TOWN OF HOPKINTON, NEW HAMPSHIRE

BUILDOUT ANALYSIS

2007

Prepared by the

CENTRAL NH REGIONAL PLANNING COMMISSION

TABLE OF CONTENTS

LIST OF TABLES AND MAPS

I. INTRODUCTION

The Hopkinton Planning Board worked with the Central NH Regional Planning Commission to conduct an analysis of future buildout based on the current zoning ordinance and land use regulations. The process began in 2005 and finished in July 2007.

The goal of the project was to determine the number of potential residential lots as well as the amount of developable commercial and industrial acreage.

The development of this analysis gives the Planning Board quantitative information concerning the potential implications of current local land use regulations.

II. THE RESIDENTIAL BUILDOUT PROCESS

The first step in the buildout analysis was to join the digital tax maps together with the town's assessor's database. The assessor's database contains the necessary information to conduct a parcel-level buildout analysis, including land use, zoning, and whether or not a building exists on a particular lot.

In addition to the parcel information, other data used in the analysis include the National Wetlands Inventory, Federal Emergency Management Agency (FEMA) Flood Insurance Rate maps that delineate the 100-year floodplain, utility easements, information relating to conservation lands from Town and Planning Commission files, and 1998 digital ortho-quad (DOQ) aerial photos.

Next, using the zoning layer and parcel information, "built-out" parcels, those that could not be further subdivided according to existing zoning, were identified.

With those initial results, areas that likely will not be developed due to their ownership or use, e.g., federal lands, town lands, schools, churches, conservation lands, as well as wetlands, areas in the 100-year flood plain, and utility easements, also were classified as "built-out."

After identifying the built-out lands, the next step was to estimate the number of potential residential lots in the Residential/Agriculture (R-4), Low- Density Residential (R-3), Medium Density Residential (R-2), High density Residential (R-1), and Village High-Density Residential (VR-1) zones, based on current zoning regulations. Two buildout scenarios, minimum and maximum, were considered. The Minimum Buildout Analysis assumed that all potentially developable land would be divided into single-family lots, while the Maximum Buildout Analysis factored in the potential to have multiple lots on a single parcel.

- <u>Minimum Buildout Analysis Methodology</u>
  First, all built-out parcels were taken out of the analysis, including parcels or sections of parcels constrained by wetlands, 100-year floodplain, and utility easements were identified.

  As the minimum lot size in a particular zone determines the number of

potential residential lots that can be developed, a simple calculation was performed to determine the gross developable area by parcel. For all lots in residential zones with a developable area of 5 acres or more, this number was then multiplied by a factor of .75 to give the estimate a measure of reality, as it would be expected that design issues and required rights-of-way in a larger subdivision will often result in a lesser overall number of lots created than the maximum allowed. This factor was based on a previous buildout analysis conducted by CNHRPC. The number was not factored for smaller lots as there are fewer design issues in minor subdivisions. Finally, the number of potential residential lots was reduced by the number of residential buildings existing on that lot.

- Maximum Buildout Analysis Methodology
  This scenario was calculated the same way as the Minimum Buildout Analysis except that it required a different calculation, as this analysis permitted more than one residential lot per parcel, as in Section IV of the Zoning Ordinance. According to the Zoning Ordinance, the sizes of each lot are the same in the Residential/Agriculture (R-4) and the Low-Density Residential (R-3) zones. The numbers of potential residential lots are calculated by dividing the developable area by the minimum lot dimension.

  In the Medium Density Residential (R-2), High-Density Residential (R-1), and Village High-Density Residential (VR-1) zones, the size for each lot if more than one unit on a parcel is different from the first on the parcel. To calculate the number of potential residential lots, subtract the developable area by the lot dimension for the first lots, then divide the result by the square footage requirement for each additional unit. Finally, the number of potential residential lots/units was reduced by the number of residential buildings existing on that parcel.

III. THE COMMERCIAL/INDUSTRIAL BUILDOUT PROCESS

Again, all built-out parcels were taken out of the analysis, including parcels or sections of parcels constrained by wetlands, the 100-year floodplain, and utility easements.

As the minimum lot size in a particular zone determines the acreage of potential Commercial/Industrial areas that can be developed, a simple calculation was performed to determine the gross developable area by parcel. For all lots in the Commercial/Industrial (B-1/M-1) zones with a developable area of 5 acres or more, this number was multiplied by a factor of .75 to give the estimate a measure of reality. The number of buildings existing on each site is the only available information that can be used in the Commercial Buildout Analysis. The acreage of existing Commercial/Industrial buildings was estimated by multiplying the number of buildings by the minimum lot dimension permitted in that zone. Finally, the acreage of the potential Commercial/Industrial area was reduced by the acreage of the Commercial/Industrial buildings existing on that lot.

IV. RESULTS OF THE BUILDOUT ANALYSIS

After concluding the initial projections for future residential lots and Commercial/Industrial acreage, the findings were presented and subjected to a thorough review by representatives from the Planning Board and town staff. During this review, several larger areas of developable land were reviewed on a lot-by-lot basis. Initial results were modified by comparing them with past subdivision proposals and with input based on specific site characteristics of the parcels in question. Local information regarding constraints such as steep slopes or access problems was addressed.

The results of the analysis provide an interesting and important look at the town's future. The Minimum Residential Buildout Analysis has a potential for 3,057 lots. The Maximum Residential Buildout Analysis has a potential for 9,953 lots.

Table 1: BUILDOUT RESULTS

Zoning District	Existing Lots		Buildout Analysis		
	Parcels w/Bldg	Total Parcels	Residential Lots Minimum	Residential Lots Maximum	Commercial / Industrial
Residential/Agriculture (R-4)	633	974	1,293	1,811	-
Low Density Residential (R-3)	458	646	782	1,120	-
Medium Density Residential (R-2)	414	551	826	4,837	-
High Density Residential (R-1)	334	405	101	1,238	-
Commercial (B-1)	11	11	-	370	1
Industrial (M-1)	41	88	-	-	5
Village High Density Residential (VR-1)	8	8	-	-	-
Village Commercial (VB-1)	81	92	-	98	7
Village Industrial (VM-1)	1	3	-	7	3
Hopkinton Village Precinct (HVP)	137	181	55	472	-
Total Potential Lots	**2,118**	**2,959**	**3,057**	**9,953**	**6**

V. CONSIDERATIONS

- Minimum Buildout
  Assumption: All residential lots would be built out with single-family residential homes. **Actual:** Zoning in R-2 and R-1 permits additional residential lots/units to be added to a parcel with a reduced square footage requirement.

  Assumption: There were two scenarios used in regard to Class VI Roads. One scenario assumes all parcels along Class VI roads would be developed, while the second scenario assumes no parcels along Class VI roads will be developed. **Actual:** In the future, it is possible to have some class VI roads developed and not others.

- Maximum Buildout
  Assumption: All parcels will be built out to the maximum number of lots

permitted per parcel. **Actual:** It is unlikely that every lot will be developed to its full extent. For example, in the High-Density Residential zone, a lot can have a potential of up to eight units based on parcel size when, in actuality, all parcels that could have eight lots probably will not.

Assumption: There were two scenarios used in regard to Class VI Roads. One scenario assumes all parcels along Class VI roads would be developed, while the second scenario assumes no parcels along Class VI roads will be developed. **Actual:** In the future, it is possible to have some class VI roads developed and not others.

- Additional Considerations

  Steep slopes: Not factored into built-out land. The reason for this is that Hopkinton does not have a slopes ordinance. It is, however, estimated that some 1.7% of the developable land in the town has slopes of 20% or greater, which could impact the amount of buildable land townwide. The extent to which slopes currently restrict or inhibit development was not analyzed.

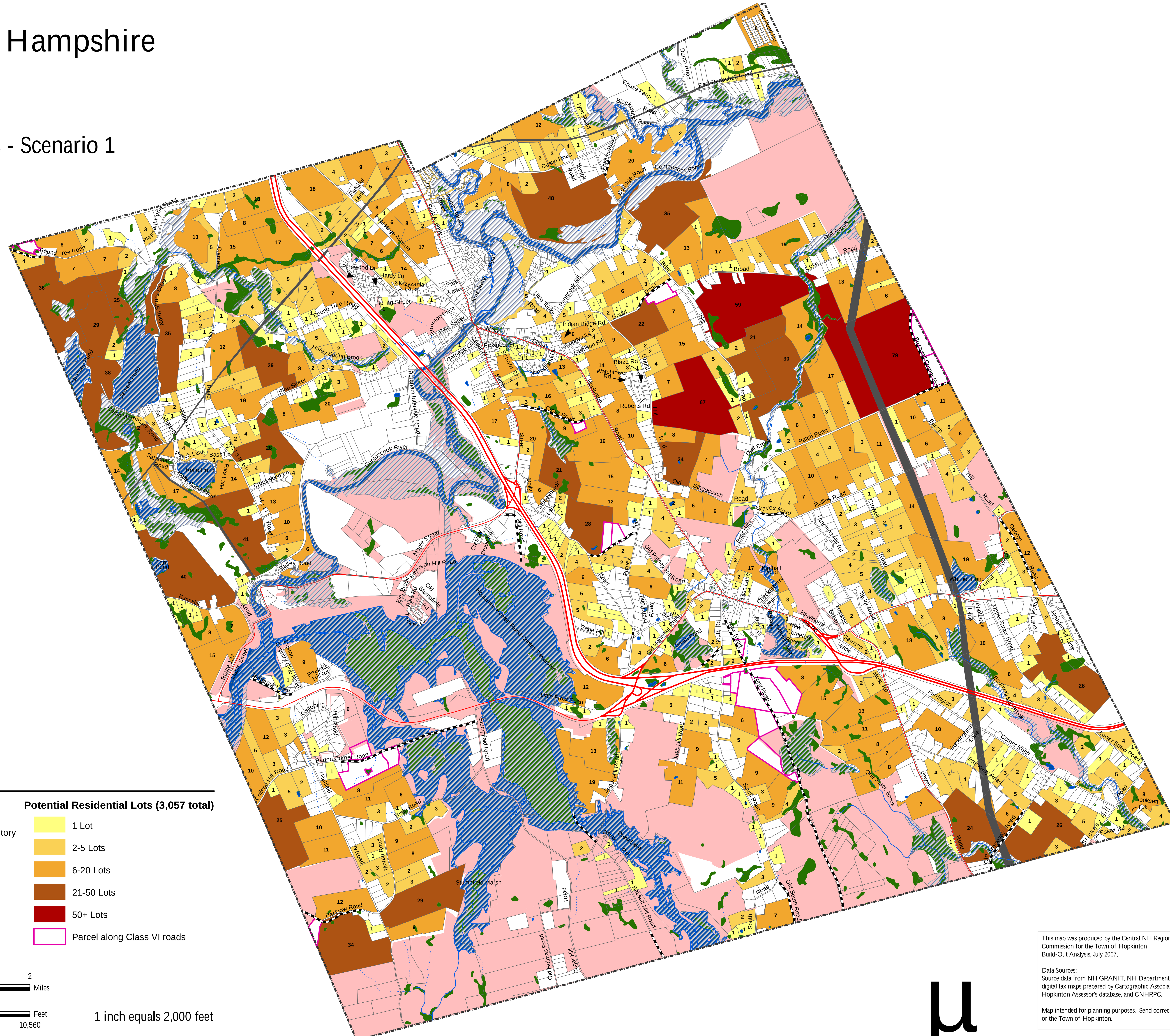
  Data accuracy: The buildout was conducted using the best available data. Sometimes, this data may not be accurate to the parcel level. This may impact exact numbers when developing on a parcel-by-parcel basis. This buildout, however, should provide a strong starting point.

  Use by Special Exception: Only permitted uses were utilized to calculate the minimum and maximum buildout scenarios. Hopkinton does allow certain types of residential development to occur by special exception in certain residential zones. This was not taken into account.

Town of Hopkinton, New Hampshire

Build Out Analysis

Potential Number of Residential Units - Scenario 1
"Minimum" Build Out Analysis



Legend

Interstate Highways	Water Bodies	**Potential Residential Lots (3,057 total)**
Class I & II Secondary State Highways	National Wetlands Inventory	1 Lot
Class VI Town Unmaintained Roads	Conservation Lands	2-5 Lots
Rivers and Streams	Political Boundary	6-20 Lots
Intermittent Streams	Parcel Boundary	21-50 Lots
Utility Corridors	100 Year Floodplain	50+ Lots
		Parcel along Class VI roads

1 0.5 0 1 2 Miles

Feet 5,280 2,640 0 5,280 10,560

1 inch equals 2,000 feet

μ

This map was produced by the Central NH Regional Planning Commission for the Town of Hopkinton Build-Out Analysis, July 2007.

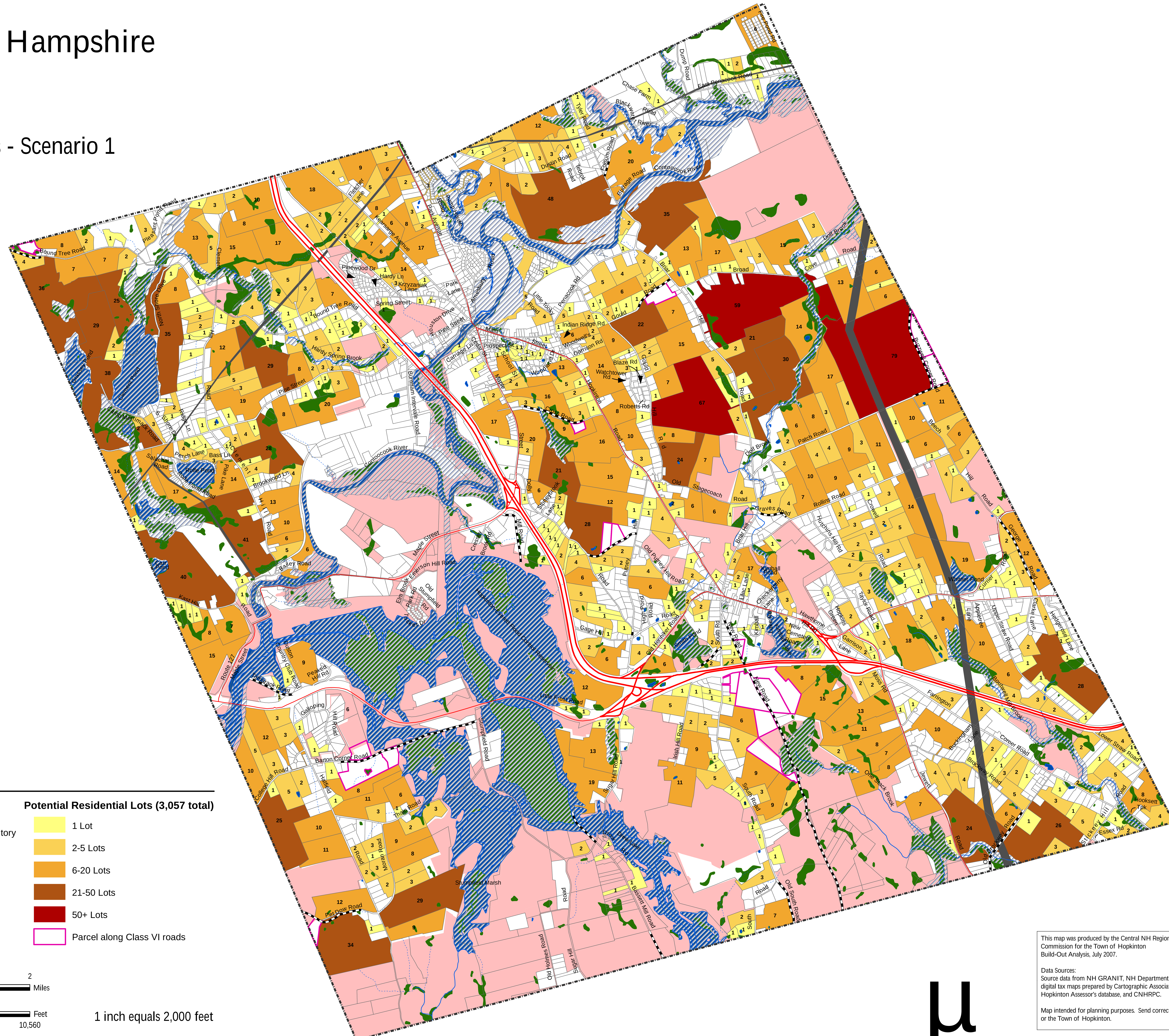
Data Sources:
Source data from NH GRANIT, NH Department of Transportation, digital tax maps prepared by Cartographic Associates, Inc, Town of Hopkinton Assessor's database, and CNHRPC.

Map intended for planning purposes. Send corrections to CNHRPC or the Town of Hopkinton.

Town of Hopkinton, New Hampshire

Build Out Analysis

Potential Number of Residential Units - Scenario 1
"Minimum" Build Out Analysis



Legend

- Interstate Highways
- Class I & II Secondary State Highways
- Class VI Town Unmaintained Roads
- Rivers and Streams
- Intermittent Streams
- Utility Corridors
- Water Bodies
- National Wetlands Inventory
- Conservation Lands
- Political Boundary
- Parcel Boundary
- 100 Year Floodplain

Potential Residential Lots (3,057 total)

- 1 Lot
- 2-5 Lots
- 6-20 Lots
- 21-50 Lots
- 50+ Lots
- Parcel along Class VI roads

1 0.5 0 1 2 Miles

5,280 2,640 0 5,280 10,560 Feet

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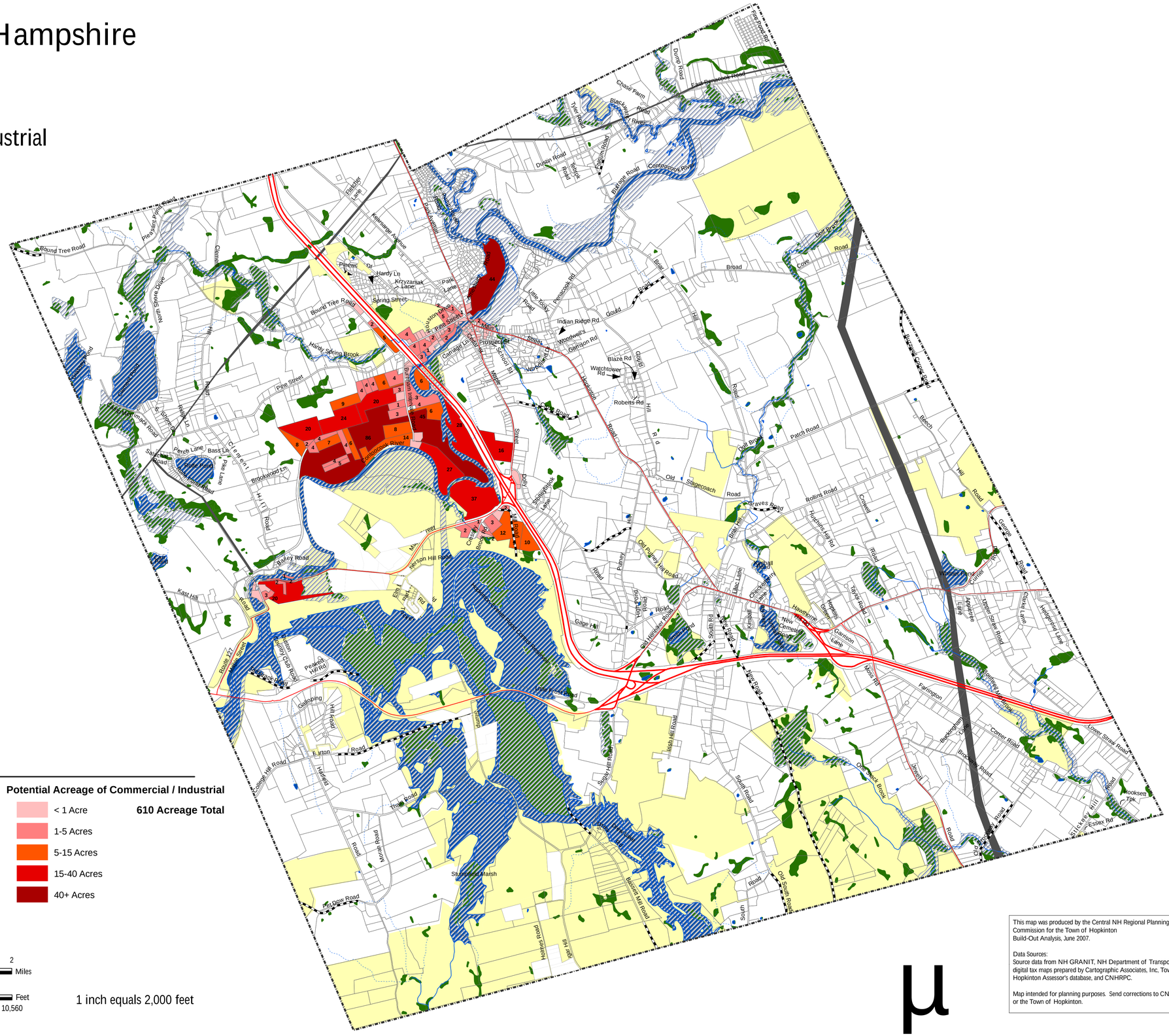
Town of Hopkinton, New Hampshire

Build Out Analysis

Potential Acreage of Commercial / Industrial



Legend

- Interstate Highways
- Class I & II Secondary State Highways
- Class VI Town Unmaintained Roads
- Rivers and Streams
- Intermittent Streams
- Utility Corridors

Potential Acreage of Commercial / Industrial

610 Acreage Total

1 0.5 0 1 2 Miles

5,280 2,640 0 5,280 10,560 Feet

1 inch equals 2,000 feet

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Build-Out Analysis, June 2007.

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