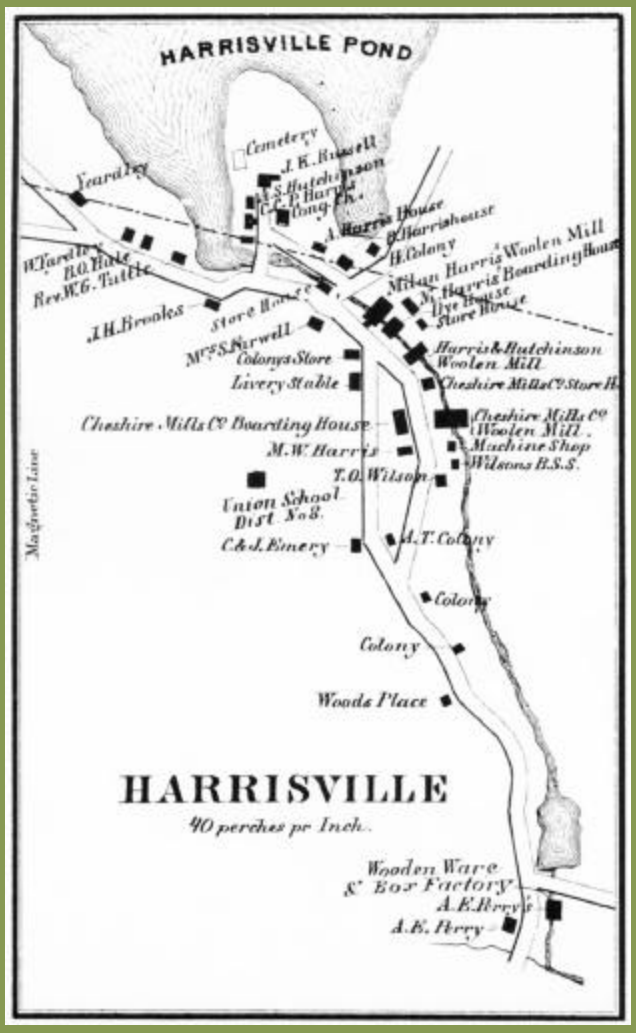
MASTER PLAN
FOR THE TOWN OF HARRISVILLE, NH



ADOPTED BY THE HARRISVILLE PLANNING BOARD
FEBRUARY 9, 2000

TOWN OF HARRISVILLE, NEW HAMPSHIRE

MASTER PLAN

2000

ACKNOWLEDGMENTS

A local Planning Board is responsible, by New Hampshire law, for the development of the Town's Master Plan. This is a demanding and time-consuming project, and it cannot be completed without the participation and input of town officials and residents, who provided the much-needed vital information, perspective and opinion.

It must be noted that the development of this Master Plan benefited greatly from the Future Search planning events held in Harrisville on a regular basis since November of 1997. The visions and recommendations of the many participants of Future Search did much to guide the direction of this document. Special thanks are extended to all Harrisville residents who contributed to this process. It is their daily individual commitment to the community that makes living and working in town especially outstanding for Harrisville's residents.

The Planning Board also acknowledges the important guidance and leadership provided to us by Carol Ogilvie of the Southwest Region Planning Commission. She worked diligently with the Board to integrate the extensive amounts of data and other information that was gathered for this planning effort. The integrity of this document is a clear reflection of her commitment to quality work.

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TOWN OF HARRISVILLE, NEW HAMPSHIRE

MASTER PLAN

2000

INTRODUCTION

The following information represents an update of the Basic Studies Section of the 1993 Town of Harrisville Master Plan. While there have been few changes in the town-wide inventory of various services and facilities, and very little change in the demographics of the Town, this update was deemed timely by the Planning Board due, primarily, to the recent public planning event known as "Future Search". In November of 1997 approximately 80 Harrisville residents convened three times over an entire weekend to talk about the past, present and future of the Town. Since then, there have been regular reunions of the Future Search event, each one as enthusiastically attended as the first. Some of the discussion and plans are reflected in the Basic Studies inventory, but the heart of this planning exercise will be illustrated and presented in the Comprehensive, or Future Land Use, Plan for the Town that is the next step in this Master Plan Update.

The statistical information contained in this document comes primarily from the U.S. Bureau of the Census, the New Hampshire Office of State Planning, Harrisville Town Reports, Town Officers, and Town Department heads.

Community Policies, Goals and Objectives

COMMUNITY POLICIES, GOALS, AND OBJECTIVES

The following statements reflect opinions and desires of the residents of Harrisville, fashioned by the Planning Board from a compilation of the Basic Studies section, the Future Search planning event, and input from townspeople during several public meetings. Policies suggest the optimum to be achieved by the Town; goals reflect points at which achievement can be measured; and objectives are specific, identifiable projects or programs that, if carried out, would implement the broader policies and goals. These statements form the basis of the various Plans that follow.

GENERAL

Policy: It is policy of the Town of Harrisville to preserve the sense of history that has been a major part of the town's development pattern over the years.

Goals:

- Provide a healthy and balanced physical, social, and spiritually rich environment.

- Recognize that the local, regional, state and national events and trends can have an effect on Harrisville.

- Ensure that the elderly are encouraged to remain active in the community.

Objectives:

- Participate in the Regional Selectmen's Meetings, held quarterly in the Southwest Region.

- Coordinate planning efforts with surrounding communities and support inter-municipal cooperation and communication.

- Continued publication of *Common Threads* as a means of communication among townspeople and residents of the immediate vicinity.

- The Town as a whole should continue to support all town boards and committees, as well as private non-profit associations, such as Historic Harrisville, Inc. and the various lakes associations, in their efforts to contribute to a well-functioning community.

LAND USE

Policy: It is the policy of the Town of Harrisville to preserve, protect and improve, where appropriate, the historic, scenic, cultural and natural resources of the Town.

Goals:

- Preserve the individual identity and development patterns of Harrisville Village, Chesham, and Eastview.
- Balance new development with protection of the Town's sensitive and significant resources.
- Agricultural, forest and water resources must be recognized as vital to the proper development of land in Harrisville and should be wisely managed.
- Identify areas in Town where development could be considered premature, based on transportation systems, distance from emergency services, etc.

Objectives:

- Use the land use regulations to guide development away from the main roads that separate the three village areas.
- Determine whether the existing overlay district provisions need to include provisions that would completely restrict development in certain areas of Town.
- Determine whether new overlay districts are needed to protect agricultural lands, forests, and water resources.
- Maintain the geographic and spatial information created and illustrated on maps to guide the planning process.

COMMUNITY FACILITIES

Policy: It is the policy of the Town of Harrisville to ensure that residents of the town have access to reasonable local services and facilities.

Goals:

- Coordinate operations and expenditures of town departments in order to

provide services and facilities in a cost-effective manner.

- Establish methods for delivering community services that will meet the needs of Harrisville's citizens in the most efficient and cost-effective manner.

- Anticipate the demands that new growth will place on refuse and sewage disposal and plan accordingly.

Objectives:

- Support Planning Board efforts to develop and maintain a Capital Improvements Program.

- Ensure that the methods employed for the disposal of solid waste are the safest, most cost-effective, and have the least impact on the environment.

- Continue to ensure that Harrisville students receive the best possible education within acceptable fiscal parameters.

TRANSPORTATION

Policy: It is the policy of the Town of Harrisville to provide transportation systems that effectively meet the needs of the residents of Harrisville.

Goals:

- Undertake road construction and expansion with a view toward maintaining the present character and integrity of the Town.

- Gear road development toward the transportation needs of the townspeople and not in a manner that will encourage growth and development.

- Support transportation systems/networks that serve as alternatives to vehicular modes of travel.

Objectives:

- Support the efforts of the Rails-to-Trails Committee to complete the continuous connection of the old Chesham Line, thereby providing an alternative transportation network.

- Monitor the road standards contained in the Town's Subdivision Regulations to ensure that they continue to meet the needs of road improvement and

development in Harrisville.

- Encourage the Planning Board to apply road standards that are in keeping with Harrisville's rural character, while at the same not sacrificing public safety.

- Include the Planning Board in the review process for driveway and building permit applications.

- Investigate the feasibility of the Selectmen, in concert with the Planning Board, adopting a Roads Policy that would define the conditions under which development could occur on Town roads.

ECONOMIC DEVELOPMENT

Policy: It is the policy of the Town of Harrisville to encourage an economic environment that will provide a stable local economy to help ease the property tax burden without compromising the rural character or the special resources of the Town.

Goals:

- Encourage and support agricultural businesses

- Encourage and support home-based businesses.

- Expand the economic base of the Town.

Objectives:

- Ensure that the zoning ordinance clearly specifies uses and requirements in each district.

- Monitor the zoning ordinance to ensure that the regulations continue to support and encourage home occupations and home-based businesses.

- Amend the zoning ordinance where necessary to allow for modest commercial and industrial development, where appropriate.

- Support Historic Harrisville, Inc. in its efforts to establish the highest and best mixed uses for the Cheshire Mills complex.

HOUSING

Policy: It is the policy of the Town of Harrisville to ensure that opportunities exist for the development of adequate, safe and affordable housing for all residents at all income levels.

Goals:

- Encourage preservation and improvement of existing housing stock.
- Support all efforts toward energy conservation in residential development.
- Recognize that seasonal and second homes are a significant element of the town's housing stock, and understand the implications of future conversion patterns.
- Consider the environmental impacts of residential development around the lakes in Harrisville.

Objectives:

- Be aware of any programs designed to facilitate home improvements and historic preservation.
- Continue to maintain an up-to-date inventory of the town's housing stock, including thosel homes around the lakes, through the tax assessment data base.
- Continue to monitor the conversion of lakefront seasonal residences to year-round occupancy through the Growth Permit process.
- Monitor the zoning ordinance to ensure that provisions always exist for the creation of a range of housing types for all income levels.
- Continue to support zoning that addresses residential development around shorelands.

CONSERVATION/OPEN SPACE

Policy: It is the policy of the Town of Harrisville to provide for or encourage the preservation of those natural resources that give the Town much of its character and are essential to its environmental beauty and health.

Goals:

- Provide educational opportunities that foster greater understanding and stewardship of the Town's natural resources.
- Provide conservation areas for public use.
- Preserve and protect agricultural lands to enhance the open space characteristics of the Town.
- Recognize the importance of greenspaces to protect the environment and provide wildlife habitat.
- Support preservation of open fields by landowners for scenic and wildlife purposes.
- Encourage forest and woodland management programs.
- Continue to explore way to work with surrounding towns to "link up" trails for a regional trails system.

Objectives:

- Support protection and creation of greenspace by requiring buffer areas between development areas.
- Acquire parcels or easements to preserve unique natural features.
- Develop a program to publicize the benefits of conservation land.
- Establish a shoreline "greenway" to protect watercourses.

RECREATION

Policy: It is the policy of the Town of Harrisville to provide for the availability and accessibility of lands and programs to meet the recreational needs of all Town residents.

Goals:

- Encourage and facilitate the use of recreational facilities at the Wells Memorial School to meet the needs for local recreation.

- Support the Recreation Committee's efforts to establish certain recreational facilities in Harrisville, i.e., an ice-skating rink, a baseball field, and a soccer field.

Objectives:

- Encourage use of the rail line for recreation and open space.

- Continue to investigate the purchase of appropriate land for recreation purposes.

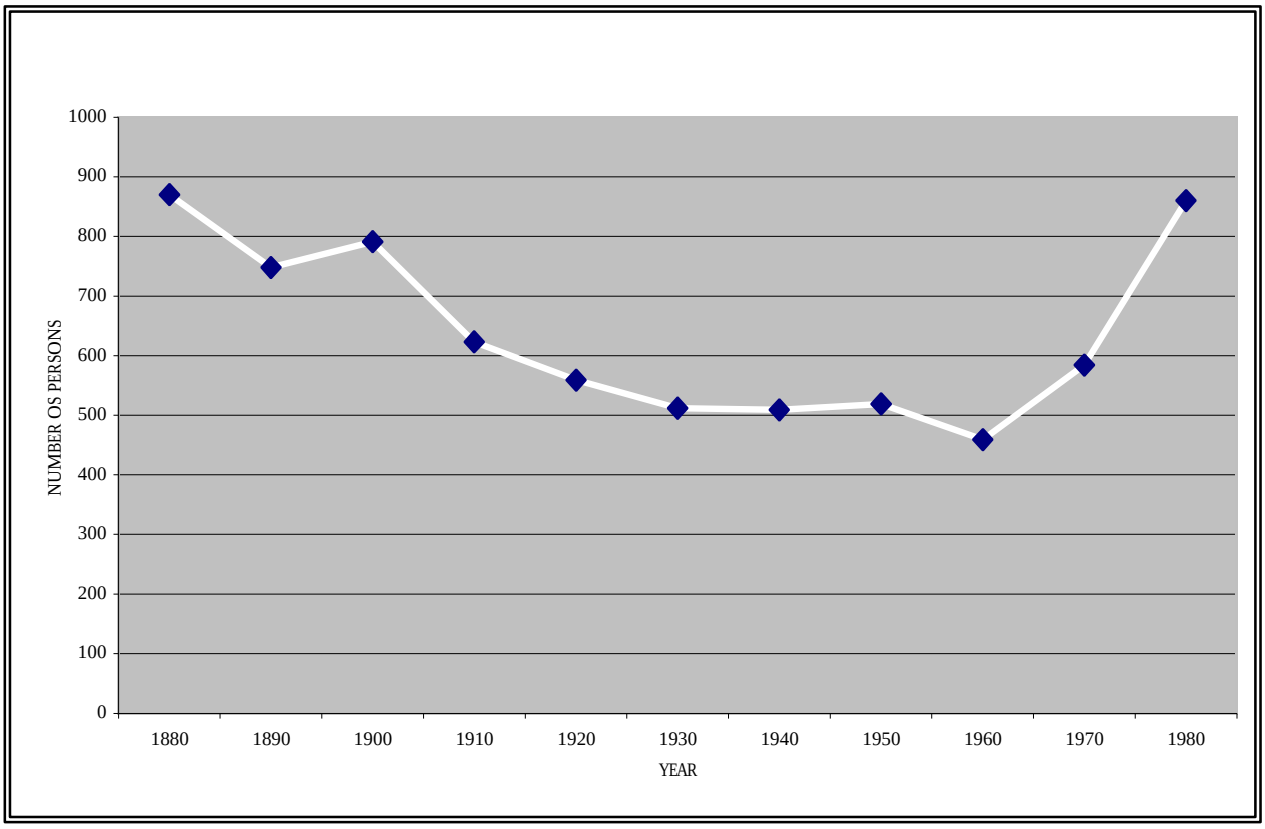
Basic Studies

POPULATION ANALYSIS

POPULATION TRENDS

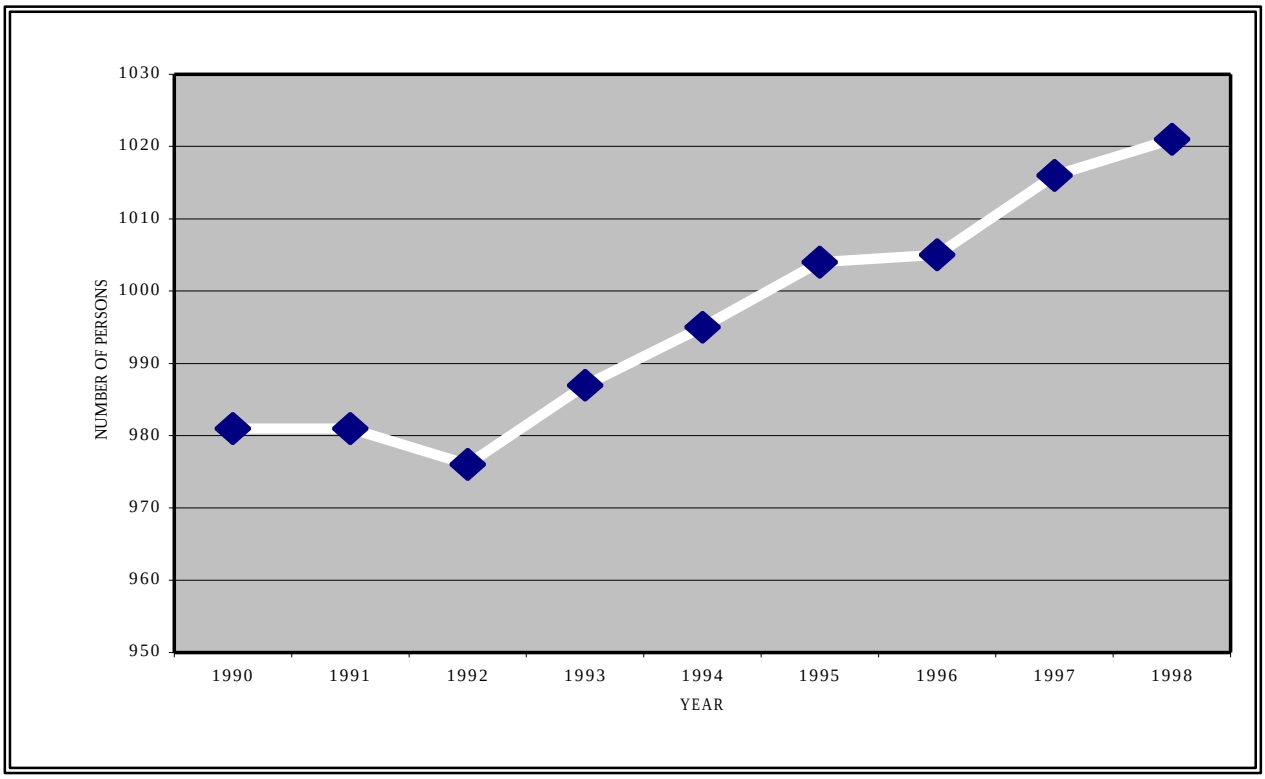
Harrisville's population, over the 100 years between 1880 to 1980, actually declined by 10 persons. Within this period of time, the population steadily declined until 1960, when it began an upturn that continues to the present. Although, up until 1980, the population was still less than it was in 1880. Of the eight decades from 1880 to 1960, six of them saw declining populations. Between 1960 and 1980 the town grew by about 400 people, almost half of its 1980 population of 860 people.

GRAPH #1:
HARRISVILLE POPULATION, 1880 - 1980



Population estimates for the individual years since 1990 indicate a moderate increase of 40 people over the past eight years. Population projections predict about 60 new people per decade for Harrisville up to the year 2020. Clearly, the economy will play a large role in how much growth Harrisville could expect; nevertheless, with the exception of the 1960s, '70s, and '80s, no decade in Harrisville's recorded history has experienced as much population growth as that being predicted for the future.

GRAPH #2:
HARRISVILLE POPULATION, 1990 - 1998



POPULATION INCREASES

Population change is a result of two factors: natural increases due to an excess of births over deaths in any given time period, and in-migration. The statistics for natural increase in Harrisville's population from 1960 through to 1998 are presented in the box to the right. As can be seen, there is a dramatic drop in births during the 1990s. For the prior three decades, population increased by 22 - 24 persons, but during the 1990s, only by seven.

If these figures are compared to Harrisville's total population for each of these decades, the role played by in-migration can be evaluated, as shown in the table following.

Table #1:
Births Over Deaths, 1960 - 1998

DECADE	NATURAL INCREASE
1960s	24
1970s	22
1980s	24
1990s	7

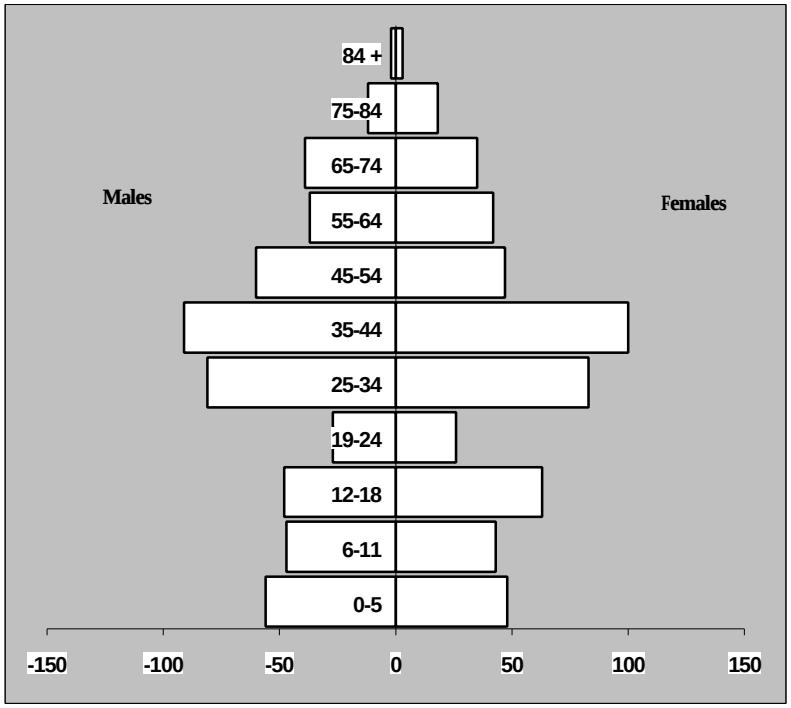
SOURCE: HARRISVILLE TOWN REPORTS

Population 1960	**459**
Natural Increase	24
Population 1970, if no migration	483
Actual 1970 population	584
Increase due to in-migration	**101**
Population 1970	**584**
Natural Increase	22
Population 1980, if no migration	606
Actual 1980 population	860
Increase due to in-migration	**254**
Population 1980	**860**
Natural Increase	24
Population 1980, if no migration	884
Actual 1990 population	981
Increase due to in-migration	**97**
Population 1990	**981**
Natural Increase	7
Population 1998, if no migration	988
Estimated 1998 population	1021
Increase due to in-migration	**33**

Within each decade examined, in-migration has clearly played a significantly larger role in population increases than has natural increase. This is particularly noteworthy during the 1960s and 1970s, and can be seen illustrated on Graph #1. These numbers are also consistent with state and county data collected over the same time period.

POPULATION CHARACTERISTICS

- Harrisville's population as of 1990 was almost evenly shared by males (500) and females (508), and in just about the same proportion per age group. The largest age group for both genders is the 35-44 year olds, followed by the 25-34 year olds. For both males and females under 65, the 19-24 year old



group is the smallest.

- Most of the population lives in a family household (as opposed to a nonfamily household, which would be either a single person or a household of nonrelated people).

- Just less than half (456) of the population was born in New Hampshire. Most of the remaining population came from the northeast.

- Just under half (453) of the population lived in the same houses in 1985 as in 1975. This indicates that over half of the town's population moved to Harrisville between 1975 and 1985, most moving from somewhere else in Cheshire County.

Place of Residence
(Persons 5 years and over)

Residence in 1975:	
Same house in 1985	453
Different house in U.S. in 1985:	
Same County	186
Different County:	
Same State	70
Different State:	
Northeast	91
Midwest	2
South	27
West	29
Abroad in 1985	13

- The largest segment of the workforce is engaged in managerial and professional occupations, most of them in the private sector.

- In 1990 Harrisville had 724 people aged 16 or over; of these 514 were employed, 28 were not employed; and 182 were not in the labor force. Of those working:
  - 77% work in Cheshire County
  - 77% drive alone to work
  - most travel about 20 minutes to the workplace

- Most families (146 out of 263) have two people working.

- Forty-four percent of Harrisville's population 25 years and over have at least one college degree, the majority holding a Batchelor's degree. Only 14% of this group did not graduate from high school.

- Harrisville's median household income in 1990 was $35,000 – higher than Cheshire County but lower than the state average.

- The per capita income in Harrisville was $14,726 – again, higher than the county but lower than the state, although only by about one thousand dollars in each case.
- People living below the poverty level in Harrisville account for only 3.7% of the population – much lower than the 7% of Cheshire County and the 6.4% for the state.

- Seventeen people reported that they were prevented from working due to a disability; seven people are limited in their mobility by a disability, and 2 people – both over 75, reported a self-care limitation.

AREA POPULATION

Comparing Harrisville to its six neighboring towns (Roxbury, Nelson, Dublin, Hancock, Marlborough, and Peterborough), Harrisville ranks 5th in population size. Peterborough is, of course, the most populated town in this subregion, and Roxbury the least.

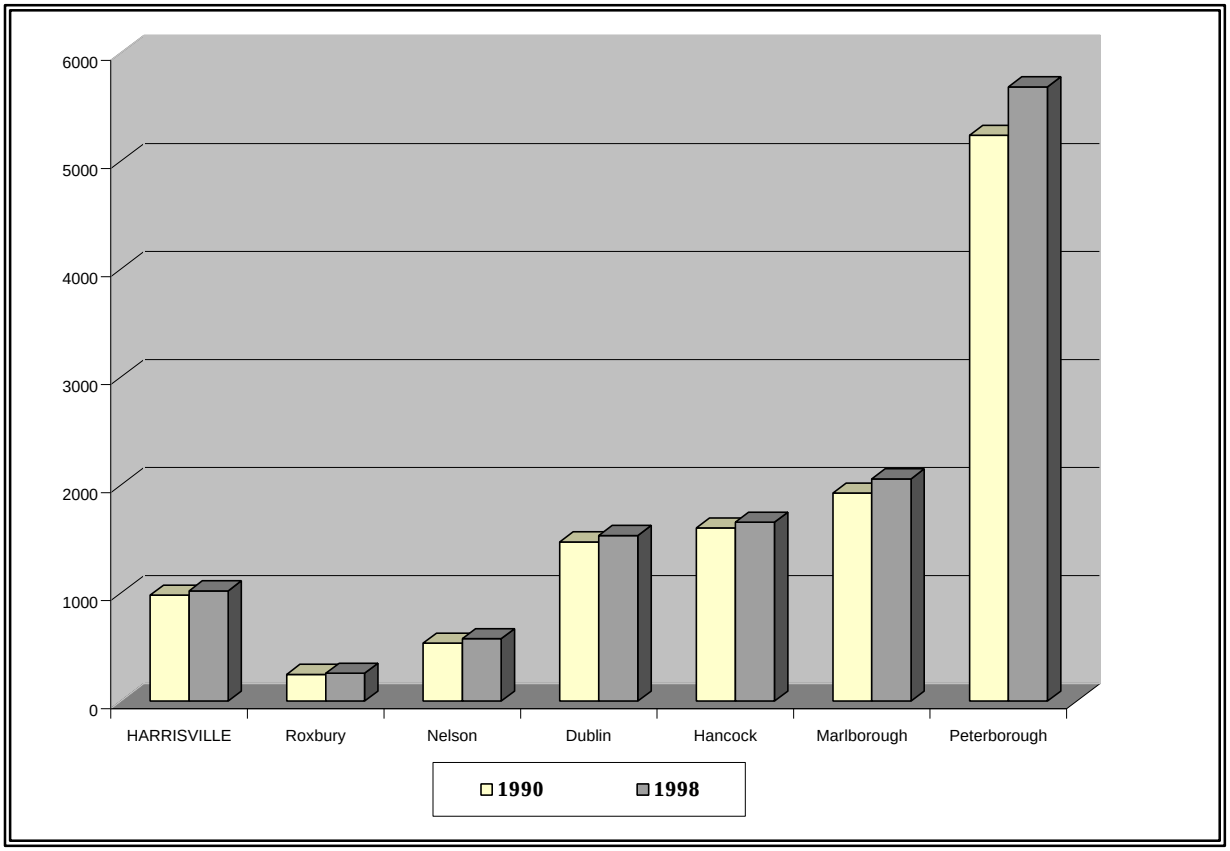
Not only does Peterborough have the largest population, it also grew the fastest between 1990 and 1998 – 8.5%, followed by Nelson with 8% growth. Hancock was the slowest-growing town, followed by Roxbury.

TABLE #2:
SUBREGIONAL POPULATION, 1990 & 1998

	POPULATION		# INCREASE	% INCREASE
	1990	1998	1990-1998	1990-1998
HARRISVILLE	981	1021	40	4.1%
Roxbury	248	257	9	3.6%
Nelson	535	578	43	8.0%
Dublin	1474	1533	59	4.0%
Hancock	1604	1655	51	3.2%
Marlborough	1927	2059	132	6.9%
Peterborough	5239	5686	447	8.5%
Total Subregion	12,008	12,789	781	6.5%

SOURCES: US BUREAU OF THE CENSUS; NH OFFICE OF STATE PLANNING

GRAPH #3:
COMPARISON OF SUBREGIONAL POPULATION, 1990 & 1998



Within this subregion, Harrisville accounts for 8% of the total population. This is unchanged from 1990; in fact, there was no change in any of the seven towns in the proportion of subregional population accounted for by each town. All of the towns kept their 1990 ranking in 1998, and they also comprised the same percentage of total subregional population in 1998 as in 1990.

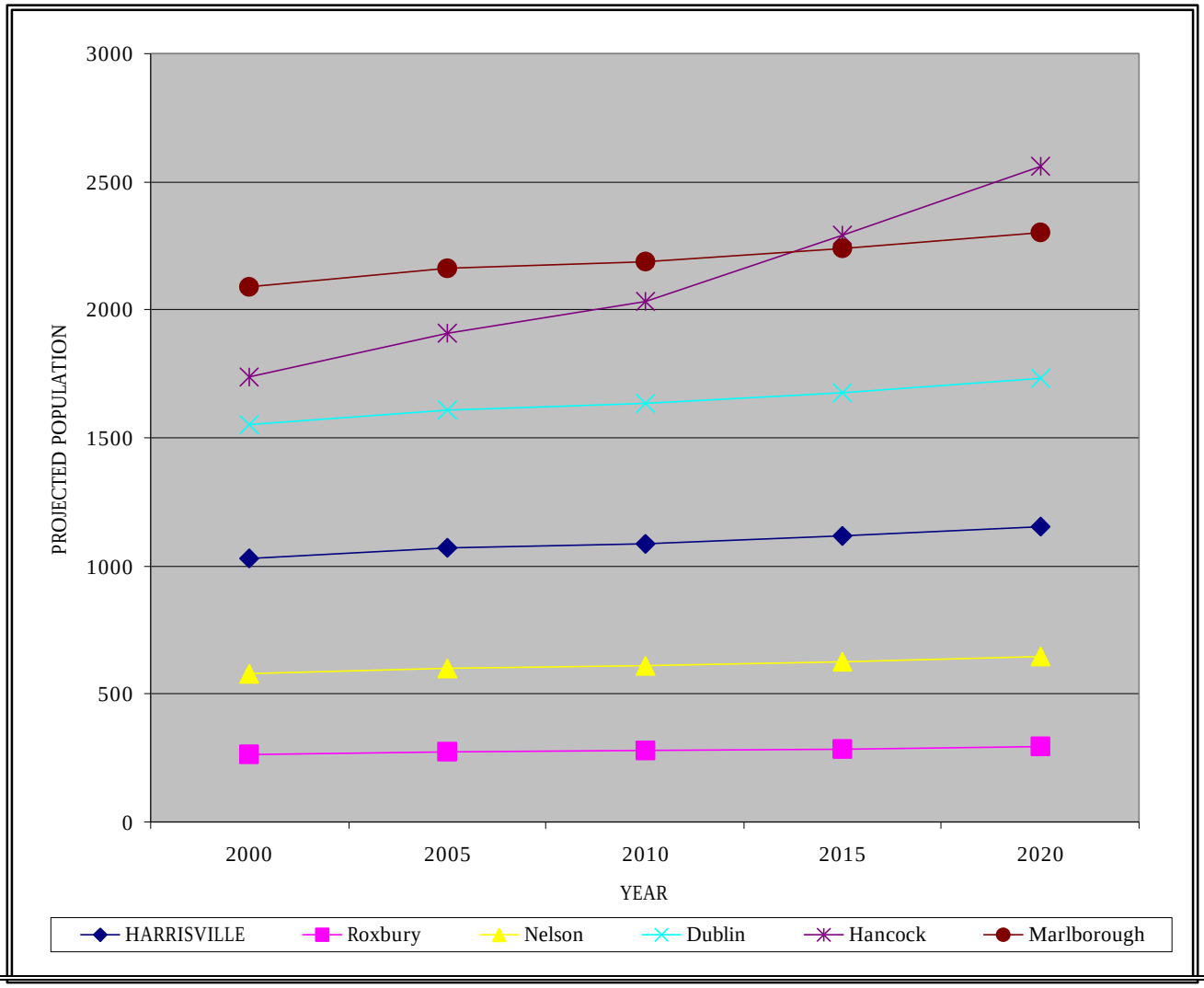
The OSP population projections for these seven towns indicate that the subregion is expected to experience very slight growth from the year 2000 to 2020, only 1.3% overall. Most of that growth is projected for the town of Hancock, and less so, for Peterborough, with 2.4% and 1.8% respectively. The other five towns are not expected to have more than 0.6% average annual growth. All of these projections are consistent with the growth experienced since 1990, with the exception of Hancock. The graph below illustrates the projected steady, slow rate of growth for these towns - again, Hancock being the only one expected to bypass the others at any significant rate.

TABLE #3:
SUBREGIONAL POPULATION PROJECTIONS

TOWN	2000	2005	YEAR 2010	2015	2020	Av. Ann. % Chg.
HARRISVILLE	1031	1071	1086	1116	1153	0.6%
Roxbury	266	276	280	287	296	0.6%
Nelson	579	602	611	628	649	0.6%
Dublin	1554	1611	1633	1677	1731	0.6%
Hancock	1738	1910	2032	2293	2559	2.4%
Marlborough	2092	2163	2190	2241	2303	0.5%
Peterborough	5935	6398	6718	7373	8032	1.8%
TOTAL	13195	14031	14550	15615	16723	1.3%

SOURCE: NH OFFICE OF STATE PLANNING, OCTOBER 1997

GRAPH #4:
SUBREGIONAL POPULATION PROJECTIONS

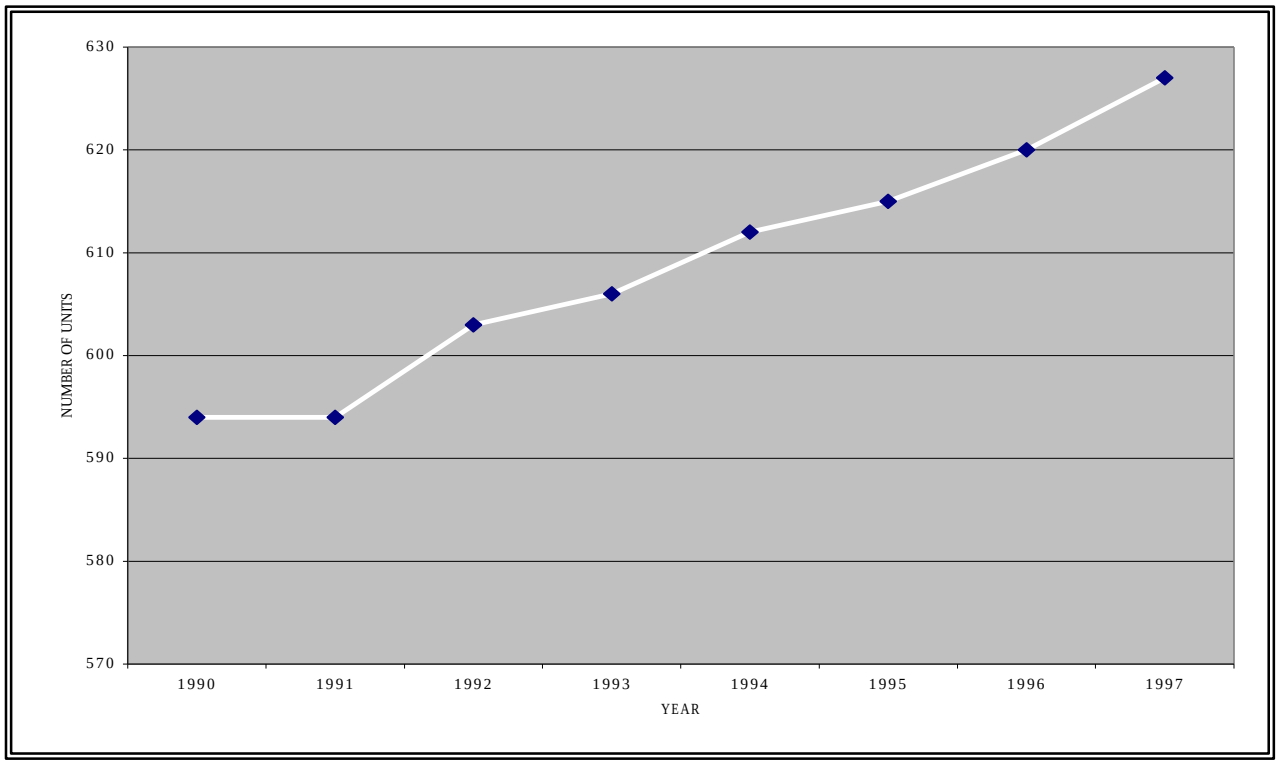


HOUSING ANALYSIS

HOUSING TRENDS

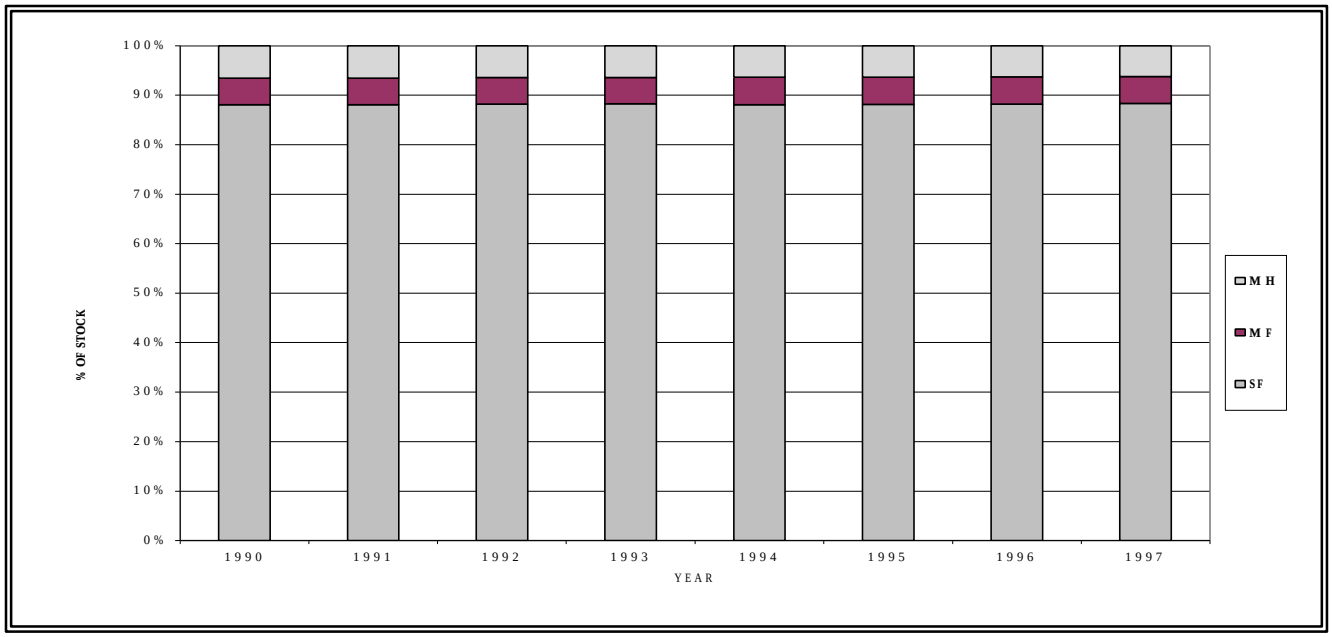
As of 1997, the latest year for which housing information is available, Harrisville had an estimated housing stock of 627 units; these were comprised of 554 single family, 34 multi-family, and 39 manufactured homes. These numbers represent a 5.5% increase in the housing supply since 1990 – somewhat greater than that of the estimated population growth for the same period (3.6%).

GRAPH #5:
HARRISVILLE HOUSING STOCK, 1990 - 1997



The increase in the housing stock exactly mirrored the population growth from 1992 onward, with a small but steady increase measured for each year. Most of this growth was in single family development, which increased by 31 dwellings; multi-family units only increased by two; and manufactured housing stayed the same at 39 units. Graph #6 on the following page clearly illustrates that the ratio between the three housing types has remained unchanged over the eight-year period from 1990 to 1997.

GRAPH #6:
HARRISVILLE HOUSING STOCK BY TYPE, 1990 - 1997



HOUSING CHARACTERISTICS

- Harrisville has a high percentage of seasonal housing. Of the 1990 Census count of 588 units, 243 (41%) were vacant; of these 207 (85%) were for seasonal, recreational, or occasional use. By comparison, Cheshire County averaged 15% vacant units, and of these, 63% were for seasonal, recreational, or occasional use.

- Most occupied homes (75%) are owner-occupied; nearly half of these are mortgage-free.

- The mean number of rooms per unit is 5.6

- Mean number of persons per unit is 2.6 for owner-occupied, 3.0 for renter-occupied.

- Rental units are predominantly single-family detached homes. Most mobile homes are owner-occupied; nearly half are vacant – presumably seasonal housing.

- 44% of the housing stock was built prior to 1940. The decade of the 1970s saw the greatest surge in housing construction (89 homes), consistent with the population growth measured for that same time.

- Water supply for almost all housing comes from an on-site well, either drilled (65%) or dug (21%).

- Sewage disposal is primarily on-site septic systems.

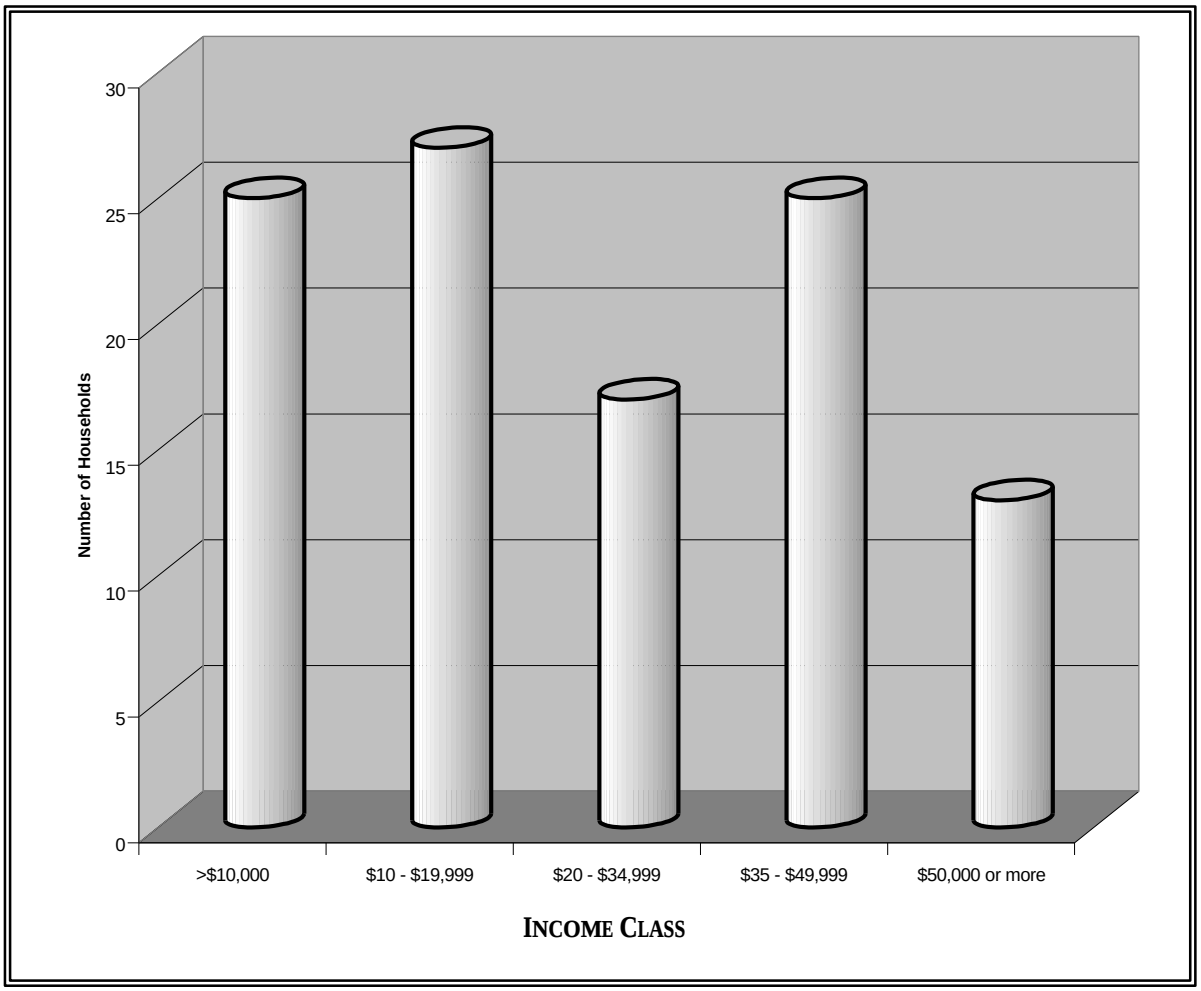
- Most homes are heated by either fuel oil (56%) or wood (29%).
- Very few homes lack complete plumbing or kitchen facilities. Of those lacking complete plumbing facilities, most are seasonal units.

- Owner-occupied units have an average of 2.1 vehicles per unit; renter-occupied units fewer, with 1.7.

- The average value of homes in Harrisville as of 1990 was estimated at $147,300, which is much higher than those of the county ($123,500) and only slightly higher than the statewide average of $142,700. Average cost for rental units was $607 – also higher than both the county ($513) and the state ($565).

- More households with annual incomes of less than $20,000 spend more than 30% of their incomes on housing than do households with annual incomes of $50,000 and above.

GRAPH #7:
NUMBER OF HOUSEHOLDS PAYING 30% OR MORE FOR HOUSING BY INCOME CLASS, 1990



SUBREGIONAL HOUSING SUPPLY

Housing supply in Harrisville and its neighboring towns experienced slight growth from 1990 to 1997 (the most recent year for which information is available) - 1.2% average annual increase. This is somewhat greater than the population growth experienced over the same time period - 0.8%. Growth in the subregional housing stock mirrors the population growth for these neighboring towns as well: in terms of absolute numbers, Peterborough had the largest growth, and Roxbury the smallest - seven permits over seven years.

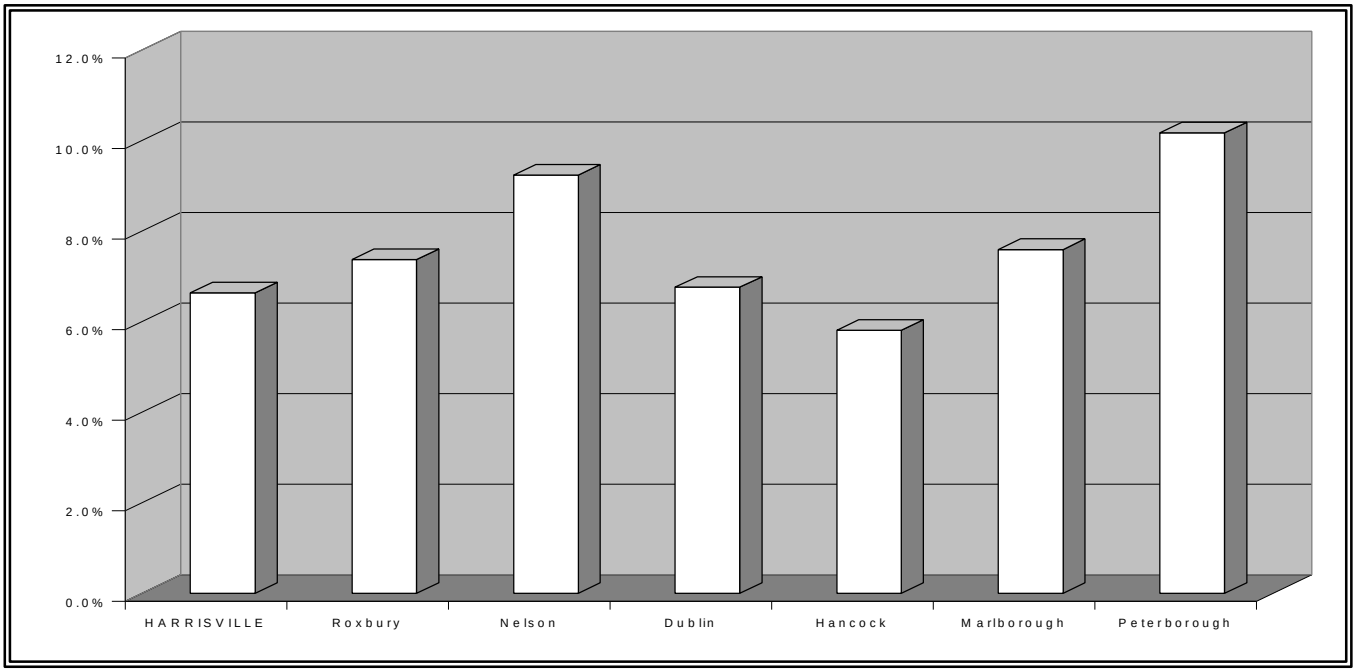
TABLE #4:
SUBREGIONAL HOUSING SUPPLY, 1990 – 1997

	1990	1997
HARRISVILLE	588	627
Roxbury	95	102
Nelson	379	414
Dublin	651	695
Hancock	723	765
Marlborough	856	921
Peterborough	2242	2470
Total	**5534**	**5994**

SOURCES: US BUREAU OF THE CENSUS
NH OFFICE OF STATE PLANNING

Harrisville has been adding dwelling units to its housing supply at an average rate of 5.6 units per year. This figure is consistent with the growth rate planned for by the Town, with its adoption of a Growth Management Ordinance, which sets a limit on the number of permits that may be approved each year; that rate, per the ordinance, shall number at least six permits in the year. To date, the Town has not received more applications for growth permits than the Ordinance would allow.

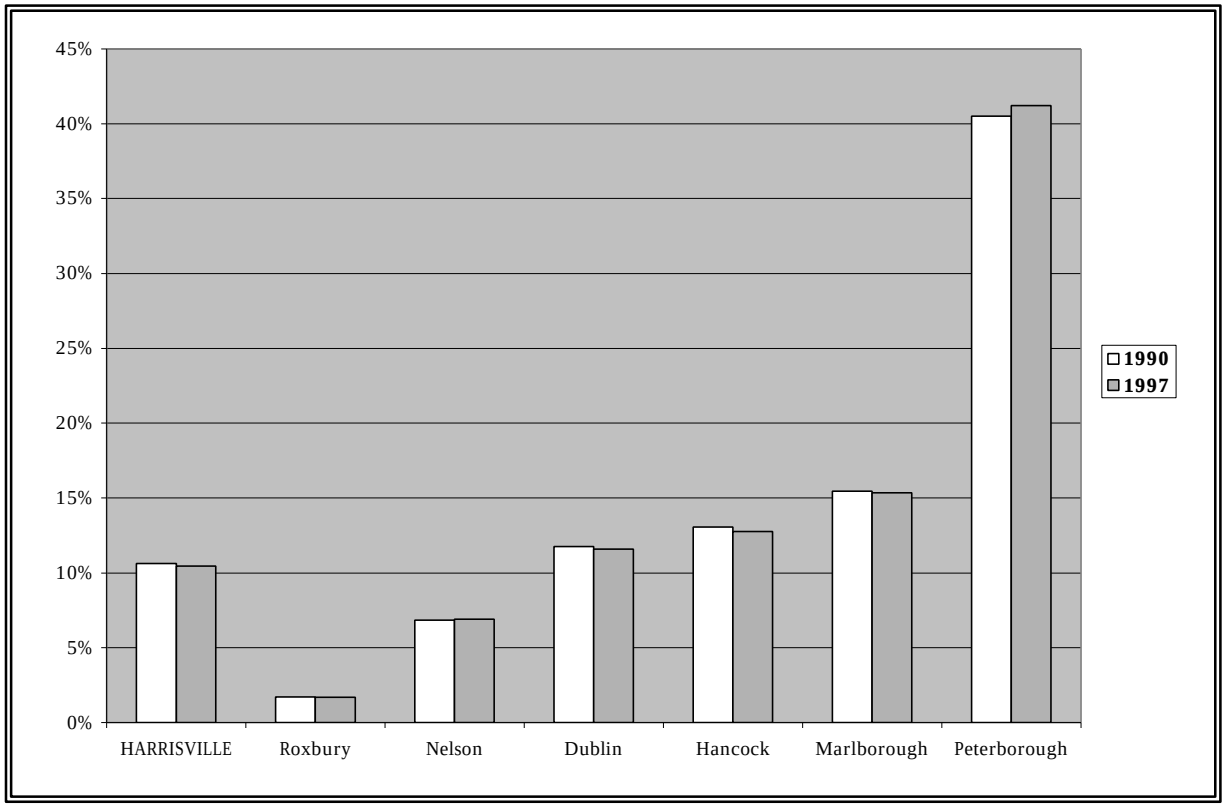
GRAPH #8:
PERCENTAGE CHANGE IN SUBREGIONAL HOUSING SUPPLY, 1990 - 1997



In terms of percentage change, illustrated in Graph #8 above, five of the seven towns experienced an increase in housing stock at a rate of about six to seven percent, with the exception of Nelson at nine percent and Peterborough at 10%. Overall, new dwelling units were added to the subregional housing supply at an average rate of about 65 units per year from 1990 to 1997.

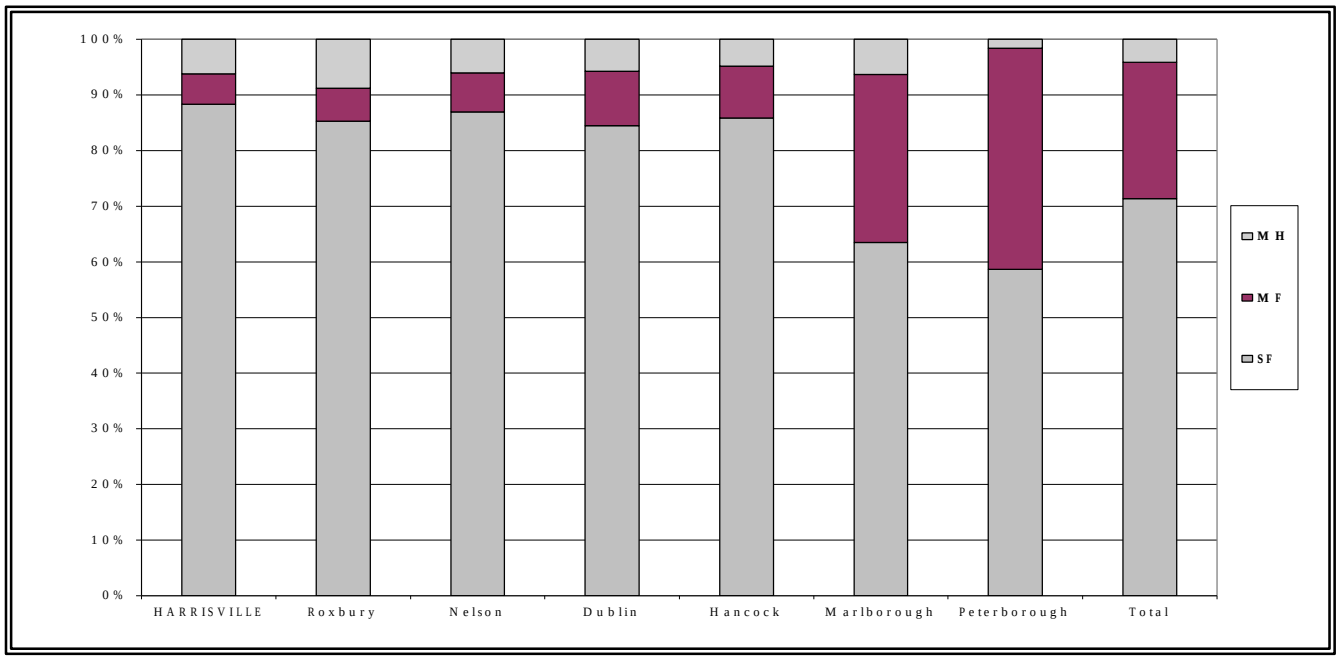
Graph #9 below illustrates Harrisville's place within the subregion, in terms of housing stock. Harrisville ranks 5th in subregional population, and 5th in its share of the subregional housing stock. In fact, all of the towns hold the same ranking for both population and housing supply.

GRAPH #9:
SUBREGIONAL HOUSING SUPPLY, 1990 & 1997



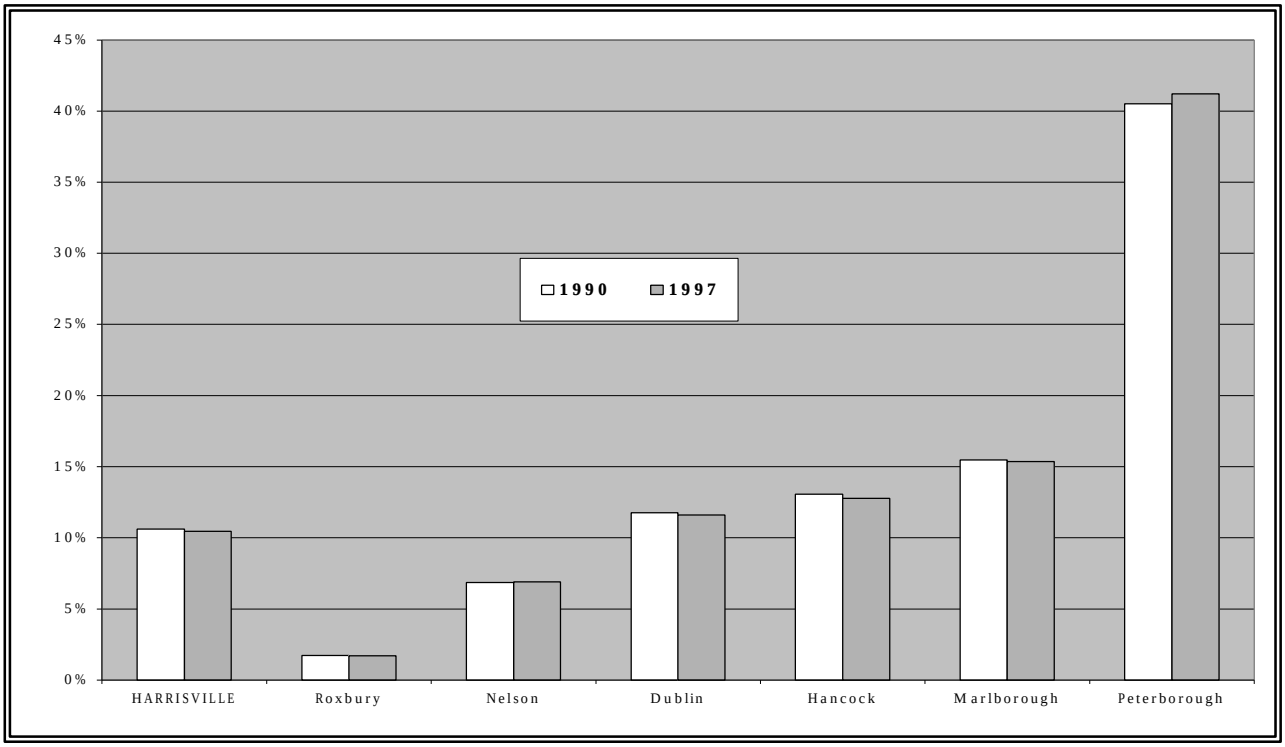
Consistent with Harrisville, the six surrounding towns share the characteristic that all have more single family housing than multi-family or manufactured housing - and five of the seven have almost the same proportion of housing types. Peterborough and Marlborough differ in that, while single family housing dominates, it's not by very much: both towns have much higher ratios of multi-family to single-family housing. This is not unusual in towns that have municipal water & sewer systems. On the other hand, Peterborough has the smallest ratio of manufactured housing than any of the other six towns.

GRAPH #10:
COMPARISON OF HOUSING TYPE BY TOWN, 1997



The individual towns' share of the total subregional housing stock remained virtually unchanged from 1990 to 1997: Harrisville had 10.6% of the housing for the subregion in 1990, and 10.5% in 1997; the other six towns as well shifted only tenths of percentage points.

GRAPH #11:
PERCENTAGE OF SUBREGIONAL HOUSING STOCK BY TOWN, 1990 & 1997



TRANSPORTATION ANALYSIS

LOCAL NETWORK

Harrisville has approximately 44 miles of road. For the purposes of funding and maintenance, roads in New Hampshire are categorized as belonging to a Legislative Class, ranging from Class I to Class VI. Classes I and II are state-owned and maintained roads and highways; Class V are the local, town-owned and maintained; and Class VI are town roads that are no longer maintained by the Town, but are still considered public ways. Harrisville's road network is comprised of three of these Classes, as presented in Table #5 below:

TABLE #5:
HARRISVILLE ROAD NETWORK

ROAD	MILEAGE
Class II Roads:	
Silver Lake Road	3.81
Chesham Road	2.69
Nelson Road	4.63
	11.13
Class VI Roads:	
Old Nelson Road	0.52
Roxbury Road	0.70
Marienfeld Camp Road	0.34
	1.56
Class V Roads: (all other roads)	31.48
TOTAL MILEAGE:	**44.17**

Since the 1993 Master Plan was developed, there have been no substantive changes to this road network.

Overall, the road network in Harrisville is adequate for the current and expected future levels of traffic. For nonresidential traffic, however, there are issues with the road network that are really beyond the Town's control: that is the location of Harrisville relative to major state highways. Adequate access for truck traffic to serve commercial and industrial uses plays a part in the decisions made by the private sector as to where businesses will locate. Not having immediate access to a major state highway has certainly influenced Harrisville's development pattern. The extent to which this situation has impacted Harrisville will be examined in more detail in the land use analysis.

With the recent introduction of an Enhanced 911 system throughout the state, some road names in Harrisville have been changed, and some roads have received names for the first time.

Bridges

There are twelve bridges in Harrisville, eight of which are town-maintained; the other four are state-maintained. According to information compiled by the NH Department of Transportation (DOT), six of the eight town bridges are considered functionally obsolete, which means that they are currently carrying more traffic than they were designed to do; and the bridge on South Road is rated structurally deficient.

TABLE #6:
LIST OF BRIDGES

ID #/LOCATION	OWNER	CONDITION	YEAR BUILT	YEAR ADT	ADT
053/063 - Old Meadow Road/ Minnewawa	Town	FO[1]	1930	1987	225
056/058 - Chesham Road/ Minnewawa	State		1939	1983	200
062/068 - Chesham Road/ Minnewawa	State		1953	1983	100
068/072 - Chesham Road/ Minnewawa	State		1963	1990	700
061/060 - Old South Road/ Minnewawa	Town	SD[2]	1950	1987	55
111/087 - Village Road/ Harrisville Pond Outlet	Town	FO	1914	1987	550
113/087 - Village Road/ Harrisville Pond Outlet	Town		1930	1985	880
143/081 - Hancock Road/ Nubanusit	Town	FO	1925	1987	1100
118/080 - Hancock Road/ Skatutakee	Town	FO	1960	1987	1100
174/071 - Hancock Road/ Nubanusit	Town	FO	1925	1987	1100
184/078 - Hancock Road/ Jacquith Brook	Town	FO	1931	1987	1100
197/072 - NH 137/Nubanusit	State		1970	1991	1300

SOURCE: NH DEPARTMENT OF TRANSPORTATION, 1995

The remaining town bridge – that on Old South Road over the Minnewawa, is considered to be structurally deficient. The bridge is still open for use, but a weight restriction has been placed on it. All the bridges in town were last inspected in 1992, with the exception of the one on Old South Road, which was last inspected in 1994. The ages of these bridges varies widely, the oldest built in 1914, and the newest in 1970, although the bridge by the Library has been recently reconstructed.

[1] Functionally Obsolete
[2] Structurally Deficient

Town of Harrisville, NH

Bridge Locations

143/081 Bridge Location and ID Number

Municipal Boundaries
Watercourses
Waterbodies
Wetland Areas

DOT Legislative Road Classes
Class I
Class II
Class III
Class IV
Class V
Class VI

N
Scale - 1:12000
1" = 1000'
1000 0 1000 Feet

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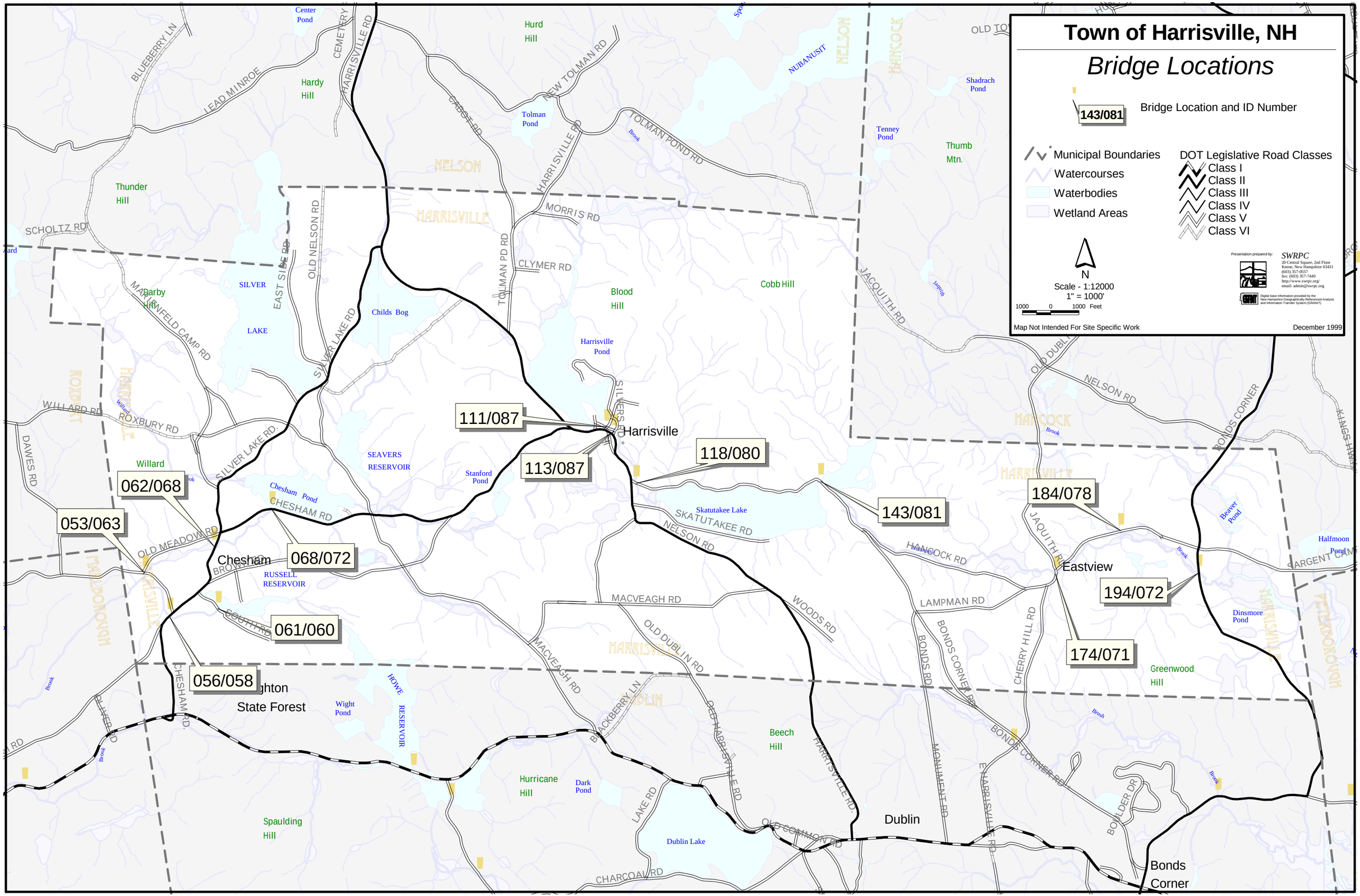
Digital base information provided by the New Hampshire Geographically Referenced Analysis and Information Transfer System (GRANIT)

Map Not Intended For Site Specific Work

December 1999



Information on average daily traffic counts for these bridges is not recent - the oldest count in 1983, and the most recent in 1991. In 1987 the bridges along the Hancock Road carried the greatest amount of traffic in town. The information on these bridges is presented in Table #6 on the preceding page, and their locations are identified on the accompanying map.

Commuter Patterns

Most of the labor force in Harrisville commutes out of town to work. Looking at the commuting patterns helps to identify current and potential impacts on town roads. Based on 1990 Census information, 37% of the estimated commuters worked in Keene; although specific information is not available, it can be assumed that Chesham Road accommodates most of this traffic, connecting to Route 101 west to Keene. Another 31% commute to Peterborough, Dublin and Jaffrey. While there are a number of roads that could be affected by this traffic, again, an assumption can be made that New Harrisville Road and Eastview Road are impacted by these patterns.

Census information on workers commuting into town is sketchy: 79 workers were counted who commute to Harrisville, but origin data has only been counted for 51 of them.

Traffic Counts

Information on average daily vehicle trips per year on certain roads is collected by the NH DOT. Traffic counters are placed around the state on a rotating basis. In Harrisville, seven counters have been placed at various locations around town (in addition to the counts taken at the bridge locations presented in Table #11), and at the Hancock Town Line. Comparable data exist, however, only for the years 1993 and 1997, as presented below:

TABLE #7:
AVERAGE ANNUAL DAILY TRAFFIC

ID NUMBER/LOCATION	1993	1997	% Chg 93-97
205025 - Mill Canal Road @ Mill Canal River Bridge	60	70	17%
205021- Chesham Road over Minnewawa Brook	1400	1400	--
205022 - Meadow Road over Minnewawa Brook	60	60	--
205024 - Silver Lake Road north of Old Marlborough Road	1200	1600	33%
205023 - Silver Lake Road over Minnewawa Brook	610	1300	113%
205020 - Canal Street over Harrisville Pond outlet	70	70	--
205026- Hancock Road over Skatutakee Lake	310	310	--
201054- Rt. 137 at the Hancock Town Line	600	620	3%

SOURCE: NH DEPARTMENT OF TRANSPORTATION

Town of Harrisville, NH

Traffic Counters

S 143/081 Traffic Counters and ID Number

Municipal Boundaries
Watercourses
Waterbodies
Wetland Areas

DOT Legislative Road Classes
Class I
Class II
Class III
Class IV
Class V
Class VI

N

Scale - 1:36000
1" = 3000'

1500 0 1500 Feet

Map Not Intended For Site Specific Work

December 1999

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Nelson
Harrisville
Chesham
Eastview
Dublin
Leighton State Forest
Center Pond
Hurd Hill
Hardy Hill
Thunder Hill
Tolman Pond
Spoonwood Pond
NUBANUSIT
Shadrach Pond
Jacks Pond
Tenney Pond
Thumb Mtn.
Skatukee Mtn.
Darby Hill
SILVER LAKE
Childs Bog
Blood Hill
Cobb Hill
Harrisville Pond
Juggernaut Pond
Willard Hill
SEAVERS RESERVOIR
Stanford Pond
Chesham Pond
RUSSELL RESERVOIR
Skatutakee Lake
Wight Pond
HOWE RESERVOIR
Beech Hill
Hurricane Hill
Dark Pond
Spaulding Hill
Beaver Pond
Halfmoon Pond
Dinsmore Pond
Greenwood Hill

205020
205021
205022
205023
205024
205026
201054

The information indicates that Chesham and the Silver Lake Roads carry the greatest amount of traffic of all the sites selected. Note, however, that depending upon the time of year the counts were taken, results can vary widely. Except where traffic counters are permanently located, counts are usually taken for a period of one week at some point between May and October; therefore, when historical information is not available, data collection can reveal apparent inconsistencies, or count one-time only events that skew the data.

REGIONAL NETWORK

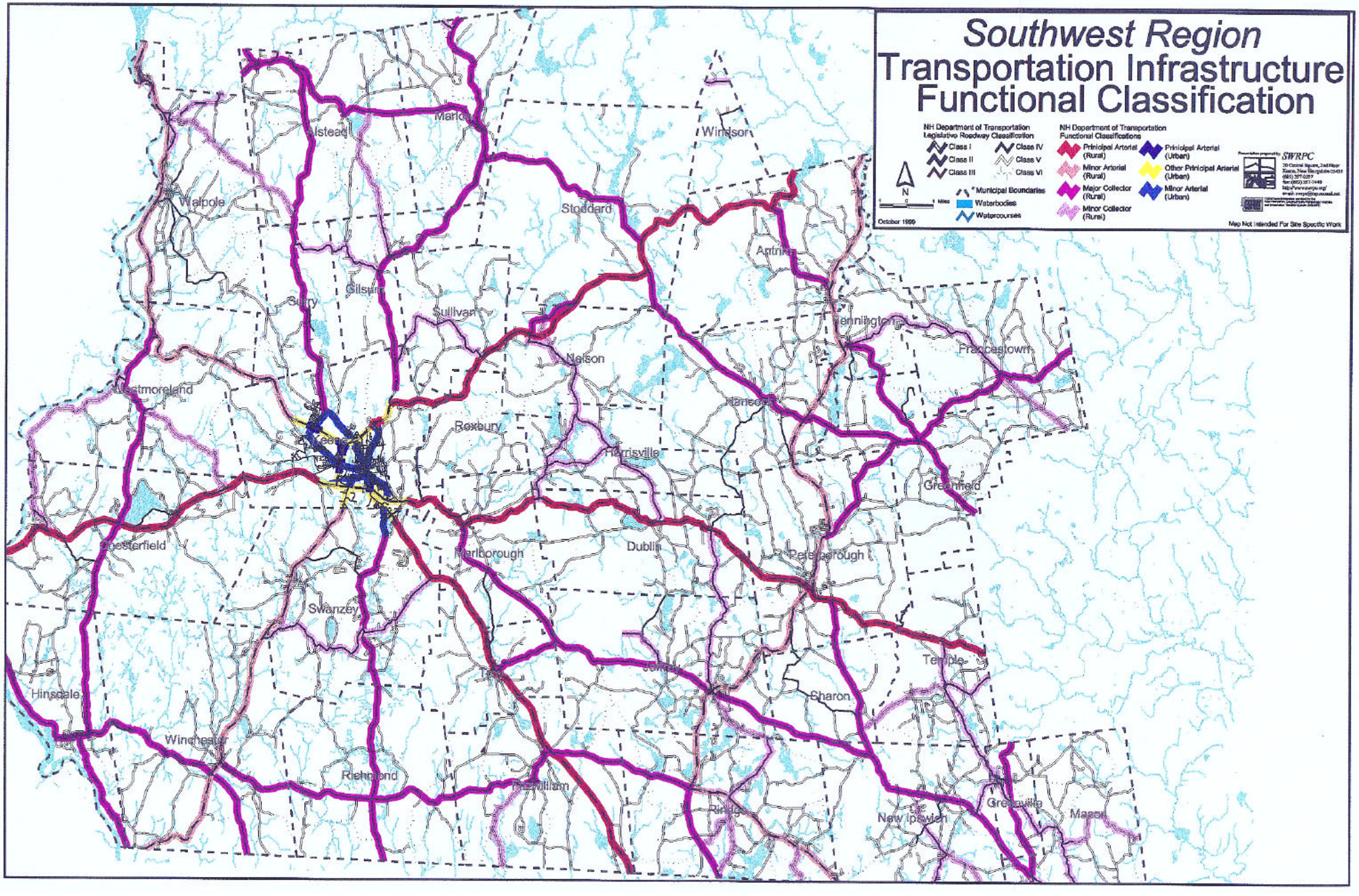
In addition to the state classification of roads (Class I – VI), standards have been developed by the federal Department of Transportation to categorize roads based on their functional capacity - that is, how a particular road functions within its larger region or state, and what kind of an impact the road makes in terms of the traffic carried on it. The categorizes used are:

- Major and Minor Arterials. These roads carry the largest amount of traffic into and through a region. These roads may have limited or controlled driveway access, for the purpose of providing unimpeded traffic flow. These roads typically carry high volumes of traffic for medium to long distances and at medium speeds.

- Major and Minor Collectors. These roads provide more direct land access than do the Arterials. Collectors will connect local streets to the arterial system, and usually carry medium volumes of traffic at low to medium speeds for relatively short distances.

According to this system, Harrisville has three roads that are classified as Minor Collectors: Chesham, Silver Lake, and Nelson Roads. These roads connect to two of the Major Arterials in the Southwest Region: Route 9 to the north, and Route 101 to the south of Harrisville. The accompanying map illustrates the functional classification system for the entire Southwest Region.

Public transportation continues to be limited throughout this region. The public air service that has been offered at the Dillant-Hopkins Airport in Swanzey in the past has been recently discontinued, and it seems unlikely that it will be resumed at any time in the near future.


Southwest Region
Transportation Infrastructure
Functional Classification
NH Department of Transportation
Legislative Roadway Classification
Class I
Class II
Class III
Class IV
Class V
Class VI
Municipal Boundaries
Waterbodies
Watercourses
NH Department of Transportation
Functional Classifications
Principal Arterial (Rural)
Minor Arterial (Rural)
Major Collector (Rural)
Minor Collector (Rural)
Principal Arterial (Urban)
Other Principal Arterial (Urban)
Minor Arterial (Urban)
N
Miles
October 1999
SWRPC
Map Not Intended For Site Specific Work
Alstead
Marlow
Windsor
Walpole
Stoddard
Antrim
Gilsum
Surry
Sullivan
Hillsborough
Nelson
Francestown
Westmoreland
Mansfield
Roxbury
Keene
Harrisville
Greenfield
Chesterfield
Marlborough
Dublin
Peterborough
Swanzey
Temple
Sharon
Hinsdale
Winchester
Richmond
Rindge
New Ipswich
Greenville
Mason

HIGHWAY IMPROVEMENT PROGRAM

Southwest Region Transportation Improvement Program

Under revised state and federal legislation, all regional planning commissions in New Hampshire are responsible for developing a regional transportation plan and improvement program (TIP). This is accomplished under the guidance of a Transportation Advisory Committee (TAC), with members nominated by local selectmen and appointed to the committee by the Chairman of the planning commission Board of Directors.

Since the enactment of the federal legislation that led to the enhanced role of regional planning commissions in transportation planning, a system has been instituted for identifying projects for inclusion in the state's ten-year highway plan. In short, no project will be considered for the statewide plan unless it appears in the regional plan. This plan is updated every two years, and the TIP is revised based on public input. All towns are solicited for their input into the plan. This is the opportunity for towns to request improvements on state roads in their towns. For the current TIP (1999 – 2008), there are no projects planned for state-maintained roads in Harrisville.

Local Road Improvement Plans

The 1993 Plan identified five sections of roadway that were scheduled to be upgraded between 1993 and 1998. These improvements have all been completed, with the exception of Cherry Hill Road, and a few other sections of road. At this time, there are two scheduled improvement projects for the Harrisville local road network: (1) Improvements to the intersection of Silver Road and Prospect Street; and (2) Corrections to the alignment of the intersection at Brown and Chesham Roads. Otherwise, routine maintenance is carried out on a rotating basis around Town.

STRATEGIES FOR TRANSPORTATION PLANNING

An important element in transportation planning is the connection between land use and highway systems. Roads provide access to land, which facilitates development of the land; the developed land, in turn, generates traffic. There are a number of strategies available to the Planning Board and the Town to address transportation issues, both locally and regionally. Following are several approaches intended to guide in overall transportation planning.

A. Planning Strategies

- **Focus Development in Village Areas**

  Provide for mixed uses and higher densities than in the outlying areas of Town. This approach can alleviate heavy traffic - residential and/or commercial - on roads that may not be suitable for such traffic, by encouraging pedestrian and bicycle traffic.

- **Set Development Boundaries Along a Corridor**

  Use the Master Plan process to; (1) ensure that any adjacent sensitive natural resources along a corridor would not be threatened by development; and (2) identify areas along the highway that can serve as "centers" for commercial development, with access provided off of an interior road, rather than from the highway.

- **Plan for Pedestrian and Bicycle Connections**

  Whenever new subdivision roads are being proposed, or DOT is planning any improvements on state-maintained roads in Harrisville, the Town has an opportunity to request bike paths along the roadsides. In addition, off-road connections can be identified and mapped, and efforts undertaken to secure easements for public use.

- **Develop and Adopt a Road Policy**

  The Planning Board, in conjunction with the Selectmen, can develop a road policy to guide development in town based on the status of existing roads and future plans for roads. This can go far to ameliorate potential questions and problems when applications are submitted for the upgrading of a road, or for a building permit on a substandard Class V or a Class VI road.

- **Identify Appropriate Land Uses**

  Existing land uses can be monitored and the Zoning Ordinance reviewed to ensure that development is compatible with the road system. Applications for development should always be reviewed with the scale of the proposal relative to the road network and abutting land uses in mind.

- **Develop and Maintain a Capital Improvements Program**

  Under RSA 674: 5, the Planning Board is authorized to develop a program that sets forth the planned capital expenditures over a six-year period. In conjunction with a Road Policy, the CIP can set the schedule as well as the degree and type of road improvements to be anticipated.

B. Regulatory Strategies

❑ Driveway Standards

The Planning Board is allowed by state statute to adopt and administer regulations for the construction and permitting of driveways. The NH DOT regulates curb cuts on state roads; a local driveway regulation, however, can
cover all aspects of driveway construction for the entire length of the driveway, not just the access off of the road. Driveway standards can facilitate safe and efficient transportation corridor management.

❑ Scenic Roads

Towns may designate any town road as a Scenic Road. The benefit of a Scenic Road designation is in the heightened awareness around the cutting of trees and removal and/or damage to stone walls. A town may adopt specific regulations pertaining to Scenic Roads above and beyond the regulations contained in the state statutes.

❑ Development of Backlots

Backlot development is a zoning technique that allows the subdivision and/or development of lots that do not meet the frontage requirement for the district. The regulation might require or allow for shared access, thus reducing the number of curb cuts on a road, and the Planning Board can also set standards for the construction and layout of the driveway that serves the backlot. Another benefit to this approach is that agricultural land can be preserved by setting aside fields along the roadway. Harrisville already uses this technique in the Rural Agricultural District.

C. Subdivision and Site Plan Considerations

❑ Viewing the Whole Parcel

It is important to step back from an individual plan and look at it in relation to the neighboring properties and land uses. If the lot fronts on more than one road, decisions can be made about which roads would better serve as access, how the parking should be laid out, etc.

❑ Lot Layout

Shared driveways or an interior street should be considered in a multi-lot subdivision, with lots fronting off of the interior road rather than the main frontage road.

❑ Parking Lot Location and Design

Some recommendations for commercial parking lots are: (1) locate the building(s) close to the road and put the parking on the side or in the rear of the parcel; (2) require shared parking, when feasible, or plan for future shared parking; (3) prohibit parking and loading that requires backing out onto the street; and (4) the use of vegetative buffers between parking lots and roads.

❑ Driveway Location and Design

A number of driveway issues have already been raised in the discussion about driveway standards. Consideration of location and the design of driveways are important for the development of a safe and efficient transportation network, especially in a town like Harrisville that has as much steep land as it does. Issues such as safe sight distance, visibility on sharp corners, water run-off from the driveway, all become even more critical when land is steep.

ECONOMIC ENVIRONMENT

MUNICIPAL FINANCE

At the local level, the method of taxation and sources of revenues have remained unchanged since the 1993 Plan. Harrisville continues to rely on the property tax as its main source of revenue. At the state level, however, the New Hampshire legislature is currently embroiled in a controversial school taxation issue that will potentially have significant ramifications for Harrisville – as well as for all towns in the state; the question will only be, who will benefit and who will not. As of this writing, it is not at all clear what program will be adopted to resolve the school taxation problem, therefore, this discussion will be postponed until the issue is resolved.

Comparing municipal expenditures of 1998 to those of 1990 reveals dramatic changes in appropriations during the 1990s; increased costs between 1980 and 1990 far outweighed those of any seen so far in this decade. Overall, municipal expenditures increased almost 200% during the 1980s; this is compared to 55.9% experienced so far in this decade.

TABLE #8:
MUNICIPAL EXPENDITURES

Expenditures for:	**1990**	**1998**	**% Change**
Highway Maintenance	$66,096	$122,851	85.9%
Police	$22,450	$33,677	50.0%
Fire	$19,474	$32,334	66.0%
Solid Waste	$23,052	$24,400	5.8%
Total Town	$455,502	$695,200	52.6%
County	$131,203	$202,166	54.1%
School	$709,055	$1,114,317	57.1%
Grand Total	**$1,426,832**	**$2,224,945**	**55.9%**

SOURCE: HARRISVILLE TOWN REPORTS

Overall, the largest percentage increases throughout the decade were for the disposal of solid waste, although the actual costs are still not significant in terms of the overall budget. With the closing of the landfill accomplished, these costs have begun to level out. Maintaining town roads and bridges continues to be one of the largest town expenses, typically second only to school costs.

Municipal Taxes and Property Valuation

The tax rate is determined by the amount of money the Town needs to raise relative to the total value of property in town. Table #8 below compares the net valuation of property, taxes to be raised, and the tax rate for the years 1990 and 1998. This information indicates very little increase in the net valuation of property, and somewhat higher increases for the taxes to be raised, as well as the tax rate. Compared to the increases measured between 1980 and 1990, however, (noted in the 1993 Plan), these increases are slight. As noted earlier, however, these figures will potentially change dramatically once the new taxation system is in place.

TABLE #9:
NET VALUATION AND TAX RATE

	1990	1998	% Change
Net Valuation	$72,099,903	$80,359,987	11.4%
Property Tax Committed	$1,251,701	$1,687,054	34.8%
Tax Rate	$1.74	$2.10	20.7%

SOURCE: HARRISVILLE TOWN REPORTS

Harrisville's equalized tax rate in 1998 was $19.71, which ranked 49th in the state. Since 1988, however, the rate has shifted in both directions: in 1988 Harrisville ranked 54th in the state ($11.41), and in 1993 the town ranked 80th ($21.98).

The tax value per person in Harrisville in 1998 was $83,825. This value was ranked at the 181st place statewide. This represents a decline since 1980, when Harrisville's per person tax valuation ranked 120th in the state.

The per capita amount of the total budget for Harrisville in 1998 was $2,921. Within the southwest region, this ranked in the 9th place out of 36 municipalities.

Taxable revenue is based on the assessed valuation of various categories of land use. The 1998 figures are presented below; note that residential and commercial/industrial include land and buildings.

LAND USE	ASSESSED VALUATION	% OF TOTAL
Current Land Use	$ 434,487	0.54%
Residential Land Use	$75,116,200	93.5%
Commercial/Industrial	$ 3,081,500	3.8%
Manufactured Housing	$ 630,300	0.78%
Utilities	$ 1,097,500	1.4%
Total Assessed Valuation	**$80,359,987**	

From this information it is clear that residential land use accounts for nearly all of the taxable revenue in Harrisville. Even the $3 million of commercial/industrial valuation is currently much less today, since most of that amount reflected the Filtrine operation which, as has been noted, is no longer located in Harrisville. There is, of course, no one ratio that is ideal for all towns. Towns with high tax burdens would generally want to increase the amount of commercial/industrial tax base in order to reduce or minimize the fiscal impacts of residential development. Harrisville, however, currently enjoys a relatively low tax rate within the region, so there may not be a need at this time to focus heavily on substantial commercial/industrial development.

PRIVATE SECTOR

At the writing of the 1993 Plan, the New Hampshire economy was beginning to improve following a difficult time at the end of the 1980s and into the early 1990s. This trend continues. New Hampshire has one of the lowest unemployment rates in the country, and Cheshire County consistently has one of the lowest rates in the state.[1] Furthermore, projections indicate that this trend will continue through the early years of the next decade.

Locally, very little economic and labor force information is available for any individual year beyond the decennial census. However, based on the state and countywide data, it can be assumed that the high rate of employment applies to Harrisville as well. In 1990, Harrisville had a nearly 75% participation rate in the labor force. The two most prominent occupational categories – managerial and professional, are expected to grow at about 1.5% to the year 2005.

As noted in the Population Analysis, most workers in Harrisville work outside of Town. Harrisville is home to only a few businesses. Harrisville Designs and the Harrisville Children's Center continue to operate. The General Store has closed, although much interest was expressed during Future Search in pursuing the revitalization of that site for a store and/or community center. Home-based businesses offer employment for a small number of Harrisville residents. Farming does not provide a significant contribution to the local economy, although a few farms are still active in Town.

Filtrine Manufacturing, a major economic presence in the Town for many years, has relocated to Keene, which opens many possibilities for re-use of the site. Historic Harrisville, Inc. has purchased the entire facility, which is the site of the original Cheshire Woolen Mills. Preliminary discussion at the Future Search events has centered on multi-use redevelopment of the site, including elderly housing, retail, light industry, and recreational uses.

[1] The latest date for which information is available – October 1998 - shows Cheshire County at 2.1% unemployment, and the State at 2.4%. The Keene Labor Market Area, of which Harrisville is a part, registered 1.9% unemployment.

Labor Force Characteristics

- As of 1996, the most recent year for which the information is available, Harrisville's per capita income was $19,829 - up from the $14,726 reported in the 1990 Census. Statewide, this ranking is 73th out of 259 municipalities; within the subregion, this figure ranks 5th out of the seven towns.

PER CAPITA INCOME BY SUBREGIONAL TOWN, 1996

TOWN	INCOME	RANKING Subregion	State*	SWReg**
HARRISVILLE	$19,829	5	73	8
Roxbury	$15,904	7	164	27
Nelson	$20,524	4	65	6
Dublin	$24,703	2	22	3
Hancock	$25,907	1	18	1
Marlborough	$16,163	6	156	26
Peterborough	$24,609	3	23	4

* out of 259 municipalities
** out of 36 municipalities
SOURCE: NH DEPARTMENT OF REVENUE ADMINISTRATION

- Of the 22 reported governmental jobs in Harrisville, 20 were in local employment, and 2 in federal employment.

- As of 1997, Harrisville had a reported total of 170 jobs with an average weekly wage of $437.40.[2]

EMPLOYMENT AND WAGE DATA
HARRISVILLE AND SUBREGION, 1997

TOWN	PRIVATE JOBS	PRIVATE WAGES*	PUBLIC JOBS	PUBLIC WAGES*
HARRISVILLE	149	$470.56	22	$209.04
Roxbury	na	na	4	$56.80
Nelson	30	$270.88	22	$300.17
Dublin	418	$516.78	37	$241.24
Hancock	258	$347.19	35	$271.07
Marlborough	340	$442.03	93	$409.03
Peterborough	4,293	$608.07	494	$654.46

* average weekly
SOURCE: NH DEPARTMENT OF EMPLOYMENT SECURITY

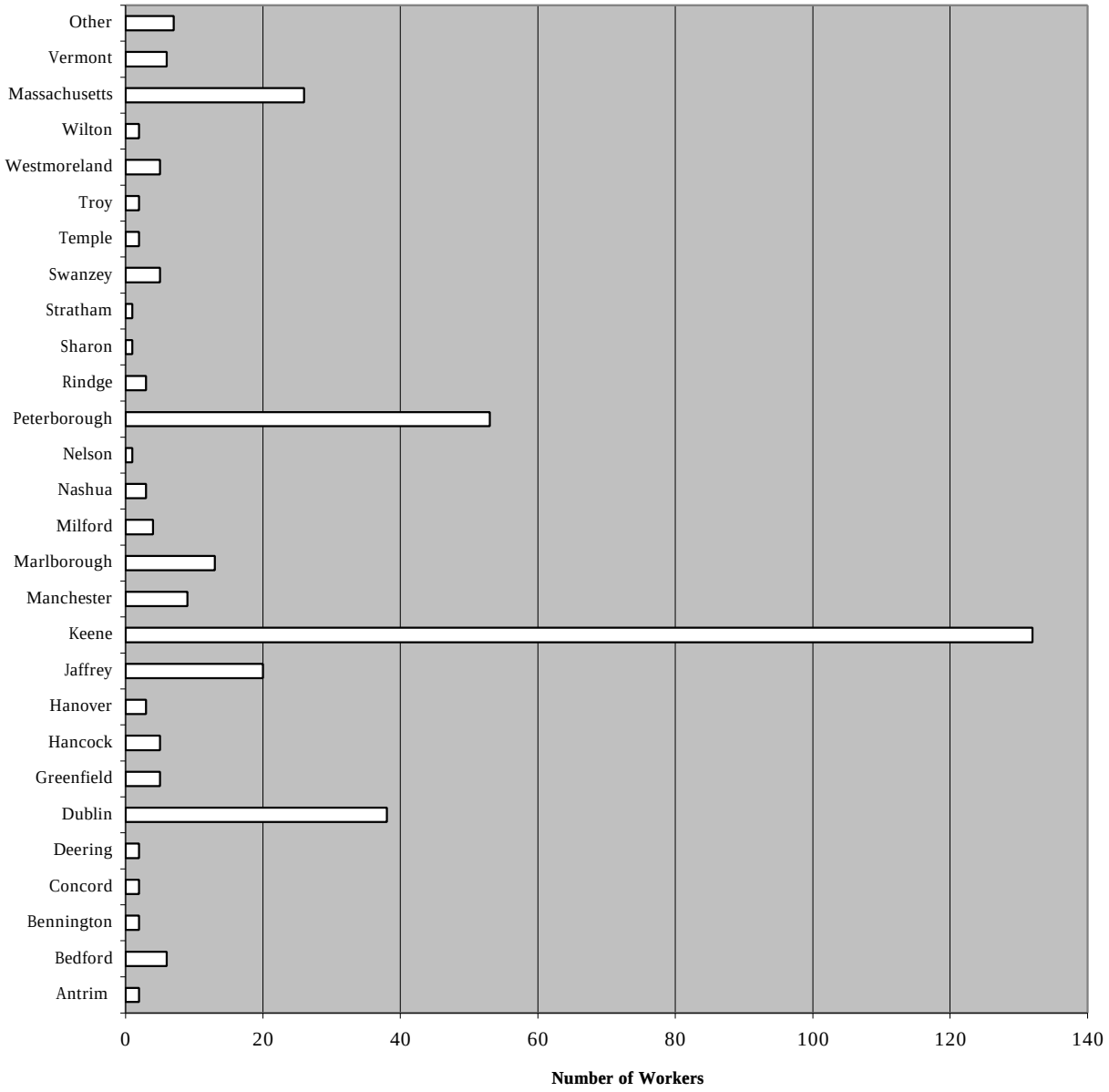
[2] *1997 Profile of New Hampshire's Counties, Cities, owns and Places - Employment and Wage Data*; NH Employment Security, Economic and Labor Market Information Bureau. Note, as well, that this information includes Filtrine, which is, as mentioned, no longer located in Harrisville.

- In 1990 220 persons worked in Harrisville - 141 of these were residents, 79 were nonresidents commuting into town.

- In 1990 Harrisville had an estimated labor force of 501 persons; 360 of these commuted out of town to work.

- According to the data collected for the 1990 Census, Harrisville workers commuted out to work in 25 towns in New Hampshire, 26 in Massachusetts, six in Vermont, and seven towns in miscellaneous locations.

GRAPH #12:
COMMUTER DESTINATIONS OF HARRISVILLE WORKERS, 1990



COMMUNITY FACILITIES

An important function of town government is to provide residents and property owners with a level of service commensurate with taxes and fees paid, that meets the current needs of the populace. In Harrisville's case, these include public safety (police, fire, ambulance), public works (roads, solid waste disposal, cemetery maintenance), schools, recreation, cultural facilities, health and welfare services, and the town government operations (selectmen, building maintenance, property assessment).

The degree to which these facilities are developed can have a significant impact on the quality of life and general character of a community. This section of the Master Plan identifies the community facilities that exist within the Town of Harrisville. RSA 674:2, "Master Plan Purpose and Description" says that a Master Plan "*shall include, if it is appropriate . . . a community facilities section showing the location of, type, and need for educational or cultural facilities, historic sites, libraries, hospitals, fire houses, police stations and other related facilities, including their relation to the surrounding areas.*"

Harrisville's historic development centered on the Village area and Harrisville Pond, which are located near the geographic center of Town. The facilities that were established to serve the Village were, therefore, primarily located in or very near to this center. Today, in a more mobile and dispersed society, this is no longer the case; the various community facilities addressed in this section are located around the Town. These locations are indicated on the accompanying map.

TOWN OFFICES

The original Town Office Building was located in the center of Harrisville Village; this was the case until 1995, when a new Town Office Building was constructed. The 1993 Master Plan had noted that the Town Office Building was much too small, and was generally inadequate for conducting town business. The Selectmen pursued a solution, and in 1995 a new building was constructed and occupied. It is located on Chesham Road, sharing the site with the Fire Station. The building houses the Town Clerk, Tax Collector, Selectmen's office, and a meeting room, which is used by all Town boards and committees. The building was constructed with a good deal of volunteer effort. The Selectmen were able to finance this work with surplus funds, rather than bonding for the expense, which resulted in a large savings to the taxpayers.

POLICE DEPARTMENT

After many years of having only one police officer, and several years of inconsistent coverage due to staffing changes, Harrisville now has two full-time certified police officers, although coverage is still not completely full-time. One officer works 15 hours per week, and the Chief works 35 hours per week. Both officers have received certified police training; one officer is a certified D.A.R.E. instructor and has taken the program to the elementary school.

In 1998, the Department responded to 278 calls for service.

In 1994 the old Harrisville Depot at Main Street and Skatutakee Road was renovated to serve as quarters for the Police Department. The Department maintains one cruiser, which is replaced every five years.

Harrisville is a member of the Southwestern New Hampshire Fire Mutual Aid, which is headquartered in Keene. This facility is essentially a dispatch center for member towns, receiving all emergency calls for fire, police, and ambulance service. Mutual Aid is also tied into the Fish and Game Department and Sheriff's communications bands and can dispatch these services when necessary. The Mutual Aid system is under the direction of a Chief Coordinator, providing 24-hour coverage.

In addition to the Mutual Aid system, Harrisville, like the other municipalities in New Hampshire, is on line with the Enhanced 911 emergency call number system. This project was initiated by the State in 1995, and requires every municipality to number all properties and, if necessary, rename streets, so that all emergency response personnel have accurate and consistent information on road names and building locations.

FIRE DEPARTMENT

The Fire Station is located on Chesham Road across from Stanford Pond. This lot is shared by the new Town Office Building. It was constructed in 1987 and measures 62" x 71"; it is one story, with three double bays, an office, radio room, restroom, small kitchenette, and meeting room.

The Fire Department operates with 24 volunteer firefighters, all of whom have gone through the Department's basic 30-hour training course. Ninety-two calls were answered by the Department in 1998, 30 of them fire calls, 43 non-fire calls, and 19 emergency medical calls.

The following pieces of equipment are maintained by the Department:

- a Class A pumper
- a tanker (replaced in 1997)
- a hose truck
- a brush truck
- a non-transport rescue vehicle use primarily for hauling equipment

The policy of the Department is to replace equipment on a 20-year cycle. According to this schedule, both the Class A pumper and the non-transport rescue vehicle are in line to be replaced in 2008; realistically, it seems likely that the pumper will be replaced sooner than that - perhaps in 2004 or 2005.

Note that some pieces of equipment - most recently the brush truck - are purchased for the Fire Department through the fund-raising efforts of the Harrisville Fire Company. The Fire Company intends to pursue a non-profit status in order to more effectively raise money for the Fire Department.

AMBULANCE SERVICE

Harrisville is served by a volunteer Ambulance Squad, which provides free service to the towns of Harrisville and Marlborough. The ambulance is housed in Marlborough. The squad depends on donations and fund-raising -– no municipal funds are appropriated for this service. The current membership stands at 30, a dramatic increase over past years.

HIGHWAY DEPARTMENT

The Highway Department is housed in a masonry structure at the intersection of Main Street and Skatutakee Road, located just behind the Police headquarters. The Department is staffed full-time by a Road Agent and two additional employees. Equipment consists of two dump trucks, sanders and plows, a backhoe, loader, and grader.

RECYCLING CENTER

Solid waste disposal in Harrisville is accommodated by the Town Recycling Center and Transfer Center on Willard Hill Road. The old landfill is being closed, in accordance with state rules. Closure was originally scheduled for the Fall of 1993, but due to a number of factors, closure did not occur until 1998. The cap is now in place over the landfill, and monitoring wells have been set to test groundwater in various locations around the landfill.

The site has a trash compactor for what is not recyclable, and a steel building for the recycling bins. Items that are recycled include paper and magazines, tin cans, plastic, cardboard, scrap metal, aluminum cans, glass, and tires.

LIBRARY

The Harrisville Public Library remains in the former Vestry in the Village. It is open 12 hours a week and is staffed by two volunteers. In addition to a collection of more than 5,000 volumes, the library offers nearly 300 carefully selected and much-praised videos, and 15 magazine subscriptions. Also offered are: an annual book sale; a summer reading program; holiday craft programs; and occasional story hours subject to volunteer availability. The Library encourages art exhibits and displays of unique or historical objects. In addition, the Library now also offers Internet accessibility to its patrons.

The 1993 Plan noted that the building would be needing plumbing, carpeting, and interior painting within the next several years. The plumbing and the painting have been completed, and the carpet has been satisfactorily cleaned so that replacement is not a necessity at this time.

EDUCATION

Education for Harrisville children is provided by the Harrisville School District, which receives administrative support, along with five other towns, from School Administrative Unit #29 located in Keene. Pupils in grades Kindergarten through Grade 6 attend the Wells Memorial School in Chesham; Grades 7 to 12 attend the middle and high schools in Keene, for which the town is charged a per-pupil cost each year.

Wells Memorial had an enrollment of 82 students in 1998. The enrollment has risen slightly at Wells since 1995, when there were only 73 students.

The physical capacity of the school appears to be meeting the current and future needs. The school was enlarged in 1990, and there are no plans to make any changes to the infrastructure. A bond was taken in 1991 to pay for this expansion; the Town will make the last payment on this bond in 2005.

RECREATION

No physical changes to the inventory of recreational facilities have occurred since the 1993 Plan was written; the current recreation sites/facilities in Harrisville consist of:

- Harrisville Pond - Sunset Beach, two swing sets, volleyball net, seasonal toilet
- Seaver Reservoir – picnic area
- Russell Reservoir – public beach, boating
- Silver Lake - public access, boating, swimming
- Wells Memorial School – playground, sports field, indoor gym; T-ball program

Two beach committees are established to oversee the maintenance and repairs for the Harrisville Pond and Russell Reservoir sites. A Recreation Committee exists for the purpose of planning the Fourth of July celebrations.

A separate recreation committee formed during the Future Search event of 1997. Its specific goals are the development of a recreation field for baseball and soccer, for which no specific site has yet been identified, and an ice-skating rink.

Traversing Harrisville from south to north is a section of the 50-mile long Monadnock-Sunapee Greenway Trail that runs from Monadnock State Park to Sunapee State Park. The Harrisville Conservation Commission maintains the section that goes through Town.

In addition, the abandoned railroad bed from the former Manchester-Keene Railroad that stretches nearly the entire breadth of Harrisville is being developed into a multi-use recreational trail. Known today as the Chesham Line, this rail bed runs from Hancock to Keene, traversing Harrisville, Marlborough and Roxbury on the way. In Keene, the line connects to two other abandoned rail beds that have also been converted to recreational trails. In Hancock it connects to the Contoocook Line, which is now state-owned, but is only partially developed as a recreational trail. Marlborough's portion of the trail is incomplete.

CONSERVATION

Harrisville has a very active Conservation Commission, whose overarching responsibility is to protect the natural resources of the Town. The Commission advises other town boards on natural resource issues. The statutes authorize Conservation Commissions to purchase property for conservation purposes and to negotiate and manage conservation easements.

As a result of the Future Search project, renewed interest in conservation issues generated two new work groups: (1) a Rails-to-Trails Committee; and (2) and a Green Space and Water Quality Committee.

The Rails-to-Trails group is in the process of mapping all existing trails in Town. It seeks to negotiate easements for the use of privately-held land along trail corridors. A corollary task of the Committee is to maintain the trails for public use.

The Green Space and Water Quality Committee is working to bring into conservation protection significant land, water bodies, and existing open spaces. The first two priorities identified at Future Search were: to inventory threatened watersheds, and identify potential prospects for conservation easements.

CHURCHES/CEMETERIES

There are three churches and four cemeteries in Harrisville. The Community Church in the Village is the site of monthly Community Midday Meals, a program that started as a result of Future Search.

A three-person Board of Cemetery Trustees was established in 1998 to oversee and maintain the Town's cemeteries. Its first task was to develop cemetery regulations. Immediate future plans include attention to the boundary markings, creation of special areas for cremation lots, and improvements to roadways and fences.

POST OFFICE

The Post Office is located in the Village on Main Street. It serves 325 patrons with post boxes; the remainder of postal patrons are served by a rural route delivery. A small number of people for whom the Harrisville Post Office hours are not convenient have their mail delivered to post offices in Dublin, Marlborough, Peterborough, or Greenfield.

OTHER

In addition to the services and facilities described above, Harrisville is home to, or offers, other services:

- The Town supports Old Home Day, Memorial Day, and a Fourth of July Celebration.

- The voters of Harrisville contribute monetarily to region-wide educational, cultural and health-care entities (Monadnock Family Services, Home Health Care and Community Services, Community Kitchen, Grand Monadnock Arts Council, Camp Holiday).

- A Community Center Committee was formed at the November 1997 Future Search event to pursue the establishment of a community center/store/café. One likely location being discussed is the site of the former store in the Village; another is the Cheshire Mills complex. This is the Committee that also initiated the Community Midday Meal Program.

Town of Harrisville, NH

Community Facilities

1 - Cemetery
2 - Church
3 - Highway Department
4 - Library
5 - Police Department
6 - Post Office
7 - Recreation Site
8 - Town Offices/Fire Station
9 - Transfer Station/Recycling Center

Roads
Town Boundary
Watercourses
Waterbodies
Wetland Areas

N

Scale - 1:36000

1000 0 1000 Feet

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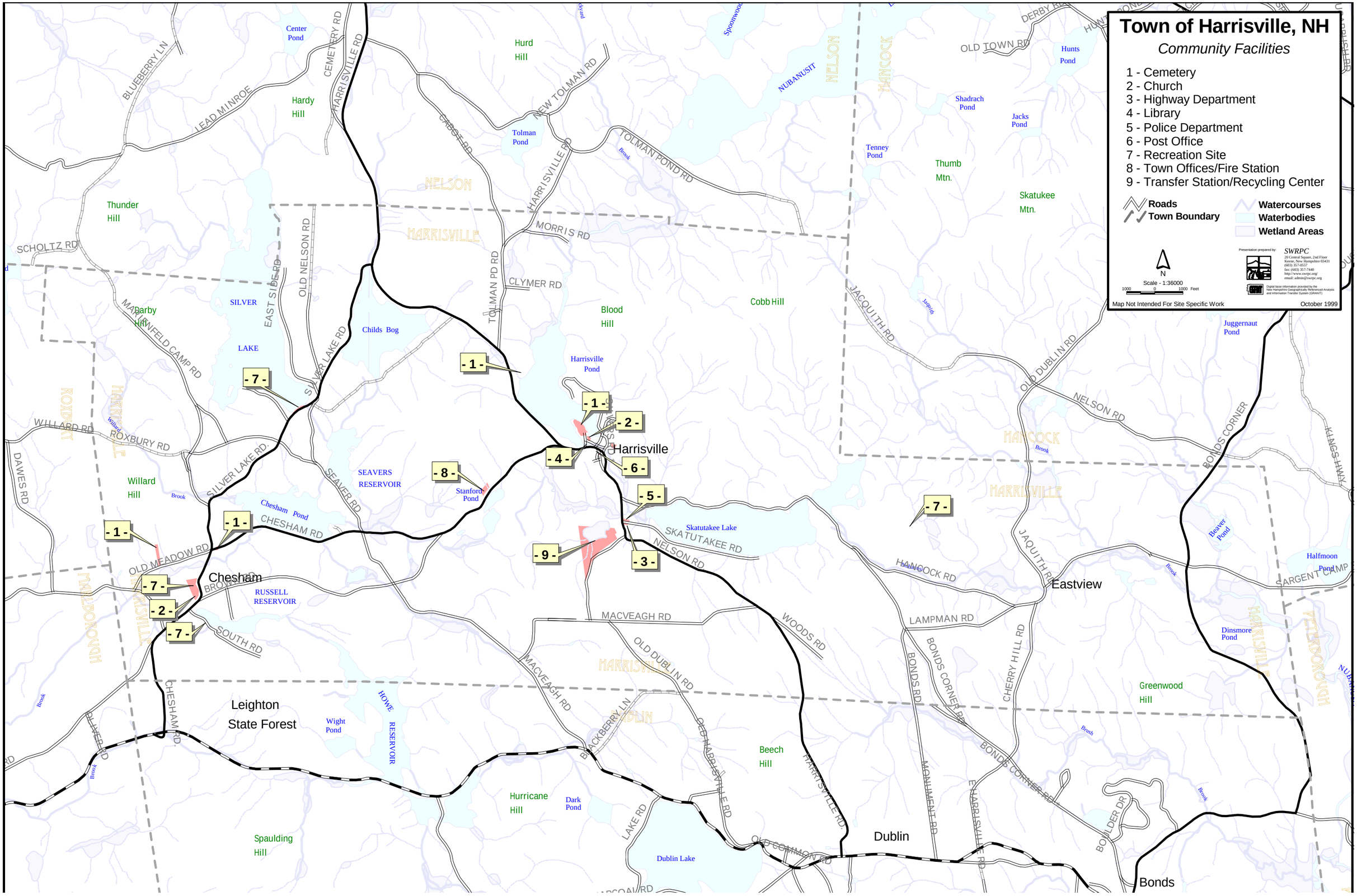
Digital base information provided by the New Hampshire Geographically Referenced Analysis and Information Transfer System (GRANIT).

Map Not Intended For Site Specific Work

October 1999



CONSTRUCTION MATERIALS ANALYSIS

INTRODUCTION

In 1989 the New Hampshire Legislature amended the statute that addresses the purpose and description of a Master Plan: RSA 674:2, VIII-a calls for a "*construction materials section which summarizes known sources of construction materials which are available for future construction needs, including, at a minimum, the location and estimated extent of excavations which have been granted permits under RSA 155-E, as well as reports filed pursuant to RSA 155-E: 2, I (d) with respect to non-permitted excavations.*"

The statute does not define "construction materials", nor does it specify what the "construction needs" might be; however, since the statute addressing earth excavations is referenced (RSA 155-E), it is logical to assume that, at a minimum, sand and gravel are intended.

The primary source for identifying sand and gravel resources is the Soil Survey of Cheshire County, which was completed in 1984[1] by the USDA Soil Conservation Service (SCS). The document includes a table entitled "Construction Materials" that lists four types of material by soil category; these are roadfill, sand, gravel, and topsoil.

The purpose of this section of the Master Plan is to identify such materials that may be located in Harrisville. The soil types are listed in tables and the boundaries of the soil units are illustrated on maps. These maps were created by the Southwest Region Planning Commission using computer technology known as the Geographic Information System (GIS). The soil information from the SCS Survey was digitized, and the maps printed out at 11"x17" size for inclusion in this report.

This section addresses Harrisville's opportunities for earth excavation as defined by RSA 155-E. Amendments made to this law in 1989 and 1991 made it incumbent on towns to ensure that their zoning ordinances provide for excavation. Otherwise "*excavation shall be deemed to be a use allowed by special exception . . . in any non-residential area of the municipality, . . .*"[2] and the zoning board of adjustment shall grant the special exception upon a finding by the board that the excavation would not diminish property values, unreasonably change the character of the neighborhood, create traffic hazards, or create any health or safety hazards.

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[1] Soil Survey of Cheshire County, New Hampshire, US Department of Agriculture, Soil Conservation Service, 1989. (The SCS is now the Natural Resource Conservation Service.)

[2] RSA 155-E: 4, III.

THE SOIL SURVEY

The following descriptions of the four types of construction materials are based on the above-referenced Soil Survey of Cheshire County. Soil categories are identified in the Survey by number and letter; the number represents the composition of the soil, and the letter designates the steepness - "A" being the flattest and "E" the steepest. Note that the maps developed for this report show the soil unit boundaries but not the identifying number and letter, as the scale of the maps would render this information illegible. The complete designation is, however, provided in the following tables.

The classifications used to designate the construction materials are based on a number of factors, including observed performance of the soil, soil properties, and site features that affect the removal of the material and its use as a construction material.

Description of Materials

- **Roadfill**

  Roadfill is defined by the Survey as soil material that is excavated in one place and used in road embankments in another place. Only soils suitable for low embankments (under six feet) were rated by the Survey.

  Roadfill is rated as being either "Good", "Fair" or "Poor". "Good" soils are those that are comprised of significant amounts of sand or gravel or both, and slopes of 15% or less. "Fair" soils have in excess of 35% silt and clay-sized particles, and slopes of 15-25%. "Poor" soils contain many stones, or slopes of more than 25%.

- **Topsoil**

  Topsoil is defined in the Survey as material used to cover an area in order to establish and maintain vegetation. For the purposes of the Survey, only the upper 40 inches of soil were evaluated for its use as topsoil.

  Topsoil is also rated as being either "Good", "Fair" or "Poor". Soils rated as "good" contain no stones or cobbles, have little or no gravel, and slopes of less than 8%. "Fair" soils are sandy, have considerable amounts of gravel or stone, or slopes of 8-15%. "Poor" soils are comprised of a lot of sand or clay, have a large amount of gravel or stone, and slopes of more than 15%.

- **Sand and Gravel**

  Sand and gravel are defined in the Survey as natural aggregates suitable for commercial use with a minimum of processing. The Survey evaluated only the probability of finding materials in quantities large enough as to be suitable for removal.

  The properties used to evaluate sand and gravel soils include the thickness of the material, the size of the grain, and the content of rock fragment. A soil rated as "probable" has either a layer of clean sand or gravel, or a layer of sand or gravel with up to 12% silty fines. In addition, the material must be at least three feet thick and have less than 50%, by weight, large stones.

CONSTRUCTION MATERIALS IN HARRISVILLE

The following tables list the soil names and map symbols for the four types of construction materials; the accompanying map illustrates the extent and location of these materials. Commission staff identified only "good" and "fair" roadfill and topsoil; for sand and gravel, only the "probable" soil units were identified. The source for all four tables is the Cheshire County Soil Survey of 1984.

Note that the survey assumes that all of the land area in Harrisville is comprised of some amount of these four soil types. Therefore, when roadfill, for example, is calculated, the total of the "good", "fair", and "poor" roadfill soils equals the total land area of the town which, based on the SCS study, is just under 12,000 acres; surface water accounts for about 925 acres, and hardpan and ledge for about 245 acres.

Roadfill

Table #10 on the following page lists the soil units found in Harrisville that constitute roadfill. "Good" soils were found to constitute 1, 253 acres, "fair" soils 7,493 acres, and poor roadfill soils the remainder of the land area in Harrisville, or 2,972 acres.

The good roadfill soils consist mostly of small deposits, scattered about town with very few significant deposits. Most of the material is located in the Eastview area of Town from Skatutakee Lake east to the Peterborough Town Line.

The fair materials are distributed virtually all over Town, except for the steeper sloped areas such as Darby Hill, Willard Hill and Cobb Hill.

Town of Harrisville
Construction Material - Soils Analysis

N

Scale: 1:36,000

1000 0 1000 Feet

400 0 400 Meters

Map Not Intended For Site Specific Work

DOT Road Classes
- Class I
- Class II
- Class III
- Class IV
- Class V
- VI

- Waterbodies
- Wetlands
- Railbed
- Watercourses
- Municipal Boundaries
- Fair Roadfill Source
- Good Roadfill Source

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Digital base information provided by the New Hampshire Geographically Referenced Analysis and Information Transfer System (GRANIT)

January 1999

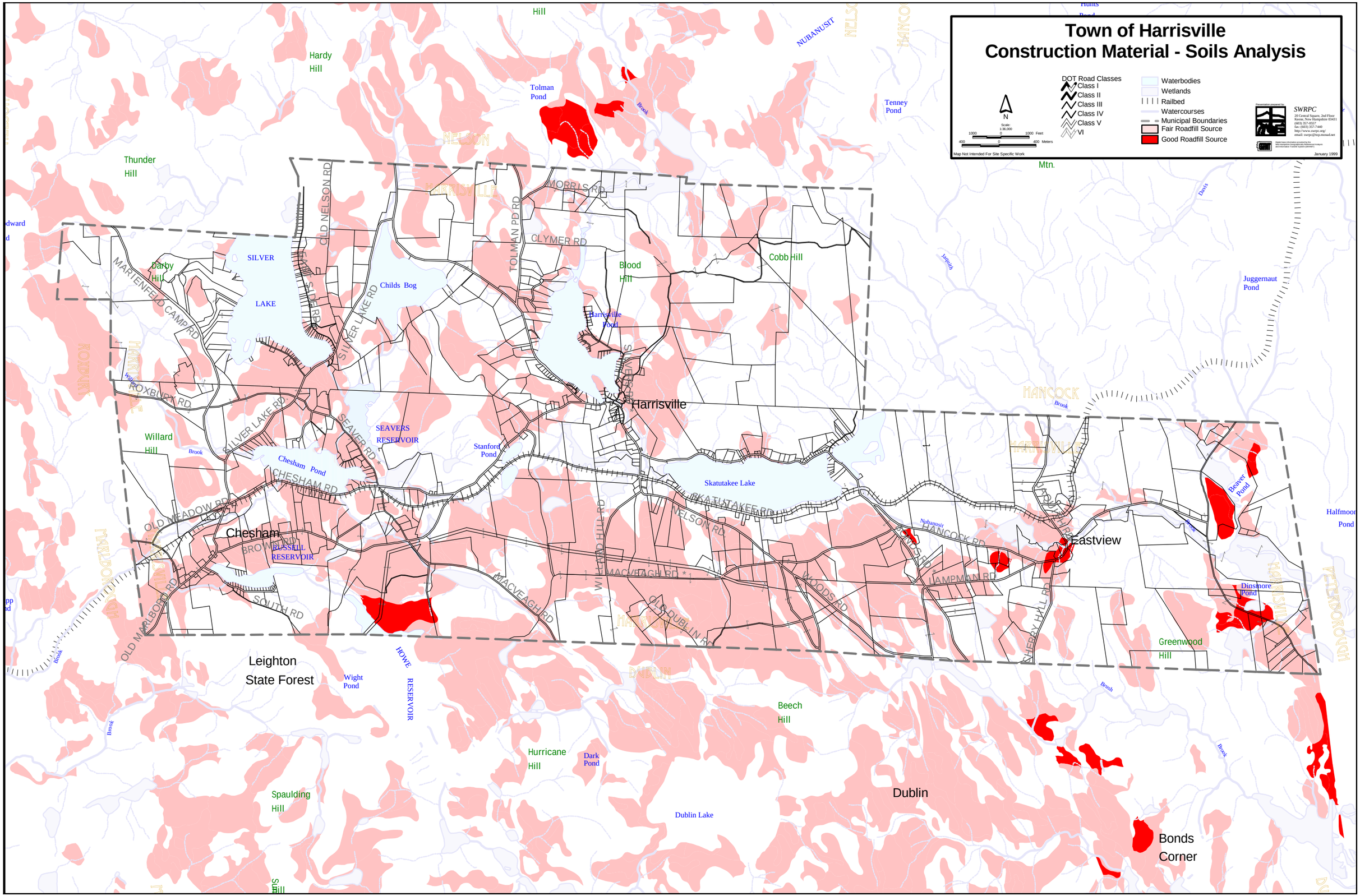

TABLE #10:
ROADFILL BY SOIL NAME AND MAP SYMBOL

Soil Rating		
Good	***Fair***	***Poor***
143C monadnock	168B Sunapee	107 Rippowam
35C Monadnock	169B,C Sunapee	161E Rock Outcrop
36 A,B,C Adams	22A,B,C Colton	214 Naumburg
401 Occum	365D Berkshire	22E Colton
72C Berkshire	4 Pootatuck	295 Greenwood
73B,C Berkshire	613B Croghan	347B Moosilauke
	76B,C,D Marlow	395 Chocorua
	77B,C,D Marlow	495 Ossipee
	78B,C Peru	5 Rippowam
	79B,C Peru	60C,D Tunbridge
		61D Lyman
		647B Pillsbury
		77E Marlow

SOURCE: SOIL SURVEY OF CHESHIRE COUNTY, US DEPARTMENT OF AGRICULTURE, 1989

Topsoil

All topsoil in Harrisville is rated as "poor"; the soil names and map symbols are listed in Table #11 below.

TABLE #11:
TOPSOIL BY SOIL NAME AND MAP SYMBOL

Soil Rating	
Poor	
5/107 Rippowam	395Chocorua
143C/365C Monadnock	4 Pootatuck
161E Rock Outcrop	401 Occum
168B/169B,C Sunapee	495 Ossipee
214 Naumburg	60C,D/61B,C Tunbridge
22A,B,C,E Colton	613B Croghan
295 Greenwood	61D Lyman
347B Moosilauke	647B Pillsbury
73B,C,D/365D Berkshire	76B,C/77 B,C,D,E Marlow
36A,B,C Adams	78B,C/79B,C Peru

SOURCE: SOIL SURVEY OF CHESHIRE COUNTY, US DEPARTMENT OF AGRICULTURE, 1989

Town of Harrisville
Construction Material - Soils Analysis

N

Scale: 1:36,000

1000 0 1000 Feet

400 0 400 Meters

Map Not Intended For Site Specific Work

DOT Road Classes
- Class I
- Class II
- Class III
- Class IV
- Class V
- VI

- Waterbodies
- Wetlands
- Railbed
- Watercourses
- Municipal Boundaries
- Fair Topsoil Source
- Good Topsoil Source

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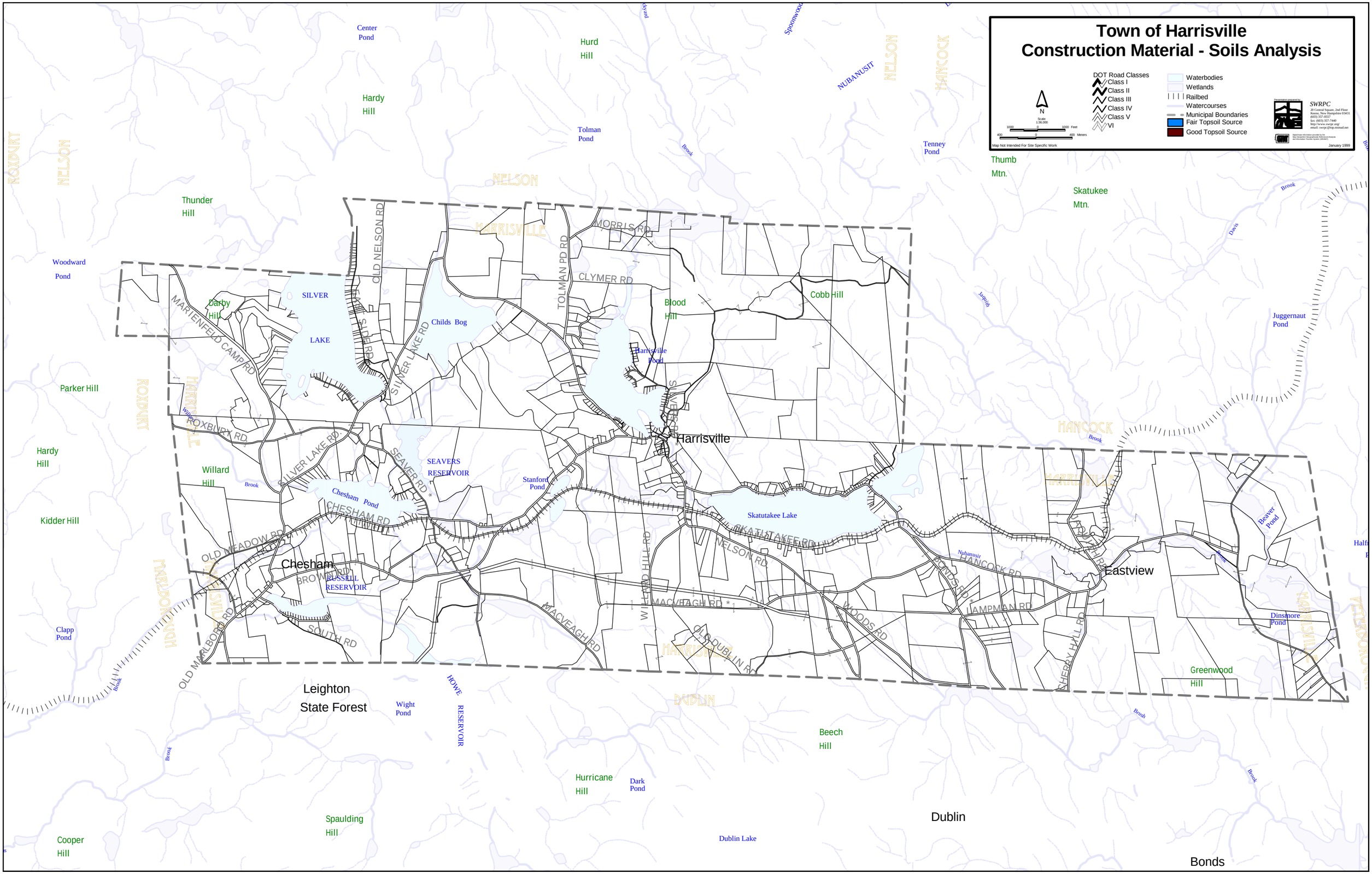


Sand

There are an estimated 802 acres of sandy soils in Harrisville. Most of the deposits are located in Eastview around the Jaquith, Cherry Hill and Lampman Roads. There is also a smaller pocket in Chesham, following the railbed and up Silver Lake Road to Marienfield Camp road.

TABLE #12:
SANDY SOILS BY SOIL NAME AND MAP SYMBOL

Soil Rating
Probable
5/107 Rippowam
22A,B,C,E Colton
36A,B,C Adams
143C Monadnock
214 Naumberg
4 Pootatuck
395 Chocorua
401 Occum
613B Croghan

SOURCE: SOIL SURVEY OF CHESHIRE COUNTY,
US DEPARTMENT OF AGRICULTURE, 1989

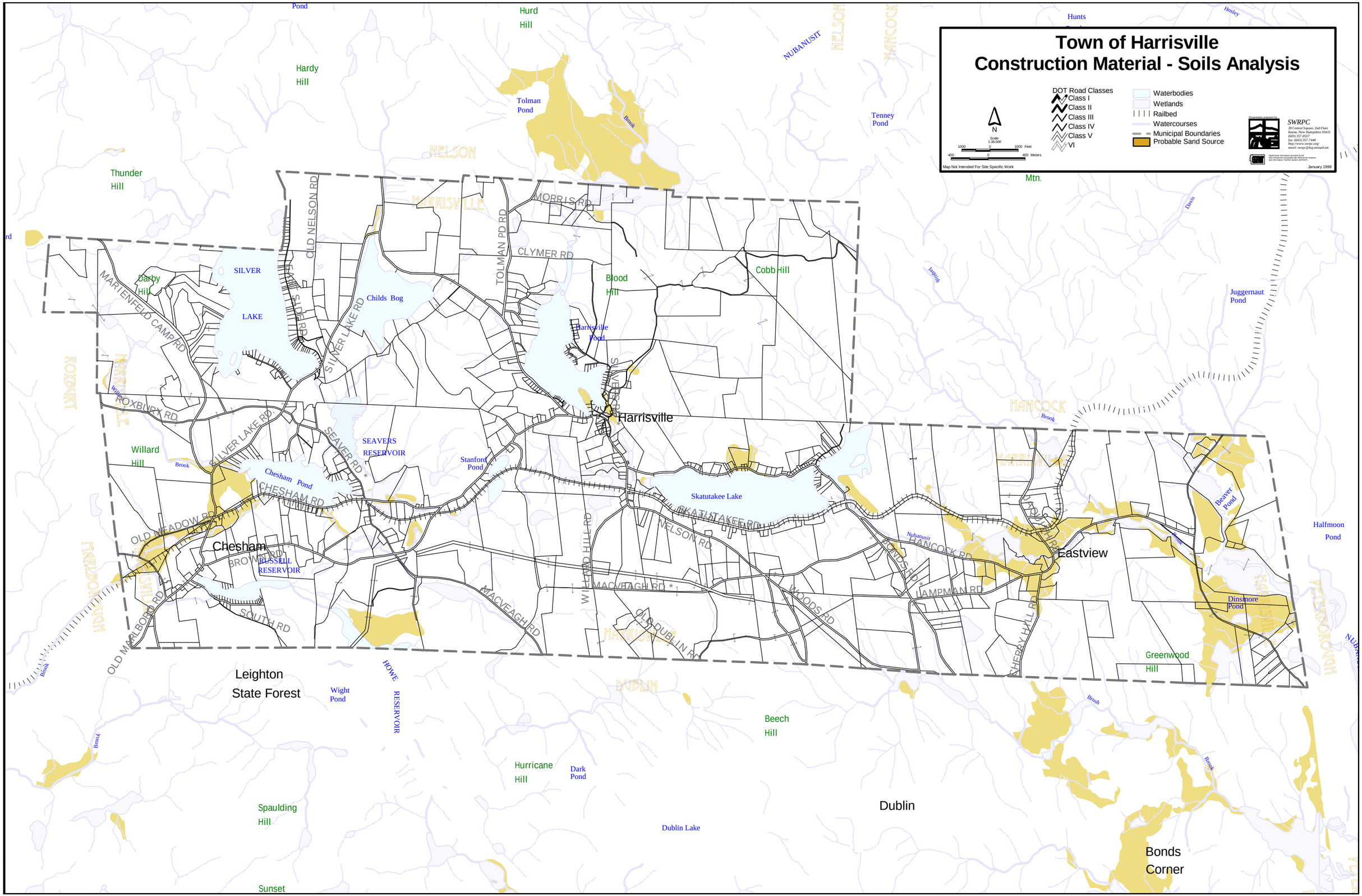
Gravel

Gravel deposits in Harrisville account for only 495 acres, the smallest deposit of all four construction materials. These soils are principally located in Chesham and Eastview.

TABLE #13:
GRAVEL SOILS BY SOIL NAME AND MAP SYMBOL

Soil Rating
Probable
5/107 Rippowam
143C Monadnock
4 Pootatuck
22A,B,C,E Colton
401 Occum

SOURCE: SOIL SURVEY OF CHESHIRE COUNTY,
US DEPARTMENT OF AGRICULTURE, 1989


Town of Harrisville
Construction Material - Soils Analysis
DOT Road Classes
Class I
Class II
Class III
Class IV
Class V
VI
Waterbodies
Wetlands
Railbed
Watercourses
Municipal Boundaries
Probable Sand Source
N
Scale: 1:36,000
1000 0 1000 Feet
400 0 400 Meters
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Digital base information provided by the
New Hampshire Department of Transportation
and Granite State Spatial
January 1999
Harrisville
Chesham
Eastview
Leighton
State Forest
Dublin
Bonds
Corner
Hurd
Hill
Hardy
Hill
Tolman
Pond
Tenney
Pond
Thunder
Hill
Darby
Hill
SILVER
LAKE
Childs Bog
Blood
Hill
Cobb Hill
Harrisville
Pond
Juggernaut
Pond
Willard
Hill
Chesham Pond
SEAVERS
RESERVOIR
Stanford
Pond
Skatutakee Lake
Beaver
Pond
Halfmoon
Pond
Dinsmore
Pond
RUSSELL
RESERVOIR
Greenwood
Hill
Wight
Pond
HOWE
RESERVOIR
Beech
Hill
Hurricane
Hill
Dark
Pond
Spaulding
Hill
Dublin Lake
Sunset
NELSON
HARRISVILLE
HANCOCK
ROXBURY
MARLBOROUGH
PETERBOROUGH
DUBLIN
NUBANUSIT
OLD NELSON RD
MORRIS RD
TOLMAN PD RD
CLYMER RD
MARTENFELD CAMP RD
SILVER LAKE RD
ROXBURY RD
SEAVER RD
CHESHAM RD
OLD MEADOW RD
BROWN RD
SOUTH RD
OLD MARLBORO RD
MACVEAGH RD
WILLARD HILL RD
OLD DUBLIN RD
SKATULAKE RD
NELSON RD
HANCOCK RD
WOODS RD
HAMPMAN RD
CHERRY HILL RD
Hunts
Hosley
Davis
Jaquith
Brook

Town of Harrisville
Construction Material - Soils Analysis

N

Scale 1:36,000

1000 0 1000 Feet

400 0 400 Meters

Map Not Intended For Site Specific Work

DOT Road Classes
- Class I
- Class II
- Class III
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- Class V
- VI

- Waterbodies
- Wetlands
- Railbed
- Watercourses
- Municipal Boundaries
- Probable Gravel Source

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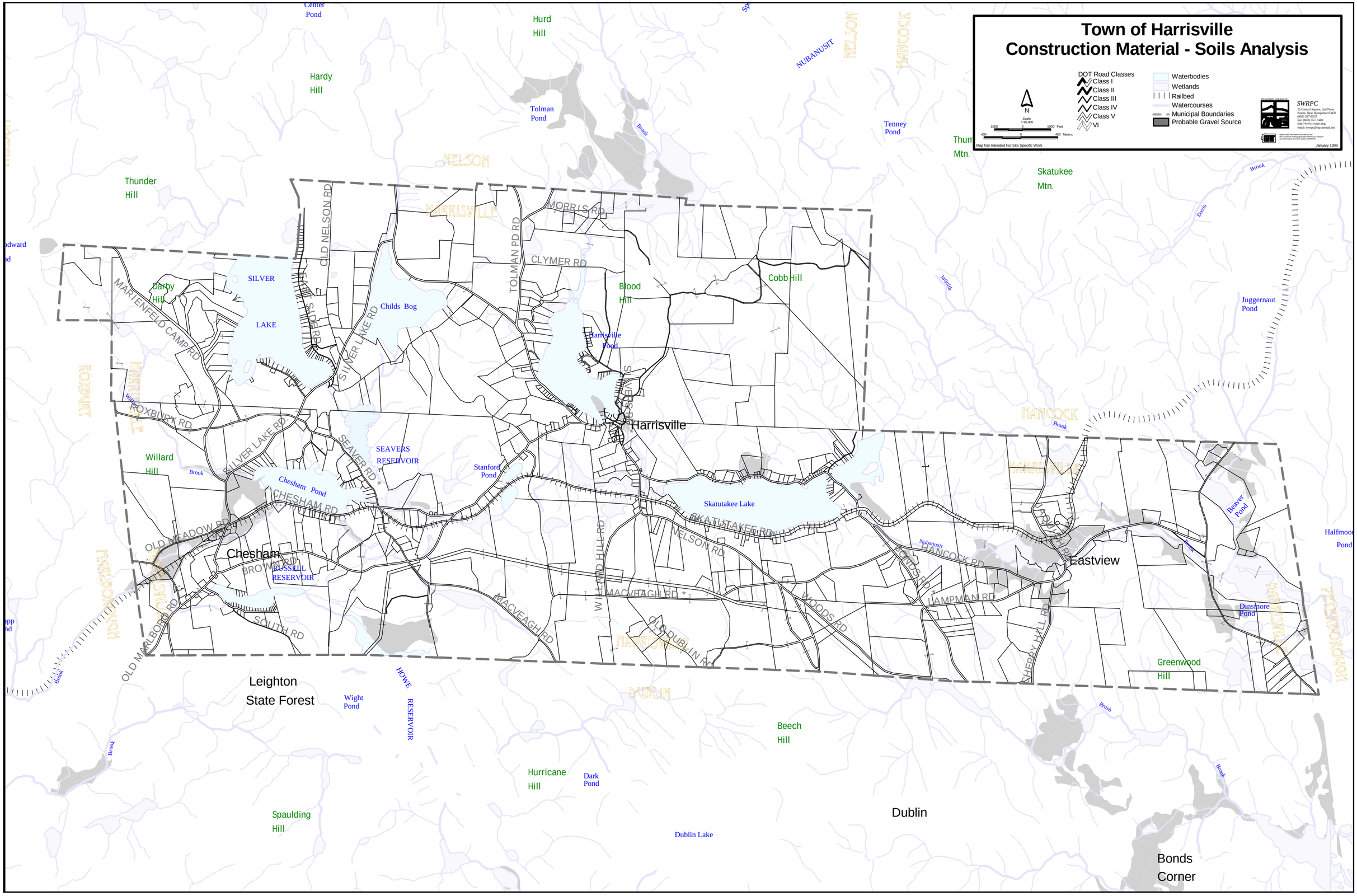


GROUNDWATER IDENTIFICATION

To refine the identification of sand and gravel deposits in the Town of Harrisville, aquifer delineation studies are examined and compared to the SCS soil survey. This information is useful, since the identification of potential groundwater is based in part on the inferred presence of sand and gravel soils; thus, the interpretation that where an aquifer exists, so too, do sand and gravel deposits. Groundwater identification should not, however, be solely relied upon to locate sand and gravel deposits, as these data present only part of the total picture.

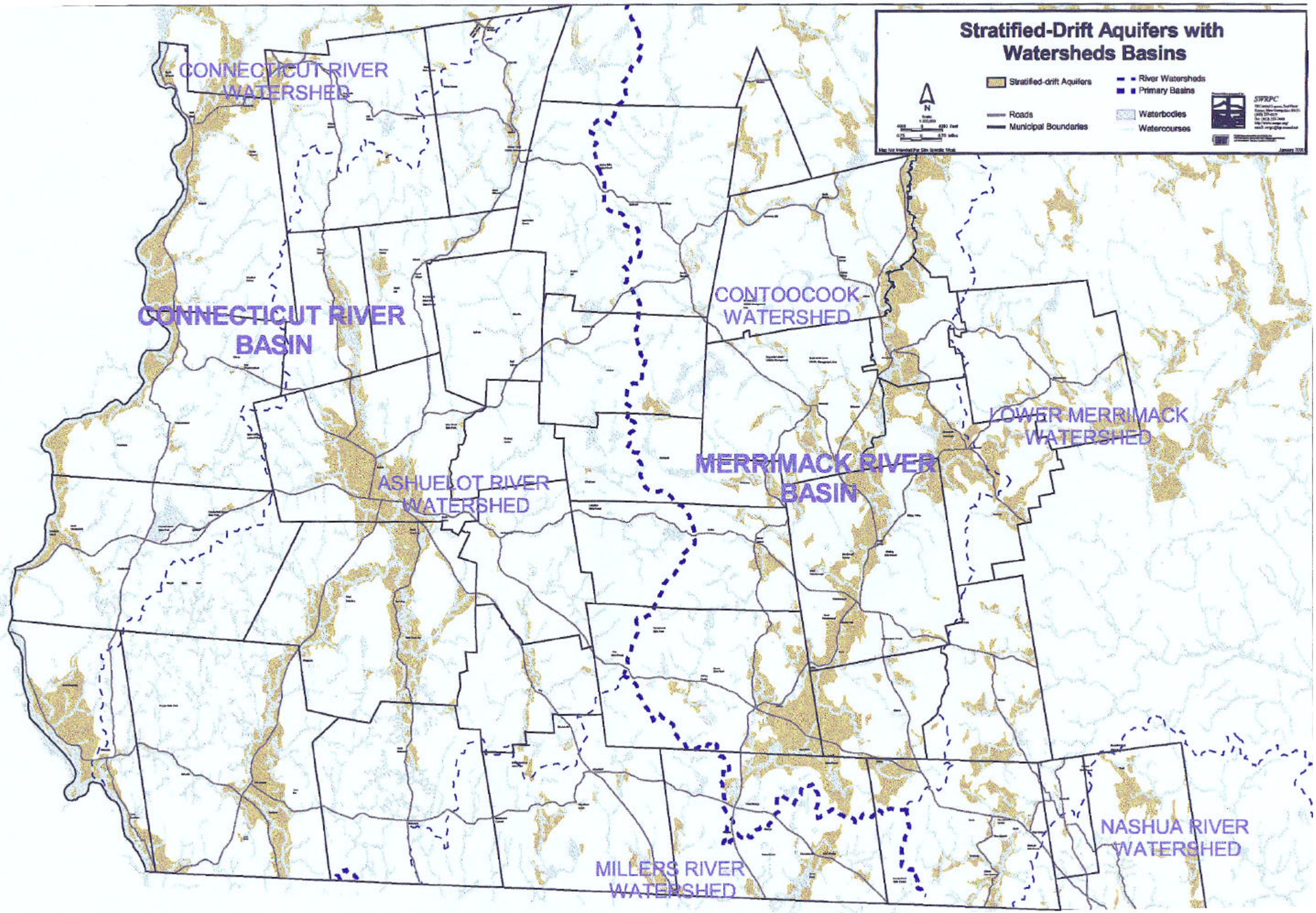
The reason for this is that sand and gravel deposits were created by glaciers and rivers, and can be deposited on valley floors, hillsides and hilltops. The aquifer studies identify those soils that were deposited on valley floors - known as stratified drift. The other formations that must also be considered are eskers and deltas, both of which can be prodigious sources of sand and gravel deposits, which are not found in valley floors, but rather on hillsides and hilltops. Therefore, they would not show up on an aquifer map. These formations all have something in common, namely that the materials have all been sorted by water; however, while good aquifers are also good sand and gravel sites, good sand and gravel sites are not always good aquifer sites.

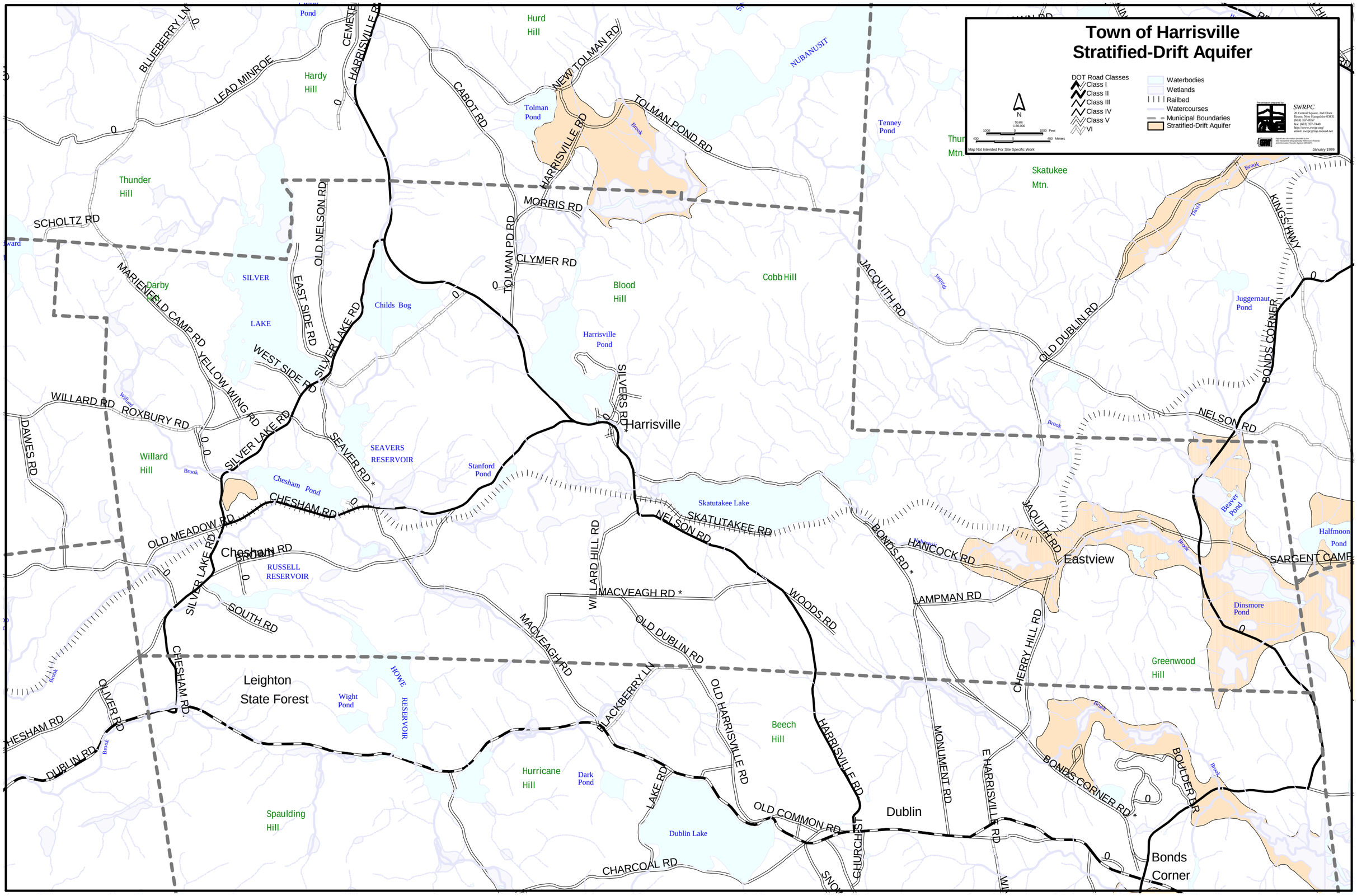
The following two maps illustrate the latest available aquifer information, for Harrisville specifically, and for the region. Aquifers, river basins and watersheds for the entire southwest region are presented on one map. This map represents the results of a statewide aquifer mapping project by the NH Department of Environmental Services in cooperation with the US Geological Survey, begun in 1985.

The goal of the project was to update the reconnaissance level mapping that was completed in the mid-1970s (commonly known as “the Cotton maps”). In addition, GIS (Geographic Information Systems) technology was used to develop the maps. The methodology employed to develop these maps included drilling observation wells at selected sites around the state. The project divided the state into 14 study areas whose boundaries largely coincide with natural drainage basins.

The new maps identify significant stratified-drift aquifers by their location as well as their hydraulic properties and internal characteristics. Thus, these new maps don’t just illustrate the estimated boundaries of an aquifer, they also provide information on ground water flow, depth of deposits, volume of sediment, etc.

A more detailed aquifer map for the Town alone is also included. This map shows a fairly large aquifer deposit in the Eastview area of Town, and a small pocket in Chesham at the juncture of Roxbury and Meadow Roads. Examination of the region-wide map shows that aquifer deposits in the region run mostly north-south within the Ashuelot and the Contoocook Watersheds, and that the


Stratified-Drift Aquifers with Watersheds Basins
Stratified-drift Aquifers
River Watersheds
Primary Basins
Roads
Municipal Boundaries
Waterbodies
Watercourses
N
SWRPC
CONNECTICUT RIVER WATERSHED
CONNECTICUT RIVER BASIN
CONTOOCOOK WATERSHED
LOWER MERRIMACK WATERSHED
MERRIMACK RIVER BASIN
ASHUELOT RIVER WATERSHED
MILLERS RIVER WATERSHED
NASHUA RIVER WATERSHED


Town of Harrisville
Stratified-Drift Aquifer
DOT Road Classes
Class I
Class II
Class III
Class IV
Class V
VI
Waterbodies
Wetlands
Railbed
Watercourses
Municipal Boundaries
Stratified-Drift Aquifer
N
Scale 1:36,000
Map Not Intended For Site Specific Work
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January 1999
Harrisville
Dublin
Eastview
Bonds Corner
Leighton State Forest
Skatutakee Lake
Dublin Lake
SEAVERS RESERVOIR
RUSSELL RESERVOIR
HOWE RESERVOIR
SILVER LAKE
Tolman Pond
Harrisville Pond
Stanford Pond
Chesham Pond
Childs Bog
Wight Pond
Dark Pond
Tenney Pond
Juggernaut Pond
Beaver Pond
Halfmoon Pond
Dinsmore Pond
Hurd Hill
Hardy Hill
Thunder Hill
Darby Hill
Blood Hill
Cobb Hill
Willard Hill
Beech Hill
Hurricane Hill
Spaulding Hill
Skatutakee Mtn.
Greenwood Hill
NUBANUSIT
BLUEBERRY LN
LEAD MINROE
CEMETERY
HARRISVILLE RD
CABOT RD
NEW TOLMAN RD
TOLMAN POND RD
MORRIS RD
CLYMER RD
TOLMAN PD RD
SCHOLTZ RD
MARIENFELD CAMP RD
YELLOW WING RD
OLD NELSON RD
EAST SIDE RD
SILVER LAKE RD
WEST SIDE RD
WILLARD RD
ROXBURY RD
DAWES RD
SEAVER RD
CHESHAM RD
OLD MEADOW RD
BROWN
SOUTH RD
OLIVER RD
DUBLIN RD
SILVERS RD
SKATUTAKEE RD
NELSON RD
WILLARD HILL RD
MACVEAGH RD
OLD DUBLIN RD
WOODS RD
BOWDS RD
HANCOCK RD
LAMPMAN RD
JACQUITH RD
CHERRY HILL RD
KINGSHWY
BONDS CORNER
SARGENT CAMP
BLACKBERRY LN
OLD HARRISVILLE RD
HARRISVILLE RD
LAKE RD
OLD COMMON RD
CHURCH ST
MONUMENT RD
E HARRISVILLE RD
BONDS CORNER RD
BOULDER DR
CHARCOAL RD

aquifer in Eastview is part of the larger "belt" that follows the Contoocook River. The information on these maps is consistent with the soils information that identified sand and gravel deposits in Town, most of them being in the Eastview area.

EXCAVATION OPERATIONS IN HARRISVILLE

As part of this report, all known existing and abandoned sand and/or gravel pits in Town were identified; they are presented in Table #14 and are located on the accompanying map by a number corresponding with the table.

TABLE #14:
KNOWN EXCAVATION SITES IN HARRISVILLE, NH

Map Number	Location	Status	Ownership
1	Silver Lake Road	Inactive	Private
2	Seaver Road	Inactive	Private
3	Brown Road	Inactive	Private
4	Chesham Road	Inactive	Private
5	Townsend Road	Inactive	Private
6	Hancock Road (Eastview)	Active	Town
7	Hancock Road (Eastview)	Active	Town
8	Route 137	Active	Private
9	Cherry Hill Road	Reclaimed	Private

SOURCE: HARRISVILLE PLANNING BOARD

Excavation has never been a dominant land use activity in Harrisville. Most it has been on a fairly small scale. The two town-owned pits in Eastview were once active commercial sites. The Town no longer sells the material, recognizing that local needs should be met first. Thus, of the three active sites, two are strictly town need-based, and the third - on Route 137 - is used primarily by the landowner for land development purposes in Harrisville and Dublin.

The map indicates that five of the nine know excavation sites are located over areas that have been identified by DES & the USGS as having aquifer deposits: four of these are in Eastview, and one in Chesham.

Town of Harrisville, NH

Gravel Sites

Gravel Site Status
- Active
- Non-active

- Roads
- Town Boundary
- Watercourses
- Waterbodies
- Wetland Areas

N

Scale - 1:36000

1000 0 1000 2000 Feet

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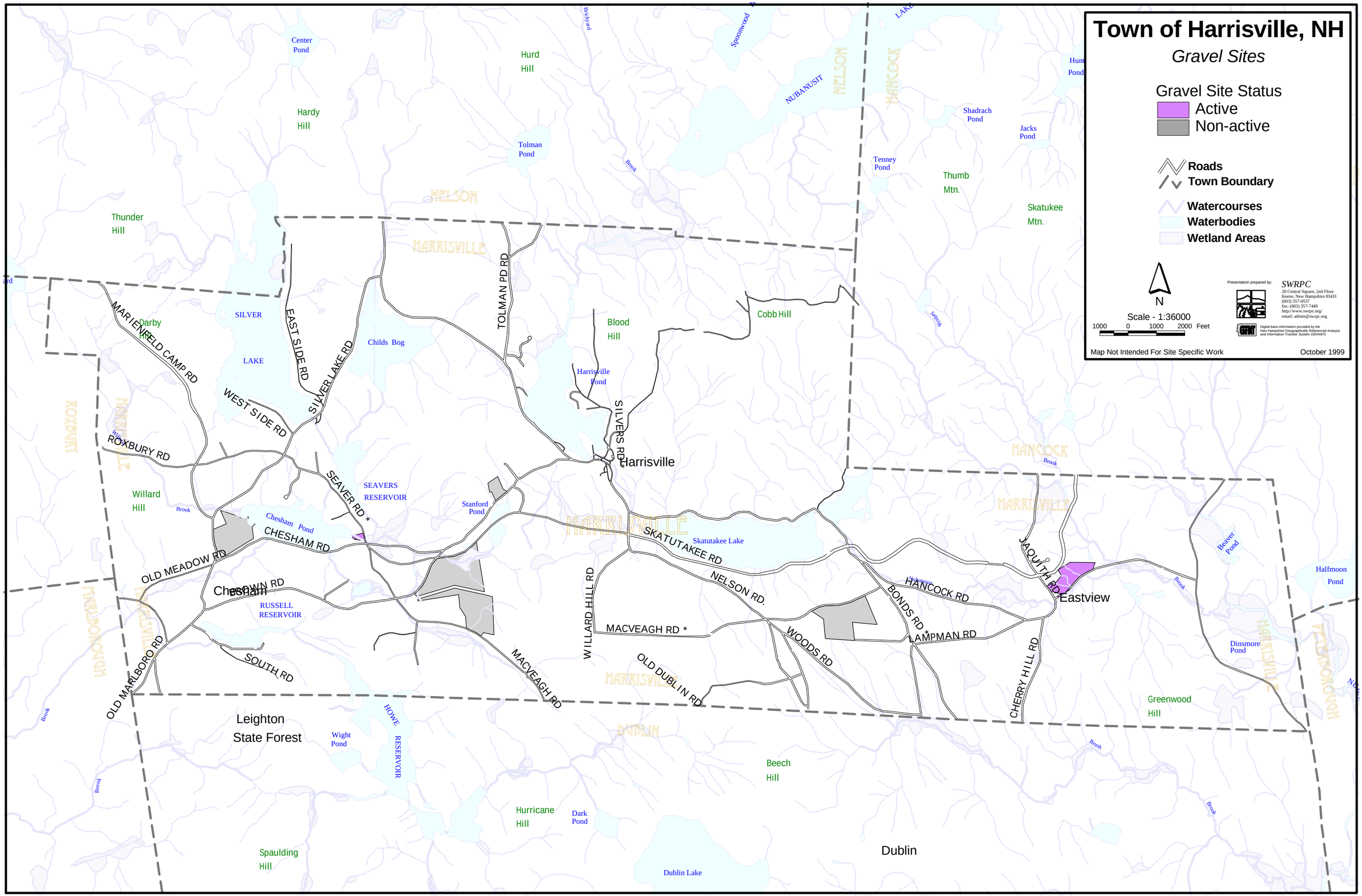
Map Not Intended For Site Specific Work

October 1999



OPPORTUNITIES IN HARRISVILLE FOR EXCAVATION

The information on construction materials in this report is intended to be used for land use planning. Once locations of sand, gravel, roadfill and topsoil have been identified, the Planning Board can make informed decisions regarding the appropriate locations for the excavation of these materials.

As noted earlier, RSA 155-E requires towns to allow some opportunity for earth excavation. The law also allows towns that have adopted a Water Resource Management and Protection Plan consistent with RSA 674:2,VIII to include in their local excavation regulations provisions that are aimed at protecting water resources. The information depicted on the accompanying maps enables the Planning Board to do just that.

The Town of Harrisville is zoned for five districts, the largest being the Residential & Agricultural District – in which all known excavation sites are located. The Zoning Ordinance, however, makes no provisions for excavation, which means, as noted earlier, that if an application is made for excavation, that proposal will be reviewed by the Board of Adjustment as a special exception use, not by the Planning Board, and the ZBA *shall* grant the permit provided that the conditions spelled out in the statute can be met.

CONCLUSION

Based on the maps generated for this report, the Soil Survey, and the available information on excavation sites in Harrisville, it would appear that the Town has a meager supply of sand, gravel and topsoil, and the majority of these materials (with the exception of roadfill) is located in the eastern side of Town. Since there are no zoning provisions relative to excavation, the Board will consider whether it is advisable to develop zoning provisions for this use.

Land Use Analysis and Plan

LAND USE ANALYSIS

INTRODUCTION

A land use analysis is an important element of community planning. Once raw land is converted to a particular use, it is usually committed to that use for a very long time, if not indefinitely. It is extremely difficult to change a pattern of development once it takes hold. Therefore, decisions about future land use should be made carefully, with a studied eye to the potential ramifications of those uses. A well-conceived land use plan allows for new growth and development while it protects and preserves the integrity of neighborhoods, businesses, transportation routes, and the environment.

This chapter describes the pattern of existing land uses in Harrisville and analyzes the changes that have taken place in the land use pattern since 1993, the date of the last land use analysis for Harrisville. Maps are used to identify the areas of town that have been developed, the kind of development that has occurred, and the relationship of one land use to another. This information provides the baseline necessary to evaluate the appropriateness of future development and the availability of suitable land for such development.

The development of a land use plan forms the basis of land use regulations, which are effected through zoning ordinances, subdivision, and site plan review regulations. The land use plan describes the goals and objectives envisioned by the town; the regulations are the means to put these goals into place. For instance, if in the process of describing present land use patterns in Harrisville, recommendations are made to encourage more commercial activity in a particular area, the zoning ordinance should be amended to permit that kind of activity in that location - if it does not already do so. Or, by the same token, the land use plan might recommend that the zoning ordinance be made more restrictive in particular areas, for the purpose of protecting and preserving certain natural features in town.

LAND USE CATEGORIES

The first step in the land use analysis is to classify the various land uses that exist in Harrisville. A classification system describes these activities. The second step is the field survey where present land uses and activities are recorded on a map to illustrate an interpretation of the land use pattern. The field survey is conducted by car along all state and town-maintained roads.

In general, land is classified according to its physical characteristics and/or the present activity that occurs on it. The two major divisions in a land use classification system are "Developed" and "Undeveloped" uses. Each of these divisions can be further subdivided into specific land uses. The following is a listing and description of the standard land uses categories used to prepare a Land Use Plan:

- ***RESIDENTIAL***: All land and/or structures used to provide housing for one or more households. These include site-built single family homes, manufactured homes (previously known as mobile homes), factory-built modular homes, duplexes, apartment buildings, condominiums, and seasonal residences.

- ***PUBLIC/SEMI-PUBLIC:*** Establishments and facilities supported by and/or used exclusively by the public or non-profit organizations, such as fraternal, religious, charitable, educational and governmental facilities.

- ***AGRICULTURAL:*** Lands that are utilized for the cultivation of crops, the raising of livestock and poultry, and nurseries for horticultural purposes.

- ***COMMERCIAL***: All lands and structures that supply goods and/or services to the general public. This includes such facilities as restaurants, motels, hotels, service stations, grocery stores, furniture and appliance sales, as well as establishments which are primarily oriented to providing a professional and/or personal service to the public, such as medical offices, banks and financial institutions, personal care establishments, etc.

- ***INDUSTRIAL:*** Land and/or facilities used for mining, construction, manufacturing, treatment, packaging, incidental storage, distribution, transportation, communication, electric, gas and sanitary services, and wholesale trade.

- ***HOME-BASED BUSINESS:*** A residential property that houses a home occupation or home-based business. The residence continues to be the principle use of the land, and the occupation is by definition secondary and incidental.

- ***ROAD NETWORK:*** All public and private rights-of-way that are designated for carrying vehicular traffic. This includes Class VI roads that are no longer maintained by the town and do not carry public traffic.

- ***PROTECTED LANDS:*** Included in this category are all federally-owned lands, all State parks and forests, land protected under the State Land Conservation Investment Program (LCIP), land protected and/or owned by the town, sensitive land and wildlife habitats protected by the NH Audubon Society, land held by the Society for the Protection of NH Forests, Historic Harrisville, Inc., and the Monadnock Conservancy.

- ***UNDEVELOPED:*** All lands that are not developed for any of the above uses, regardless of the reason - whether it be because the land is not usable due to environmental constraints, or there has been no demand to develop.

FACTORS THAT INFLUENCE LAND USE

Various factors influence growth and development in a town. The major physical and topographic features are the primary factors that influence the initial as well as the subsequent development of land. Secondary factors usually consist of man-made features such as roads, railroads, utilities and major commercial, industrial or recreational facilities that attract and/or stimulate new or expanded development. The following factors have played an important role in the development of Harrisville:

- ***WATER POWER***

Harrisville is home to several large waterbodies, ponds and streams that have impacted land use development, in particular the damming of the Harrisville Pond outlet that generated water power for Cheshire Mills, an industrial complex that has played a significant role in Harrisville for over a hundred years.

- ***TRANSPORTATION SYSTEMS:***

Settlement in Harrisville has been influenced by what does not exist relative to transportation - and that is the presence of a significant state transportation route. Route 137 is the only state route that traverses Harrisville, and that comprises only a short stretch at the far eastern edge of town, carrying traffic primarily south to Dublin and north to Hancock. Route 101 is one of the major arterials in the regional network that lies the closest to Harrisville. It is the road used for most of the traffic in and out of Town.

The other transportation system that influenced the settlement pattern of Harrisville is the railroad. The Chesham Line ran all the way through Harrisville, from the Marlborough town line in Chesham to the Hancock town line in Eastview. The railroad initially served a much greater role in moving people and goods around and through Harrisville than did the road network. Thus, the demise of rail travel and the establishment of major transportation routes outside of Harrisville boundaries set in place certain parameters that have dictated the rate and type of development experienced in Harrisville over the last several decades. What is changing this landscape in Harrisville and elsewhere is the introduction of telecommuting, which does not require concrete and asphalt for people to travel to their places of work. The effect this is having on development in Harrisville remains to be seen.

- ***TOPOGRAPHY & SOILS***

To some extent, topography and soils also play a role in any town's development. Historically, people built houses and roads on land that was most easily accessed; and soil type and characteristics influence what kind of development will occur - farming, for example, and where that development will take place.

EXISTING LAND USE

An analysis of the present land use pattern in a town is one of the first steps in the formulation of a Land Use Plan. Since the type and intensity of existing land uses have a strong influence on future development patterns, it is important to understand how land and other resources are used within a given area before recommendations can be developed relative to future land uses.

The history of Harrisville is actually the history of Dublin and Nelson, up until 1870, when the small complex of mills and houses that had been slowly growing between the towns of Dublin and Nelson since the late 18th century became incorporated into Harrisville. The community began as an agrarian frontier settlement, but later waterpower was harnessed to generate power for mills, primarily in the Village and in Eastview; Chesham retained more of the early agricultural character.

Despite the arrival of the railroad and the incorporation as a town, the late 1800s were not prosperous times for Harrisville. This was generally true for other New Hampshire towns as well. There were many reasons for this economic decline in New Hampshire. Among these was the post-Civil War westward migration, which resulted in the abandonment of many small farms in New Hampshire. This westward migration was coupled with a southward migration of the textile industries, and together these factors contributed to the general decline in population and economy experienced by many communities, including Harrisville.

Harrisville's economy remained relatively stable through the first part of this century, while the population gradually declined (the decline began in 1880). The population did not begin to increase until the 1960s, and has continued to rise at a moderate pace since then.

Many New Hampshire towns have developed in a similar manner to our own. Our towns and cities were established when living patterns were less complex than they are today. Travel was difficult, and people lived close to their work, and to the services they required. The village centers of Harrisville, Eastview, and Chesham are typical of this clustering of homes, businesses and services. The automobile changed the traditional patterns of development, bringing strip development and mini-malls. Harrisville has avoided this type of development, but we have seen a gradual filling in of the suitable lands along the roads between the village centers.

The total area of the Town of Harrisville is approximately 13,125 acres, of which 93% - or 12,200 acres - constitutes land area, and 925 acres of surface water. Of this land area, roughly 13% is presently developed for one of the uses described earlier in this text. The following table compares the estimates of land use between 1990 and 1999.

Attempting to calculate exact acreages for land uses - particularly residential usage, is difficult and time-consuming. Therefore, a commonly-used methodology is to simply assume one acre per each dwelling unit. This takes into account that multi-family units will typically occupy much less than an acre, and most single family homes much more than an acre - but the actual land that is <u>covered</u> by the dwelling and accessory structures is usually about one acre.

The land area taken up by roads and highways is calculated by assuming a 50-foot right-of-way, multiplied by the number of miles of road; the remaining land use categories denote - as closely as possible - the actual acreage utilized for the activity. For uses other than residential, the acreage noted on tax assessment cards is used, since it is more common for more of the lot to be taken up by a non-residential use than is generally observed for residential use.

This methodology was used to develop Table #15. An attempt has been made here to compare the uses of land in 1990 to that of 1999. A direct comparison is, however, not possible, due to differences in methodology. Even with these differences, it appears that only a small amount of Harrisville's land has been developed for any purpose - 12.5% in 1990 and 13% in 1999. The largest percentage by far of land in Harrisville remains undeveloped and, based on certain criteria, remain undevelopable.

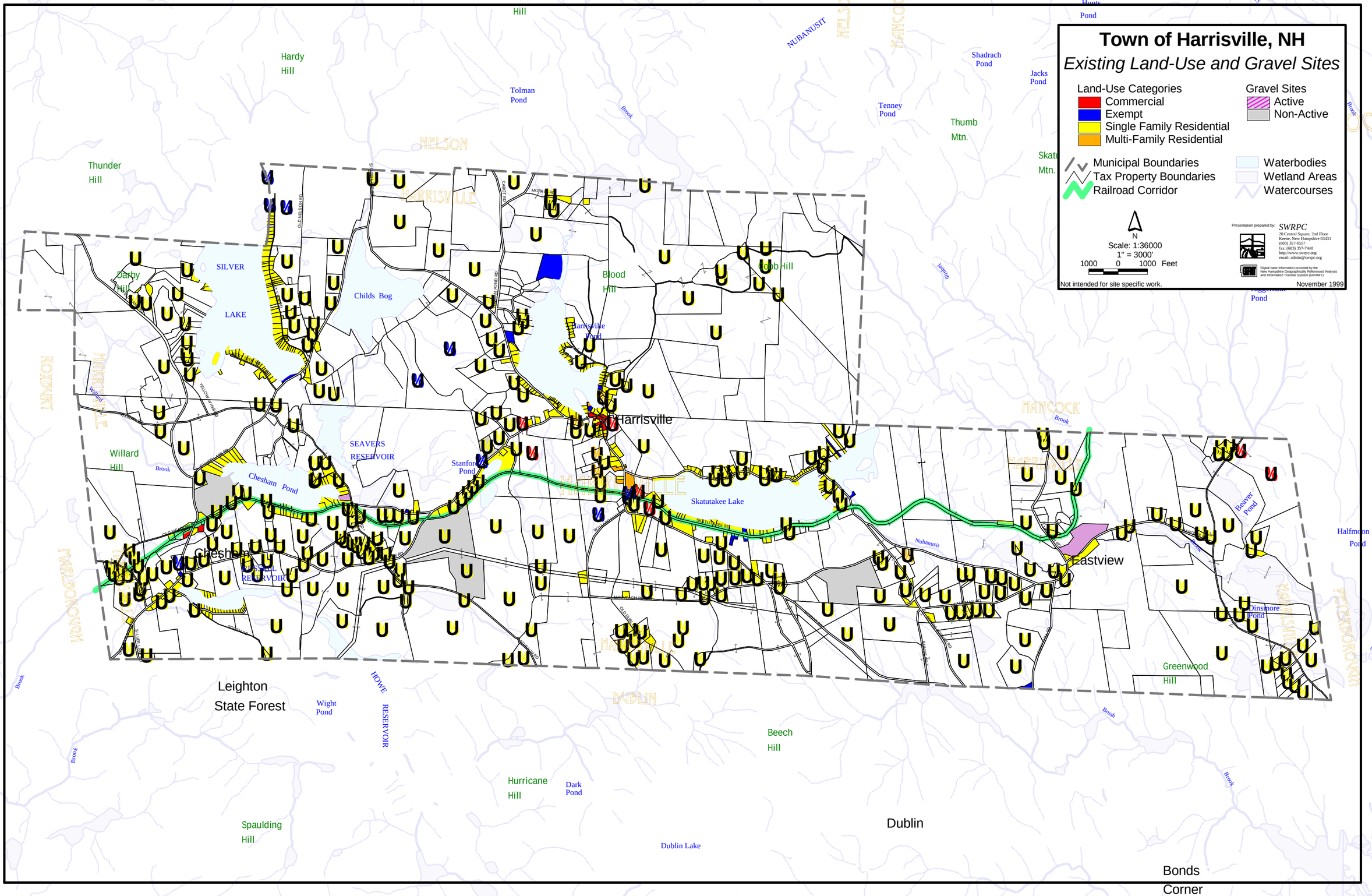
TABLE #15:
EXISTING LAND USE IN HARRISVILLE, 1990 AND 1999

LAND USE	TOTAL ACRES 1990	TOTAL ACRES 1999		% OF ACRES IN USE 1990	% OF ACRES IN USE 1999		% OF TOTAL 1990	% OF TOTAL 1999
DEVELOPED:								
Residential (single family)	562	593		37.3	37.5		4.6	4.9
Residential (multi-family)	32	34		2.1	2.1		0.3	0.3
Commercial[1]	24	145		1.6	9.2		0.2	1.2
Industrial[2]	10	166		0.7	10.5		0.1	1.4
Public/Semi-Public	190	59		12.6	3.7		1.6	0.5
Recreational	110	7		7.3	0.4		0.9	0.06
Agricultural	300	300		19.9	19.0		2.5	2.4
Roads and Highways		277	277		18.4	17.5		2.3
2.3								
TOTALS	**1,505**	**1,581**		**100%**	**100%**		**12.5%**	**13.1%**
UNDEVELOPED								
Current Use		7,525						
Conservation Lands		734						
Other*		2,360						
		10,619						
TOTAL LAND AREA		**12,200**						

* Land that is neither developed nor taxed for current use, nor protected by any type of easement.

The accompanying map presents the land use pattern for Harrisville as of December 1999. Reference to the map illustrates the pattern of development around Town. The map makes clear that the greatest concentrations of development are to be found in Chesham and Harrisville Villages, and around the primary waterbodies (Lake Skatutakee, Harrisville Pond, Silver Lake,

[1] The 1999 figure includes the campground on Route 137.
[2] The 1990 figure seemed to account only for the Cheshire Mills property. This property is out of industrial use as of this writing; the 166 acres are entirely accounted for by the two active gravel pits.


Town of Harrisville, NH
Existing Land-Use and Gravel Sites
Land-Use Categories
Commercial
Exempt
Single Family Residential
Multi-Family Residential
Gravel Sites
Active
Non-Active
Municipal Boundaries
Tax Property Boundaries
Railroad Corridor
Waterbodies
Wetland Areas
Watercourses
N
Scale: 1:36000
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November 1999
Harrisville
Cheshire
Eastview
Leighton State Forest
Dublin
Bonds Corner
SILVER LAKE
Childs Bog
Harrisville Pond
Blood Hill
Hobb Hill
Darby Hill
Willard Hill
Thunder Hill
Hardy Hill
Hurd Hill
Tolman Pond
Shadrach Pond
Jacks Pond
Tenney Pond
Thumb Mtn.
Skatutakee Lake
Chesham Pond
SEAVERS RESERVOIR
Stanford Pond
Beaver Pond
Halfmoon Pond
Dinsmore Pond
Greenwood Hill
Beech Hill
Hurricane Hill
Dark Pond
Spaulding Hill
Dublin Lake
Wight Pond
HOWE RESERVOIR
NELSON
HANCOCK
ROXBURY
MARLBOROUGH
PETERBOROUGH
DUBLIN
NUBANUSIT

Chesham Pond, and to a lesser extent, Russell Reservoir). The remaining development occurs along the road frontage, fairly evenly disbursed around town.

The predominant land use in Harrisville is residential, which has not changed since 1993, nor even since the 1983 Master Plan. Most of this development is in year-round homes, however there is a significant percentage (35%) of seasonal housing in Town, which is directly related to lake-front development. Multi-family housing occupies a very small proportion of the housing stock and associated land area.

Public and semi-public uses consist of the Town Office Building, the Fire Station, Police Department and Highway Department, the Transfer Station/Recycling Center, the Library, the elementary school, and three churches and four cemeteries. Included in this category is the Edward MacDowell Reservoir and Flood Control Project in the eastern part of town, which accounts for 150 acres of the estimated 190 acres devoted to public use. The uses are identified on the Existing Land Use Map as being tax exempt; this category also includes the properties owned by the Mountain Missionary Trust.

Commercial activity in Harrisville is primarily located in the Village area. There are presently fewer than 10 commercial properties in Town. These uses consist of: a bed & breakfast establishment, with a gift shop; the production of shaker-style furniture; a childcare center; an antique shop; a pottery shop; a campground; a bakery; an artists studio; and the facilities of Harrisville Designs - a yarn shop and a loom shop.

Industrial uses are limited to the few sand and gravel pits that are still operating in Town. Filtrine Manufacturing, on the site of Cheshire Mills in the center of the Village, has recently moved its operations to Keene. Historic Harrisville, Inc. has recently acquired the site and is in the process of developing a vision and plan for its development.

Recreational uses do not occupy a large amount of land in Town, as they are limited to the school property, two town beaches and one picnic area, and the Lions Club ballfield off the Brown Road.

Agriculture accounts for about 300 acres of land. This activity consists primarily of haying, light dairy, sheep farming, and the keeping of llamas and horses.

Roads and highways, while not typically thought of as a "use" *per se*, they do take up nearly 300 acres of land, which is only surpassed by agricultural use.

Town of Harrisville, NH

Current Use and Conservation Lands

Conservation Lands

Properties Receiving Current Use Credit

Municipal Boundaries

Tax Property Boundaries

Waterbodies

Wetland Areas

Watercourses

N

Scale - 1:36000
1" = 3000'
1000 0 1000 Feet

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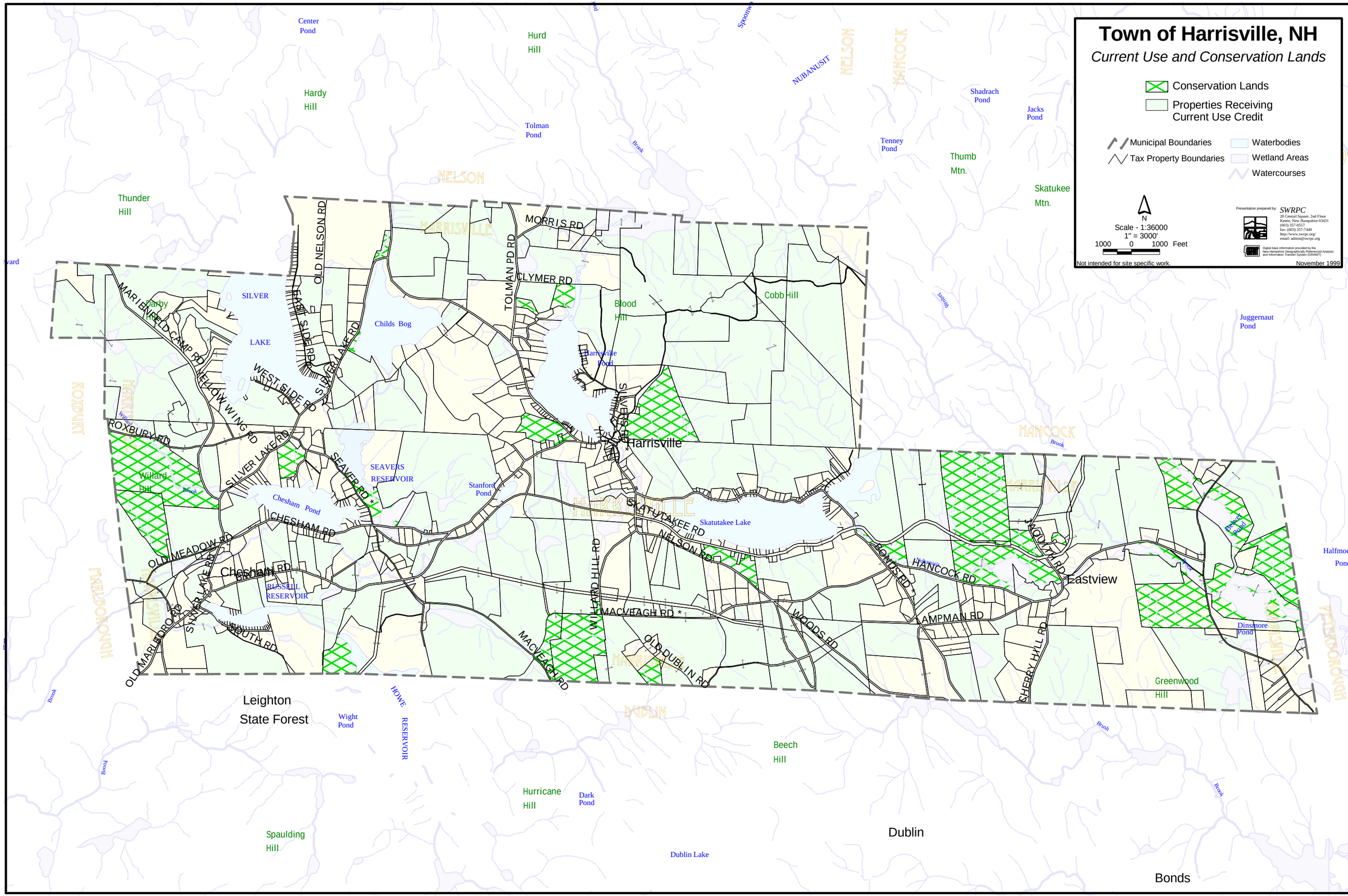
November 1999



Town of Harrisville, New Hampshire

Limits to Development

- Municipal Boundaries
- Property Boundaries
- Waterbodies
- Wetland Areas
- Perennial Streams
- Intermittent Streams
- Steep Slope Soils > 15%
- Poorly and Very Poorly Drained Soils
- Shallow to Bedrock (<= 40.00 inches)
- Low and highly Permeable Soils (Less than 0.06 inches/hour or more than 20 inches per hour)
- Highly Erodeable Soils (K Factor > 0.49 or C, D, and E soils with a K Factor > 0.28)

N

Scale 1:36000
1" = 3000'
1500 0 1500 Feet

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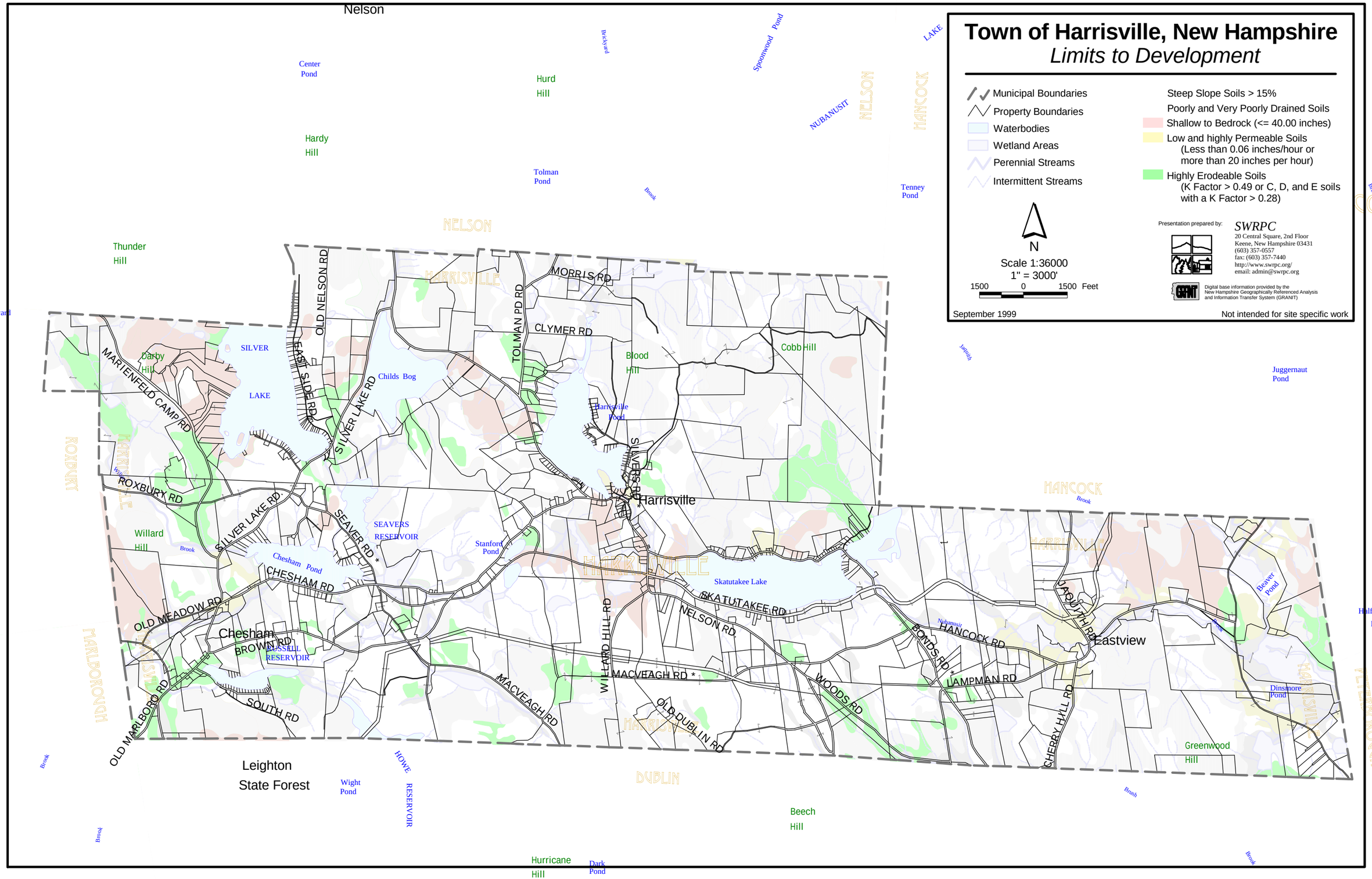

LIMITATIONS TO DEVELOPMENT

The data concerning the existing land use pattern reveals that roughly 12% of Harrisville's total land area is currently developed, leaving some 10-11,000 acres undeveloped. Not all of this land, however, is suitable for development. Limiting factors to development include steep slopes, certain soil types, wetlands, aquifers, and other sensitive lands or features. In addition to these physical constraints, development is limited by the public's desire to protect the quality of life and property values of existing residents. This public will is ideally expressed in the Town's land use regulations, and is the central purpose of this planning document.

A Development Limitations Map was developed for the 1983 Master Plan. According to the information used to develop that map, 78% of Harrisville's land area had serious to severe limitations to development. A new Limits to Development Map has been created for this planning effort, using the Geographic Information System technology. This map identifies the five constraints to development that are related to the ability of the soil to accommodate septic systems, road or building construction. The GIS system calculates that 73% of the Town's land area is constrained by one or more of these limitations.

TABLE #16:
LIMITS TO DEVELOPMENT

Constraint	Acres	% of Land Area
Slopes greater than 15%	4,502	34%
Poorly and very poorly drained soils	997	7%
Shallow to bedrock soils (less than or equal to 40 inches)	1,756	13%
Low and highly permeable soils (less than 0.06 inches per hour or more than 20 inches per hour percolation rates)	1,358	10%
Highly erodeable soils	1,192	9%

Reference to the map illustrates that one or more of these development constraints exists virtually all over town, in no particular pattern; there are, in fact, only a few areas on the map that appear to have no limitations at all. In comparing this information to the Existing Land Use Map, it can be seen that, while the development does follow almost every road in town, the areas shown as having the greatest constraints have not been developed. How much of this pattern is due to the natural constraints of the land or to other factors such as road access, is not known.

FUTURE SEARCH

One further, and very fundamental, element of this Master Plan is the planning event undertaken by the Town, known as Future Search, an event that had its inception with the Planning Board. A steering committee was formed and the first meeting was held over a weekend in November of 1997.

The organizers of this event felt strongly that it is very important for the residents of Harrisville to shape the Town's future, rather than let outside forces do so. One of the biggest problems with that goal, however, is that people today are busier - for a variety of reasons, and have little time to invest in their communities; in short, towns are lacking in the social capital needed to develop and maintain a balanced community. It was the observation of the organizers that there are fewer people involved in charting the course of the town. Future Search was intended in part to address this issue and to assist the Planning Board in the development of the Master Plan. Not intended to take the place of the Master Plan or the process, Future Search has added a public participation element that is not customary in master planning projects.

Approximately 80 residents from all walks of life got together to create a vision of Harrisville's future. The tasks for participants on that weekend were to: review the past, explore the present, create ideal future scenarios, identify common ground, and make action plans. The action plans were developed with six-month milestones. A reunion meeting was held at each of these milestones to review the goals of the action plans, and evaluate appropriately. The six committees, their functions and accomplishments are as follows:

1. ***COMMUNICATIONS***

   The goals of this committee were to reinstate Harrisville's newsletter, *"Common Threads"*, to develop a web page and a database for the Town. To date, the committee has revived the newsletter and bimonthly issues have been published since December of 1997. In addition, ad hoc efforts to develop a web page and a town database are underway.

2. ***GENERAL STORE/COMMUNITY CENTER***

   The committee envisions a site that serves a variety of purposes, from the provision of eat-in food service, to groceries, to a gathering place for townsfolk. The site must not necessarily be in the existing store building, but should be located in the Village center. No progress has been made to date on acquiring either the store, or any other site. However, the committee has instituted a Community Mid-Day Meal program, held the last Wednesday of each month at the church. Blood pressure checks are provided at this time, and transportation to and from the church for those who need it is available. The committee has sponsored a CPR course, and will provide a basic water safety course in the summer.

3. GREENSPACE

The primary goal of this committee is to work toward the conservation of land, water, and open space. To date, the committee has, through monthly joint meetings with the Conservation Commission, developed a map that identifies all protected lands in Harrisville. It has requested and received a 1999 Town Meeting appropriation to acquire 4.5 acres for the protection of the Skatutakee Spring. In addition, two parcels of 13 and 10 acres respectively, have been protected through easements, and two other parcels, of 88 and 12 acres respectively, are in the process.

4. RECREATION

The goals of the committee are to establish an ice-skating rink, a baseball field, and a soccer field, sites for which still need to be determined. As of this writing, acquisition of land for the baseball field is still being investigated. Funds have been appropriated at Town Meeting and placed in a capital reserve fund for the future purchase and improvement of recreational land.

5. RAILS-T0-TRAILS

The goal of this committee is to establish, map and maintain a network of multi-use recreational trails. The railroad bed of the Chesham Line is the core of such a system. Although the tracks have all been removed by the railroad, several bridges need replacement in order to complete the line through Harrisville. The committee is working with landowners along the line to resolve any property issues. Part of the challenge is to determine ownership of the property. The committee is involved in cooperative efforts with the other towns along the line to tie the corridor together.

6. SENIOR CITIZENS

The committee's goals are to explore transportation pooling and develop a welcome package for newcomers to Harrisville. A longer-range goal is to explore alternative housing and living arrangement that would allow the elderly to remain in Harrisville. To date, the committee has accomplished the following:

- Developed a Mission Statement
- Completed a Needs Survey, wherein Housing for the Elderly was definitely identified as a need.
- Identified services that would allow people to remain in their homes, rather than relocate to a nursing home.
- Initiated a Meals-on-Wheels Program that provides service twice a week with volunteer drivers.
- Explored economic means to assist the elderly in the upkeep of their homes.
- Developed a "Drivers Kit" for those people who deliver the Meals-on-Wheels.

The Cheshire Mills Complex

Not specifically attached to a committee, but nevertheless important to visions of Harrisville's future, is the redevelopment of the Cheshire Mills complex. The vision for the complex articulated by Historic Harrisville, Inc. Board of Trustees is a multi-use development, consisting of a store/café, light industrial/commercial activities, a community center, elderly housing, and cultural facilities. The core values underlying the implementation of this vision are to employ townspeople, preserve the structures on the site, and contribute to Harrisville's sense of identify and pride. The primary challenge at this time is financial; the vision assumes that the complex will be financially sustainable, but start-up funds are needed to sustain the operations for 3 - 5 years. Guiding the planning process is a strong desire to avoid negative environmental impacts and unacceptable traffic situations.

FUTURE LAND USE

Land is Harrisville's most basic resource. As such, its use determines the character and quality of community life. The rate of growth, type and location all directly affect the physical appearance of the Town, the need for certain public services and facilities, and the cost of providing these services. And, even if the development is expected to be slow and of low impact, we know that change will come - that is a given, and Harrisville must be prepared to face it.

Thus, in creating a Master Plan to guide Harrisville's growth, it is the Future Land Use Plan that is the core of the comprehensive planning program. It is this document that reflects the best thinking and wishes of Harrisville residents regarding all future development in Town.

Certain assumptions are made in anticipating future development in Harrisville. Based on the data collected and analyzed in the preceding sections:

- If the past 18 years can serve as an indicator, Harrisville should not experience any significant increase in population.

- A caveat to the assumption above, however, is the high proportion of seasonal housing around the lakes. If occupied year-round, this would have the potential to greatly impact the Town, in terms of population density around sensitive shorelands, increased numbers of school children, and demand for police, fire, highway, and other municipal services.

- The road network in and through Harrisville will remain unchanged over the next 10-15 years, aside from regular maintenance and improvements. The roads carrying traffic through Harrisville, i.e., Route 137 and Silver Lake Road, will continue to serve as subregional arterials and local collectors.

- Harrisville residents will continue to participate at a high level in the labor force and regional economy; managerial and professional occupations will expand, with increased reliance on telecommuting.

- Agriculture will not be a notable land use, nor will it be a significant contributor to the local economy.

THE FUTURE LAND USE PLAN

In any planning process, it is inevitable that some goals will conflict with others. Residential and commercial development, for example, invariably conflicts with agricultural use and open space preservation. One of the purposes of this Plan is to set policies and establish clear objectives, where appropriate, that will guide future growth in a manner that best accommodates both protection and development.

In small towns such as Harrisville, it is sometimes more appropriate to base future land use decisions on development policies, rather than specific objectives. In such towns, where future growth is not anticipated in large numbers, the form in which most growth takes place is the development of individual properties. The Plan, then, expresses a general concept of development and is considered to be a realistic means of managing future growth.

I. LAND USE

Overall, land use patterns in Harrisville are dominated by single family residential development, with fairly significant seasonal, lakefront residential use. This general pattern is not expected to change, although the Planning Board is very concerned about development occurring in a sprawling pattern along the roads that separate the three distinct village areas. Agriculture, which continues to be a concern, both for the economic activity as well as for the protection of the prime farmlands, does not play a significant role in the local economy. It is unlikely that this will change in the foreseeable future, due as much to national trends in farming as to anything else. Therefore, how far land use regulations can or should go to protect farmland that is not being farmed must be carefully considered.

Significant features of the built environment include the two villages and the Cheshire Mills complex. Harrisville's history and traditions are rich, and much attention - both public and private - is given to preserving these features. With the pending redevelopment of Cheshire Mills, this is a good time to review the land use regulations relative to protecting the identity and character of the two villages and Eastview; this includes addressing land use along the roads that separate them.

The future of Cheshire Mills will have tremendous impact on the whole town, as well as on the life and looks of the Village area. Attention will need to be paid to the land use regulations to ensure that they support the final goals and plans for this important piece of property.

II. COMMUNITY FACILITIES

Based upon the information collected in the Basic Studies section, Harrisville currently meets the community facilities needs of its residents, and expects to do so into the near future. The most significant changes, since the 1993 Master Plan, are the construction of a new Town Office building, and the closing of the landfill. The other town departments appear to be in good shape. The voters annually approve a variety of capital reserve funds to support the town services.

The Town could, however, expect to have a large proportion of its population in need of services for seniors. Reference to the age pyramid on page 3 illustrates that the largest age category as of 1990 was the 35-44 year-olds. As they work their way up the pyramid (other factors such as out-migration, etc, notwithstanding) in 20-30 years the age pyramid could look quite different.

The potential impact of the current New Hampshire education crisis on Harrisville's school system and tax rates is still very uncertain. As of this writing, the NH Legislature has passed a state-wide property tax, and tax bills have been sent out based on this assessment; however, several towns have challenged this law, and other towns are refusing to pay this tax. Under the new legislation, Harrisville is a recipient town, which means it will receive funds under the state's distribution plan. It is worth noting, however, that Harrisville is "on the bubble", and a slight change in the state's distribution formula could push Harrisville into the Donor category.

It is expected that the voters of Harrisville will continue to support the varied local and regional educational, historic and cultural activities, as well as health-care services (such as Home Health Care, Monadnock Community Services, Camp Holiday).

III. ECONOMIC DEVELOPMENT

The existing land use analysis demonstrates that Harrisville has a limited amount of commercial or industrial development. The most significant such use in Town was Filtrine, which moved to Keene. Harrisville is predominantly a rural, residential, somewhat agricultural community. Most of its working residents commute out of town. Others are engaged in home occupations or home-based businesses. The Future Search indicates that a strong impetus does not exist in Town to change this situation.

This plan continues to recognize the importance of home occupations and home-based businesses, and supports the continuation of relevant provisions for such uses in the Harrisville Zoning Ordinance. In addition, all reasonable efforts to support existing businesses and attract new business are encouraged. This plan also supports the efforts of Historic Harrisville, Inc. to redevelop the Cheshire Mills complex, which would ideally include some type of commercial/industrial activity.

The 1993 Master Plan recommended that definitions for business uses be established in the zoning ordinance; this has been accomplished. The next step is to specify which of these business uses are appropriate for particular districts.

IV. TRANSPORTATION

Harrisville's road network is long established; virtually every road in use in town today has been in existence for the better part of the century or longer. The analysis of the transportation system, both in and around Harrisville, does not identify any particular problems that require either dramatic changes in the way roads are improved and maintained in town, or the construction of any new roads. Any potential impacts on the local road network will be the result of increased population, since Harrisville roads do not serve a regional capacity - that is, traffic does not typically go through Harrisville to get to someplace else. And, based upon the population statistics, the Town is not expected to experience any significant population increase (less than one percent annually) that would unduly impact the road network.

Nevertheless, development in remote or inaccessible areas of town should be monitored and discouraged or prohibited, where appropriate. Applications for building permits on Class VI roads is a good case in point, where even low density minor development can create problems for the Town if the road network is not able to accommodate traffic. Further, the Planning Board should closely scrutinize all development proposals to determine their possible impact on the roads in the area, and the ability of the Town to adequately maintain them. The Selectmen may wish to consider the adoption of a Road Policy that would provide guidance to them and the Planning Board during an application review process.

A technology available to road agents to help in evaluating local roads is called the Road Surface Management System (RSMS). It was created by the Technology Transfer Center of the University of New Hampshire. The system provides a means to visually inventory and evaluate a number of various road surface problems such as surface cracking, inadequate drainage, etc., and then factors in costs of repairs and approximated traffic volumes for each road. The results of the visual inventory, cost and traffic factors are then tabulated through the use of the RSMS computer program in order to create a priority list of road improvements. The Selectmen and the Road Agent might consider using this methodology to aid them in planning future road improvement projects.

V. HOUSING

There are two primary functions of the Housing Plan: (1) respond to the statutory requirement that local master plans address current and future housing needs of residents at all income levels; and (2) guide the location of development, while at the same time minimize impacts of the development not only on the character and environment of the Town, but also on Town services and facilities. In addressing the first function, that of the statutory requirement, reference here is made to two documents - the Regional Housing Needs Assessment, and the Harrisville Zoning Ordinance.

In 1988 the New Hampshire Legislature amended RSA 36:47, making it a requirement that all regional planning commissions undertake a regional housing needs assessment. The study was intended to indicate whether individual towns within the region are providing their fair share of housing for low- and moderate-income residents.

The Southwest Region Planning Commission conducted such a study in 1989. The study is in need of updating, and there is a need to revisit the basic assumptions and types of data that were deemed appropriate for the methodology. Nevertheless, at that time, the result of the study was that Harrisville would need to provide 29 units (out of a regional need of 1,376 units for 35 municipalities) of low and moderate income housing units in order to meet its fair share for the region. The greatest need seemed to be for renter-occupied units for persons under 62 years of age.

As mentioned, there is today general consensus that the methodology for this study should be revisited prior to updating. One fairly critical factor was not taken into account in the study, and that is the opportunity afforded by a town's zoning ordinance to develop a variety of housing types. Examination of the Harrisville Zoning Ordinance reveals the following provisions relative to housing opportunity:

- Single family homes are permitted by right in all districts.
- Duplex dwellings are permitted in the Village Residential District.
- Multi-family units are permitted in the Village Residential District subject to additional land area and increased setback provisions.
- Manufactured housing is permitted in the Residential/Agricultural District (which comprises the largest land area of town.)
- Accessory Apartments are permitted by Special Exception in the Residential/Agricultural District.
- Backlot development is permitted in the Residential/Agricultural District subject to certain conditions.
- Cluster development is permitted by Special Exception in the Residential/Agricultural District.

Based on this review of the zoning ordinance, it appears that there are provisions for the development of a variety of housing types to meet a range of income levels and needs, including special needs of the elderly. The establishment of provisions for accessory apartments increasingly provides a means for the elderly to stay in their homes - either by renting the apartment for income or for services in kind, or by moving into the apartment and renting the larger house.

Additional opportunity for the elderly can be provided through the inclusion of congregate housing for the elderly as a permitted use in the zoning ordinance. This type of housing allows many senior citizens a place to live with others who, for various reasons can no longer manage on their own, but are not in need of nursing care.

Regarding the rate of residential growth in Harrisville, reference must be made to a Growth Management Ordinance, adopted by the Town in 1990. The purpose of this ordinance is to guide Harrisville's growth rate so that the annual increase in population can be adequately served by community facilities. The implementation of this purpose is accomplished through the limitation on the

number of permits that can be granted in a calendar year. The number is based on an average rate of housing growth in Harrisville and the surrounding towns, but may not be less than six permits. Since the inception of the ordinance, this limit has never been reached; anyone applying for a growth permit received approval, subject to meeting the appropriate local and/or state requirements. This year, however, is different: for the first time, the number of applications has exceeded the number of permits. (Note, however, that the most current population projections do not anticipate much growth for Harrisville over the next 20 years - less than one percent annually, representing an addition of about 120 people.)

Municipalities use various methods to guide residential development - from complete prohibition in designated areas to the administration of performance standards for construction. In Harrisville, as in most New Hampshire towns, the customary approach has been to allow residential development in all areas of town, subject to certain conditions or the meeting of certain standards. For example: no construction is allowed in a wetland or on steep slopes; driveways, septic systems and building sites must conform to set standards; and development around shorelands must be in conformance with state and local regulations. Attempting to limit the location of development based on information such as that in the Limits to Development Map (see page 41) is impractical, due to the scale and general margins of error in mapping of this type. Rather, maps such as these can indicate where (or where not) one might expect problems, and regulate accordingly. This allows each site to be developed based upon its particular characteristics, as determined by on-site examination.

VI. CONSERVATION/OPEN SPACE

Future Search showed that conservation and open spaces are important to residents of Harrisville. Preserving critical open space areas is vital to maintaining not only the environmental health of Harrisville, but also the natural identity and recreational opportunities that are so closely connected to the Town.

Quite a bit of land is already protected in some fashion, either through public or private conservation efforts, or deed restrictions. This plan recommends continued support of the efforts of the Conservation Commission and the Green Space and Water Quality Committee to preserve and protect significant and sensitive lands and water bodies in Harrisville.

An important note here is that there are many towns around Harrisville that have much more land in protective status than does Harrisville. This situation could potentially impact development decisions in the region, given that Harrisville would appear - based on this particular analysis - to have more land available for development than do these towns with much more protected lands.

VII. RECREATION

Because of commuting time and longer work hours, recreation has become increasingly important in our lives. Recreational facilities available to Harrisville residents consist primarily of water-related activities and general outdoor pastimes such as hiking and cross-country skiing. The Recreation Committee formed out of Future Search wants to establish an ice-skating rink and a baseball and soccer field.

This plan recommends continued support of: the Conservation Commission in its maintenance of Harrisville's portion of the Monadnock-Sunapee Greenway Trail; the Rails-to-Trails Committee in its efforts to develop and maintain the Chesham Railroad corridor as a multi-use recreational trail; and the Beach and Recreation Committees of Harrisville in their efforts to provide Townspeople with the highest quality recreation possible.

ADMINISTRATION AND IMPLEMENTATION

The Future Land Use Plan set forth in this document and its accompanying maps envisions a comprehensive program for the Town of Harrisville to direct the development of the Town in an orderly and thoughtful manner. Unless, however, the proposed policies, goals and objectives are adopted and implemented, the Plan has not really accomplished its purpose.

The term "administration" refers here to those activities that direct and manage the Town's municipal affairs. Harrisville is administered by a three-member Board of Selectmen. The Town Meeting is the legislative body of the Town, and the Selectmen represent the executive, or administrative, arm of that body. In addition to the Selectmen, other local boards participate in municipal government, i.e., the Planning Board, Board of Adjustment, Conservation Commission, and other appointed entities. This form of government relies heavily on part-time officials serving in a wide range of capacities. Some of these functions relate directly to the goals and objectives of this Master Plan, others less so.

Implementation of the goals and objectives can be accomplished in a number of ways; some items would require no more than official endorsement by the Selectmen. Others, however, would require amendments to the zoning ordinance and/or the Site Plan Review Regulations in order to be realized; these are described below.

GOAL: **Preserve the individual identity and development patterns of Harrisville, Chesham, and Eastview Villages**

- Village District provisions would be expanded to include Chesham and Eastview; presently, only Harrisville Village is addressed in the zoning ordinance. These provisions, moreover, may vary somewhat for the three districts, as each has its own individual identity.

- Provisions in the zoning ordinance would require new development along the roads that separate the three districts to have greater setbacks and/or to be screened from the roads.

GOAL: **Balance new development with protection of the Town's sensitive and significant resources.**

A review of the existing overlay protection district regulations may result in revisions that would completely restrict development in certain areas of Town.

Based on the data collected for the Construction Materials sections, the voters may decide that an Aquifer Protection District is appropriate to safeguard the Town's underground water sources.

GOAL: **Agricultural, forest and water resources must be recognized as vital to the proper development of land in Harrisville and should be wisely managed.**

Overlay zoning districts may be necessary to protect these particular resources.

GOAL: **Encourage agricultural businesses.**

An agricultural overlay district could be adopted that would favor agricultural uses over other land uses, through the regulation of lot sizes, buffering, sales of agricultural products, etc.

GOAL: **Encourage home-based businesses.**

The zoning ordinance currently provides for the establishment of home-based businesses. These should be continually monitored to ensure that they reflect the changing nature of home occupations and businesses.

GOAL: **Expand the economic base of the Town.**

- Permit certain non-residential uses by right in Harrisville, Chesham, and Eastview Villages.

- Provide for certain non-residential uses to be permitted by special exception outside of the village areas. The criteria would address such issues as adjacent properties, noise, traffic, parking, signage, environmental impacts, etc.

GOAL: **Continue to support regulations for the conversion of lakefront seasonal residences to year-round occupancy.**

The zoning ordinance establishes the conditions to be met in order for seasonal homes to be converted to year-round occupancy: before a permit is issued, the owners have to demonstrate that the septic system is in good working condition; that the lot can support a new system, if necessary; that road and traffic issues have been adequately addressed, etc.

GOAL: **Preserve and protect agricultural lands to enhance the open space characteristics of the Town.**

The most effective way to implement this goal is for such lands to be purchased, either by the Town or a conservation organization. Through zoning, an agricultural protection district could be established, but this technique is fraught with difficulties, from a political and legal standpoint.

GOAL: **Support protection and creation of greenspace by requiring buffer areas between development areas.**

The Planning Board can adopt regulations, which would be supported through amendments to the zoning ordinance, that provide for the preservation of a certain amount of open space in every subdivision. These areas would be mapped out town-wide and adopted as a "conservation overlay district", for example, and would apply to all future subdivisions.

GOAL: **Establish a shoreline "greenway" to protect watercourses.**

An overlay district would be added to the zoning ordinance, providing for a buffer area along all watercourses, within which no development, land clearing, fertilizer application, etc., would be permitted.

Town of Harrisville, NH
Zoning Map

Zoning Districts
- Commercial District
- Industrial District
- Lakeside District
- Residential/Agricultural
- Village District

- Municipal Boundary
- Tax Property Boundaries
- Waterbodies
- Wetland Areas
- Perennial Streams
- Intermittent Streams

N

Scale - 1:36000
1" = 1000'
1000 0 1000 Feet

Not intended for site specific work.

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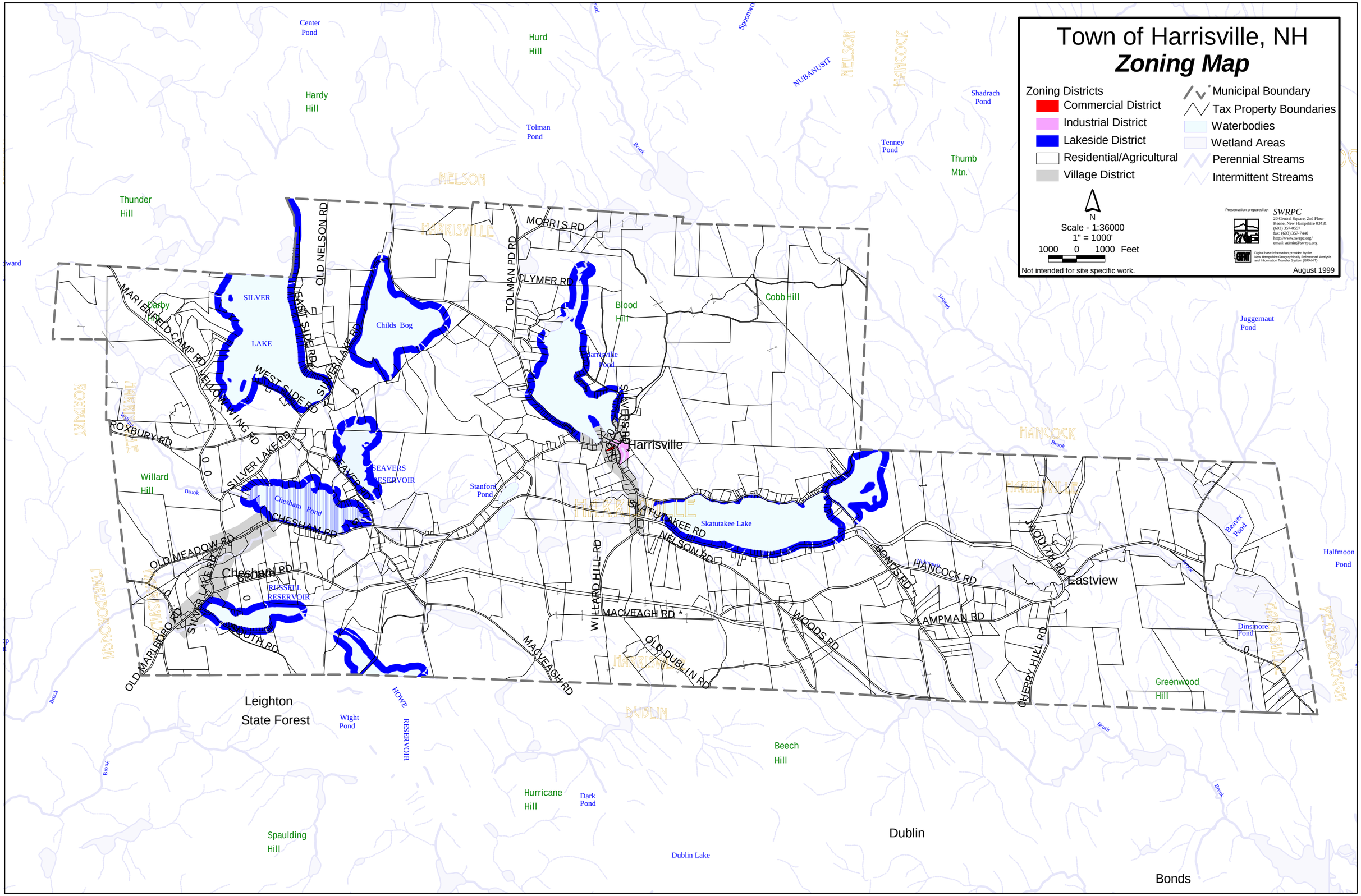


Capital Improvements Program

HARRISVILLE, N.H.
CAPITAL IMPROVEMENTS PROGRAM
2000 – 2006

I. INTRODUCTION

A Capital Improvement Program (hereinafter referred to as a CIP) is an important tool municipalities can utilize to help manage growth and development pressures. The preparation of a CIP is a combined planning and financial operation which details how and when expenditures should be made for essential public improvements.

The purpose of a CIP is to strengthen a town's ability to forecast the need for various capital improvement projects over a period of six years or more. It is an actual plan that lays out a budget and schedule of municipal expenditures. The plan show when, how, and at what cost the town expects to expand and/or maintain its services and facilities in the future. The CIP takes into account municipal expense and revenue trends, net valuation and taxes, and the impact capital spending has on the tax rate.

A typical definition of a capital project or facility is one with a cost of at least $5,000 and a useful life of five years or more. For the purposes of this document, expenditures of less than $5,000 will be considered and may be included in this Program since, in smaller towns, even a few thousand dollars can have an impact on the local tax rate. Some of the criteria used to determine what an appropriate capital project might be are:

- the gross dollar amount of the expenditure
- the extended useful life of the facility or equipment
- the infrequent recurrence of the expenditure
- bonded debt needed for financing
- the involvement of real property acquisition or development
- the expansion of water/sewer systems
- the creation or expansion of public buildings[1]

Using this definition, a capital improvement in Harrisville might include the purchase of equipment for the Fire, Police and Highway Departments, repairs to town buildings, or extension of water/sewer lines. Items such as personnel, supplies, and routine maintenance costs are not to be included in a CIP, even though certain types of maintenance might be included depending on the cost and useful life of the work.

An important first step in developing and/or updating a CIP is to analyze relevant municipal fiscal information; this process helps the Planning Board better understand the structure of costs and revenues and the spending history of the Town. In addition, the process may identify particular needs that have been unmet in the past, or point out opportunities to coordinate capital spending between departments. For the purposes of this document, various income, spending and tax information from 1990 to 1999 - the most recent year information is available, is presented.

[1] Capital Improvements Programming Handbook; Southern New Hampshire Planning Commission; Manchester, NH, 1994.

II. PURPOSE AND AUTHORITY OF THE CIP

As mandated by state statute, the sole purpose of a CIP is to aid the Selectmen and/or Budget Committee in their consideration of the annual budget. In a municipality where the Planning Board has adopted a Master Plan, the Town may authorize the Board, in conjunction with the Selectmen, Budget Committee, and various department heads, to prepare and amend a recommended program of municipal capital improvements projected over a period of at least six years. Such a program shall then be revised and submitted to the Selectmen and Budget Committee for consideration on an annual basis.

The CIP is not a binding document, but instead shall be used as an aid to the Selectmen and the Budget Committee. The CIP is thus an advisory document. And, the more seriously it is viewed by the parties involved, the more valid and useful a document it will be. Clearly, when both the Selectmen and Budget Committee make it a matter of policy to expect an updated CIP from the Planning Board every year, and consider it in their
preparation of the budget, the individual departments will take the process seriously as well; the end result is that the CIP will begin to generate the expected results.

III. USE OF THE CIP

A CIP has a variety of uses that can benefit Harrisville's financial, budgetary and planning operations. At the very least, the CIP should be the link between Town-wide goals and objectives for future development, as identified in the Master Plan, and the schedule and means of financing the essential services/facilities to serve that development. A CIP should be designed to be as practical and credible as possible. It should not be a "wish list" of desirable but unlikely projects, but instead a document that enhances the Town's ability to create a budget that is realistic and financially responsible. The following is a summary of the program's primary functions.

A. Managing Growth

Of equal importance to the enabling statutes for a CIP is RSA 674:22, which states that communities contemplating the regulation of development through the use of growth management controls must have already adopted a Master Plan and a Capital Improvements Program. While a growth management ordinance should only be implemented in extreme circumstances, it would be legally impossible to implement without an up-to-date CIP. Even without adopting a formal growth management ordinance, the exercise of developing and maintaining a Master Plan and CIP provide the Town with solid regulatory mechanisms it can use to manage all growth, not just extreme, unanticipated pressures.

B. Stability in Tax Rates and Budgets

The CIP helps to stabilize tax rates, which in turn stabilizes the town budget, by planning for large capital expenditures well in advance. Instead of wide fluctuations in the budget from year to year caused by large one-time expenses, these expenditures can be planned well in advance in order to level out the impact on the tax rate. In the CIP, all proposed improvements are included within the same schedule and budget instead of being spread out among the individual departments in the annual budget. This format brings added perspective to the budgetary process by rate impact - for example, the tax rate due to capital

spending could not be increased by more than a specified amount in any given year.

C. Planning for Future Development

The CIP can serve as a guide to citizens and developers alike, in that everyone knows what the Town's plans are for future expansion of existing facilities or when new services or facilities will be added - for example, when a particular road will be improved to a standard that will accommodate additional development, or when water or sewer lines will be extended to a new area in Town. And, since the state statutes allow Planning Boards to include in their subdivision regulations provisions against scattered and premature development, the CIP can be used by the Planning Board to judge the relationship of proposed development to the existing and future level of service. The CIP thus enables the Board to say when a proposal would no longer be premature, by allowing all projected major capital expenditures to be viewed at once. This allows for the adjustment of annual expenditures so they will be more manageable and stable.

This information can be used in a variety of ways to target a specific level of pending. One method would be to determine a percentage of the overall budget that would be allocated to capital projects (perhaps an average of the annual expenditures), and not allowing these expenditures to exceed that amount. Another option would be to limit capital spending based on the local tax knowing when improvements are scheduled.

IV. MUNICIPAL FISCAL ANALYSIS

A. Appropriations and Revenues

The first category of fiscal information to be examined is appropriations and revenues, compared to the actual expenditures. The difference between the appropriations and the revenues is the amount that must be raised by taxes. (And surplus funds come from the difference in estimated revenues and actual revenues to be raised.) Note that the appropriations and expenditures in Table #1 do not include school costs, since these costs are so much higher than any other Town expense that the other numbers lose any significance for local planning purposes.

TABLE #1:
APPROPRIATIONS AND REVENUES

YEAR	Appropriations	Expenditures	Revenues	App.- Rev.
1990	$520,300	$455,502	$244,756	$275,544
1991	$507,305	$464,528	$194,664	$312,641
1992	$455,138	$389,782	$219,675	$235,463
1993	$459,853	$388,283	$219,749	$240,104
1994	$546,486	$429,443	$229,902	$316,584
1995	$719,783	$674,903	$295,110	$424,673
1996	$783,107	$644,226	$279,676	$503,431
1997	$652,149	$736,543	$309,741	$342,408
1998	$699,251	$695,200	$369,186	$330,065
1999	$714,876	$603,686	$391,373	$323,503
% Change	37.4%	32.5%	59.9%	17.4%

SOURCE: HARRISVILLE ANNUAL REPORTS

GRAPH #1:
APPROPRIATIONS AND REVENUES

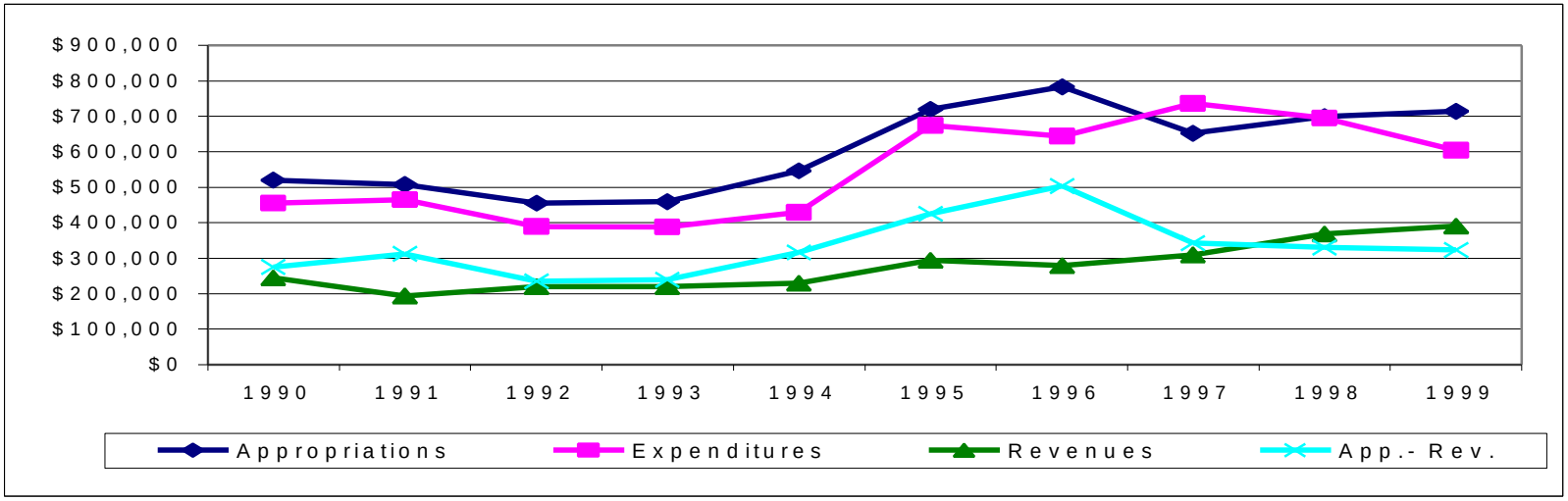


TABLE 1-A:
SELECTED SOURCES OF REVENUE

YEAR	Shared Block Grant	Highway Block Grant	Licenses & Permits	Interest & Penalties
1990	$14,592	$33,519	$58,688	$5,861
1991	$11,479	$32,903	$55,299	$21,638
1992	$10,899	$32,042	$60,447	$24,027
1993	$12,059	$35,289	$65,718	$17,645
1994	$18,358	$34,955	$73,844	$19,848
1995	$15,126	$36,722	$81,015	$15,458
1996	$14,872	$36,238	$86,439	$27,086
1997	$6,638	$41,506	$95,312	$16,753
1998	$6,731	$40,379	$110,758	$30,724
1999	$13,538	$39,498	$125,576	$29,653

SOURCE: HARRISVILLE ANNUAL REPORTS

Appropriations and revenues held a fairly steady level from 1990 to 1994. In 1995 expenditures jumped by about 57 percent, while revenues stayed pretty close to the historical trend. Overall, appropriations increased by just over 37% and revenues by nearly 60% between 1990 and 1999. This meant that the amount to be raised by taxes increased only 17% over this time period.

Sources of revenue, illustrated in Table #1-a, include state and federal block grants, licenses and permits, charges for services, and other miscellaneous revenues. Licenses and permits typically account for the largest share of the revenue stream, and most of that comes from motor vehicle registrations. Not included in the table are such lesser revenues as yield taxes, flood control, state & federal forest land, and land use change taxes. A new revenue to appear in 1998 is the tax on excavation operations in town. So far, this tax has brought in only around $1,500.

B. Selected Municipal Expenditures

Table #2 following presents the spending history for certain town departments and services
between 1990 and 1999, and the accompanying graph illustrates the proportion each category comprises of the total selected expenditures for each year. Note that while education costs are included in the table, they are not included in the graph, since the vast difference in this category over all the other individual categories would render the graph unreadable at this scale. Cultural and social services are excluded as well, for the same reason.

Town government and the highway department consistently account for the greatest amount of local spending each year. Town government saw the greatest percentage change – 223%, while highway spending jumped 83%. And education, which costs the the Town the most, increased 27%.

TABLE #2:SELECTED MUNICIPAL EXPENDITURES, 1990 – 1999

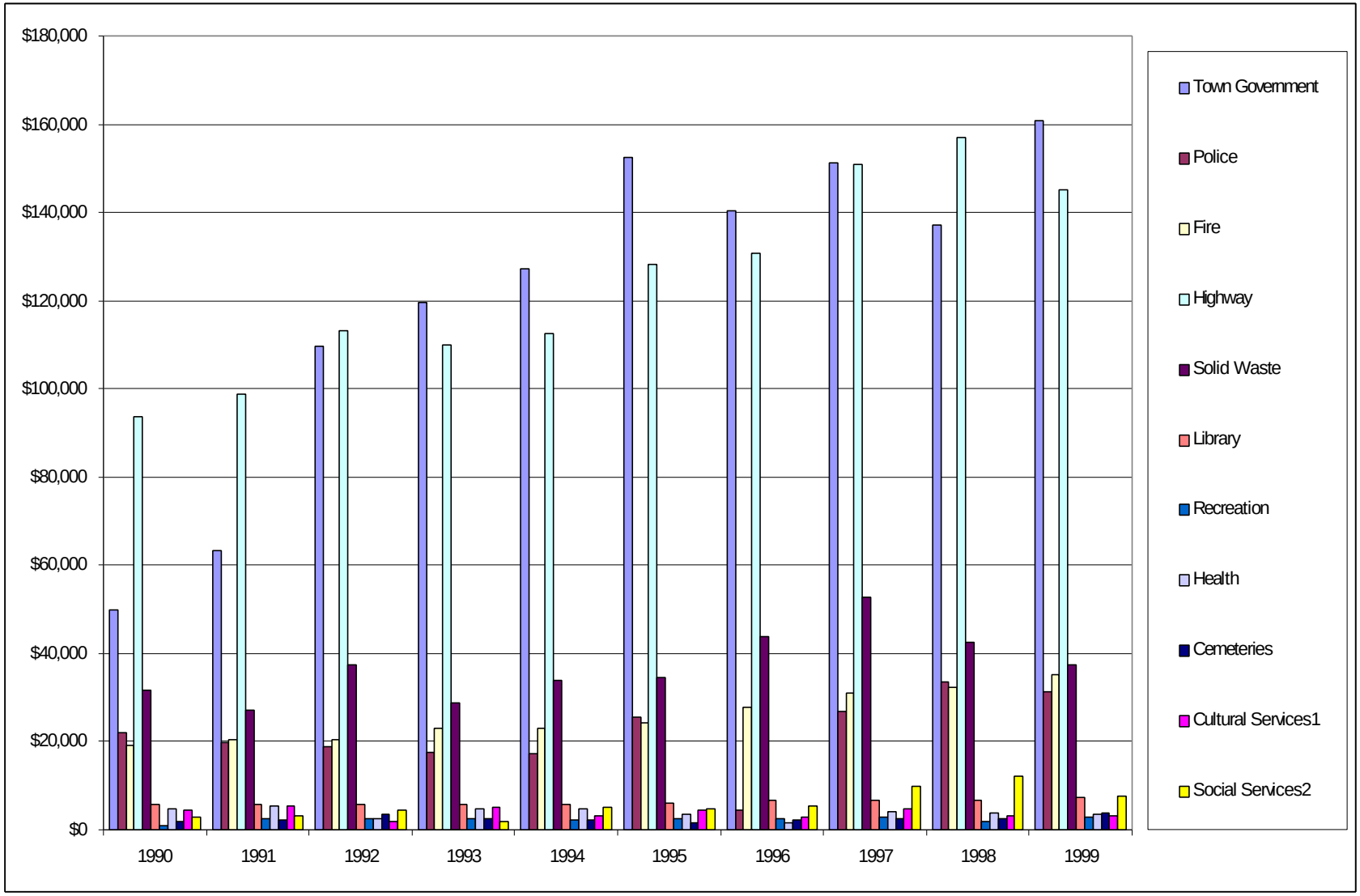
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	% Change
Town Government	$49,812	$63,193	$109,534	$119,679	$127,301	$152,502	$140,478	$151,268	$137,174	$160,793	223%
Police	$22,156	$19,729	$18,951	$17,543	$17,392	$25,688	$4,519	$26,987	$33,677	$31,466	42%
Fire	$19,336	$20,571	$20,411	$23,014	$23,056	$24,373	$27,748	$30,899	$32,334	$35,328	83%
Highway	$93,690	$98,885	$113,320	$109,909	$112,404	$128,298	$130,632	$150,972	$157,040	$145,270	55%
Solid Waste	$31,697	$27,153	$37,275	$28,704	$33,957	$34,392	$43,725	$52,629	$42,519	$37,519	18%
Library	$5,800	$5,800	$5,800	$5,800	$5,800	$6,100	$6,800	$6,800	$6,800	$7,300	26%
Recreation	$1,025	$2,568	$2,606	$2,399	$2,133	$2,566	$2,621	$2,758	$1,862	$2,991	192%
Health	$4,895	$5,586	$2,520	$4,672	$4,770	$3,498	$1,726	$4,115	$3,872	$3,576	-27%
Cemeteries	$1,792	$2,278	$3,416	$2,442	$2,255	$1,619	$2,380	$2,662	$2,691	$3,977	122%
Cultural Services[1]	$4,476	$5,375	$2,068	$5,231	$3,203	$4,549	$2,891	$4,881	$3,271	$3,200	-29%
Social Services[2]	$2,839	$3,250	$4,460	$2,074	$5,010	$4,794	$5,420	$9,768	$12,220	$7,774	174%
Education	$875,035	$850,553	$1,031,678	$1,015,880	$1,106,076	$1,061,091	$1,045,658	$1,143,041	$1,114,317	$1,115,606	27%
TOTAL	$1,112,553	$1,104,941	$1,352,039	$1,337,347	$1,443,357	$1,449,470	$1,414,598	$1,586,780	$1,547,777	$1,554,800	40%

[1] Includes Old Home Day, Grand Monadnock Arts Council, Patriotic Purposes.

[2] Includes Town Welfare, Community Kitchen, Mondadnock Family Services, Home Health Care & Community Services, Southwestern Community Services, and Camp Holiday.

SOURCE: HARRISVILLE ANNUAL REPORTS

GRAPH #2:
SELECTED MUNICIPAL EXPENDITURES, 1990 – 1999



Other services also saw large percentage increases, but the actual dollar amount was small enough that the change was not that significant - for example, spending on recreation increased 192% - from $1,025 to $2,991; and social services increased from $2,839 to $7,774 – a 174% jump. The average overall increase in spending in these selected categories was 40% over the nine-year period.

The Cultural and Social Services cateogies were named as such for the purposes of comparison: Cultural Services in the table are comprised of Old Home Day, Patriotic Purposes, and contributions to the Grand Monadnock Arts Council; and Social Services consist of local welfare spending, and contributions to the Community Kitchen, Monadnock Family Services, Home Health Care & Community Services, Southwestern Community Services, and Camp Holiday.

Table #2-a looks at seven of these selected categories and compares each category to the to the total amount spent on them over the nine years, and to the total town expenditures over the same time period. Not surprisingly, the highway department ranks first in both areas: it comprised over 56% of selected capital spending, and over 22% of total town spending, significantly greater than any of the other cost centers.

C. Municipal Capital Projects

The following tables present information on patterns of investing in capital equipment or facilities in Harrisville between 1990 and 1999. This information is presented in several ways, in order to focus on the different aspects of capital spending and improvments. Table #3 lists the project by year, the dollar appropriation that was approved at the Town Meeting, and the source of funds. Table #3-a presents this same information graphically, intended to track the frequency of types of expenditures. The focus here is on the types of expenditures and the rate at which any of them are repeated (for instance, how frequently a new police cruiser is purchased).

The Town of Harrisville spent more than a million dollars on capital projects over the last 10 years. If the projects are broken out of Table #3, it becomes clear that slightly more than half of this amount was funded through capital reserves; the remaining 50 percent was divided fairly evenly between taxation and bonding.

Table #3-a condenses the 35 individual projects in Table #3 to 20 – placing all equipment purchases in one group, for example. Of these 20 categories, highway equipment and the landfill closing appear most often - five and four times, respectively. Most projects appear only once or twice, and may not appear again (for example the feasibility studies, or the property line maps). Purchases for the highway, fire and police departments can be expected to occur more often than any other projects.

TABLE #3:
HISTORY OF CAPITAL PROJECTS, 1990 – 1999

YEAR	CAPITAL PROJECT	AMOUNT EXPENDED	SOURCE OF FUNDS
1990	Recycling Center - new building	$15,000	General Taxation
	Highway Equipment - Radios	$2,330	General Taxation
	Sewer District Feasibility Study	$2,500	General Taxation
	Library Bridge Repair	$15,000	Bonds
		$10,000	General Taxation
	Highway Garage - Roof and Addition	$43,500	Capital Reserves
	Total	**$88,330**	
1991	Recycling Center Equipment	$8,000	General Taxation
	Highway Equipment	$28,650	Capital Reserves
	Fire Department - Roof Repair	$10,000	General Taxation
	Total	**$46,650**	
1992	Highway Equipment	$8,000	Capital Reserves
	Property Line Maps	$3,000	General Taxation
	Total	**$11,000**	
1993	Transfer Station - New Building	$22,000	General Taxation
	Recycling Building Addition	$10,000	General Taxation
	Highway Garage - Overhead Doors	$2,000	General Taxation
		$2,000	Capital Reserves
	Fire Station Detection System	$5,000	General Taxation
	Total	**$41,000**	
1994	Town Office Building	$80,000	Bonds
		$10,000	General Taxation
	Highway Equipment	$3,500	Capital Reserves
	Total	**$93,500**	
1995	Police Cruiser	$13,500	Capital Reserves
		$10,000	General Taxation
	Property Revaluation	$16,100	General Taxation
		$6,000	Capital Reserves
	Landfill Closure	$156,000	Capital Reserves
	Stone Wall Repair	$3,500	General Taxation
	Total	**$205,100**	
1996	Landfill Closure	$95,000	Bonds
		$27,000	Capital Reserves
		$21,000	General Taxation
	Fire Truck	$120,000	Capital Reserves
	Paving @ Town Office/Fire Station	$14,000	General Taxation
	New Well @ Police/Highway Garage	$7,000	Capital Reserves
	Total	**$284,000**	
1997	Landfill Closure	$25,000	Bonds & Notes
		$25,000	Capital Reserves
		$25,000	General Taxation
	Willard Hill Cemetery	$10,000	General Taxation
	Baler for Recycling Center	$7,800	General Taxation
	Boat Launch @ Silver Lake	$6,200	General Taxation
	Total	**$99,000**	
1998	Landfill Closure	$30,000	Capital Reserves
		$25,000	General Taxation
	Highway Equipment	$30,000	Capital Reserves
	Elderly Housing Feasibility Study	$1,000	General Taxation
	Total	**$86,000**	
1999	Maintenance at Landfill	$30,000	General Taxation
	Forklift at Recycling Center	$20,000	General Taxation
	Land Purchase - Town Spring	$20,000	General Taxation
	Library Foundation Repair	$30,000	Capital Reserves
	Total	**$100,000**	

SOURCE: HARRISVILLE ANNUAL REPORTS

TABLE #3-A:
FREQUENCY OF CAPITAL SPENDING, 1990 –1999

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Sewer District Feasibility Study	■									
Elderly Housing Feasibility Study									■	
Bridge Repair	■									
Highway Garage	■			■						
Highway Equipment	■	■	■		■				■	
Fire Station		■		■			■			
Fire Equipment							■			
Police Equipment						■				
Recycling Center/Transfer Station	■			■						
Recycling Equipment		■						■		■
Town Office Building					■		■			
Tax Maps			■							
Tax Appraisal						■				
Well @ Police/Highway							■			
Land Purchase										■
Library Foundation/Stone Wall Repair						■				■
Landfill Closure						■	■	■	■	
Landfill Maintenance										■
Cemetery Maintenance								■		
Boat Launch										

D. Payments to Capital Reserves

The information in Table #3 illustrated the way in which capital reserves are utilized to fund equipment and infrastructure projects in Harrisville. Capital Reserves are funds set aside and specifically earmarked for a particular purpose, usually equipment and infrastructure improvements, since these are typically very expensive items for a town.

Capital reserve appropriations are, in effect, a savings program for the big-ticket items in a town budget. This means that by the time the purchase needs to be made, the Town has to appropriate either no additional funds, or only a limited amount, in order to cover the full cost.

Table #4 on the following page presents the capital reserve allocations that were made between 1990 and 1998. As the table clearly illustrates, Harrisville has a strong tradition of setting money aside every year for future capital expenditures. Beginning in 1961, a fund was established for fire equipment, and as recently as 1997 a fund was established for town dams. In 1996 three funds were established, one of these being for recreational land and, following the first Future Search planning event in the autumn of 1997, $15,000 was appropriated at the 1998 Town Meeting, bringing the total up to $25,000 in only three years.

Over the nine-year period examined, the Town set aside over a half-million dollors ($657,000) for various projects and equipment purchases. With the exception of the Highway Building Fund and Property Reappraisal, every fund that has been established has had money appropriated to it each year, in aniticipation of future expenditures.

After looking at the Harrisville's history of capital spending and saving, it is important to understand how these patterns affect the tax rate. In Table #5 information is combined that looks at cumulative spending for all related capital projects: actual purchases of equipment, building improvements, and payments to capital reserve funds. From the total amount expended each year for these capital items are deducted the amounts taken from various capital reserve funds to offset the actual cost - indicated in the table as "Actual Dollar Amount Needed." These fiscal impacts are then measured against the net valuation of the town to determine the impact capital spending has had on the tax rate. The amount saved on taxes each year varies, but in some years it has been quite significant – for example, as much as $3.73 per $1,000 of taxable property in 1997.

Note that the appropriations listed in Table #3 are not consistent with the expenditures listed in Table #5; this is because it is typical to pay for some capital items over a two - or three-year period. So while, for example, $88,330 was approved to be spent in 1990, only $71,067 was actually expended on the projects. And, note also that the $90,000 that was approved to be raised by bonds and taxation for the new Town Office Building ended up being paid out of the town surplus funds; thus the appropriate amounts have been deducted from 1995, 1996 and 1997 capital expenditures.

TABLE #4:
HISTORY OF CAPITAL RESERVE FUNDING, 1990 – 1999

DATE ESTABLISHED	PURPOSE OF APPROPRIATION	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	Total by Category	Balance as of 12/31/99
1957	Beach Equipment												$2,035
1961	Fire Equipment	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$150,000	$170,661
1963	Highway Equipment	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$150,000	$75,016
1974	Tax Maps		$2,000	$2,000								$4,000	$8,798
1980	Police Cruiser	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$25,000	$14,058
1985	Landfill Closure	$22,000	$22,000	$22,000	$22,000	$22,000	$22,000	$22,000	$30,000			$184,000	$14,089
1987	Highway Building	$12,500										$12,500	$1,211
1992	Property Reappraisal			$2,000	$2,000				$2,000	$2,000	$2,000	$10,000	$11,374
1993	Library Foundation				$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$15,000	$45,000	$50,482
1996	Town Office Buildings							$5,000	$5,000	$5,000	$5,000	$20,000	$33,920
1996	Town Bridges								$5,000	$5,000	$5,000	$15,000	$21,599
1996	Recreational Land							$5,000	$5,000	$15,000	$15,000	$40,000	$42,085
1997	Town Dams								$500	$500	$500	$1,500	$1,577
2000	Recycling Equipment										$5,000	$5,000	$5,000
	Total by Year	**$67,000**	**$56,500**	**$58,500**	**$61,500**	**$59,500**	**$59,500**	**$69,500**	**$85,000**	**$65,000**	**$80,000**	**$662,000**	**$451,905**

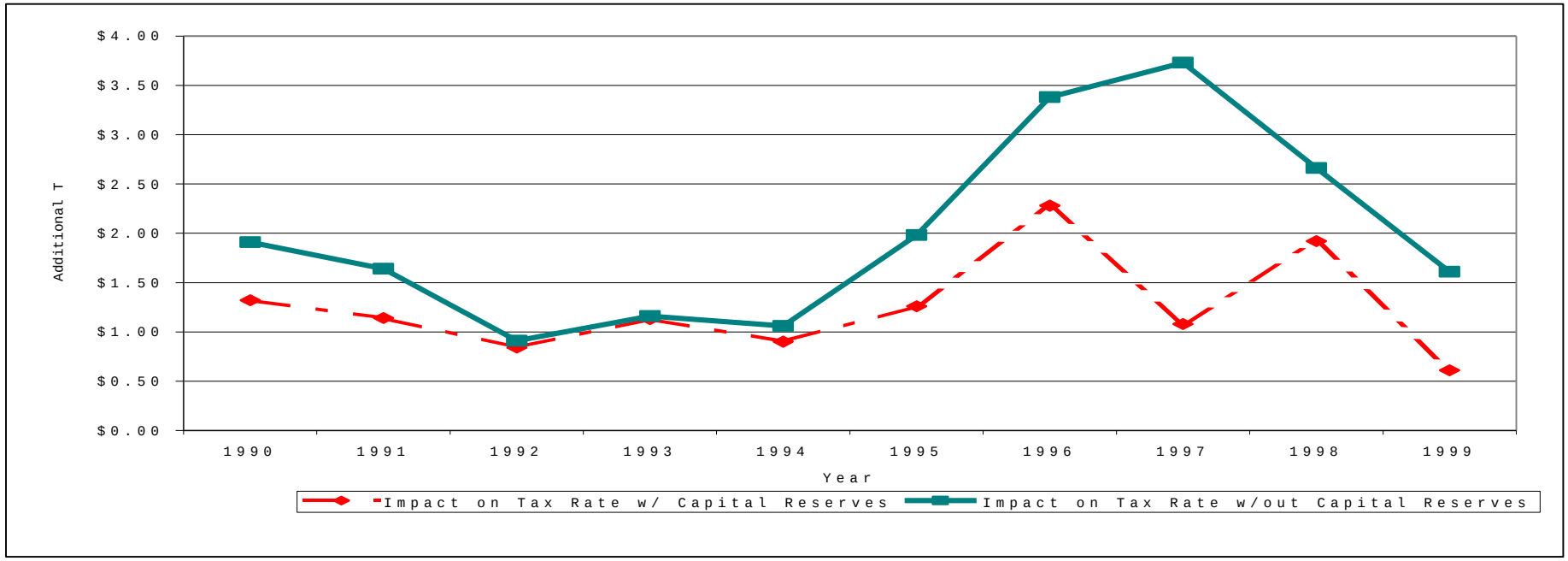
SOURCE: HARRISVILLE ANNUAL REPORTS

TABLE #5:
IMPACT OF CAPITAL SPENDING ON TAX RATE, 1990 – 1999

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Capital Expenditures	$71,067	$63,347	$8,145	$25,237	$19,906	$94,876	$196,256	$211,490	$149,011	$54,500
Payments to Capital Reserves	$67,000	$56,500	$58,500	$61,500	$59,250	$59,250	$69,500	$85,000	$65,000	$75,000
Capital Spending	**$138,067**	**$119,847**	**$66,645**	**$86,737**	**$79,156**	**$154,126**	**$265,756**	**$296,490**	**$214,011**	**$129,500**
Minus Withdrawals from Capital Reserves	$42,755	$36,500	$4,792	$2,000	$11,300	$55,901	$85,995	$211,018	$59,445	$80,100
Actual Dollar Amount Needed	$95,312	$83,347	$61,853	$84,737	$67,856	$98,225	$179,761	$85,472	$154,566	$49,400
Impact on Tax Rate w/ Capital Reserves	$1.32	$1.14	$0.84	$1.13	$0.90	$1.26	$2.28	$1.08	$1.92	$0.61
Impact on Tax Rate w/out Capital Reserves	$1.91	$1.64	$0.91	$1.16	$1.06	$1.98	$3.38	$3.73	$2.66	$1.61

SOURCE: HARRISVILLE ANNUAL REPORTS

GRAPH #3:
IMPACT OF CAPITAL SPENDING ON TAX RATE, 1990 – 1999



V. MUNICIPAL TAX RATE

Tax information will be discussed here only insofar as capital expenditures affect tax rates. The importance that is placed on a town's tax rate, and its comparability to past years and/or other towns is often subject to many variables, and this is a discussion that would take this report into areas not necessarily pertinent to the development of the CIP.

The value of real estate is the primary factor in determining a town's annual tax rate. The actual value is adjusted each year to account for value added to land and property in town, such as new development, additions or improvements to existing structures, etc. A total valuation is calculated from the combined value of land and buildings, from which exemptions are subtracted (for example, elderly exemptions), resulting in a net valuation on which the tax rate is computed. The simple equation for determining a local tax rate is:

APPROPRIATIONS –

$$\frac{\text{ALL OTHER REVENUE}}{\text{LOCAL ASSESSED PROPERTY VALUE}} \times \$1{,}000 = \text{TAX RATE}$$

It is the responsibility of the Selectmen (who usually engage the services of a property assessor) to determine the local assessed value of all property in town each year. The typical method for this determination is a property revaluation. Depending on the size of the town and the amount of development that has taken place over the year, the Selectmen may choose to revaluate on a regular, but not annual basis, or examine a part of the town each year on a rotating basis, or revaluate the entire town each year. During this revaluation, property is physically reviewed and the value is determined from a combination of factors, including sale prices of comparable properties, certain amenities such as decks, swimming pools, etc.

But since all towns do not conduct revaluations each year, or in the same year, some towns are assessing property at close to market value, while others are not. This creates an inconsistency that makes it impossible to compare towns across the state, because the assessed values fluctuate so much. In an effort to correct this situation, the NH Department of Revenue Administration (DRA) conducts an Equalization Survey each year that adjusts all local assessed property values to current market values.

The purpose of this Equalization Survey is to ensure that state revenues and taxes that are shared by all towns can be equally divided between them. The process involves a detailed study of property sales throughout the state, and compares these sales with the local property assessments. A byproduct of the equalization process is the determination of a ratio, which shows the average level at which the town assessed property in the previous year in comparison to market value. (For example, an assessment ratio of 70% means that the average of all property assessments in town were generally assessed at 70% of the current market value.) The closer to 100%, the closer the town is to the current market value. Tables #6 and #6-a following present this information for Harrisville.

TABLE #6:
NET VALUATION AND TAX RATE, 1990 – 1999

YEAR	NET VALUATION	TAX RATE TOWN	TAX RATE COUNTY	TAX RATE SCHOOL	TOTAL	RATIO	FULL VALUE TAX RATE
1990	$72,099,903	$3.76	$1.79	$11.88	$17.43	0.93	$16.21
1991	$73,042,927	$4.52	$1.74	$11.44	$17.70	0.93	$16.46
1992	$73,275,044	$3.56	$1.98	$13.89	$19.43	1.18	$22.93
1993	$74,718,649	$3.50	$1.74	$13.39	$18.63	1.18	$21.98
1994	$74,998,711	$3.47	$1.83	$14.54	$19.84	1.10	$21.82
1995	$77,986,702	$4.33	$2.16	$13.41	$19.90	1.06	$21.09
1996	$78,696,879	$4.73	$2.34	$13.10	$20.17	1.00	$20.17
1997	$79,444,323	$4.74	$2.45	$14.21	$21.40	0.95	$20.33
1998	$80,359,987	$4.82	$2.50	$13.71	$21.03	0.95	$19.71
1999	$80,609,081	$4.85	$2.47	$6.88	$21.25	0.96	$20.09

SOURCE: NH DEPARTMENT OF REVENUE ADMINISTRATION

Net valuations in Harrisville have risen over eight million dollars since 1990, representing an 11.5% increase. The tax rate over the same time period has increased 20%. The greatest percentage increase has come from both the county and the town taxes, but the actual amount of tax is miniscule compared to the school tax, which - while it accounts for about 65% of the total tax rate, has increased only 15% since 1990.

Note that the total tax rate in 1999 is greater than the sum of the town, county and school taxes. This is due to the addition in this year of the state education tax, which amounted to $7.05.

Table #6-a below illustrates the valuations of the buildings, land and electric uitilities in Town that make up the total net valuation in each year. The value of buildings in Harrisville consistently outweigh the combined value to land and electric utilities; annually, buildings account for between 55 and 60 percent of the total valuation.

TABLE #6-A:
NET VALUATION BY TYPE

YEAR	BUILDINGS	LAND	ELECTRIC PLANTS	TOTAL
1990	$44,008,200	$27,284,903	$806,800	$72,099,903
1991	$45,168,500	$27,067,627	$806,800	$73,042,927
1992	$45,623,100	$26,845,144	$806,800	$73,275,044
1993	$47,930,700	$26,787,949	$806,800	$75,525,449
1994	$47,428,200	$26,838,711	$806,800	$75,073,711
1995	$44,494,700	$32,499,502	$1,097,500	$78,091,702
1996	$45,240,000	$32,464,379	$1,097,500	$78,801,879
1997	$46,049,700	$32,412,123	$1,097,500	$79,559,323
1998	$47,097,900	$32,164,587	$1,097,500	$80,359,987
1999	$47,487,500	$32,172,781	$1,097,500	$80,609,081

SOURCE: HARRISVILLE ANNUAL REPORTS

VI. CAPITAL IMPROVEMENTS PROGRAM

The information on the preceding pages illustrates the spending history of Harrisville for capital projects and equipment throughout the 1990s. A pattern has emerged that has shown the Town to be diligent in saving for future capital expenditures. One very clear positive result of this approach to fiscal management is the stable tax rate the Town has seen over the nine years examined in this report.

Table #7 following presents the planned expenditures for capital items - both municipal and school, for the next six years - to the year 2006.

Town Government:

The Selectmen intend to continue to ask for capital reserve appropriations each year for tax maps, property revaluation, town office buildings, town bridges, and town dams. The Selectmen are uncertain when a property revaluation might be needed. There was one in 1987, and not again until 1995. Typically, a revaluation would not be conducted until the valuations in town get down to 85% of the average market value. In 1999, this rate was 96% of the market value. In the meantime, funds will be set aside annually in the Capital Reserve fund until the reappraisal is carried out.

Office equipment is needed, in particular a copy machine and a computer with a printer. The Selectmen also plan to have the floors in the Town Office Building refurbished, although this will very likely be accomplished in this year.

Highway Department:

The Highway Department intends to purchase a sander in 2003 and a loader in 2005. The sander is relatively inexpensive ($12,000) by comparison to the loader, which is expected to cost $140,000. The Department currently has over $75,000 in its capital reserve fund. If the town continues to appropriate $20,000 a year for this fund, the necessary funds will be available by the time the purchase is made. The Department does, however, intend to raise some of this money through general taxation, so that the reserve fund would not be totally depleted.

Fire Department:

The Fire Department just purchased a new squad car. The next expected purchase for the Department over the life of this CIP is a pumper, for the cost of $250,000. This is the most expensive item in the CIP. However, the Department has over $170,000 in its capital reserve fund. If the town continues the support this fund at the current level of $20,000 a year, there will be a total of over $230,000 in this fund, leaving only $20,000 to be raised by taxation.

Police Department:

The Police Department anticipates no capital expenditures other than the purchase of a cruiser every five years. The next purchase is due in 2005. The funds will come from a combination of capital reserves and general taxation. The capital reserve fund currently has $14,000, and the Department expects $2,500 a year to be allocated to the fund.

Solid Waste/Recycling:

There are no plans for equipment purchases or site/building improvements at this time.

Library:

The Library is in pretty good shape right now. There is an old in-ground oil tank that will be taken out at some point, date uncertain. In addition, the carpeting will be replaced, and a computer will be purchased. No dates have been set for either of these projects. It is expected that the Town will continue to set aside money each year into the capital reserve fund for the library.

Recreation:

A Capital Reserve fund was established in 1996 for the purpose of acquiring land and/or making improvments to land for recreational purposes. To date, the Town has appropriated $40,000 into this fund, and there is an expectation that $15,000 will be appropriated each year until the goal of the Recreation Committee is reached.

Debt Service:

The Town has been relatively debt-free throughout most of the 1990s. Beginning in 1998, bonds were taken out in the amount of $30,000 each year, applied toward the closing of the landfill. These payments, however, are expected to end in 2001. The school bond, which was for the addition to the elementary school in Town, will be paid in 2005, at which time Harrisville will be completely debt-free.

Capital Reserve Appropriations:

Appropriations to the various capital reserve funds are included in the CIP schedule, since these are earmarked for capital spending, and the amount is raised through taxes each year an appropriation is made. Harrisville has an impressive history of capital reserve funding, as illustrated in Table #4, therefore the assumption is that the Town will continue to support and fund capital projects in this manner.

IMPACT ON TAX RATE

Using the 1999 net valuation, an estimate can be generated of what impact these projected capital projects will have on property tax rates. This line in the CIP illustrates that over the six-year period, $2.66 – on average – of a property owner's total tax bill will be accounted for by capital spending. The amount varies from year to year, however, based on the anticipated project. For instance, the largest increase ($3.51) would come in 2004, when the pumper is purchased. And, in 2006, the increase drops to $1.02, after the school debt is paid. Overall, the tax rate actually shows very little variation, and that is due largely to the role of the capital reserve funding program followed by the Town.

TABLE #7:

CAPITAL IMPROVEMENTS SCHEDULE

CAPITAL PROJECTS / EXPENDITURES	2001	2002	2003	2004	2005	2006	Total	Source of Funds
I. Town Government								
Computer and Printer	$3,000						$3,000	General Taxation
Subtotal	**$3,000**						**$3,000**	
II. Highway Department								
Sander			$12,000				$12,000	Gen. Taxation Cap. Reserves
Loader					$140,000		$140,000	Gen. Taxation Cap. Reserves
Subtotal			**$12,000**		**$140,000**		**$152,000**	
III. Fire Department								
Fire Pumper				$250,000			$250,000	Gen. Taxation Cap. Reserves
Subtotal				**$250,000**			**$250,000**	
IV. Police Department								
Cruiser					$26,000		$26,000	Gen. Taxation Cap. Reserves
Subtotal					**$26,000**		**$26,000**	
V. Library								
Replace in-ground oil tank								General Taxation
New Carpet								Capital Reserves
Subtotal								
VI. Debt Service								
Town Bonded Debt	$30,000						$30,000	General Taxation
School Bonded Debt	$125,415	$124,205	$122,650	$125,750	$123,050		$621,070	General Taxation
Subtotal	**$155,415**	**$124,205**	**$122,650**	**$125,750**	**$123,050**		**$651,070**	

CAPITAL PROJECTS / EXPENDITURES	2001	2002	2003	2004	2005	2006	Total	Source of Funds
VII. Capital Reserve Appropriations								General Taxation
Fire Equipment	$20,000	$20,000	$20,000	$20,000	$20,000	$20,000	$120,000	
Highway Equipment	$20,000	$20,000	$20,000	$20,000	$20,000	$20,000	$120,000	
Tax Maps	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000	$12,000	
Police Cruiser	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$15,000	
Property Reappraisal	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000	$12,000	
Library Building	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$30,000	
Town Office Buildings	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$30,000	
Town Bridges	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$30,000	
Town Dams	$500	$500	$500	$500	$500	$500	$3,000	
Recreational Land	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$90,000	
Recycling Equipment	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$30,000	
Subtotal	**$82,000**	**$82,000**	**$82,000**	**$82,000**	**$82,000**	**$82,000**	**$492,000**	
TOTAL CAPITAL SPENDING	**$240,415**	**$206,205**	**$216,650**	**$457,750**	**$371,050**	**$82,000**	**$1,574,070**	
Minus Anticipated Capital Reserve Funds			$12,000	$175,000	$100,000			
Amount To Be Raised By Taxes	**$240,415**	**$206,205**	**$204,650**	**$282,750**	**$271,050**	**$82,000**	**$1,287,070**	
IMPACT ON TAX RATE	$2.98	$2.56	$2.54	$3.51	$3.36	$1.02	$15.97	Average: $2.66