensive Growth Management Program*** – including allocation ordinances and subdivision regulations that direct 80% of new development to the town’s sewer core area. These programs effectively lessen development pressure and slow the rate of land conversion outside the core. As the sewer core builds out, there are as yet unresolved questions about whether to grow outward, through expansion of the core area, or inward and upward, through higher density development, as additional infrastructure capacity becomes available. Answers to these questions will directly affect nearby open spaces (e.g., the “Golden Triangle”), currently identified for protection as greenbelt areas.
- ***Public acquisition, through purchase or dedication, of parkland and trail easements*** – including most notably the 1986 purchase of Indian Brook Reservoir. Public ownership generally affords a high level of protection though – as in the case of Indian Brook – communities have spent large amounts of money to reacquire land that was once in public ownership. Given rising land prices, acquisition is also one of the more costly forms of protection. There are no set policies guiding land acquisitions (and sales), nor a permanent town conservation fund to help finance purchases.
- ***Farm & Open Land Tax Stabilization Program***– which reduces property taxes for land-owners who agree not to subdivide or develop larger (50+ acre) farm and open land parcels under contract with the town. There are currently 20 parcels, totaling 3,443 acres, enrolled in the town program. By comparison, there are 44 local parcels enrolled in the state’s tax stabilization program, which has lower acreage thresholds. The town could consider reducing acreage requirements for parcels or specific areas considered of value to the community.
- ***Restrictive Floodplain Zoning*** – which limits the development of much of the town’s remaining farmland and scenic open space. This zoning, tied to federally-designated areas, has not changed in 30 years. Its value for ongoing open space protection is readily apparent.
- ***Dedications & Impact Fees*** – A recreation impact fee ordinance, enacted in 2004, helps fund needed recreation improvements resulting from new development, but also allows for the dedication of land, facilities or easements in lieu of fees. Several trail easements have been obtained through the development review process.

In addition to these established, publicly supported conservation efforts, a number of other strategies were considered during plan development, including many identified in the 2006 Essex Town Plan. Strategies most supported during the planning process are highlighted as follows – including both regulatory and nonregulatory approaches that, in combination, provide the most effective means to conserve important open spaces, and open space resources.

Nonregulatory Strategies

These conservation strategies all require some commitment of public resources – public financing, staff and volunteer time, and equipment. Considerations for implementation include the town’s administrative and fiscal capacity to fund and manage programs on its own or in partnership with other groups and organizations.

Land Acquisition & Stewardship

1. *Establish a formal public land acquisition and stewardship program*, to be managed by the Selectboard in consultation with the Conservation Committee. This was strongly supported by forum participants as a long-term strategy – despite potential costs to the community, and very real concerns about the town’s current fiscal capacity (following recent reappraisals) to fund new acquisitions. Related recommendations:

Conservation Strategies Ranked by Community Forum Participants:

Nonregulatory

1. Tax Abatement Program (expanded)
2. Land/Easement Acquisition & Stewardship
3. Buy Local Farm/Food Programs
4. Resource Inventory, Mapping & Monitoring
Landowner Education & Assistance
5. Partnership Programs (Regional, State)
6. Public Information Programs

[4/8/08]

Regulatory

1. Overlay District (Ridgeline, Scenic)
2. Scenic Road Ordinance
3. Conservation Subdivision (Rural Areas)
4. Resource Protection Standards (strengthen under all regulations, public works standards)
5. Dedications (Land/Trail Easements)
6. Regulatory Incentives (e.g., Density Bonuses)
Official Map (proposed trails, parklands)
7. Expanded Conservation District (Zoning)
8. Transfers of Development Rights

- Adopt policies for the public acquisition (through purchase or dedication), and sale of land or interests in land – including acquisition priorities and a process that includes formal review by the Conservation Committee of all proposed acquisitions and sales.
- Include specific parcels or easements identified for public acquisition in the town’s adopted capital improvement program; or on an adopted “official map” that identifies land or trail easements for public acquisition (through dedication or purchase) for reference in the town’s land acquisition and development review programs.
- Prepare and periodically update resource inventories and management plans that emphasize resource protection and sustainable, long-term management of all town-owned parks, natural areas, and trail networks. Saxon Hill Forest holdings should be given priority for forest and trail management plans.

Conservation Funds

Municipalities, by law, are allowed to acquire land or interests in land (e.g., easements) for conservation and resource protection. At least eight Chittenden County communities ranging from Bolton to Burlington – and many more around Vermont – have created conservation funds for this purpose. Conservation funds, as enabled by the state, may be established by a conservation commission, or as a formal reserve fund adopted by vote of the municipality. These funds are then used to finance the purchase of land, easements or other interests in land – typically by leveraging or matching funding from other sources such as the Vermont Housing Conservation Trust Fund, the Land & Water Conservation Fund, the Nature Conservancy, or the Trust for Public Land.

A conservation fund is most commonly financed through property taxes– e.g., through a “**penny for conservation**” initiative (a one cent addition to the annual tax rate), or through annual or special appropriations. South Burlington expects to add \$265,000 to their fund this year from a penny on their tax rate. Charlotte, Williston and Shelburne also have effective, tax-based financing programs. A few communities, however, rely solely on other sources of funding – including grants, fundraisers, capital campaigns and donations.

When establishing a fund, it’s important to clearly define its purpose – South Burlington recently voted to expand use of their open space fund to purchase land for recreation as well as conservation. This was done over the objections of the South Burlington Land Trust, which argued instead for the establishment of separate funds for separate, potentially conflicting purposes.

Conservation Program Financing Preferences, Ranked by Community Forum Participants:

1. Conservation Fund (through a variety of sources)
2. Property Taxes
3. Development Impact Fees
4. Grants (Vermont Housing Trust Fund, etc.)
5. Private Donations (funds, land easements)
6. Volunteer Time/Labor (little or no cost)

[4/8/08]

- Adopt and periodically update town ordinances regulating the use of public parks, conservation and outdoor recreation areas to ensure that public facilities and inventoried resources are protected from excessive or inappropriate use.
- Enlist, in addition to town staff and Conservation Committee members, the services of volunteers– e.g., residents, conservation and service organizations – to inventory and maintain town holdings.

2. *Establish a Conservation Fund* administered by the Selectboard, in association with the Conservation Committee, to finance in whole or part the purchase of land or interests in land (e.g., conservation and trail easements or rights of first refusal). A conservation fund allows the town to be both proactive in raising funds for planned acquisitions, and reactive in responding to opportunities as they arise – which may include support for the conservation efforts of individual landowners. If authorized, funds can also finance inventories, management plans and capital improvements. Related recommendations:

- Seek and accept funds from a variety of sources – property taxes allocated annually or for specific projects are the most common but not only source of funding. Other sources include project-specific grants (e.g., from the Vermont Housing Conservation Trust Fund), fundraising campaigns and donations.

2004 Community Survey results indicate that, at that time, 64% of respondents supported the creation of a land acquisition fund to preserve open space, funded through property taxes and other sources.

CONSERVATION

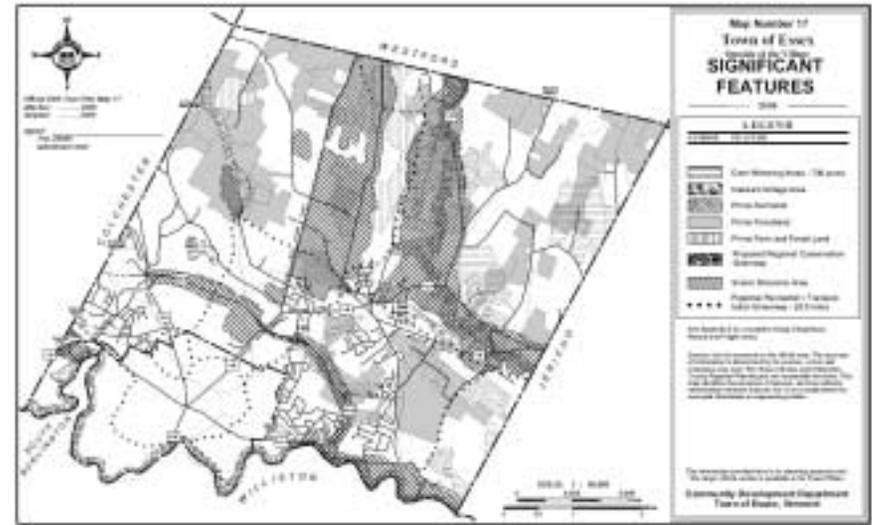
- Focus primarily on resource- rather than parcel-based protection, through the acquisition of conservation and trail easements. Sometimes acquiring land in fee simple is appropriate – e.g., for new or expanded parks or recreational facilities identified in the capital improvement program or on the official map – but easements that provide access to or restrict development on a portion of land are often more flexible, less expensive, and just as effective for long-term resource protection. The landowner benefits by selling rights while retaining use of the property; the town benefits by conserving land that is retained on the tax rolls.
- Establish policies and procedures for use and management of the fund, including annual and project-based funding limits, an application and screening process, and project evaluation criteria that are consistent with town land acquisition policies.

Resource Information, Mapping & Monitoring

1. *Consolidate natural and cultural resource data in an updated Significant Features Map.* New inventory data, including updated wetlands and wildlife habitat data, should be incorporated on a revised “Significant Features Map” and related maps for use in town conservation and development review proceedings – and to inform local landowners and applicants that these resources may be present on their properties. It’s important to clarify though, that mapped information indicates only that a particular resource may be present– the location and extent of which must be confirmed on the ground.

Common Conservation Project Evaluation Criteria:

- ❑ **Open Space/Resource Value** – Site specific information identifies the type, extent and integrity of resources to be protected. Multiple resource values are preferred.
- ❑ **Contribution** –The project completes, or significantly adds to, the inventory of protected open space and resources.
- ❑ **Location** –The project area is at risk from development, but not located in an area specifically planned for development.
- ❑ **Cost** – the purchase price is equal to, or below, the appraised value.
- ❑ **Partnerships** – Local conservation funds will be used to leverage or match other sources of funding.
- ❑ **Ownership** – If owned in fee-simple, there is a viable owner (not necessarily the town). If development rights are acquired, they will be held by one – or preferably more – public agencies or qualified conservation organizations.
- ❑ **Management** – There is a plan for sustainable, long-term management, and a qualified organization to oversee monitoring and stewardship.





2. *Conduct field inventories, with landowner permission, as resources allow.* Arrowwood Environmental stressed in their accompanying inventory report that most resources to date have been identified and mapped remotely – field inventories are necessary to confirm and better define the location of these resources on the ground. Organizations such as Keeping Track or the Audubon Society can train local volunteers to conduct standardized field inventories.
3. *Re-inventory, and map in more detail, the town's scenic roads and viewsheds.* A GIS analysis of the town's scenic resources – including prominent ridgelines and hilltops as viewed from public rights-of-way – should be conducted to update the town's scenic features map. This map should also include scenic roads, as identified by the town's former Committee on Scenic Roads.
4. *Identify natural resources for protection within and adjacent to developed areas of Essex, including the sewer core.* The Essex Town Plan recommends that these areas be given particular attention and priority for conservation, but the level of detail required was beyond the scope of budgeted inventories. Arrowwood's natural heritage assessment did identify certain resources in these areas for protection – including wetlands, riparian areas, and most of the town's known rare plant communities. As noted above, further site investigation is needed.
5. *Define additional open space types or categories for consideration within developed and urbanizing areas of town.* Open space is currently defined as relatively undeveloped greenspace – ranging from small parks and

CONSERVATION

playgrounds to large natural areas. Other types of open space are often found in more densely settled areas – for example greenbelts (as mentioned for development around the sewer core); greenways (as proposed along river corridors) and parkways (along transportation corridors); public squares, greens, courtyards and plazas (defined by building fronts); community and private gardens; and churchyards and cemeteries.

The environmental, psychological and aesthetic importance of smaller, public open spaces within more densely populated and developed areas cannot be overstated. An excellent local example is the Parade Ground at Fort Ethan Allen, which has been identified for protection based largely on its historical significance to the community. An inventory of more formal civic or cultural open space areas, in addition to natural open space areas (under #5), is recommend within and adjacent to the sewer core as needed to support additional open space planning and development in these areas.

6. *Survey owners of remaining farm and forest parcels* to identify existing and proposed land uses, management practices, and their interest in long-term land conservation. This information can then be used to target tax abatement and other landowner assistance programs, and to update the Significant Features Map.
7. *Map and analyze local watersheds.* Local watershed boundaries and surface waters have been mapped in a GIS format. Watershed maps should be updated, as funding becomes available, to also assess land use and land cover, water supply systems, existing and potential pollution sources, and the amount and effect of impervious coverage within each watershed – with priority given to the watersheds of impaired waters.
8. *Consider identifying and mapping the town's "ancient road" corridors* from local records to include in the town's proposed trail network. If not identified and mapped by 2010, these public roads will be abandoned.

Urban Open Space Type	Description:
Greenbelt	Concentration of open spaces separating urban areas from surrounding rural areas; may contain environmental and agricultural preserves, greenways, parkways, golf courses, parks and playing fields.
Greenway	A natural reserve available for unstructured, passive recreation; often linear, following the course of a natural feature (e.g., river); may contain paths and trails, meadows, woodlands, open shelters.
Community Park	Open area specifically designated, landscaped and equipped for active or passive recreation; may be fronted by buildings. Should be confine to the edge of neighborhoods to avoid disrupting pedestrian networks.
Community Garden	Group of garden plots available for small scale cultivation, generally to residents of more densely settled areas or apartments without private gardens.
Green/Square	Open space defined by building fronts or landscaping that is available for civic purposes and passive recreation. May be located centrally, or at the intersection of important streets, and consist of paths, lawns, gardens, trees and park furniture.
Plaza	An open space defined by building fronts that is paved and landscaped, and used for civic and commercial activities.
Playground	A small open space area designed and equipped for children's recreation. Should be interspersed with residential neighborhoods

Landowner Support Programs

1. *Continue – and consider expanding– the Essex Farm and Open Land Tax Abatement Program.* Despite adding slightly to the tax burden of other property owners, continuing this program was strongly supported by forum participants. Consider also reducing acreage requirements for parcels, or portions of parcels, that are determined by the Conservation Committee to include significant open space resources.

2. *Work with interested landowners to permanently conserve their land,* through the Vermont Housing Conservation Trust Fund, conservation organizations such as the Vermont Land Trust and, as available, the Essex Conservation Fund. At minimum this should include town support for landowner applications that meet town open space and resource conservation objectives.

3. *Provide interested landowners with information about available federal, state, and nonprofit resource conservation assistance programs, for example:*
 - Vermont Use Value Appraisal Program (Current Use)
 - Vermont Housing & Conservation Board programs
 - Vermont Landowner Incentive Program (to protect rare, threatened and endangered species, communities)
 - Vermont Wetlands Protection & Restoration Program
 - Conservation Reserve Enhancement Program (riparian buffers on farmland)



Vermont Land Trust 2006-07 Annual Report

The Boissoneault Farm on the Browns River was the first farmland conserved in Essex (in 2007) through the Vermont Land Trust, with funding from the Vermont Housing Conservation Fund and support from the Town of Essex. This project involved the purchase of development rights on one of the town’s largest remaining farm parcels, which includes 354 acres of primary agricultural soils and 4,000 feet of river frontage. The land also borders 120 acres of state wildlife land to the north, and a VAST trail runs along the property’s western boundary.

- Wildlife Habitat Incentive Program (habitat protection, through the Natural Resource Conservation Service)
 - Vermont Land Trust (land conservation)
 - Vermont Coverts: Woodlands for Wildlife
 - Vermont Family Forests (sustainable forestry)
4. *Organize volunteers to work with interested landowners on conservation projects* – for example to inventory and map resources, to re-establish riparian and wetland buffers, or to develop and maintain local trail networks.

Community Support Programs

1. *Organize a “Buy Local” Program* to support the working landscape by supporting local farmers, foresters and producers. Information and materials are available through the Vermont Agency of Agriculture. Related activities could include:

- **Inventoring and publishing a directory** of local loggers, farmers, nurseries, wood product and specialty food producers in the community.
- **Founding a local farmer’s market** – Essex has two commercial farm stands, but is one of the few Chittenden County towns that does not host a weekly farmer’s market during the summer months. A few communities, such as Montpelier, are now also supporting year-round markets.
- **CSAs**– support local farmers interested in establishing **Community Supported Agriculture** operations that offer farm shares to local residents (e.g., help identify neighborhood distribution sites).

2. *Establish a Community Garden Program*– to allow local residents without access to garden space to have garden plots. There are community gardens in Essex Junction and at Fort Ethan Allen (in Colchester). Community gardens also could be established in the town’s higher density residential districts, or in association with higher density subdivisions and multi-family housing projects. Assistance is available through the **Vermont Community Garden Network**.



3. *Establish a local “Farm-to-School” Program* – to increase the amount of local produce used in school cafeterias, and to expose students to local farming operations. Information and assistance is available through **Vermont FEED** (Food Education Every Day) which offers programs to connect the farmers with the classroom and cafeteria (www.vtfeed.org). Assistance is also available through the Vermont Agency of Agriculture, which sponsors **Vermont Agriculture in the Classroom** and, in 2007, offered federally funded farm-to-school planning and implementation grants.

Partnership & Public Outreach Programs

1. *Continue to support efforts of the Winooski Valley Park District to acquire and manage regional parks and natural areas* in Essex and surrounding communities. Essex recognized early on, as a founding member of the district, that open space and natural resources do not stop at town boundaries, but extend into neighboring communities, and that this calls for cooperative conservation and resource protection efforts.
2. *Continue to participate in and support the efforts of other regional organizations* that are consistent with town goals and objectives to inventory and conserve open space resources within and beyond town boundaries. For example:
 - Ongoing efforts of the Winooski Valley Park District to strengthen land and wildlife connections between Colchester Pond and Indian Brook Reservoir.
 - The Chittenden County Regional Planning Commission’s current efforts to prepare a countywide open space plan and guidance materials for member municipalities.
 - The Winooski Natural Resource Conservation District’s Brown’s River Corridor Restoration and Protection Program in Essex, Westford, Jericho and Underhill – including grant-funded student and landowner restoration projects and outreach efforts.

3. *Continue and expand upon conservation partnerships with local schools.* Some of the town’s most significant open space and recreation areas are owned by Essex schools – including Saxon Hill Forest land that is under long-term lease to the town. Local schools also offer outdoor education and recreation programs – though not always in cooperation with the town. For example, the Conservation Committee was not aware of some of the water quality monitoring being done by local students.
4. *Sponsor education and outreach programs to engage local residents as available time and resources allow.* For example, these could include:
 - Sponsoring the **PLACE Program**– UVM’s “Place-based Landscape Analysis and Community Education” program developed in collaboration with Shelburne Farms. This program offers local residents a forum for exploring the natural and cultural history of the town through an integrated series of presentations, field trips, workshops and printed materials (<http://www.uvm.edu/place>).
 - Offering presentations, talks and outings with local experts, or more formal community programs offered by the state (e.g., through the Community Wildlife Program) and conservation organizations such as Audubon Vermont or Keeping Track, Inc.
 - Publishing informational pamphlets or news articles on a variety of conservation topics.
 - Continuing to host annual photo and essay contests.

We need to take a coordinated, regional approach and look across town borders – it may make a difference with regard to proposed conservation strategies and their chances for success. – Community Forum Participant

Regulatory Strategies

Regulatory conservation strategies have the advantage of being more immediate, comprehensive and less expensive than land acquisition programs – and can offer more targeted open space resource protection. If viewed as being unnecessary or overly restrictive, however, they can also be difficult to enact, administer and enforce. Regulations also change over time, so the protections they offer may not be permanent. Important considerations when proposing new or updated regulations include:

- *Conformance with the Essex Town Plan* – and the open space plan, if formally adopted as an amendment to the town plan. All proposed regulations must conform to the town plan.
- *Support of the Planning Commission and Selectboard* – All proposed amendments to the regulations, by law, must be considered and acted upon by the commission and board. It is anticipated that the Planning Commission – in direct consultation with the Conservation Committee, and with the assistance of staff or consultants – will be responsible for developing new regulations, as required by law. The Selectboard is responsible for their adoption.
- *Public and Landowner Support*– The Planning Commission and Selectboard must hold public hearings on all proposed regulations. If there’s no public support, they will likely be rejected. Affected landowners (as identified from parcel maps) also should be consulted and included in the process of drafting updated regulations.

- *Capacity of the town to administer and enforce new regulations.* Essex is fortunate to have qualified staff and in-house GIS mapping capacity that makes the application, administration and enforcement of local regulations easier for both applicants and volunteer boards. However programs that require more extensive administration– e.g., transfer of development right (TDR) programs – may cut into available staff time, and therefore not be appropriate for consideration without additional staff.

The Town has long used regulations to help protect open space – including the adoption of restrictive floodplain regulations that, as noted earlier, are one of the most effective regulatory measures enacted to date. Following the 1989 Open Lands Study, the town also incorporated a “Significant Features Map” in updated town plans and by reference in local regulations. Just this year, the town extended required stream setbacks from 25 to 50 feet, strengthened related buffer requirements, and adopted similar 50-foot buffers for ponds, reservoirs and wetlands.

Other regulatory approaches – some of which were once rejected as being too restrictive – may now be acceptable to the community, given current concerns and priorities. These include the following, described in more detail below:

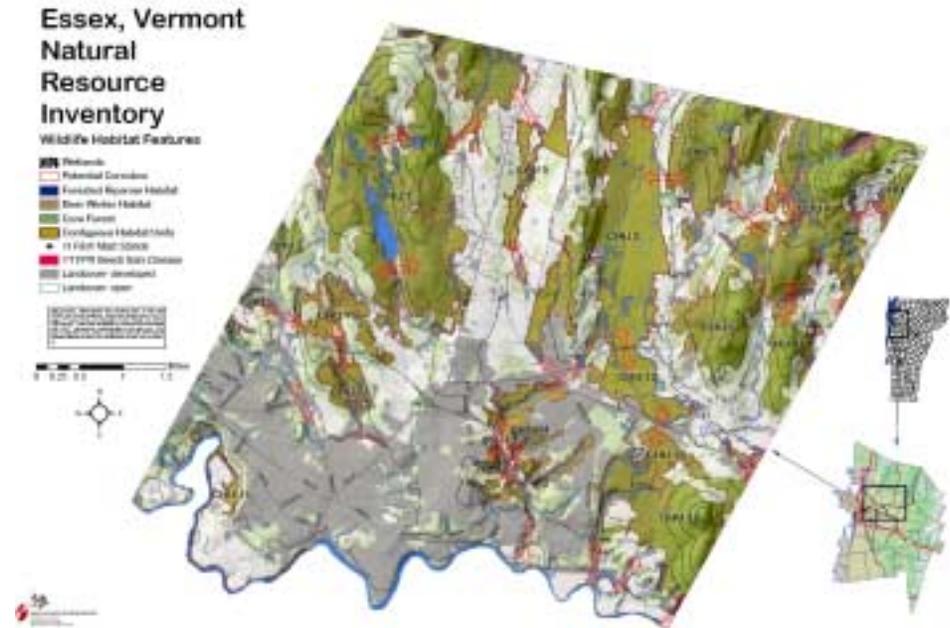
- **Resource Protection Standards** (scenic, wildlife)
- **Resource Overlay Districts** (e.g., scenic, ridgeline)
- **Conservation Subdivision Design** (rural districts)

Resource Protection Standards

This includes updating referenced open space resource map(s) and associated protection standards under the town’s zoning and subdivision regulations and, for consistency, incorporating or referencing such standards under the town’s public works requirements and other related policies and ordinances.

1. **Update the Significant Features Map**, as referenced under local land use regulations, for use in the review of new subdivision and development applications; i.e.:

- Add new and updated natural heritage resource coverages prepared as part of the open space planning process – i.e., updated wetland, deeryard, mast stand and rare community coverages, and new vernal pool, core forest, contiguous habitat unit, and potential wildlife travel corridor coverages.
- Include update primary agricultural soils data, as defined by the Natural Resource Conservation Service and regulated by the state under Act 250.
- Include scenic road segments identified by the town’s former Committee on Scenic Roads. Also, as resources allow, update the town’s scenic areas in more detail, through a GIS-based viewshed analysis from public vantage points (e.g., rights-of way). This is intended to support, but not substitute for, individual site assessments conducted in association with the development review process.



- Update significant farm and forest parcels on a parcel by parcel basis, based on interviews with local landowners, enrollment in town and state tax abatement programs, existing and potential conservation status, existing land use(s), contiguous acreage, and presence of primary agricultural and forestry soils.
2. **Update protection standards under subdivision, site plan and conditional use review to, at minimum, incorporate:**
- Recommended management strategies for individual natural resources identified by Arrowwood Environmental in their accompanying natural heritage inventory report – including increased setback and buffer distances for significant features as specified.

- Standards for the protection of scenic resources – referencing significant feature and scenic resource maps included in the town plan – to include standards for the protection of scenic viewsheds and visibly prominent ridgelines and upland areas.
- Updated open space standards, including land subdivision and siting standards, to specifically limit the fragmentation of contiguous open space and resource areas, and to require the use of building envelopes to site development outside of these areas. These should include separate standards for different types or categories of open space, and for specific open space resources.
- Minimum open space requirements for subdivisions and higher density development within the sewer core – e.g., re-establish a 15% open space requirement – for neighborhood parks and playgrounds, greenways, community gardens, courtyards, plazas or other “functional” open spaces that serve the occupants of the development and are managed jointly by a homeowners’ or development association, or are otherwise dedicated for public use.
- Regulatory incentives for open space and resource protection – consider expanding existing incentives (e.g., density bonuses) in exchange for the permanent protection of significant open space areas and resources beyond the minimum protections required under the regulations.

3. ***Strengthen the development review process to give full consideration to open space and resource protection.*** This at minimum should include:

- Giving available resource information to applicants, the Conservation Committee, the Planning Commission and Board of Adjustment for use in preparing and reviewing applications. Given the level of detail now available, applicants and review boards should receive GIS-generated, parcel-based resource maps that identify open space resources that may be present on the site, for confirmation by the applicant during site or subdivision plan development.
- Regulatory requirements for site investigations by applicants as needed to confirm the location and extent of resources indicated on significant resource map(s) on parcels proposed for subdivision and/or development.
- Strengthening the role of the Conservation Committee in the development review process –e.g., by giving their findings and associated recommendations for open space and resource protection the presumption of fact, for incorporation in written findings and decisions, unless proven otherwise by the applicant.
- Site visits by staff, the Conservation Committee, Planning Commission or Zoning Board of Adjustment as needed to confirm the presence of open space resources – and the adequacy of proposed mitigation measures – during the development review process.

Zoning Regulations

1. *Enact one or more overlay districts* under zoning to target specific resources and resource areas for protection. The advantage of an overlay district is that it is resource, rather than parcel specific – and therefore offers the flexibility of protecting targeted resources while allowing compatible development on those areas of a parcel outside of the overlay district. Overlay districts suggested for consideration include:
 - **Scenic and/or ridgeline overlay district** – This type of district received the most public support during the planning process, given the current lack of any scenic resource protection standards. A scenic overlay district should be based initially on scenic features identified on the town plan’s scenic and significant features maps, and be updated as more detailed coverages become available. The district should include associated siting and screening standards.
 - An **agricultural overlay district** – defined by agricultural soils and/or land currently in production, that excludes development within overlay areas – especially in the Agricultural-Residential District and other rural zoning districts that now allow encroachments into these areas.
 - A **wildlife habitat overlay district** that targets identified wildlife habitat features for protection –e.g., vernal pools, rare communities, mast stands and travel corridors – and incorporates associated management recommendations as regulatory standards.
2. *Consider expanding and redefining the current Conservation (C1) zoning district* to better coincide with the town’s more remote, remaining unfragmented upland resources (e.g., core forests, contiguous habitat units), and to include associated standards to limit development and related encroachments, including new roads, in these areas. Consider also reducing the fragmentation of critical undeveloped areas by lowering the overall density of development in this district, and by increasing minimum lot size requirements for nonresidential uses, and setting small maximum lot sizes for new residential development.



Subdivision Regulations

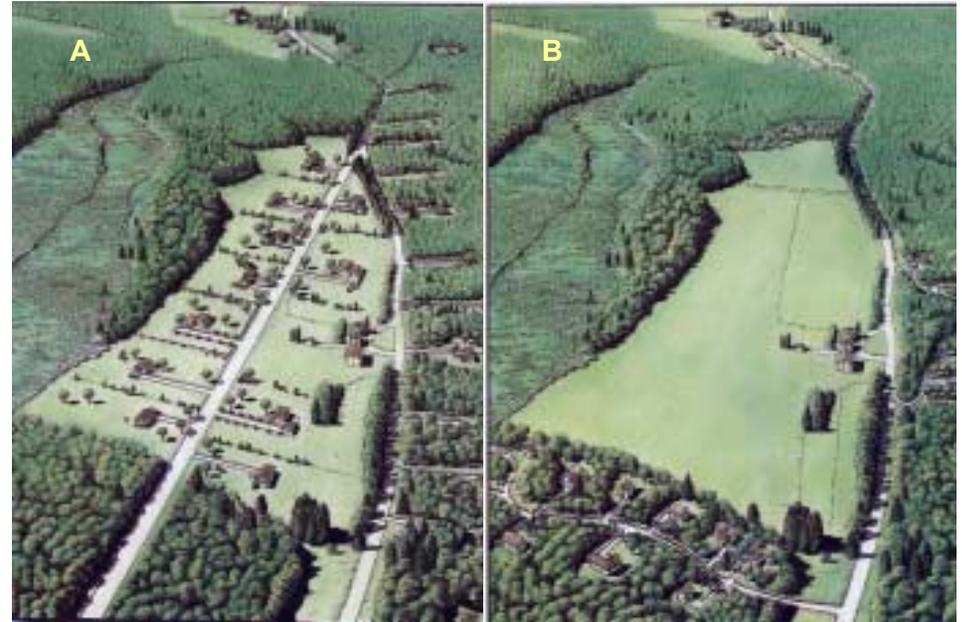
There was strong support during the planning process for updating subdivision regulations to limit the fragmentation and subsequent development of identified open space resources. At minimum this should include:

1. *The adoption of stronger subdivision open space and resource protection standards, e.g.,:*

- A new regulatory section that specifically defines different types of open space (e.g., by zoning district) and associated siting, area and design standards.
- Standards to avoid the subdivision and fragmentation of identified open space areas and resources within new subdivisions, and to require common (shared) or single ownership of these areas and management plans for their long-term protection and use.
- Additional regulatory incentives (e.g., increased density bonuses) for dedications of land or resource protection beyond minimum requirements.

2. *“Conservation Subdivision Design” standards for major (or all) subdivisions located in rural zoning districts.*

Conservation subdivisions are mandatory planned residential developments that cluster development outside of conservation areas identified for protection. Conservation subdivision design (B above) supports an alternative pattern of development that differs from conventional subdivisions (A above) by protecting open space resources, while still allowing for the same type and amount of development in appropriate locations.



Illustrations courtesy of Randall Arendt and Dodson Associates.

Conservation Subdivision Design Process:

1. **Identify and map all primary conservation areas (no development) and secondary conservation areas (limited encroachment) as defined in the regulations.**
2. **Calculate the amount of development allowed (“yield”) based on district density requirements (e.g., units per acre) to determine the number of units allowed.**
3. **Identify building sites/envelopes to avoid primary conservation areas, and to limit encroachments within secondary conservation areas.**
4. **Draw lot lines to define small building lots (the maximum lot size necessary to accommodate on-site services) and to avoid the subdivision or fragmentation of mapped conservation areas.**
5. **Connect building lots with driveways or roads that avoid fragmenting mapped conservation areas.**

Other Regulations

1. *In addition to development regulations, other town policies and ordinances that affect or impact open space resources should be evaluated and updated to strengthen resource protection standards.* These include but may not be limited to the town's public works standards, highway, stormwater management, park and public land ordinances.
2. *Reconsider the adoption of a scenic road ordinance governing the maintenance, upgrade and improvement of locally designated scenic roads.* Unlike viewshed standards that protect scenic views from public rights-of-way, a scenic road ordinance preserves the scenic character of the right-of-way itself. In more rural areas this may include tree canopies, stone walls and fence lines; and in more urban or developed areas, public streetscapes, landscaped avenues and boulevards. This strategy ranked highly among forum participants.
3. *Consider amending the highway ordinance to allow for the downgrade of Class 4 roads to legal trails.* The town's current highway ordinance regulates the maintenance and upgrade of Class 4 roads – and as a general policy prohibits development on these roads unless they are upgraded to town specifications by adjoining landowners or other interested parties, at their expense. The ordinance does not require that upgrades be consistent with town plan goals or recommendations (e.g., for the protection of open space). It also doesn't



Sections of the Circumferential Highway Corridor through Essex have been classified as scenic by the town, but there are few regulatory standards to address visual impacts of development along the corridor.

include provisions for the downgrade of Class 4 roads to legal trails – particularly the few remaining Class 4 roads that access more remote and undeveloped areas (e.g., TH53, TH60, and to Indian Brook). Class 4 roads can still be maintained and used for public recreation, and to provide limited seasonal access to adjoining land (e.g., for resource management).

∞ Implementation

This open space plan offers a variety of conservation strategies identified during the planning process to protect the town’s remaining open spaces and special places. These are presented for further consideration by the Conservation Committee, Planning Commission and Selectboard in their efforts to initiate and sustain local conservation efforts over the next five to ten years – and for further public review.

The responsibilities for open space protection are shared, at the municipal level among:

- The **Conservation and Trail Committees**, who are primarily responsible for identifying and recommending strategies to manage and conserve open space resources.
- The **Planning Commission, Zoning Board and other town officials** who are charged with protecting local resources on sites proposed for subdivision and development, to the extent local regulations allow. The development review process was identified by forum participants as the most important means of protecting open space resources.
- The **Selectboard**, who has the ultimate responsibility for initiating town programs, making committee and board appointments, developing budgets, and adopting plans, policies, regulations and ordinances.



**Conservation Program Responsibilities
Ranked by Community Forum Participants:**

1. **Development Review Process (PC/ZBA)**
2. **Local Land Trust**
3. **Conservation Commission
Property Owners**
4. **State
Volunteer Organizations**

Two organizational initiatives identified for further consideration during the planning process included:

- Reconstituting the Conservation Committee as a “Conservation Commission” established under state law, with statutory responsibilities (24 VSA Chapter 117; and
- Supporting the creation of a local land trust – a nonprofit organization to work with interested landowners and raise private funds to conserve land.

OPEN SPACE WORK PROGRAM

Strategy	Priority	Responsibility
Land Acquisition & Stewardship		
1. Establish a formal, comprehensive conservation/acquisition program	High	CC, TC, PR, SB
2. Establish a Conservation Fund to finance or leverage the purchase of land, easements, other interests in land	High	CC, PR, SB
Resource Information, Mapping & Monitoring		
1. Update the Significant Features Map (using new inventory data)	Immediate	CC, PC
2. Conduct field inventories (as resources, landowners allow)	Ongoing	CC, Consultants
3. Re-inventory and map scenic features (viewsheds, roads) in more detail (GIS analysis)	Moderate	CC, Consultants
4. Identify, classify and map "urban" open space areas and resources within and adjacent to the sewer core	Moderate	CC, PR, PW, Consultants
5. Survey owners of remaining farm and forest parcels	High	CC
6. Map and analyze local watersheds in more detail (GIS analysis)	Moderate	CC, PW, Consultants
7. Identify and map "ancient" road corridors for inclusion in the town's trail network (by 2010)	Immediate	TC, Consultants
Landowner Support		
1. Continue/ expand the Essex Farm and Open Land Tax Abatement Program	High	CC, AO, SB
2. Work with willing landowners to permanently conserve their land	Ongoing	CC, SB
3. Provide interested landowners with information about available conservation programs	Moderate	CC
4. Organize volunteers to work with interested landowners on conservation projects	Moderate	CC
Community Support		
1. Organize a "Buy Local Program"	Moderate	CC
2. Establish a Community Garden Program	Moderate	CC, PR, SB
3. Establish a "Farm-to-School" Program	Moderate	CC, SB, SD
Partnership & Public Outreach		
1. Continue to support regional conservation efforts and organizations (e.g., WVPD, WNRCD, CCRPC)	Ongoing	CC, PC, SB
2. Participate in regional planning efforts to identify open space, and provide local guidance	Ongoing	CC, PC
3. Continue and expand upon conservation partnerships with local schools	Ongoing	CC, SB, SD
4. Sponsor public education and outreach programs (PLACE, presentation, materials, photo and essay contests)	Ongoing	CC, PC
Resource Protection Standards		
1. Update significant features maps (for use in development review)	Immediate	CC, PC
2. Update, strengthen general open space and resource protection standards under local regulations, ordinances	High	CC, PC, SB
3. Strengthen the development review process to give full consideration to open space and resource protection	High	PC, SB
Zoning Regulations		
1. Enact one or more resource overlay districts (e.g., scenic/ ridgeline)	High	CC, PC, SB
2. Redefine, expand the Conservation (C1) zoning district	Moderate	CC, PC, SB
Subdivision Regulations		
1. Strengthen open space resource protection standards	High	CC, PC, SB
2. Adopt conservation subdivision design standards (for rural districts)	High	CC, PC, SB
Other Regulations		
1. Evaluate existing regulations, ordinances (e.g., public works, parks) for impacts on open space resources	Moderate	CC, PW, PR, SB
2. Reconsider adoption of a scenic road ordinance.	High	CC, PW, SB
3. Adopt local policies for the reclassification of Class 4 roads to legal trails.	Moderate	CC, PW, SB
Organization		
1. Reconstitute the Conservation Committee as a Conservation Commission	Moderate	CC, SB
2. Help organize and establish a local land trust	Moderate	CC

CC-Conservation Committee, TC-Trails Committee, PC-Planning Commission, SB-Selectboard, PW-Public Works, PR-Parks & Rec, AO-Auditor's Office, SD-School District

Open Space Protection: Nonregulatory Techniques

Technique	Description	Advantages	Considerations
Acquisition Programs	Voluntary dedication and acceptance or purchase of land or interests in land (e.g., development rights, trail, conservation easements) by town or nonprofit land trust	Offers permanent open space protection	Can be expensive; requires ongoing commitment of funds and staff or labor – e.g., for land management, monitoring, enforcement of easements
Buy Local Programs	Community development program(s) organized by town, nonprofit or individual farms to market and promote local food production and consumption; e.g., Community supported agriculture, farmers markets, school meals)	Programs help maintain open space through financial support of local farming (and possibly forestry) operations, increase local food supply, and connect non-farmers with farming community	Requires presence and participation of local farming operations; ongoing commitment of local resources for organization and long-term management
Growth Center Designation	Town policies and programs to concentrate development within designated areas (e.g., sewer core) and restrict development outside of this area – state designation offers additional benefits	Targets growth and limited municipal resources and funding to areas supported by infrastructure and services If implemented can effectively limit or manage the development of open space areas outside of designated growth centers	Can be controversial – e.g., density issues within growth centers, development restrictions outside of growth centers Must be implemented through other incentive-based and regulatory programs.
Inventory, Mapping, Monitoring	Includes data collection, mapping and analysis to identify and document local resources and track their long-term status or health	Provides base-line and trends information needed for the town and landowners to effectively protect and manage natural and open space resources Provides opportunities for broad community involvement volunteers – and, Expand local support for conservation	Detailed inventory and monitoring work can be costly or labor intensive Land owner permission may be difficult to obtain Requires ongoing commitment of staff, local resources – including funding for experts, or for training and coordinating volunteer efforts Volunteers efforts may be difficult to sustain
Informational Programs	Public education and outreach programs – e.g, publications, presentations, community forums, press releases, web site	Increase public awareness, community discussion especially around specific issues Generally not controversial, more affordable than other techniques	Benefits generally limited to those who participate; can be difficult to sustain over the long-term; reliance only on changes in personal behavior may limit overall effectiveness
Land Stewardship (Public)	Long-term plans and programs to manage public lands for multiple or specific uses	Directs physical use, management of public open space	Requires ongoing commitment of funds, staff and labor for land /open space management, related improvements
Landowner Education/Assistance Programs	Information about available financial and technical assistance programs, volunteer assistance programs	Supports efforts of local landowners to better manage their properties for resource and open space protection	Requires some commitment of staff time, possibly volunteer resources Programs limited to interested or qualified landowners Program funds often limited
Partnership Programs	Coordinated conservation/open space planning and protection programs with surrounding communities (e.g., through WVPD) or other nonprofit organizations (e.g., Vermont Land Trust	Extends resource and open space protection beyond municipal borders Can offer additional resources for local open space protection efforts	May require a commitment of local resources for projects located outside town May require giving up some local control over conserved lands
School Programs	Local school programs for outdoor recreation, education on public lands	Direct student involvement in resource conservation and management activities. Can augment other volunteer efforts	Curriculum-driven, often depends on teacher interests, time, availability of resources.
Tax Abatement Programs	Property tax reductions based on current use value, for landowners who agree, under contract, to not to develop their land	Offers financial incentive for large landowners to keep their land undeveloped or in production	Taxes lost must be made up through an increase in local tax rate Penalties often not a deterrence to development

Open Space Protection: Regulatory Techniques

Technique	Description	Advantages	Considerations
Conservation Committee Review	Conservation Committee review of development applications to determine potential impacts on specified resources, recommend alternatives. Recommendations forwarded to planning commission or zoning board considering the application.	Provides additional level of local expertise and knowledge for the reviewing development impacts. Allows for dialog with, assistance to applicants outside of formal hearing process.	Can require commitment of additional staff time, resources. Committee recommendations are not binding on the planning commission or zoning board.
Conservation District	Zoning district intended primarily for resource protection, conservation. Includes related district dimensional, development standards.	Can be used to protect large areas that include multiple resources to be protected or conserved. Development limited to resource-based and resource-compatible uses (e.g., most or all resident	May be controversial if considered too restrictive by affected property owners.
Conservation Subdivision Design	Subdivision process that emphasizes resource protection, conservation – conservation areas must be identified on plat.	Lot lines configured to avoid fragmentation of resources, open space. Development sited /clustered outside of open space/resource protection areas.	Good data, information needed regarding resources identified on site (e.g., from maps, field surveys). Should be applied in relation to an adopted open space plan for coordinated open space protection
Official Map	Map of lands, trail corridors identified for public acquisition	Allows town to deny development that does not accommodate public lands	If a project is denied, town must proceed to acquire mapped land or easements –or otherwise allow the project to exclude them.
Overlay Districts	Special resource-specific zoning districts that overlay underlying districts, apply additional standards for resource protection (e.g., farmland, scenic, ridgeline overlays)	Not as broadly applicable as more general conservation districts – allows for targeted resource protection, e.g., though application of siting standards, buffers, etc.	Requires initial identification, mapping of resources for protection – should be based on detailed inventories, maps. May be difficult to identify/apply on the ground; site investigations are typically needed to identify and delineate resource present.
Permit Allocation Program	Limits number of permits issued by geographic area (e.g., within, outside of sewer service areas)	Method of implementing growth centers, limiting development outside of these areas.	Can be controversial due to restrictions on development outside of designated growth areas.
Regulatory Incentives	Density bonuses, waivers, etc. to promote open space protection.	Incentives are typically more acceptable than regulatory limits or restrictions.	Incentives must be substantial enough to promote use – e.g., allowed densities within protected areas must be low enough to promote use of density bonuses. Higher densities resulting from bonuses may be controversial.
Resource Protection Standards	Standards that apply generally under subdivision or zoning (e.g., under site plan conditional use review) to protect identified resources – e.g, siting standards, buffers Can also be incorporated where appropriate under separate public works and road standards	Limited in application to protect specific, typically mapped, resources. Often applied in association with other zoning district or development standards	Requires initial identification, mapping of resources for protection. Can be controversial depending on how restrictive the standards are perceived to be. Site investigations/surveys typically needed to identify location of resources, buffers on site.
Scenic Road Ordinance	Applies road management guidelines, requirements within the rights-of-way of town-designated scenic roads to protect their scenic character.	Protects scenic road features – e.g., tree canopies, stone walls, surface materials, etc. Limited in application –applies only within designated road rights-of-way	Applies town-imposed limits on the town's town authority to maintain, manage local roads. Safety issues remain a consideration. Does not apply to scenic areas beyond road rights-of-way.
Transfer of Development Rights Program	Designates sending (resource protection) and receiving (development) areas for the sale and transfer of development rights	Landowners in sending areas can sell their development rights to developers within receiving areas and thereby obtain financial benefits for land conservation	Market driven – requires very restrictive zoning in sending areas and allowances for higher densities of development n receiving areas to work. Can be difficult to administer, track.

Open Space Protection: Responsibilities

Technique	Description	Advantages	Considerations
Conservation Committee/ Commission	Ad hoc conservation committee established by the Selectboard, or conservation commission established by the town (under statute) to direct, coordinate municipal conservation efforts.	As part of town government, the committee or commission has access to town resources, can directly influence town policy, and can have a role in the review of development applications. Commissions may also have other roles identified in statute – e.g., to oversee conservation funds.	For the most part committees and commissions are advisory in nature Requires participation of dedicated volunteers to develop and meet conservation program goals, objectives Generally also requires some commitment of support staff and resources.
Development Review Panels (PC/ZBA)	Volunteer boards/commissions appointed by the Select board to review development applications under the town's zoning and subdivision regulations..	Needed to apply regulatory conservation measures – the ZBA and PC are required to apply resource and open space protection measures included under the town's land use regulations.	Requires dedicated volunteers, preferably with some knowledge of resource and open space protection; the review process can involve significant time commitments, and generally also requires staff support and resources.
Local Land Trust	Nonprofit organization dedicated to resource, open space protection primarily through the acquisition and management of land or easements.	Not subject to municipal requirements or politics. Typically work with individual landowners interested in long-term land conservation.	Resources are often limited. Funding and staffing issues. Must be good at raising funds locally, and obtaining project funding from a variety of sources, including the town. Efforts may not be coordinated with town conservation programs. Also have no standing in the review of development applications.
Property Owners	Primary rights of private land use and management.	Direct interest in long-term land conservation – including voluntary measures to protect resources, open space..	Landowners may opt not participate in voluntary programs. Most affected by regulations – interests must be taken into consideration. Landowner permission often required for inventories.
State	State regulation of development (Act 250) includes protections of state-designated resources (e.g., agricultural soils). State land acquisition and financing programs – e.g., VT Housing Conservation Board State current use (tax abatement) program State community and landowner assistance programs	Additional regulations, expertise for the protection of local resources. Source of needed resources, technical assistance, financing for local conservation programs.	Coordination of state and local regulatory requirements (e.g., to avoid duplicative or unnecessary review). Lack of state staff, resources for enforcement of state permits, violations. Limited awareness of available state programs. Limited funding for state financing, conservation assistance programs (many are competitive). .
Volunteer Organizations	Non profit or ad hoc organizations often formed to address specific issues or resources.	Provide additional expertise, labor – e.g., may take on the responsibility for monitoring resources on public lands May also gain standing in local development review proceedings if statutory criteria are met.	Often lack organizational capacity, resources., especially over long periods of time. Often no direct link to municipal government – objectives may not be consistent with those of town government.

Open Space Protection: Financing Options

Technique	Description	Advantages	Considerations
Conservation Fund	Dedicated town reserve fund, funded through property taxes, grants or donations, that is used for the purchase land or interests in land (e.g., easements), or to match other sources of funding for such purposes.	Under direct control of the town, managed by the Selectboard or Conservation Commission. Ensures that funds are available for planned projects, or when properties become available for conservation.	Generally requires a commitment of local resources (e.g., property tax revenues), but can also be funded through other sources (grants, donations). May be linked to the town's capital improvement program and/ or managed under separate application and funding guidelines.
Development Impact Fees	Fees assessed to mitigate the impacts of new growth and development recreation and possibly open space areas under an adopted impact fee ordinance and schedule.	A source of funding for planned recreation, open space protection measures identified in the town's capital budget and improvement program.	Tied to new development – cannot be used to address existing deficiencies or to fund associated operation and maintenance costs. Must be spent within six years of collection.
Donations/ Dedications	The donation of funds or dedication of land or easements by private property owners to the town (or other organization such as a land trust).	May require little initial public funding. Under certain circumstances dedications of land or easements may be required under local regulations (e.g., in relation to an official map) but more often are encouraged in return for other incentives. Capital campaigns are often used to get donations for specific land conservation projects.	Generally offered on a case by case basis – at a property owner's initiative or in association with development review. Should be consistent with town's larger conservation goals. If accepted, town generally assumes long-term maintenance and management responsibilities and costs.
Grants	Competitive grants from a variety of sources that fund conservation projects, including land or easement acquisition.	Given the cost of land, often necessary to fund land acquisition projects.	Projects must meet program requirements for funding and long-term management.. Other funding commitments, matches are generally required. Can be a challenge to put together financing packages – involves commitment of time, resources.
Property Taxes	Primary source of local funding for most public conservation projects – e.g., for specifically warned projects, projects included in the CIP, or to establish and maintain a dedicated conservation reserve fund (e.g., “a penny for conservation”)	Assures a secure, commonly accepted source of funding for municipal conservation projects; often used to obtain and match other sources of funding.	Coordination of state and local regulatory requirements (e.g., to avoid duplicative or unnecessary review). Lack of state staff, resources for enforcement of state permits, violations. Limited awareness of available state programs. Limited funding for state financing, conservation assistance programs (many are competitive)..
Volunteer Efforts	In-kind services provided by dedicated volunteers	Can be used to match other sources of funding under some programs; expands base of support for local conservation projects at little cost to the town.	Requires dedicated volunteers, and organization and tracking on the part of the town. My be difficult to sustain for long-term management, monitoring projects.

Essex Open Space Plan: Community Forum #1

October 29, 2007, Essex Free Library

Summary of Public Comments

Priorities:

- In addition to looking at large areas, we should also look at smaller green spaces – e.g., in the Town Center. Green space makes Essex more attractive for residents, shoppers, etc.
- Need to emphasize connectivity (for wildlife) – wildlife habitat does not mean the grassy strip between the sidewalk and the road.
- Also need to take a coordinated, regional approach and look across town borders – it may make a difference with regard to proposed conservation strategies and their chances for success.
- The town's open spaces are its heart and soul – open spaces and scenic areas have been disappearing rapidly.
- Preserve the best, rather than trying to preserve everything.
- Farmland is most scenic when it's being farmed – preserve the remaining working landscape.
- Wetlands need to be preserved from further impacts.
- Give more priority to wildlife habitat protection.
- More field work is needed – the Committee/town should budget for this.
- Given climate change, local farm and forest land will be needed to meet future needs.
- Set priorities using available information – update as new information becomes available.
- Recognize that open space has real, monetary value.

Options for Consideration:

- Seek Selectboard support – otherwise the efforts of the Conservation Committee and Planning Commission won't amount to much.
- Whatever the Committee comes up with must have real teeth – i.e., regulations.

- Coordinate with other towns – share data and information.
- Consider establishing a volunteer, ad hoc committee, not directly associated with the town, to work with the Conservation Committee.
- Consider establishing a local land trust.
- Better inform citizens when development is proposed so we can have more say.
- Community awareness and education are key.
- Conduct a fiscal analysis of open space preservation; determine impacts of open space preservation on the community, tax base and private property owners.
- Budget for more field work.

Essex Open Space Plan: Community Forum #2
April 8, 2008, Essex Town Office

Summary

Resource Protection Priorities (pick top 6):

- | | |
|---|---|
| 1. Scenic Resources – 14 | 5. Public Parks – 6
Wetlands – 6 |
| 2. Wildlife Habitat – 13 | 6. Biodiversity – 5
Floodplains – 5
Groundwater – 5 |
| 3. Farmland – 10
Surface Waters – 10 | 7. Agricultural Soils – 1
Public Trails – 9 |
| 4. Forestland – 9 | |

Open Space Protection: Nonregulatory Options (pick top 3):

1. Tax Abatement Programs – 12
2. Acquisition Program (Land, Easements) – 10
Land Stewardship Program – 10
3. Buy Local Farm/Food Programs – 6
4. Inventory/Mapping/Monitoring Programs – 5
Landowner Education & Assistance Programs – 5
5. Partnership Programs (Regional, State Organizations) – 4
6. Public Information Programs – 2

Open Space Protection: Regulatory Options (pick top 6):

1. Overlay Districts – 14 [Ridgeline – 7, Scenic-3, Habitat – 2, Farmland –0, Not specified – 2]
2. Scenic Road Ordinance – 11

3. Conservation Subdivision Design – 10
4. Resource Protection Standards – 9
5. Dedications (Land, Easements) – 7
6. Official Map – 6
Regulatory Incentives (Density Bonuses, Waivers, etc) – 6
7. Conservation Zoning District – 4
8. Transfer of Development Rights (TDRs) – 1

Primary Responsibility for Open Space Protection? (pick top 3):

1. Development Review Process (PC/ZBA) – 13
2. Local Land Trust – 12
3. Conservation Commission – 9
Property Owners – 9
4. State – 2
Volunteer Organizations – 2

Financing Options for Open Space Protection? (pick top 3):

1. Conservation Fund – 14
2. Property Taxes – 11
3. Development Impact Fees – 10
4. Grants (e.g., through VHCB, etc.) – 7
5. Private Donations (funds, land, easements) – 5
6. Volunteer Efforts – 3

Public Comments (Wrap-up Session):

- Conservation and open space protection needs to be a collaborative effort – the town needs to work directly with local developers and landowners.
- It's important to consider what residential landowners want – village housing, protected open space, etc.
- Development trends are favoring clustering for affordability, more neighborhood development.
- Buyers also still want larger (1 to 3 acre) lots. Now that the state regulates septic systems, there is less interest in 10+ acre lots.
- Essex Junction is built out – there is limited development potential left in the village, except for some infill or redevelopment. There are maybe a dozen lots for sale with any acreage.
- Landowners pay the taxes on open land – they need to be able to sell it when needed.
- Once we acquire open space, what do we do with it?
- How much open space do we need? Some areas are already undevelopable.
- Ridgelines offer good views, high property taxes.
- Keep the protection process simple – the town's current system for development review is easy and pretty straightforward.
- As the town's sewer core area is built out, should the town build it up (higher densities, building heights) or out (expand growth area)?