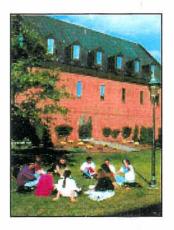


TOWN OF COLCHESTER

Open Space Plan



Adopted by Colchester Select Board February 22, 2000

TOWN OF COLCHESTER OPEN SPACE PLAN

February, 2000

Adopted by Planning Commission: August 25, 1999 Adopted by Select Board: February 22, 2000

Colchester Select Board

L. Richard Paquette, Chair Chris Conant Edward Ploof, Jr. Marc Landry Diane Handy

Colchester Planning Commission

Harlan Lachman, Chair Michael Morin, Vice Chair Michael Blow William Morando Russell Niquette Robert Campbell Gary Bombard

Document Prepared by Department of Planning and Zoning PO Box 55 Colchester, VT 05446 (802) 655-0813

Sheldon Laidman, Town Planner

Written in Consultation With David Spitz, Land Use Planner

Financial Assistance provided in part by a Municipal Planning Grant from the Vermont Department of Housing and Community Affairs

COLCHESTER OPEN SPACE PLAN TABLE OF CONTENTS

INTRODUCTION	1
OPEN SPACE PROTECTION TECHNIQUES	4
Education	4
Regulation	5
Public Policy	6
COLCHESTER OPEN SPACE RESOURCES	7
Map 1: Townwide Natural Areas	8
Map 2: Farms and Farmland	11
Map 3: Public Land, Private Open Space and Corridors	14
Map 4: Zoning and Planning Areas	16
TARGET AREA MAPS	18
Map 5: Heineberg Road Target Area	18
Map 6: Intervale/Shipman Hill Area	21
Map 7: Severance Corners Area	23
Map 8: Lakeshore Target Area	26
Map 9: Village Target Area	29
Map 10: Camp Johnson Target Area	31
Other Target Areas	33
RECOMMENDATIONS	34
Education	34
Regulation	35
Public Policy	36
Priority Parcels	38
Circumferential Highway Mitigation	39

APPENDIX 1: Land Sales - 15+ Acres

APPENDIX 2: Zoning Intensity

APPENDIX 3: Inventory of Sites - Maps 1 and 3

APPENDIX 4: Inventory of Planned Residential Development Parcels

Introduction

Colchester Vermont is naturally endowed with an abundance of open space reserves. There is extensive lake frontage upon the "broad lake" area of Lake Champlain, the "inner and outer bay" areas of Malletts Bay. Colchester is also home to two of Vermont's largest rivers. The Winooski River to the South separates Colchester from Burlington, Winooski, and South Burlington. To the North, the Lamoille River separates Colchester from Milton. To the East, Colchester shares over 600 acres of Colchester Pond with the Town of Essex.

These natural open spaces are used heavily by local residents and visitors. A mix of summer camps, summer camp conversions to year around homes, specifically constructed year around homes and condo's, boat marinas, public boat access sites, bikeways, town and state park lands, and even a town-controlled island provide daily access to a high percentage of our varied shorelines.

Agriculture is also an activity that contributes significantly to Colchester's open space. Dairy farming, that has historically been the backbone of Vermont agriculture, has declined throughout much of Chittenden County in recent years. Despite close proximity to Burlington, a number of Colchester's dairy farms remain active. Chittenden County' largest fruit, vegetable, and egg farms continue to operate in the Shipman Hill area – overlooking the Intervale, with Burlington less than a mile away. In addition to wholesale commercial operations, these businesses continue to offer farm stands and "pick-your-own" crops; a refreshing contrast to the megabox retailers that dot much of Chittenden County. Colchester is also home to Vermont's two largest greenhouse operations. The open spaces of horsefarms, primarily on Middle Road and East Road, but also dotted elsewhere throughout town, add pastoral landscapes and recreational activities for residents and visitors alike.

Sandplain habitats, once covering extensive portions of the Burlington area, have been built upon throughout the County, and those that remain are a feature that is almost exclusive to Colchester. Sandplains are attractive for development, and therefore highly threatened, because the sandy soils are ideal for onsite wastewater disposal systems. Residential development pressures continue throughout the County; anti-sprawl sentiment encourages placement of homes closer to (rather than away from) urban areas and jobs. Meanwhile the owners of these agricultural properties feel the financial pinch of their occupations, the 24/7 demands of farming, the seasonal constraints of the Vermont's unpredictable climate, increasing property and estate tax burdens. In a town without residential sewers (Colchester) the pressure to develop these lands will only increase in the new millenium. Remaining natural resources in Colchester include significant areas of wetland, deeryards, and other significant habitat sites.

Colchester is centered in Vermont's most populous county, our borders are met by Burlington, South Burlington, Winooski, Essex Junction, Essex Town, and Milton. We have the second largest population (16,855 - 1998 estimate) in Chittenden County and the third largest in the State. Despite this and despite the absence of a formal Open Space Plan to this point in time; this Introduction describes a community that is already without peer when it comes to open space preservation and opportunities.

Open space lands in Colchester represent a variety of ownerships, public, private, and not-for-profit. Property owners include local, state and federal governments, St. Michael's College, the University of Vermont, Fletcher Allen health Care, the Vermont Land Trust, and the Winooski Valley Park District. Public and No-for-Profit ownership brings conflicts, such as the desire for public access and use vs. the desire to protect sensitive natural areas from overuse.

This open space plan will attempt, first, to identify the open space resources that already exist throughout the Town of Colchester. It is a matter of record that significant open space lands are already under public ownership or are otherwise protected due to the nature of the land.

Total Town land area is approximately 24,000 acres. Approximately 12% of these lands are owned by local, state, or federal government or by other public or not-for-profit entities (see map 3). In addition to these lands, another 20% of Town land is characterized as floodplain, wetland, significant habitat site or other natural area (see map 1); making development of these open spaces a extremely remote possibility given Vermont's present environmental laws. The net is about 1/3 of total town acreage is, as of today, "Open Space" (not including operating agricultural lands that could otherwise be developed).

We need to also note that within the geographic boundaries of Colchester lie approximately 2662 acres of open space known as Malletts Bay. While not traditionally thought of as "Open Space" we want to include an acknowledgement of this "plus" that is so vital a part of the quality of life in Colchester. On this February day as this plan is being finalized, there are literally hundreds of residents and visitors occupying this space, populating dozens of ice fishing communities that dot the icescape, snowmobiling, cross country skiing, snow shoeing, skating, and just walking the frozen snowy surfaces of the Bay. In a few months, when the water surface returns, they will be replaced by hundreds of boats and boaters likewise enjoying this special open space. This plan is an advocate for the protection of Colchester's open space resources. At the same time we must acknowledge and contend with the development pressures of a growing community with limited infrastructure resources. We have to balance the protection of open spaces with the competing rights of private property owners and the housing and economic needs of Vermont's most vital economic area, Chittenden County.

This plan recognizes these competing factors by not recommending that landowners bear the full burden of maintaining open spaces that exist on their property or that the public sector spend huge sums to buy up all open spaces. If more open spaces are to be added to our community, clear open spaces with goals and opportunities must be identified, protection strategies must be put forward, funding sources must be developed, and the town must actively pursue their implementation.

As Chittenden County continues to grow, the open spaces closest to the downtown Burlington Growth Center are those in Colchester. The pressure to develop existing open space is here today and will increase as we and our neighboring communities attempt to satisfy economic goals such as the development of living wage job opportunities and quality housing. The push to limit sprawl places even more development pressure on our community and open space.

Existing funding sources available to protect open spaces are inadequate when compared to the value of these properties if developed. They do not recognize the value of these assets in today's development climate.

Finally, this plan recommends not only the protection of additional open space lands from development, but also the management of these lands. The town and all public bodies should lead by example through the management of their own properties in an enlightened manner. The public sector should also encourage and assist private property owners in their efforts to protect and manage open space.

Open Space Protection Techniques

A variety of techniques are appropriate for the protection of open space resources. Three main approaches are discussed in this section - education, regulation and public policy.

Education

Where are open space resources located? Why are sandplains and other natural sites worthy of protection? What activities will threaten the functions of various open lands? One of the most important open space goals is simply a general public awareness of how questions such as these can be answered.

Most open space resources have been mapped, with varying degrees of accuracy. Federal insurance maps (FIRM) depict the boundaries of all 100 year floodplains. The State uses air photography and site inspections to identify significant habitat sites. The town assessor lists all parcels considered to be farmland. The various mapping sources have been collected by the Vermont Center for Geographic Information (VCGI), the Chittenden County Regional Planning Commission (CCRPC) and others. The Colchester Planning and Zoning Department has acquired Geographic Information Systems (GIS) software and can now view any combination of these mapping "coverages". For example, in this plan, Town Plan boundaries are combined with zoning district lines and with natural area boundaries to indicate where open space resources are threatened.

The GIS mapping system is a powerful starting point for the identification and evaluation of open space resources. Property owners and public officials can view the information on these maps and make better decisions about potential land development.

Other education efforts include conferences, classroom activities and onsite signage and information centers. A recent State-sponsored conference on sandplains explained what types of habitat exist in a sandplain and involved all participants in a discussion of possible protection methods. Signs on various Winooski Valley Park District (WVPD) properties indicate not only trail routes to be followed but also natural areas to be avoided.

Regulation

The Town is responsible for establishing regulations regarding the location and extent of land development that may occur. These regulations are one of the most important tools in guiding new development and conversely in protecting open space.

Development regulations begin with the Town Plan. A critical first step is the creation of development boundaries separating the town into growth center, suburban, rural and other areas. Following the Town Plan, zoning regulations dictate the type of allowed uses and their permitted density or lot coverage. One strong measure in the Colchester Zoning Ordinance, not found in most similar suburban communities, is the minimum requirement of 25 acres per dwelling unit in the Agricultural/Open Land District. In some locations town plan and zoning boundaries are not compatible, a situation that should be corrected.

Zoning and Subdivision regulations go further in dictating opportunities and limitations for development. Town floodplain regulations are effectively protecting that land by permitting no new structures within these zones. A recently adopted "Streambank Protection Ordinance" will create a buffer strip 85 feet each side of center (170 feet total width) on streams within Colchester that are identified by the USGS map. This will create a no-build riparian buffer corridor along these resources, adding open space reserves to the town at a rate of about one acre for each 300 feet of stream frontage. Requirements for building envelopes in subdivision review and encouragement of planned developments (PRD's or PUD's) allow some portions of a property to be more extensively developed in return for leaving other areas undeveloped (open). The Planning Commission may review open space resources that have already been mapped and encourage subdivision layouts that respect these boundaries. A more ambitious technique, transfer of development rights (TDR) has been discussed as one possible approach for the future. This is widely praised in planning literature but often is difficult to implement.

Other town regulations affecting land development can include sewer ordinances and impact fees. The Malletts Bay sewer district and the conditions for providing connections to future users will impact the rate, pattern, and type of land development within the town. Impact fees can be a tool to mitigate conditions that may arise from new development. Open Space Protection may be included in the list of items to be addressed by impact fees.

Public Policy

Public policy may include a variety of funding and other decisions. Town expenditures on sewer lines and other infrastructure may act, in part, as a subsidy for private development. The Town may regain some of that subsidy by the use of connection fees. Public funding also may be applied directly towards open space protection. The most expensive use of public funds is acquisition of land. A slightly less costly option is the acquisition of development rights. Under this option, a landowner retains the right to farm or otherwise use the property but loses all rights to develop the land. A third option is purchase of easements for trails or for view protection along scenic corridors. Preferably, permanent easements are acquired, but it is also possible to make annual payments for public use or benefit from the land. This final option follows a basic recommendation of this report - low-cost public measures to assist private maintenance of open space resources.

State and local tax policy also affects private ownership and protection of open lands. An often criticized State law is that all property must be taxed at "fair-market" value. The result in rapidly growing portions of the state is that undeveloped land is taxed at its development value rather than its value for farming or other open space use. The sale of agricultural lands is not considered a desirable outcome. Colchester must address the dilemma facing the farmer so that agricultural lands remain in active agricultural practice. The most useful public response would be a change in State tax law, but some local tax options also are available.

Colchester Open Space Resources

Four town-wide maps depict the variety of open space resources that exist in Colchester. **MAP 1** depicts <u>natural areas</u> including floodplains, wetlands, significant habitat sites and watercourses. The accompanying text describes regulatory measures available for their protection. **MAP 2** describes <u>farms</u> and agricultural land. A discussion of wooded land also is included with this map. **MAP 3** provides an inventory of all <u>publicly owned land</u> along with restricted <u>private open spaces</u>. Also shown are existing non-motorized <u>corridors</u> along with a discussion of possible additional corridors. The final town-wide map, **MAP 4**, depicts the location of <u>planning and zoning boundaries</u> and discusses the key role of these boundary lines in protecting open spaces.

MAPS 5 through 10 focus on specific areas within the town. Each of these <u>target area maps</u> depicts the boundary line, taken from the 1996 Master Plan, between "development" and "non-development" areas. In most target areas, the division line is "Rural" vs. all other planning areas. In a couple of target areas, "Growth Center" is also distinguished from other planning areas (Village Mixed Use, Suburban Residential and Manufacturing/Distribution). This development boundary line is viewed in the context of several other factors.

First, the development boundary line is overlain with natural features. In many cases, natural features are shown to be appropriately located outside of the designated development area. Often, relatively small natural features that are located within the development boundary can be protected by avoidance and/or clustering in specific development plans.

Second, the development boundary line is overlain with existing land use (1995) and with existing zoning (1997). Zoning districts are rated according to their "intensity" of permitted lot coverage and residential density (see Appendix 1 for descriptions). Some conflicts will be visually apparent - e.g. spot zoning of a "medium/high" intensity parcel located outside of a development boundary or designation of a growth center in an area of existing farmland and "low" intensity zoning.

Map 1: Townwide Natural Areas

Natural areas include floodplains, wetlands, significant habitat sites (deeryards, endangered species sites, and biological natural areas including sandplains), and watercourses. Most of these areas were already mapped by the Chittenden County Regional Planning Commission and included in the 1996 Colchester Master Plan. Since the 1996 mapping, the biological natural areas have been split into "sandplain" and "other" sites. The boundaries of some of the sandplain areas have been modified based on new field information. All of the natural areas depicted on this map also are included as coverages in the town's new Geographic Information System (GIS). These coverages can be used as a planning tool in preparing comprehensive plans for the town and as an "early warning" of likely sensitive areas in subdivision and site plan review. Levels of protection for each type of natural area vary as further described below:

Floodplains

Floodplains are identified on federal FIRM maps. Minimum federal standards prohibit any construction within the designated "floodway" and require any development within the 100 year floodplain (Zone A) to be built on sufficient fill to avoid being subject to flood hazard. Most communities in Vermont go further and prohibit construction of any structures within the 100 year floodplain. Colchester should maintain its current zoning standards prohibiting any new floodplain construction.

Wetlands

Major wetlands (Class 2) are identified on National Wetland Inventory (NWI) maps. These mapped wetlands, and any additional wetlands that are found to directly connect to NWI wetlands, are subject to both State and federal regulations. Federal definitions of wetlands have expanded since the NWI maps were prepared. Additional "wet meadows" and other lands are also now considered wetlands (Class 3) under the federal definition. When development is proposed, all wetlands on a property must be "delineated" by a qualified wetlands expert. Generally, up to 1 acre of Class 2 wetlands per parcel (the size of the parcel does not matter), may be developed. There is no specific acreage limitation on development of Class 3 wetlands.

While wetland development is clearly subject to review under criterion 1(g) of Act 250, most major developers will delineate wetlands while going through local subdivision or site plan review. However, some wetlands are not identified during the approval process for individual building permits on existing parcels. Colchester subdivision/zoning regulations should require identification of wetlands on plan submissions (including building permit applications). GIS mapping will assist Town

staff in identifying some but not all likely wetlands locations. In some cases, the Town may seek assistance from the State wetlands office and/or may require wetland delineations by the property owner.

Significant Habitat Sites

Significant habitat sites are subject to review either under criterion 8, rare or irreplaceable natural or fragile areas, or criterion 8(a), wildlife or endangered species habitat, of Act 250. The greater level of protection is offered to those sites that have been officially included by State officials under the former designation.

- Deeryards locations and boundaries were determined using color infrared aerial photos. Protection provided to deeryards under Act 250 review usually is limited. For a deeryard to be granted protection, it must be found to be "necessary" habitat i.e. of high quality and not widespread for its location. It must further be found that no suitable development alternatives are available to the developer. During permit negotiations, some portions of identified deeryards often are approved for development. Once a portion of a deeryard is developed, the proximity of humans and household pets may cause the remaining area to diminish or to disappear.
- 2) Endangered species sites the Nongame and Natural Heritage Program (NNHP) of the Vermont Department of Fish and Wildlife has identified a number of sites containing one or more rare, threatened, or endangered species or one or more significant natural communities. The size of these sites varies. NNHP staff do not enter privately owned land without landowner permission. Since all potential areas have not been inventoried, additional sites may exist.
- Biological natural areas in 1991, the Vermont Nongame and Natural Heritage 3) Program (NNHP) prepared a report entitled "Biological Natural Areas of Chittenden County". Approximately 30 sites were identified in Colchester and included several sandplains, vernal woodland pools, peat bogs and other ecologically significant natural communities. The approximate dimensions of all of these areas were mapped. One additional site was identified and mapped in a 1994 sandplains report. Some areas overlap with the above endangered species sites. Public and private development occurring either prior to or after the 1991 report has significantly reduced the natural portion of some mapped areas. Diminished sites include the Old Colchester Airport (fringes of sandplain at the edge of town ballfields), Porters Point Road Sandplain (Crossfield subdivision) and the Holy Cross Church Woodland (elderly housing complex). In 1997, NNHP designated the four largest sandplain sites - Camp Johnson (250 acres), Colchester School District and James Broadcasting Inc. (164 acres), Sunderland Brook (92 acres) and Camp Holy Cross (45 acres) - as Rare and Irreplaceable Natural Areas. However, even with this designation, the protection of these four sites during the Act 250 review process is not guaranteed. In one recent example, 6 acres of a high-value sandplain site in Essex were preserved while 19 acres were

permitted for an industrial park. At the local level, the Colchester Select Board will provide leadership into the buying of land or development rights, negotiate with property owners regarding open space protection, and develop density standards that would encourage any development on other than the critical natural area.

One area is considered by the Town to be a high-quality natural area but is not included on the State list of Biological Natural Areas. The 47 acre Rossetti natural area and beach was acquired by the Town in 1997.

Watercourses

Available mapping sources may not accurately depict all "watercourses". It is sometimes difficult to differentiate between intermittent drainageways and streams. Colchester currently is considering zoning provisions that restrict development in buffer zones along streams.

Map 2: Farms and Farmland

As in towns throughout the Champlain Valley, Colchester's soils have supported extensive agricultural activity for many years. Also, as in nearby towns, increasing development has caused the number of farms to decline significantly. However, a number of farm parcels do remain and are concentrated in rural portions of the town.

Map 2 depicts all parcels that are listed in the assessor's records as farm related farm property (F), farmland on parcels of less than 6 acres (W) and farmland on parcels greater than 6 acres (X). Several additional areas are described in the 1996 Master Plan as existing agricultural land use. Farm properties generally are found in three distinct locations:

- 1. In the Intervale and on abutting parcels on Shipman Hill.
- 2. North of Blakely/.Severance Roads and south of the Village.
- 3. North of the Village along Routes 2&7 and throughout the northeastern portion of town.

The most important factor in enabling farming to continue in Colchester is a strong agricultural economy. This factor is largely outside of Town control but is essential if farmers are likely to continue to devote their land to agricultural use rather than to seek other opportunities.

Farm properties are designated as part of the Agricultural/Open Land District (AGR). The district's requirement for 25 acre minimum lot sizes has done much to preserve large contiguous farm parcels. Another good provision in the AGR District is the requirement for subdivision of three or more lots or construction of three or more dwelling units within a 10 year period to be reviewed as a Planned Residential Development. This provision allows dwelling units to be clustered and protects larger parcels of contiguous open space.

Most agricultural land also is depicted within the Rural planning area in the 1996 Master Plan. The most visible exception is on Shipman Hill, where several existing farm parcels are included in the AGR zoning district and are designated as part of the Growth Center planning area in the Master Plan.

Several farm parcels in Colchester have taken advantage of tax breaks provided by the State of Vermont's Current Use Program. However, it should be noted that only parcels in rural locations have chosen to sign up for the program. Farm parcels within growth districts or with expectations that they may be approved for residential development have chosen not to risk the penalties associated with Current Use. Also, current State policy does not allow payment of more than \$1,000 per acre for acquisition of agricultural land, an amount that is insufficient in a developing town such as Colchester. Unless current implementation measures change, this is not an effective tool in preventing the conversion of agricultural land in Colchester to other uses.

Agricultural land also can be protected if development opportunities are provided elsewhere. Extension of sewers to designated growth areas can reduce development pressure on agricultural and rural land located outside of those growth areas.

Another form of protection for agricultural land is provided by Act 250 Criterion 9B, primary agricultural soils. However, in recent years, a property with primary agricultural soils has been allowed to develop if a fee is paid towards the protection of farm land elsewhere. This approach has some value in preserving overall agricultural activity, but it is not enough to protect any specific farm parcel in Colchester.

A number of activities at the local level can support continued agricultural land use. The "right-to-farm" should be acknowledged in local ordinances and in overall public policy. Zoning regulations should support on-site residences for farm workers and farm-related commercial uses. Residential neighbors must be prepared to live with normal odors and noise related to farming activity.

The town can financially support farming. Public acquisition of farm land or development rights is expensive and is justified for highly productive and visible farms at locations such as Shipman Hill. A preferred, less costly approach is the use of financial incentives to allow a farmer to continue productive use of his/her land. Scenic easements along high-volume roadways may be accompanied by small annual payments to operating farmers. We must recognize that it is most important is the attempt to keep taxes on agricultural land at the lowest possible level.

Two nearby towns with a similar mix of development pressure and open land, Williston and Essex, offer local tax contracts for farmland and other open space. Unfortunately, the local incentive to adopt a similar program in Colchester has been hampered and negated by Act 60. The State requires all land to be assessed at full market value. The Town must pay the State Education Tax based on that total value. If the Town chooses to reduce taxes from farmland, the remaining town taxpayers must pay the balance of the State tax. Prior to Act 60, the additional tax burden on other taxpayers was related only to local costs.

A more productive approach is to reexamine fair market value for farmland. Land valuation for agricultural use only is relatively low, perhaps in the \$300 to \$1500 range. A number of "land only" sales in the 1990's support that range, particularly for land in the AGR district (see Appendix 1). However, higher prices have been paid for lots in other zoning districts where higher levels of development are permitted. However; recent land sales for other uses have been in the \$10,000 to \$30,000 per acre range thereby presenting a dilemma for farmland owners. Similarly, higher prices have been paid where land abuts a development district and where there is an expectation that rezoning may occur (see Poor Farm Road sales) This study recommends elsewhere that

zoning districts follow Master Plan boundary lines and that rezoning be permitted only when the Master Plan is amended. If this regulatory climate can be created, there is reasonable assurance that AGR-zoned land would retain its low development value for a minimum of five years. It would then be appropriate to base land values solely on rural land sales rather than the higher sales with development potential.

Wooded lands also are extensive in Colchester but have not been mapped in this study. If development is proposed, existing GIS coverages can identify where wooded lands exist and clustering provisions can be used to facilitate their protection.

Map 3: Public Land, Private Open Space and Corridors

The largest number of publicly-owned parcels in Colchester are Town facilities municipal buildings, parks, schools and cemeteries. The Town, with funding assistance from outside sources, also has acquired several parcels with significant natural resources. Major parcels include the following:

Town-owned Natural Resource Areas	<u>Acreage</u>
Abutting WVPD land at Colchester Pond	45
Porter natural area on Porters Point	56
Rossetti natural area and beach on Lake Champlain	47
Sunny Hollow natural area at Sunderland Brook	80

Other major publicly-owned parcels are as follows:

Owner	Natural Resource Area	<u>Acreage</u>
Winooski Valley Park District	Colchester Pond	693
Winooski Valley Park District	McCrea Farm - Intervale and Winooski River	288
University of VT	Colchester Bog - Porters Point	172
State of Vermont	Half Moon Cove - Winooski River	277
State of Vermont United States Army	Malletts Bay State Park - north shore Camp Johnson	291 669

From the above list, parcels owned by the University of Vermont and the State appear to have limited development potential. However, Winooski Valley Park District (WVPD) and US Army parcels face two different types of pressure. The issues facing Camp Johnson are described in greater detail on Target Map 10. WVPD must carefully balance its roles as provider of rural recreation opportunities for Chittenden County residents and protector of natural resources within its boundaries. The very success of WVPD in drawing visitors also is its challenge in preventing overuse of sensitive lands. Wetlands at Colchester Pond and significant plant habitats at McCrea Farm are included in the areas that require careful management plans and on-site education and warning signs.

On the private side, the Planned Residential Development process usually results in creation of a sizable open space parcel in combination with residential building lots. The Town usually is not interested in acquiring ownership of these parcels, and homeowners' associations often are created for their management. Some of the larger private parcels that are restricted against development are listed below. The Edgewood Drive parcels are particularly significant due to their location in an existing deeryard and abutting the route of the Circumferential Highway.

Planned Residential Development	Location	Acreage	
Sunderland Woods	Sunderland Hollow	51	
North Harbor	North Harbor Road	48	
Edgewood/Overlake (3)	Edgewood Drive	26	
Country Meadows	Routes 2 & 7	22	
(See Appendix 4 for complete list of Planned Residential Development preserved parcels)			

Corridors are important in connecting open space parcels and in providing access to open space parcels from undeveloped areas. Three existing or designed public paths are depicted on Map 3 - the causeway, the western leg of the Circumferential Highway between Heineberg Road and Colchester High School, and the new bicycle path between Bayside Park and Creek Road. The 1996 Town Plan describes locations for a number of additional public paths along roadways and across open land. Additionally, unsurfaced trails and footpaths are located throughout town, both on public and private land.

In recent years, State and Federal funding has become increasingly available for development of these "human" corridors. The Town should continue to prioritize its goals for such corridors and to seek public funding for their construction.

The importance of non-human corridors for large and small wildlife species also should be recognized. One frequent movement is between lowlands such as the Intervale and Munson flats and adjacent uplands. The most important measure for protecting wildlife corridors is preservation of large contiguous areas of open space. Rural zoning districts and careful siting of new development are important regulatory tools. Organizations such as Keeping Track can advise the Town of important wildlife movements and areas that should be protected.

Map 4: Zoning and Planning Areas

The 1996 Colchester Master Plan separates the town into five distinct planning areas - growth center, manufacturing/distribution, village mixed use, suburban residential and rural. Planning areas are broad brush strokes indicating where development should be encouraged or discouraged. Although general in nature, planning boundaries have increased in importance in recent years largely due to Act 250 criterion #10 requiring conformance with a town plan. Planning areas and their boundaries should now be specific enough to create a clear blueprint for zoning and subdivision regulations to follow. Capital budgets, impact fees, sewer ordinances and other local land use implementation measures also should follow the direction provided by the Master Plan.

For the purposes of this report, zoning districts from the 1997 Zoning Regulations have been grouped into five "intensity" categories ranging from LOW to HIGH. For example, residential districts with densities of 1 per 25 acres, 1 per 5 acres, and 1 per $\frac{1}{2}$ acre are respectively defined as LOW, LO/MED and MED. Commercial districts tend to allow greater lot coverages than residential districts, and these are defined as MED/HI. The only areas defined as HIGH intensity are growth center and industrial districts with permitted lot coverages of 75% or more and/or residential densities greater than 5 units per acre. Appendix 2 provides a complete description of all zoning districts and their designated "intensity" levels.

Generally, zoning intensity in Colchester does successfully follow planning area boundaries. The most obvious example to the contrary is on Shipman Hill where a large area of high-quality agricultural land is zoned for LOW intensity but is included in the Growth Center planning area. A more modest discrepancy is the north shore of Malletts Bay where the rural planning area coincides with MED intensity (1 acre) zoning. Most other rural planning areas are accompanied by LOW or LO/MED intensities.

A highly publicized current land use concept - "sprawl" - can be viewed in the context of Colchester's zoning and planning areas. Internally, the town has made some strong decisions to guide the location of future growth. The Exit 16 area and south shore of Malletts Bay already are largely developed. Other designated growth areas - the village, Severance Corners and Exit 17 - are limited in size and are surrounded by rural planning areas. One of the greatest challenges facing Colchester in the next decade is the protection of rural areas from significant development, even if nearby parcels within growth districts are allowed to develop at higher densities.

Specific recommendations for adjustments to planning areas and/or zoning districts are given in target maps 5 through 10. One planning area that easily accommodates large open space parcels, whether agricultural land or natural resource sites, is the rural category. The rural planning boundary should be redrawn around several large natural resource parcels that are currently located at the edge of a higher density planning area. Other protection methods will be needed when significant open space parcels are within districts that permit higher levels of development.

Map 5: Heineberg Road Target Area

Map 5A - Natural Resources Map 5B - Land Use and Zoning

Predominantly sandy soils have enabled substantial development in this area. Commercial and other mixed uses are centered at Warner's Corner and continue along Heineberg Road to the south and Prim Road to the north. Suburban-density residential neighborhoods are located extensively to the west and in smaller concentrations to the east. Extensive floodplain and wetlands abut the Winooski River just south of the developed areas.

Several biological natural areas are located on this map. Due to the predominance of sandy soils, most are sandplain sites. The final depicted biological natural area is a rocky dolomite hill with a variety of natural habitats.

The Town Plan boundary between the Rural Planning Area and development areas (Suburban and Village Mixed Use) is very distinct. As depicted on Map 5A, the development boundary line generally separates floodplain and wetlands from developed areas. In some locations, as more clearly shown on Map 5B, Zoning District lines follow the natural boundaries more closely than the planning boundaries. Some specific adjustments are recommended.

The westerly terminus of the Circumferential Highway is at Heineberg Road. The route of the highway further defines the boundary line between developed areas to the north and natural areas to the south.

- (1) Airport Park, owned by the Town, is described by the Vermont Nongame and Natural Heritage Program as containing "small areas of unstable sands which harbor a few rare plants" and "thin strips of native black oak-red maple-pitch pine habitat along the edge of the fields". Management plans for this public site should include an understanding of the location and maintenance requirements of these habitats.
- (2) Porters Point Road Sandplain and
- (3) Holy Cross Church Woodland are two sandplain sites identified in 1991 that have since been developed. A small amount of sandplain acreage remains at the latter site. These developments demonstrate the minimal regulatory protection that is given to small sandplain sites.
- (4) Camp Holy Cross, with 45 sandplain acres, is one of four large sites in Colchester that has been designated by the Vermont Nongame and Natural Heritage Program as a Rare and Irreplaceable Nature Area. State officials have contacted the two major property owners, including the Catholic Diocese of Burlington, regarding management and long-term protection for the site. On this type of site, which does not face immediate development pressure, the Town and State should work cooperatively with the property owners. Management programs should be publicly directed, and funding assistance should be considered. Public conservation funds would facilitate pursuit of conservation easements on the property or acquisition of a right of first refusal if one of the properties is sold in the future.
- (5) A large Class 2 wetland is located west of Prim Road. Fringes of this wetland area have already been developed. State and federal regulations should be sufficient to protect most of this large wetland, but the Town should avoid encouraging development through its zoning and sewer ordinances (see additional comments on Map 8).
- (6) Diversity Hill is a 180 acre natural site with a variety of forest habitats. Sensitive sites include areas with endangered or threatened plant species, numerous bedrock outcrops and small cliffs on the west facing slope, and the oak-northern hardwoods-pine forest on the south slope of the hill. Residential development pressures currently exist for this site as a result of its high acquisition costs for the current owner. In addition the property offers spectacular 360 degree lake and mountain views, proximity to Colchester marinas and parks, Malletts Bay, and Schools, and a 10 minute or 5 mile drive to downtown Burlington via beltline. Should the "Village at Malletts Bay" concept materialize, the pressure to develop will only be greater. Sewers may allow for greater density; but significant pressure to develop this land already exists today. (see additional comments on Map 8).

- (7) Delta Park, owned by the Winooski Valley Park District, is already zoned for low density development. Its Town Plan area designation similarly should be moved from Suburban to Rural.
- (8) An extensive floodplain and wetland area abuts the Winooski River west of Heineberg Road. The largest portion of that area is the Halfmoon Cove property, owned by the State of Vermont. The floodplain/wetland area extends along the rear of several private parcels on Heineberg and Porters Point Roads. Along Heineberg Road, the Zoning District lines follow natural boundaries fairly closely. Some Zoning District adjustments are recommended along Porters Point Road. Along both roads, additional land should be included in the Town Plan's Rural Planning Area.
- (9) Similar adjustments to the Town Plan and/or Zoning District boundaries are recommended near the McCrea Farm and on publicly owned parcels to the west of Map 5.

(numbered items correspond to numbered sites on Maps 5A and 5B)

Map 6: Intervale/Shipman Hill Area

Map 6A - Natural Resources Map 6B - Land Use and Zoning

Burlington and Colchester share a wide expanse of floodplain and wetlands, called the intervale, along the Winooski River. Development is not likely to occur in the great majority of this area if existing federal, state and local regulations do not change.

West of Malletts Bay Road, the proposed Circumferential Highway has been designed to skirt the edge of the intervale. This route defines an edge between the low-lying intervale to the south and uplands subject to development pressure to the north.

In the upland area, one of the largest remaining sandplain areas in Colchester is located behind the high school and other properties on Malletts Bay Avenue. Similar sandy soils immediately to the east support several very visible fruit and vegetable farms in an area known as Shipman Hill.

Through most of this area, the Town Plan boundary between the Rural Planning Area and development areas (Village Mixed Use and Growth Center) follows the edge of the intervale. On Shipman Hill, the Zoning Regulations include the fruit and vegetable farms in the Agricultural/Open Land District while the Town Plan designates the area as part of the Growth Center.

- (10) An approximately 165 acre sandplain site, split among several parcels, is one of four large sites in Colchester that has been designated by the Vermont Nongame and Natural Heritage Program as a Rare and Irreplaceable Nature Area. The largest single property owner for this site is Colchester High School. Hazelett Corporation, Brigante, Lomartire and other private property owners also own a portion of this sandplain area. A variety of cooperative and regulatory tools are needed to protect a significant portion of this large site. On large properties, clustering provisions in the Zoning Ordinance are recommended to allow development on much of the property while preserving significant natural land. Acquisition of conservation should be considered to help property owners keep the balance of their land in agricultural use.
- (11) The intervale area is split into several large parcels, both publicly and privately owned. A portion of the area is devoted to agricultural use. Existing federal and state regulations limit development on the Class 2 wetlands within the intervale. Colchester Zoning Regulations prohibit construction of any new structures in the floodplain. These measures will protect the intervale from development. The section of the Circumferential Highway west of Malletts Bay Avenue will provide outstanding views of the intervale. A scenic overlook will be provided in the eastbound direction.
- (12) The Town of Colchester will develop a deferral and tax recapture program that encourages active agricultural land use through a level of assessment and taxation that is structured to be affordable for the farmer. Upon the rezoning of the land and/or the sale of any active agricultural land, the Town shall recapture some of the deferred taxes. This shall be based upon a one time penalty payment of 10% of the sale value or the revised assessed value upon rezoning, whichever is greater. Such penalty payments shall be used by the Town to acquire other agricultural land development rights, land in fee simple for open space, or for the completion of public infrastructure that is not the responsibility of a developer. The rezoning designation of the agricultural land should be in harmony with the zoning designations of other contiguous parcels and the Town Master Plan.
- (13, 14, 15) Shipman Hill farms all face significant development pressure. These properties abut existing suburban development and contain sandy soils that would support on-site wastewater disposal systems.

Map 7: Severance Corners Area

Map 7A - Natural Resources Map 7B - Land Use and Zoning

Routes 2/7 head north from the extensively developed commercial/industrial area at Interstate 89 Exit 16. Crossing a deep ravine at Sunderland Hollow, the highway reaches Severance Corners, an open level area that historically has been used for agricultural purposes. Heading east and west from Severance Corners, numerous suburban-density residential developments may be found along Severance and Blakely roads. These developments have taken advantage of sandy soils, suitable for wastewater disposal systems, and have responded to the demand for new housing in the suburbs of Burlington.

Additional development pressures will result from the proposed Circumferential Highway interchange at Severance Road, one of only two locations in Colchester that will allow access to the highway. The Town has responded to existing and future growth pressures at this location by designating a compact growth center surrounded by rural land.

Immediately west of Severance Corners, the Circumferential Highway will bisect a large natural area containing both a deeryard and sandplain site. The State has acquired portions of several parcels cut off by the highway for use as a sandplain mitigation site. Two other sandplain sites abutting Routes 2/7 and Sunderland Hollow are a private parcel now being offered for development and the Town owned Sunny Hollow Natural Area.

A final biological natural area on this map is a large forested hill containing quartzite natural communities, vernal pools and wetlands. A sizable deeryard also is located here.

A distinct development boundary line separates the Severance Corners growth center from rural areas along Poor Farm Road, Routes 2/7 and Mill Pond Road to the north.

- (17) The State has purchased several small parcels south of the proposed Circumferential Highway route that will provide a sandplain site for transfer of threatened and endangered plant species. As a permit condition, the State must develop a management plan for this site.
- (18) This sandplain site, with approximately 50 sandplain acres, is one of four large sites in Colchester that has been designated by the Vermont Nongame and Natural Heritage Program as a Rare and Irreplaceable Nature Area. This site is within the Town Plan's Growth Center Planning Area, is zoned for industrial use, and is currently being offered for sale for development purposes. The regulatory process may offer some protection against development of the entire site. On a similar industrial property in Essex, a small portion of the sandplain acreage was able to be protected during Act 250 review. Also, difficult access may cause marketing problems for the currently zoned industrial uses. However, rather than rely on regulatory tools to protect the site, the Town should seek cooperation from the landowner. The values of preserving this site relate to its large sandplain acreage and its visual qualities abutting the route of the Circumferential Highway. One preservation strategy would be public acquisition, but costs are likely to be high.
- (19) The Town owns and maintains the Sunny Hollow Natural Area including about 15 sandplain acres. No development will occur.
- (20) The size of the Severance Corners growth center is relatively compact and successfully avoids most natural areas. While some impact on agricultural land is unavoidable, this impact will be mitigated by successfully restricting the extent of development beyond the growth center boundaries to the north.
- (21) The Colchester Quartzite Highlands cover almost 300 acres abutting Interstate 89 north of Blakely Road and west of Poor Farm Road. The site also is one of the few sizable deeryards in Colchester. Development pressures should be light if the Town successfully maintains rural zoning outside of the Severance Corners growth center.

- (22) Poor Farm Road is located outside of the Town Plan's development boundary and is zoned for low density residential use. However, it faces development pressure due to its close proximity to the Severance Corners growth center. If the Town successfully maintains its current sewer district boundaries, poorquality soils on Poor Farm Road should help limit proposed development.
- (23) Mill Pond Road similarly is located outside of the Town Plan's development boundary and, in most cases, is zoned for low density residential use. Several individual parcels have been "spot-zoned" to allow medium-density residential use, a zoning practice that should be discontinued. Maintenance of lowdensity zoning on Mill Pond Road will preserve view corridors along the northern boundary of the Circumferential Highway.
- (24) East of Mill Pond Road, current Town Plan development boundaries and zoning district designations do not match. The proposed location of the Circumferential Highway in this area is not sufficient reason to move the Town Plan development boundary.

(numbered items correspond to numbered sites on Maps 7A and 7B)

Map 8: Lakeshore Target Area

Map 8 - Natural Resources and Sewer District

The Town of Colchester has long been concerned about the extent of development along its lengthy shoreline. The Zoning Regulations permit no new structures within 100 feet from the shoreline. The cutting of more than 25% of trees is prohibited within 85 feet of the shoreline.

Relatively few natural areas - floodplain, wetlands, sandplains and other biological natural areas - are found in close proximity to Malletts Bay. Several important sites - the wetlands west of Prim Road, Diversity Hill and the Colchester High School sandplain - have already been identified on other maps. One additional large sandplain site is depicted along with a biological natural area on Malletts Head and several significant habitat sites of undetermined size.

While mapped areas are not extensive, the entire lakeshore can be described as a significant open space resource. The Town recently acquired one valuable site, the Rossetti Natural Area. Management plans currently being prepared for this site provide a model for other Town owned natural areas.

- A large Class 2 wetland west of Prim Road was previously described on Map
 The mapped wetland is split among numerous individual properties, including several long parcels fronting on Prim Road.
- (6) Diversity Hill, containing a variety of forest habitats, also was previously described on Map 5. The site, despite poor on-site soils for wastewater disposal, is now facing significant development pressure due to its desirability for residential use. According to descriptions by the Vermont Nongame and Natural Heritage Program, the entire 180 acre site does not constitute a natural area. Rather, there are several sensitive areas which merit preservation. The Town, State and property owners all should be involved in careful planning for development of the site. First, the State should more carefully identify sensitive natural areas to be avoided. The Town should require Planned Development (PUD or PRD) standards to be applied to any development as long as it is appropriately sited to avoid identified natural areas.
- (10) A portion of this large sandplain site is located on the Hazelett property within the proposed sewer district. Protection of this site should be accomplished by applying PRD standards to any future development proposal.
- (12) The boundary of the sewer district should be changed from the southerly edge of the Hazelett Corporation property (previously described on Map 6) to the route of the Circumferential Highway.
- (25) Malletts Head, containing a mapped biological natural area, and
- (26) Coates Island are both wooded peninsulas with extensive shorelines and high visibility from Malletts Bay. The recently proposed sewer district boundary successfully avoids adding new development pressures to these locations.
- (27) The Rossetti Natural Area, containing 47 total acres and a ¼ mile beach, was acquired by the Town in 1996. A volunteer Town planning committee has developed an outline of a management plan for the site and is currently working on its implementation. One of several important recommendations of the management plan is to "develop an inventory of the natural resources on the 47 acre site … to include a mapping of the various plant communities; the

inventory and location of all rare, threatened or endangered species; and the inventory of the waterfowl and wildlife that use the area"

(28) This property on Lakeshore Drive, containing approximately 25 sandplain acres. The Town can explore with the property owner donation or purchase of conservation rights. Otherwise, clustered development can preserve a small portion of this sandplain site.

(numbered items correspond to numbered sites on Map 8)

Map 9: Village Target Area

Map 9A - Natural Resources Map 9B - Land Use and Zoning

Colchester Village is located along Route 2A east of Routes 2 and 7. Its linear nature is defined by two deep ravines along Indian Brook to the south and Pond Brook to the north. A number of historic buildings abut Route 2A in the center of the village, and suburban housing developments are located to the north and south of Route 2A and along Creek Farm Road.

On the south side of the village, the Town Plan development boundary and the zoning district line between medium and low density areas coincide. By following Indian Brook, they create a clear natural boundary between developed and rural areas. The Mill Pond Road area serves as an effective buffer of fields and other undeveloped land between the village to the north and the Circumferential Highway and the Severance Corners growth center to the south.

Development boundary lines are less clear north of the village. Current Town Plan development boundaries and zoning district lines often do not match. At some locations, such as north of Creek Farm Road, designated development areas infringe on wetlands or other natural areas. Several suggestions are offered for redrawing of boundary lines in this area.

The largest area of low density development in Colchester lies in the northeast portion of the town. The area is characterized not so much by mapped natural areas as by agricultural land. Low density zoning, enhanced by clustering provisions, should allow the rural character of this area to continue.

- (23) Mill Pond Road was already described on Map 7 as an area where existing low density zoning should be continued. On Routes 2/7 south of the village, the Country Meadows development is fully built out at suburban densities. Recognizing this existing development pattern, the area should now be included within the Town Plan development boundary line for the village.
- (29) The northern portion of a deeryard located at the west end of the village should remain outside of the development boundary line.
- (30) In the vicinity of Creek Farm Road, Indian Brook and Pond Brook both swing to the north leaving no clear edge to the village. The Town Plan development boundary, as currently depicted, infringes on a large wetland/floodplain area. It should be moved further south to avoid this area.
- (31) In the vicinity of Middle Road, Pond Brook swings fairly far to the north. The current character of Middle Road is rural with a number of horse farms, dairy farms and other low density development. The Town Plan development boundary line, which currently follows Pond Brook, should be moved further south to coincide with existing zoning district lines.
- (32) North of Depot Road and
- (33) east of Sand Road, in a situation just opposite to that of Middle Road, medium density zoning districts extend further than the Town Plan development boundary. Differences between the boundaries of the Town Plan and the Zoning Regulations should be resolved.
- (34) The large areas along Middle Road and East Road north of the village are divided into low/medium density (5 acres per dwelling unit) and very low density (25 acres per dwelling unit) districts. In the former district, a number of large-lot homes with generous setbacks are visible along the road. The character of this area is rural, but contiguous open spaces are not nearly as extensive as in the very low density district. Conservation efforts and PRD development review in this area should focus on agricultural land more than natural resources.

(numbered items correspond to numbered sites on Maps 9A and 9B)

Map 10: Camp Johnson Target Area

Map 10 - Natural Resources and Zoning

Camp Johnson, owned by the federal government, is a 668 acre property with two distinct elements - an aging military base with scattered small buildings and equipment, and a very large open space area including approximately 250 acres of sandplain habitat. The federal government is cooperating with State officials in pursuing active management of the sandplain resource. Current development prospects for Camp Johnson while very low are completely at the discretion of the federal government.

Camp Johnson currently is included along with Exit 16, Fort Ethan Allen and Severance Corners in the sizable Town Plan growth center at the southeast portion of the town. In the Zoning Regulations, it shares with Fort Ethan Allen a designation as a GD-2 general development district. The district permits high-density residential development and moderately high-density commercial/industrial development.

As long as the federal government intends to maintain the status quo, i.e. active use of a small percentage of the property and protection of large areas of open space, then there is no immediate need to modify current zoning regulations. With federal cooperation, the State should continue to take the lead in managing sandplain resources. With all other sandplain sites in Colchester being threatened by highway construction or by development, Camp Johnson offers the best opportunity for preservation of a large, contiguous sandplain habitat.

If any changes in ownership or use appear likely, the Town should be prepared to implement zoning amendments. Existing high development designations are reasonable for Camp Johnson, but only for a portion of the property. Provisions for clustering of future development should be added to the Zoning Regulations. Allowance can be made for dense development on portions of the property, but these should be accompanied by requirements for significant percentages of contiguous open space. These objectives can best be accomplished by use of planned development standards (PUD or PRD).

Site # Comments and Recommendations

(35) Camp Johnson, with approximately 250 sandplain acres, is by far the largest of four large sites in Colchester that have been designated by the Vermont Nongame and Natural Heritage Program as Rare and Irreplaceable Nature Areas. The State should continue to take an active role in managing this sandplain resource.

> The Town should be advised by its congressional delegation or other representatives of the federal government if any changes in ownership or use of the property are planned. If so, Zoning Regulations for the property should be modified to include clustering provisions that will require protection of the sandplain habitat from any proposed development.

Other Target Areas

The preceding six areas do not cover all open space land in Colchester. One important location, the Exit 17 growth center, will be examined in detail in an upcoming study. That study should thoroughly review open space resources and how they would be impacted by proposed development. Other non-targeted areas, including the north shore of Malletts Bay, also contain sizable open space resources. The various techniques from this study - review of growth boundaries when the Town Plan is readopted, use of GIS mapping to identify critical resources if development is proposed, and encouragement of clustering to avoid impacts on those open space resources - can be used in any of these locations.

Recommendations

Recommended actions by the Selectboard (SB), the Planning Commission (PC), the Planning/Zoning Department (STAFF), other public bodies such as the Winooski Valley Park District (WVPD) and by private property owners are grouped under the open space protection categories described at the beginning of this report - education, regulation and public policy. Additional actions are recommended for several "high priority" parcels - those that may face immediate development pressure or contain high-quality open space resources. Finally, recommendations that may serve to mitigate impacts from the Circumferential Highway are combined into a single section.

Education

STAFF The Planning and Zoning Department should maintain the town's 1) new Geographic Information System (GIS) and make it available for use by all town departments, public boards and commissions, other **STAFF** public bodies, landowners and private citizens. 2) Additional data layers should be developed. Up-to-date tax mapping is critical for successful use of the GIS system. Boundaries of PC agricultural and forested land should be updated using aerial photography and site inspections. The Planning Commission should consider undertaking an assessment of scenic views for use as a *PC*/ possible additional PRD standard. **MISC** 3) The Planning Commission should work with organizations such as Keeping Track to identify wildlife corridors. Important corridors should be mapped and added as a GIS data layer. **MISC** Management plans, such as the one in progress for the Rossetti 4) natural area, should be developed for parcels where long-term protection of a significant natural resource is anticipated. Parcels include those owned by the town (e.g. Colchester High School), other public bodies (e.g. Camp Johnson), private organizations (e.g. Camp **WVPD** Holy Cross) or other private landowners (e.g. Hazelett Corporation). 5) Winooski Valley Park District should continue to protect natural resources within its boundaries. On-site identification centers and signs exist and, in some cases, should be expanded. The roles of various town departments and volunteer boards in the 6) **MISC** protection of open space lands should be recognized. Recent participants include the Planning and Zoning Department, the Recreation Department, the Planning Commission, the Conservation Commission and the Colchester Land Trust. Communication should be improved regarding these groups' various conservation efforts.

Regulation

110		PC/SB
7)	Planning area boundaries should be established at the time of each Master Plan update. Zoning district amendments should only be permitted if they are compatible with the planning area boundaries. Any major change in a zoning district should be preceded by a Master Plan update - normally once every 5 years.	PC
8)	GIS overlays should be used to adjust planning area boundaries in the upcoming Master Plan update. Major natural features should be	
9)	located in the rural planning area whenever possible. Review is needed for density provisions in those zoning districts that cover the rural planning area - AGR, R10, RR and R1. Existing 25 acre zoning in the AGR district is one of the most effective tools in Chittenden County for retaining large blocks of open space and overall rural character.	PC
10)	The preferred option for the R10 and RR districts would be a change to AGR zoning. This change would be the strongest method of enforcing the boundary line between development and rural planning areas. A second option would be combining the two districts into one with a base density, perhaps 10 or 15 acres, and an opportunity for a higher density, perhaps 5 or 10 acres, if strict Planned Residential Development (PRD) standards are met (see below).	PC
11)	The intermediate R1 district is used both within development and rural planning areas. In rural locations, a lower density should be considered. The north shore of Malletts Bay is primarily wooded and does not need 10 acre or 25 acre zoning to protect agricultural land or to provide a rural character. Base densities could be set in the 3 to 5 acre range with opportunities for smaller individual lot sizes under PRD proposals.	PC
12)	The development boundary line should be more clearly established at the perimeter of the village. Any property falling outside of the development boundary should be changed from R1 to a more rural designation. Higher densities could be considered for land remaining within the village boundary, but soils limitations probably justify keeping the current R1 density.	PC
13)	Creation of the sewer district will increase development potential for several R1 parcels containing poor quality soils. If higher densities are considered, they should be allowed only subject to strict PRD standards.	PC/ SB

14)	More thorough PRD standards should be included in the Zoning	
	Regulations. In some districts, e.g. RR or R10, overall densities for	РС
	PRD's can be higher than the base district density if specific	
	standards are met. Percentages of contiguous, protected open space	
	must be high. Significant open space resources must be identified and	
	protected. The layout for developable areas must have minimal	
	possible impact on the open space objectives.	РС
15)	If changes in ownership or use are anticipated, new PRD standards	10
	should be developed for the Camp Johnson district to preserve a	
	sizable portion of the sandplain resource but to allow dense	
	development on the balance of the property in the future.	
16)	Subdivision Regulations should require thorough review of open	<i>PC/</i>
	space resources. GIS overlays can identify general locations of	STAFF
	significant natural and open space areas. The subdivider may be	
	required to provide supplemental information, e.g. wetland	
	delineations, to verify boundaries of these areas. Standards for lot	
	layouts and use of building envelopes can require development to	
	avoid sensitive open space resources.	

SB

SB

Public Policy

- 19) The Selectboard should oversee a study of financing options for open space protection. Outside funding sources, such as the Lake Champlain Land Trust, should continue to be used whenever possible. Local funding sources should be balanced between the general tax base and new development. Use of bonding for specific projects, an annual general fund contribution, open space impact fees, and sewer connection fees all should be considered. Affected landowners and general taxpayers should be appropriately represented in this study.
- 20) Expenditure of open space funds should be "value-conscious". Small annual expenditures on bikepath or scenic view easements could assist long-term private maintenance of open lands. Acquisition of development rights or title to key parcels should be considered, but the Town cannot afford many of these.

21)	bicy give	e Selectboard should continue to seek State and Federal funding for ycle paths and other "human" corridors. High priority should be en to extensions of and connections between existing bicycle	SB
	patl	hs. Recommended new bicycle paths include:	
	a)	Early construction of the bicycle path planned along the westerly	
		leg of the Circumferential Highway and extension of that path to	
		Bayside Park.	
	b)	Construction of the much-discussed extension of the Burlington	
		bicycle path with a connection to the causeway.	
	c)	A second connection to the causeway through the Porters Point	
		area and linking with the existing bicycle path on Heineberg	
		Road. This path likely would be Class 2 (along existing	
		roadways) rather than attempting to traverse the sizable natural	
		areas between these two end-points.	
	d)	A bicycle path should also accompany the easterly leg of the	
		Circumferential Highway, although its location should not be in	
		the highway right-of-way but should more directly serve	
		neighborhoods along Blakely and Severance Roads.	
22)	The	e assessor and/or Board of Civil Authority should set land values in	TAX
	the	AGR district at the lowest defensible level. A property would	
	qua	lify if it was both in the Rural planning area and in the AGR	
	zon	ing district. Low land values can better be defended if the Town	
	esta	blishes a procedure of allowing changes to AGR boundaries only	
	afte	er Master Plan updates.	10000
23)	The	e Town should encourage private maintenance of open space	MISC
	reso	ources as much as possible - homeowners associations, Camp	
	Joh	nson, churches, etc.	

Priority Parcels

The Town should immediately consider action relating to the following "highpriority parcels" - those that may face immediate development pressure or contain highquality open space resources.

		(a)	(b)	(c)	(d)	(e)
Site	Property	Identifi-	PRD	Public	Tax	Maintenance
#	Name	cation	Review	Funding	Policy	Plan
(4)	Camp Holy Cross			Х		Х
(6)	Diversity Hill	Х	Х			
(10)	Colchester High School	Х				Х
(12)	Hazelett Corp.	Х	Х			Х
(13)	Lomartire			Х	Х	
(14)	Brigante			Х	Х	
(15)	Mazza			Х	Х	
(18)	Robenstien	Х	Х	Х		
(28)	Graves			Х		
(35)	Camp Johnson		Х			Х

Open Space Protection Techniques (see description below)

- a) Further **identification** of the boundaries and character of these open space resources is recommended.
- b) If development is proposed, use of **PRD standards** will help in clustering developable areas and protecting open space resources.
- c) **Public funding** may include purchase of land, development rights or easements and also may include annual payments for public use or enjoyment of land.
- d) **Tax policy** may include farm/open land contracts or use of assessments that reflect development potential under rural planning and agricultural zoning standards.
- e) **Maintenance plans** may be relevant for all listed parcels but are used here for those properties where long term continuation of existing open space resources is anticipated.

Circumferential Highway Mitigation

All but the easternmost section of the Circumferential Highway in Colchester can be viewed on Maps 5, 6 and 7. The specific recommendations from those maps suggest many of the overall recommendations for mitigation of Circumferential Highway impacts.

Starting at Heineberg Road, the route of the Circumferential Highway successfully avoids the large intervale area along the Winooski River. Its location at the intervale's edge reinforces the boundary between developed and rural areas. Planning or zoning boundary adjustments are recommended at three sites - (9) abutting McCrea Farm, (12) the southernmost portion of Hazelett Corporation and (16) a town-owned parcel west of Malletts Bay Avenue.

One of the most sensitive sections of the Circumferential Highway is at Shipman Hill. The highway itself will not add to existing growth pressures facing the fruit, vegetable and egg farms that are located here (13, 14, 15). However, successful continuation of these agricultural operations will greatly enhance the aesthetic qualities of an expected high volume roadway.

Further east, the Circumferential Highway skirts Sunderland Brook, passes through the Severance Corners growth center (see below) and abuts agricultural land on both sides of Mill Pond Road. Rural planning and agricultural zoning designations are recommended at locations west (23) and east (24) of Mill Pond Road.

While the above-described parcels may cause visual impacts <u>to</u> the Circumferential Highway, impacts and development pressures <u>from</u> the highway will be created at its interchanges. The originally proposed three interchanges in Colchester have been reduced to two - one at the westerly terminus at Heineberg Road (Map 5) and one at Severance Corners (Map 6). Heineberg Road already has a clear boundary between developed and rural areas. Some minor adjustments are recommended to the development boundary west of Heineberg Road for better alignment with the edge of the floodplain/wetland area. Some additional development can be expected in the developed portions of Heineberg Road, as much due to the proposed sewer extension as to the Circumferential Highway. However, existing zoning densities are in place to control the extent of infill development in this already built-up area.

The Town has paid considerable attention in recent years to its other planned interchange at Severance Corners. A clear boundary line has been established both in the Town Plan and in the Zoning Ordinance, separating the growth center from abutting rural land. Within the growth center, the predominant zoning district, GD-3 (20), places restrictions on size and use for high intensity land uses such as "big-box" retail stores. One parcel will be physically separated by the Circumferential Highway from the balance of the Severance Corners growth center. As previously noted, residential zoning would be more appropriate for this site due to its difficult access and desirability of clustering to avoid sandplain resources.

The key to the growth center's success will be continued restrictions on rurally zoned land outside its boundary. Sewer extensions to Poor Farm Road and other locations outside the growth center should not be permitted. Protection of farmland, a large deeryard and scenic views (21, 22, 23) will be accomplished with the continuation of existing rural zoning.

The Circumferential Highway is a corridor for vehicles. However, the highway's Act 250 Master Land Use Permit recognizes the importance of planning for other modes of transportation. A condition of the original permit requires the permittee, when submitting detailed plans for each highway segment, to suggest implementation measures for the Regional Planning Commission bikepath study. That study depicts a bike path along the entire route of the Circumferential Highway in Colchester plus a connecting link to Bayside Park.

Current Circumferential Highway plans include a bicycle path only along the westerly leg from Heineberg Drive to the vicinity of Colchester High School. Although the "Parkside Drive" link to Lakeshore Drive has been eliminated for vehicles, the bicycle path link should be reestablished. Completion of the above two segments will provide a continuous bicycle path from Burlington to Colchester Village. The value of this route is high enough that its entire construction should be pursued immediately even if final plans for highway construction are delayed. Final design plans for this section of bicycle path should also consider a "mid-route" connection to existing or future development in the vicinity of Diversity Hill.

In some locations, such as the Northern Connector in Burlington, bicycle paths along the highway route have not been highly used. It is important to provide connecting links to neighborhoods in the vicinity. East of Bayside Park, the best bicycle route would parallel Blakely and Severance Roads. Funding from either State Enhancement Grants or from Circumferential Highway funds should be pursued along with planning for the balance of the Circumferential Highway.

Much of the Circumferential Highway route in Colchester lies along the upland edge of the Intervale. The highway and its associated fencing will block passage by wildlife between lowland and upland habitats. The Act 250 Master Land Use Permit found that design of the Circumferential Highway successfully avoided critical wildlife habitats. Even so, it is clear that existing wildlife movements will be affected. Perhaps the most important route is along Sunderland Brook where the Intervale connects along a deep hollow to several upland sandplain habitats. The design of all highway crossings through this corridor should consider accommodations for large and small species. Along the balance of the Intervale, culverts with natural bottom designs should be included along any stream or drainageways to allow passage by small wildlife species.

APPENDIX 1:

Land Sales - 15+ Acres

PROPERTY ADDRESS	OWNERS NAME	ZONE	SALE DATE	SALE PRICE PER ACRE	# ACRES
BLAKELY RD LAKESHORE DR. 5 POOR FARM RD CROOKED CREEK RD POOR FARM RD 25 POOR FARM RD 25 POOR FARM RD ROOSEVELT HWY MAIN ST 60 CLAY PT RD 104 EAST RD 110 MALLETTS BAY AVE POOR FARM RD 24 FARNSWORTH RD 000000 PINE ISLAND RD MIDDLE ROAD 26 COON HILL RD BRAE LOCH RD 20 POOR FARM RD 98 MIDDLE RD	SPEAR SALLY COLCHESTER TOWN OF SMITH PAUL G SUNSET CLIFF PARTNERS BLANCHARD NEAL T CUMMINGS BERNARD R RUBMAN JEFFREY W WRS INVESTMENT INC CLAY POINT WOODS LLC HENSON RANDALL S RANGER INDUSTRIAL PARK ROGERS JOAN A FITZGERALD MARTIN MAZZA SAMUEL P MAZZA MICHAEL LEBLANC FREDERICK L SR PERKINS RALPH SCHROEDER DONALD F MAZZA ROBBY	R2 R2 AGR AGR AGR GD1 R2 R1 RR IND AGR AGR AGR RC AGR R1 AGR R0 R1	2000, 03 9711 9407 9601 9407 9408 9501 9810 9701 9508 9705 9312 9207 9204 9808 9712 9908 9706 9908	28403.29 10638.30 3687.32 3651.69 3646.97 3554.16 2965.03 2575.84 2495.84 2495.84 2472.22 2465.75 1874.77 1767.44 1739.13 1200.00 1195.22 1035.21 992.65 987.85	25.49 47.00 122.04 17.80 27.42 20.68 114.67 17.47 60.10 36.00 73.00 53.34 43.00 92.00 110.00 50.20 142.00 54.40 123.50
10 HILLTOP CT 77 EAST RD HEINEBERG DR	BURNETT MICHAEL D FITZGERALD WILLIAM H VERMONT STATE OF	R2 RR W/L	9703 9412 9406	902.26 746.49 713.33	53.20 66.98 21.00

APPENDIX 2 - Zoning Intensity

LOW = agricultural zoning (25 acres per lot) and districts not allowing buildings

LO/MED = typical rural residential densities (more than 1 acre to 10 acres per lot)

MED = typical suburban residential densities (10,000 to 40,000 sf per lot); also nonresidential districts with lot coverage less than 60%

MED/HI = typical non-residential lot coverages (60 to 70%)

HIGH = districts with densities high enough to qualify for concentrated growth center planning - residential densities greater than 5 units per acre or lot coverages of 75% or more

Note: If a district allows MED residential densities and MED/HI non-residential lot coverages, it is included under the higher intensity description (MED/HI)

ZONING <u>DISTRICT</u>	RESIDENTIAL DENSITY	COMMERCIAL/ INDUSTRIAL LOT COVERAGE	"ZONING <u>INTENSITY"</u>
W/F	none	none	LOW
AGR	1 per 25 acres	none	LOW
R10	1 per 10 acres (single) 1 per 7.5 acres (duplex)	none	LO/MED
RR	1 per 5 acres (single)	none	LO/MED
R1	1 per 3.5 acres (duplex) 1 per 40,000 sq. ft. (single) 1 per 30,000 sq. ft. (duplex)	none	MED
R2	1 per 20,000 sq. ft. (single)	none	MED
R3	1 per 15,000 sq. ft. (duplex) 1 per 15,000 sq. ft. (single) 1 per 10,000 sq. ft. (duplex)	none	MED
MHP	1 per 15,000 sq. ft.	none	MED
COMM	none	60% (no sewer) 70% (sewer)	MED/HI
GD-1	1 per 10,000 sq. ft. (SF/MF) 1 per 7,500 sq. ft. (duplex)	60% (no sewer) 70% (sewer)	MED/HI
GD-2	10 per acre	60% (no sewer) 70% (sewer)	HIGH
GD-3	1 per 10,000 sq. ft. (SF/MF) 1 per 7,500 sq. ft. (duplex)	60% (no sewer) 75% (PUD/sewer)	HIGH
Ι	none	80%	HIGH

MAP 1 - TOWNWIDE NATURAL AREAS

		ACRES
WETLANDS CLAY POINT ROAD MALLETTS CREEK MARSH COLCHESTER BOG HALFMOON COVE PRIM ROAD INTERVALE @ PINE ISLAND DELTA PARK * Only the largest wetlands are included	Wetland Wetland Wetland Wetland Wetland Wetland	106.01 457.87 187.52 411.16 114.10 241.28 72.51
FLOODPLAINS * Individual sites are not listed		
SIGNIFICANT HABITAT * Individual sites are not listed		
DEERYARDS MALLETTS BAY NORTH BETWEEN 189 AND POOR FARM ROAD SUNDERLAND HOLLOW	Deeryard Deeryard Deeryard	199.00 200.00 141.00
BIOLOGICAL NATURAL AREAS CAMP HOLY CROSS CAMP JOHNSON THE OLD AIRPORT (COLCHESTER AIRPORT) COLCHESTER HIGH SCHOOL/WVMT GRAVES FAMILY HOLY CROSS CHURCH WOODLAND MCCRAE ROAD SANDPLAIN NORTHSHORE WETLAND PORTERS POINT ROAD SANDPLAIN SUNDERLAND BROOK PITCH PINE SUNNY HOLLOW NATURAL AREA CAMP KINIYA ROAD WOODLAND POOLS CAMP NORFLEET ROAD HILL CLAY POINT COLCHESTER POINT RUSH MEADOW COLCHESTER POND RIDGE COLCHESTER QUARTZITE HIGHLANDS DEVILS DEN CAVES DIVERSITY HILL LOWER WINOOSKI BLUFFS	Sandplain Sandplain Sandplain Sandplain Sandplain Sandplain Sandplain Sandplain Sandplain Other Other Other Other Other Other Other Other Other Other Other Other Other Other Other Other Other	39.76 419.86 47.06 158.80 0.00 21.66 4.76 4.27 22.46 104.83 82.81 9.86 65.82 4.18 0.89 165.05 273.96 6.78 166.47 5.45
MALLETTS BAY ISLANDS (5) MALLETTS BAY NORTHSHORE HEADLANDS MALLETTS BAY NORTHSHORE HEADLANDS MALLETTS BAY STATE PARK MALLETTS HEAD MALLETTS HEAD	Other Other Other Other Other Other Other	5.45 6.94 61.00 8.50 283.85 33.88 28.28

MAP 1 (cont.)

ACRES

QUARRY COBBLE	Other	16.21		
SUNSET ISLAND	Other	3.00		
TWIN BRIDGES	Other	52.46		
* Several "other" biological natural areas are listed as wetlands				

MAP 3 - PUBLIC LANDS AND PRIVATE OPEN SPACE

CEMETERY CLAY POINT RD FIRE STATION TOWN OF COLCHESTER UNION MEMORIAL ELEM SCHOOL COLCHESTER CENTER FIRE STATION TOWN OF COLCHESTER BURNHAM LIBRARY COLCHESTER HIGH SCHOOL TOWN OF COLCHESTER PORTERS POINT ELEM SCHOOL TOWN OF COLCHESTER MALLETTS BAY ELEM/MIDDLE SCHOOLS TOWN OF COLCHESTER TOWN OF COLCHESTER COLCHESTER HIGH SCHOOL TOWN OF COLCHESTER COLCHESTER HIGH SCHOOL TOWN OF COLCHESTER COLCHESTER HIGH SCHOOL TOWN OF COLCHESTER COLCHESTER HIGH SCHOOL TOWN OF COLCHESTER CHURCH STREET FIRE STATION TOWN OF FOLCHESTER COLCHESTER HIGH SCHOOL TOWN OF COLCHESTER COLCHESTER HIGH SCHOOL TOWN OF COLCHESTER COLCHESTER HIGH SCHOOL TOWN OF COLCHESTER TOWN OF COLCHESTER ROSSETTI NATURAL AREA HEINEBERG DR. TOWN LAND TOWN OF COLCHESTER TOWN OF COLCHESTER	Municipal Municipal	0.87 2.55 0.86 1.35 5.33 0.76 0.17 2.30 38.04 0.35 7.14 0.45 36.19 0.22 5.25 0.55 67.41 0.38 0.42 11.25 0.50 16.34 2.47 0.58 47.77 1.50 4.60 0.73 10.34 4.87 1.29 0.93 1.86
	•	
TOWN OF COLCHESTER	Municipal	0.93
TOWN OF COLCHESTER	Municipal	1.86
CAUSEWAY PARK	Municipal	16.24
COLCHESTER POND (TOWN OF COLCHESTER)	Municipal	44.56
AIRPORT PARK	Municipal	48.92
HERITAGE PARK	Municipal	1.04
BAYSIDE PARK	Municipal	3.69
BAYSIDE PARK	Municipal	0.29
AIRPORT PARK	Municipal	2.29
BAYSIDE PARK	Municipal	18.90

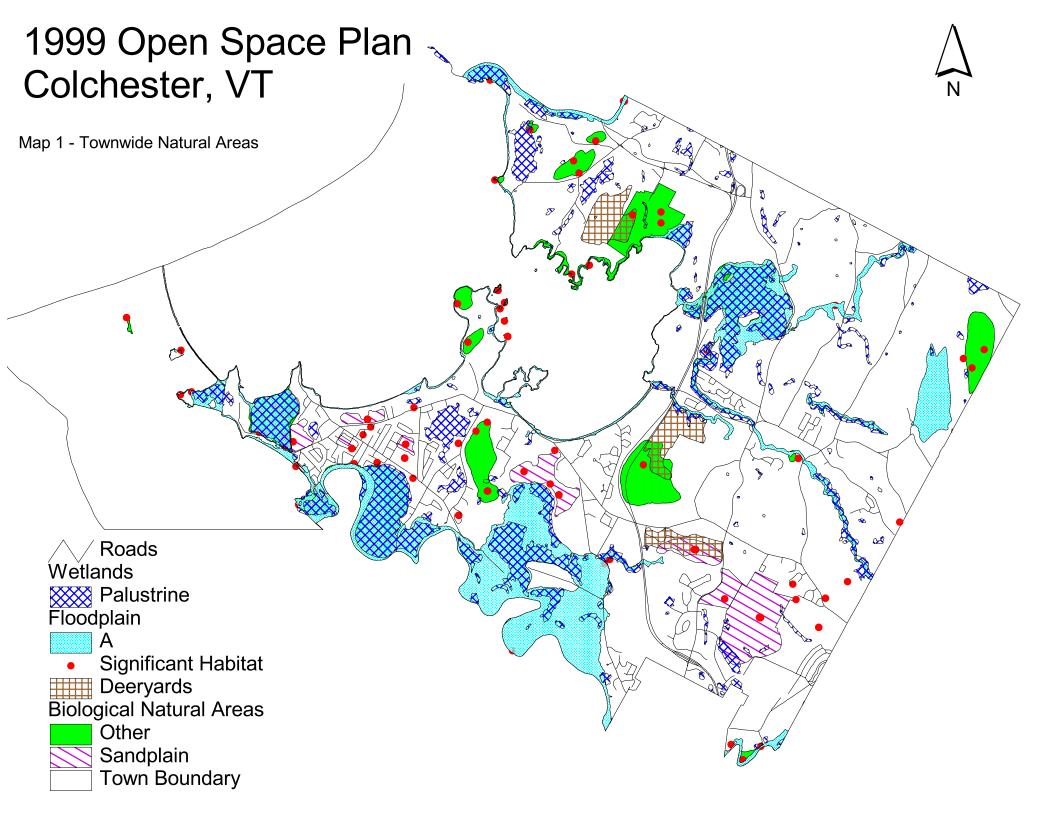
MAP 3 (cont.)

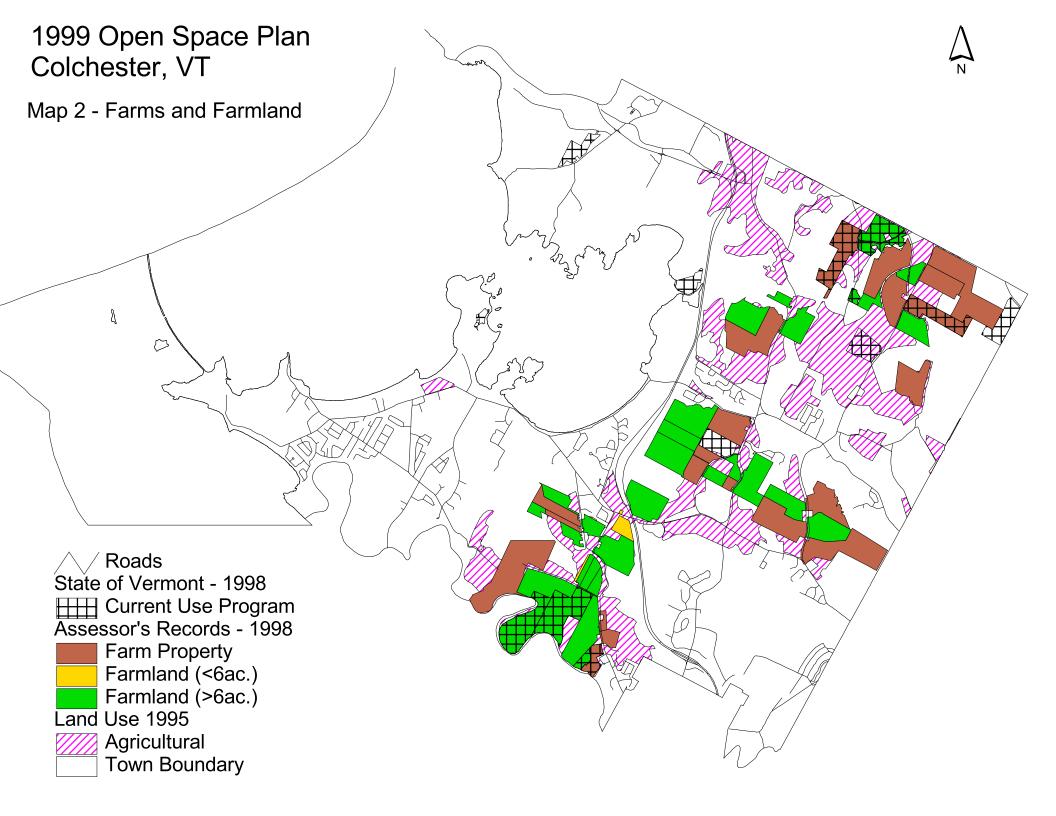
ACRES

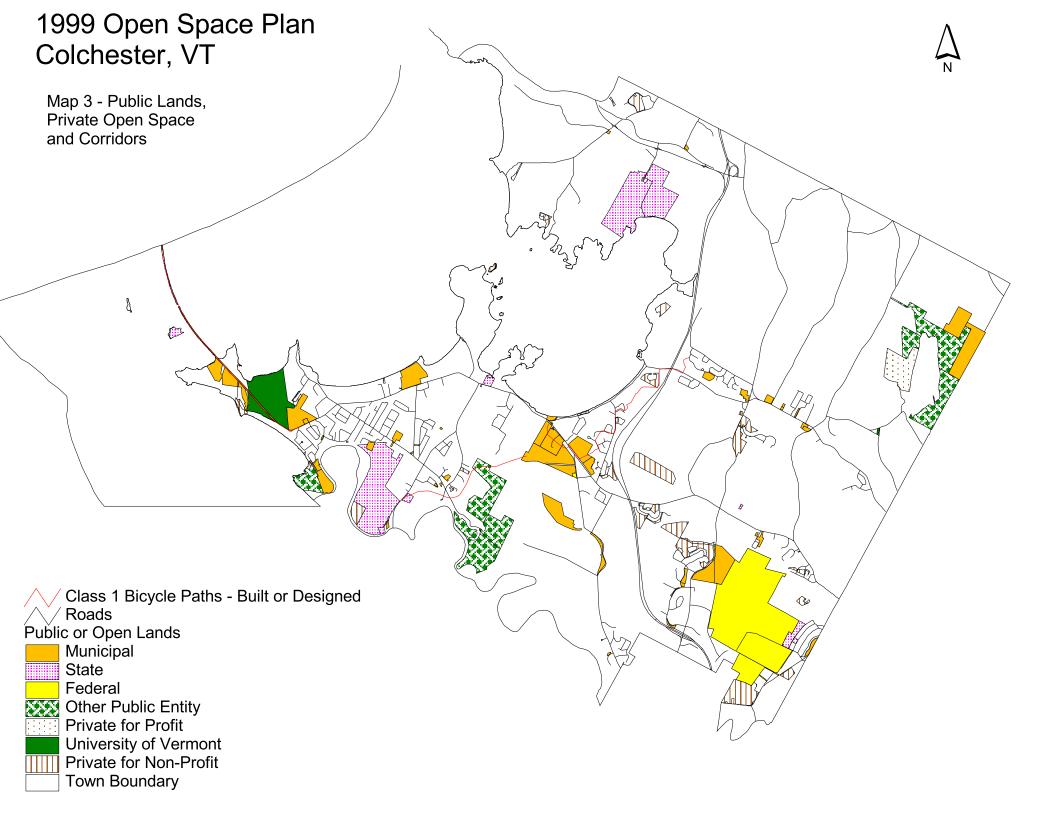
BAYSIDE PARK	Municipal	0.30
WINDEMERE WAY TOWN LAND BONANZA PARK	Municipal	20.77 0.56
SUNNY HOLLOW NATURAL AREA	Municipal Municipal	0.50 54.30
SUNNY HOLLOW NATURAL AREA	Municipal	28.51
FORT ETHAN ALLEN PARADE GROUNDS	Municipal	6.03
VALLEYFIELD PARK	Municipal	0.64
MALLETTS BAY STATE PARK	State	0.45
MALLETTS BAY STATE PARK	State	1.25
STATE OF VERMONT	State	0.40
VT AGENCY OF TRANSPORTATION	State	5.71
CAMP JOHNSON (STATE OF VERMONT)	State	19.54
CAMP JOHNSON (STATE OF VERMONT)	State	2.21
CAMP JOHNSON (STATE OF VERMONT)	State	57.98
SAND BAR STATE PARK AND W.M.A.	State	117.70
MALLETTS BAY STATE PARK	State	118.53
MALLETTS BAY STATE PARK	State	171.82
LAKESHORE DR STATE FISHING ACCESS	State	8.88
VT AGENCY OF NATURAL RESOURCES	State	259.71
WINDEMERE STATE FISHING ACCESS	State	5.41
HEINEBERG DR STATE FISHING ACCESS	State	4.26
SUNDERLAND BROOK CONSERVATION AREA	State	5.87
COLCHESTER POST OFFICE	Federal	1.44
CAMP JOHNSON (US ARMY NAT GUARD)	Federal	666.33
COLCHESTER POND (WVPD)	Other Public	198.16
COLCHESTER POND (WVPD)	Other Public	38.32
INDIAN BROOK RESERVOIR (WVPD)	Other Public	1.14
COLCHESTER POND (WVPD)	Other Public	89.93
MCCREA FARM (WVPD)	Other Public	105.49
DELTA PARK (WVPD)	Other Public	47.32
MCCREA FARM (WVPD)	Other Public	176.19
COLCHESTER BOG (UNIV OF VT)	Univ. of Vermont	148.88
COLCHESTER BOG (UNIV OF VT)	Univ. of Vermont	22.93
LAW I. (LAKE CHAMPLAIN ISLANDS TRUST)	Private Non-Profit	9.53
NATURE CONSERVANCY	Private Non-Profit	21.69
* Private condominium association parcels are not I	Isted	

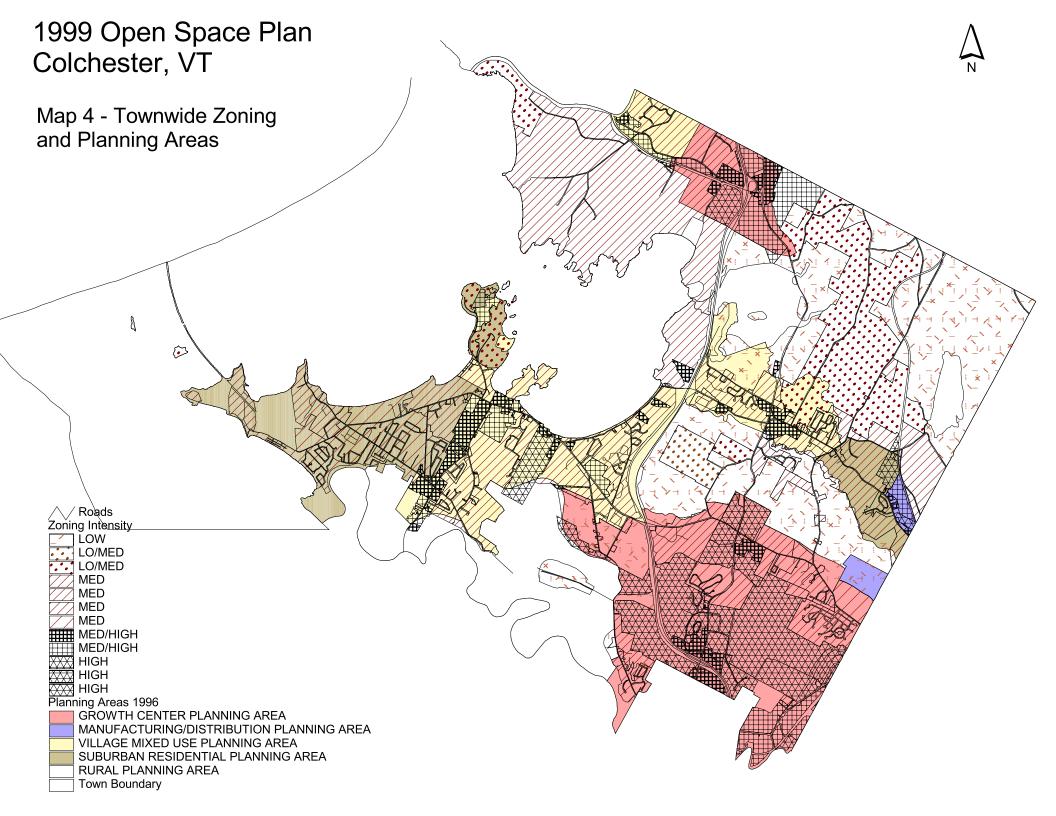
PRIVATE CONDOMINIUM OPEN SPACE PARCELS

DEVELOPMENT NAME	ACRES
SUNDERLAND WOODS - OAK CIRCLE	51.00
MAZZA - POOR FARM ROAD	49.00
NORTH HARBOR	48.00
CREEK FARM - JUSTIN MORGAN DR	24.40
COUNTRY MEADOWS - RTE 7	21.60
THORPE ESTATES - BAY RD	13.00
EDGEWOOD ESTATES	12.80
OVERLAKE DEVELOPMENT	10.50
SUNSET VIEW CAMPERS ASSOC.	9.70
EVERBREEZE	9.20
LOST COVE	7.00
CREEKSIDE - DEER LN	6.50
MUNSON - MACRAE RD	5.90
COUNTRY MEADOWS EXT - RTE 7	5.80
MOSS HOLLOW - BOISVERT	5.00
ORCHARD DR	4.40
PINE GROVE - JOEY DR	4.30
SMITH ESTATES	3.90
LIBERTY LANE	3.50
HIDDEN LAKE DEVELOPMENT	3.50
PRETTY RD	3.40
BARNEY POINT	3.10
EDGEWOOD ESTATES	2.50
VERMONT PUBLIC RADIO - TROY AVE	2.40
CLAUSSEN - CLAY POINT RD	1.70
GOODSELL PT	1.60
CENTRAL VT RAILWAY - COLCHESTER I	-
	1.20
SPAULDING WEST SHORE	0.60
	0.40
	0.20
	0.20
LANDING AVE	0.20



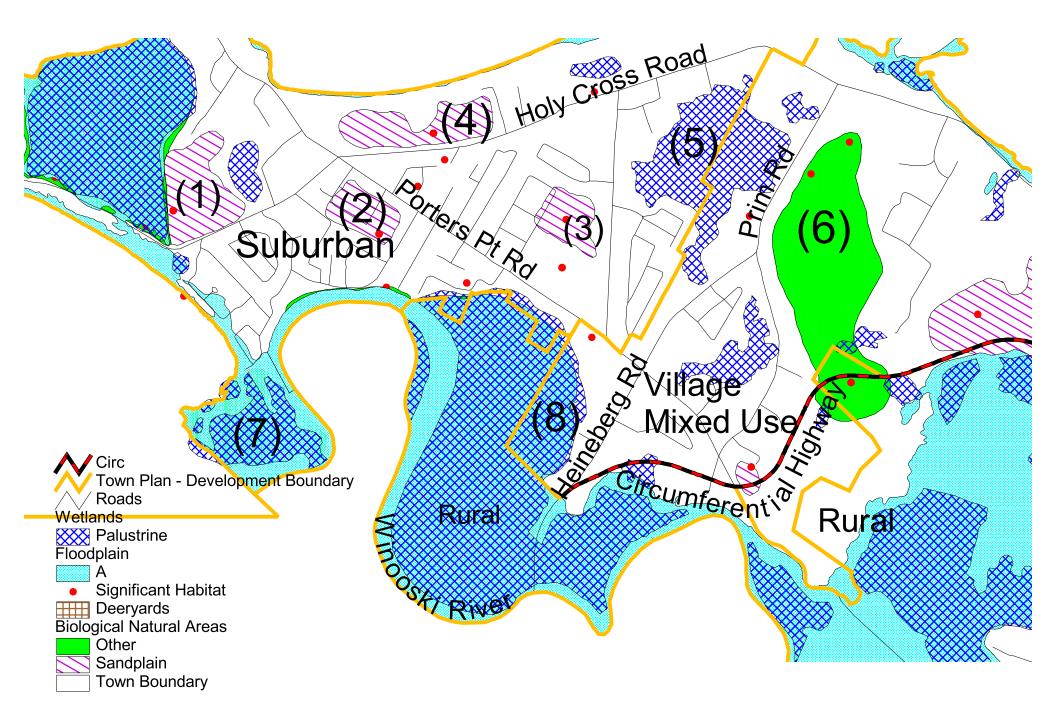






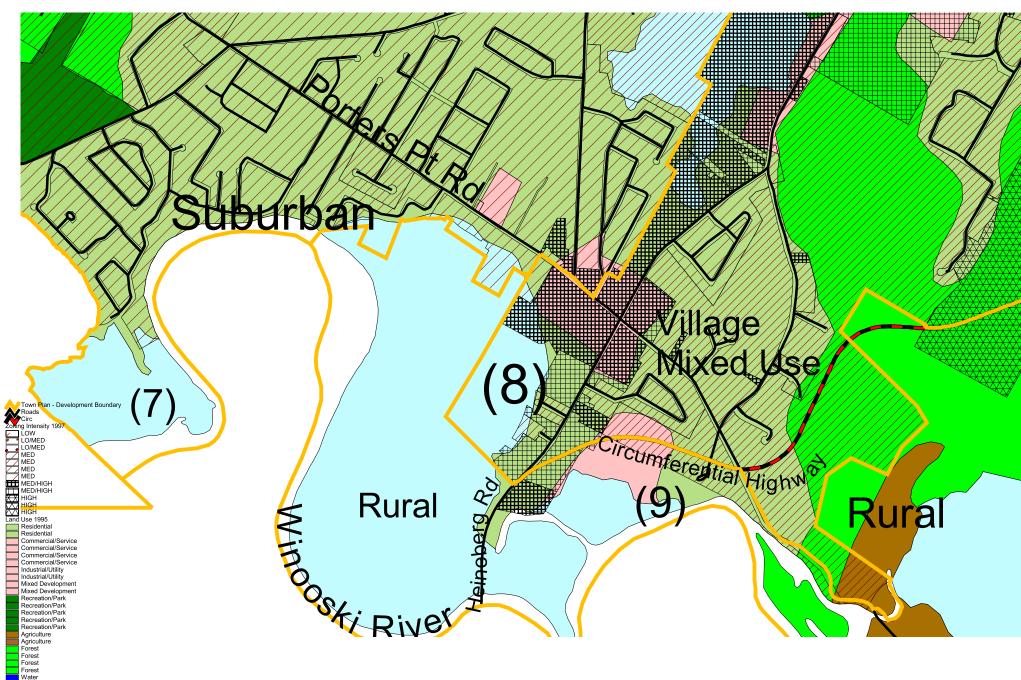
Map 5A- Heineberg Road Natural Resources

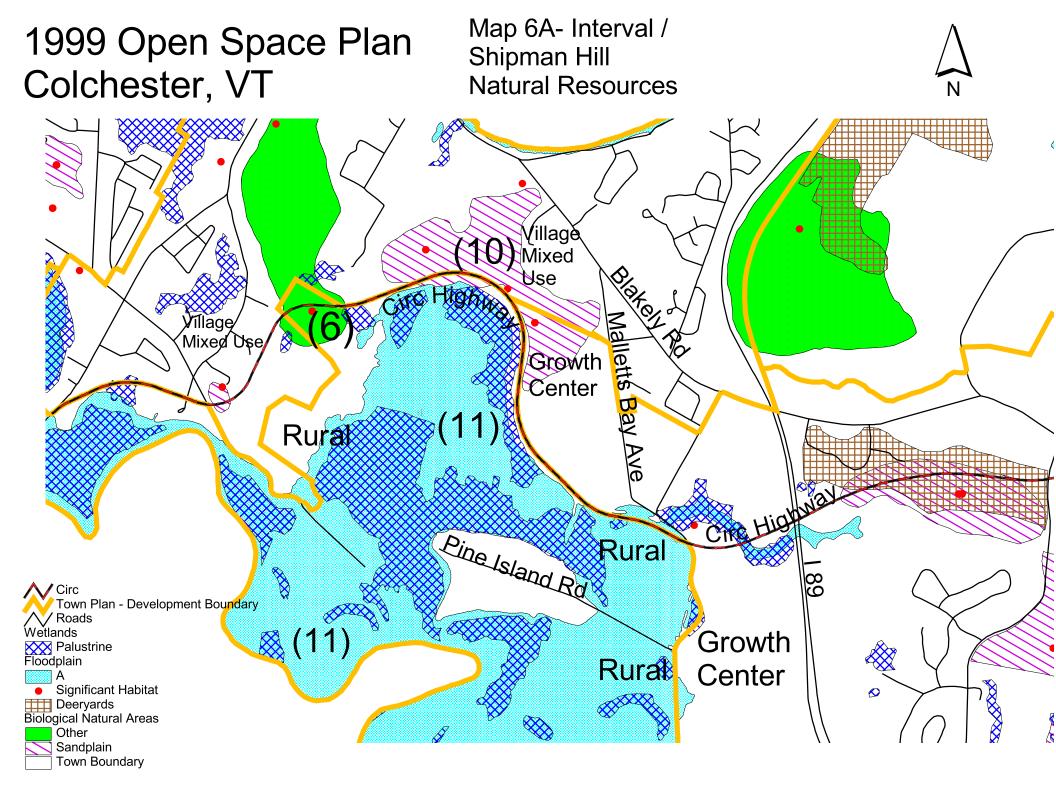




Forest Forest Water Wetland Town Boundary Map 5B- Heineberg Road Land Use and Zoning

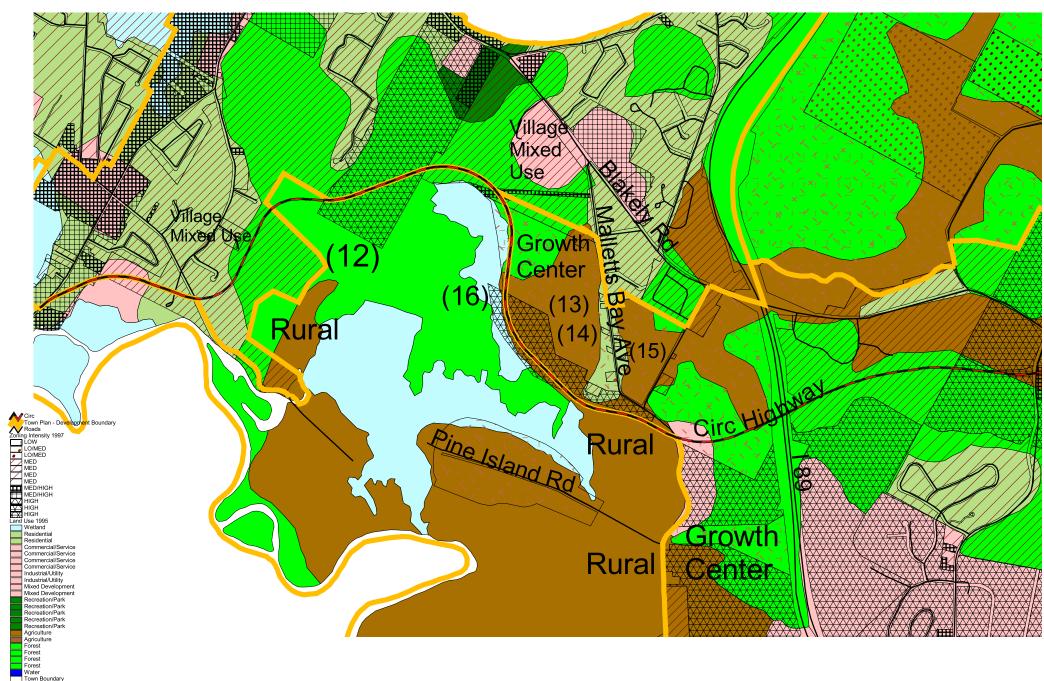
Ν

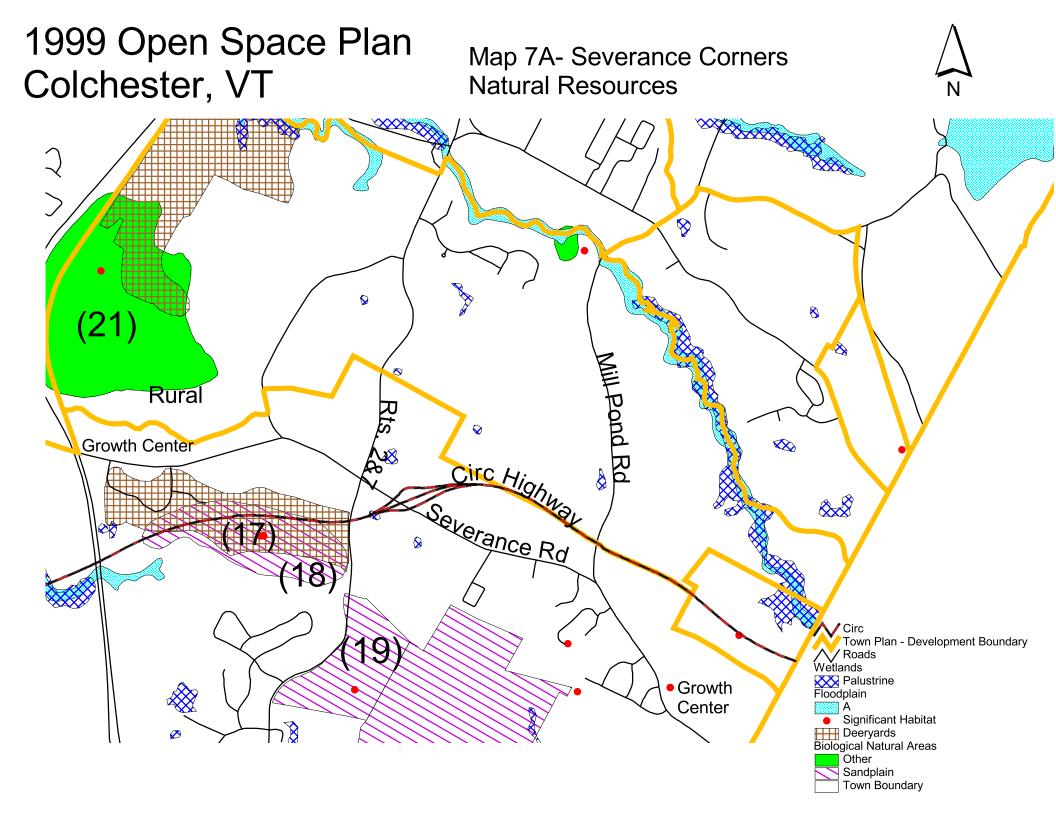




Map 6B- Interval / Shipman Hill Land Use and Zoning

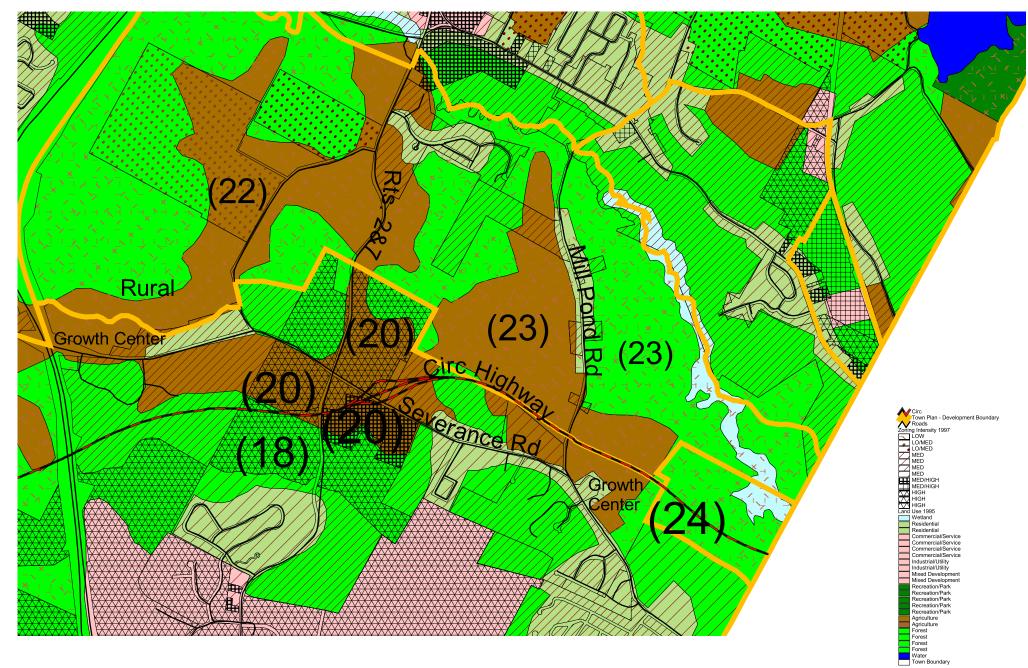


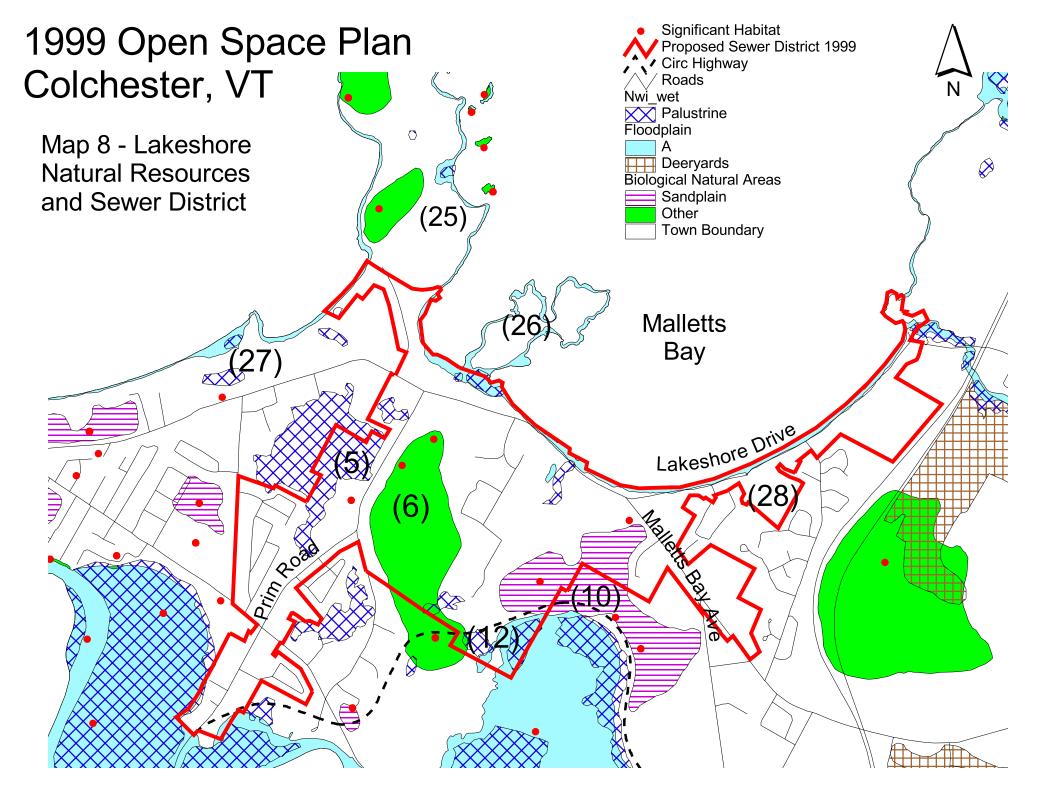


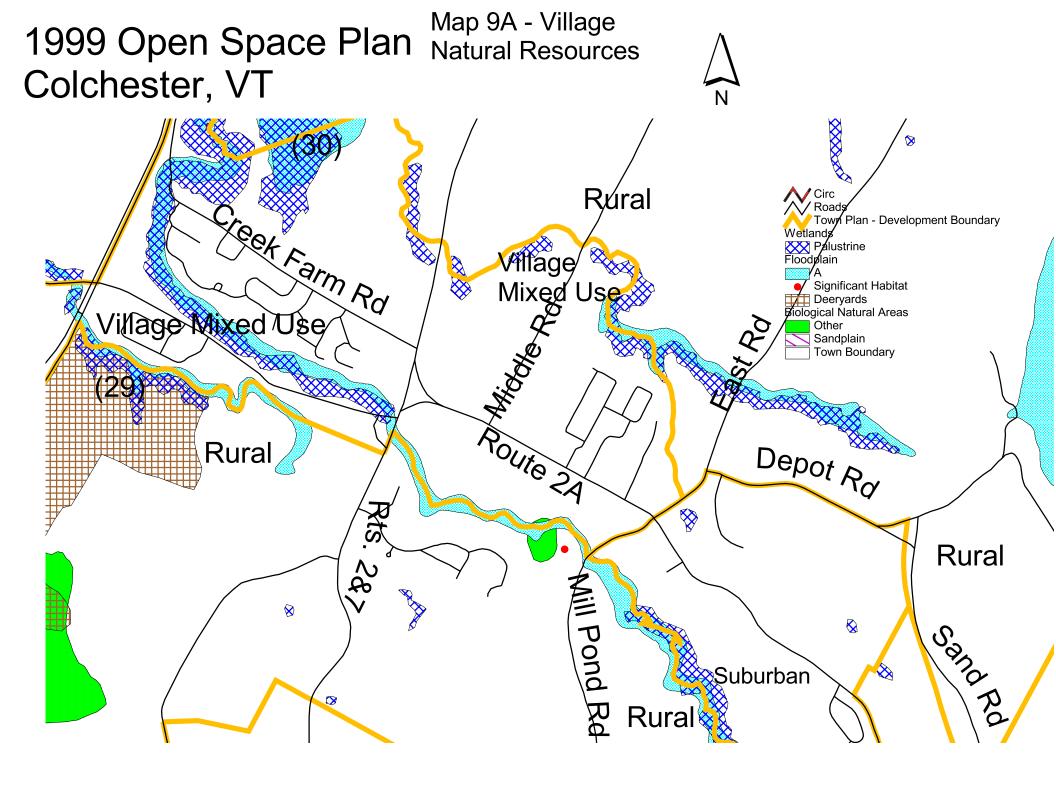


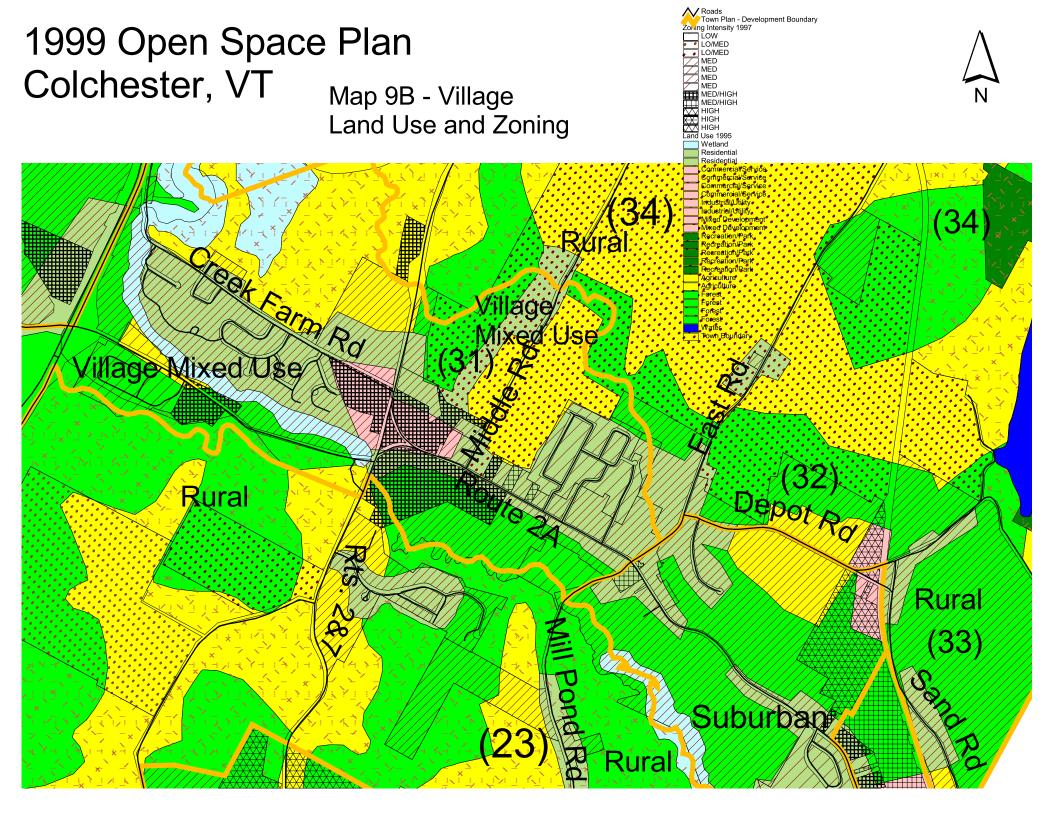
Map 7B Severance Corners Land Use and Zoning











Map 10 - Camp Johnson Natural Resources



