

# **TOWN OF LITCHFIELD**

## **AGRICULTURAL PRESERVATION PROJECT**



**FEBRUARY 25, 2004**



**PREPARED FOR THE**  
**TOWN OF LITCHFIELD, NH**



**BY THE**  
**NASHUA REGIONAL PLANNING COMMISSION**

115 Main Street – PO Box 847  
Nashua, NH 03061

[www.nashuarpc.org](http://www.nashuarpc.org)

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# TOWN OF LITCHFIELD

## AGRICULTURAL PRESERVATION PROJECT

### INTRODUCTION

The Route 3A Corridor, also known as the Charles Bancroft Highway, is the area between the Merrimack River and 1,500 feet east of the Corridor. It is the main north-south route through Litchfield, providing access to Manchester and Hudson. The agricultural land along this route is among the most fertile in New Hampshire, and defines Litchfield's landscape.



The Town of Litchfield is one of the fastest growing communities in the state. As a result, the Corridor is continually being threatened by development. The proposed Circumferential Highway would provide another bridge across the Merrimack River near the Litchfield/Hudson town line, therefore accelerating development pressure in the Corridor.

In response to this, the New Hampshire Department of Transportation (NHDOT) has provided funding for this analysis. The purpose is to assist the Town of Litchfield with the prioritization of properties or portions thereof to establish a sound conservation strategy. Given the increasing cost of real estate in the region, the analysis will evaluate the feasibility of preserving smaller portions of existing agricultural parcels and determine if development on less significant portions of parcels is compatible with the preservation of agricultural uses. In addition, the strategies for the long-term preservation and stewardship of the land's agricultural uses including options related to the purchase of development rights, identification of potential future users, and regulatory options are evaluated.

### Project Purpose and Methodology

The purpose of this project is to assist the Town of Litchfield in defining areas of conservation associated with the preservation of agricultural land. The issue is precipitated by the proposed Circumferential Highway project, which, if constructed, will result in increased development pressures for the Town. Even if the project is not constructed, most of the Corridor could eventually develop into one-acre house lots. The Town needs to be prepared to address the issue of growth and its impact on the Corridor.

This report includes the following tasks:

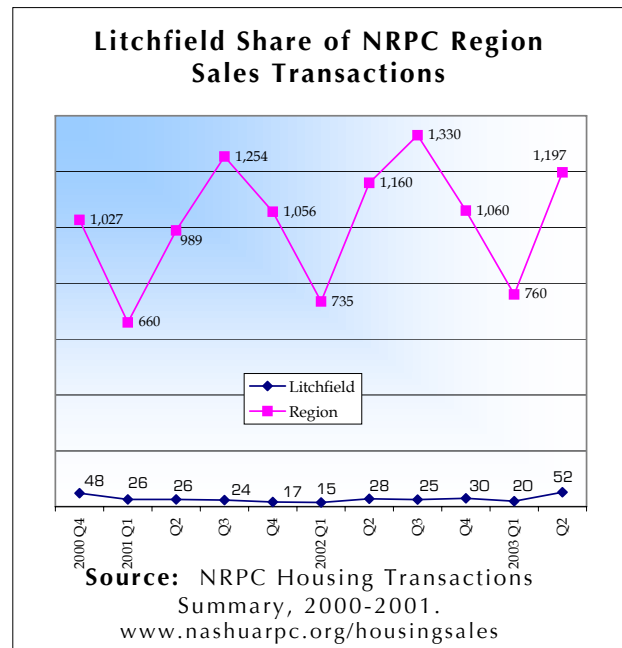
- Develop detailed maps of the Route 3A Corridor using aerial photography and detailed soils mapping.
- Produce visual analysis of Corridor documenting issues and opportunities.



- Determine locations along the Corridor that could accommodate development without compromising the landscape from a visual standpoint.
- Develop a parcel specific plan outlining essential conservation areas.
- Determine building envelopes and types of land uses that could be compatible with the goals of agricultural preservation and landscape protection.
- Produce visual materials depicting the impacts of various options explored.
- Develop implementation strategies.
- Develop a maintenance plan for preservation parcels.

The Nashua Regional Planning Commission (NRPC) met on a regular basis with members of the Litchfield “Save the Farmland” Committee, who served as the steering

committee for this project. Key parcels for agricultural preservation were identified through previous studies conducted by NRPC. These include reviews of maps depicting existing land use, water resources, soil resources, protected land and development constraints. The steering committee was used to test the importance of various parcels from a visual standpoint by using a visual analysis and photo-simulations of likely development scenarios within the Corridor. The visual analysis was used to determine which parcels are most valuable from a landscape and visual standpoint in addition to their value as agricultural land. A website was established for increased public awareness of the analysis ([www.nashuarpc.org/rte3a](http://www.nashuarpc.org/rte3a)).



## Background

The Town of Litchfield has taken great strides in preserving the unique agricultural landscape found along Route 3A. A key master-planning goal for the community has been the creation of Albuquerque Avenue, which was conceived prior to the extensive growth experienced by the Town over the past several decades. The roadway parallels Route 3A to the east and opens the interior of the Town. The road has had the effect of shifting development pressure away from the agricultural land found along Route 3A. However, as the Albuquerque Avenue Corridor experiences buildout, development pressure on the undeveloped agricultural lands will likely increase.

## Past Studies

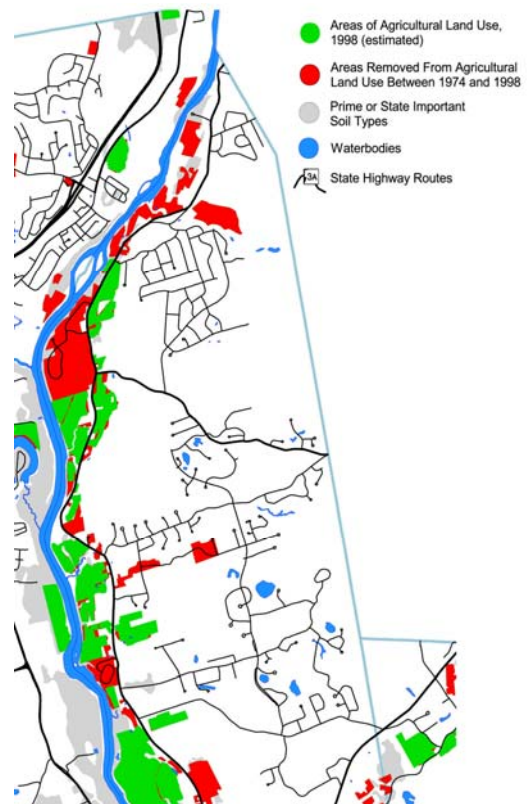
NRPC has conducted several studies in the past relative to agricultural land in both Litchfield and in the region:

- In 1997, NRPC completed a “Buildout Analysis” for the Town of Litchfield. The buildout analysis is an exercise to determine the number of new dwelling units that could be accommodated under current zoning. The analysis also estimated fiscal impacts associated with buildout. The build out analysis estimated that there were 2,258 acres of developable land town-wide, which could potentially result in the addition of 1,806 new housing units.



- In 1999, NRPC conducted a “Land Evaluation and Site Assessment” (LESA) with a group of farmers, elected officials, planning board and conservation commission members, budget committee members and residents. The LESA system, which was developed by the Natural Resources Conservation Service, is designed to determine the quality of land for agricultural uses, and to assess sites or land areas for their agricultural economic viability. A total of 34 parcels were evaluated, scored and ranked.
- In 2000, NRPC completed “Fifty Years of Growth: Analysis of the Impacts on the Nashua Region” a study that tracked population growth by community in the region over the past 50 years. That study demonstrated that the region is one of the fastest growing in the state, with a 276% increase in population between 1950 and 2000. The Town of Litchfield was among the fastest growing communities within the region, increasing in population from 427 in 1950 to 7,360 in 2000, a 1,624% change.
- In 2002, NRPC conducted a study that tracked changes in agricultural land use for the region. The study compared agricultural lands as determined through aerial photographs for the years 1974 and 1998. The study demonstrated that loss of agricultural land is indeed a problem for all communities in the region, with a total of 4,356 acres lost (33.9% decline) region wide between these two dates. The Town of Litchfield lost a total of 523 acres during this time, a decrease of 45%. Map 1 illustrates a comparison of agricultural lands between the two time periods.
- In addition, in 1993, NHDOT completed a Draft Environmental Impact Statement (DEIS) for the Circumferential Highway, which provided extensive analysis of southern Litchfield.

**Map 1: Change in Agricultural Land Uses in Litchfield, NH  
1974 – 1998**



Source: NRPC, 2002.

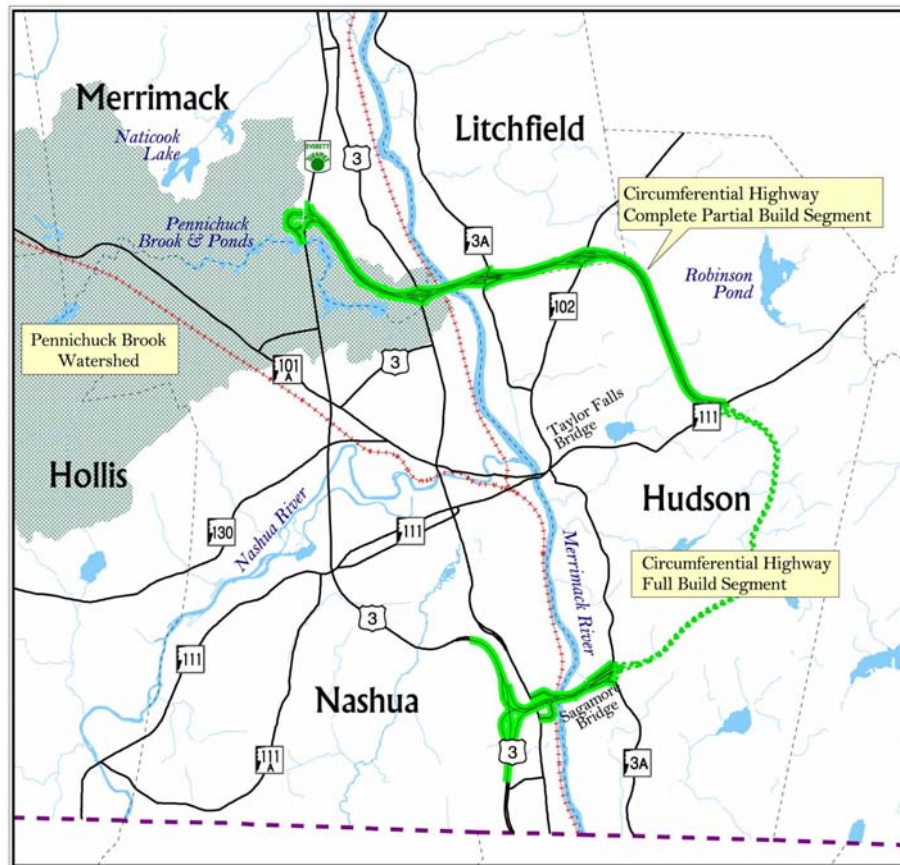
## Circumferential Highway

The Circumferential Highway project, as originally conceived in the late 1950s, was proposed to begin at the new Exit 2 in Nashua making a full loop north-eastward to Route 111 in Hudson (“Southern Segment”), then north-westward to a new Exit 9 in Merrimack (“Northern Segment”) (see Map 2). In 1982, an alternatives analysis was prepared that evaluated various alignments and was the precursor to the Environmental Impact Statement (EIS). In 1993, an EIS was prepared for the full-build. The process was not completed because the US Environmental Protection Agency (EPA) filed an “intent to veto” because of concerns about impacts to wetlands, wildlife habitat and secondary development in the Southern Segment. As a result of discussions between State officials, then Governor Merrill, the EPA and NHDOT decided to proceed with a “Partial Build” that included two segments: 1) Exit 2, which has since been constructed; and 2) the



Northern Segment. NHDOT is currently in the process of releasing the Supplementary Environmental Impact Statement (SEIS) for the Northern Segment. This would be a four lane, divided highway beginning at Route 111 in Hudson and traversing north-west to a new bridge crossing at the Litchfield-Hudson Town Line and then proceeding to a new Exit 9 on the FE Everett Turnpike in Merrimack.

**Map 2: Proposed Alignment of the Nashua-Hudson Circumferential Highway**



Source: NRPC, 2003.

The project has been subject to several major setbacks, including its removal from the State's Ten Year Transportation Plan, extensive delays in the environmental review process, a lack of an identified funding source, and intense opposition from citizens and environmental groups.

### LESA Analysis

As stated previously, in 1999, NRPC conducted a "Land Evaluation and Site Assessment" (LESA) with a group of farmers, elected officials, planning board and conservation commission members, budget committee members and residents. The assessment process evaluated agricultural lands based on soils and ability to produce agriculture, and also the social factors associated with the likely continuation of agricultural uses. Early in the process, the advisory committee decided to focus their efforts on preserving active agricultural properties. Based on this decision, 34 individual parcels of land were identified and evaluated using the LESA system. These parcels are shown on Map 3. The





parcels total 1,088 acres and range in size from 5.5 to 106.2 acres. The results of the analysis were used to determine the most valuable agricultural lands in this current assessment. A detailed list of each parcel can be found in Table 1.

Each soil unit has an assigned "SPI" or Soil Potential Index. The higher the SPI the better the soil is for agricultural production. NRPC's geographic information system (GIS) was used to calculate the area of each soil unit by parcel. The area figures were then multiplied by the SPI for each specific soil type. An average SPI was determined for each parcel by totaling the SPI area figures and dividing the total area of the parcel. The maximum number of SPI points possible for a parcel is 100. Generally, properties with an SPI of 70 or higher are considered having important agricultural soils. 24 of the 34 parcels evaluated had an SPI greater than 70 (see Map 4).

The LESA analysis also included a site assessment that used a set of questions to evaluate non-soil factors such as surrounding land uses, size of parcel, economic factors, development threats, etc. to assess the agricultural viability/retention of the parcel for agricultural purposes. The site assessment compares the economic and social characteristics of different parcels by attaching numerical values to the results of the questions. The maximum number of points a parcel could receive in the site assessment was 250. Map 5 depicts the results of the survey. Fifteen parcels fell within the two highest categories with four parcels in the highest.

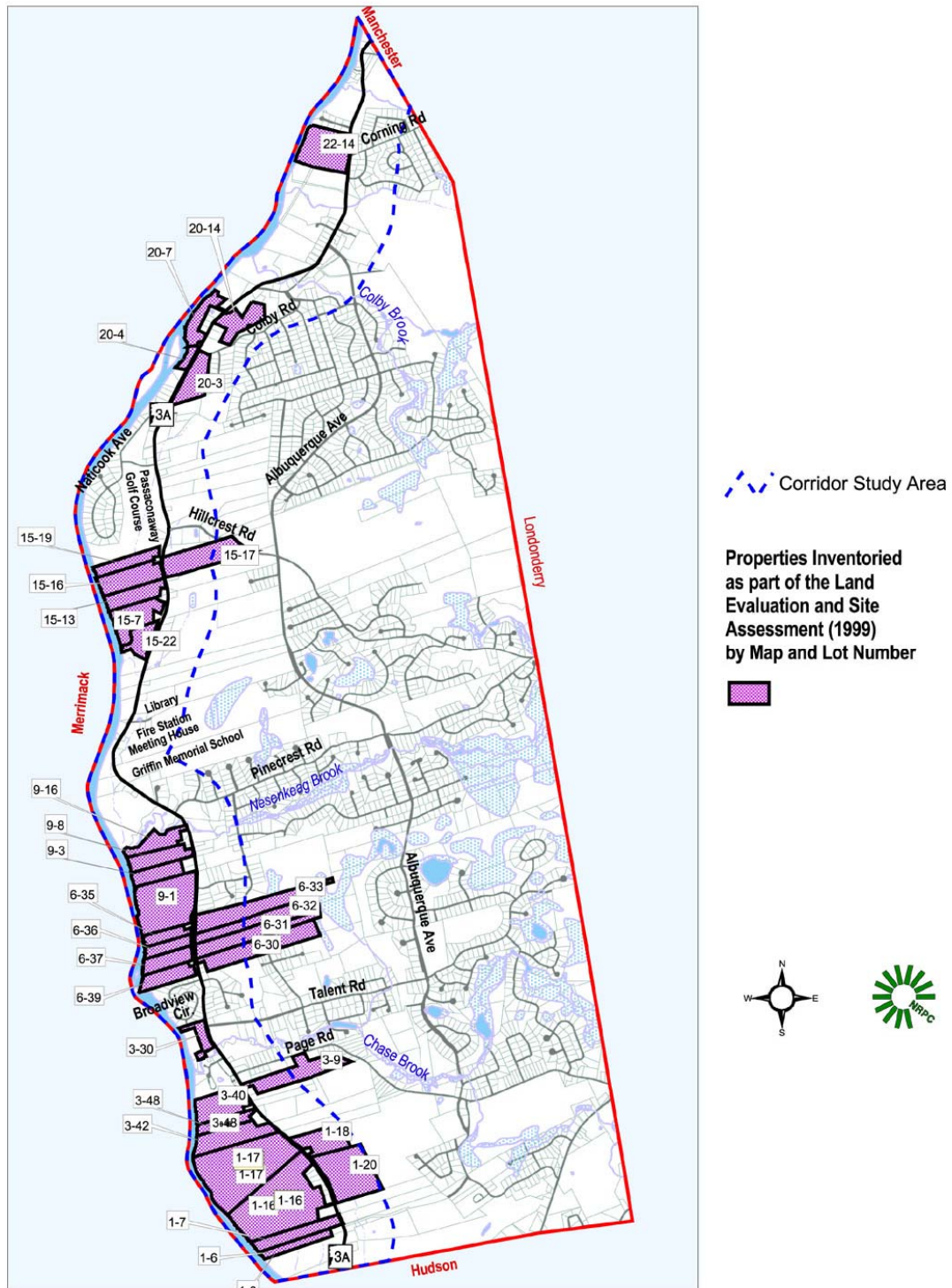
The combined results of the land evaluation and the site assessment are displayed on Map 6. As with the site assessment, 15 of the parcels fall within the two highest categories with three parcels in the highest. The majority of the highest ranking parcels are located between NH Route 3A and the Merrimack River. Table 1 shows the results of the inventory, ranked by the top scoring parcels.



**The Wilson Farm, with agricultural products out for summer sales.  
Just one of the scenic treasures along the Route 3A Corridor.**



### Map 3: LESA Study Sites



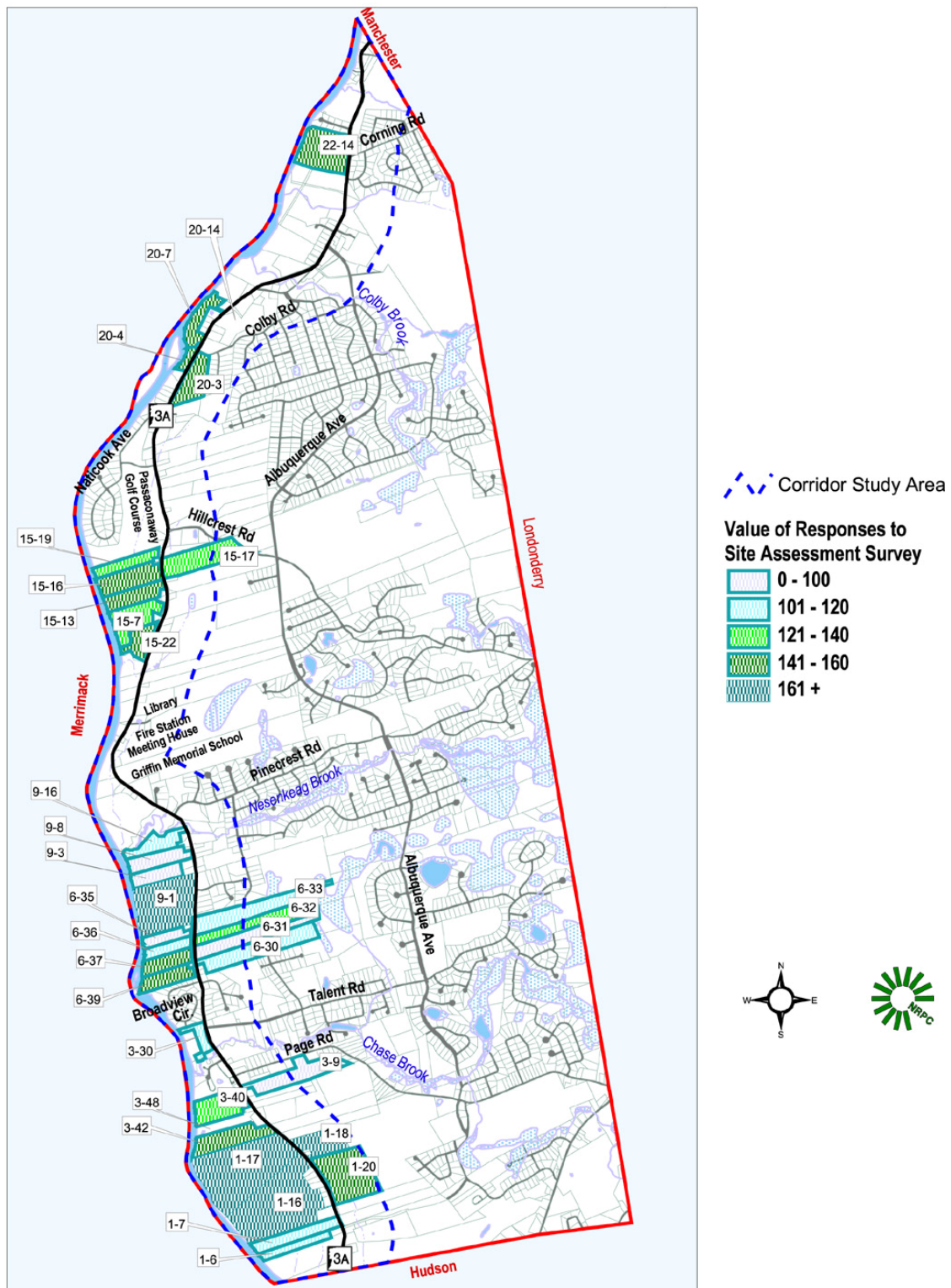


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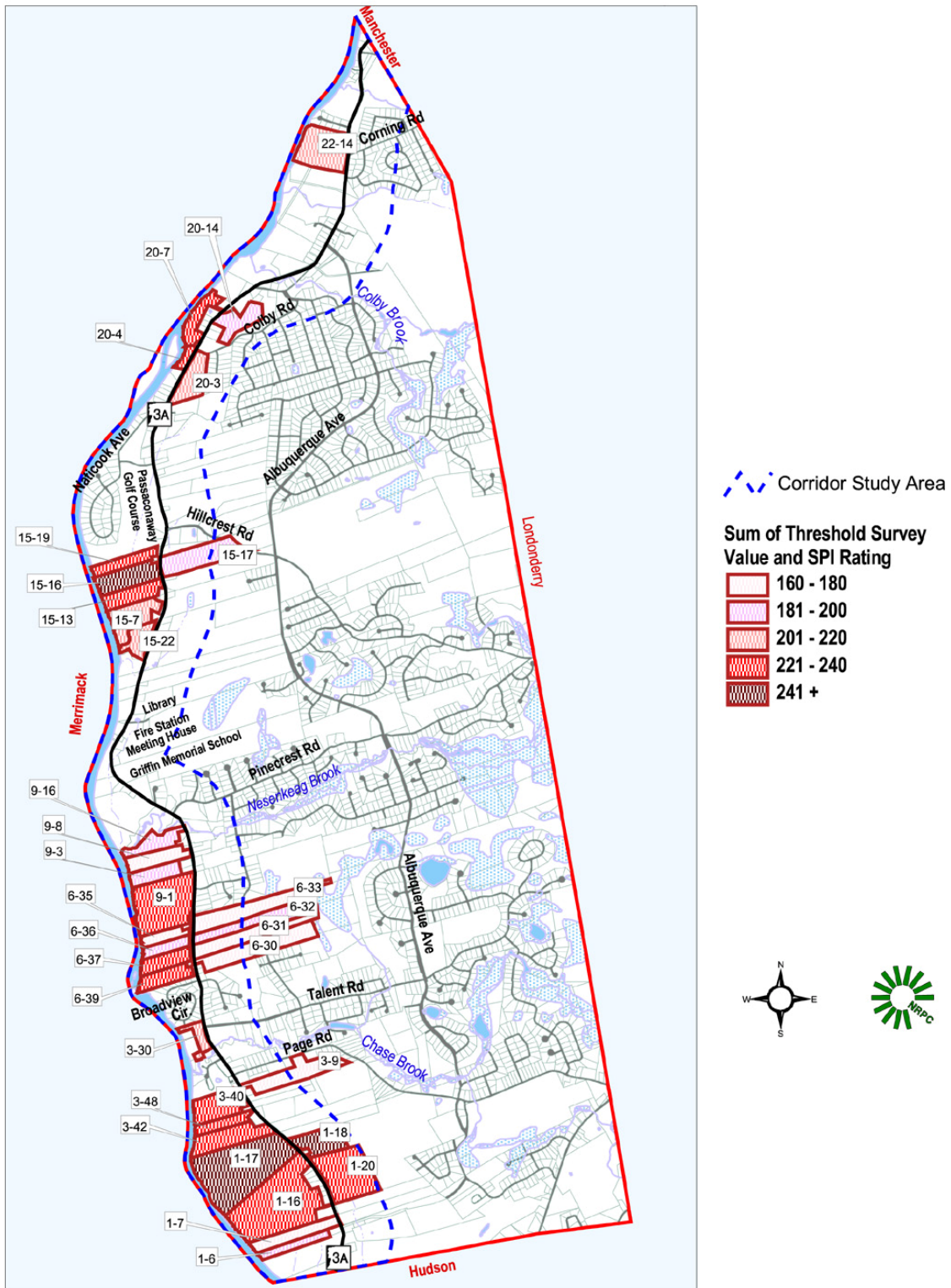
## Map 5: Site Assessment Survey



Source: NRPC, updated 2003.



Map 6: Combined SPI and Site Assessment Rating



Source: NRPC, updated 2003.



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**Table 1: LESA Results (compiled in 1999)**

Litchfield Tax Map & Lot #	Property Acreage	Zoning District	Total Value of Site Assessment Question Responses	Average Soil Potentia l Index (SPI) Value	Sum of SPI & Site Assessment Response Values
1-17	106.2	C (SW)	190	88	278
1-18	26.4	C/I (S)	180	72	252
15-16	31.6	R	160	91	251
1-16	98.0	C (SW)	175	64	239
9-1	60.1	R	165	73	238
20-7	18.9	C (N)	155	81	236
15-19	16.3	R	140	96	236
15-13	16.1	R	145	89	234
6-39	20.3	R	145	88	233
1-20	52.3	C/I (S)	160	72	232
20-4	5.5	R	145	85	230
6-37	19.2	R	145	84	229
3-42	31.8	R	145	79	224
3-40	27.9	R	130	94	224
3-48	15.0	R	135	88	223
15-22	13.6	R	145	65	210
15-7	27.3	R	130	79	209
22-14	39.7	R	155	52	207
20-3	24.3	R	145	62	207
3-30	11.9	R	120	84	204
9-16	23.9	R	120	80	200
6-36	13.2	R	120	78	198
20-14	22.2	C (N)	135	58	193
6-32	40.6	R	125	68	193
1-6	13.5	C (SW)	110	75	185
15-17	75.0	R	130	52	182
9-3	16.2	R	100	81	181
6-30	47.8	R	110	70	180
6-33	39.5	R	120	57	177
1-7	23.1	C (SW)	105	70	175
6-35	13.1	R	100	74	174
9-8	20.7	R	100	71	171
6-31	42.3	R	95	72	167
3-9	35.0	R (S)	95	65	160

**Note:** R = Residential; C (SW) = Southwestern Commercial (Rte. 3A),  
C/I (S) = Commercial Industrial (South); T (S) = Transitional South

**Source:** NRPC, 1999.



## EXISTING CONDITIONS

### Zoning

The Route 3A Corridor contains four separate zoning districts: commercial, industrial, transitional and residential, as displayed on Map 7.

The residential zone generally allows for single-family homes on one-acre (1) lots. The zone also allows duplexes on 1.5 acres; farming and related agricultural uses; sand and gravel excavations; home occupations; and fences and utility structures less than 200 square feet.

The remaining non-residential zones permit the following uses, as indicated in Table 2.

**Table 2: Permitted and Special Exception Commercial Uses**

Type of Land Use	Commercial	Transitional	Comm/ Indust. Service
Bank & branch of financial service institutions	X		
Establishments offering goods for sale (retail)	X		
Restaurants (excluding drive-in)	X		X
Professional Office	X	X	X
Health care	X		
Personal services	X		
Hotels/motels	X		
Indoor theatres	X		
Recreational facilities and membership clubs	X	X	
Schools, nurseries and day care	X	X	
Funeral homes	X		
Research and testing labs	X		X
Agriculture	X	X	X
Gasoline sales	X		By Special Exception
Auto service and repair	By Special Exception		By Special Exception
Take-out/drive-in food	By Special Exception		By Special Exception
Retail sales of motor vehicles, supplies, equipment	By Special Exception		By Special Exception
Warehousing	X		X
Pre-manufactured equip. assembly, test, & repair			X
Wholesale			X
Computer services			X
Transportation Terminals			X
Excavation, mining and processing			X
Adult Entertainment <sup>1</sup>			X
Independent Living/Older Persons Housing	X	X	

**Source:** Litchfield Master Plan, 2002, pages 8-13.

The Town of Litchfield's Zoning Ordinance, Subdivision and Site Plan Review Regulations do not currently permit "clustering" of single-family residential and duplex dwelling units. The authority to review subdivisions provides some control of lot configuration, buffers, easements and land use restrictions based on endangered species

<sup>1</sup>In March 2000 voters approved division of the Commercial/Industrial Service District into two separate zones: 1) Northern Commercial/Industrial Service, and 2) Southern Commercial/Industrial Service. Adult entertainment is only permissible in the Northern Commercial/Industrial Service district.



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habitat, preservation of natural and historic features and public utilities availability. Site Plan Review has greater control over site development in areas such as compatibility of building design, traffic circulation and parking, buffers and landscaping, signs and typical site health and safety issues.

Litchfield does permit Housing for Older Persons, exclusively for occupants fifty-five (55) years of age and older, within all zones in the Route 3A Corridor. Clustering of units is permitted based on a density of dwelling units derived from a minimum parcel size and contiguous dry land requirement. Current zoning permits a density of one-half (0.50) acre, but with half of the land required in open space, the actual buildable area yields one-quarter (0.25) acre density of dwelling units.

A proposed amendment of the Older Persons ordinance for 2004 would remove the Southwestern Commercial and Northern Commercial Districts from the Housing for Older Persons Overlay District. A sizable portion of these districts includes farmland. The intent is to remove immediate non-commercial development pressure from these districts. This preserves commercial land for the future and has an added benefit of slowing the loss of farmland until the necessary infrastructure attracts commercial uses. Two Older Persons developments have been approved and another is under consideration in the Route 3A Corridor under existing zoning standards.

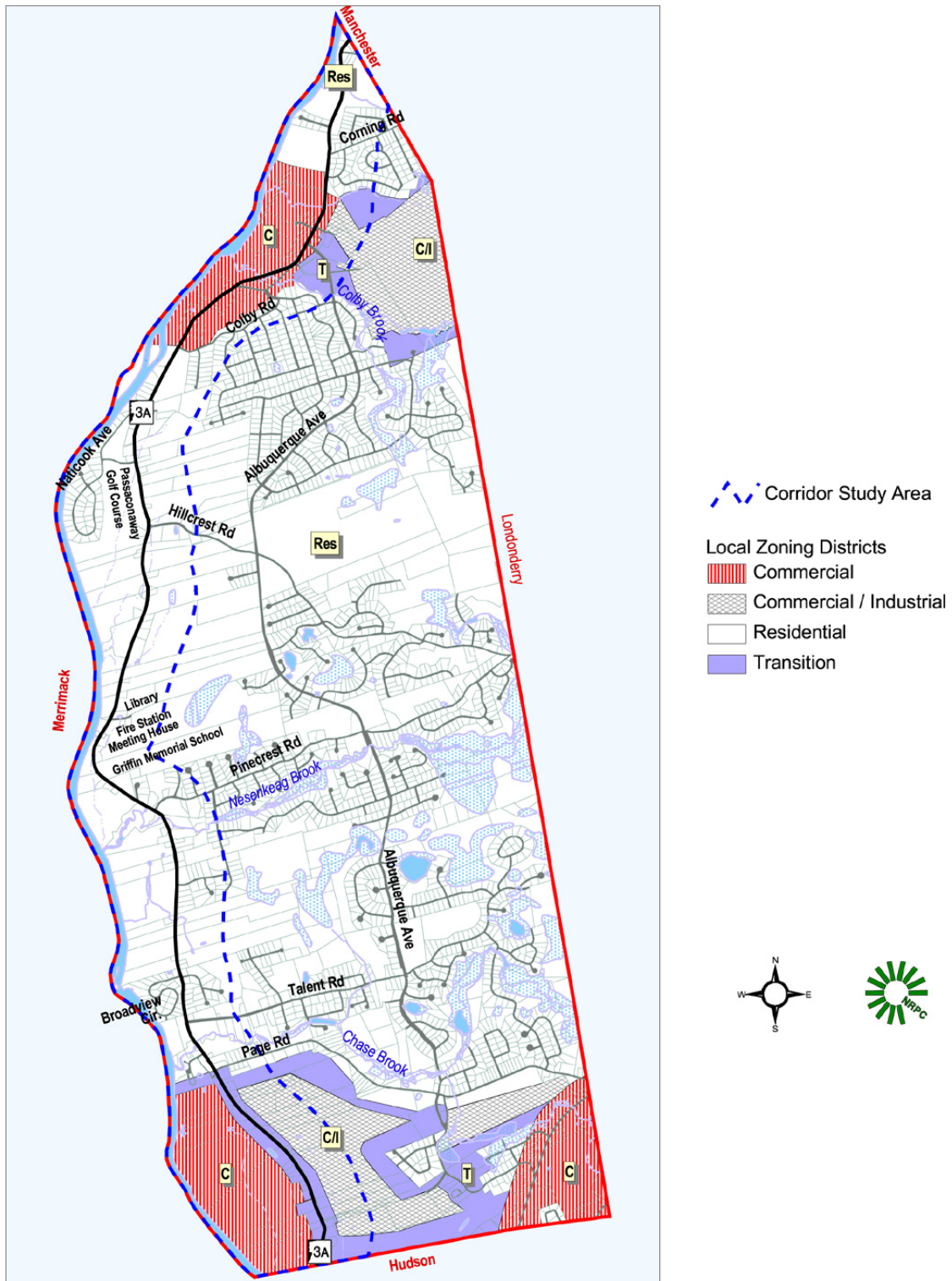
Other current zoning restrictions within the study area that directly relate to the study area are; no building within the Floodplain Conservation District; wetlands and vernal pool setbacks under the Wetlands Conservation District; use and storage restrictions, with a farming exemption, under the Aquifer Protection District and setbacks from the Merrimack River up to two hundred fifty (250) feet under the NH Comprehensive Shoreland Protection Act. (See Map 8.)

Other zoning amendments being considered for 2004 that may affect this study Corridor are: requiring 120 feet perimeter buffer in addition to a twenty feet building setback, for a total of 150 feet buffer on either side of the Route 3A Corridor for all Older Persons Development; Conditional Use Permits to possibly better manage the Aquifer Protection Ordinance and in 2005, in coordination with plan review; wetlands mitigation standards; updating the Wetlands Conservation District ordinance; and a possible local shoreland protection ordinance or regulation.



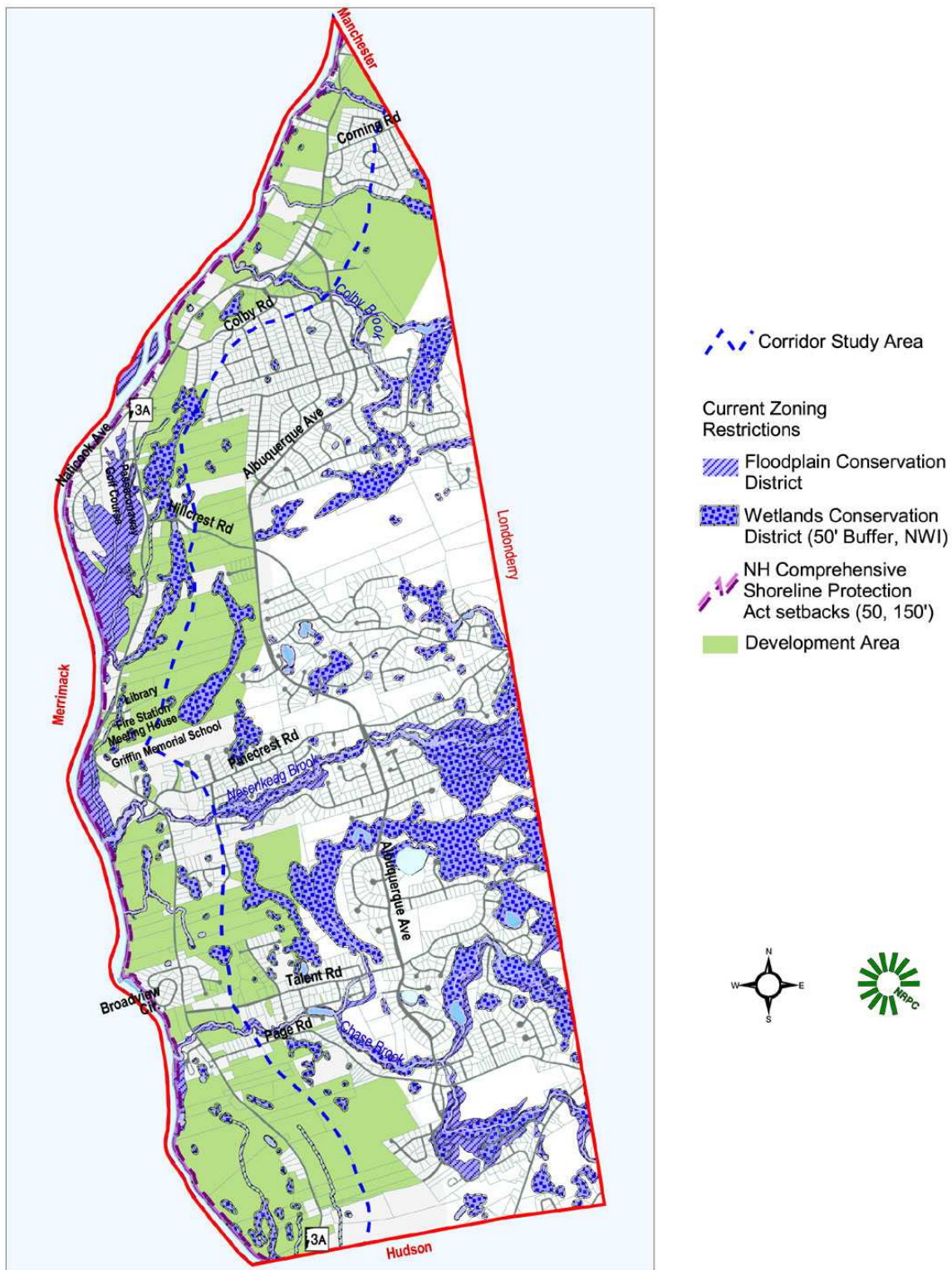


## Map 7: Zoning Districts





## Map 8: Current Zoning Restrictions



Source: NRPC, 2003.





## Generalized Land Use

The Route 3A Corridor in Litchfield consists primarily of agricultural land, single-family residences and recreational land. Of the 3,163 acres of land within the Corridor, 938.9 acres (26.4%) are part of a parcel that is in whole or partly used for agriculture. A total of 653.2 acres (18.4%) contain a single-family house lot. A total of 926.6 acres (26%) are currently vacant. Map 9 and Table 3 show generalized land uses within the Route 3A Corridor in Litchfield.

**Table 3: Acres of Generalized Land Use**

Land Use	Acres	Percent of Total
Agriculture	938.9	26.4%
Commercial	17.6	0.5%
Industrial	9.7	0.3%
Municipal	85.3	2.4%
Open Space/Protected	134.4	3.8%
Private Recreation	118.6	3.3%
Roads	122.7	3.4%
Single Family Residential	653.2	18.4%
Multi-Family Residential	46.0	1.3%
Water	464.1	13.0%
Vacant	926.6	26.0%
Circ. Hwy. ROW	40.1	1.1%
<b>Total</b>	<b>3,557.2</b>	<b>100.0%</b>

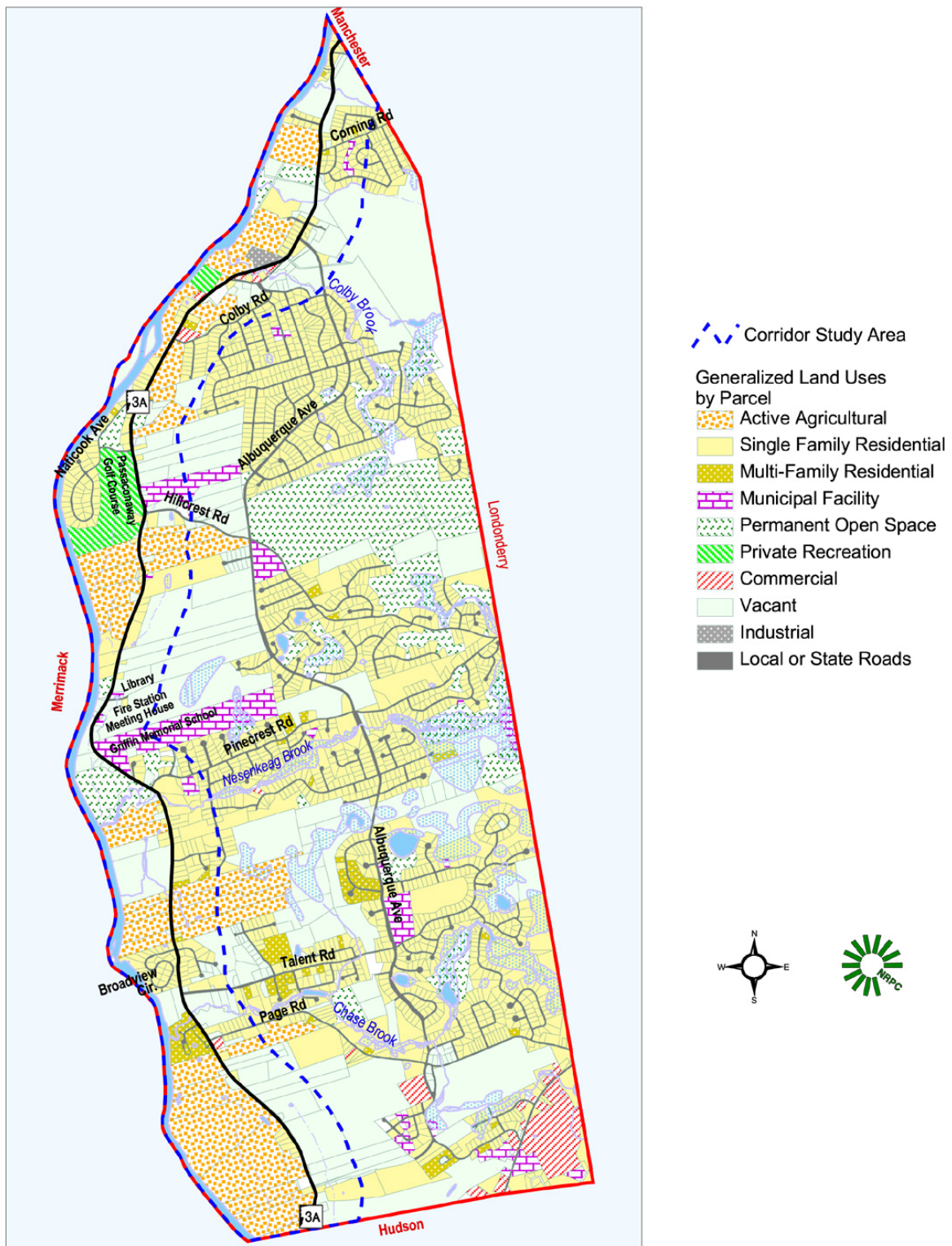
Source: NRPC GIS, 2003.



Stone wall along the Route 3A Corridor between Pinecrest and Talent Roads.



## Map 9: Generalized Land Use



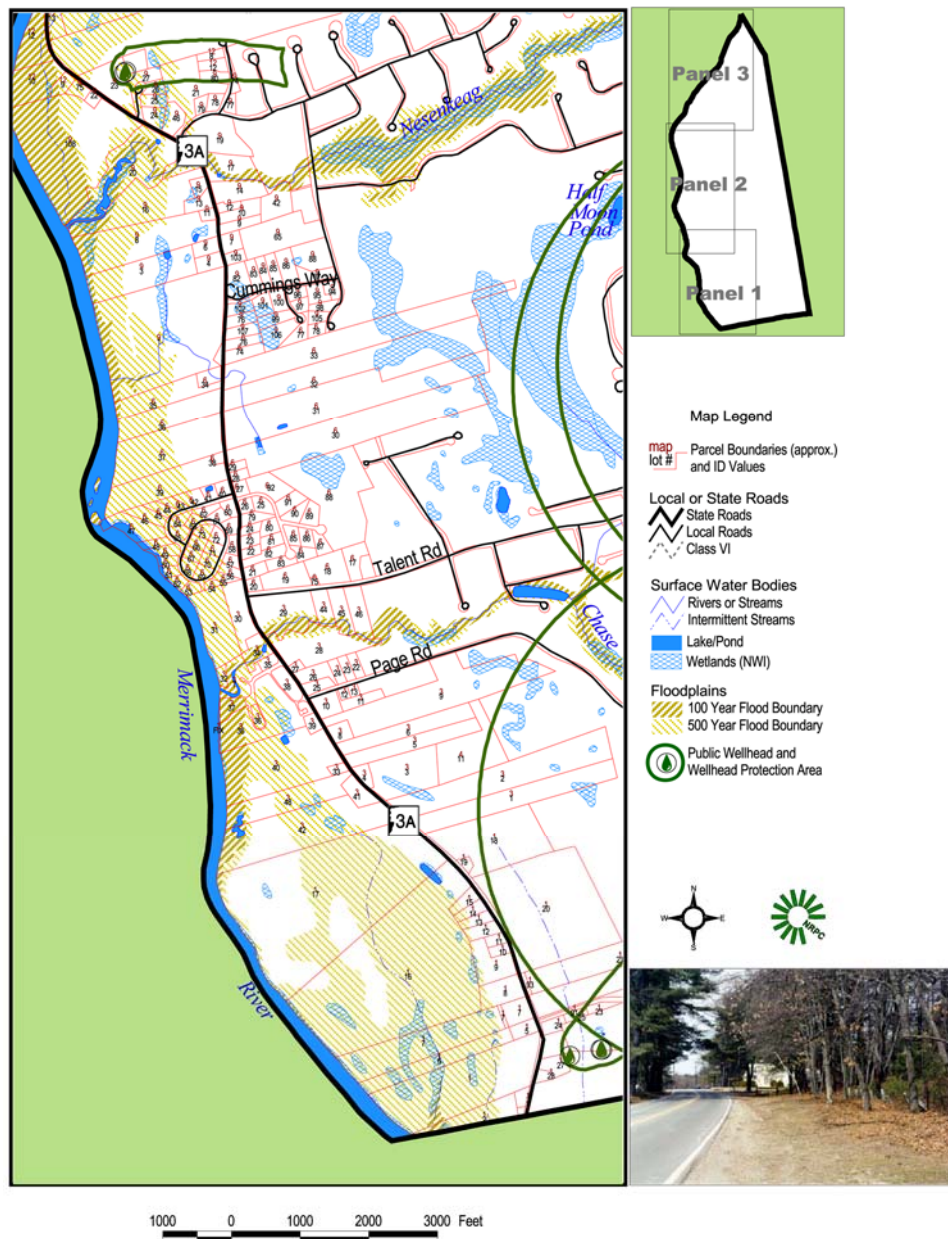
Source: NRPC, updated 2003.



## Water Resources

Water resources were also evaluated, including floodplains. Floodplains are generally considered undevelopable, but may still be used for agricultural purposes. Wetlands are considered to be development constraints. Maps 10A-C illustrate the extent of floodplains and wetlands in the Route 3A Corridor. There are roughly 1,384 acres of floodplains in the Corridor, 393.8 acres of wetlands and 628 acres of wetland soil types.

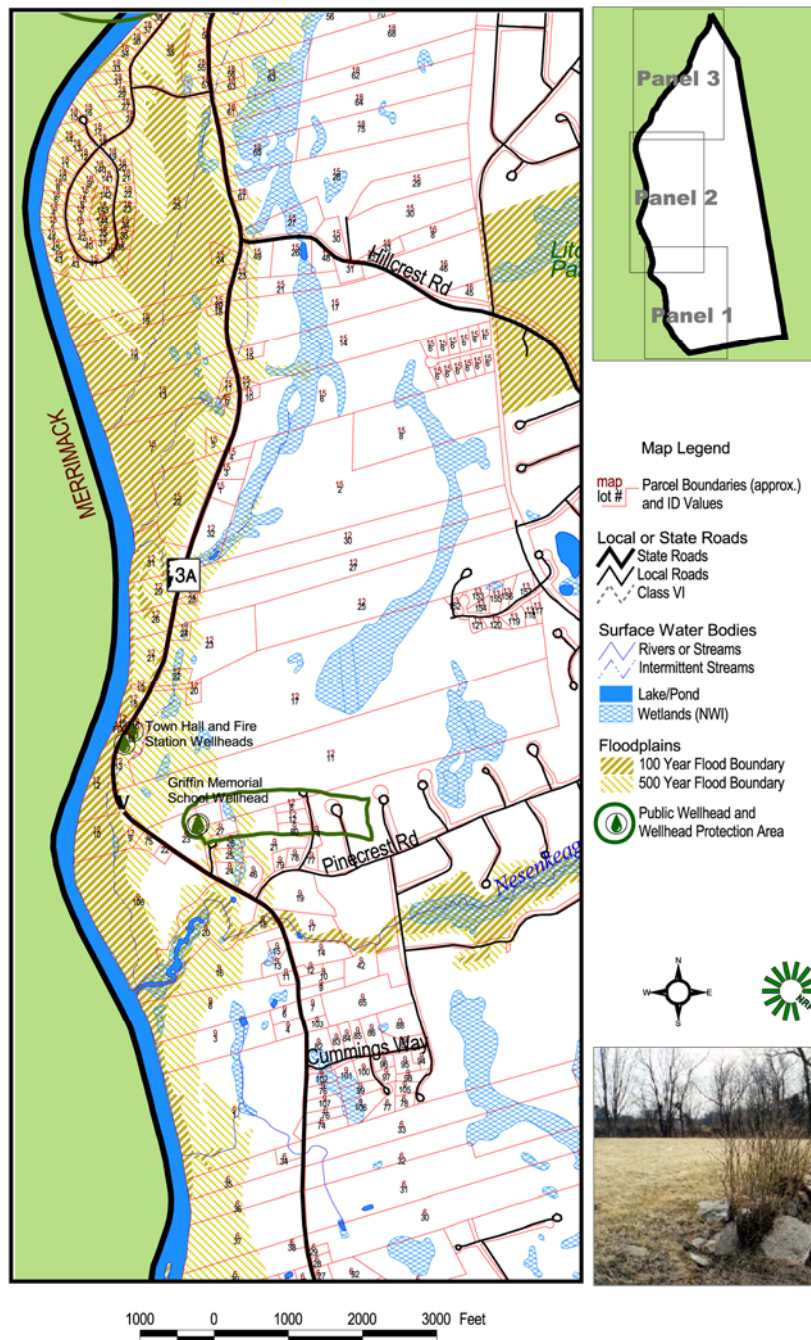
**Map 10A: Water Resources**







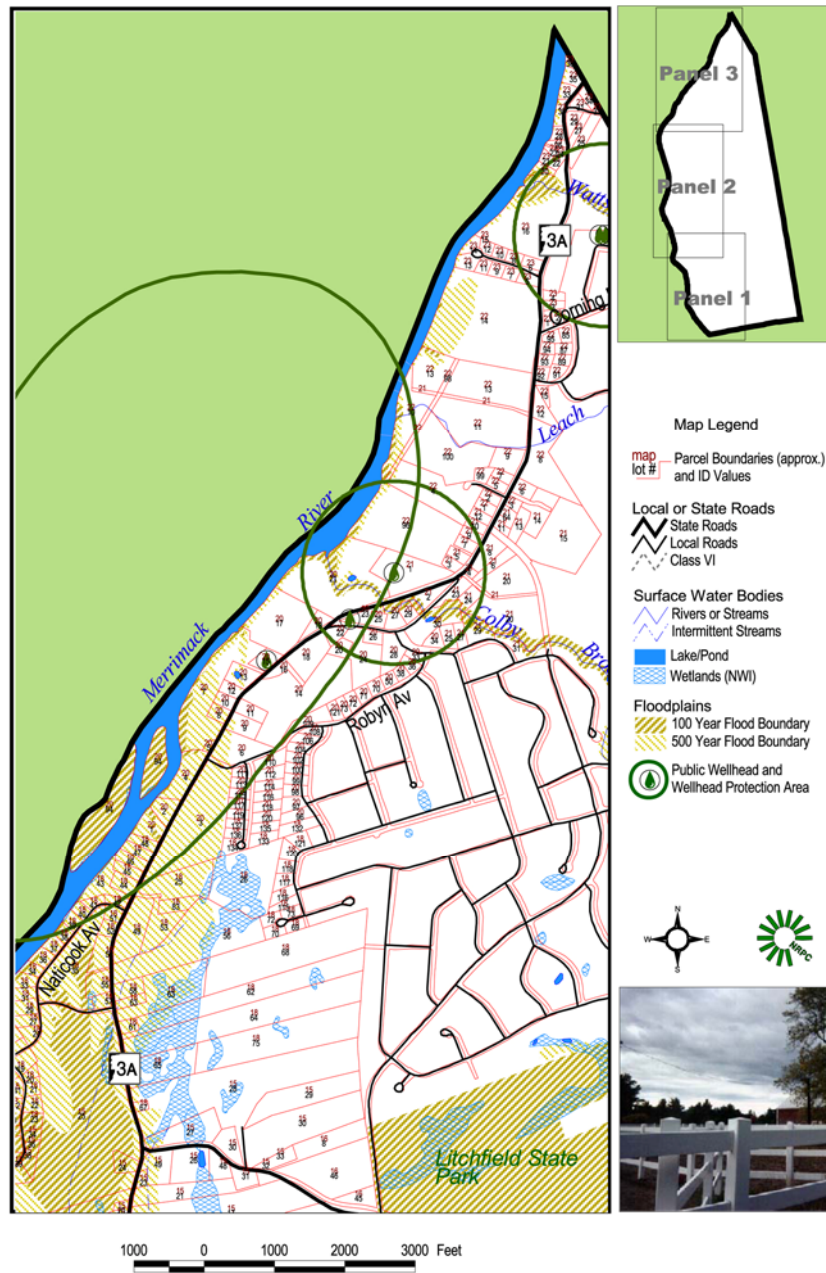
## Map 10B: Water Resources



Source: NRPC, updated 2003.



## Map 10C: Water Resources



**Source:** NRPC, updated 2003.



## Soil Resources

Similarly, soil resources were mapped as depicted on Maps 11A-C. There are a total of 639 acres of land within the Corridor that are being used for active agricultural purposes. Lands that contain farm soils accounted for 4,269 acres, and lands with farm soils of agricultural importance constituted 868 acres. Farmlands in general occur throughout the Corridor, but those with prime importance generally are found near the Merrimack River, on the west side of Route 3A.

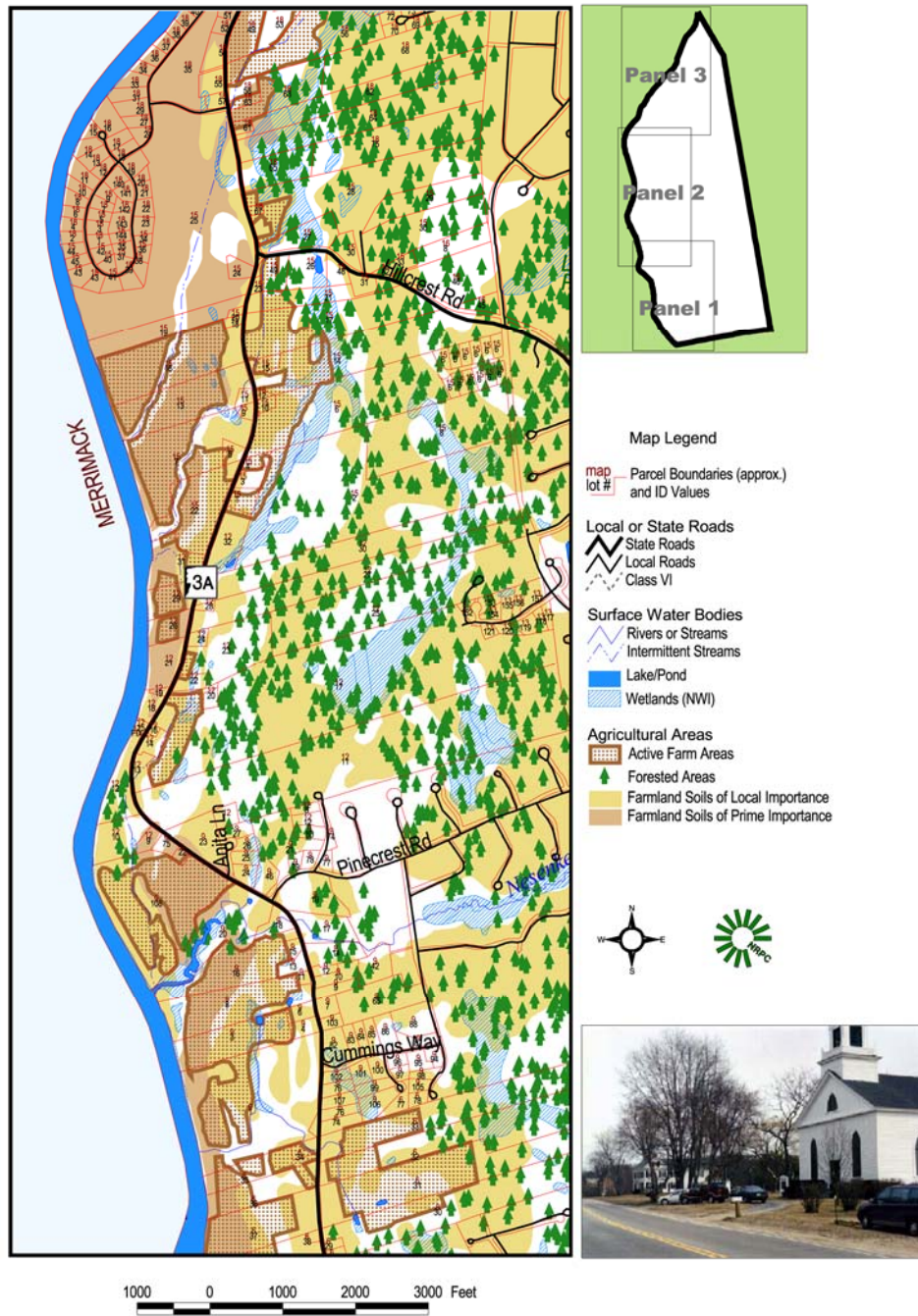
**Map 11A: Soil Resources**







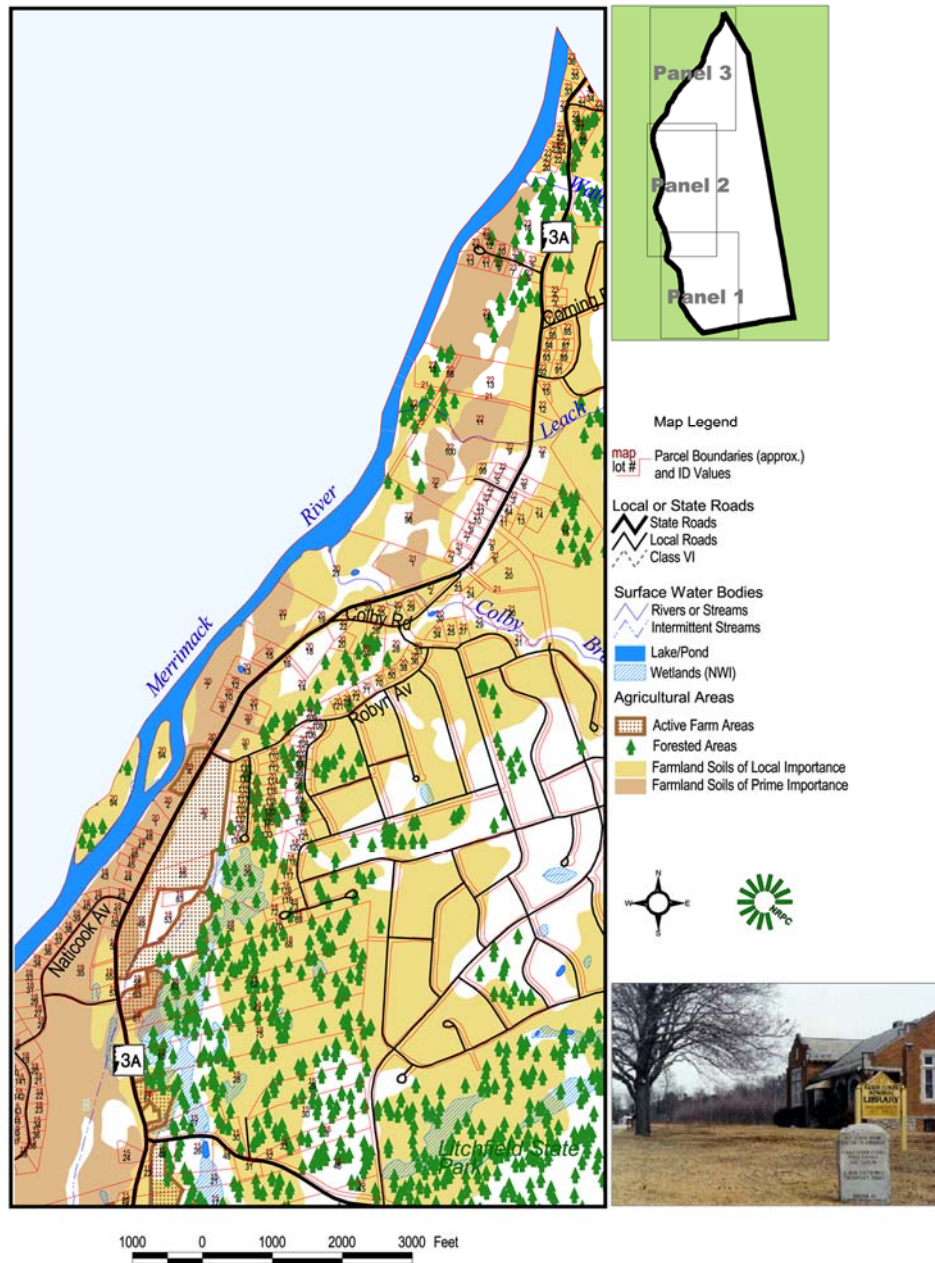
## Map 11B: Soil Resources







## Map 11C: Soil Resources





## BUILDOUT ANALYSIS

A buildout analysis was conducted to determine the development potential within the various zoning districts of the Corridor. The results estimate the amount of development likely to occur under current zoning.

Tables 5A-B (below) depict the total amount of land available for development by zoning designation, including agricultural land not in preservation. The buildout removes areas of physical or legal development constraints (areas of steep slope, conservation land, wetland soils, wetland buffers or 100-year floodplain) in the study area, yielding a developable land area. Ten percent is then taken out to account for roads and infrastructure. The result is divided by 1 acre, the minimum lot size in Litchfield. This provides an estimate of the number of potential new lots by zone. Throughout the Corridor, a total of 780 lots could be created, of which 341 would be in the residential zone. All lots, including those in active agriculture, were included in the analysis. Map 11 illustrates of where buildout might occur within the Corridor.

**Table 4A: Buildout Potential of Vacant Lands in the Study Area**

Zoning District	Total Vacant Land	Developable Land Area		Min. Lot Size	# of Pot. New Lots
		(DLA)	DLA - 10%		
C/I (North)	28.0	27.9	22.3	1	22
C/I (South)	142.6	40.1	117.4	1	117
Northern Commercial	66.4	52.0	41.6	1	42
Residential	587.4	244.4	195.5	1	196
Southwestern Commercial (Route 3A)	0.9	0.9	0.7	1	1
Transitional (N)	61.5	56.3	45.0	1	45
Transitional (South)	39.5	35.9	28.7	1	29
<b>Total</b>	<b>926.3</b>	<b>457.5</b>	<b>366.0</b>	<b>1</b>	<b>366</b>

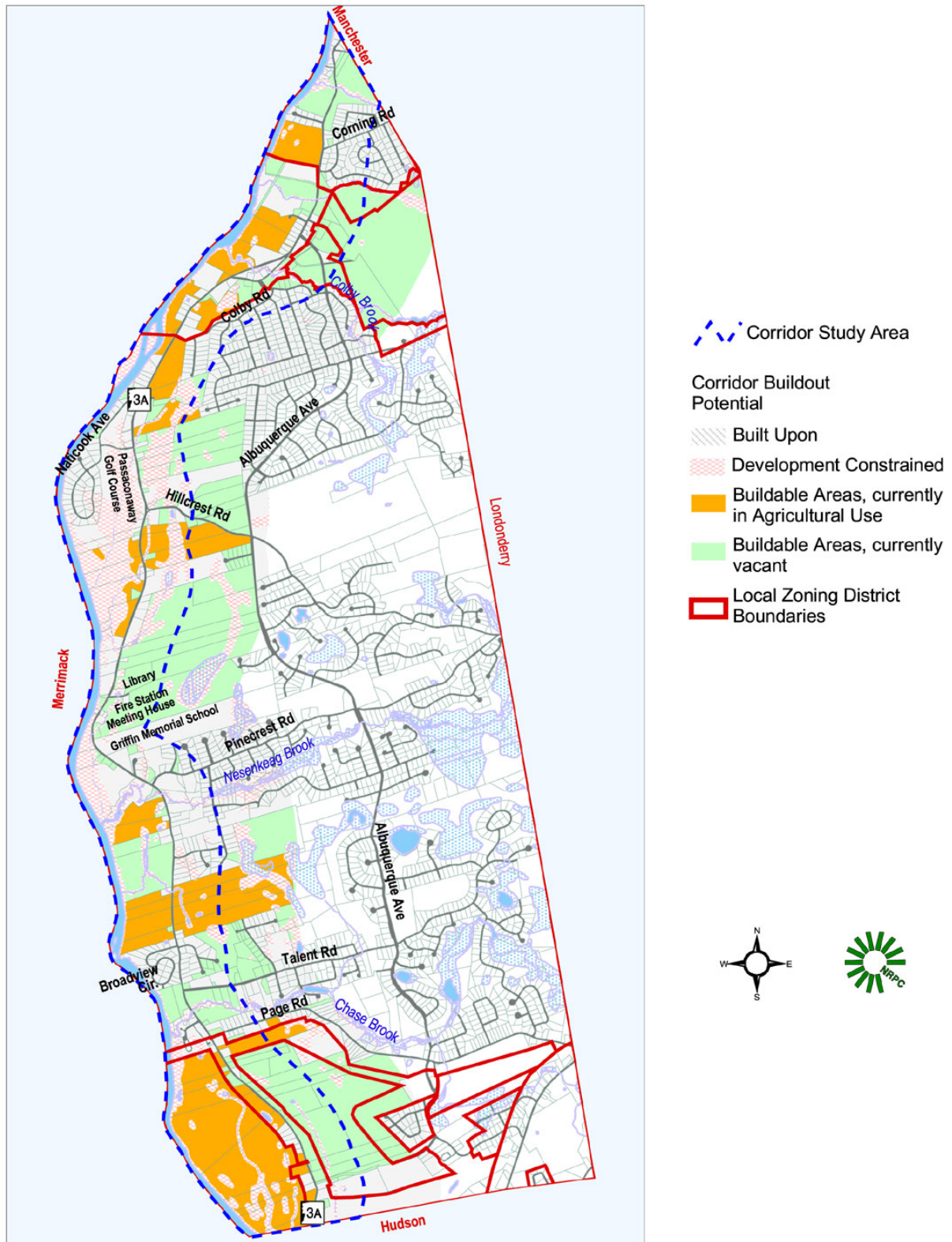
**Table 4B: Buildout Potential for Agricultural Lands in the Study Area**

Zoning District	Total Agricultural Land	Developable Land Area		Min. Lot Size	# of Pot. New Lots	Pot. Total New Lots in whole study area
		(DLA)	DLA - 20%			
C/I (North)	0.0	0.0	0.0	1	0	22
C/I (South)	0.0	0.0	0.0	1	0	32
Northern Commercial	112.0	72.1	57.7	1	58	99
Residential	425.2	182.1	145.7	1	146	341
Southwestern Commercial (Route 3A)	353.8	231.3	185.0	1	185	186
Transitional (N)	0.0	0.0	0.0	1	0	45
Transitional (South)	48.0	32.2	25.8	1	26	54
<b>Total</b>	<b>939.0</b>	<b>517.7</b>	<b>414.2</b>	<b>1</b>	<b>414</b>	<b>780</b>

Source: NRPC, updated 2003.



## Map 12: Buildout Analysis





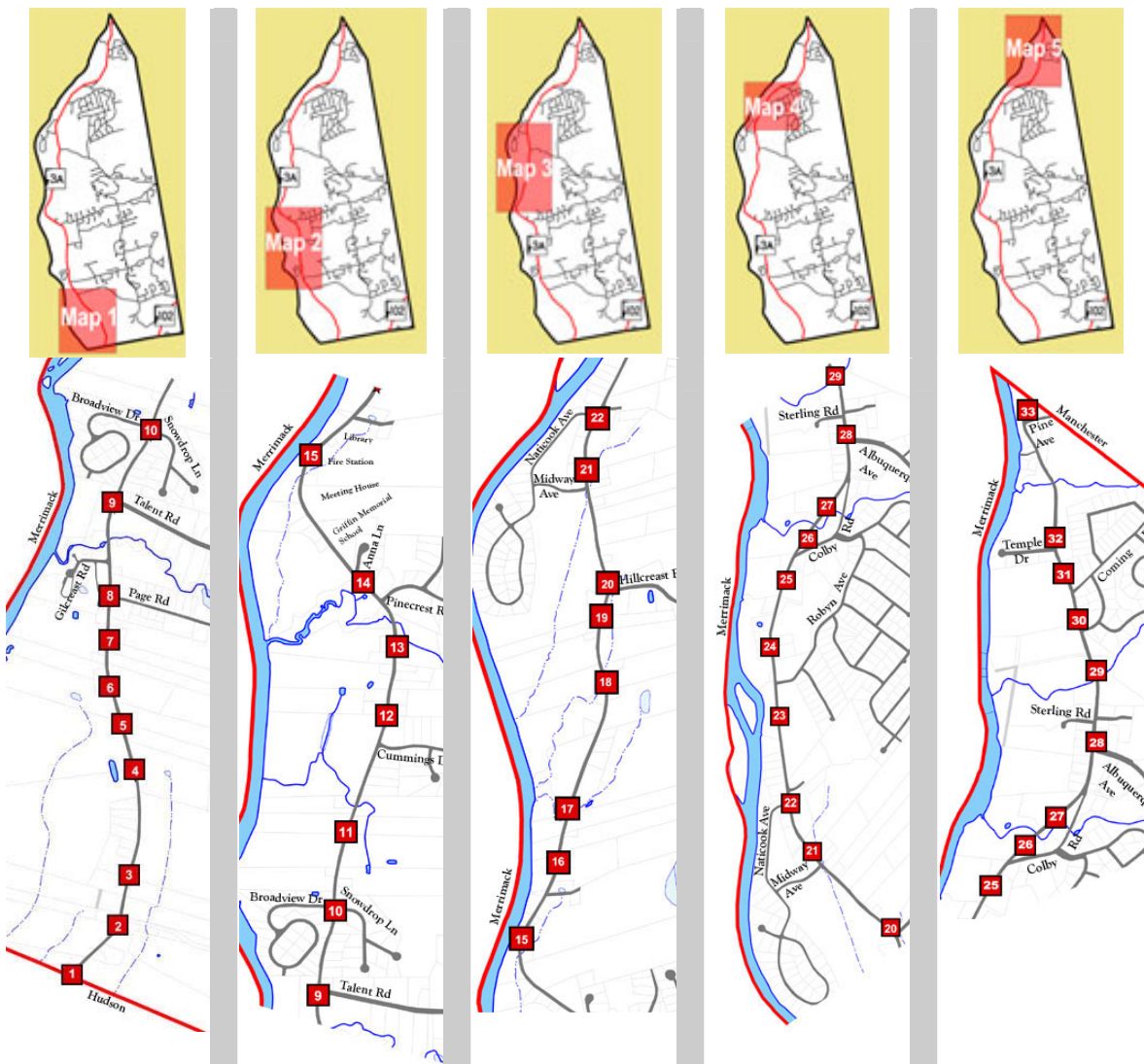


## VISUAL ANALYSIS

The viewscape analysis evaluated 22 points along the Corridor that were deemed to be important from a visual standpoint (see Map 13). Each point was photographed from the north, south, east and west. The steering committee was asked to determine which of the points were the most significant from a visual standpoint. The viewsheds identified as being most important were then mapped. The results of this analysis were used to determine other areas of importance for preservation. In addition, the key points were used to conduct viewshed “photo-simulations” that demonstrated what the key points would look like with development permitted under the zoning ordinance. The viewshed analysis was presented for public viewing on the project web-site:

[www.nashuarpc.org/rte3a](http://www.nashuarpc.org/rte3a).

**Map 13: Site Locations**



Source: NRPC, updated 2003.



The Route 3A Corridor, also known as the Charles Bancroft Highway within Litchfield, is the main north-south route through Town of Litchfield and provides access to Manchester and Hudson. The two-lane roadway is relatively narrow (24 feet) throughout its length and is, in most places, rural in character. The gravel shoulders vary from 1 to 5 feet wide although in some areas they are paved and wider. The speed limit varies from 35–40 MPH. The roadway undulates both horizontally and vertically and there are limited passing opportunities. Utility lines are above ground and are attached to wooden poles located immediately adjacent to one side of the paved roadway. Fences are generally absent but, where they do exist, are generally of a low-slung wooden picket style. Route 3A generally parallels the Merrimack River to the west, although the river itself is rarely visible as it is hidden behind a riparian buffer of tall trees. Land uses vary along the route and include agriculture, forest, small businesses, recreation, low density residential and institutional uses. In the distance, there is a strand of forest running parallel to both sides of the route. This forest provides a well-defined termination to long views from certain sections of the roadway.

The majority of the Route 3A Corridor is extremely rural and aesthetically pleasing, but very diverse in character. The most aesthetically pleasing sections include one of four main characteristics:

- 1) wide sweeping views across active farmland towards distant forests or hills;
- 2) dense forest on both sides creating a sense of enclosure;
- 3) active agricultural operations in large rural farm stands located close to the roadway; and
- 4) historic Georgian or Federalist single-family residences located close to the roadway.

There are sections where rural character and aesthetics are diminished. These sections include one or more of the following characteristics:

- 1) large expanses of asphalt parking;
- 2) elevated pole mounted signs;
- 3) extra roadway lane width and/or the presence of turning lanes;
- 4) steel guard rails;
- 5) chain-link fences;
- 6) modern suburban residences located in the middle of a meadow or field with little landscaping.



*Horse paddock along the Route 3A Corridor, north of Colby Road.*



## SITE 1

**Zoning:** Transitional

**Primary Characteristic(s):** Mixed Use/Suburban

Site 1 North



Site 1 South



Site 1 East



Site 1 West



This section of Route 3A is the southern gateway to the Town. It provides a transition from the suburban character of Hudson to the more rural character of Litchfield. Adjacent land is flat relative to the roadway. To the north, the vista terminates towards tall trees and a gradual left turn. To the east is the granite Charles Bancroft Highway sign, various trees and open grass, and a gravel turn-around driveway. To the west is Eddie's Garage, a small, rural auto repair business with parking in the front. Beyond that is an open meadow. This is a mixed-use site where the owner lives as well as works. To the south, the view terminates towards tall trees and a gradual left turn into Hudson. This is the proposed crossing of the Circumferential Highway.



## SITE 2

**Zoning:** Transitional

**Primary Characteristic(s):** Suburban

Site 2 North



Site 2 South



Site 2 East



Site 2 West



Adjacent land is flat relative to the roadway. To the north, the vista terminates towards tall trees and a gradual right turn. To the east is Boucher's, a nursery business and ranch house with greenhouses located in the distance. There is a large asphalt driveway and parking area to the south of the ranch house and few trees near the road. Landscaping includes mulch and flowers. To the west, a forest is located close to the roadway and an old red barn accessible from a long gravel driveway. To the south, the view terminates towards tall trees and a sharp right turn.



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**Zoning:** Transitional  
**Primary Characteristic(s):** Rural Agricultural  
**High Priority Views:** North and East

Site 3 North



Site 3 South



Site 3 East



Site 3 West



Adjacent land falls away from both sides of the roadway. To the north, the vista terminates towards sparse trees and a gradual left turn. To the east is active farmland. There is a ten-foot wide grass strip between the roadway and the farmland. To the west is a duplex house that has retained single-family character with a small red barn accessible by two wide driveways. To the south, the view terminates towards tall trees and a gradual left turn.



**SITE 4**

**Zoning:** Transitional/Commercial/Industrial  
**Primary Characteristic(s):** Rural Agricultural  
**High Priority Views:** North, East and West

Site 4 North



Site 4 South



Site 4 East



Site 4 West



This section of Route 3A is rural agricultural. Three zoning classes describe this area: parcels fronting on Route 3A are transitional; parcels to the west are commercial; and parcels to the east are industrial. Adjacent land drops to the west and rises to the east of the roadway. To the north, the vista terminates towards tall trees and a gradual dip around a left turn. To the east is the Rodonis farmstand and greenhouses with asphalt parking in front. There is also a single-family residence. To the west are short trees, a pond, farmland, and wide views over to hills in Merrimack. To the south, the view terminates towards tall trees and a sharp right turn. To the left is a nice lawn leading to an old farmhouse.





## SITE 5

**Zoning:** Transitional/Commercial/Industrial  
**Primary Characteristic(s):** Rural and Forested

Site 5 North



Site 5 South



Site 5 East



Site 5 West



Adjacent land drops to both sides of the roadway. To the north, the vista terminates toward tall trees and a gradual left turn. To the east are single-family residences located fairly near the road but hidden by trees. There are some areas of open grass. To the west is a row of dense trees beyond which is farmland. The farmland is well hidden from the road in the summer. To the south, the view terminates towards tall trees and a gradual right turn. Busy Bee farm is on the left.



## SITE 6

**Zoning:** Transitional/Commercial/Industrial  
**Primary Characteristic(s):** Rural, Forested and Agricultural  
**High Priority View:** North

Site 6 North



Site 6 South



Site 6 East



Site 6 West



Adjacent land drops to the west and rises to the east of the roadway. To the north, the roadway elevates and the vista terminates towards the crest of the road, a sharp right turn and farmland. To the east is a single-family residence and dense forest. To the west is a single-family bungalow and an historic barn, beyond which is farmland. There is an opening to the west as the road curves to the right that provides a dramatic view over farmland with forest in the distance. To the south, the view terminates towards tall trees and a gradual S-curve turn. One of the oldest houses in town is the old Bixby Place, visible on the southern view.



## SITE 7

**Zoning:** Transitional/Commercial/Industrial  
**Primary Characteristic(s):** Rural Agricultural  
**High Priority Views:** North, South and West

Site 7 North



Site 7 South



Site 7 East



Site 7 West



Adjacent land drops to the west and rises to the east of the roadway. To the north, the roadway elevates and the vista terminates towards the crest of the road and tall trees and a historic home. To the east is a single-family bungalow constructed on a hill with lawn reaching down to the roadway. To the west is a wide view over farmland terminating at the riparian buffer of trees along the Merrimack River. There is a ten-foot wide grass strip between the roadway and the farmland. To the south, the view terminates towards tall trees and a gradual left turn.



## SITE 8

**Zoning:** Transitional/Commercial/Industrial  
**Primary Characteristic(s):** Suburban  
**High Priority View:** South

Site 8 North



Site 8 South



Site 8 East



Site 8 West



Adjacent land is flat relative to the roadway. To the north, the vista terminates straight ahead towards the crest of the road and tall trees. To the east Page Road, some disturbed gravel areas and dense forest. To the west is the Gilcreast Farms housing for older persons development, composed of small single-family residences and a community center near the roadway. The dominant architectural theme of the residences is the double garage façade. The community center has few windows. There is a berm with small bushes between the roadway and the residences. To the south, the view terminates straight ahead towards the crest of the road and tall trees.



## SITE 9

**Zoning:** Residential

**Characteristic(s):** Rural w/some Suburban Elements

**High Priority View:** West

Site 9 North



Site 9 South



Site 9 East



Site 9 West



This section of Route 3A is rural with some suburban elements. Adjacent land drops to the west and rises slightly to the east of the roadway. To the north, the vista terminates straight ahead towards the crest of the road and tall trees. To the east is Talent Road and new single-family residences. To the west is an open meadow beyond which is forest. To the south, the view terminates towards a gradual left turn and tall trees. Chase Brook (to the south) is just out of view.



## SITE 10

**Zoning:** Residential

**Characteristic(s):** Rural with Some Disturbed Land

Site 10 North



Site 10 South



Site 10 East



Site 10 West



Adjacent land drops to the west and east of the roadway. To the north, the vista terminates straight ahead towards various structures located on the roadway. To the east is a small wooden shed, a wide gravel driveway and a fenced off facility that appears to contain various scrap vehicles. To the west is a mowed grass meadow beyond which is forest. To the south, the view terminates towards a sharp right turn and tall trees.



## **SITE 11**

**Zoning:** Residential  
**Primary Characteristic(s):** Rural Agricultural  
**High Priority View:** East and West

**Site 11 North**



**Site 11 South**



**Site 11 East**



**Site 11 West**



Adjacent land is flat relative to the roadway. To the north, the vista terminates straight ahead towards tall trees. To the east is MDD Pallet Company in a large two-story building with vinyl siding. Behind the building is a large blueberry patch. There is a large area to the south of the building where wood is processed, and a large gravel parking area in front of the building. Also to the east are extensive areas of farmland beyond which is forest. To the west is a mowed grass meadow beyond which is farmland and forest. To the south, the view terminates towards Wilson's Farm buildings and farmland. One of the few stonewalls in town is found at this site.



## **SITE 12**

**Zoning:** Residential  
**Primary Characteristic(s):** Rural Forested

**Site 12 North**



**Site 12 South**



**Site 12 East**



**Site 12 West**



Adjacent land drops to the west and east of the roadway. To the north, the vista terminates straight ahead towards a single-family residence. To the east is PSNH overhead power lines with dense forest on both sides and a single-family residence to the north of the lines. To the west is PSNH power lines and sparse trees, beyond that is agricultural land partially viewable from the road. To the south, the view terminates straight ahead towards the crest of the road with dense forest on both sides.





## SITE 13

**Zoning:** Residential  
**Primary Characteristic(s):** Suburban  
**High Priority View:** West

Site 13 North



Site 13 South



Site 13 East



Site 13 West



Adjacent land is flat relative to the roadway. To the north, the vista terminates towards sparse trees, a turn lane at Pinecrest Road and a sharp left turn. The view north is suburban in character. The roadway lanes are wider and the shoulders are wider and paved. To the east is a single family residence and a small red covered bridge over a brook. To the west is Parker Park with a large gravel parking lot adjacent to the road, beyond which is an extensive view over farmland. To the south, the view terminates straight ahead towards the crest of the road and sparse trees with single-family residences on both sides close to the road. The view south is rural in character.



## SITE 14

**Zoning:** Residential  
**Primary Characteristic(s):** Suburban  
**High Priority View:** East and West

Site 14 North



Site 14 South



Site 14 East



Site 14 West



Adjacent land drops to the west and is flat to the east of the roadway. To the north, the vista terminates towards the crest of the road and a meadow. The roadway lanes are wide with a striped median and the shoulders are wide and paved. There is an asphalt sidewalk on the east side separated by a grass strip. To the east is a historic colonial single-family residence with white wooden siding and a large lawn. To the west is a treatment swale and dense forest. To the south, the view terminates towards a sharp right turn, a left turn lane, Pinecrest Road and dense trees. On the east side is a sidewalk and a modern single-family residence.



## **SITE 15**

**Zoning:** Residential

**Primary Characteristic(s):** Mixed Use/Historic

**Site 15 North**



**Site 15 South**



**Site 15 East**



**Site 15 West**



At this point, adjacent land drops to the west and rises to the east of the roadway. To the north, the vista terminates towards the crest of the road, a gradual right turn and the Litchfield Church. The roadway has narrowed and shoulders are gravel. To the east is the Old Town Hall, the Litchfield Fire Department, a single-family home with a rich history, forming a cluster of historic Georgian and Federalist structures. Six tall flagpoles frame the buildings. Parking is to the front of the structures, detracting somewhat from the historic character. To the west is dense forest and wetlands. To the south, the view terminates towards a sharp left turn and dense trees.



## **SITE 16**

**Zoning:** Residential

**Primary Characteristic(s):** Rural

**Site 16 North**



**Site 16 South**



**Site 16 East**



**Site 16 West**



Adjacent land drops gradually to the east and sharply to the west of the roadway. To the north, the vista terminates towards a gradual left turn and dense forest. To the east is the Aaron Cutler Library and scrub, beyond which is a row of white birch trees and dense forest, which is owned by the Town. To the west is state owned land that is slated for a boat ramp in the future, characterized by sparse trees by the edge of the road, beyond which is dense forest. To the south, the view terminates past the library to a gradual right turn, the Town center area and dense trees.



## SITE 17

**Zoning:** Residential

**Primary Characteristic(s):** Rural Agricultural

**High Priority View:** North, East and West

Site 17 North



Site 17 South



Site 17 East



Site 17 West



Adjacent land drops gradually to both sides of the roadway. To the north, the vista terminates past a red brick historic single-family residence, towards a gradual right turn and sparse trees. To the east is a large meadow beyond which is forest. To the west is a ranch style single-family residence set back from the road, behind which is farmland and a row of trees. Beyond the trees is additional farmland. To the south, the view terminates past a gravel driveway to a gradual left turn and dense trees.



## SITE 18

**Zoning:** Residential

**Primary Characteristic(s):** Rural Agricultural

**High Priority View:** North and West

Site 18 North



Site 18 South



Site 18 East



Site 16 West



Adjacent land drops gradually to the east and sharply to the west of the roadway. The gravel shoulders are wider. To the north, the vista terminates past the McQuesten farm stand towards a gradual left then right turn and dense forest. To the east are single-family residences and barn-like garages with wide expanses of lawn and gravel driveways. To the west is the low-slung McQuesten farm stand, a barn, sporadic trees and farmland. To the south, the view terminates past a gravel driveway and a Federalist style single-family residence to a gradual right turn and dense trees.



## SITE 19

**Zoning:** Residential  
**Primary Characteristic(s):** Suburban with  
Recreational Characteristics  
**High Priority View:** East and West

Site 19 North



Site 19 South



Site 19 East



Site 19 West



Adjacent land rises and then drops to the west and is flat to the east of the roadway. To the north, the vista terminates towards a sharp left then right turn and a single-family residence. To the east is a duplex with a wide driveway and dense forest beyond. To the west is a golf course, beyond which lies the riparian buffer along the river. To the south, the view terminates past an excessively wide asphalt driveway towards the McQuestion farm stand and sporadic trees.



## SITE 20

**Zoning:** Residential  
**Primary Characteristic(s):** Rural

Site 20 North



Site 20 South



Site 20 East



Site 20 West



Adjacent land drops sharply to the west and is flat to the east of the roadway. To the north, the vista terminates past a historic green single-family residence towards a gradual left then right turn and sporadic trees. To the east is a meadow beyond which is forest. To the west is a golf course, beyond which lie a residential subdivision and the riparian buffer along the river. To the south, the view terminates past the split intersection at Hillcrest road, wide gravel shoulders towards a duplex, a gradual right turn and sporadic trees.





## SITE 21

**Zoning:** Residential

**Primary Characteristic(s):** Rural Agricultural/Suburban

**High Priority View:** North and East

Site 21 North



Site 21 South



Site 21 East



Site 21 West



Adjacent land is flat to both sides of the roadway. To the north, the vista terminates straight ahead towards a row of trees on the west side of the road and large expanse of agricultural land on the east. To the east is a large expanse of agricultural land with forest in the distance. To the west is a single-family residence shaded by large trees with a large lawn in front. To the south, the view terminates towards a gradual uphill left turn and sporadic trees.



## SITE 22

**Zoning:** Residential

**Primary Characteristic(s):** Rural Agricultural

**High Priority View:** South, East and West

Site 22 North



Site 22 South



Site 22 East



Site 22 West



Adjacent land is flat to both sides of the roadway. To the north, the vista terminates towards a gradual right turn, a row of trees on the west side of the road and agricultural land on the east. To the east is a large expanse of agricultural land with forest in the distance. To the west is Naticook Road and modern suburban single-family residences with large expanses of lawn. To the south, the view terminates towards a gradual left turn, a single family residence on the west side, agricultural land on the east side, and sporadic trees.



## SITE 23

**Zoning:** Commercial

**Primary Characteristic(s):** Rural Agricultural  
**High Priority View:** North, South, East and West

Site 23 North



Site 23 South



Site 23 East



Site 23 West



Adjacent land is flat to both sides of the roadway. To the north, the vista terminates straight ahead towards a large expanse of agricultural land on both sides of the roadway. A large expanse of agricultural land with forest in the distance is visible from both the east and west views. To the south, the view terminates straight ahead towards agricultural land on the east side of the road and forest on the west side.



## SITE 24

**Zoning:** Commercial

**Primary Characteristic(s):** Rural with Suburban Elements

Site 24 North



Site 24 South



Site 24 East



Site 24 West



Adjacent land is flat to both sides of the roadway. To the north, the vista terminates straight towards various commercial and mixed-use residences and a sharp right turn. To the east is a spilt-level style duplex residence with a large lawn and sporadic trees. To the west, are single-family residences partially hidden by trees. To the south, the view terminates towards a gradual right turn. The agricultural land on both sides of the road grows some of the best berries in town.



## SITE 25

**Primary Characteristic(s):** Zoning: Commercial  
Suburban Commercial

Site 25 North



Site 25 South



Site 25 East



Site 25 West



Adjacent land is flat to the west and elevated and disturbed to the east of the roadway. To the north, the vista terminates straight ahead towards sparse trees. To the east, it is hilly, disturbed land that has been excavated. The gravel shoulders are much wider than normally found along Route 3A. To the west is a strip commercial development and a mini-golf facility, both of which have large expanses of parking in front and minimal landscaping. To the south, the view terminates past the strip commercial development on the west side to forest. The east side of the southern view is contained by a berm.



## SITE 26

**Primary Characteristic(s):** Zoning: Commercial  
Transitional suburban

Site 26 North



Site 26 South



Site 26 East



Site 26 West



Adjacent land is flat to the east and drops to the west of the roadway. To the north, the vista terminates straight ahead towards Colby Brook, a large blue industrial looking building and forest. To the east is a roadside commercial center with a convenience store, expansive areas of parking in front and no landscaping. The shoulders are wider than normally found along Route 3A and have little definition. To the east is a depressed wetland forest. To the south, the view terminates towards a gradual left turn beyond the strip commercial center.



## SITE 27

**Zoning:** Commercial

**Primary Characteristic(s):** Transitional Suburban

Site 27 North



Site 27 South



Site 27 East



Site 27 West



Adjacent land drops to the east and is flat to the west of the roadway. To the north, the vista terminates past a large parking lot and a vacant blue industrial building on the east side of the roadway. To the east is a barn like structure surrounded by disturbed land, various vehicles and parts, and sporadic trees. The shoulders are wider than normally found along Route 3A and have little definition. To the west is a 20 or 30-year-old one story suburban business park set well back from the road with vast area of underutilized parking in front. There is a long driveway to the parking area fronted by a large suburban pole sign set in a concrete median. To the south, the view terminates towards forest.



## SITE 28

**Zoning:** Commercial

**Primary Characteristic(s):** Suburban

Site 28 North



Site 28 South



Site 28 East



Site 28 West



Adjacent land is elevated to the east and flat to the west of the roadway. To the east is the northern terminus of Albuquerque Avenue. To the north, the view terminates straight ahead past a row of 1960's single family residences on the west side and modern suburban single family residences on the east side. The shoulders are paved and wider than normally found along Route 3A. To the west is a row of bungalow style single-family residences with large areas of lawn and sporadic trees, beyond which lies farmland. To the south, the vista terminates towards a crest in the road and forest.





## SITE 29

**Zoning:** Commercial  
**Primary Characteristic(s):** Rural

Site 29 North



Site 29 South



Site 29 East



Site 29 West



This section of Route 3A is rural but with disturbed land. Adjacent land is flat relative to the roadway. To the north, the view terminates straight ahead past power lines and a historic single family residence located near the east side of the roadway. To the east is a historic home and disturbed land around Leach Brook. To the west is a large undeveloped, but disturbed site. The gravel shoulders wider than normally found along Route 3A. To the south, the vista terminates towards forest on the east side and an auto repair shop on the west side of the roadway.



## SITE 30

**Zoning:** Residential  
**Primary Characteristic(s):** Rural  
**High Priority View:** West

Site 30 North



Site 30 South



Site 30 East



Site 30 West



Adjacent land is flat relative to the roadway. To the north, the view terminates straight ahead past tall trees on the east side and an equestrian facility with white picket fences and a red barn on the west side of the roadway. To the east are 1960's single-family residences buffered by relatively dense pine trees. To the west is a well maintained white picket fence beyond which lies an equestrian run, additional white picket fences, power lines, and the riparian buffer along the river. Beyond the river is an industrial site in Merrimack. To the south, the view terminates towards power lines and a gradual left turn. To the right is the Moore's Falls conservation area.



## SITE 31

**Zoning:** Residential

**Primary Characteristic(s):** Rural Forested

Site 31 North



Site 31 South



Site 31 East



Site 31 West



The character changes from wide-open agricultural to dense forest close to the road. Adjacent land is elevated to the east and drops to the west of the roadway. To the north, the view terminates towards a sharp right turn and dense pine forest. To the east are single-family residences partially hidden behind tall pine trees and with attractive landscaping. There is a natural wood post fence between the road and some of the residences. To the west are tall pine trees and the red barn belonging to the equestrian facility. To the south, a heavy natural wood fence blocks the view towards Corning Road. Otherwise, the view terminates straight ahead towards pine trees and a small single-family residence close to the west side of the roadway.



## SITE 32

**Zoning:** Residential

**Primary Characteristic(s):** Forested

Site 32 North



Site 32 South



Site 32 East



Site 32 West



Adjacent land is elevated to the east and drops to the west of the roadway. Views in all directions give the feeling of being deep in a forest of tall pine trees. The roadway curves considerably and has the perception of being narrower than the rest of Route 3A.



## SITE 33

**Zoning:** Residential

**Primary Characteristic(s):** Forested, Suburban

Site 33 North



Site 33 South



Site 33 East



Site 33 West



Adjacent land is elevated to the east and drops to the west of the roadway. To the north, the view terminates towards single-family residences, sporadic trees, wide lawns and a gradual left turn into the City of Manchester. To the east is dense forest. To the west is dense forest. To the south, the view terminates towards dense forest of pine trees and a gradual left turn. The matching Charles Bancroft stone marker is located here.



## Viewshed Delineation and Assessment

Based upon the results of the photographs described above, viewsheds deemed to be of “high value” were mapped. The mapping was based upon an estimate of the geographic area covered by the specific view in each photograph. The purpose of the analysis is to determine the geographic limits of the areas of land deemed to be of high value from a visual and landscape preservation standpoint. This information was used to determine the prioritization of properties within the Corridor, and to establish specific viewshed areas that could be excluded from development through the development review process.

Map 14 shows the results of the visual analysis. Hatched areas are the views that were deemed to be “high priority” and depict areas of the Corridor that are important from a visual standpoint.

The results of the visual analysis were factored into the scoring performed for the 1999 Land Evaluation and Site Assessment (LESA) analysis described in Table 1 of this document. Parcels that contained any part of a “high priority” view were awarded an additional 100 points. To recap, the original LESA analysis provided for a maximum of 100 points awarded for the Soil Potential Index (SPI). A maximum of 250 points could be awarded to a parcel based upon the results of the Site Assessment survey. The results of the visual analysis added an additional 100 points, which resulted in a reprioritization of parcels within the Corridor. Table 5 contains the results. Map 15 depicts the results of the analysis. The total scores were ranked and mapped based upon their overall score.

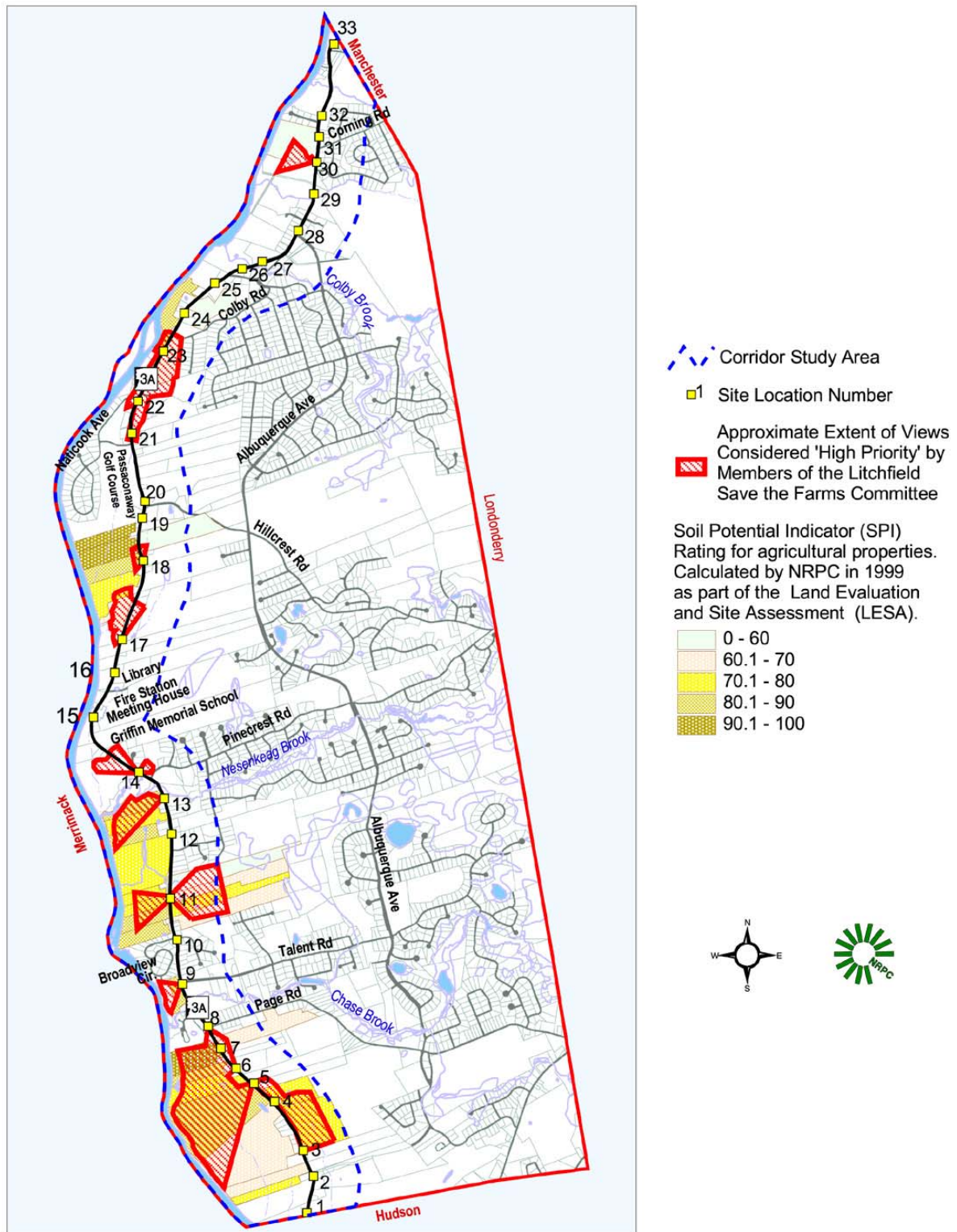


*Looking west toward Merrimack from Route 3A, south of Pinecrest Road.*





## Map 14: Viewshed Assessment



Source: NRPC, updated 2003.



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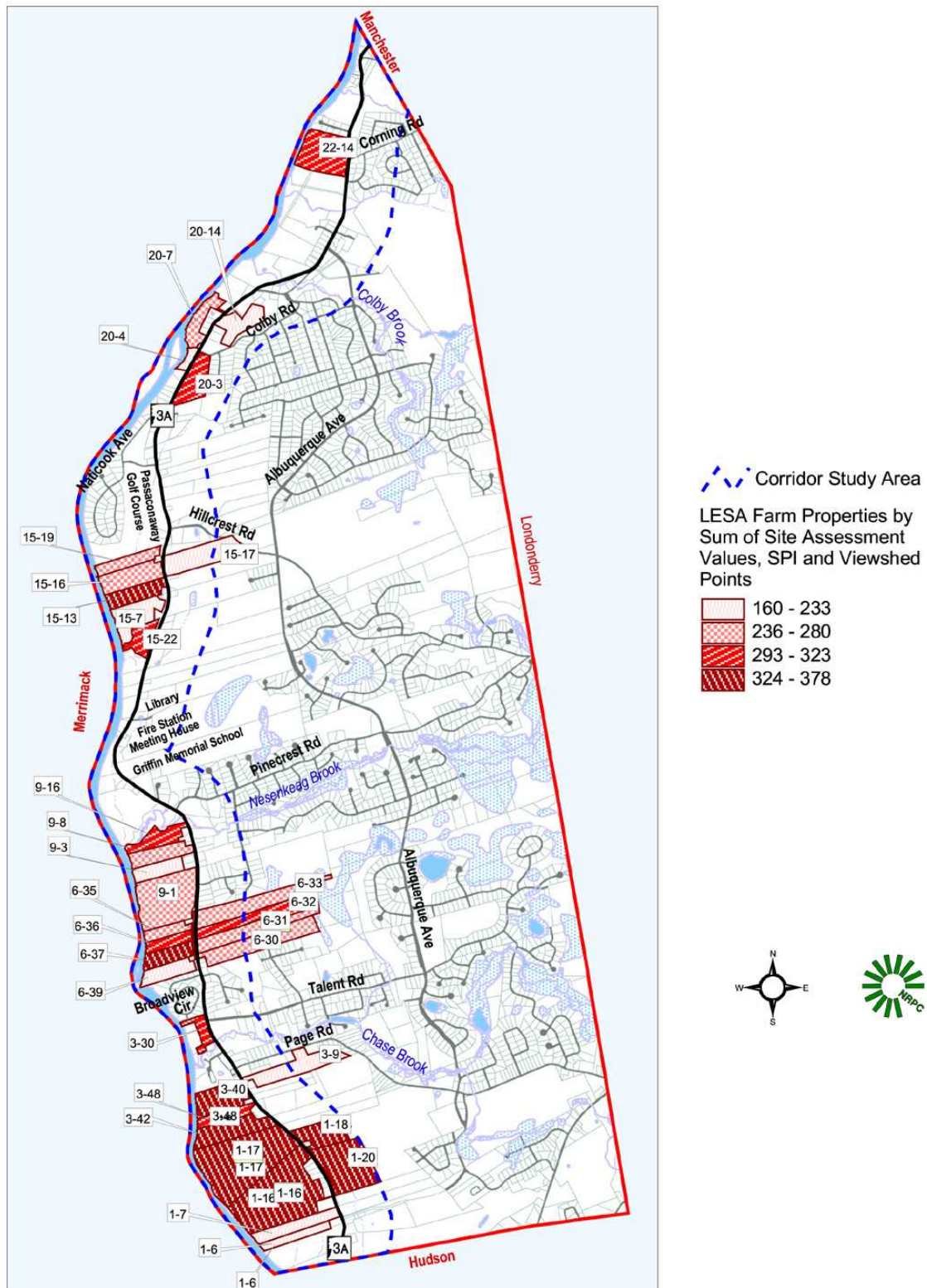
**Table 5: LESA and Viewshed Prioritization Results**

Tax Map & Lot #	Property Acreage	Zoning District	Total Value of Site Assessment Question Responses (Max 250)	Average Soil Potential Index (SPI) Value (Max 100)	Contains "High Priority" View from 3A (Max 100)	Sum of Site Assessment Questions, SPI and Viewshed Points (Max 450)
1-17	106.2	C	190	88	100	378
1-18	26.4	C/I	180	72	100	352
1-16	98.0	C	175	64	100	339
15-13	16.1	R	145	89	100	334
1-20	52.3	C/I	160	72	100	332
6-37	19.2	R	145	84	100	329
3-42	31.8	R	145	79	100	324
3-40	27.9	R	130	94	100	324
3-48	15.0	R	135	88	100	323
15-22	13.6	R	145	65	100	310
22-14	39.7	R	155	52	100	307
20-3	24.3	R	145	62	100	307
3-30	11.9	R	120	84	100	304
9-16	23.9	R	120	80	100	300
6-36	13.2	R	120	78	100	298
6-32	40.6	R	125	68	100	293
6-30	47.8	R	110	70	100	280
6-33	39.5	R	120	57	100	277
6-35	13.1	R	100	74	100	274
9-8	20.7	R	100	71	100	271
6-31	42.3	R	95	72	100	267
15-16	31.6	R	160	91	0	251
9-1	60.1	R	165	73	0	238
20-7	18.9	C	155	81	0	236
15-19	16.3	R	140	96	0	236
6-39	20.3	R	145	88	0	233
20-4	5.5	C	145	85	0	230
15-7	27.3	R	130	79	0	209
20-14	22.2	C	135	58	0	193
1-6	13.5	C	110	75	0	185
15-17	75.0	R	130	52	0	182
9-3	16.2	R	100	81	0	181
1-7	23.1	C	105	70	0	175
3-9	35.0	R	95	65	0	160

**Source:** LESA Analysis, 1999 and NRPC, 2003.



Map 15: Total Viewshed and Productivity Ranking



Source: NRPC, updated 2003.





## Photo Simulations

Photo simulations of development scenarios were created for the purpose of showing how buildings will look within specific viewsheds. The photos show that certain types of development will have a lasting negative impact on the scenic landscape that defines the Route 3A Corridor in Litchfield. However, other simulations reveal that depending upon the type of development, and how it is sited, it is possible to preserve much of the agricultural land, and accommodate some of the development.

**Figure 1: Site 11E**



**Figure 2: Site 29W**







**Figure 3: Site 3N**



**Figure 4: Site 4W**



**Figure 4A: Site 4W**





**Figure 5: Site 6N**



**Figure 6: Site 7W**



**Figure 7: Site 7W**





## CONCLUSIONS

Based on the material presented and summarized in this report, the following are conclusions for consideration:

1. In order to preserve the agricultural landscape of the Route 3A Corridor, a variety of alternatives need to be explored. Given the continued development of the Town, the limited resources available for acquisition, the possibility that the Circumferential Highway will not be constructed, and many other factors, the Town must rethink some of its development regulations as much of the land could be preserved through the application of basic zoning techniques. However, the political feasibility of regulatory options also needs to be considered.
2. The landscape surrounding Litchfield's agricultural heritage is of statewide importance. It is very rare to find such an extent of active agricultural land within a relatively suburban community that is adjacent to the State's largest city (Manchester). The landscape itself should be considered to be an endangered historic resource.
3. When purchasing property or property rights for agricultural land, it is important to account for the long term viability of the agricultural use. An agricultural landscape requires active farming.

## Recommendations

The following are not presented in order of importance. They all could be applied in conjunction with one another:

### 1. Outright Acquisition of Properties by the Town, State or Federal Governments

The Town of Litchfield has been interested in the acquisition of key parcels of agricultural land. The costs of specific groupings of parcels should be calculated with the goal of keeping parcels in active agriculture together. If this option is pursued, The Town should have an agreement pending with farmers who will take over stewardship of the property. The Town would need to come up with terms and conditions for the use of the land. The Town could retain ownership of the land and could allow the farms to work the land for a low or no cost.

### 2. Conservation Easements

A conservation easement (or conservation restriction) is a legal agreement between a landowner and governmental entity or land trust that permanently limits uses of the land so that its conservation values can be preserved. In this case, the conservation values would be the agricultural uses/landscape. The owner is allowed to retain ownership, however will be restricted in the amount or type of development that can go on the property. Restrictions would also require that the property remain in agricultural use. A conservation easement is a lower cost alternative to actual acquisition of land. In the case of Litchfield, the Town could purchase the development rights for future subdivision of lands determined to be critical as identified in this report. The land could be passed on or sold like any other property, however, the agricultural use would have to be maintained, and the amount of building would be reduced significantly. The Town would be responsible for ensuring that the terms and conditions of the easement are upheld. Another





alternative would be for the Town to purchase the easement and convey it to a private land trust.

### **3. Purchase of Density**

The Town could purchase some of the development rights on a specific parcel or groups of parcels. Under this scenario the owner would be compensated for a restriction that would reduce the number of lots that could be created.

### **4. Formation of Land Trust**

A Land Trust could be formed which could receive donations from the Town and residents. The Land Trust would have the authority to acquire only specific parcels of land as identified by the Town. The Town could have a warrant article to fund the Land Trust. The Town could apply to the New Hampshire Charitable Foundation for funds to establish the land trust.

### **5. Farming Cooperatives**

Farming Cooperatives are typically non-profit organizations that actively farm properties, and sustain the farming operation by finding markets for local products. An example of a successful farming cooperative exists in Litchfield, through the Nesenkeag Farm. Town officials should work closely with this group because they provide a local example of the type of stewardship necessary to preserve the agricultural landscape.

Nesenkeag Farm<sup>2</sup> is New Hampshire's largest certified organic vegetable farm. It was established in 1984 as a non-profit 501(C)(3) organization. The 65-acre farm off of Route 3A has three goals as guiding principals:

- a. to provide high quality organic, fresh produce to low-income and culturally diverse clients;
- b. to serve as a model for sustainable agriculture and act as an educational resource for organic crop production; and
- c. to promote environmental awareness and unique land stewardship covenants, i.e., opening part of the farm owned land for a public walking trail.

Nesenkeag Farm is a highly respected organic farming operation. It is well known for the quality of its specialty produce and the efficiency of its farming operations. The farm has served as a research laboratory for regional university scientist, and it continues to serve as a vehicle for promoting sustainable agriculture in New England through numerous public presentations. The farm experiments constantly with different crop rotations, innovative green manure cover crops, creative marketing strategies, and non-chemical pest control techniques. This information is shared with the general public through many media outlets, and to farm professionals at winter conferences and University Cooperative Extension workshops. Farm tours and lectures are given to a variety of audiences such as restaurant chefs, retail storeowners, university level educators, public school children, other farmers and to the general public.

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<sup>2</sup> The following description taken from Nesenkeag Farm's official documents.





## 6. Private Developments

QROE Farm, a Derry-based company, has developed a subdivision design that integrates farming, open space protection and housing. Their projects are an example of how development could co-exist while maintaining the agricultural uses of the property. In order to satisfy the community's land use regulations, QROE configures the lots so that each has the minimum amount necessary to comply with the zoning requirements. The result is awkward lot line configurations that have road access and satisfy frontage requirements but which follow and preserve the character of the land. Typically this is done in a manner that results in a lower density than permitted as-of-right.

Similar to conservation and open space subdivisions, QROE grants landowners ownership of open space. However, instead of common ownership of a separate area protected as open space or farmland, QROE uses an easement that protects the entire development. When the land is subdivided, a portion of each lot is set aside for the homesite, with a greenbelt around each. The remainder of the land, usually between 80-95% of the total development, is protected open space or farmland, or is part of the greenbelt. A landowner in a QROE development is also entitled to the permanent use, protection and value of the additional abutting acreage. For instance, in a typical 500-acre QROE farm project, a homeowner may take title to 5 to 20 acres but will have access to more than 400 acres of protected land.

### Old Brandon Farm Development in Brandon, VT



Source: QROE Farm Company, 2003, [www.qroefarm.com](http://www.qroefarm.com).

While each homesite and a portion of the abutting greenbelt remain for the homeowner's sole use, the majority of the greenbelt is given over to the community. Within the greenbelt, all homeowners and, conditionally, individuals from outside the development are welcome to travel through and enjoy the landscape for passive recreational uses. The private ownership of the greenbelt provides the mechanism necessary to monitor visitor activities. Landowners have the authority and



responsibility to ask any offenders to leave the property or compensate the owners for any damages.

QROE has developed a layered approach to achieve permanent protection of the open space or farmland in a development. The first layer consists of privately deeding and recording easements and restrictive provisions. A perpetual easement is put on record that provides for the protection of the land as open space or farmland in perpetuity. Secondly, the easement is granted by each individual owner in the development to every other individual owner in the development. The final layer consists of the granting of the protective easements to appropriate local, regional or national land trusts. In some cases an additional public layer is added by granting the easement to a suitable town or community conservation structure.

## **7. Highway and Airport Mitigation**

The most significant agricultural pieces should be acquired by the State as part of the mitigation for the proposed Circumferential Highway project and other highway projects. The land would then be conveyed to the Town or conservation organization with agreements protecting agricultural use. Similarly, agricultural land in Litchfield should be considered as mitigation associated with Manchester Airport, as applicable.

## **8. Zoning and Master Plan Alternatives**

It is possible to preserve the most important viewsheds while still accommodating development. This option is clearly not as preferable as outright acquisition. This option would require substantive modifications to Litchfield's zoning ordinance and master plan, which generally allows for one-acre lots. The political feasibility of any zoning alternative needs to be seriously considered before proceeding, as the Town's voters have rejected many of the following in the past. As a start, these concepts should be first presented through amendments to the Town's master plan prior to pursuing any zoning ordinance modification.

### **a. Formation of "Agricultural Preservation" Overlay**

The zoning map should be modified and an Agricultural Preservation Overlay could be established. The Overlay would cover the area 1000' to the east of Route 3A to the Merrimack River, south of Colby Avenue. The modification to the zoning map could be done without any corresponding regulation at this time. However, the designation would serve to reinforce the unique nature of the Corridor.

### **b. Clustering**

In a cluster subdivision, an overall density for a parcel is calculated, and the number of units permitted can be concentrated in a smaller part of the lot, leaving the remainder to open space. Clustering should be allowed in the Agricultural Preservation Overlay. This would enable some development to occur in a manner that would not preclude the agricultural uses. It would allow development that is flexible to existing circumstances. However, if clustering is allowed, it should be permitted at a slightly lower overall density than a conventional subdivision.



c. Viewshed Preservation

Areas identified in the “Viewshed Analysis” could be incorporated into the master plan and zoning ordinance and given specific consideration when being reviewed by the Planning Board. The Planning Board would have the authority to preserve those viewsheds in a manner that does not severely restrict the owner’s property rights. Issues surrounding the mass, height, and setback of structures would be considered by the Planning Board as they relate to viewshed protection.



Source: NRPC, 2003.

d. Planned Commercial Development

Maximum densities for non-residential uses should be established in the zoning . The minimum impervious surface requirements should be increased. Commercial development should be designed in a manner that does not preclude agriculture.

e. Reduction in Density

If zoning densities were decreased from one to two acres within the Route 3A Corridor, it would reduce the buildout projections in half in residential areas. The property rights impacts of such an option needs to be carefully weighed. The Town might also want to consider purchasing access points along the highway as a means by which to both reduce density and control access conflicts.

f. Transfer of Development Rights (TDR)

In a Transfer of Development Rights program, areas that the Town is trying to protect (“sending areas”) would have development restrictions, but would be worth a certain number of housing units that could be built elsewhere.

g. Implementation of Community Character Guidelines

The Town should develop design guidelines for commercial development and residential subdivisions. Such design guidelines should promote development that is visually compatible with agricultural uses. Public works standards should also be reviewed to determine the extent to which they enhance or detract from agricultural character.