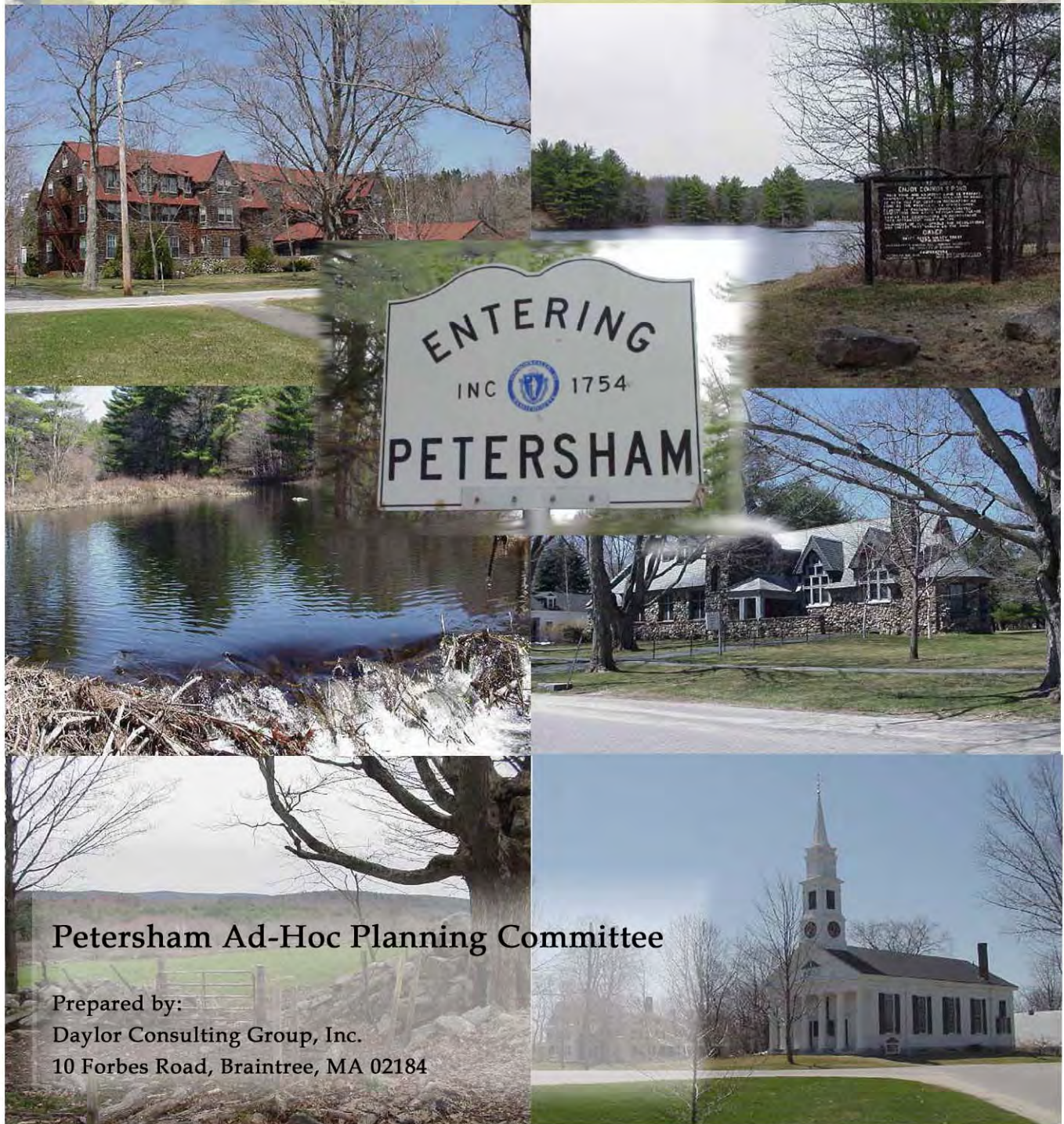


Petersham

Final Master Plan
Final Open Space & Recreation Plan

August 2004



Petersham Ad-Hoc Planning Committee

Prepared by:
Daylor Consulting Group, Inc.
10 Forbes Road, Braintree, MA 02184

Petersham

August 2004

Tab 1: Final Master Plan

Tab 2: Final Open Space & Recreation Plan

Petersham Ad-Hoc Planning Committee

Richard McCrae, Chairman

Ellen Anderson

Alan Bachrach

Jim Baird

Roland Barnes

Alf Berry

Chuck Berube

Larry Buell

Ron DeJackome

Irene Perkins

Fifi Scoufopoulos

Lynn Shaw

Henry Woolsey

Consultant Team

Todd Ford, Manager of Planning Services

Jeffrey C. Milder, AICP, Project Manager

Mirtha M. Garcia, AICP, Project Planner

Jeong-Ah Choi, AICP, GIS Specialist

Erika Johnson, AICP, GIS Specialist

Imge Ceranoglu, Environmental Scientist

Mark Bobrowski, Esq., Legal Counsel

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CHAPTER 1: EXECUTIVE SUMMARY

A. PETERSHAM AT A CROSSROADS

When people think of small-town New England, they think of a place like Petersham. They think of a community with a tight-knit center—a town green on a hilltop ringed by historic buildings and a country store. They think of a landscape where farms and woods stretch in all directions, interrupted only by the occasional road, gravel lane, or farmhouse. They think of a place where residents know one another by name, and share common values and interests. And they think of a place where the fields and woods and buildings themselves contain traces of history—stone walls, cellar holes, and other reminders of our early American ancestors. Petersham is all of this, and more.

However, time has not stood still in Petersham. Growth pressures spreading outward from the Worcester and Boston areas have not yet overwhelmed the Town, but they have been changing it, bit by bit. Gradually, the Town is becoming less of an inward-focused rural community and more of an outward-focused bedroom community, with associated shifts in the Town’s demographics, economy, landscape, and sense of community. These changes are not unusual, and are now being witnessed throughout much of rural New England. The difference in Petersham is that the Town is now making a deliberate effort to pause, take stock of its present situation, acknowledge these seeds of change, and, through this planning process, make deliberate and well-reasoned choices about its future.

Looking ahead, the regional housing, economic, and land development pressures that have begun to affect Petersham are only going to grow stronger. To see the effect of these pressures if left unchecked, one need only look at some of the suburbs twenty or thirty miles east or southeast of Petersham, where the roads are clogged, the houses are expensive, and the forests have been cleared to make way for lawns. The alternative to this kind of growth is managed change that respects what kind of place Petersham is and what kind of place it would like to be—but this can only happen through concerted actions on the part of the Town. Some of these actions will require bold initiatives: for example, investing money in preservation or community facilities now in order to gain long-term benefits. Others will force the Town to weigh and balance different objectives that sometimes conflict with one another: for example, the desire to keep Petersham an affordable community while at the same time enforcing high aesthetic standards that can add to development costs. While Petersham’s residents agree that the Town should preserve its landscape, community, and way of life, the challenge now is to decide how best to accomplish this—what combination of policies will be most effective, what tradeoffs are necessary, and how the Town should prioritize its efforts. Through this Master Plan and the companion Open Space and Recreation Plan, Petersham and its residents are answering these important questions.

B. AN OVERVIEW OF THE MASTER PLAN

Creating a Master Plan is a four-step process that starts with data and general goals and leads toward specific planning proposals. Throughout all steps of the process, community residents guide the Plan by identifying important issues and challenges in the Town, setting goals, and responding to possible planning strategies. In the case of the Petersham Master Plan, public input was solicited directly—in a townwide survey and several public meetings—and through the representative thirteen-member Petersham Ad Hoc Planning Committee, which includes members of various boards and commissions, as

well as residents and business people within the Town. Technical assistance was provided by Daylor Consulting Group of Braintree, Massachusetts, which worked with the Committee to help frame key issues and opportunities for public discussion, lead public meetings, help develop Master Plan recommendations, and prepare reports, maps and graphics.

Typically, a Master Plan is a comprehensive townwide plan that addresses various aspects of a community's future such as land use, natural and historic resources, open space and recreation, economic development, housing, public facilities and services, and transportation. In the case of Petersham, these topics are divided between two separate plans: this Master Plan and a companion Open Space and Recreation Plan, which was prepared simultaneously. The Open Space and Recreation Plan focuses on issues related to open space, recreation, natural resources, and historic resources, while the Master Plan addresses the remaining five topics: land use, housing, economic development, public facilities and services, and transportation. The preparation of both plans at once has allowed the Town to develop a comprehensive strategy for the future while still meeting the state requirement to have an Open Space and Recreation Plan.¹

How this Report is Organized

The first step in the four-step planning process was to review existing conditions in the Town and identify issues, challenges, and needs. This information is contained in **Chapter 2** (Patterns and Trends) and in the first half of **Chapters 4** through **8** (Land Use, Housing, Economic Development, Public Facilities and Services, and Transportation, respectively). The next step of the process was to distill public input from the Town survey and the public meetings into guiding principles for the Town's future. These principles are entitled the Planning Framework, and are contained in **Chapter 3**. At the core of the Master Plan are five interrelated "Plans for the Future"—one for each of the five topics addressed in the Master Plan. These plans, which are contained in the second half of **Chapters 4** through **8**, are intended to guide the Town's policies and actions over the next fifteen to twenty years. The final and perhaps most important step of the process was to prepare an Implementation Plan, which is a step-by-step guide establishing the timeframe and the group(s) who will be responsible for implementing each part of the plan. The Implementation Plan, which is contained in **Chapter 9**, helps to ensure that the Master Plan will be actively used for years to come.

How to Use this Plan

It is important to note that the Master Plan is a policy guidance document—not law. It will be up to the Town's legislative and executive bodies, such as Town Meeting, the Board of Selectmen, and other boards and commissions, to implement the Plan's recommendations over the upcoming months and years. To this end, the Implementation Plan (**Chapter 9**) contains two action matrices that will help the Town track its annual progress toward implementing the Plan. In addition to acting on the various policies and initiatives identified in the Implementation Plan, Petersham's boards and commissions should consistently use this document to guide their decision making process with regard to major Town decisions—for example, permitting decisions by the Planning Board and Zoning Board of Appeals, capital expenditure proposals by the Finance Committee, and general Town governance decisions by the Board of Selectmen.

¹ Having an approved Open Space and Recreation Plan will make the Town eligible for various state grants.

C. EXISTING CONDITIONS

Each of the five Master Plan topics in this document begins with a “Strengths and Concerns” matrix—a summary of Petersham’s existing conditions as seen through the eyes of its residents. The Strengths and Concerns identify not only key facts and trends relevant to the community, but also whether the Town as a whole views each of these circumstances as a positive or negative factor. In many cases, a particular attribute can be both a strength and a concern at the same time. For example, Petersham’s scenic beauty and natural resources are assets that define the Town’s character, but also create a desirable setting that encourages new development.

The following table summarizes some of Petersham’s key strengths and concerns for each of the different topics addressed in the Master Plan and in the Open Space and Recreation Plan. This information was used to help frame the questions and issues being examined by the Master Plan in the hope of developing measures that will protect and enhance the Town’s strengths while effectively addressing its concerns.

Summary of Existing Conditions in Petersham	
Strengths	Concerns
<u>Land Use and Growth Management</u> <ul style="list-style-type: none">• With more than 95% of its land area devoted to forest, wetlands, or agriculture, Petersham is a beautiful rural town.• Petersham has an attractive town center, with historic buildings clustered around the town common.• The Town has taken several steps to manage growth and protect town character, such as adopting a scenic roads provision and rate of development bylaw.• More than half of the Town’s land area is protected open space.	<ul style="list-style-type: none">• Regional growth trends indicate a growing pressure for residential development in the Petersham area.• The Town has more than 11,700 acres of buildable land that could accommodate more than 7,100 new homes and more than 19,000 new residents if fully developed.• With more than 95% of the Town’s developed land devoted to housing, there is very little non-residential tax base in the Town.
<u>Housing</u> <ul style="list-style-type: none">• Petersham has a large number of historic homes and homes situated in beautiful rural settings.• The Town is still affordable to middle-income households.• Petersham is one of the three towns that will benefit over the next few years from a \$1 million regional housing rehab grant.	<ul style="list-style-type: none">• Much of the newly built housing in Town is less in keeping with its rural context.• Petersham is one of the most expensive towns in its sub-region, and local housing prices appear to be rising rapidly.• The Town’s housing stock offers few choices other than single-family detached homes.• With only a very limited supply of rental housing, the Town may not meet the needs of certain demographic groups, such as young adults.• Although the Town has a large senior population, there is no housing in Petersham intended specifically for the elderly.• Without any Chapter 40B-qualifying affordable housing, the Town is vulnerable to “unfriendly” Comprehensive Permit applications.

Summary of Existing Conditions in Petersham

Strengths	Concerns
<p><u>Economic Development</u></p> <ul style="list-style-type: none"> • Petersham has a highly educated labor force. • Home occupations and self-employment are an important low-impact form of business activity in Town. • The Town's natural, scenic, and historic resources offer numerous attractions for visitors, and could be used to promote local tourism. • Natural-resource based businesses such as farming and forestry contribute to Petersham's economic base as well as the Town's identity. • The Town has a relatively good network of main roads, and is easily accessible from Route 2. 	<ul style="list-style-type: none"> • The Town's economy has contracted slightly over the last ten years, even as population has continued to grow. • The Town's commercial tax base has shrunk by almost half in the past decade. • There are few job opportunities in Petersham, and most residents need to commute to other cities and towns to work. • Future business development could impair the Town's natural or scenic resources if not carefully sited and designed. • Wastewater issues could limit future development and redevelopment options in the town center.
<p><u>Public Facilities and Services</u></p> <ul style="list-style-type: none"> • School construction projects underway at Mahar Regional School and recently completed at Petersham Center School will greatly enhance the Town's school facilities. • Petersham has many dedicated citizen volunteers who actively participate in running town government. • For a Town of its size, Petersham has very good social and cultural services, including a high quality library and an active Council on Aging. 	<ul style="list-style-type: none"> • The Town Office Building is far too small for the functions it houses, and lacks amenities for basic comfort, such as insulation and central heating. • The Police and Fire Departments both need new facilities. • Recent school investments have stretched the Town's fiscal resources, and state funding cutbacks have made matters even worse. • The Town currently lacks a process for long-term coordinated capital investment planning. • Several Town government functions are short on staff. • The Town Hall and Town Office Building do not fully comply with ADA accessibility requirements.
<p><u>Transportation</u></p> <ul style="list-style-type: none"> • Petersham is well-served by a network of state highways that connect it to Boston, Worcester, and the Connecticut River Valley. • Most of the Town's roads are well-suited for bicycling, and there are also numerous off-road paths for mountain biking and walking. • Many of the Town's roads are very scenic and still retain historic stone walls and street trees. • Many of the Town's roads remain unpaved, which contributes to the community's rural character. 	<ul style="list-style-type: none"> • Future uncontrolled roadside development could impair the safety, capacity, and beauty of the Town's roads. • Increased traffic is a potential threat to bicyclists, especially on narrow roads. • The Town lacks public transportation, with the exception of limited services for the elderly.

Summary of Existing Conditions in Petersham

Strengths	Concerns
<p><u>Open Space, Natural Resources, and Recreation</u> <i>(Key themes from the Open Space & Recreation Plan)</i></p> <ul style="list-style-type: none"> • The Town contains about 18,500 acres of protected open space, including lands for wildlife habitat, water supply protection, forestry, agriculture, and passive recreation. • An additional 14% of the Town's land (almost 4,900 acres) is being actively used for farming, forestry, or recreation. • Petersham contains several valuable natural resources, including Quabbin watershed land and important core plant and animal habitat. • Much of Petersham's natural landscape is unfragmented, which increases its value for wildlife habitat and recreation. • Opportunities exist in Town for a wide variety of outdoor activities. • Several public and non-profit agencies, as well as conservation-minded citizens, are actively involved in land conservation in Petersham. 	<ul style="list-style-type: none"> • More than 11,700 acres of open space in Town is unprotected from development. • Water resources may be threatened by nonpoint source pollution from failing septic systems, roads, and developed areas in Petersham. Further development could worsen this situation. • Even a small amount of new development can fragment natural areas and significantly reduce their value for wildlife habitat and recreation. • Residents would like to have more facilities in Town for activities such as swimming, camping, and field and court sports (soccer, tennis, etc.). • Residents are concerned that protected open space is often (though not always) taken off the tax rolls. The future of Payment In-Lieu of Taxes programs for state-owned lands is uncertain.

D. PLANNING FRAMEWORK

As discussed above, the Master Plan is based on an inclusive public process that allowed Town residents to express their goals and desires for Petersham's future. To guide the preparation of the Master Plan, this public input has been distilled into two concise statements: the Vision Statement and the Master Plan Goals. The **Vision Statement** is a broad set of themes identifying what type of community Petersham would like to be in the future. This statement is intended to be general, and to capture the overall consensus of the Town's residents as expressed in the resident survey and at the public meetings.

Petersham's Vision for the Future

Twenty years from now, Petersham will look much as it does today. We know that new development will occur, but will seek to harmonize it with the Town's character and environment through careful design. We would like to promote the Town's "working landscape" of forests and farms, and to protect and creatively re-use historic buildings and sites.

The town center should remain a small but friendly gathering place. This should be an area of mainly residences and civic institutions, with a few small businesses catering to townspeople and visitors.

Petersham's residents help make the Town what it is. Through the choices we make about housing and public services, we will strive to keep Petersham a town that is welcoming to people of different ages, income levels, and cultural backgrounds. We value our friendly, tight-knit community and participatory government, and will work to maintain both, even as the Town's population grows in the future.

We know that challenges lie ahead, and will work cooperatively to address them. Fair but effective planning tools will help prepare us to handle future growth pressures. We would also like to upgrade many of the Town's public facilities, but in a cost-effective manner that minimizes the tax burden to the Town's residents.

While adapting to change, we will not forget what it is that makes Petersham special. We like our town without strip malls, tacky signs, endless subdivisions, and wide roads—and will make sure that it stays that way. Twenty years from now, Petersham will still be a unique and beautiful place in which to live.

The **Master Plan Goals** build upon the vision statement to provide more specificity about how Petersham would like to grow, change, and/or remain the same in the future. See **Section 3E** for the Master Plan Goals statement.

E. PLAN FOR PETERSHAM'S FUTURE

The core of the Master Plan is the five interrelated "Plans for the Future"—one for each of the five topics addressed in the Master Plan. The following paragraphs summarize some of the key Master Plan proposals for each of these topics.

Land Use

The Land Use Plan addresses the overall physical layout of the Town as well as zoning regulations that will guide the location, type, and design of new development. The plan recognizes that Petersham's current zoning framework, if left unchanged, is likely to result in an undesirable "suburban sprawl" form of development. Therefore, the Town must revise its zoning if it hopes to meet residents' goals such as

protecting the Town's rural character, meeting local housing needs, and encouraging appropriate types of businesses. In order to balance these townwide goals with the rights and interests of individual landowners, the Land Use Plan proposes a number of flexible and incentive-based zoning strategies to guide growth in a manner that will benefit both the public and landowners. The Land Use Plan contains five components, which are summarized briefly below.

Zoning Districts and Zoning Map

Currently Petersham has only one zoning district: the Residential-Agricultural district. This simple zoning framework may have been adequate in the past, but is no longer specific enough given residents' different goals for various sections of the Town. Therefore, the Master Plan proposes establishing two new zoning districts: a Town Center district along North Main, South Main, West, Spring, and part of East streets, and a Business district along Route 122 near its intersection with Route 32 (the proposed zoning map is shown on **Figure 4-5**). The Town Center district would restrict higher-impact land uses to protect the area's historic character. The Business district would offer more opportunity to site businesses in the section of Town best suited to accommodate them. The Residential-Agricultural district would continue to apply to the rest of Town, but with some changes to encourage the most appropriate land uses.

Residential Development Options

The most important issue facing Petersham is residential growth and the impact it will have on the Town's environment, landscape, character, and ability to provide and fund public services. The Plan addresses this issue by proposing several different residential development options that offer incentives for desirable forms of development that protect open space, preserve the character of rural roadsides, or provide affordable housing. Conventional development—which provides none of these benefits—would still be allowed, but at a lower density. These development options will also allow the Town and the developer to better suit the development to the particular environmental and aesthetic character of the site. The six proposed development options are:

1. **Standard lot:** 2.5 acre minimum lot size and 250 feet of frontage. This is the only option that would not require a special permit from the Planning Board.
2. **Lot for affordable housing:** would require only 1.5 acres and 150 feet of frontage, but could only be used to build affordable housing serving local needs.
3. **Lot created with open space set-aside:** smaller frontage lots could be created in exchange for setting aside permanently protected open space toward the back of the site.
4. **Flag lot:** larger lot where the house is set well back from the road. The lot must have at least five acres but may be accessed by a narrow "tail" with only 50 feet of frontage.
5. **Flexible rural development:** development is shifted from the road frontage to the backlands to protect open fields or other features near the road.
6. **Conservation subdivision:** allows houses to be built on smaller lots in exchange for setting aside permanently protected open space.

Rate and Timing of New Development

The Town currently has a growth rate limitation bylaw that restricts the number of building permits that can be issued to a maximum of six per year through 2009. After 2009, the Town should continue to limit the rate of development to avoid being swamped by one or more large developments that could create an

immediate need for more school, police, fire protection, and recreation facilities—the cost of which would need to be borne by all of the Town’s taxpayers. One approach is to continue to use a townwide building permit cap. Another option would be to institute a subdivision phasing bylaw that requires large developments to be phased in over a period of several years.

Protecting Scenic Roadsides and Town Character

Petersham’s scenic roads are a key part of Town’s rural character. To protect the street trees, stone walls, and scenic views that distinguish these roads, the Town should adopt a Scenic Overlay District that requires new development within 300 feet of scenic roads (shown on **Figure 4-5**) to be compatible with existing roadside character. Development in these areas would undergo site plan review to address the site layout and cutting of vegetation (but the architectural design of the house would not be subject to review). In addition to adopting the Scenic Overlay District, the Town should also consider allowing shared driveways as a way of limiting the number of driveway entrances onto scenic roads.

Environmental Planning

In conventional development practices, a site’s critical natural resources and unique landscape features are often destroyed or damaged because they were not identified ahead of time or because the Town did not make a sufficient effort to protect them. To prevent this from occurring in Petersham, the Town should create a “Greenprint for Growth” that identifies those lands that they would like to protect. Then, new developments can use the flexible development options described above to build around these areas. Over time, an inter-connected open space network and protected “green infrastructure” will emerge.

Housing

The Master Plan housing goals focus on three main issues: 1) providing adequate housing to meet the needs of Petersham’s elderly population; 2) providing sufficient affordable housing so that Petersham can remain a socioeconomically diverse community; and 3) ensuring that new housing is environmentally compatible and appropriate to the Town’s rural setting. To meet these goals, the Town should expand the range of housing types that can be built in Petersham while also encouraging the creation of designated affordable housing that is deed-restricted to remain affordable in perpetuity.

Two new types of housing are proposed for the Town. Senior housing should be allowed townwide by special permit. The design and density of this housing could be tailored to the site—for example, congregate senior housing in the Nichewaug Inn building, senior housing in converted residences in the town center, or a retirement community offering different living arrangements and levels of care situated in a rural setting surrounded by walking trails and open space. The second new type of housing proposed is accessory dwelling units—that is, a second dwelling unit on a lot that is “accessory” to the principal unit. By special permit, accessory dwelling could be created by converting pre-existing outbuildings such as barns, garages, or carriage houses into small residences. These accessory units could offer dispersed affordable housing without changing the character of the Town.

Finally, the Town should establish a Housing Authority/Housing Partnership Committee to encourage the creation of affordable housing and oversee the development and management of those units that are created.

Economic Development

The Town's economic development goals revolve around the idea of encouraging dispersed low-impact business uses that are compatible with the Town's rural character. In other words, residents would like to have more jobs and tax revenue from local businesses, but not at the expense of large amounts of traffic, pollution, or visual blight. Residents also value the Town's "working landscape" of rural lands and would like to encourage small businesses that are based on the Town's land and natural resource base.

To further these goals, the Master Plan proposes several zoning changes to expand the range and size of businesses that could locate in Petersham. Most of these business uses would require a special permit, which gives the Town the discretion to ensure that they are compatible, appropriately situated, and well-designed. To promote rural businesses such as agriculture, forestry, and ecotourism, the Town should establish an Agriculture and Rural Development Committee, which would provide technical assistance for and advocacy on behalf of existing and prospective rural businesses in Petersham.

Public Facilities and Services

One key public facilities recommendation in the Master Plan is for the Town to establish a Capital Planning Committee, which would be charged with preparing a townwide Capital Improvement Plan (CIP) to assess, prioritize, and establish a funding schedule to meet the Town's public facility needs. With the Town in likely need of several new facilities in the upcoming years—including new Town office space, Police and Fire Department facilities, a Highway Department yard and building, and possibly space for the Council on Aging—the CIP would promote better coordination among the Town's departments and ensure that funding is available to meet the most pressing needs as they arise. Once the CIP has been prepared, the Town should conduct a feasibility study for new facilities for the Town offices and Police and Fire Department facilities. One possibility is to build a municipal "triplex" building for all three facilities. Another option is to build a joint Town office/Police Department facility in the town center and a joint Highway Department/Fire Department facility elsewhere in Town.

With regard to infrastructure, the Plan includes two proposals, both of which apply to the town center. First, the Board of Health should continue its efforts to address the failed septic systems in the town center by investigating the feasibility of building one or more shared wastewater treatment and disposal systems. This effort could be coupled with a septic management plan to help prevent other septic systems from failing. Second, the Town should work to ensure that the public realm in the town center (i.e., the roads, utilities, lighting, street trees, etc.) is compatible with the desired historic character. For example, the Town would like to bury the remaining overhead utility lines on South Main Street and provide attractive street lighting in the town center.

Transportation

The most important roadway issue in Petersham is retaining the visual character of Town roads, which can be greatly affected by paving, roadside tree management, and any improvement work. For this reason, the Town should adopt a set of guidelines for the management and, if necessary, improvement of roadways in Petersham. The Master Plan divides the Town's roads into five different categories based on their function, size, and capacity. Each category has a different set of guidelines to ensure that the roads will continue function efficiently and safely while retaining their desired character. The Plan also suggests that the Town consider discontinuing a few segments of minor roads that are no longer viable for year-round public travel and/or are not needed to provide access to private property. Discontinuing these

roads will prevent the Town from needing to spend money to upgrade them in the future if development were to occur along them.

F. GETTING STARTED: IMPLEMENTATION

The Implementation Plan—**Chapter 9** of the Master Plan—is a step-by-step guide for Petersham to follow over the next several years to ensure that the Master Plan recommendations are put into action. Implementing the Master Plan will require a concerted and ongoing effort on the part of the Town’s elected and appointed officials. However, the Master Plan—and public input that it reflects—is too important for the Town not to carry through with its recommendations.

The core of the Implementation Plan are two Action Plan matrices that identify the group or groups responsible for implementing each Master Plan recommendation as well as the approximate timeline for action. The following are some of the key Master Plan recommendations targeted for immediate action (within 12-18 months) or short-term action (within 1-3 years):

- Adopt a Scenic Overlay District with guidelines for site planning along scenic roads.
- Adopt a new senior housing bylaw.
- Revise the Town zoning map to include two new districts, and adopt new use regulations for all three districts.
- Change the dimensional requirements in the Residential-Agricultural district to reflect the six proposed residential development options, and adopt zoning provisions regulating these development methods.
- Finalize the Greenprint for Growth to include lands of environmental, scenic, historic, and other value that the Town would like to preserve if possible.
- Establish guidelines in the zoning bylaw for the creation of affordable housing.
- Establish the Housing Authority/Housing Partnership Committee.
- Establish the Agriculture and Rural Development Committee.
- Establish the Capital Planning Committee.
- Finalize and adopt guidelines for roadway management and improvement.

CHAPTER 2: PATTERNS AND TRENDS

The first step of an effective planning process is to describe and analyze existing conditions. The **Patterns and Trends** chapter summarizes Petersham's population, age, household, and socioeconomic characteristics.¹ This statistical information is useful for determining past and future trends in the Town, and for inferring how they may affect growth and the need for housing, transportation, jobs, and public services. While the focus is on Petersham, data for nearby communities, Worcester County, the Montachusett Regional Planning Commission (MRPC) area², and the state are included for comparison.

A. POPULATION

- Petersham's population grew by 4.3% during the 1990s, compared to a growth rate of 5.8% for Worcester County and 5.5% for Massachusetts.
- During the 1990s, Petersham grew slower than most the towns to the south and east, but faster than many towns located to the north and west. This is not surprising given the location of major employment centers in Worcester, Boston, and the Route 128 and I-495 corridors.
- Population projections and regional growth trends suggest that development pressures from eastern and central Massachusetts may lead to more rapid growth in Petersham in the future.

Table 2-1
Population Growth and Projections for Petersham and Worcester County, 1940-2010

Year	Petersham Population	% Change From Previous	Worcester County Population	% Change From Previous
1940	923	--	504,470	--
1950	814	-11.8	546,401	8.3
1960	890	9.3	583,228	6.7
1970	1,015	14.0	638,114	9.4
1980	1,024	0.9	646,352	1.3
1990	1,131	10.4	709,705	9.8
2000	1,180	4.3	750,963	5.8
2003	1,242	5.3	Not Available	Not Available
2010 (projected)	1,319	6.2	715,091	-4.8
Buildout	20,496	1,453.9	1,453,009	103.2

Sources: U.S. Census, 1940-2000; Town of Petersham (for 2003 figure); Mass. Institute of Statistical and Economic Research (for 2010 projection); and MRPC Buildout Study updated by Daylor Consulting Group (see **Section 4**). Note: Petersham population projections presented here have been modified from the original MISER figures. The original MISER projections are based on 1990 U.S. Census data, and overestimated the 2000 population by 82 persons. Accordingly, projections for 2010 have been lowered by 82 persons based on actual growth observed during the 1990s.

¹ Census data pertaining to population, age, and educational attainment looks at all Petersham residents, including those in institutional and noninstitutional group quarters, such as monasteries. Data pertaining to household and family characteristics do not include residents living in group quarters.

² The MRPC area consists of 21 communities, including Ashburnham, Ashby, Athol, Ayer, Clinton, Fitchburg, Gardner, Groton, Harvard, Hubbardston, Lancaster, Leominster, Lunenburg, Phillipston, Royalston, Shirley, Sterling, Templeton, Townsend, Westminster, and Winchendon. Petersham falls within MRPC's service area for the purpose of transportation planning. As the MRPC area encompasses many adjacent communities, data for this geographic area were used when helpful.

Table 2-2
Population Growth for Petersham and Surrounding Towns, 1990-2000

Town	1990 Population	2000 Population	% Change During 1990s
Athol	11,451	11,299	-1.3
Barre	4,546	5,113	12.5
Hubbardston	2,797	3,909	39.8
New Salem	802	929	15.8
Orange	7,312	7,518	2.8
Petersham	1,131	1,180	4.3
Phillipston	1,485	1,621	9.2
Royalston	1,147	1,254	9.3
Templeton	6,438	6,799	5.6
Warwick	740	750	1.4

Source: U.S. Census Bureau, Census 1990 and 2000.

B. HOUSEHOLD CHARACTERISTICS

- During the 1990s, Petersham experienced a greater percentage growth in households than either Worcester County or the state, even though Petersham's population grew slower than the county and state as a whole.
- The number of households in Petersham grew at about three times the rate of population growth during the 1990s—12% household growth compared to 4.3% population growth.
- Average household size in Petersham declined during the 1990s. On average, Petersham households were larger than the state average in 1990, but smaller than the state average by 2000. This statistic suggests that the Town either experienced an influx of smaller households (such as elderly persons, childless couples, or single-parent households), or witnessed a lower than average influx of families with children, or both.

Table 2-3
Trends in Household Growth, 1990-2000

Year	Petersham Households	% Change From Previous	Worcester County Households	% Change From Previous	State Households	% Change From Previous
1990	391	--	260,153	--	2,247,110	--
2000	438	12.0	283,927	9.1	2,443,580	8.7

Source: U.S. Census Bureau, Census 1990 and 2000.

Table 2-4
Trends in Household Size, 1990-2000

Year	Average Household Size		
	Petersham	Worcester County	Massachusetts
1990	2.62	2.62	2.58
2000	2.48	2.56	2.51

- In 2000, most Petersham households (60%) consisted of married-couple families. This figure far exceeded the state average of 49% of households.
- Petersham has a relatively high proportion of elderly householders 65 and over living alone (11% of Petersham households compared to 10% of Massachusetts households).
- The Town has lower proportions of single-parent households and non-family households³ (except single elderly householders living alone) than the state average.

Figure 2-1: Town of Petersham Household Composition, 2000

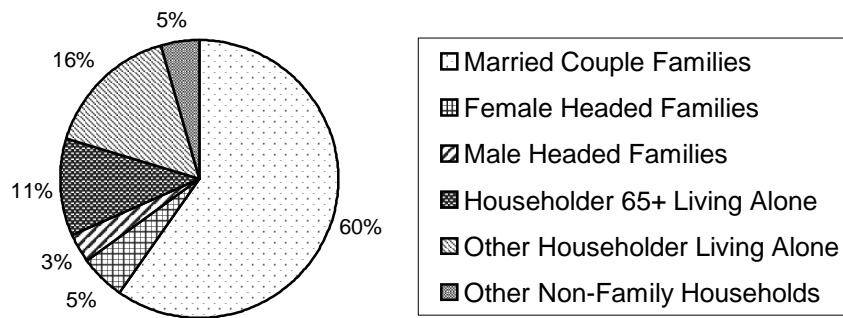
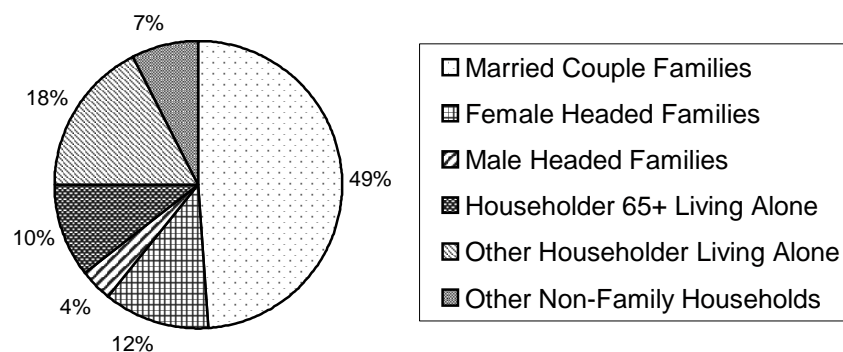


Figure 2-2: Massachusetts Household Composition, 2000



³ **Family Households** include married couple families, female headed families, and male headed families. **Non-Family Households** include householders 65+ living alone, other householders living alone, and other non-family households.

C. AGE CHARACTERISTICS

- Petersham's population is much older than the state as a whole. In 2000, 36% of the state's population was 45 or over, while 46% of Petersham's population was 45 or over. This gap had widened even further by 2003.
- Between 1990 and 2003, the number of Petersham residents aged 45-64 (which includes the "baby boomer" generation) increased by almost 70%, to comprise 31.2% of the Town's population.
- MISER's projections forecast a rapid increase in the number of school-aged children and in the 20-29 age cohort in Petersham by 2010. The number of elderly persons is actually expected to decrease in Petersham, even as the 65+ population continues to grow statewide.
- MISER projections are based on computer models that consider migration as well as predicted birth and death rates. Individual communities can affect their future demographics significantly through the choices they make related to housing, school funding, development regulations, and other issues.

Table 2-5
Age Distribution, 1990-2003

Age Cohort	1990			2003			Change, 1990-2003	
	Petersham		Mass. %	Petersham		Mass. % ^(a)	Petersham	
	Persons	%		Persons	%		Persons	%
Under 10	132	11.7	13.2	127	10.2	13.1	(5)	(3.8)
10-19	142	12.6	12.6	164	13.2	13.3	22	15.5
20-29	123	10.9	17.8	83	6.7	13.2	(40)	(32.5)
30-44	306	27.1	24.3	253	20.4	24.5	(53)	(17.3)
45-64	228	20.2	18.5	387	31.2	22.4	159	69.7
65 & over	200	17.7	13.6	228	18.4	13.5	28	14.0
Total	1,131	100.0	100.0	1,242	100.0	100.0	111	9.8
Median Age	--	39.1	33.4	--	44.7	36.5	--	--

Source: 1990 and 2000 U.S. Census; 2003 Town of Petersham Census.

(a) Data from 2000.

Table 2-6
Petersham Age Cohort Projections, 2003-2010⁴

Age	2003 Actual		2010 Projected		Change	
	Persons	%	Persons	%	Persons	%
Under 10	127	10.2	163	12.3	36	28.3
10-19	164	13.2	204	15.5	40	24.4
20-29	83	6.7	133	10.1	50	60.2
30-44	253	20.4	260	19.7	7	2.8
45-64	387	31.2	369	28.0	(18)	(4.7)
65 & over	228	18.4	190	14.4	(38)	(16.7)
Total	1,242	100.0	1,319	100.0	77	6.2

Sources: 2003 Town of Petersham Census and MISER population projections. Note: MISER projections have been modified based on actual 2000 population figures; see the note for **Table 2-1**.

⁴ While age cohort projections can be a valuable tool for assessing future facility needs and allocating funds for capital improvements, the development of age cohort projections is an imprecise science at best. For this reason, age cohort projections should not be accepted without confirming the projections through supporting indicators from other data sources. Although the MISER projections included in this report are the most recent projections available, they were in fact completed in 1999 and were based upon the 1990 U.S. Census.

D. INCOME DISTRIBUTION AND EDUCATION LEVEL

- In 1990, the median household income in Petersham of \$39,063 was 9.2% higher than the Worcester County median and 5.7% higher than the state median. This trend reversed in 2000, when the median household income in Petersham of \$47,833 was 0.1% lower than the Worcester County median and 5.6% lower than the state median.
- A greater proportion of households in Petersham are considered “middle-class” than in the county or the state as a whole. In 2000, Petersham had a smaller share of households with annual incomes over \$100,000 but also a smaller share of households earning less than \$10,000 than in either Worcester County or the state as a whole.
- While the proportion of households living in poverty increased in both Worcester County and the state between 1990 and 2000, this figure remained constant in Petersham during this time at 5.8%.

Table 2-7
Household Income Distribution, 1990 and 2000

Income	Petersham Households	Petersham %	Worcester County %	Massachusetts %
1990				
Less than \$10,000	23	6.0	13.5	13.4
\$10,000 - \$24,999	91	23.6	20.9	19.9
\$25,000 - \$49,999	133	34.5	34.5	32.4
\$50,000 - \$99,999	114	29.5	26.6	27.6
\$100,000 or more	25	6.5	4.5	6.7
Median HH Income	\$39,063	100.0	\$35,774	\$36,952
% Living in Poverty ⁵	-	5.8%	8.3%	8.9%
2000				
Less than \$10,000	18	4.1	8.8	8.8
\$10,000 - \$24,999	76	17.4	17.0	15.8
\$25,000 - \$49,999	137	31.4	26.1	24.9
\$50,000 - \$99,999	145	33.3	33.3	32.9
\$100,000 or more	60	13.8	14.8	17.7
Median HH Income	\$47,833	100.0	\$47,874	\$50,502
% Living in Poverty	--	5.8%	9.2%	9.3%

Source: U.S. Census Bureau, Census 1990 and 2000.

⁵ Percent of persons, not households, living in poverty. Poverty status is determined for all persons except institutionalized persons, persons in military group quarters, persons in college dormitories, and unrelated individuals under 15 years old.

- Petersham has a highly educated resident population, with 46% of its residents aged 25 and over having completed college and over half of these having attained a graduate degree. These figures far exceed the Worcester County and state averages.
- Petersham has a history of higher than average educational attainment among its residents. The Town's figures for 1990 were similarly higher than the Worcester County and state averages.

Table 2-8
Educational Attainment⁶, 1990 and 2000

Location	% Completed High School		% Completed 4 Years College		% Completed >4 Years College	
	1990	2000	1990	2000	1990	2000
Petersham	90	95	43	46	19	24
Worcester County	78	84	23	27	9	10
Massachusetts	80	85	27	33	11	14

Source: U.S. Census Bureau, Census 1990 and 2000.

E. CONCLUSIONS

A review of these statistics suggests a few key themes that Petersham should consider as it plans for its future. First, the Town should recognize regional and statewide population and land use trends that may impinge upon the community. These trends include the wave of residential growth is beginning to spread west and north into north-central Massachusetts; the declining household size as people live longer and as married-couple families become less of the norm; an aging population; and a school-aged population that tends to rise and then fall as the generations age and as population bulges (e.g., the children of the baby boomers) are created. Through the choices that Petersham makes about land use, development, taxation, and programs and services, the Town can influence to what extent these regional trends will be borne out locally.

Second, the Town should consider the relation between its housing stock and its household and age distribution. Household statistics—which are discussed more fully in **Section 5**—suggest that the Town's emphasis on single-family detached housing as opposed to other housing types has resulted in a community with relatively low proportions of young adults and non-family households. However, Petersham has managed to retain a higher-than-average proportion of elderly residents despite its lack of any housing specifically intended for senior citizens.

Finally, Petersham should recognize the strengths of its community as revealed in these statistics. The Town is a relatively affordable place to live; a place with a smaller than average gap between its wealthier and less wealthy residents; and a highly educated community with residents possessing talents in diverse fields of knowledge.

⁶ Educational attainment of residents 25 and over.

CHAPTER 3: PLANNING FRAMEWORK

Master planning is a community driven process in which public dialogue allows residents to define what kind of place they would like their town to be in the future. In the course of this dialogue, members of the public and various interest groups in the community typically reach consensus on a number of items, while also identifying areas of disagreement, which must then be resolved through compromise or creative solutions. This chapter describes the public process that helped create the Petersham Master Plan and defines the framework of vision and goals upon which the planning recommendations in **Sections 4** through **8** are based.

A. PLANNING PROCESS

The Petersham Planning Board began to set the planning process in motion in late 2000, when it recognized that Petersham could be faced with unprecedented growth in the upcoming years and that the Town had no coherent strategy and very few growth management tools to address this potential influx. In 2001, the Board applied for and was awarded a grant from the Metropolitan District Commission (MDC) to help fund a Town Master Plan, an Open Space and Recreation Plan, and the preparation of regulatory implementation tools to help put these plans into action. The Town appropriated matching funds, issued a Request for Proposals for planning services, and, in January 2002, selected Daylor Consulting Group of Braintree, Massachusetts, as the consulting team that would assist the Town with its planning efforts. After a delay of several months in receiving the MDC funds, the project began in the fall of 2002.

To ensure direct representation of key constituencies in the planning process, the Board of Selectmen appointed the Petersham Ad Hoc Planning Committee to guide the preparation of both plans and oversee the work of the consultants. In order to maximize consistency and synergy between the Master Plan and the Open Space and Recreation Plan, the Committee was asked to lead the preparation of both documents. The Committee had its first meeting in January 2003, and shortly thereafter began seeking input on the Master Plan from the Petersham public through several different channels. These included:

- A four-page resident survey that was mailed to every household in February 2003 along with a one-page explanation of the planning process. Of the 496 surveys that the Committee mailed, 151 were completed and returned—an excellent response rate of 30%. The survey is discussed further in the following subsection, and a complete copy of the survey and tabulated results are contained in **Appendix A**.
- Three public workshops during the course of the project where the Planning Committee and consultants presented information on the Town or on possible planning strategies and sought feedback from participants. The first of these three meetings was held in March 2003, and the remaining two will be held later this year.
- Additional publicity through print media, posters and flyers, and direct personal contact. Throughout the project, the Committee is preparing press releases and arranging for coverage of the planning process in local newspapers such as the Athol Daily News, Worcester Telegram and Gazette, and Barre Gazette.

Based on public input obtained through the survey and the meetings, the Committee, with assistance from the consultant team, will develop a draft vision and goals statement, planning recommendations, and,

finally, an implementation plan. Each of these sections of the plan will then be presented to the public in draft form before being revised and finalized.

B. RESIDENT SURVEY

In February 2003, the Committee distributed a resident survey to all the households in Petersham. As mentioned above, the survey garnered a 30% response rate, which is considered excellent for a survey of this type. The survey consisted of 18 questions and was divided into several parts to address issues in both the Master Plan and the Open Space and Recreation Plan. The first part asked questions about open space and recreation, including a question about the respondent's participation in various recreational activities and two questions about open space and land conservation. The second part addressed other planning issues such as growth management, housing, economic development, public services, the town center, aesthetics of new development, and natural, historic, and scenic resources. The third part of the questionnaire requested information about the respondent's household, such as the age, income, occupation, and length of residency of its occupants. The survey ended with a space to write in additional comments.

The results of the survey revealed several areas of consensus among the Town's residents, as well as a few controversial issues. Major themes from the resident survey included the following:

- **Recreation:** The most popular recreational activities among local residents include fishing, hiking, fitness walking and jogging, cross-country skiing and snowshoeing, boating (non-motorized), nature study/bird watching, and swimming. More than half of the respondents participate in each of these activities. Many residents would like to have more opportunity in Town for swimming (in a lake or pond). A smaller number want more places for pool swimming, camping, tennis, basketball, and baseball.
- **Open Space:** A majority of residents feel that the Town should protect more open space to safeguard natural resources and/or rural character; 30% think that the Town already has enough protected open space. In terms of methods for protecting additional land, about one-third of respondents think that Town funds should be used for this purpose. Several other techniques, such as seeking land donations and adopting zoning tools, each garnered 50-60% support. Interestingly, only 26% of respondents believe the Town should lobby for better access to existing protected open space.
- **Natural, Historic, and Scenic Resources:** Residents were asked to rate the importance on a scale of 1 to 7 of various resources such as forests, farmland, historic buildings, and scenic roads. All of the resources received an average score of between 5.5 and 6.2, suggesting that residents place a high value on all aspects of Petersham's natural environment and rural character.
- **Housing:** When polled about types of housing that they would like to have in the Town, residents were generally opposed to any type of multi-unit housing, even two-family homes. The only exception was senior housing, which garnered overwhelming support. Residents were almost evenly split on whether the Town should encourage more affordable housing; many said they didn't know or were neutral. In-law apartments, which were supported by 60% of respondents, appear to be one acceptable form of affordable housing.
- **Town Center:** By a margin of more than 3:1, residents think that the town center should stay generally the way it is now rather than adding more housing, business, or other activities, even if

these additions were consistent with the requirements of the Historic District. Similarly, 72% favor architectural review by the Town of new development in the town center.

- **Important Issues:** When asked to identify the most important issues for the Town to address over the next few years, residents focused in on three: maintaining the Town’s rural character, controlling tax rate, and controlling residential growth.

The full tabulated results of the survey are contained in **Appendix A**.

C. PUBLIC MEETINGS

The Planning Committee will hold three public meetings during the preparation of the Master Plan and Open Space and Recreation Plan. These meetings are summarized briefly below; more detailed meeting notes are contained in **Appendix B**.

March 2003 Public Meeting

The first public meeting began with an introduction from two of the Planning Committee members, followed by a 20-minute presentation by planners from Daylor Consulting Group, who explained the sequence of steps needed to prepare a Master Plan and an Open Space and Recreation Plan, and highlighted some of the trends, issues, and opportunities that Petersham now faces. Some of the points discussed included Petersham’s demographic characteristics; the potential for accelerated residential growth in the future; the amount, type, and purposes of different kinds of open space in the community; and issues and opportunities facing the town center. After the presentation, the 45 or so meeting attendees were divided into eight discussion groups, each of which was moderated by one of the Planning Committee members. The groups were asked to take about an hour to discuss the four following questions, and moderators noted down responses on note pads. The following is a brief summary of responses to the four discussion questions. See **Appendix B** for a detailed transcript of participants’ comments.

Question 1: What elements do you feel create the quality of life in Petersham? Which would you most like to preserve or nurture?

Responses to this question revealed that residents view Petersham as a unique place defined both by its physical landscape and by its human community. In terms of landscape, many participants mentioned open space, natural beauty, trails, historic buildings, and the town center as the key elements that contributed to the “sense of place” in Town. Residents also emphasized Petersham’s small town feel, meaning that people know their neighbors and are involved in the community. Although many people value the Town’s social and economic diversity, there is also a feeling that most residents share certain values in common—values that influenced their decision to move to or stay in the Town. Finally, respondents noted the sense of quiet and calm in Petersham, which seems far removed from the suburban sprawl and rampant commercialism of other places.

Question 2: How might growth and change contribute positively to Petersham’s future?

Residents were divided in their responses to this question. Many simply stated that they could not think of anything positive that would come from growth and change. Some, when pressed, identified a variety of specific changes that they might like to see, such as a few new businesses, a re-used Nichewaug Inn, or additional farms or ecotourism outfits. A second category of residents, while still valuing the Town as it

is now, felt that growth could contribute positively by increasing the Town's diversity, bringing in younger families and "new blood," and better accommodating the needs of the elderly as well as young adults who grew up in Petersham and might wish to move back to the Town. Some people also noted that growth might allow the Town to provide more or better public services.

Question 3: What is your "ideal" picture of Petersham's town center in 10 or 20 years?

An even greater portion of respondents to this question felt that they would like things in the future to stay more or less as they are now. In this vein, many of the suggested improvements were things that would not markedly change the outward appearance of the town center, such as installing high-speed Internet infrastructure, expanding protections for historic resources, developing a walking tour map, and having more businesses in existing buildings. Others suggested a variety of physical improvements such as placing utility lines underground, replacing standard street lamps with historic style lighting, and making the streets more pedestrian friendly. In terms of development, suggestions included more cottage industries, an ATM, and placing the post office downtown; residents opposed strip development or chain stores. Most people would like to see the Nichewaug Inn re-used.

Question 4: Keeping in mind that there are many different kinds of open space, should Petersham seek to protect more open space in the future? If so, what types of open space?

Residents were divided on whether or not they would like more open space in the Town. However, much of the disagreement appeared to stem from differences in the interpretation of the term "open space"—since there was considerable agreement about the desirability of specific types of open space. Overall, there was strong support for working farms, sustainable forestry, and protected open space that continues to pay taxes, such as private land with conservation restrictions. Several residents suggested improving recreational opportunities on open lands, including both "passive" recreation (such as nature trails) and "active" recreation (such as ball fields).

May 2003 Public Meeting

After the first public meeting, the Planning Committee worked with the consultant to translate the public input from the resident survey and the first meeting into a vision statement and a goals statement to guide the preparation of the Master Plan and the Open Space and Recreation Plan. The second meeting began with a presentation of the draft vision and goals statements followed by an opportunity for feedback from participants. Everyone present agreed that the draft vision and goals statements accurately captured the Town's wishes for the future and were an appropriate platform from which to move ahead with the plans.

Next, the planning consultant gave a presentation about different ways that the Town could go about meeting its goals. Different approaches or "alternative scenarios" were presented for four different topics: Rural Roadsides, Conservation Zoning, Affordable Housing, and Economic Development/Tax Base. For each topic, a "no action" scenario was presented along with either two or three scenarios that consisted of various actions that the Town could undertake, such as zoning changes. Following the presentation, the 55-60 people present at the meeting were divided into smaller groups to discuss those topics in which they were most interested. Planning Committee members moderated the breakout groups and noted down feedback from the participants.

For all four topics, the participants agreed almost unanimously that the "no action" scenario was unacceptable and that the Town must take steps to guide its future more pro-actively. There was

considerable support for each of the other scenarios, though some residents raised questions or concerns about each one. In general, residents voiced the following opinions:

- The Town should adopt additional regulatory tools to help protect the scenic character of the Town's rural roadsides.
- Developers should be encouraged or required to develop in a way that protects open space, natural resources, and scenic resources—rather than “cookie cutter” frontage development and subdivisions.
- The Town should take steps to ensure that there is housing in Petersham that is suitable for senior citizens, young adults, and other local residents, and that at least a portion of the Town's housing stock remains affordable.
- The Town should encourage businesses that fit in with Petersham's rural character and can provide jobs and tax revenue. Natural resource based businesses such as specialty agriculture, forest products, and ecotourism were seen as especially appropriate for Petersham.

See **Appendix B** for additional information about the alternative scenarios that were presented and the feedback received at the meeting.

August 2003 Public Meeting

The third meeting began with a history of the planning process that included an explanation of the Town's reasons for developing a new Master Plan and Open Space Plan. Next, a planner from Daylor consulting reviewed the purpose of each plan as well as Petersham's Vision for the Future, which had been established at a previous public meeting. Next, the planning consultant reviewed draft goals, objectives, and strategies established for the Master Plan and Open Space Plan; information was presented for six topic areas: Land Use, Housing, Economic Development, Public Facilities & Services, Transportation, and Open Space, Natural Resources, & Historic Resources. Following the presentation, meeting participants were divided into smaller groups to discuss each of the topic areas and provide feedback as to the utility of each strategy presented. Planning Committee members moderated the breakout groups and noted down feedback from the participants. In addition, a formal feedback survey was distributed at the meeting and participants were asked to rank their preferred strategies for each topic area discussed.

See **Appendix B** for the tabulated results of the feedback form distributed at the public meeting.

D. PETERSHAM'S VISION FOR THE FUTURE

The Vision and Goals statements are the framework upon which the rest of the Master Plan is developed. The **Vision Statement** is a broad set of themes identifying what type of community Petersham would like to be in the future. This statement is intended to be general, and to capture the overall consensus of the majority of Petersham's residents as expressed in the resident survey and at the public meetings.

Petersham's Vision for the Future

Twenty years from now, Petersham will look much as it does today. We know that new development will occur, but will seek to harmonize it with the Town's character and environment through careful design. We would like to promote the Town's "working landscape" of forests and farms, and to protect and creatively re-use historic buildings and sites.

The town center should remain a small but friendly gathering place. This should be an area of mainly residences and civic institutions, with a few small businesses catering to townspeople and visitors.

Petersham's residents help make the Town what it is. Through the choices we make about housing and public services, we will strive to keep Petersham a town that is welcoming to people of different ages, income levels, and cultural backgrounds. We value our friendly, tight-knit community and participatory government, and will work to maintain both, even as the Town's population grows in the future.

We know that challenges lie ahead, and will work cooperatively to address them. Fair but effective planning tools will help prepare us to handle future growth pressures. We would also like to upgrade many of the Town's public facilities, but in a cost-effective manner that minimizes the tax burden to the Town's residents.

While adapting to change, we will not forget what it is that makes Petersham special. We like our town without strip malls, tacky signs, endless subdivisions, and wide roads—and will make sure that it stays that way. Twenty years from now, Petersham will still be a unique and beautiful place in which to live.

E. MASTER PLAN GOALS

The **Master Plan Goals** encapsulate all of the public feedback summarized above into a concise statement of how Petersham would like to grow, change, and/or remain the same in the future. The goals provide the basis for developing the Master Plan strategies and implementation plan. As the Master Plan is implemented in upcoming years, the goals will provide a "yardstick" to measure whether the Town is pursuing policies that are consistent with its residents' desires. A separate but related goals statement was developed for the Open Space and Recreation Plan, and is also presented below. This goals statement is entirely consistent with the Master Plan goals statement, but emphasizes different themes.

Land Use & Growth Management Goals

- Preserve the Town's historic rural landscape, including its forests and open fields, scenic roadsides, and sparsely populated feel.
- Limit the amount and rate of new development that can occur in the Town.
- Maintain the existing character of the town center.
- Direct development away from environmentally sensitive areas.

- Require new development to be designed in a manner that is environmentally and aesthetically compatible with its surroundings.
- Encourage an appropriate mix of residential, low-impact commercial, and open space land uses.
- Manage growth in a way that respects the rights and needs of local property owners.
- Encourage sustainable living through sensitive land use practices, water and energy conservation, local food production, and other measures.

Housing Goals

- Encourage housing types that meet the needs of Petersham's demographic and socio-economic mix and are appropriate to the Town's rural setting.
- Promote housing affordability so that a wide variety of households can continue to afford to live in Petersham.
- Identify and encourage housing types that will meet the needs of Petersham's elderly population.
- Adopt and enforce residential development standards that ensure high-quality, environmentally compatible development.

Economic Development Goals

- Encourage dispersed, low impact economic development including home occupations, cottage industries, resource-based industries, tourism, and other small-scale commercial and light industrial land uses.
- Increase the share of the tax base comprised of non-residential land uses.
- Ensure that business activities in Town are environmentally and aesthetically compatible with their surroundings.
- Exclude businesses that generate significant pollution, traffic, or other negative impacts.
- Encourage locally-owned businesses with a distinctive flavor rather than chain businesses of generic design.
- Promote resource-based businesses including agriculture, logging, and the production of non-timber forest products.
- Attract additional tourists and small-scale tourist businesses to Petersham.
- Promote the redevelopment of the Nichewaug Inn with viable residential, commercial, and/or public land uses.

Public Facilities and Services Goals

- Maintain Petersham's commitment to providing superior education for its children.
- Maintain Petersham's safe living environment through effective police, fire, medical, and emergency services.

- Improve the Town’s facilities in areas where they are now inadequate, such as the Town Office Building.
- Develop a long-term solution for water supply and wastewater management in the town center.
- Provide public services and general governance in a cost-effective manner.
- Ensure that the Town has sufficient staff to operate effectively.
- Develop a coordinated process for long-term capital expenditure planning and budgeting.

Transportation Goals

- Protect the rural, scenic, and historic character of Petersham’s roads.
- Maintain and improve the pedestrian friendliness of the town center.
- If new roads are built in the future, ensure that their design is compatible with existing Town ways. Similarly, ensure that future road work on the state highways is compatible with the Town’s character.
- When roads are repaved or reconstructed, add bicycle accommodations if appropriate.
- Link and map the Town’s off-road pedestrian and bicycle routes to provide a viable alternative to on-road travel.

Open Space and Recreation Goals (Part of the Open Space and Recreation Plan)

- Protect a significant portion of Petersham’s remaining unprotected open space in order to preserve the Town’s rural character, protect its natural resources, and minimize development in inappropriate areas.
- Maintain and expand the Town’s “working landscape” of farming and forestry operations.
- Ensure that large portions of the Town’s open space remain open to the public.
- Provide adequate access to active recreation facilities for field sports, court sports, and swimming.

Natural and Historic Resource Goals (Part of the Open Space and Recreation Plan)

- Protect the Town’s surface water, ground water, and wetland resources.
- Minimize the destruction and fragmentation of natural ecosystems through carefully targeted open space protection and ecologically-based land development regulations.
- Manage the Town’s open space to achieve an optimal balance between habitat and water resource conservation values and various recreational and revenue-generating uses.
- Protect historic buildings and landscape features from destruction or inappropriate alteration, and encourage the adaptive reuse of historic buildings.

CHAPTER 4: LAND USE AND GROWTH MANAGEMENT

A. EXISTING CONDITIONS

Land use refers to the pattern of residential, commercial, industrial, and public development, as well as agriculture, forest and other undeveloped lands in a community. Land use forms the basis for comprehensive planning and determines, to a large extent, the need for transportation infrastructure, public facilities, and environmental protection measures. This section provides an overview of Petersham's existing land use, as well as an assessment of how land use is likely to change in the future under the Town's current zoning.

Summary of Existing Land Use in Petersham	
Strengths	Concerns
<ul style="list-style-type: none">• With more than 95% of its land area devoted to forest, wetlands, or agriculture, Petersham is a beautiful rural town.• Petersham has an attractive town center, with historic buildings clustered around the town common.• The zoning bylaw generally limits allowed uses to those that would be compatible with the Town's rural environment.• The Town has adopted several tools to manage growth and protect town character, such as a scenic roads provision and rate of development bylaw.• More than half of the Town's land area is protected open space.	<ul style="list-style-type: none">• Regional growth trends indicate increasing pressure for residential development in the Petersham area.• The Town has more than 11,700 acres of buildable land that could accommodate more than 7,100 new homes and more than 19,000 new residents if fully developed.• With more than 95% of the Town's developed land devoted to housing, there is very little non-residential tax base in the Town.

Existing Land Use

Petersham's land use in 1999 is shown in **Figure 4-1** and **Table 4-1**. The information listed in **Table 4-1** was compiled using MassGIS¹ data created by interpreting aerial photographs. The following land use patterns and trends are noticeable in Petersham:

Developed Land Uses

Developed land consists of land occupied by residential, commercial, industrial, and public/institutional land uses. In 1971, approximately 514 acres was devoted to residential, commercial, and industrial uses. By 1999, the amount of land devoted to these uses increased to 736 acres, an increase of 43%. Although this is still a small amount of developed land relative to the size of the Town (slightly more than 2% of the total land area), the amount of developed land in the Town has grown much faster than the Town's population or business base. In 1999, residential development accounted for more than 95% of the Town's non-public development. Almost all of this was low-density residential development, meaning

¹ Massachusetts Geographic Information System (MassGIS) is the state agency charged with creating, collecting, and distributing geographic information for Massachusetts.

houses situated on lots larger than half an acre.² As shown in **Figure 4-1**, residential development is most concentrated in the town center, but also extends out along roads such as North Main Street, West Street, East Street, South Street, and Hardwick Road. Away from these larger state and town roads, residential development is quite sparse, but there is enough of it to fragment many of the Town's otherwise uninterrupted blocks of forest.

Table 4-1
Land Use in Petersham, 1971, 1985, and 1999

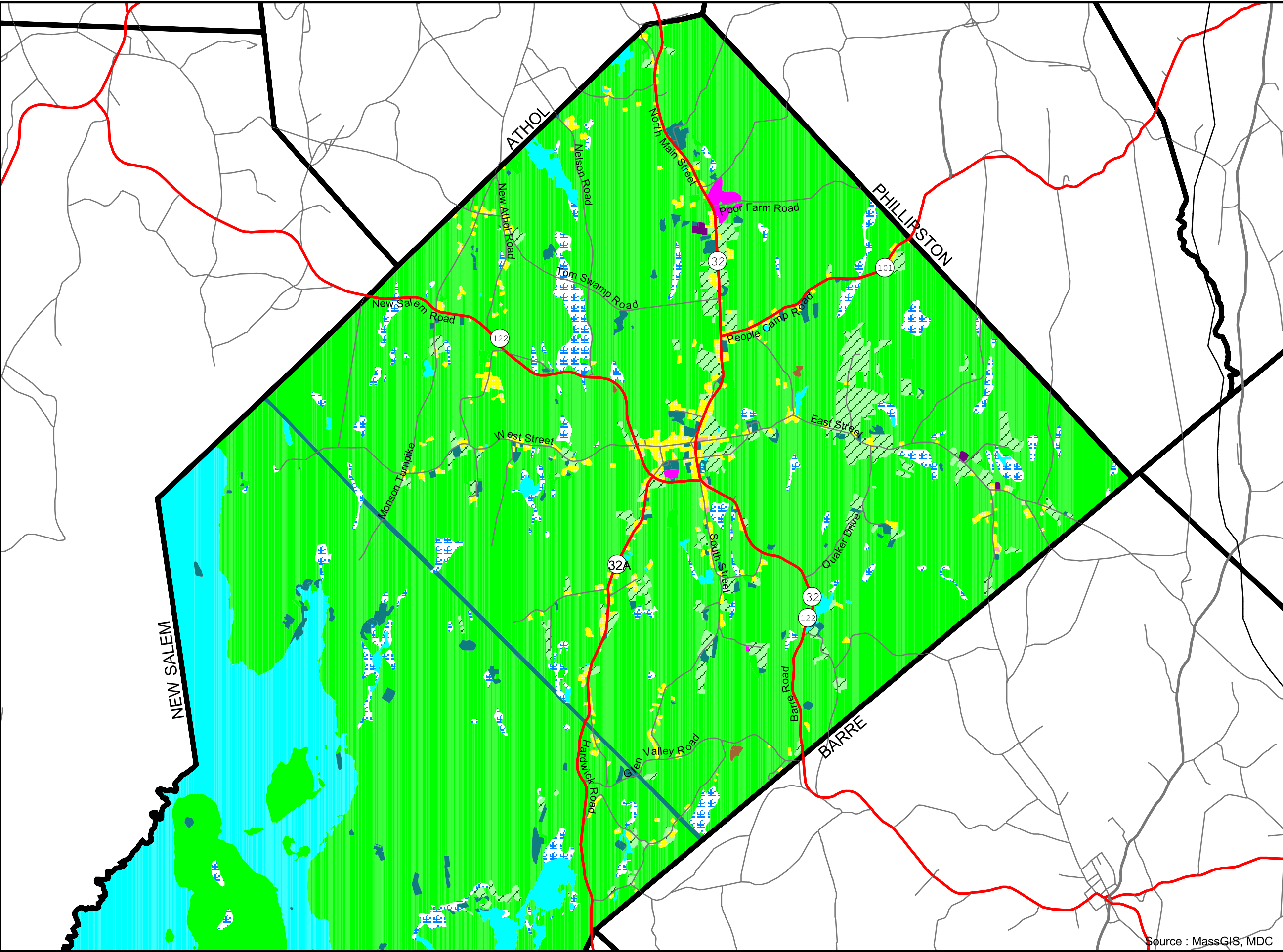
Land Use Category	1971 Acres	1985 Acres	-----1999-----		
			Acres	% of Total Town Area	% of Total Land Area
Cropland	539.6	531.3	521.8	1.2	1.5
Pasture	494.0	549.1	520.8	1.2	1.5
Woody Perennial (<i>orchards & nurseries</i>)	5.9	5.9	10.0	0.02	0.03
Forest	31,673.4	31,344.5	31,110.2	71.3	89.3
Wetland (<i>non-forested only</i>)	920.5	1,009.5	1,149.2	2.6	3.3
Mining (<i>sand, gravel & rock</i>)	5.3	5.3	7.9	0.02	0.02
Open Land (<i>abandoned fields, power lines</i>)	421.1	518.5	629.0	1.4	1.8
Active Recreation	55.3	55.3	56.4	0.13	0.16
Water-Based Recreation	3.3	10.4	5.2	0.01	0.01
Higher Density Residential (<i>less than ¼ acre lots</i>)	0.0	1.1	1.1	0.003	0.003
Low Density Residential (<i>larger than ½ acre lots</i>)	503.6	568.6	707.0	1.6	2.0
Commercial	7.0	10.2	11.7	0.03	0.03
Industrial	2.9	2.9	17.2	0.04	0.05
“Urban” Open (<i>parks, public facilities, cemeteries</i>)	72.3	75.1	71.0	0.16	0.2
Waste Disposal	5.8	7.3	5.8	0.01	0.02
Water	8,947.9	8,962.9	8,833.5	20.2	--
Total	43,657.9	43,657.9657.9	43,657.8	100.0%	100.0%

Source: MassGIS.

Undeveloped Land Uses

- **Agriculture:** Lands dedicated to agricultural uses (cropland and pasture) have remained remarkably consistent since 1971: agricultural lands comprised 3.0% of the Town's land area in both 1971 and 1999. However, the amount of open land (which includes abandoned fields) increased by more than 200 acres during these three decades, which suggests that there has been some turnover of agricultural lands, with some farms being abandoned while others were put into production.

² In the case of houses situated on large lots (e.g., 2, 5, 10, or even 50 acres), the land use data layer only counts as “residential” that portion of the lot that is actually developed with the house, lawn, and accessory structures. The remainder of the parcel is classified according to the actual land use—which could be forest, cropland, wetland, etc.



- Legend**
- Agriculture
 - Forest
 - Unforested Wetlands
 - Recreation
 - Low Density Residential
 - Commercial
 - Industrial
 - Open and Urban Open
 - Transportation
 - Others
 - Water

Scale: 1" = 5000 ft.
3000 0 3000 Feet

Drawing Title

**Land Use
(1999)**

Project Title

**Petersham
Master Plan**

**Daylor
Consulting
Group
Inc.**

Ten Forbes Road
Braintree, MA 02184

(781) 849-7070
(781) 849-0096 (fax)
www.daylor.com

Created by:
J.C.
Creation Date:
Feb. 4, 2003

**Figure
4-1**

- **Forest:** The amount of forest in Petersham has steadily declined during the past 30 years, dropping by about 560 acres. Still, this land use accounts for more than 89% of the Town's land area.
- **Wetlands and Water:** The "wetlands" figure refers to unforested wetlands only; forested wetlands are included within the "forest" land use category. Interestingly, the amount of wetlands increased by more than 200 acres from 1971 to 1999, while the amount of water dropped by 114 acres. This change could reflect the natural succession of small ponds into boggy areas as they are filled in with organic matter, or it could simply be an artifact of different interpretations of the aerial photos on which the land use layer is based. In any case, there has been a net increase in the amount of wetlands, above and beyond those areas that may have been formerly classified as "water."

Existing Land Use Laws

Zoning and other land use laws represent a community's "blueprint" for its future. Over time, as development occurs, the Town can expect that actual land uses will continue to look more and more like the zoning map. Petersham has only one zoning district: the Residential-Agricultural district (see **Figure 4-2**). **Tables 4-2** and **4-3** summarize the use and dimensional requirements in this district. Other local bylaws and policies that influence land use and development in Petersham include various zoning provisions, other town bylaws and policies, and Petersham's Subdivision Rules and Regulations. These policies and regulations are all summarized below.

Any use that is not specified in the Zoning By-Laws as either permitted or conditional is not allowed in Petersham. In addition, several uses are expressly prohibited in the Town. These include the operation of more than one conditional use on a single lot, except where the Zoning Board of Appeals finds these uses to be complementary; any business that may be detrimental to the neighborhood because of odor, fumes, dust, noise, vibration, excessive traffic, or similar nuisances; drive-in movie theaters; race tracks; commercial transmitting towers (except for telecommunications towers); and radioactive waste storage or disposal.

Table 4-2
Allowed and Conditional Land Uses in Petersham

Allowed Uses	Conditional Uses (allowed by special permit from the ZBA)
<ul style="list-style-type: none"> • One-family dwelling • Two-family dwelling • Farm, orchard, greenhouse, etc. • Roadside stand for farm products^(a) • Government, educational, or religious use • Home occupations as an accessory use^(b) • Renting rooms to lodgers/tourists (up to 4 rooms) • Removal of soil, loam, sand, gravel (see discussion of Earth Removal Bylaw, below) • Accessory building or structure on the same lot as a permitted principal use 	<ul style="list-style-type: none"> • Professional office (doctor, lawyer, architect, etc.) • Accessory use related to scientific research/development • Communication or utility facility; bus station • Commercial outdoor recreation^(c) • Sanatorium, hospital, or nursing/retirement home • Kennel or veterinary hospital • Private school, trade or professional school • Private non-profit club • Conversion of an existing dwelling into up to 4 units^(d) • Multi-family dwelling (up to 6 units)^(d) • Restaurant or retail activity on residential site^(e) • Hunting or fishing on tracts of at least 50 acres • Sawmill operations • Retail store, consumer service, bank, or business office in a building up to 2,500 sq. ft. • Restaurant up to 2,500 sq. ft., excluding bar or night club • Motor vehicle, motor home, or trailer sales and service • Newspaper or job printer • Light manufacturing/processing up to 5,000 sq. ft. in size • Research laboratory up to 5,000 sq. ft. in size • Conference center in a pre-existing large structure^(f) • Inn or health education center in pre-existing structure • Accessory use customarily incidental to a permitted use

Source: General By-Laws of the Town of Petersham, as amended, 2002, Article XVI, Zoning By-Laws. Notes:

(a) A “substantial portion” of the products sold at the roadside stand must have been raised on the premises.

(b) Home occupations are small at-home businesses such as small manufacture (e.g., dressmaking, baking, woodworking), services (e.g., barber, beauty shop, professional office or studio), repair (e.g., appliances), or staging area for a tradesperson (e.g., carpenter, electrician, painter). Home occupations are allowed in Petersham subject to several restrictions. First, the home occupation must be used by a resident occupant of the structure and incidental or accessory to the residential use. Second, the home occupation may not change the exterior appearance of the dwelling or provide any outward indication of non-residential activity other than a permitted sign. Third, no more than one-third of the floor area may be devoted to the home occupation.

(c) Includes golf course or driving range, riding stable, outdoor tennis court, outdoor skating rink, outdoor swimming pool, ski area, or summer camp where users are admitted upon payment of a fee or annual dues.

(d) Must meet all lot size, setback, and parking requirements. Required lot area is 1.5 acres for the first two units plus 0.5 acres for each additional unit.

(e) This is an extension of the allowed forms of home occupations. The business must not change the exterior appearance of the building.

(f) Only allowed in structures containing at least 60,000 sq. ft. of floor space and existing as of June 1, 1988. This provision appears to apply specifically to the Nichewaug Inn.

Table 4-3
Dimensional Requirements in Petersham

Dimension	Requirement for Residential Use	Requirement for Business Use	Requirement for Rear Lots
Minimum Lot Area	1.5 acres	1.5 acres	1.5 acres plus access strip
Minimum Lot Frontage on a Street	150 ft.	150 ft.	40 ft. on street; 150 ft. at front of house
Minimum Front Setback	40 ft.	50 ft.	40 ft.
Minimum Rear Setback	40 ft.	50 ft.	40 ft.
Minimum Side Setback	20 ft.	50 ft.	20 ft.
Maximum Height	2½ stories or 35 ft.	2½ stories or 35 ft.	2½ stories or 35 ft.
Maximum Building Coverage	20%	20%	20%

Source: General By-Laws of the Town of Petersham, as amended, 2002, Article XVI, Zoning By-Laws.

Other Zoning Provisions

Townwide Rate of Development Bylaw

The Town enacted this bylaw in June 2002 to limit the rate of residential growth for a period of seven years, from 2003-2009, while the Town planned for future growth. The bylaw limits the number of building permits for new residences that may be issued each year in Petersham to six, which is generally consistent with the average growth rate in the Town from 1992-2001. The bylaw spells out the procedures by which the Building Inspector shall issue the six permits each year in order to ensure a fair process. The bylaw does not restrict the granting of building permits to enlarge, restore, or reconstruct dwellings that were in existence when the bylaw passed. In addition, an October 2002 amendment to the bylaw exempts the construction of a new dwelling on the handful of lots existing of record as of January 1, 2003 for which the Board of Health had approved the construction of a septic system and issued a well permit as of January 1, 2003.

Telecommunications and Cellular Towers Bylaw

This bylaw (Section 5D of the Zoning By-Laws) establishes guidelines for the siting of telecommunication towers in Petersham. Pursuant to federal laws, cities and towns cannot prohibit these facilities from locating within their boundaries, but may specify policies and procedures for their siting. In Petersham, towers are allowed townwide, but in all cases require the issuance of a special permit from the Zoning Board of Appeals. In addition, there are several siting provisions that encourage co-location of telecommunications facilities and siting of facilities in church steeples, and require various setbacks. Towers in Petersham may not exceed 90 feet in height. The application procedure for the special permit involves the preparation of studies to assess site conditions, economic and technical rationale for a tower at the proposed location, and the specifics of the proposed tower. In addition, a balloon test must be conducted to help the Town to assess the visual impact of the proposed tower.

Earth Removal/Sand and Gravel Extraction Bylaw

This bylaw (Section 5E of the Zoning By-Laws) regulates the mining, quarrying, and commercial extraction of rock, sand, gravel, loam, earth, clay, and similar materials, and their subsequent storage, distribution, and sale. Any such activity requires a special permit from the Zoning Board of Appeals

unless it is incidental to a permitted construction project such as utility or septic tank installation, road construction, or building construction. Earth removal special permits are valid for two years but may be renewed if the applicant is in compliance with the terms of the special permit. In order to obtain an earth removal special permit, the applicant must submit a site plan, details of the proposed earth removal operation, and proposed methods for minimizing and mitigating environmental impacts of the operation. The bylaw also specifies several requirements for earth removal operations, many of which are intended to protect the environment. For example, erosion control and site stabilization measures are required, a site restoration and landscaping plan must be developed, and excavation may not come within four feet of the maximum high groundwater elevation. In addition, earth removal may not occur within 300 feet of any street or 600 feet of any occupied dwelling.

Signs Bylaw

The appearance and type of signs in a community can contribute greatly (either positively or negatively) to that community's character. Petersham's Signs By-Law (Section 6 of the Zoning By-Laws) regulates the placement, size, and appearance of signs in the Town. Residential uses and uses allowed by right are permitted one sign per family or permitted accessory use, with each sign up to 2½ square feet in area. Institutional uses may place one or more signs with a total area of up to 20 sq. ft. Commercial uses authorized by special permit are allowed up to two signs totaling no more than 20 sq. ft. if the use is located on a non-scenic road and no more than six sq. ft. if the use is located on a scenic road. The bylaw also prohibits any internally lighted, flashing, or neon signs; signs that project above the roof line or wall where they are located; signs or advertising devices located more than ten feet off the ground; or any billboards or off-site signs except for small directional signs or temporary signs advertising local events.

Parking Requirements

In suburban and rural areas that are dependent on private automobiles for transportation, parking can be a significant use of land on developed sites. Section 7 of Petersham's Zoning By-Laws specifies parking requirements in the Town. For residential development, the Town requires two spaces per dwelling unit, or 0.5 spaces per bed in a dormitory or similar facility. For business and commercial uses, an area equal to twice the floor area of the structure must be provided for parking. Assuming that a typical parking space consumes 350 sq. ft. of land (an average figure, including parking aisles), this equates to about 5.7 spaces per 1,000 sq. ft. of development. This ratio is somewhat higher than typical rates for suburban and rural areas of 3.5 to 5 spaces per 1,000 sq. ft. Aside from a screening requirement for parking areas that abut residential uses, the parking bylaw does not require any landscaping in parking lots.

Other Town Bylaws

Trailers or Mobile Homes

In the of spring 2003, Petersham Town Meeting voted to prohibit trailers and mobile homes in the Town, except on a temporary basis in certain limited situations. The Town has a few pre-existing mobile homes, which will be allowed to remain indefinitely as nonconforming uses.

Board of Health

The Board of Health is charged with regulating the placement of private wells and septic systems in Petersham, among other duties. As such, the Board enforces the provisions of Title 5 of the State Environmental Code, which specifies, among other requirements, the minimum setbacks, soil percolation rates, separation distance from groundwater, and construction standards for septic systems. For example, septic tanks must be located at least 25 feet from surface waters and wetlands, and at least 50 feet from

certified vernal pools. Soil adsorption systems (i.e., leaching fields) must be set back at least 50 feet from surface waters and wetlands, and at least 100 feet from certified vernal pools. The Board of Health Regulations (Article XIV of the Town By-Laws) add three additional standards to those of Title 5. First, wells must be located at least 10 feet from any property boundary, or at least 20 feet if located along a public road. Second, no seepage pit, cesspool, or privy may be located within 50 feet of a property line, watercourse, or wetland. Finally, new building sites must be situated and graded so as to avoid any detriment to other property from surface or subsurface runoff.

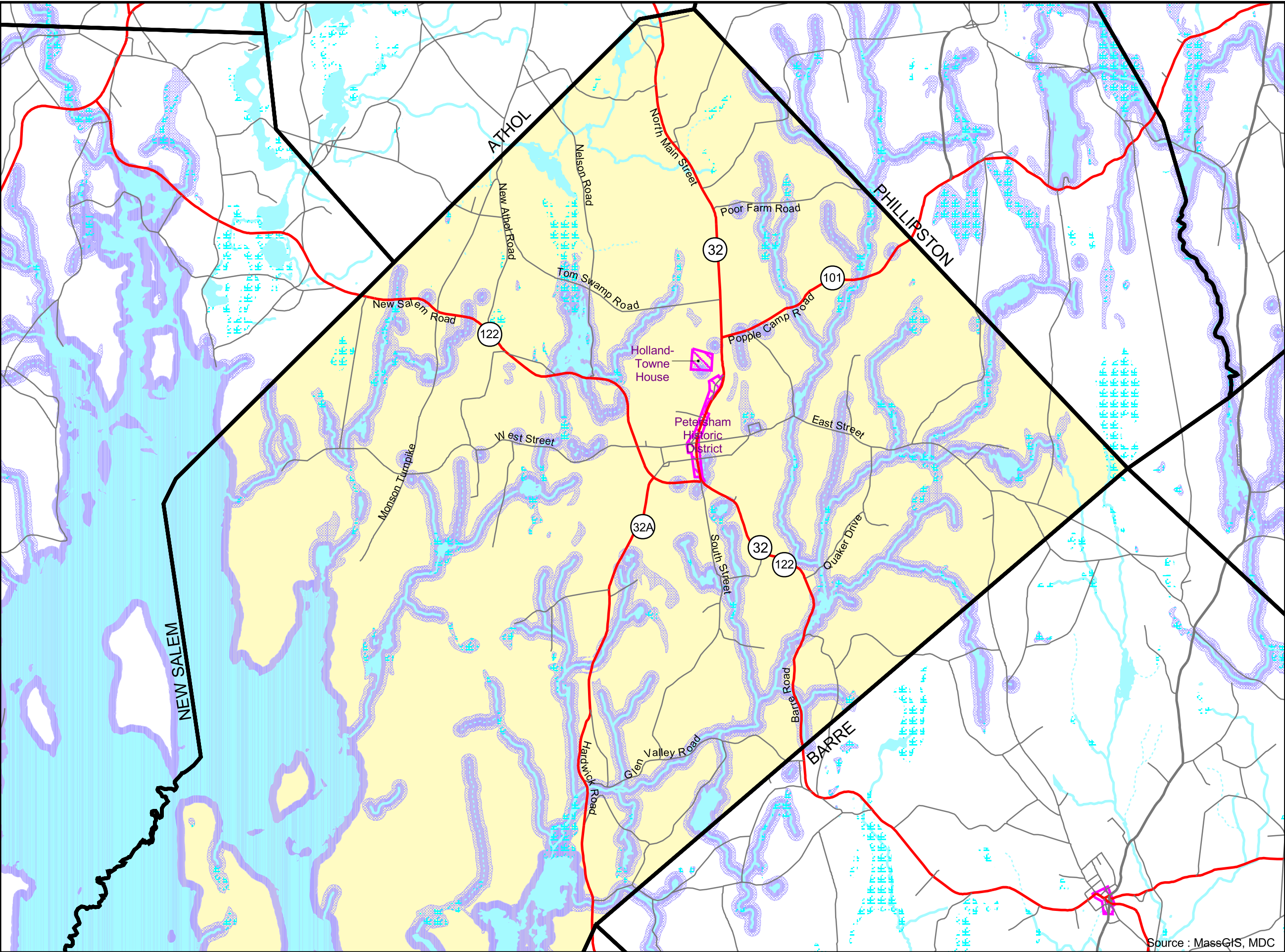
Historic District Commission

In 1967, Petersham established a local Historic District in its town center (see the delineation on **Figure 4-2**) as well as a Historic District Commission to administer architectural review within the district. The Commission consists of seven members appointed by the Board of Selectmen, including an architect, a nominee of the Petersham Historical Society, a Historic District resident, a person employed in the building trades, and a Planning Board nominee. The Historic District Commission Bylaw (Article XII of the Town By-Laws) requires that any building or structure proposed in the Historic District undergo architectural review and approval unless it will not be visible from any public street. Demolition of any structure within the Historic District that is visible from a public way also requires a permit from the Commission. The Commission's review of structures in the Historic District is limited to certain exterior architectural features. For example, the Commission has no authority over the color of paint used on structures; the construction or installation of walls, fences, storm doors and windows, lighting fixtures, and other appurtenances; temporary signs, real estate signs, or occupational signs; or the reconstruction of a structure destroyed by a natural disaster, as long as it maintains a similar design and is rebuilt within a year.

Petersham Subdivision Rules and Regulations

Petersham's Rules and Regulations Governing the Subdivision of Land regulate the creation of new lots and private roads within the Town. The Rules and Regulations, which are administered by the Planning Board, include separate provisions for each of the two major types of land development in Massachusetts. **Approval Not Required Development** (otherwise known as ANR or Form A development) refers to the creation of lots that comply in all respects with the Town's Zoning By-Law and have the required amount of frontage along a public way. Assuming these criteria are met, the Planning Board must endorse the lot(s), and has essentially no review authority over their creation. The Rules and Regulations specify that, in order for a public way to be considered as providing the minimum required frontage, it must have a right-of-way that is at least 25 feet wide and a traveled surface at least 18 feet wide, with adequate sight distances and drainage. Virtually all residential development to date in Petersham has been ANR development because it is the least expensive and easiest to permit form of development available in Massachusetts.

In contrast, **Subdivision Development** involves the creation of a new roadway, which is typically done in order to provide the required frontage for additional lots. The Planning Board has considerable review authority over subdivision development pursuant to Chapter 41, Section 81 of the Massachusetts General Laws. The Rules and Regulations specify the application procedure as well as design and development standards for new subdivisions. In addition to a preliminary plan (showing existing conditions and site constraints) and definitive plan (showing the proposed subdivision layout), the applicant must submit street layouts, a grading plan, an erosion and sedimentation control plan, and an environmental impact



Legend

Zoning

- Residential - Agricultural

Historic Districts

- Historic Districts

Watershed Protection Act

- Primary Zone
- Secondary Zone

Scale: 1" = 5,000'

0 0.5 1 Miles

Drawing Title

Zoning and Regulated Areas

Project Title

Petersham Master Plan

Daylor Consulting Group Inc.

Ten Forbes Road
Braintree, MA 02184

(781) 849-7070
(781) 849-0096 (fax)
www.daylor.com

Created by:
J.C.

Creation Date:
Feb. 3, 2003

Figure 4-2

Source : MassGIS, MDC

statement if the Planning Board deems necessary. The following are some of the more significant design standards affecting the layout and aesthetics of new subdivision development:

- To the extent possible, the development should preserve natural features such as wooded areas, fields, stone walls, historic features, large trees, and other features that would make the subdivision more attractive.
- The minimum width for residential streets is 20 feet for a minor street, 22 feet for a subcollector street, and 26 feet for a collector street. The minimum right-of-way width for all streets is 50 feet.
- The maximum grade is 10% for minor and subcollector streets, and 8% for collector streets.
- The maximum length of a dead-end street is 500 feet.
- The Planning Board may require the developer to set aside at least one acre of parkland for each ten single-family dwelling units, for a period of three years. After the three years have elapsed, the land may be used to build additional house(s) if it was not purchased or protected in the interim.
- Sidewalks are ordinarily required on one side of the street.
- All utilities must be placed underground.

Scenic Roads Provision

Many of Petersham's roads are meandering rural roads with stone walls, large shade trees, tight curves, and limited visibility. Projects to alter these roads—whether routine maintenance, installing a new driveway, or reconstructing a section of the road to improve safety—can significantly affect their character by removing these defining features. Petersham's Rules and Regulations Governing Scenic Roads (which is a Planning Board regulation) provides a process for reviewing work proposed within the right-of-way of any designated Scenic Road in the Town.³ Certain small projects undertaken by or with the support of the Highway Department are exempted from Scenic Roads review, such as cutting of small trees to maintain safety along roads. For any project proposed within the right-of-way of a designated Scenic Road that is not exempted, a Planning Board public hearing and written approval are required before the project may proceed. Projects subject to such review must comply with several design standards intended to minimize their visual impact, such as retaining mature vegetation on both sides of the road, limiting access to one driveway per lot, and limiting the alteration of stone walls for new driveways. The purpose of this review is to avoid unnecessary destruction or alteration of character-defining features of the scenic road. Virtually all roads in Petersham other than numbered highways have been designated as Scenic Roads. A full list is contained within the Rules and Regulations Governing Scenic Roads.

Growth Trends and Buildout Analysis

As shown in **Table 2-1**, Petersham has grown at a modest rate over the past 50 years. Between 1950 and 2000, the Town grew at an average rate of just under 8% per decade, though some decades were considerably higher and others were much lower. Overall, the Town added 366 new people over the past

³ This form of protection for scenic roads is authorized under Massachusetts General Laws, Chapter 40, Section 15C. This section of the General Laws specifies that numbered highways cannot be designated as Scenic Roads.

half-century, or about seven persons per year. While this growth rate may seem trivial, especially in relation to other Massachusetts communities, it tells only part of the story. Two other factors are critical to understanding growth trends in the community. First, recent development in Petersham may be having an impact that is out of proportion to the relatively modest increase in population. The reason for this is that the number of households—and thus new homes—has been growing much faster than the population, at least since 1990. In addition, most new homes are being situated directly on the Town’s scenic rural roads, with many of them quite visible from the road. This trend, which is common throughout Massachusetts, tends to change the character of a community from rural to suburban well before typical suburban population densities are reached.

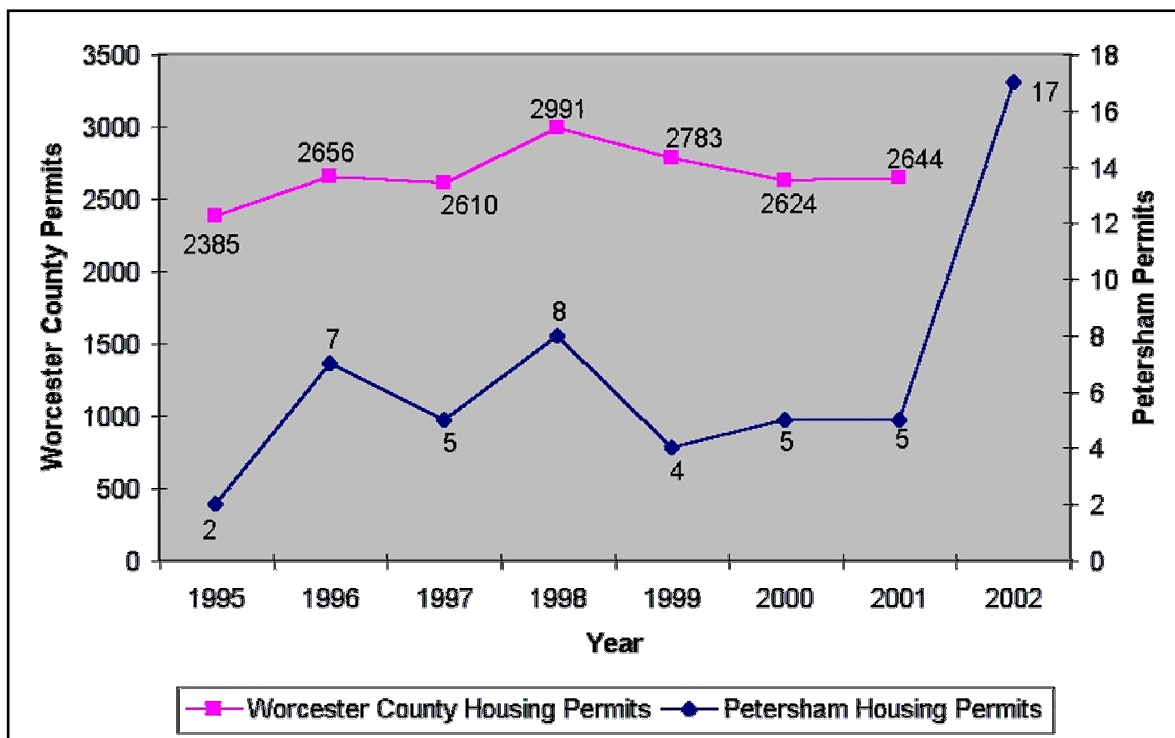
The second important factor to consider is the potential for future growth in Petersham. Over the past few decades, regional development patterns have been creating an ever-widening arc of suburban and exurban bedroom communities around Boston, Worcester, and the Springfield/Northampton area. This trend accelerated in the 1990s, driven by three trends that show no sign of abating in the near future:

- a) the availability of employment opportunities (especially skilled jobs in the knowledge-based economy) outside of urban downtowns—for example, along Interstate 495 and at Devens;
- b) the lower cost of housing in exurban communities relative to housing costs in metro Boston, which are simply unaffordable for many families; and
- c) the perception of a higher quality of life in suburban and exurban communities, characterized by greater natural beauty, better schools, better access to the outdoors and recreational amenities, and less traffic congestion.

A review of the growth rates of nearby communities (**Table 2-2**) indicates that many towns that are just slightly closer to Boston and Worcester than Petersham have been growing much more rapidly, which suggests that growth pressures are on the rise in Petersham. This trend is supported by the recent spike in the number of building permits issued—from approximately five per year from 1995 through 2001 to 17 in 2002 alone (see **Figure 4-3**).⁴ In addition, in the past development in Petersham has probably been somewhat curtailed by the fact that much of the Town’s road frontage is held in large, undivided parcels whose owners have not wanted to subdivide and sell their land piecemeal. However, the Town cannot count on this trend continuing into the future, and the sale of some of these large parcels could open the door for major development opportunities.

⁴ Year 2002 building permit data were not available from MISER, so are not shown in **Figure 4-3**. The Petersham Planning Board provided building permit data for 2002. The sharp increase in building permits to 17 in 2002 is almost certainly due in part to a rush to file building permit applications just prior to the adoption of the Townwide Rate of Development Bylaw in October 2002. However, according to the Planning Board, about half of the seventeen permit applications had been filed prior to the public announcement of the proposed bylaw. This suggests a significant increase in building activity in the Town irrespective of the Rate of Development Bylaw.

Figure 4-3
Residential Growth Trends, Petersham and Worcester County, 1995-2002



Source: MISER/Mass. State Data Center, Residential Building Permits; U.S. Census Bureau; Petersham Planning Board.

Buildout Analysis

To assess the potential for new development in Petersham, the Montachusett Regional Planning Commission (MRPC) conducted a buildout analysis for the Town in 2001.⁵ As part of this Master Plan, Daylor Consulting Group refined the buildout analysis to reflect more current open space data and to exclude lands within the Cohen Act Primary Protection Zone from the buildable lands inventory. The buildout study attempts to answer the following question:

What could Petersham look like if all the Town's buildable land is developed in accordance with the current zoning?

This question is important to answer for several reasons: First, the buildout analysis determines how much of Petersham's land area is developed, how much is legally or environmentally constrained, and how much is available for new development. Second, the buildout provides a picture of where Petersham may be headed under its current regulations and can help its citizens evaluate whether this direction matches the community's vision for the future. If the buildout scenario is undesirable, modifications to current land use policies and regulations may be necessary. Finally, the buildout estimates the possible impact of new development in terms its demand on municipal services, environmental resources, and

⁵ MRPC prepared the buildout analysis with funding from the Massachusetts Executive Office of Environmental Affairs (EOEA), using a standard methodology provided by EOEA.

transportation systems. This information can help in the fiscal and physical planning of new facilities to accommodate future development.

It should be noted that the buildout analysis provides a picture of the potential fully developed state of the Town; it does not attempt to determine the rate of future development, or how quickly buildout will be reached (if at all). In the near term (through 2009), the rate of development will probably not exceed six new dwellings per year because of the Town's Rate of Development Bylaw. However, additional development could be created during the next seven years if a developer builds housing under Chapter 40B of the General Laws, the Comprehensive Permit process (see **Section 5** for further discussion of Chapter 40B). After 2009, the rate of growth will be affected by regional and national trends in the real estate market, as well as local policies that the Town implements following the adoption of this Master Plan.

The buildout analysis consisted of three steps:

STEP 1: Determine the amount of buildable land in Petersham. This number is calculated by subtracting from the Town's total land area all lands that are already developed or are unavailable for development for a variety of reasons. **Figure 4-4** shows lands in Petersham that are developed, constrained, and available for development.

Total Petersham area	43,658 acres
less water	(8,834 acres)
less developed land	(737 acres)
<u>less wetlands, Cohen Act Primary Prot. Zone, & protected open space</u>	<u>(22,360 acres)</u>
= Total developable land⁶	11,727 acres

Because Petersham has only one zoning district—the Residential-Agricultural District—all of the Town's 11,727 acres of buildable land are located within this district. This calculation assumes that Harvard Forest land will not be developed. If Harvard Forest land were made available for development (which could conceivably happen since this property does not have permanent protection), the total amount of buildable land in the Town would increase to 13,927 acres.

STEP 2: Determine the intensity of development allowed in the Residential-Agricultural District and multiply this intensity formula by the total amount of buildable land to arrive at Petersham's overall buildout potential. For these calculations, MRPC assumed that 95% of the land in the R-A District would be developed with single-family houses and 5% would be developed with two-family houses. MRPC assumed that none of the land would be used for multi-family housing or non-residential development.

11,141 acres for single-family development * 0.581 units per acre	= 6,473 units
586 acres for two-family development * 1.161 units per acre	= 681 units
Total Buildout Potential	= 7,154 units⁷

⁶ This figure includes lands that have partial constraints, such as land between 100 and 200 feet of a river (which is subject to the Rivers Protection Act), land within the 100-year floodplain, and land subject to the MA Watershed Protection Act (Cohen Act).

⁷ This number would increase to 8,496 dwellings if Harvard Forest land were included in the analysis.

STEP 3: Estimate the potential impact of the buildout on public services, environmental resources, and transportation infrastructure by using standard formulas.

Table 4-4
Potential Impacts of Buildout Development

Potential Impact Area	Multiplier	Total Impact
Developable Land	--	11,727 acres
New Residential Dwelling Units	--	7,154 units
New Commercial/Industrial Dev't	--	0 sq. ft.
New Residents	2.7 residents/dwelling	19,316
New Public School Students	0.47 students/dwelling ^(a)	3,362
Total Additional Water Demand	75 gallons/person/day	1.45 million gallons/day
Total Additional Solid Waste	7.59 pounds/dwelling/day	9,910 tons/year
<i>Additional Recyclable Solid Waste</i>	<i>2.19 pounds/dwelling/day</i>	<i>2,859 tons/year</i>
<i>Additional Non-Recyclable Solid Waste</i>	<i>5.40 pounds/dwelling/day</i>	<i>7,051 tons/year</i>
New Subdivision Roads	86 feet/dwelling	116.5 miles

Source: MRPC buildout analysis, modified by Daylor Consulting Group as described above. Daylor did not modify the buildout multipliers used by MRPC.

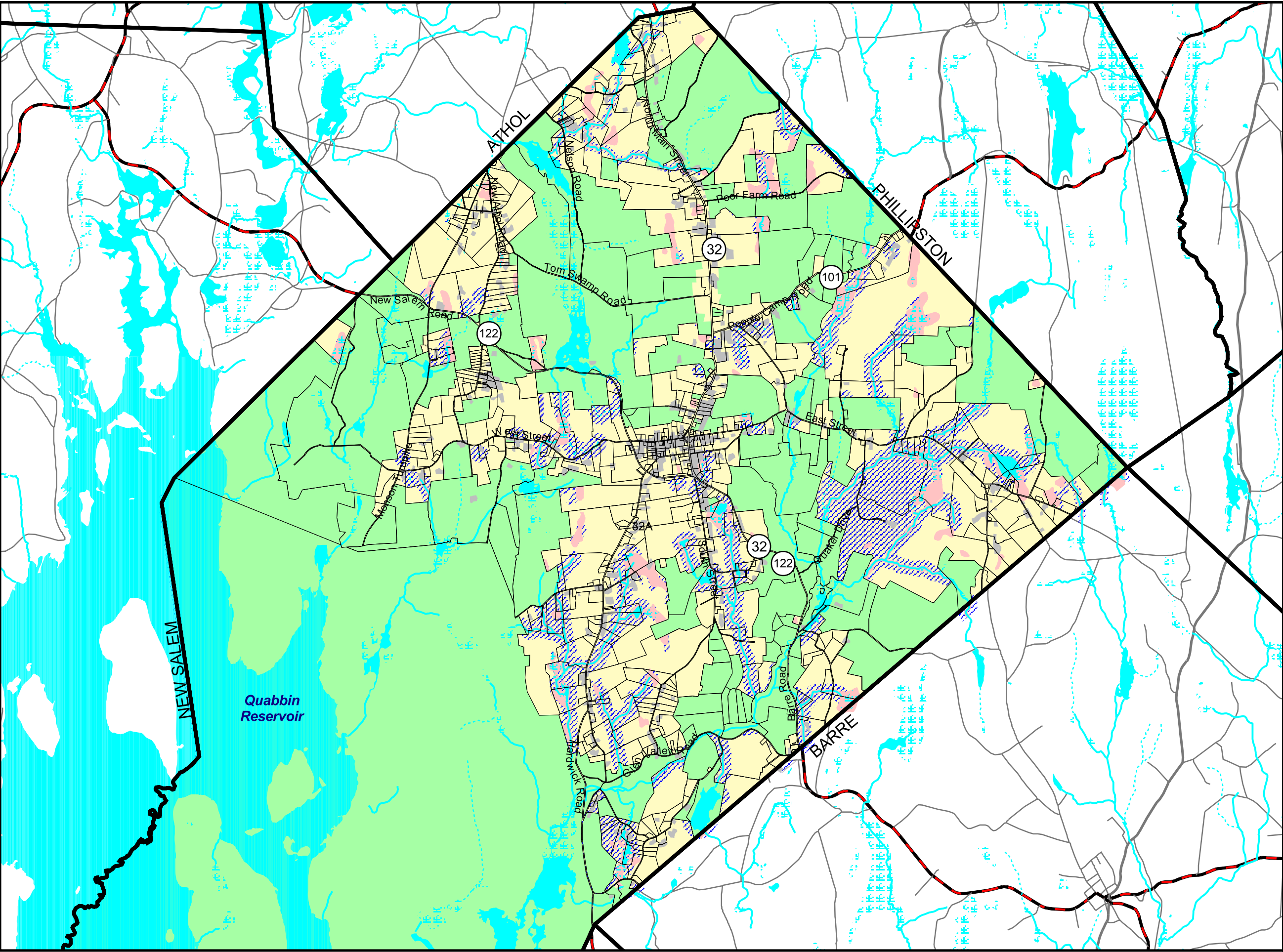
(a) The number of students at buildout is based on a student per household ratio taken from statewide demographics estimates.

Discussion of Buildout Analysis Results

The buildout analysis represents a snapshot of the potential amount of development that could occur under the zoning controls in place at the time of the study (2001). In fact, it is unlikely that the actual buildout will be exactly as predicted, for a few reasons. First, the Town can make conscious decisions that influence its buildout by changing its zoning laws, setting aside land as open space, or providing incentives to encourage certain types or patterns of development. In fact, one purpose of the Master Plan is to propose policy changes that will bring the Town's buildout scenario in line with its goals for the future. As mentioned above, other factors such as Chapter 40B (the Comprehensive Permit Law) can also alter the Town's buildout scenario.

The buildout analysis presents several challenges and implications for future planning in Petersham. Specifically:

- Full build out of the Town would result in more than 19,000 new residents, an incredible seventeen-fold increase from the 2000 population of 1,180. This growth will be accompanied by commensurate increases in the demand for water, sewage disposal, schools and other public services, and solid waste disposal. Of the potential 7,100-plus new housing units, more than 90% are expected to be single-family houses.
- About one-third of the Town's land area (about 11,700 acres) is buildable land. It is unlikely that the Town could ever protect all of this land from development. Therefore, the Town's growth management strategy needs to include not only tools for land conservation but also mechanisms to encourage any development that does occur (as it inevitably will) to be as consistent as possible with the Town's goals for environmental protection and community character.



Legend

Land NOT Available for New Development

- Protected Open Space
- Absolute Environmental Constraints (Wetlands and 100' River Protection Act buffer)
- Developed Land

Land Available for New Development

- Developable Land in Residential - Agricultural District
- Partial Environmental Constraints (Cohen Act, 100-year floodplain, and 100-200' River Protection Act buffer)

Parcel Boundaries

Wetlands

Scale: 1" = 5,000 feet
2500 0 2500 Feet

Drawing Title

Developable Land

Project Title

Petersham Master Plan

Daylor Consulting Group Inc.

Ten Forbes Road
Braintree, MA 02184

(781) 849-7070
(781) 849-0096 (fax)
www.daylor.com

Created by:
ICE
Creation Date:
April 2, 2003

Figure

4-4

The buildout analysis was prepared using a standard buildout methodology developed by the state's Executive Office of Environmental Affairs. However, determining the development capacity of a town is a somewhat inexact science, given the large number of variables involved. For example, the Cohen Act is not an *absolute* constraint to development (in the sense that certain projects such as a single-family house on a pre-existing vacant lot may be exempted from its provisions), but it may be a *partial* constraint to development in the sense that it might prevent developers from building at the maximum density allowed by zoning. In addition, soil characteristics were not considered as part of the buildout analysis. Soils can function as an impediment to new development, especially in communities that rely on septic systems for their waste disposal needs.

Previous Studies

As a small, rural town, Petersham has not been the subject of many recent planning studies.⁸ The only past study examining growth and development issues was the 1976 *Study of the Management of Change*, prepared by the Petersham Growth Policy Committee. This study began with a brief summary of past population and land use trends, highlighting the Town's burgeoning population in the 1700s, subsequent depopulation in the 1800s and early 1900s as farms were abandoned, and more recent gradual repopulation during the 20th century. A survey of commuting trends at the time of the study revealed that almost 40% of Petersham's 338 workers worked in the Town. Only 7 (2%) commuted to Boston and its suburbs, while 25 (7%) commuted to Worcester. The plurality (about 40%) worked in the Gardner-Athol-Orange corridor. A buildout study in the report estimated the potential for about 8,000 new house lots or 24,000 new residents in the Town.

The study then predicted several future trends in Petersham, including the following:

- Industry and business expansion in Town will be limited because of the lack of water and sewer infrastructure and strict pollution controls in the Quabbin watershed.
- More and more residents will commute out of town to work, attracted by good roads and better employment options in other communities.
- The tax rate will remain moderate as long as central water and sewer are not needed, part time police and fire protection are adequate, education facilities remain adequate, and other services stay at present (1976) levels.
- If there is a rapid increase in job opportunities within commuting distance of the Town, population will grow rapidly. This will result in the construction of subdivisions before the road frontage is fully built out. In addition, new public services will be needed and local property taxes may increase enough to exclude low and moderate income residents.

Many of these statements are still relevant today, and offer an interesting perspective on the issues addressed in this plan. However, the 1976 study did not include any planning goals or recommendations, so it is hard to know how public sentiment in Petersham 25 years ago compares to that of 2003.

⁸ On the other hand, Petersham's ecology and land use history have been studied extensively by researchers at Harvard Forest and elsewhere. Some of this information is included in the Open Space and Recreation Plan.

B. LAND USE PLAN

A central component of town planning is to determine the desired future use of land and intensity of development in each section of the community. This is essential because land use affects every other topic that is addressed in the Master Plan—housing supply, economic development opportunities, transportation demand, and the need for public facilities and infrastructure. This land use plan proposes several strategies to help Petersham guide and manage growth in a manner that is consistent with the Master Plan goals. As discussed earlier, the Master Plan is a policy guidance document—not a new zoning law. Therefore, all of the strategies and proposals in this land use plan (and the entire Master Plan) will be subject to further public discussion and refinement before the Town adopts them.

Determining the optimal use of land and intensity of development for each area requires weighing different community objectives voiced during the public process and trying to translate these objectives into physical planning proposals. For example, one way for Petersham to meet its goal of expanding its non-residential tax base would be to allow additional businesses to locate in Town. However, this proposal must be balanced against the competing interests of preserving the Town’s rural character and limiting the impacts of new business on the Town’s roads and natural resources. In many cases, it is possible to formulate creative policies that find common ground between potentially competing goals; in other situations, real tradeoffs must be made. By addressing these tradeoffs and complexities, the Master Plan seeks to address Petersham’s future in a comprehensive manner—not just from the perspective of one or two issues or interest groups.

Overview of the Land Use Plan

In the past, Petersham’s relatively simple zoning and land use regulations generally served the Town well. Although some growth has occurred in recent years, it has not dramatically changed the character of the Town or caused major problems associated with traffic or overcrowding. Why, then, should the Town consider changing what has worked in the past? Because, simply put, the Town is now zoned for something it does not want to become. As growth pressures increase in Petersham—as they almost certainly will—the Town’s current zoning will likely result in a landscape of roads lined with houses and driveways every 150 feet or so. Country roads and lanes may need to be paved and straightened to accommodate commuter traffic and school buses, while scenic vistas and open fields will be filled in with houses. In short, Petersham will begin to look more and more like an average suburb.

This is exactly the scenario that Petersham does not want, as its residents made clear in their survey responses and at the public meetings. Petersham residents take great pride in their town: its open lands, scenic roadsides, quaint town center, and friendly small-town atmosphere. Many residents make large sacrifices to live here—for example, paying higher property taxes or enduring a long commute. And hundreds of residents have contributed their time and ideas to this Master Plan, again underscoring how much they value their community. However, to retain those prized elements of what Petersham is now, the Town must change its zoning framework to address pressures and challenges that it has never before faced. This is not just a worthwhile thing for the Town to consider; it is a necessity if Petersham hopes to retain that which it values most. Otherwise, Town residents need only look to the sprawling roadsides and subdivisions of eastern and central Massachusetts to see what the future holds.

The process of creating planning and zoning strategies to address growth and its related challenges is known as “growth management.” Implicit in this term is the idea that Petersham is not trying to stop

growth or even discourage it in all places. That would not only be impossible, but also undesirable given that some of the Town's goals with regard to housing, economic development, and other issues depend on a certain amount new growth. Rather, it means that Petersham would like to target growth to those areas that are most able to accommodate it while at the same time minimizing the negative impacts of development on the community.

Before continuing further, it is worth stating explicitly that **in no way is this plan or any of the strategies within it an attempt to prevent landowners from using or developing their property in a reasonable and lawful way.** During the planning process, it was apparent that many landowners value their property rights and are concerned about over-regulation by the Town. Thus, the Plan seeks to uphold and in some cases even enhance private property rights while at the same time furthering the public interest of preserving Petersham's character and quality of life. In this spirit, many of the strategies proposed in this plan actually expand the range of ways that landowners may use their property, while others rely on incentives to encourage certain types of land uses and developments that promote the goals of the Master Plan.

The Land Use Plan includes five parts, which are discussed in the following sub-sections: 1) dividing the Town into three zoning districts; 2) providing several new residential development options; 3) addressing the rate and timing of new development; 4) preserving the Town's scenic roadsides and character; and 5) encouraging environmentally sensitive design and development. Although every effort was made to keep these strategies as simple as possible, overall the Town's zoning and development review framework will become more complex as a result of these changes. This complexity is essential to address the multitude of challenges that Petersham will face in the upcoming decades, but means that **the Town should seek professional assistance to help its volunteer boards review development proposals.** This can be done by hiring a professional planner (a part-time position would be adequate for the time being) and/or by including a provision in the zoning bylaw that allows the reviewing Town board to hire a professional peer reviewer (engineer, landscape architect, or lawyer) to advise the board, whose fees would be paid by the developer.

Part 1: Zoning Districts and Zoning Map

The primary purpose of a zoning map is to guide future growth by differentiating areas of a town based on their existing character, their suitability to accommodate new development, and the goals of the community. Currently Petersham has only one zoning district—the Residential-Agricultural zoning district—which is townwide in its extent. Yet, the Town's landscape varies considerably in terms of its character and development suitability, and residents also have different goals for different areas of the Town. In the past, the Town has relied heavily on the special permit mechanism to try to allow various residential and nonresidential land uses where they are “appropriate” but not where they are “inappropriate.” However, it is unwise for the Town to rely mainly on special permits to determine what may be built where, as this approach is fraught with potential for causing uncoordinated planning and development, unequal treatment of applicants, and legal difficulties.

Instead, the Town should be as clear as possible about what types of developments are allowed in each area, and under what circumstances. This approach benefits Town residents, developers, and local boards alike by providing more certainty about what may be built where and reducing the potential for arbitrary or overly subjective permitting decisions. To this end, the Town should revise its zoning map to create two new zoning districts (for a total of three). **Figure 4-5**, the Land Use Guide Plan, shows the proposed

location of these three districts: the Residential-Agricultural district plus the new Town Center district and the new Business district. The following is a summary of the each of these three districts:

Residential-Agricultural (R-A) District: This district should allow single-family and two-family houses as well as variety of rural business uses that are compatible with the rural character of the district. Most of the rural business uses in the R-A district, with the exception of home occupations and small lodging facilities, should require a special permit so that the Town will have adequate control over their design and siting. Uses that are now allowed by special permit in the R-A district that should be disallowed in the future include multi-family housing, retail and service establishments, banks, and motor vehicle sales and service. New uses that the Town should consider allowing in the district by special permit include senior housing, accessory dwelling units, ecotourist establishments, and art/craft studios. In addition, larger businesses such as research facilities, light manufacturing, offices, and conference centers should be allowed by special permit as long as they are set well back from the road, buffered from surrounding lands, and have only negligible impacts (traffic, noise, etc.). The proposed new uses in the R-A district are discussed further in the Housing and Economic Development chapters of the Master Plan.

Town Center (TC) District: The Town's current zoning bylaw does not adequately protect the historic character of the town center, which is very important to local residents. For example, under current zoning, a sawmill, used car lot, or light manufacturing facility could locate in the town center by special permit. The purpose of the proposed Town Center district is to protect this area against visually inappropriate or higher impact land uses while at the same time continuing to allow small businesses, professional offices, and other uses that are compatible with the area. The TC district could also be delineated to correspond to an expanded Petersham Historic District.⁹ This designation would provide for design review by the Historic District Commission of new development visible from public roads, which would be consistent with the intent of the TC district to ensure that the town center retains its distinctive character.

Business (B) District: One of the goals that came out of the planning process is to encourage appropriate businesses in Petersham, which will help expand the Town's nonresidential tax base and provide local jobs. On the other hand, residents have a strong desire to protect the character of the Town's rural areas. For these reasons, the Town should designate a small area of land as a place for businesses that may be desired in Town—but not just anywhere. These businesses include small and mid-sized retail and service establishments, banks, and business offices (up to 5,000 square feet); gasoline and motor vehicle service stations; and similar uses. The most appropriate section of Town for these uses is along Route 122 near the intersection with South Main Street (Route 32). This area has a relatively high traffic volume (which makes it an attractive location for businesses) and is already developed with several businesses.

Table 4-5 provides a generalized summary of the types of land uses that would be consistent with the purpose and location of each of the zoning districts. Some of these land uses are not currently included in the Town's zoning bylaw, but are suggested as a way of promoting the Town's housing, economic development, and growth management goals. Land uses that have a page number reference after them are discussed in more detail elsewhere in the Master Plan.

⁹ See **Section D7** of the Open Space and Recreation Plan for a discussion of the Petersham Historic District.

Table 4-5
Summary of Proposed Zoning Districts (Generalized)

	Existing Residential-Ag. District	-----Proposed----- Residential- Ag. District	Town Ctr. District	Business District
Available Acreage				
Total Acres in District	34,824	34,469	285	70
Desired Land Uses (Generalized) (P = permitted, SP = allowed by special permit, -- = not allowed)				
Single-family dwellings	P	P	P	P
Two-family dwellings (new or by conversion)	P	P	P	P
Single- and two-family dwellings in flexible developments (pp. 44-48)	--	SP	--	--
Conversion of existing dwelling into up to four dwellings (p. 68)	SP	SP	SP	SP
Multi-family dwelling (up to 6 units) (p. 68)	SP	--	SP	SP
Accessory dwelling unit (p. 68)	--	SP	SP	SP
Senior housing (p. 69)	--	SP	SP	SP
Nursing home, retirement home, hospital	SP	SP	SP	SP
Agriculture (including a roadside stand)	P	P	P	P
Government, educational & religious uses	P	P	P	P
Home occupation (p. 30)	P	P	P	P
Retail activity within a residence	SP	SP	SP	SP
Professional office	SP	SP	SP	P
Retail or service establishment, bank, or business office up to 2,500 sq. ft.	SP	-- ^(a)	SP	P
Restaurant up to 2,500 sq. ft.	SP	SP	SP	SP
Retail or service establishment, bank, office, or restaurant up to 5,000 sq. ft.	--	--	--	SP
Light manufacturing or research lab up to 5,000 sq. ft.	SP	SP	--	SP
Light manufacturing, research lab, business office, inn, conference center, or health spa on a site of at least 10 acres with 250% of the ordinarily required setbacks (p. 82)	--	SP	--	SP
Commercial recreation	SP	SP	SP	SP
Ecotourist establishment (p. 82)	--	SP	SP	SP
Motor vehicle service station	SP	--	--	SP
Gasoline station	--	--	--	SP
Sales of motor vehicles, motor homes, or trailers (p. 82)	SP	--	--	--
Dimensional Requirements (Approximate)				
Minimum lot size	1.5 acres	See Table 4-6	1.5 acres	1.5 acres
Minimum frontage	150 ft.	See Table 4-6	150 ft.	150 ft.
Maximum Impervious surface (p. 55)	No limit	20%	35%	50%

(a) Except when accessory or incidental to an allowed principal use.

Zoning Setbacks

As shown in **Table 4-5**, the Master Plan does not recommend changing the minimum lot size or frontage requirement in the two new zoning districts. However, the Town should consider allowing smaller setbacks in the Business district than what is now required in the R-A district (50 ft. front, side, and rear setbacks for business uses). Smaller setbacks will offer greater flexibility for siting buildings within lots that are partially constrained by the Cohen Act. In addition, it will promote a design and layout that is more pedestrian friendly and does not feel like a typical asphalt-dominated commercial strip.

Issuance of Special Permits

The Town should carefully consider which Town board(s) will be responsible for the issuance of special permits for various land uses. Currently, the Zoning Board of Appeals is responsible for the issuance of all special permits in Petersham. In many other Massachusetts towns, however, the Planning Board issues some, if not all, of the special permits. In cases where the special permit mechanism is linked to design requirements or site plan review (see page 52), the Planning Board could issue the special permit as part of a coordinated permitting and design review process. Since the Planning Board will administer site plan review, having them also issue the special permit would save the applicant the trouble of having to work with two separate boards that might not always agree with each other.

Another worthwhile change for the Town to consider is to grant special permits such that they “run with the land” rather than being issued only to the current owner, as is now the case. A special permit that runs with the land encourages the owner to invest in his or her property because there is a guarantee that the present land use will continue to be allowed, even if the property changes hands. This private investment can benefit the Town through greater tax revenue and more attractive properties.

Part 2: Residential Development Options

The most important issue facing Petersham is residential growth and the impact it will have on the Town’s environment, landscape, character, and ability to provide and fund public services. Although residents acknowledge that growth will continue to occur in Petersham, there is an almost unanimous sentiment that the current zoning framework is inadequate and will result in undesirable forms of growth. Accordingly, the Master Plan recommends an improved zoning framework for residential development, the goals of which are to protect open space and natural resources, protect the Town’s rural character, allow for different types of housing that serve local needs, and uphold private property rights by offering landowners a range of feasible options for using and developing their land.

These goals can be achieved by adopting a flexible incentive-based zoning program that allows for greater development density and/or lower infrastructure costs for more desirable forms of development, while still allowing conventional development at a lower density. Instead of a single minimum lot size for the Town (currently 1.5 acres), several different options for residential development should be offered in the Residential-Agricultural District. (These changes are not proposed for the Town Center District or the Business District, where existing dimensional requirements would continue to apply.) The proposed residential development options for the R-A District are summarized and compared in **Table 4-6** and explained further in the narrative and figures that follow.

Table 4-6
Proposed Options for Residential Development in the Residential-Agricultural District

Development Option	Minimum Lot Size <i>Dwelling Units/Acre</i>	Minimum Frontage	Protects Open Space?	Protects Rural Roadsides?	Provides Affordable Housing?
A) Standard Lot	2.5 acres <i>0.4 units/acre</i>	250 feet	No	No	No
B) Exemption for Lot for Affordable Housing	1.5 acres <i>0.67 units/acre</i>	150 feet	No	No	Yes
C) Exemption for Lot that Protects Open Space	1 acre ^(a) <i>0.25 units/acre</i>	150 feet	Yes	No	No
D) Flag Lot	5 acres <i>0.2 units/acre</i>	50 feet	No	Yes	No
E) Flexible Rural Development	2 acre ^(a) <i>0.4 units/acre</i>	50 feet along a newly created road	Yes	Yes	No
F) Conservation Subdivision	20,000 sq. ft. ^(a) <i>up to 0.6 units/acre</i>	90 feet	Yes	Yes	Optional
Current Zoning (for comparison only)	1.5 acres <i>0.67 units/acre</i>	150 feet	No	No	No

(a) Plus the required open space set-aside.

Option A: Standard Lot

When this development technique might be used: *This is the standard, as-of-right option for residential development in the Residential-Agricultural District. Although this is rarely the preferred development technique from the Town's perspective, it may be appropriate for landowners who wish to create a small number of lots on their property and have no plans further for development. For subdivisions, either Flexible Rural Development or Conservation Subdivision design are usually better options since they result in lower infrastructure costs and better environmental compatibility.*

Description: In this conventional approach to the division of land¹⁰, all of the land is taken up with individual house lots and roads. Thus, while some natural vegetation is usually retained on the site, it is often so fragmented as to provide little value for habitat, recreation, or the preservation of rural character. The proposed lot size of 2.5 acres and minimum frontage requirement of 250 feet are recommended in order to safeguard water resources and prevent an unsafe concentration of driveway egresses onto narrow Town roads with limited sight distances. The prevalence of steep topography and poorly draining soils in Petersham also support a minimum lot size of 2.5 acres for conventional development that is not required to go through an environmental planning or special permit process.

¹⁰ As explained on page 33, a division of land could be either an Approval-Not-Required (ANR) development or a subdivision. ANR development, also known as frontage development, involves the creation of lots that comply in all respects with the Town's Zoning By-Law and have the required amount of frontage along a pre-existing public way. In contrast, subdivision development involves the creation of a new roadway, which is typically done in order to provide the required frontage for additional lots.

Option B: Exemption for Lot for Affordable Housing Serving Local Needs

When this development technique might be used: *This option could be used by property owners who want to build a house for themselves or for a family member such as a parent or a child. It is intended to allow small-scale development serving local needs to take place with a minimum of Town review and oversight.*

Description: By special permit from the Planning Board, lots could be created with a reduced lot area of 1.5 acres and a reduced frontage of 150 feet, as long as they meet two criteria: a) the lot(s) may only be developed with a single dwelling unit that is deed-restricted to remain affordable in perpetuity¹¹, and b) for the first five years after its creation, the dwelling may not be occupied by any household that does not include at least one Petersham resident or relative of a Petersham resident.¹² These requirements will help encourage the creation of affordable housing and help the parents and grown children of Petersham families remain in Town if they wish to. The criteria pertaining to housing affordability and local residency are needed in order to prevent this development option from being abused by out-of-town developers and land speculators. Landowners whose main priority is to create housing for themselves or their relatives should have no problem adhering to these restrictions.

Option C: Exemption for Lot Created in Conjunction with Open Space Set-Aside

When this development technique might be used: *This option could benefit property owners who have considerable road frontage as well as backland acreage that is difficult to access, environmentally sensitive, or both. For example, say that a landowner has a 25-acre parcel with 1,000 feet of frontage. Under a conventional development scenario, in order to develop the site fully a developer would need to build a subdivision road, which would be expensive and possibly environmentally destructive. This approach might yield 7-9 lots at the standard 2.5-acre lot size. Under development Option C, the developer could instead create six frontage lots, each with 1 acre and 150 feet of frontage. In exchange, he would need to protect 3 acres of open space for each lot created—a total of 18 acres of open space—at the back of the property. The developer would benefit by not having to build a costly subdivision road or undergo subdivision review. The Town could benefit from an overall reduction in the number of lots plus the protection of considerable unfragmented open space at the rear of the site.*

Description: This option pushes development toward the front of the site so that the backlands can be permanently protected as open space. By special permit from the Planning Board, frontage lots with a reduced lot size of one acre and reduced frontage of 150 feet could be created as long as the owner simultaneously protects open space for each lot created. The suggested open space requirement is 3 contiguous acres, which the Town must consider to be valuable open space because it either a) is indicated as such on the Open Space Action Map or the Greenprint for Growth¹³, b) abuts existing protected open space, or c) is determined by the Planning Board to be valuable open space. The open space could be located on the tract being developed or on another tract elsewhere in Town. To prevent this provision from being abused, the Town should require the major portion of the open space (e.g., 2 acres) to be buildable land—that is, excluding wetlands, water bodies, steep slopes over 25%, and land

¹¹ See **Chapter 5** for a discussion of how “affordability” is defined and how affordable housing provisions are administered and enforced.

¹² The terms “Petersham resident” and “relative” can be defined in any way the Town chooses. For example, “Petersham resident” could mean any person who has lived or worked in Petersham for at least two out of the five most recent years. “Relative” could include sons, daughters, brothers, sisters, mothers, fathers, and mothers- and fathers-in-law.

¹³ The Open Space Action Map is **Figure I-1** of the Open Space and Recreation Plan. The Greenprint for Growth is **Figure 4-6** of the Master Plan.

within the Cohen Act Primary Protection Area. This development option is only recommended if the Town also adopts a Scenic Overlay District (see page 51) to ensure that new roadside development is compatible with the Town's rural character.

Option D: Flag Lot

When this development technique might be used: *This option could be used in almost any situation, but is especially well suited to a property owner who has a large amount of acreage but not very much frontage. For example, on a lot with 10 acres and 250 feet of frontage, the owner could create two flag lots rather than building a small subdivision. The developer would benefit from lower infrastructure costs and the ability to market the property as “estate” lots with plenty of privacy. The Town would benefit from a smaller number of overall units that are set well back from the road. See **Figure 4-7** for a visualization of flag lot development compared to conventional development.*

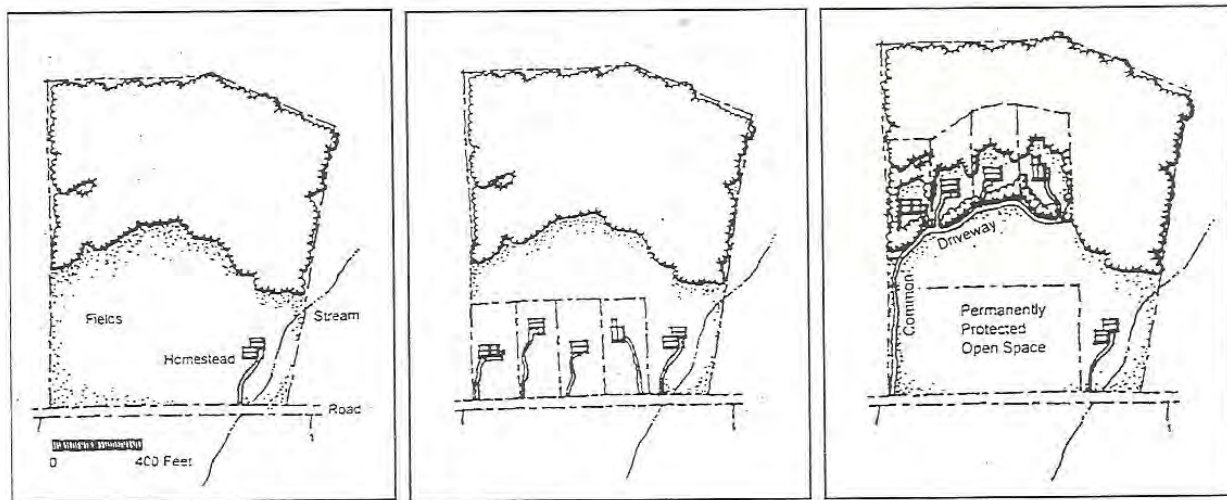
Description: This technique is similar to the Town's existing “rear lot” provision except that the lot size requirement is larger. By special permit from the Planning Board, the minimum required frontage could be reduced to 50 feet as long as the total parcel size is at least five acres plus the 50 foot wide access strip. The lot would also need to be at least 250 feet wide at the front of the house. The resulting lot would be shaped like a flag or a pork chop—another common name for this type of lot. The Town's current rear lot provision is problematic because it allows for a considerably higher density of frontage lots through creative geometric contortions of lot lines—as can be seen on Birch Drive. This can result in an excessive concentration of driveways along Town roads. The proposed Flag Lot technique eliminates this problem by requiring a larger lot size for flag lots (it is rare for towns that allow flag lots *not* to require additional acreage). In addition, the Town should consider allowing no more than two flag lots to be created next to one another.

Option E: Flexible Rural Development

When this development technique might be used: *This option is especially well suited to a property with open fields near the road and woods in the back. Rather than siting the houses in the middle of the field (as might happen with conventional development), Flexible Rural Development would allow the houses to be nestled at the edge of the woods and accessed by a narrow unpaved road. This design would benefit the Town by preserving long views across the fields and potentially keeping the fields open for agriculture. This approach has been used effectively in Groton and Carlisle, Massachusetts, which have preserved the character of many of their rural roads in the face of considerable development pressures. See **Figure 4-8** for a sketch illustrating this development technique.*

Description: A Flexible Rural Development is a development where all parts of the house lots are located at least 200 feet from the public road and are accessed by and have frontage on a Common Private Way. A Common Private Way is technically a subdivision road, except that the standard subdivision road standards have been waived to allow a 16-foot wide unpaved dead-end roadway with a turnaround at the end for fire trucks. By special permit from the Planning Board, between two and eight lots could be created in a Flexible Rural Development. Only one Flexible Rural Development could be created on any parcel or set of contiguous parcels in common ownership when the bylaw was adopted. The Common Private Way is specified to be forever private, with plowing and maintenance provided through a homeowners association (hence, no roadway maintenance costs for the Town). This type of road is well suited to a rural town like Petersham.

Figure 4-8
Illustration of Flexible Rural Development Technique



These drawings illustrate how the Flexible Rural Development technique could be used to preserve open fields along a scenic road. The **left diagram** is a hypothetical site before development. The **middle diagram** shows a conventional development layout, with houses and driveways fronting on and highly visible from the public road. The **right diagram** shows a Flexible Rural Development, with the houses nestled in the woods at the back of the site and much of the fields protected as open space. (Drawings prepared by the Franklin Regional Council of Governments and taken from *Preservation through Bylaws and Ordinances*, Massachusetts Historical Commission, Progress Draft, 1999.)

The individual house lots within the FRD should be at least two acres in size, have at least 50 feet of frontage on the Common Private Way, and be at least 150 feet wide at the front of the house. In addition, for each lot created within the FRD, a parcel of open space along the public road with at least 150 feet of frontage and 200 feet of lot depth must be protected to safeguard the road frontage from future development.¹⁴ Thus, the overall density in a FRD would be the same as in a conventional development, but development is shifted away from the road frontage. Covenants in the deed restriction protecting the frontage can specify whether or not the vegetation on the land may or must be mowed, farmed, or cut—thus safeguarding the particular character of the roadside as it now exists.

Option F: Conservation Subdivision

When this development technique might be used: *This option is generally the preferred development technique whenever a subdivision (that is, a development that involves building a new roadway) is proposed. Whereas in a conventional subdivision all the land is taken up by individual house lots and roads, in a conservation subdivision, houses are placed on smaller lots on the portion of the site that is most suitable for development, while the remainder of the site is set aside as open space. The overall number of houses allowed is the same in a conservation subdivision as in a conventional subdivision. This is a win-win development technique: developers benefit from lower infrastructure costs (since less roadway, utilities, and earthwork are required) and a marketing advantage in selling house lots*

¹⁴ At least 75% of the 1.5 acres of required open space should be buildable land exclusive of wetlands, water bodies, steep slopes over 25%, and land within the Cohen Act Primary Protection Zone. Once all of the frontage on a given tract has been protected, the Planning Board could allow the open space set-aside to consist of land beyond the frontage lots, thus preserving an even deeper development-free buffer along the road.

*surrounded by protected open space, while the Town benefits from receiving protected open space at no cost and from reducing the subdivision's environmental impact. See **Figure 4-9** for an illustration of a conservation subdivision compared to a conventional subdivision.*

Description: By special permit from the Planning Board, a developer may build a conservation subdivision in which the individual house lots are each at least 20,000 sq. ft. with 90 feet of frontage, and at least 50% of the tract is set aside as open space.¹⁵ The total number of houses that may be built in a conservation subdivision is the same as in a conventional subdivision as demonstrated by the developer on a “yield plan.”¹⁶ The open space must be permanently protected from development by a suitable conservation restriction, and may be used for various purposes such as agriculture, wildlife habitat, and/or passive recreation. Conservation subdivisions should be designed by a landscape architect using a four-step environmental planning process that fits the development around the site's most sensitive and remarkable ecological, aesthetic, and historic/cultural features.¹⁷

Water Supply and Wastewater Management Considerations: Within conservation subdivisions, particular attention must be paid to water supply and wastewater management since many of the house lots will be too small to contain their own on-site well and septic system. There are several different options for addressing these issues, most of which have been used successfully in other Massachusetts communities.

On larger lots within the development (e.g., 30,000-40,000 sq. ft.), it may be possible to site both a well and a Title 5-compliant septic system.¹⁸ On smaller lots, water can be provided via a common well for the development, while each house can have its own on-site septic system. On a site with only a few pockets of good soil, or where most of the lots are close to the 20,000 sq. ft. minimum size, one or more common septic systems might be the best option. Systems can range in size from 1,000 to 10,000 gallons per day (roughly 2-30 dwelling units, depending on the number of bedrooms in each). These systems would then drain to one or more leach fields on the common open space. (The open space can still be used and enjoyed by residents, so long as it is kept open and is not compacted by heavy vehicles.) A homeowners' association would be responsible for maintaining the system. In order to promote the use of conservation subdivision design for new developments, the Planning Board and Board of Health should be flexible about accepting the most appropriate type of wastewater disposal system, so long as it complies with Title 5 and will not create an administrative burden for the Town.

Affordable Housing: The Town might also want to consider allowing developers to build additional units in conservation subdivisions in exchange for providing affordable housing. For example, one additional market-rate unit could be allowed for every affordable unit that is built, up to a total density

¹⁵ The Town consider establishing a minimum lot size of less than 20,000 square feet to encourage the protection of even more open space.

¹⁶ The yield plan is a conceptual development plan that is used to determine how many lots could be built in a conventional subdivision. In order to make it as realistic as possible, the yield plan should be required to consider constraints such as wetlands, streams, steep slopes, and the availability of percolable soils.

¹⁷ The first step of this process is to create an “Environmental Constraints and Opportunities Plan” that shows not only regulated areas (e.g., wetlands and Cohen Act lands) but also vegetation cover, viewsheds, stone walls, and scenic, unique, or notable site features that might merit preservation. This initial plan should also situate the site in its larger context, considering the site's role in maintaining ecological functions that operate at a larger scale. At this point in the planning process, the applicant is encouraged to meet with the Planning Board to discuss the Environmental Constraints and Opportunities Plan and establish general guidelines for site planning. The Town will generally want to designate the open space on the site in a manner that is consistent with the Greenprint for Growth, (see page 53). The second step is to designate the open space areas and the development areas based on the Environmental Constraints and Opportunities analysis. Next, the roads and houses are situated within the development areas. The last step is to draw in the lot lines.

¹⁸ Title 5 is the state law regulating the siting and design of septic systems.

bonus of one-half. (Thus, the maximum net density that could be built would be about 0.6 units per acre—still slightly lower than what is currently allowed in Petersham.) Affordable housing in conservation subdivisions can help meet the local need for additional moderately-priced housing and also help the Town reduce the threat of “unfriendly” Comprehensive Permit applications (see **Chapter 5** for further discussion of Comprehensive Permits).

Mandatory Submittal of Conservation Subdivision Plans: While the conservation subdivision approach can benefit both the town and the developer, many communities with conservation subdivision bylaws have found that developers avoid them because they perceive the special permit requirement as causing greater uncertainty, more permitting delays, and higher design costs than for an as-of-right development.¹⁹ To address this issue, the Town should require, to the extent legally permissible, the submission of two different development plans—a conventional plan and a Conservation Subdivision plan—for any proposed subdivision that would create four or more lots. The Planning Board would then review both plans and approve whichever one they deem is in the best interest of the Town. This policy will mean that no more time or effort is required for an applicant to obtain a conservation subdivision special permit than to undergo ordinary subdivision review. This approach is currently being used successfully in many Massachusetts towns.

Part 3: Rate and Timing of New Development

The Town currently has a growth rate limitation bylaw that restricts the number of building permits that can be issued to a maximum of six per year through 2009. This is an appropriate temporary growth control measure to have in place while the Town is studying and working to address growth-related issues through the preparation and subsequent implementation of this Master Plan.

Looking to the future, Petersham has a few options for addressing the rate and timing of new development. If the Town allows the current bylaw to expire in 2009 and does not renew or replace it with another rate of development bylaw, it could find itself in a difficult situation if, in the future, it is faced with a one or more large subdivisions (for example, more than 25 lots). A development of this size could create an immediate need for more school, police, fire protection, and recreation facilities—the cost of which would need to be borne by all of the Town’s taxpayers. Therefore, given the relatively small capacity of the Town’s major public facilities and services (especially the Center School), some type of growth timing measure appears justified.

One approach is to continue to use a townwide building permit cap. Another option might be to institute a subdivision phasing bylaw that requires large developments to be phased over a period of years. This would prevent a large 25- or 50-lot subdivision from being built all at once. For example, the Town could limit the number of building permits issued for a development to no more than three per year or 15% of the total units proposed, whichever is more.²⁰ Thus, a 9-lot subdivision could build three units per year, while a 40-lot subdivision could build six units (15%) per year. This type of subdivision phasing bylaw is widely used as a permanent growth management tool throughout Massachusetts.

¹⁹ Although cities and towns in Massachusetts are now authorized to allow conservation subdivision development by right, the special permit mechanism is still recommended in order to give the Planning Board the discretion it needs to review this type of development, which is not a “cookie-cutter” formula but rather must be designed with regard to the specifics of each site.

²⁰ This limit could apply to lots on any contiguous parcel(s) of land formerly in common ownership (as of some defined date).

Part 4: Protecting Scenic Roadsides and Town Character

For most people, the sense they get of Petersham's character is based on what they see as they drive, bike, or walk along the Town's roads. Scenic roads in Petersham vary tremendously: some are defined by dense woods and an overhanging tree canopy that creates a beautiful "tunnel effect"; others provide long views across open fields and pastures; and still others are defined by their historic buildings, stone walls, and rows of old sugar maples. Given the importance of Petersham's scenic roadsides to the Town's residents, Petersham should take a pro-active stance toward protecting this resource.

Scenic Overlay District

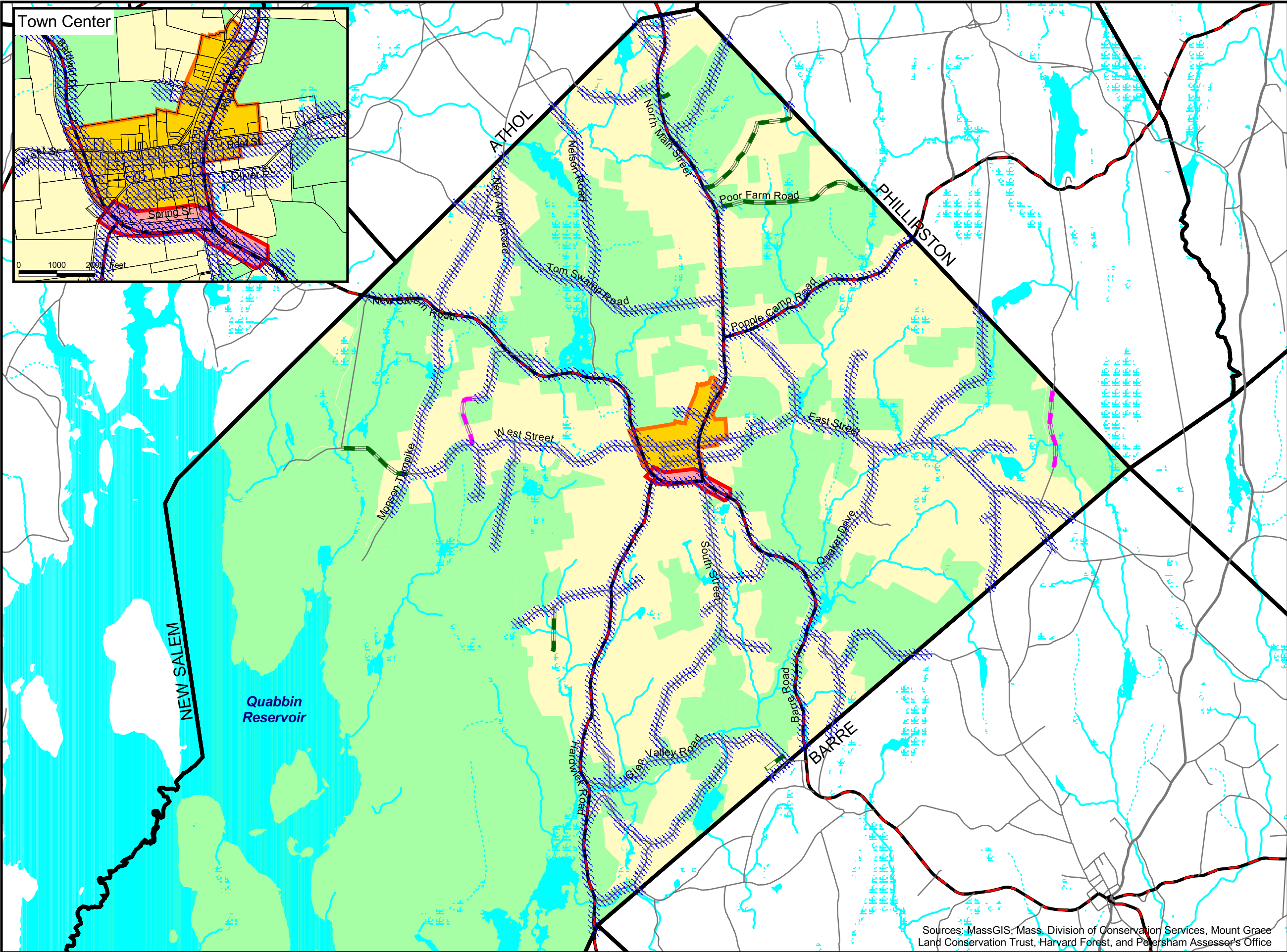
Petersham has already adopted Rules and Regulations Governing Scenic Roads, which help protect character-defining features (such as large trees and stone walls) within the right-of-way of designated scenic roads (see page 34 for a discussion of this provision). However, this provision does not provide any protection for scenic features outside of the public right-of-way, which are often quite visible from the road.

To extend protection to the areas along scenic roads, the Town should adopt a Scenic Overlay District that specifies additional design and site planning guidelines for new development in scenic areas. The Scenic Overlay District should be defined as extending some distance (e.g., 300 ft.) from the centerline of all designated scenic roads in Petersham plus the state highways.²¹ **Figure 4-5** illustrates an approximate delineation of the proposed Scenic Overlay District based on a 300 ft. buffer distance. As an overlay district, the Scenic designation would not change the underlying uses or density allowed in the base zoning districts.

Within the Scenic Overlay District, new development would be subject to a Site Plan Review process (administered by the Planning Board) that allows the Town to make sure that the development is compatible with the character of the scenic road. One way to make sure that this process is simple and not arbitrary is to adopt guidelines or criteria for development in different areas. An applicant who follows these guidelines could expect that his or her application for Site Plan Review would be approved with little or no modification. The Site Plan Review process can have two tiers depending on the nature of the development. Single-family houses could undergo an expedited review requiring only a simple set of plans that could be put together primarily by the owner, if desired. Larger housing developments or nonresidential developments would require a more thorough process with site plans prepared by a registered engineer or landscape architect.

The site planning guidelines should differ depending on the nature of the scenic roadside. For example, if the existing roadside is vegetated with mature trees, a strip of natural vegetation at least 75 feet wide should be retained along the entire road frontage so as to preserve the canopy of mature trees over the roadway. If the property is currently open land or lacks a 75-foot strip of roadside vegetation, the house should be situated so as to maximize long views from the road. For example, the house could be recessed into the treeline at the edge of an open field. (The Rural Flexible Development option could also be used to preserve open fields.) In addition, stone walls should not be removed from land within the Scenic Overlay District, except to create a gap of the minimum feasible width to allow access for an approved

²¹ By state law, a town cannot apply scenic roads protection to the right-of-way of numbered state roads. However, land adjacent to state roads can be included in the Scenic Overlay District since this is a zoning designation and does not affect the road right-of-way.



Town Center

0 1000 2000 Feet

Legend

Proposed Zoning Districts

- Business
- Town Center
- Residential - Agricultural

Discontinued Town Roads

- Previously Discontinued
- Consider for Future Discontinuance

Scenic Overlay District

Protected Open Space

Scale: 1" = 5,000'

0 0.5 1 Miles

N

Drawing Title

Land Use Guide Plan

Project Title

Petersham Master Plan

Daylor Consulting Group Inc.

Ten Forbes Road
Braintree, MA 02184

(781) 849-7070
(781) 849-0096 (fax)
www.daylor.com

Created by:
J.C.
Creation Date:
July 14, 2003
Revision Date:
April 5, 2004

Figure

4-5

Sources: MassGIS; Mass. Division of Conservation Services, Mount Grace Land Conservation Trust, Harvard Forest, and Petersham Assessor's Office

driveway or subdivision road. In general, the site planning guidelines in the Scenic Overlay District will necessitate a front setback that is larger than the minimum 40-foot front setback that is currently required for residential uses. However, to achieve the best siting of building(s) on the property consistent with the site planning guidelines, the Planning Board should allow the applicant to reduce the side and rear setbacks by special permit where appropriate.

A final design tool to help protect the character of rural roadsides in the Scenic Overlay District is to reduce the number of driveway entrances onto scenic roads through the use of common driveways shared by two or more houses (see below for further discussion).

Common Driveways

As roadsides are developed with houses, the series of individual driveways that is created can greatly affect the road's visual character and also cause traffic safety problems. This is particularly the case on narrow, scenic roads with limited sight distances. To address this issue, the Town's Zoning Bylaw and Subdivision Rules and Regulations should allow common driveways by special permit, specify standards for common driveways, and specify the maximum number of lots that may be served by a common driveway (three is probably an appropriate number for Petersham). When reviewing projects, the Planning Board and Zoning Board of Appeals should encourage the use of common driveways where appropriate, especially within the Scenic Overlay District.

Site Plan Review and Design Review

Site Plan Review and Design Review are two ways of encouraging new development to be aesthetically appealing. Site Plan Review addresses issues related to the development of the site and the placement of buildings on the site, such as clearing, grading, location and design of roads and driveways, landscaping, stormwater management, and similar issues. Design review addresses the architectural design of buildings. Both of these processes can help protect Petersham's rural, historic character, but both will also create more work for applicants and Town boards. Therefore, the Town should incorporate these reviews judiciously where they would be most beneficial.

As discussed above, Site Plan Review is recommended for new development along scenic roads as a way of ensuring that this development is compatible with the Town's character. In addition, both Site Plan Review and Design Review should be considered for new non-residential and multi-family residential structures. These types of uses are often located in high-visibility areas such as the town center or the proposed Business district along Route 122 near the intersection of South Main Street. Thus, it is especially important that they be well designed so as to convey a positive impression of Petersham from the Town's main roads. As an example, in the future a gasoline station, convenience store, or chain restaurant may wish to locate in Petersham's Business district. In towns without Design Review, these types of chain businesses are generally constructed from a standard template using inexpensive materials and resulting in a generic design that many people find unappealing. By contrast, there are many examples of New England towns that, through Design Review, have required chain businesses to conform to the local architectural tradition, provide better landscaping, and overall create an attractive-looking business.

Part 5: Environmental Planning

Environmental planning is the process of siting and designing new development to be compatible with a town's environmental features while minimizing negative impacts to water resources, natural habitat, and ecosystem functions. Petersham is located in an environmentally rich part of the state with important water resources and natural ecosystems that are among the most intact in central New England. This creates a unique opportunity for developing in an environmentally sensitive manner, which can be accomplished through the following strategies.

Greenprint for Growth

At the scale of a town, development usually proceeds along an unfortunate trajectory: first, natural lands are fragmented and punctuated with houses and businesses—usually on those sites that are flat, well-drained, and have good soils. Then, as additional waves of development occur, built areas are joined together and filled in until the remaining natural lands have been fragmented into small, isolated pieces with greatly reduced environmental value. These “scraps” of natural land usually prove inadequate for maintaining clean water and habitat for many native species, and the result is a heavily degraded natural environment.

Petersham will probably be able to avoid this worst-case scenario because about half of its land area is protected open space and additional land is unbuildable because of environmental constraints. Nevertheless, there are more than 11,000 acres of buildable land in the Town, including large blocks of buildable land along North Main Street, East Street, West Street, Hardwick Road, and New Athol Road. For these areas, a new approach to growth is in order: first select those lands that should be set aside as open space and then build around them, whenever possible. Then, even as the Town develops, it can retain a relatively intact “green infrastructure” that protects water resources and natural habitats. This can be accomplished by preparing and adopting a townwide “Greenprint for Growth,” a sample of which is shown in **Figure 4-6**. The Greenprint consists of a network of lands that, if protected for the future, will help ensure that key environmental resources are preserved. The Greenprint for Growth shows five categories of land in the Town, as described below:

1. **Protected Lands:** land that is already protected open space
2. **Prohibited Lands:** land that is prohibited from development because of state environmental regulations. This includes wetlands and land within 100 feet of perennial streams. Note that these land are already prohibited from development by state environmental regulations; the Greenprint does not add any additional regulatory review.
3. **Restricted Lands:** land that is restricted (but not prohibited) from development because of environmental constraints or state regulations. This includes land that is located between 100 and 200 feet of perennial streams, subject to the Cohen Act, in a 100-year floodplain, or characterized by slopes greater than 25%.
4. **Greenprint Lands:** these are other lands that the Town would like to protect for the future. Greenprint lands could include scenic vistas, farmland and open fields with good agricultural soils, unique and distinctive natural features, land with 15-25% slopes, and land within 100 feet of vernal pools.²² **Figure 4-6** only depicts these last two types of lands, but the Town can modify

²² See **Section D6** of the Open Space and Recreation Plan for a discussion of vernal pools.

NOTE: The Greenprint map is intended to be used by local boards and developers as a site planning tool for creating environmentally sensitive development and connected open space networks in Petersham. Designation of land on this map does not confer any regulatory jurisdiction or otherwise affect how the land may be used or developed. This version of the map is a preliminary draft illustrating the concept for the Greenprint map. The Town may want to add additional Greenprint Areas depicting lands that the Town would like to protect, if possible, because of their scenic or historic value or because they contain unique landscape features.

Legend

Protected Open Space

Environmentally Sensitive Areas

Prohibited for Development
(Wetlands, 100' Rivers Protection Act)

Restricted for Development
(100-year Floodplains, Slopes > 25%,
Cohen Act Areas)

Greenprint Areas
(Potential Vernal Pool 100' Buffer,
Slopes 15-25%)

MA Towns

Parcel Boundaries

Scale: 1" = 5,000'

0 0.5 1 Miles



Drawing Title

Greenprint/
Sensitive
Lands Map

Project Title

Petersham
Master Plan

Daylor
Consulting
Group
Inc.

Ten Forbes Road
Braintree, MA 02184

(781) 849-7070
(781) 849-0096 (fax)
www.daylor.com

Created by:
J.C.
Creation Date:
July 17, 2003
Revision Date:
April 5, 2004

Figure
4-6

Sources: MassGIS, Mass. Division of Conservation Services, Mount Grace
Land Conservation Trust, Harvard Forest, and Petersham Assessor's Office

the Greenprint to add other lands that it would like to protect after field work has been done to identify these areas.

5. **More Suitable Lands:** all land that does not fall into one of the previous categories is considered more suitable for development.

It is important to note that the Greenprint for Growth does not confer any regulatory jurisdiction, and the designation of private land as part of the Greenprint does not affect how the land can be used or developed. Instead, the Greenprint is intended to be used by local boards and developers as a site planning tool for creating environmentally sensitive development. It will be especially useful in helping to designate open space to set aside as part of Flexible Rural Developments and Conservation Subdivisions (see pages 47 and 48). The rebuttable presumption is that Flexible Development projects should try to site most or all of the development on the “More Suitable Lands” while preserving “Prohibited,” “Restricted,” and “Greenprint” lands as open space. Because the Greenprint is a townwide map, it is not detailed enough to be relied upon as the sole data source for site planning. However, it should be used as a starting point, and may be adapted during the site planning process if, for example, additional critical resources are discovered on the site or if certain Greenprint areas are found to be less important than originally thought.

Relation Between the Greenprint for Growth and the Open Space Action Map

The Greenprint for Growth complements the Open Space Action Map (**Figure I-1** in the Open Space and Recreation Plan), but the two serve a somewhat different purpose. The Open Space Action Map is intended to guide priorities for open space protection townwide. As such, only certain sections of Town are shown as high priorities for protection. By contrast, the Greenprint for Growth recognizes that development could occur on virtually any parcel of land that is not already protected. The Greenprint tries to identify those portions of each site that are most suitable for development and those portions that should set aside as undeveloped land if possible.

Definition of Lot Area

Currently, the minimum lot size in Petersham is 1½ acres., but there is no requirement that any of this area (except the areas that are actually built upon) consist of buildable land. As a result, there is actually an incentive to build close to wetlands and other sensitive areas because these lands can be used to count toward the minimum lot size even though they cannot actually be built upon. In addition, lots can be “gerrymandered” to an unlimited extent to obtain the minimum required lot area—another loophole that can encourage building in sensitive areas. Finally, the Town currently has no limit on the amount of pavement and buildings that can occupy a lot. In theory, 100% of a building lot could be covered in asphalt. The following zoning details can help address these issues.

Minimum Upland Requirement: In addition to defining a minimum lot size for various uses and zoning districts, the Town should specify a minimum upland requirement. A typical value is 75% of the minimum lot size. For example, a lot in the Town Center District (where the minimum lot size is 1.5 acres) would need to have 1.13 acres of upland; a standard 2.5-acre lot in the Residential-Agricultural District would need to have 1.88 acres of upland. “Upland” should be defined to include all land except wetlands and water bodies.

Lot Shape: The Town should add standards pertaining to lot shape to the dimensional requirements in its zoning bylaw. These standards will prevent very irregularly shaped lots or long “rat tails” from satisfying the minimum lot size requirement (lots can still have these features, but they will not count toward the minimum lot size). There are numerous Massachusetts towns with good examples of such provisions.

Impervious Surface Limit: An impervious surface is any covering on land that does not allow water to penetrate, including buildings, roads, parking lots, and other paved areas. Impervious surfaces reduce groundwater infiltration and increase peak runoff rates, which can lead to flooding. Stormwater management systems can mitigate but usually not entirely negate the effects of impervious coverings. Recent scientific studies show that watershed functioning and aquatic habitat becomes impaired when the percentage of impervious surface watershed-wide rises to 12-15%, and severely degraded when it rises above 30%.²³ A maximum impervious surface limit in Petersham will help prevent overdevelopment and associated impairment of water resources. An additional benefit will be to avoid excessive pavement, which can create a blighted look. Suggested limits on impervious surface are 20% in the Residential-Agricultural district, 35% in the Town Center district, and 50% in the Business district.

Environmentally Compatible Site Planning

Site planning can have a major effect on the aesthetics and environmental compatibility of new development. Good site planning works to harmonize the development with the surrounding landscape and to work within—not engineer away—the site’s environmental constraints and opportunities. Poor site planning tends to treat land as if it were flat and uniform, clearing and regrading it to maximize buildout without due regard to natural systems and community character. Petersham can promote good site planning by adopting a set of guidelines in its zoning bylaw and subdivision rules and regulations. This topic is addressed in more detail in **Section 15** of the Open Space and Recreation Plan, since it pertains more to natural resource protection.

²³ Source: *Impacts of Development on Waterways*, NEMO Project Fact Sheet #3, Nonpoint Education for Municipal Officials project, University of Connecticut.

CHAPTER 5: HOUSING

A. EXISTING CONDITIONS

The Housing chapter provides an overview of Petersham’s existing housing stock, current and potential future housing needs, and strategies for providing an appropriate mix of housing types. The data and analyses in this chapter are based on information from the Town, the state, and the U.S. Census.

An evaluation of housing stock should consider three important aspects: the housing structures themselves, the population that inhabits the housing, and the environments where the housing is located. The following sub-sections examine Petersham’s housing stock in terms of age, condition, cost, and availability, and consider the demographic trends affecting housing needs, as well as the specific needs of different population groups in the Town.

Summary of Existing Housing Conditions in Petersham	
Strengths	Concerns
<ul style="list-style-type: none">• Petersham has a large number of historic homes and homes situated in beautiful rural settings.• The Town is still affordable to middle-income households.• Petersham is one of the three towns that will benefit over the next few years from a \$1 million regional housing rehab grant.	<ul style="list-style-type: none">• Much of the newly built housing in Town is less in keeping with its rural context.• Petersham is one of the most expensive towns in the sub-region, and local housing prices appear to be rising rapidly.• The Town's housing stock offers few choices other than single-family detached houses.• With only a very limited supply of rental housing, the Town may not meet the needs of certain demographic groups, such as young adults.• Although the Town has a large senior population, there is no housing in Petersham intended specifically for the elderly.• Without any Chapter 40B-qualifying affordable housing, the Town is vulnerable to “unfriendly” Comprehensive Permit applications.• There is no local housing advocacy organization or other housing resources in Petersham.

Petersham’s Existing Housing Stock

Housing has become a major issue in Massachusetts in recent years, as housing prices have climbed to all-time highs and demand has exceeded availability. With jobs moving to the I-495 corridor and other suburban locations, the Boston metropolitan area has expanded, with workers moving further west to central Massachusetts to take advantage of lower housing prices. This, in turn, has driven up housing prices in formerly affordable communities as the regional housing market has favored the construction of large, expensive, single-family dwellings.

As of 2000, there were 474 housing units in Petersham.¹ This represents an increase of 26 units or 5.8% from the 1990 total of 448 units. During this time, the number of housing units in Worcester County grew by 6.7% and while statewide growth was 6.0%. Thus, the Town's housing growth rate closely paralleled the county and state averages.

Petersham is a sparsely populated rural community with an average population density of about 21 residents per square mile, or about one resident per 30 acres. The most populated section of Town is the town center, including Hardwick Road, South Street, Spring Street, Oliver Street, West Street, East Street, and Main Street (Route 32). Nevertheless, even in the town center, housing is at a relatively low density, with very few house lots having less than half an acre of land and many containing an acre or more. Residential development elsewhere in the Town is a mixture of older farmhouses and other dwellings as well as newer houses, many of which are situated along major roads such as Popple Camp Road (Route 101), East Street, South Street, and Hardwick Road (Route 32A). Away from these paved roads, residential development is very sparse.

¹ U.S. Census 2000.

Age, Condition, and Type of Petersham's Housing Stock

- More than half of Petersham's housing is over 60 years old.
- Only 10% of the Town's housing inventory, or 48 units, was constructed between 1990 and 2000. These new units were offset by the demolition of approximately 22 units, resulting in a net increase in housing during the 1990s of only 26 units.
- Visual surveys reveal that most of Petersham's housing stock is in good condition. Although many of the Town's houses are quite old, these surviving houses have generally been repaired and restored over the years.
- About 90% of the Town's 474 housing units are single-family detached houses. During the 1990s, the Town gained more single-family housing at the expense of two-, three-, and four-unit housing.

Table 5-1
Age of Housing Stock in Petersham, 2000

Year Built	Total Units	%
1939 or Earlier	253	53.4
1940 to 1959	60	12.7
1960 to 1969	24	5.1
1970 to 1979	49	10.3
1980 to 1989	40	8.4
1990 to 2000	48	10.1
Total	474	100.0

Source: U.S. Census Bureau, 2000.

Table 5-2
Types of Housing Units in Petersham, 1990 and 2000

Type of Structure	1990 Units	2000 Units	% Change
Single-family (detached)	394	426	8.1
Single-family (attached)	6	13	116.7
Two-family units	22	14	-36.4
Three or four units	19	15	-21.1
Five to nine units	0	2	-
Ten to nineteen units	0	0	-
Twenty or more units	0	0	-
Mobile Home	5	4	-20.0
Other	2	0	-100.0
Total Units	448	474	5.8%

Source: U.S. Census Bureau, 1990 and 2000.

Housing Ownership, Occupancy, and Vacancy Rate

- The homeownership rate in Petersham increased from 80.8% in 1990 to 82.6% in 2000. This is much higher than the state average of 62%.
- While the total number of housing units in Petersham increased during the 1990s, the number of renter-occupied units has remained flat (75 in 1990 versus 76 in 2000).
- The amount of unoccupied housing in Petersham dropped sharply during the 1990s, from 57 units to 36 units. Most of this drop is attributed to the re-occupation of formerly vacant units, though some is due to the conversion of seasonal or second dwellings into primary dwellings. This trend indicates a strong housing market where owners have substantial incentives to rehabilitate unoccupied units.

Table 5-3
Housing Occupancy, 1990 and 2000

Category	1990		2000	
	Number	%	Number	%
Total Housing Units	448	100.0	474	100.0
Occupied Housing Units	391	87.3	438	92.4
<i>Owner-Occupied Housing Units</i>	316	80.8	362	82.6
<i>Renter-Occupied Housing Units</i>	75	19.2	76	17.4
Unoccupied Housing Units	57	12.7	36	7.6
<i>For Seasonal, Recreational, or Occasional Use</i>	27	6.0	21	4.4
<i>Other Unoccupied Housing Units</i>	30	6.7	15	3.2

Source: U.S. Census Bureau, 1990 and 2000.

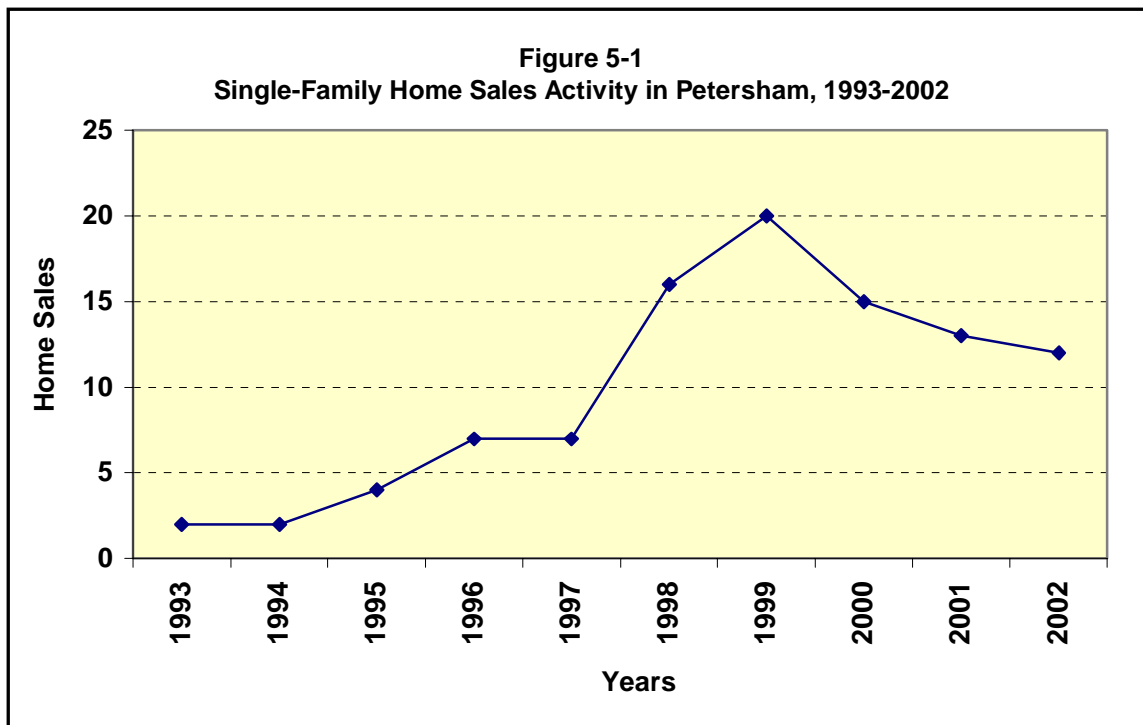
Note: "Occupied housing units" was used as the denominator in deriving the percentages for owner-occupied units and renter-occupied units. Total Housing Units was used as the denominator for all other calculations.

Vacancy rate is an indicator of the availability of housing units.² Generally, a vacancy rate of 5% is considered ideal because it allows occupants to move freely in the marketplace. A vacancy rate below 5% indicates that there is demand for additional housing. In Petersham in 2000, the homeowner vacancy rate was 0.8% as compared to 0.8% for Worcester County and 0.7% for Massachusetts. In 1990, the homeowner vacancy rate was 2.5% in Petersham, as compared to 1.8% in Worcester County and 1.7% in the state. These statistics indicate a "tight" housing market in Petersham as well as in the region and the state.

² While the *vacancy rate* includes only units that are available for rent or sale, the number of *unoccupied units* (shown in **Table 5-3**) also includes dwellings that are not available for rent or sale because they are abandoned, dilapidated, or otherwise not suitable for habitation.

Home Sales Activity

- Petersham experienced a significant increase in home sales activity during the latter half of the 1990s, with home sales averaging about 4 units per year from 1993 through 1997, and about 15 units per year from 1998 through November 2002.



Housing Affordability in Petersham

Housing affordability is a critical factor that determines who will be able to live in Petersham and, in turn, what type of community Petersham will be. This subsection provides an analysis of housing costs and affordability in the Town.

Housing Affordability Indices

The definition of affordability considers both the price of the housing unit and the income of the household living in it. As such, the term “affordable housing” is relative, since it depends on the income of the household. Affordable housing is not the same thing as subsidized housing for persons of low or moderate income, although subsidized housing is one type of affordable housing. The U.S. Department of Housing and Urban Development (HUD) defines affordability as a household paying no more than 30% of its annual income on housing. Families who pay more than 30% of their income for housing are considered cost burdened and may have difficulty affording necessities such as food, clothing, transportation, and medical care.³ This federal definition of affordable housing has become the generally accepted standard. A guideline used by banks when evaluating home mortgage applications is that

³ U.S. Department of Housing and Urban Development, Community Planning and Development website, “Who Needs Affordable Housing?” <http://www.hud.gov>.

monthly payments (including property taxes and insurance) should not exceed 30-33% of household income.

In 2000, the U.S. Census estimated that about 16.9% of Petersham homeowners spent 35% or more of their household income on housing costs; an additional 8.4% spent between 30% and 34.9%. The Census also estimated that at least 25.0% of renters in Petersham spent 35% or more of their monthly income on housing costs and another 3.6% of renter households spent between 30% and 34.9% on housing costs.⁴

To determine the affordability of ownership units for any given family, it is necessary to estimate the maximum price of a home that the family could afford if they are to spend no more than 30% of their income on housing costs, including mortgage payments, property taxes, and insurance. This calculation depends on many factors, including interest rates (which, in turn, are affected by the borrower's credit rating), length of the mortgage (e.g., 15-year vs. 30-year), and amount of the down payment. Based on assumptions for a typical homebuyer, a family earning the 2000 median household income for Petersham of \$47,833 could afford a home costing about \$169,300.^{5, 6} This is just slightly less than the 2002 median sales price for single-family homes in Petersham, which was \$176,500.

Cost of Homeownership Units

The cost of homeownership units in Petersham can be examined in two different ways. Data from the Banker and Tradesman, which tracks real estate trends in Massachusetts, provide current (2002) figures and past trends related to the price of real estate that was bought and sold (see **Figure 5-2** and **Table 5-4**). These data provide an accurate representation of prices for those units that changed hands, but may not be totally representative of all the housing units in the Town. Data from the Petersham Assessor's Office, on the other hand, includes assessed valuation information for all dwelling units (see **Table 5-5**). However, these figures are based on 2000 assessments and may not be an entirely reliable indicator of current prices. Both data sets, taken together, reveal the following trends about the Town's housing stock:

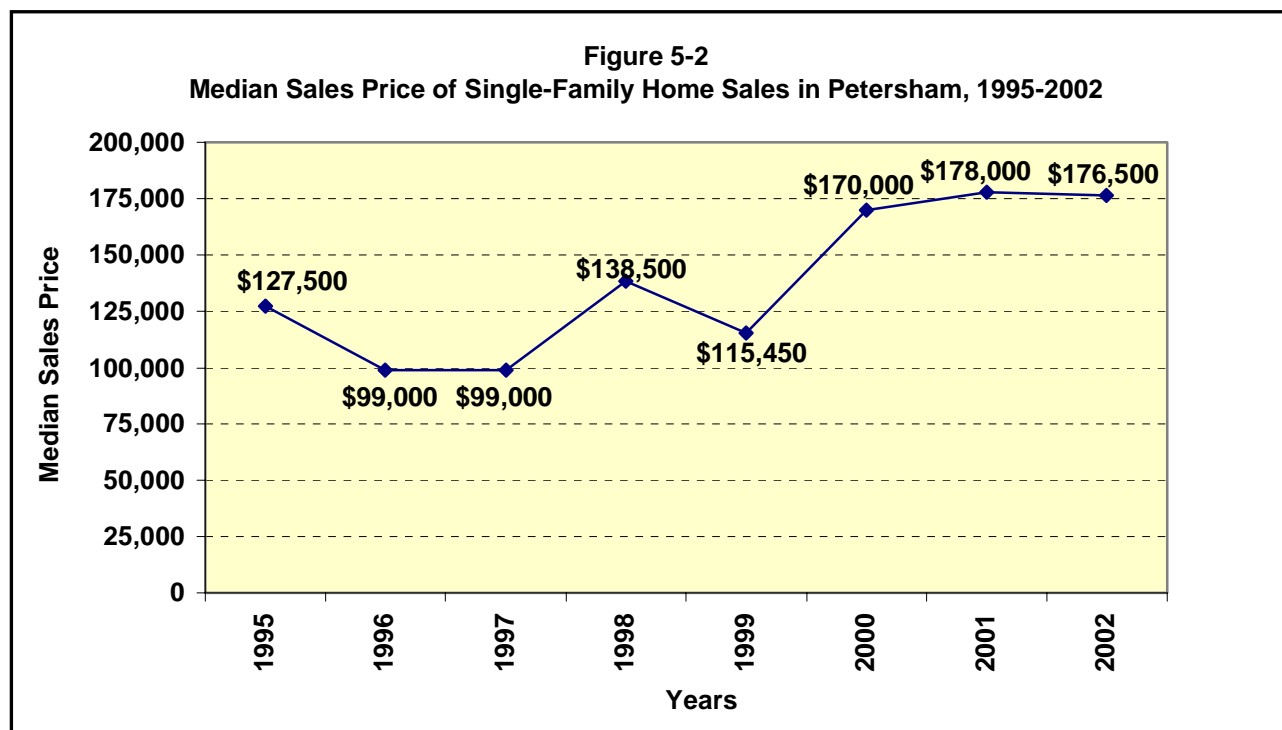
- While Petersham is one of the most expensive towns in the north/east Quabbin subregion in terms of housing, it is still very affordable compared to most communities located closer to Boston and Worcester.
- As of 2000, just under 10% of the Town's housing stock was considered affordable to low income households (those earning up to \$23,900 per year); another 28% was affordable to moderate income households (earning up to \$38,300 per year); another 52% was affordable to middle income households (earning up to \$71,750 per year); and the remaining 10% of the housing stock was affordable only to upper income households.

⁴ Source: U.S. Census Bureau, 2000. These numbers are not 100% accurate due to the fact that housing costs as a percentage of household income were not computed for 14.3% of the Town's renters.

⁵ This calculation assumes a 20% down payment, 30-year mortgage, interest rate of 7.17% (the average rate from July 2000 through June 2002 for a borrower with good credit history), and insurance and property tax rates typical of the area. It should be recognized, however, that changing any of these assumptions would affect the amount that a family could borrow and therefore the maximum house price they could afford. Total borrowing power is particularly sensitive to the interest rate, which can fluctuate greatly.

⁶ This analysis examines median *household* income rather than median *family* income as the measure of affordability because many individuals that require housing live in non-family households. Thus, median household income is more indicative of the total range of living groups requiring housing. It should be noted, however, that "affordability" for the purposes Chapter 40B and certain other programs is defined based on median family income for the appropriate area—in Petersham's case, the Non-Metro Worcester County area.

- The cost of homes on the market in Petersham appears to have increased about 50% from 1995 to 2002, although it is difficult to establish this figure with much certainty since there are only a handful of real estate sales each year.



Source: Banker and Tradesman.

Note: Prices are in current dollars; they have not been adjusted for inflation.

Table 5-4
Median Sales Price of Single Family Houses, 2002
Petersham and Surrounding Communities

Town	Median Sales Price of Single-Family Houses
Phillipston	\$110,000
Athol	\$112,250
Ware	\$128,000
Templeton	\$130,000
Hardwick	\$133,800
New Salem	\$152,000
Barre	\$156,000
Petersham	\$176,500
Hubbardston	\$199,900
Average of Selected Towns	\$144,272

Source: Banker and Tradesman, 2002.

Table 5-4
Approximate Cost of Housing in Petersham, 2000^(a)

Home Price Range^(b)	Affordability Range (% of Median HH Income)^(b)	Single-Family Units		Other Housing^(c)	
		Number	%	Number	%
Less than \$84,700	Less than 50%	23	5.5	22	42.3
\$84,700 - \$135,500	50% - 80%	121	28.9	12	23.1
\$135,501 - \$169,300	80% - 100%	107	25.5	8	15.4
\$169,301 - \$203,200	100% - 120%	75	17.9	6	11.5
\$203,201 - \$254,000	120% - 150%	48	11.5	2	3.8
\$254,001 - \$338,700	150% - 200%	35	8.4	2	3.8
More than \$338,700	More than 200%	10	2.4	0	0.0
Total		419	100.0%	52	100.0%

Source: Town of Petersham Assessor's Database, based on 2000 property valuations.

(a) This table does not differentiate between ownership and rental housing because this information is not available from the Assessor's Database. However, if one assumes that rents are roughly proportional to the value of the property, then the table provides an approximation of the affordability of all units in the Town (ownership and rental) to households in different income brackets.

(b) Affordability was calculated using the 2000 median household income for Petersham of \$47,833, as discussed in the Housing Affordability Indices subsection above.

(c) This category includes all residential units other than single-family houses and mobile homes, i.e. all units identified in the Assessor's database as being located within two-family houses, three-family houses, and multiple houses on a single parcel. For these units, the total value per unit is assumed to be the total value of the property divided by the number of units. Most of these units are probably rental units. Therefore, the "value" attributed to them is relative, as each unit may be associated with other units and would not be sold individually.

Cost of Rental Housing

Rental housing in much of Massachusetts has become more expensive in recent years, but this trend has not affected Petersham thus far. In 1990, median gross rent in Petersham was \$586 per month, compared to the Worcester County median of \$522 and the statewide median of \$580. In 2000, median gross rent in Petersham was \$543 per month, compared to a county median of \$580 and a statewide median of \$684. As discussed above, only about 17% of the Town's housing stock is rentals, and there has been essentially no net increase in rental housing over the past decade.

Housing Needs

Several factors will determine future housing needs in Petersham: the existing housing stock and housing deficiencies, projected demographics, local and regional market forces, and the needs of particular groups. Finally, and most importantly, Petersham's view of what type of community it would like to be and what types of residents it would like to attract should influence the types of housing that the Town allows and encourages. The following are some of the factors that will contribute to the Town's future housing needs:

- Petersham has a sizable population of baby-boomers in the 45-64 age group, as well as elderly residents over the age of 65. As these residents age, many of them will want or need housing specifically designed for the elderly or the frail elderly. If such housing is not available in Petersham, some elderly residents may be forced to move elsewhere.

- Although the Town's housing stock is relatively affordable, none of the Town's housing qualifies as affordable under Chapter 40B, which leaves the Town vulnerable to Comprehensive Permit projects (see below). Therefore, additional Chapter 40B-qualifying affordable housing is needed.
- The Town's very low percentage of residents in their 20s may indicate a shortage of suitable rental housing and "starter housing" for young single persons and young couples. Alternatively, this trend might primarily reflect the preference of many young people to live closer to the employment and entertainment opportunities of urban centers.

In addition to these factors affecting future housing needs, the Town, through this Master Plan, is addressing other more subjective questions that it will need to answer in order to formulate an appropriate housing policy. For example, should the Town make a deliberate effort to retain the affordability of its existing housing stock, or should it encourage a certain amount of "gentrification" in order to increase property valuations? And should the Town provide more housing opportunities for renters, single-persons, and the elderly, or should it retain its current orientation toward family housing, mainly in single-family detached units?

Housing for the Elderly

The Town currently has no elderly housing or elderly affordable housing, even though the elderly (65 and over) make up a large percentage of Petersham's population. The nearest such facility is the Quabbin Nursing Home in Athol, which contains an Alzheimer's unit. An attempt to expand a mobile home park in neighboring Barre into Petersham (which might have provided affordable housing for seniors) was met with disfavor by the Town several years ago. In planning for the Town's future senior housing needs, affordable housing should be a major consideration since many of Petersham's elderly residents would be unable to afford market rate elderly and assisted living facilities.

Affordable Housing Policies and Resources

Prior to this Master Plan, little had been done in Petersham to identify housing needs and attempt to meet those needs. While several groups in the Town have contemplated potential projects to address perceived housing needs, coordinating efforts has been time-consuming and the lack of a primary sponsor has been a hindrance to progress. In other communities, a town planner, a Housing Partnership Committee, or a Housing Authority might take on a coordination or sponsorship role for housing projects, but Petersham lacks any of these resources. This subsection discusses some potential housing tools and resources available to Petersham, as well as the opportunities and challenges provided by Chapter 40B.

Chapter 40B

Chapter 40B of the Massachusetts General Laws mandates that communities have 10% of their total housing units dedicated to households with low and moderate incomes. In order to qualify as affordable under Chapter 40B, housing units must be subsidized by the state or federal government. Initially, "subsidized" in the context of Chapter 40B meant financial subsidies only, but in 1989 the definition was expanded to include in-kind subsidies, technical assistance, and other supportive services. As a result of this broadened definition, several non-traditional subsidy programs came into wide use during the 1990s. These include the Department of Housing and Community Development's Local Initiative Program (LIP), the Federal Home Loan Bank of Boston Affordable Housing Program (AHP), and the New England Fund (NEF).

In communities that have less than 10% affordable housing, Chapter 40B allows private developers who construct affordable housing to circumvent local zoning and subdivision control regulations through the Comprehensive Permit process. This process allows developers to submit a single application to the Zoning Board of Appeals, and requires that the application must be approved unless it presents serious health or safety risks. A project must contain at least 25% affordable housing to be eligible for a Comprehensive Permit. In recent years, the Chapter 40B process has resulted in the creation of a substantial amount of affordable housing throughout Massachusetts, especially in the Boston area. However, Comprehensive Permits have caused great concern in many Massachusetts communities because they strip cities and towns of much of their local land use control and sometimes result in developments that are poorly sited in remote or environmentally sensitive locations.

Recent changes to Chapter 40B allow cities and towns that fall short of the 10% affordable housing mandate to protect themselves against “unfriendly” Comprehensive Permits if they have made significant recent progress (as defined in the statute) toward meeting the affordable housing goal. In addition, accessory dwelling units that were created after July 2002 and carry a long-term affordability deed restriction may now count toward a town’s affordable housing inventory even if they were created without a subsidy program.

As shown in **Table 5-6**, none of Petersham’s housing currently meets Chapter 40B’s definition of affordability. This is not atypical for rural towns with few or no housing resources at their disposal.

Table 5-6
Chapter 40B Qualifying Housing Inventory, 2002
Petersham and Surrounding Communities

Town	% of Housing Stock That is Chapter 40B Qualifying
New Salem	0.00
Petersham	0.00
Phillipston	0.00
Hubbardston	2.67
Barre	3.33
Templeton	4.74
Athol	4.75
Hardwick	6.17
Ware	7.19
Average of Selected Towns	3.21%

Source: MA Dept. of Housing and Community Development, April 2002.

Affordable Housing Organizations and Programs

As stated above, Petersham does not currently have a Housing Authority or a Housing Partnership Committee. Due to lack of staff support and resources, the Town’s activities to create affordable housing have been minimal. Although various local groups have discussed the possibility of creating affordable elderly housing in the Nichewaug Inn, a feasible redevelopment plan for this site has never been put forth (see **Chapter 6** for more discussion on the Nichewaug Inn).

In December 2002, a regional housing grant was awarded to Petersham, along with two of its neighbors, Athol and Royalston. The \$1,050,000 grant includes a \$350,000 allocation for each town, allowing each community to rehabilitate ten residences at \$35,000 each. Costlier rehabilitation activities, such as deleading, will increase the cost and might limit the number of rehabs actually completed. Planned rehab activities include improvements needed to bring the units up to health and safety codes, such as upgrades to roofs, windows, doors, plumbing, heating, electrical wiring, etc. The rehab program does not include funds for cosmetic improvements, such as painting.

Once the program has been initiated, its administrator will conduct outreach, publicizing the program to local residents through a variety of media, including the Council on Aging, the library, the Town Hall, local newspapers, etc. Interested homeowners will be required to submit applications and any necessary supporting documents. It is anticipated that grant funds will be awarded on a first come, first served basis to applicants that meet all the eligibility income requirements.

B. HOUSING PLAN

The Master Plan housing goals focus on three main issues: 1) providing adequate housing to meet the needs of Petersham's elderly population; 2) providing sufficient affordable housing so that Petersham can remain a socioeconomically diverse community; and 3) ensuring that new housing is environmentally compatible and appropriate to the Town's rural setting.

All of these issues present the Town with major challenges. Petersham currently has no designated senior housing, and when the Town's elderly residents want to downsize from a single-family house to a smaller dwelling with fewer responsibilities and perhaps more assistance, there are few options other than to move out of town. In terms of affordability, the Town has historically had a fair amount of affordable housing. However, this has changed in recent years as the housing market has heated up and new development has tended to produce more expensive units. There are especially few choices for those seeking affordable rental housing, such as young adults. In addition, towns in Massachusetts that have less than 10% deed restricted affordable housing (including Petersham, which has none) may be subject to Comprehensive Permit applications, whereby a developer can circumvent all local zoning regulations to build a housing project in which 25% of the units are affordable. A Comprehensive Permit project could undermine all of the careful planning for growth that this Master Plan represents.

To address these concerns while still protecting the Town's rural character, the Master Plan proposes several changes to the Town's zoning bylaw to encourage appropriate types of housing. In addition to zoning changes, a handful of other initiatives are also proposed.

Types of Housing

Table 5-7 summarizes the various types of housing that are currently allowed in Petersham, those types that are proposed for the Town, and the different needs served by each type of housing. Single-family housing is, and will probably continue to be, the most common type of housing in the Town. This is appropriate given Petersham's rural character and family-oriented nature. Through the proposed conservation subdivision development option (see page 48), the Town can encourage the creation of affordable single-family housing as part of new developments.

Two-family houses are currently allowed townwide by right. This policy also allows existing owners of single-family dwellings to convert their house into a two-family structure, which in some instances has been used to create new rental units. However, caution is warranted for towns that allow two-family dwellings as-of-right, as they can be especially incompatible in a rural town if not carefully designed. Also, it is not Petersham's desire for two-family houses to become the predominant form of development in Town. As long as the Town adopts the Scenic Overlay District (see page 51), it will be able to control the siting of two-family homes along roadsides, which will address the first concern. Regarding the second issue, the Town should monitor future development patterns to determine whether it is still appropriate to allow two-family housing as-of-right townwide. If not, the Town could consider allowing them by right in the Town Center zoning district and by special permit elsewhere; or allowing conversions by right but new construction only by special permit.

**Table 5-7
Different Types of Housing to Meet Local Housing Needs**

Type of Housing	Zone(s) Where this Type of Housing May be Suitable				Needs Served by this Type of Housing			
	Existing R-A Zone	Proposed R-A Zone	Proposed TC Zone	Proposed Business Zone	Family Housing	Deed-Restricted Affordable Housing	Senior Housing	Rental Housing
Single-family housing	✓	✓	✓	✓	✓			
Two-family housing	✓	✓	✓	✓	✓			✓
Single- and two-family housing in conservation subdivisions		✓			✓	✓		
Conversion of dwelling into up to four dwellings units	✓	✓	✓	✓	✓	✓	✓	✓
Multi-family dwelling (up to 6 units)	✓		✓	✓	✓	✓	✓	✓
Accessory dwelling unit		✓	✓	✓		✓	✓	✓
Senior housing		✓	✓	✓		✓	✓	✓

The Town currently allows multi-family housing under two circumstances: 1) existing dwellings may be converted into up to four units of housing by special permit, and 2) new multi-family structures of up to six units each may be created, also by special permit. Two changes to these policies are suggested. First, 20% of all the units in multi-family developments (whether conversions or new construction) should be deed-restricted to remain affordable in perpetuity (see page 70 for the definition of affordability).⁷ This change will help the Town begin to address its affordable housing needs. Second, new multi-family structures should not be allowed in the Residential-Agricultural district. Good planning dictates that this type of higher-density land use should be located in and near the town center, where there is better road accessibility and closer proximity to public services such as the elementary school.

An accessory dwelling unit is a second dwelling unit located on the same property as the principle dwelling unit. An attached accessory apartment or “in-law apartment” is one common type of accessory dwelling that can offer low-cost rental housing for young adults, senior citizens, and single-person households. Accessory apartments are often but not always used by the parents, children, or other relative of the occupants of the principle dwelling. As long as two-family houses are allowed by right in Petersham, there is no need to allow attached accessory apartments. However, if the Town decided to make two-family dwellings a special permit use in the future, it could allow attached accessory

⁷ The number of required affordable units should be rounded to the nearest whole unit. Thus, multi-family structures of 3, 4, 5, or 6 units would each need to provide a single affordable unit.

apartments as a lower-impact form of attached housing. In addition, the Town should consider allowing pre-existing accessory buildings such as barns, garages, and carriage houses to be converted into *detached* accessory units by special permit.⁸ This could provide an additional opportunity for small, low-cost housing units that would not alter the character of site. Any accessory housing units created in Petersham should be required to have a deed restriction to keep them affordable in perpetuity so that they count toward the Town's 10% affordable housing goal.

The final type of housing recommended for Petersham is senior housing, which is discussed below.

Senior Housing

As mentioned above, there is a significant need to provide housing suitable for Petersham's elderly population. Senior housing can range from smaller detached and attached units, to various types of congregate living arrangements with communal social and dining areas, to facilities offering different levels of skilled care.

Planners and municipal officials have long recognized that senior housing generally has different and lower impacts than other types of housing. Most notably, senior housing does not place any burden on the public school system, and, for this reason, it usually generates a net positive revenue stream for the town (that is, it pays more money in property taxes than it requires for the provision of public services), which is rarely the case for single-family housing. In light of these benefits to the Town and the demonstrated need for senior housing in Petersham, this land use should be regulated separately from other types of housing. Senior housing should be allowed by special permit in all zoning districts, subject to density and design standards specified in a new Senior Housing Bylaw. Currently, there is a five acre minimum for parcels developed as Senior Housing.

The Senior Housing Bylaw should allow for senior housing in three types of settings:

1. Senior housing in or near the town center, in which several units are clustered into one or two moderately scaled buildings within walking distance of the town center. This type of housing could be created by converting an existing house or through new construction. The building(s) should be consistent with the scale, massing, and architecture of existing town center buildings.
2. Senior housing in existing large buildings in Petersham, if they ever become available for redevelopment. The Nichewaug Inn and the adjacent Academy Building are two examples of currently available properties that might be suitable for senior housing. Other buildings, such as those owned by the two monasteries or those owned by Harvard University, could also conceivably be used for senior housing if the current users ever vacate them. Existing large buildings could provide a variety of independent and assisted living units.
3. Senior housing in the rural sections of Town in an "estate-style" setting where the building(s) are surrounded by open space and have access to walking trails and other recreational amenities. This type of housing is currently popular among seniors who wish to maintain their independence but give up the responsibility of caring for a large house and yard. At the present time, there appears to be considerable demand for upscale developments of this type in Massachusetts. This

⁸ The special permit mechanism would give the Planning Board considerable discretion to ensure that any proposed accessory dwelling unit is appropriately situated will not have adverse impacts on the Town. The Board should adopt criteria for evaluating special permit applications for accessory dwelling units that address issues such as wastewater disposal and parking.

type of senior housing could be built at a density of 2-3 units per acre (assuming that suitable soils are available for subsurface wastewater disposal), with at least half the site permanently protected as open space.

Any senior housing development should be required to provide a portion of the units (e.g., 15%) as affordable units.

Affordable Housing Strategies

Petersham would like to remain an affordable community that retains the socioeconomic diversity it has historically possessed. In addition, the Town should begin creating deed-restricted and/or subsidized affordable housing, since these are the only types of affordable housing that count toward the Town's state-mandated 10% affordable housing goal. Once the Town meets this goal it will no longer be subject to "unfriendly" Comprehensive Permit applications that seek to circumvent local zoning to build a higher-density project.⁹

Defining and Enforcing "Affordability"

The state definition of affordable housing for Petersham is related to the median family income for the non-metro Worcester County area. For the purpose of the local affordable housing policies recommended in this chapter, the Town can use this state definition or a stricter definition that is tied to the median *household* income for the Town. For example, housing that is affordable to households earning 80% of the 2000 Petersham median household income of \$47,833 could cost up to \$957 per month for rental units or \$135,500 for ownership units.

Any affordable units created through the policies recommended in this plan should be required to carry a deed restriction to ensure that they remain affordable in perpetuity. The restriction limits the price at which the unit can be sold or rented in the future. This limit is always tied to the same median income statistics, so it will tend to go up over time, thus allowing the owner a reasonable return on his or her investment. The requirements for housing affordability and for the deed restriction should be spelled out in a new section of the Town's zoning bylaw that addresses affordable housing creation.

If the Town desires, it could also restrict some or all of its affordable housing to occupancy by Petersham residents or their relatives. (However, this is not the case for housing created with a federal subsidy, for which fair housing laws limit the extent to which local preferences may be applied.) The justification for this policy would be to help local residents and their children and parents stay in Petersham if they wish to do so. Given the Town's small housing stock, a policy such as this might make it easier for these people to find housing in the Town.

⁹ In addition to meeting the 10% affordable housing target, there are a few ways that towns can temporarily protect themselves from unfriendly Comprehensive Permit applications. Petersham may deny such applications if, in the past year, it has created affordable housing equal to 2% or more of the Town's total housing (currently 10 units in the case of Petersham). Recent changes to the state statute reduce this threshold to $\frac{3}{4}$ of 1% (or a mere four units per year for Petersham) for communities that have adopted an affordable housing plan approved by the Department of Housing and Community Development. Petersham should consider doing so in the future, since it is quite possible that the Town will create four affordable units per year once the growth rate cap is lifted. See 760 CMR 31 for more information on criteria for Comprehensive Permit denial and how Petersham can use these to its advantage.

Types of Affordable Housing

Under state law, the Town cannot require a developer to provide affordable housing as part of an as-of-right housing development (this would be considered an “exaction,” and state statute does not authorize development exactions). However, Petersham can require affordable units as part of housing developments that require a special permit. The following are the types of housing recommended in this plan that would encourage or require some of the units to be affordable:

- Single-family houses that are allowed to be built on a smaller lot in exchange for making the house affordable (see page 46)
- Conversions of existing houses into 3 or 4 dwelling units
- Creation of a new multi-family structure with 3-6 dwelling units in the Town Center or Business district
- Conservation subdivisions that take advantage of a density bonus in exchange for providing affordable housing (see page 48)
- Senior housing
- Accessory dwelling units

Affordable Housing and Chapter 40B

In order for the affordable units created through the preceding strategies to count toward the Town’s state-mandated 10% affordable housing goal, the Town will need to follow the requirements of the Department of Housing and Community Development (DHCD) and its Local Initiative Program (LIP). LIP is a state housing initiative administered by DHCD to encourage communities to produce low- and moderate-income housing that is of a design and size acceptable to the community. The program also provides technical and other non-financial assistance to communities interested in developing housing to serve low- and moderate-income households. A LIP project can be submitted by the Town alone or in partnership with a private developer, and may occur on private or public property.

To streamline the process of getting locally-created affordable housing included on the state inventory, the Town should look into submitting a “Local Housing Program” to DHCD. The Local Housing Program spells out the various ways that the Town intends to create affordable housing units (e.g., through the various zoning policies suggested in the Master Plan). Once DHCD approves this program, any affordable units created pursuant to the program are automatically counted toward the Town’s affordable housing inventory. The Town may be able to obtain assistance from the Montachusett Regional Planning Commission to prepare the Local Housing Program for submission to DHCD.

Housing Partnership Committee

In order to promote the creation and management of affordable housing in Petersham, the Town should establish a new committee for this purpose. Responsibilities of the Housing Partnership Committee would include the following:

- Lead the implementation of the housing section of this Master Plan.
- Facilitate the creation of affordable housing under the various zoning policies recommended in the Master Plan. This work would include securing suitable affordable housing restrictions in consultation with the Planning Board and with DHCD.
- Enforce affordable housing deed restrictions and local residency requirements, if appropriate.
- Work with the administrator of the sub-regional housing rehabilitation grant (see page 65) to define priorities and implement the rehab program in Petersham.
- Advocate for pro-affordable housing policies at the state and local levels.
- Act as the Town's liaison to state and regional organizations involved in affordable housing creation and advocacy, such as the North Quabbin Community Coalition's Housing Task Force.
- Educate Town residents about affordable housing in an effort to engender positive attitudes toward its creation.
- Seek out grants as well as partnerships with nonprofit and for-profit housing developers to build affordable housing that is consistent with the goals of this plan and with the Town's rural character.

CHAPTER 6: ECONOMIC DEVELOPMENT

A. EXISTING CONDITIONS

Petersham has a small but fairly diverse economic base that includes several small retail and service businesses as well as a variety of home-based and resource-based enterprises. Even though there are no major employers in the Town, a sizeable portion of the Town's residents work locally, while many others commute to jobs in other communities. This section explores the Town's business base, resident labor force, tax base, and economic development opportunities and challenges.

Summary of Existing Economic Conditions in Petersham	
Strengths	Concerns
<ul style="list-style-type: none">• Petersham has a highly educated labor force.• Home occupations and self-employment are an important low-impact form of business activity in Town.• The Town's natural, scenic, and historic resources offer numerous attractions for visitors, and could be used to promote local tourism.• Natural-resource based businesses such as farming and forestry contribute to Petersham's economic base as well as the Town's identity.• The Town has a relatively good road network and is easily accessible from Route 2.	<ul style="list-style-type: none">• The Town's economy has contracted slightly over the last ten years, even as population has continued to grow.• The Town's non-residential tax base has shrunk by almost half in the past decade.• There are few job opportunities in Petersham, and most residents need to commute to other cities and towns to work.• Future business development could impair the Town's natural or scenic resources if not carefully sited and designed.• Wastewater issues could limit future development and redevelopment options in the town center.

Existing Business Profile

Petersham's economy is fairly typical for rural New England. Retail and service establishments in the Town include the country store in the town center; a cluster of businesses near the junction of South Street and Barre Road (Route 122) such as a restaurant, liquor store, and auto repair business; and a few crafts and antiques businesses. The government and non-profit sector accounts for a major portion of the Town's jobs. Employers in this sector include the Petersham Center School, other branches of Town government (such as the Police and Highway departments), and Harvard Forest.

The natural resource industries provide income for a significant number of residents, although in many if not most cases this is not the primary income source. Natural resource-based industries include farming, logging, cordwood, maple syrup production, sand and gravel mining, and similar activities. Tourism and recreation is another important component of the Town's economy. Attractions such as nature trails, craft stores, the country club, and Harvard Forest bring visitors from local as well as more distant locations, and the Town has two bed and breakfast establishments and a campground for those who wish to spend the night.

The final—and perhaps most significant—component of the local economy is home-based business activities. Unfortunately, there are no reliable statistics on the size and impact of this group of businesses.

However, a comparison of the data in **Table 6-1** to that in **Table 8-1** reveals that almost half of those 278 people who reported that they work in Petersham do not show up in employment statistics, suggesting that they are self-employed or have other non-traditional employment situations. This would amount to about one-fourth of Petersham's labor force of almost 600 people. Home-based business activities include telecommuting (i.e., working at home full time or several days a week while being formally employed by an employer in another location), consulting, writing, art or music, crafts, cottage industries, professional services (e.g., architect or lawyer), small repair shops, and similar enterprises.

Table 6-1 shows employment by major industry sector in the Town for each year from 1992 through 2001. As discussed above, this data set is not complete accurate since it appears to omit approximately 140 people who work in Petersham but are not formally employed in one of the industries identified in the data set. In addition, since there are so few establishments in the agricultural, forestry, and fishing, construction, and manufacturing sectors, employment statistics for these sectors were suppressed to protect confidentiality. Nevertheless, this data set offers at least some insight into employment and business trends in the Town.

- The number of business establishments and the total employment in the sectors analyzed have both declined by a small amount over the past decade.
- The government sector experienced moderate growth during the 1990s, adding 19 workers or 39%.
- The wholesale and retail trade and service sectors both contracted during the past decade, losing 36% and 16% of their workers, respectively.

Table 6-1
Employment by Industry, 1992-2001

Industry	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	'92-'01 Change
Agriculture, Fishing, Forestry	Conf	Conf	Conf	Conf	Conf	Conf	Conf	Conf	Conf	Conf	N/A
Government	49	53	63	61	61	59	62	59	64	68	19
Construction	Conf	Conf	Conf	Conf	Conf	Conf	Conf	Conf	Conf	Conf	N/A
Manufacturing	0	0	0	0	0	0	Conf	Conf	Conf	Conf	N/A
Transportation, Public Utilities, Communication	0	0	0	0	0	0	0	Conf	0	0	0
Wholesale & Retail Trade	50	46	35	39	40	40	38	37	32	*	(18)
Finance, Insurance, Real Estate	0	0	0	0	0	0	0	0	0	0	0
Services	43	41	38	41	42	35	36	29	33	36	(7)
Total Employment	145	145	140	147	149	141	148	134	142	139	(6)
Total Establishments	33	33	29	28	31	28	30	27	29	30	(3)

Source: Massachusetts Division of Employment and Training.

Conf: Because there were only a small number of workers in these sectors, data are suppressed to protect confidentiality.

* This figure was misreported as 0 in the 2001 statistics.

Labor Force Characteristics

Occupation of Petersham Residents

Table 6-2 shows the occupations of Petersham residents in 2000 (the last year for which data are available) compared to that for residents of Worcester County, the state, and the nation. Approximately 55% of Petersham's residents were employed in managerial, professional, or technical occupations in 2000. This percentage is significantly higher than the comparable figure for the county, the state, and the nation. These occupations often require college or graduate level degrees, and pay above-average salaries. Conversely, compared to the county, state, or national averages, Petersham has a relatively small percentage of its population employed in service; sales and office; construction, extraction, and maintenance; and production, transportation, and material moving occupations.

Table 6-2
Occupation of Petersham Residents, 2000

	Petersham %	Worcester Co. %	State %	U.S. %
Management, professional, and related	54.9	37.6	41.1	33.6
Service occupations	9.9	13.9	14.1	14.9
Sales and office occupations	19.6	25.5	25.9	26.7
Farming, fishing, and forestry occupations	0.3	0.2	0.2	0.7
Construction, extraction, and maintenance occupations	6.9	8.1	7.5	9.4
Production, transportation, and material moving occupations	8.4	14.7	11.3	14.6
Total Civilian Residents Employed	597	360,343	3,161,087	129,721,512

Source: U.S. Census Bureau, Census 2000.

Petersham Labor Force and Unemployment

As shown in **Table 6-3**, the labor force in Petersham in 2001 totaled 524 persons, a decrease of nearly 7% since 1992. Over the same period, the state's labor force increased by 4.4% and the nation's labor force grew by 11.7%.¹ This trend may be due in part to demographic shifts in the age of the Town's population. For example, from 1990 to 2000, the number of people in Petersham between the ages of 20 and 44 decreased from 429 to 355. During the same time, the number of people aged 45-64 increased from 228 to 339, but it is possible that many of these people have taken an early retirement.

For most of the past decade, unemployment in Petersham has tracked slightly below the state average. However, the unemployment rate in Petersham was higher than the state average in 1997, 1999, and 2000.

¹ Sources: Massachusetts Division of Employment and Training and U.S. Department of Labor, Bureau of Labor Statistics.

Table 6-3
Average Annual Labor Force and Unemployment, 1992-2001

Year	Town of Petersham			State %	U.S. %
	Labor Force	Unemployed	Rate		
1992	563	47	8.3	8.6	7.4
1993	567	35	6.2	6.9	6.4
1994	579	33	5.7	6.0	5.8
1995	556	29	5.2	5.4	5.6
1996	538	18	3.3	4.3	5.4
1997	564	27	4.8	4.0	4.9
1998	552	17	3.1	3.3	4.5
1999	545	19	3.5	3.2	4.2
2000	526	18	3.4	2.6	4.0
2001	524	19	3.6	3.7	4.8
% Change	-7%	-60%	-57%	-57%	-35%

Sources: Massachusetts Division of Employment and Training, Local Area Unemployment Statistics; U.S. Bureau of Labor Statistics.

Note: Labor statistics are derived using a different methodology than census statistics, which explains the difference in the total labor force number between **Table 6-2** and **Table 6-3**. The census statistics in **Table 6-2** probably give a better estimate of the size of the Town's labor force because they better account for self-employed persons.

Tax Base

Table 6-4 shows total property values in Petersham by major use categories for 1992 and 2002. During this ten-year period, the total value of residential property in Petersham grew by 18.0%, comprising 91.7% of the Town's tax base in 2002 as opposed to 86.3% in 1992. The value of commercial property as a percentage of all property decreased from 10.4% in 1992 to 4.8% in 2002, and the total tax revenue received from commercial property value decreased from \$86,465 in 1992 to \$61,068 in 2002. The value of industrial property increased significantly but still remains a very small part of the Town's tax base.

Petersham maintains a single tax rate that applies to all use categories. The Town's 2002 tax rate was \$14.02 for all land uses. For fiscal year 2003, the tax rate jumped to \$17.68. This sharp increase is attributed primarily to the construction projects at the Petersham Center School and the Mahar Regional School, which together will require the Town to pay more than \$350,000 in annual interest for the next few years.

Municipalities in Massachusetts have the option of setting different tax rates for different property categories. By adopting a dual tax rate for residential and business properties, the Town could increase the assessment of non-residential taxes to help offset residential taxes. However, the net effect would be small because the Town's non-residential tax base is quite small. In addition, in the long term a dual tax rate could discourage new economic development and re-investment in existing businesses, which could eventually result in a smaller business tax base.

Table 6-4
Total Assessed Property Values by Major Use Categories, 1992 and 2002

Tax Assessment Use Category	1992 Total Valuation	Total Taxes Assessed	% of Total
Residential	\$69,961,600	\$719,205	86.3
Open Space	354,400	3,643	0.4
Commercial	8,411,000	86,465	10.4
Industrial	247,100	2,540	0.3
Personal Property	2,115,600	21,748	2.6
1992 Totals	\$81,089,700	\$833,601	100.0

Tax Assessment Use Category	2002 Total Valuation	% Change in Valuation, 1992-2002	Total Taxes Assessed	% of Total
Residential	\$82,566,499	18.0	\$1,157,582	91.7
Open Space	0	-100.0	0	0
Commercial	4,355,801	-48.2	61,068	4.8
Industrial	431,700	74.7	6,052	0.5
Personal Property	2,699,000	27.6	37,840	3.0
2002 Totals	\$90,053,000	11.1	\$1,262,542	100.0

Source: Mass. Data Bank, Mass. Department of Revenue.

Notes: 1992 Tax rate = \$10.28 per \$1,000 assessed value. 2002 Tax rate = \$14.02 per \$1,000 assessed value.

Table 6-5 compares Petersham's assessed valuations, tax rate, average residential assessed value, and average residential single family tax bill with seven of its neighboring communities as well as the state average. Of the communities analyzed, in 2002 Petersham had the highest average assessed home value but the lowest tax rate (however, with the increase in the tax rate in 2003, this is probably no longer the case). These two factors result in an average single family tax bill that is the highest in the sub-region (by a significant margin) but still slightly below the state average.

Table 6-5
Tax Base Comparison, Petersham and Surrounding Communities, Fiscal Year 2002

Community	% of Total Assessed Valuation			Tax Rate*	Avg. Res. Assessed Value	Avg. Res. Tax Bill
	Residential	Commercial	Industrial			
Petersham	91.7	4.8	0.5	14.02	\$160,152	\$2,245
Hardwick	88.6	7.1	1.4	16.58	\$123,939	\$2,055
Ware	81.9	10.6	4.2	19.50	\$105,128	\$2,050
Hubbardston	94.6	2.6	1.0	14.64	\$136,398	\$1,997
Barre	88.2	6.8	1.7	14.82	\$129,482	\$1,919
New Salem	93.6	3.4	0.1	15.90	\$112,649	\$1,791
Phillipston	93.2	3.9	0.3	15.45	\$104,716	\$1,618
Athol	85.4	8.2	2.8	16.71	\$86,513	\$1,446
State Average	68.9	20.7	6.0	NA	NA	\$2,297

Source: Mass. Data Bank, Mass. Department of Revenue.

* Dollars per \$1,000 of assessed valuation. All of the towns in this table have a single tax rate for residential and non-residential property.

Given the small size of Petersham's non-residential tax base, it is important to identify major sources of non-residential tax revenue if the Town hopes to increase this revenue source in the future. **Table 6-6** shows the total assessed (appraised) value and the total taxable value (after deductions for various credits) for each land use category based on the Assessor's database. The table also estimates the amount of taxes paid by property owners in each use category in 2002. The data in this table do not correspond precisely to those in **Table 6-4** because in **Table 6-6** the state land use categories were grouped differently to provide more detail and to examine the actual or potential revenue from vacant land, land enrolled in the Chapter 61 programs², and tax-exempt land.

² Chapter 61, 61A, and 61B of the Massachusetts General Laws provide for significant reductions in property tax for landowners who agree to keep their land in active forestry, farming, or recreational uses, respectively, for a set period of years. See the Open Space and Recreation Plan for additional discussion of these programs.

Table 6-6
Tax Revenues from Non-Residential Property, 2002

Land Use/Owner	Assessed Value	Taxable Value	Approx. Taxes Paid^(a)	%
Vacant Land ^(b)	\$10,297,900	\$9,636,000	\$135,097	25.5%
Farm Buildings, Storage	\$1,376,300	\$598,300	\$8,388	1.6%
Commercial/Mixed-Use	\$5,091,800	\$4,009,300	\$56,210	10.6%
Sand & Gravel	\$318,100	\$269,000	\$3,771	0.7%
Utilities	\$165,300	\$165,300	\$2,318	0.4%
Forestry Land (Ch. 61)	\$2,069,100	\$104,900	\$1,471	0.3%
Farmland (Ch. 61A)	\$1,893,500	\$133,900	\$1,877	0.4%
Commercial Recreation (Ch. 61B)	\$406,600	\$102,000	\$1,430	0.3%
State Government	\$6,688,400	\$0	\$318,733 ^(c)	60.2%
Town of Petersham	\$2,306,400	\$0	\$0	0.0%
Schools, Colleges	\$4,974,600	\$0	\$0	0.0%
Religious Organizations	\$14,231,700	\$0	\$0	0.0%
Other Non-Profit Organizations	\$2,934,700	\$0	\$0	0.0%
Totals	\$52,754,400	\$15,018,700	\$529,295	100.0%

Source: Petersham Assessor's Database, which is based on 2000 property valuations.

(a) Estimated by multiplying taxable value times the 2002 tax rate of \$14.02 per \$1,000 assessed value.

(b) Excludes land enrolled in Chapter 61, 61A, and 61B.

(c) MDC Payment in Lieu of Taxes for 2002. Source: MDC website. This figure increased to \$323,481 for fiscal year 2003.

Economic Development Opportunities

Although Petersham lacks paid staff to initiate economic development activities in the Town, non-profit organizations and local residents have stepped in to fill this gap in certain instances. This section summarizes two such efforts: a regional ecotourism initiative and the current local effort to attract a suitable user to the Nichewaug Inn property.

Tourism

Petersham is one of the nine communities that comprise the North Quabbin region (the other eight are Athol, Erving, New Salem, Orange, Phillipston, Royalston, Warwick, and Wendell). Among other characteristics, the North Quabbin region is known for its beautiful natural setting, consisting of lakes, streams, forested landscapes, and abundant wildlife.

In recent years, these towns have begun to recognize the potential opportunity to revitalize the depressed local economy through a carefully planned set of strategies to bring more tourists to the region. The New England Forestry Foundation (NEFF), a non-profit conservation organization created in 1944 to provide management assistance to the owners of small private forests, included forest-based tourism as a part of its five-year project to enhance the economic, social, and ecological health of the North Quabbin region through sustainable utilization of the region's forests. NEFF hired UMass environmental marketing specialist Cynthia Barstow to assist in developing strategies that would bring more tourists to the region and attract more tourism-related local business.

Barstow presented her initial research in spring 2001 at a well-attended meeting at the Millers River Environmental Center in Athol. The enthusiasm generated by her presentation led to the creation of an Ecotourism Task Force to develop a marketing plan for the region. The task force met monthly over a period of several months to analyze further market research, determine target markets, set goals and objectives, and plan strategies. The objectives of the task force were:

- Insure buy-in through a multi-stakeholder approach to strategy development;
- Focus on both environmental stewardship (minimal impact) and economic development in planning; and
- Develop realistic research-based and market-driven strategies for ecotourism in the North Quabbin region.

The task force examined current market trends, tourism trends, profiles of ecotourists, and geographic data on target markets to develop their strategies. The task force looked closely at related projects for lessons, and conducted an informal inventory of existing assets in the North Quabbin. Finally, they developed goals, objectives, and strategies for tourism in the North Quabbin area.³

Nichewaug Inn

The Nichewaug Inn, located in the heart of the historic district on the northwest side of the Town Common, is an important landmark in Petersham and represents the Town's largest redevelopment opportunity. The entire Nichewaug complex—which includes the Inn and the adjacent Academy building—contains about 99,000 square feet of building space on over six acres of land.

The Nichewaug Inn building, measuring 44,000 square feet with 170 rooms, was constructed as a summer resort in 1899 by prominent and highly regarded Petersham citizen James W. Brooks. Brooks was supported and encouraged by local citizens to rebuild on the site of an inn that had been destroyed in an 1897 fire. The Nichewaug Inn functioned for nearly fifty years with regular guests and visitors from New England, New York, and beyond.

The shingle-style architecture of the Nichewaug Inn is represented in the center of Petersham by many houses interspersed along North Main Street. The entire group, with the Nichewaug Inn acting as a kind of focal point, stand as an excellent original collection of this much-admired style of American architecture.

In 1951, the Catholic Church acquired the Inn and developed it into a parochial high school Academy. In 1954, a 55,000 square foot building (now known as the Academy Building) was added to the rear of the Inn for classrooms and student housing. The Academy functioned for over twenty years until the Church closed the school in 1972. The Sisters of the Academy utilized the buildings as a retreat until the property was sold in the early 1980s.

In 1982, the original Nichewaug Inn building was listed on the National Register of Historic Places as a component of Petersham's historic district. The Inn and Academy are remembered fondly to this day by

³ This description is taken from the *Strategies for Ecotourism Development in the North Quabbin: A Summary of Recommendations by the North Quabbin Ecotourism Task Force and Research by Marketing Expert Cynthia Barstow*, prepared by Jim Heyes, April 2002.

area residents who were guests there, worked and played there, held important events there, and attended school there.

For over twenty years, the buildings have remained unused. Through a series of post-1982 owners, numerous development plans have circulated for the site including schools and colleges, office space, housing, restaurants and inns, and other ideas. In the 1980s, two proposals were submitted by Boston-area developers: one for upscale condominiums and one for an alcoholic rehabilitation hospital. Also in the 1980s, a group of local developers formed the Nichewaug Realty Trust and worked to promote the buildings for redevelopment. In 1992, the current owner purchased the property with the intent of developing an upscale restaurant and inn. While the Town supported the effort and granted all permits requested, the project did not go forward partially due to the high cost of renovation and development. Projected costs for renovation are estimated to be several million dollars. In the late 1990s, the current owner placed the Nichewaug Inn on the market for \$650,000. Real estate agencies have shown the property extensively, but thus far no viable buyer or development project has emerged.

A local citizens' group called the Friends of the Nichewaug Inn was formed and began holding public meetings in early 2002 to promote interest in and development of the Nichewaug property in a manner that is sustainable, financially sound, and sensitive to the community and to the historic nature of the buildings. Many ideas have emerged from these meetings including:

- Redeveloping the original Inn building into a residential inn with involvement from a non-profit entity;
- Creating affordable housing with assistance from a regional housing authority;
- Utilizing a portion of the buildings for municipal needs such as the Town's public safety departments and other possible Town services;
- Developing exhibition/office space for groups such as the Petersham Historical Society and Petersham Craft Center, along with studio and gallery space for artists; and
- Creating individual office spaces for small businesses and non-profit entities.

Local and state representatives have supported recent efforts to acquire grant funds to complete some necessary repairs and offset the costs of developing the buildings.

B. ECONOMIC DEVELOPMENT PLAN

Many of the Town's economic development goals revolve around the idea of encouraging dispersed low-impact business uses that are compatible with the Town's rural character. In other words, residents would like to have more jobs and tax revenue from local businesses, but not at the expense of large amounts of traffic, pollution, or visual blight. Residents also value the Town's "working landscape" of rural lands and would like to encourage small businesses that are based on the Town's land and natural resource base, such as agriculture, forestry, and ecotourism.

The economic development strategies presented in this section fall into four categories. First and most importantly, the Town should revise its zoning bylaw to modify and expand the range of business that are allowed in Town. Second, the Town should consider the role of wastewater disposal infrastructure in facilitating the establishment of new businesses and expansion of existing ones. Third, increasing the Town's economic development capacity could help encourage desirable types of rural businesses as well as promote and advocate for the interests of existing businesses. Finally, the Town should pursue avenues for expanding its tax base that go beyond the recruitment of new businesses.

Business Zoning

Zoning is crucial for business development because it tells prospective businesses whether or not they are likely to be welcome in any given town. A zoning bylaw that allows a wide range of business uses with flexible dimensional requirements can function as a "welcome mat" to businesses, while a more restrictive bylaw can turn away businesses that are selecting among different locations. Petersham needs to strike an appropriate balance with its business zoning: flexible enough to attract desirable businesses but restrictive enough to protect the Town's rural character and natural resources. In this regard, one major recommendation is to establish two new zoning districts (for a total of three) so as to direct different types of businesses to those sections of Town where they are most appropriate. See **Table 4-5** and the narrative that precedes it for an explanation of these three proposed zoning districts: Residential-Agricultural, Town Center, and Business. The following discussion offers more detail on some of the business uses listed in **Table 4-5**.

Ecotourist Establishment: In order to encourage small-scale tourism in Petersham that is linked to the Town's natural resources and historic heritage, a new land use—Ecotourist Establishment—could be added to the zoning bylaw to provide flexibility for the various types of buildings and activities that such an establishment might require. An Ecotourist Establishment could be defined as a facility offering guided or unguided nature tours, including equipment rental and sales; nature or environmental education programs; cultural programs; spirituality or wellness programs; and lodging, dining, and entertainment facilities predominantly for guests participating in these activities. This use should be allowed by special permit in all three zoning districts.

Dispersed Business Uses in the Residential-Agricultural District: Since Petersham's residents would like to preserve the quaint character of the town center, the best location for larger business uses is in the outlying sections of the Town. Based on input from Town residents during the planning process, acceptable business uses in the rural areas could include clean light manufacturing facilities, research labs, business offices, conference and retreat centers, inns, and health and fitness spas. However, care must be taken in the design and siting of these businesses so that they have minimal impact on the Town. Accordingly, they should be allowed only in the Residential-Agricultural district, only by special permit,

and only on sites of at least 10 acres with at least 250% of the ordinarily required setbacks (that is, 125 feet on each side). In addition, Site Plan Review should be required so as to minimize traffic, noise, visual, and any other impacts. By allowing dispersed business uses in the R-A district, the Town can hope to attract a few larger businesses that will be nestled away from Town roads, essentially invisible except for the jobs and the tax revenue that they provide to the Town.

Business Uses in the Business District: The proposed 70-acre Business district on Route 122 just south of the town center is the most appropriate location for businesses that generate considerable traffic and/or require high visibility. Zoning regulations should be relaxed here to encourage the development and expansion of small retail and service businesses. For example, professional offices as well as retail and service establishments, banks, and business offices up to 2,500 sq. ft. in size should be allowed by right in the Business district, whereas they currently require a special permit. And these uses should be allowed to expand to 5,000 sq. ft. by special permit (compared to the current 2,500 sq. ft. cap).⁴ In addition, gas stations, which are now prohibited throughout Town, should be allowed by special permit in the Business district. All new development in this district should be required to undergo Site Plan Review and Design Review so that it is compatible with the Town's rural image and does not result in an ugly commercial strip.

Business Uses in the Town Center District: The Town Center District is the area of Town requiring the greatest protection from incompatible business development. Thus, higher impact business uses that are currently allowed here by special permit should be prohibited in the future. Examples of these uses include sawmills, motor vehicle service stations, motor vehicle sales lots, light manufacturing facilities, and research labs.

Home Occupations: Home occupations and small cottage industries are an important part of Petersham's rural economy and should be encouraged in the future. The Town currently allows home occupations by right subject to certain restrictions (see footnote [b] in **Table 4-2**). The Town's current home occupations provision appears to be appropriate, and no change is recommended at this time.

Infrastructure

Wastewater disposal constraints are an important infrastructure factor limiting the siting and expansion of businesses in Petersham, especially in the town center. The Board of Health estimates that almost 40 properties in the town center have failing septic systems. Until a solution is found to manage the wastewater from these properties, the buildings upon them cannot be sold and cannot expand in any way that would increase sewage flows. In a couple of cases this constraint may be hindering economic development in the town center.

The Board of Health is currently exploring opportunities to build one or more shared septic systems that would provide a long-term sewage treatment solution for the identified properties. If this happens, a small amount of reserve capacity in the system could be built in to allow the development or expansion of desirable businesses in the town center. In general, however, small retail and service businesses generate no more (and usually less) wastewater than dwellings of the same size, and business conversions could take place even if the system(s) had no reserve capacity.

⁴ This size is still appropriate to a rural town such as Petersham. For comparison, the Country Store is roughly 2,800 sq. ft. while a modern chain drugstore is about 12,000 to 20,000 sq. ft.

In the rural areas, it should be noted that many types of businesses, even medium-sized and large ones, can function without public sewer as long as they do not involve water-intensive operations. Uses such as light manufacturing facilities, office buildings, and health spas are all found in communities that rely upon septic systems for wastewater disposal.

Agriculture and Rural Development Committee

During the planning process, there was much talk about preserving and even strengthening Petersham's "working landscape"—those lands in Town that are actively used for agriculture, forestry, mining, or other revenue generating uses such as ecotourism. The working landscape depends upon numerous landowners, each of whom is essentially running a small business such as logging, farming, woodworking, or running a guide service. One effective way to support these types of rural businesses is to provide educational, technical, and financial resources to help existing small businesses thrive and new ones get established.

To provide this type of support to Petersham's small businesses, the Town should consider establishing an Agriculture and Rural Development Committee to promote profitable farming, forestry, and other natural resource based businesses in the Town. Initially, this committee should be tasked with researching the best practices in rural and resource-based economic development from throughout the Northeast that could potentially be used in Petersham. At the same time, the committee should identify financial and technical resources (ranging from various grants to staff at the UMass Extension service) that local business owners can take advantage of—ideally free of charge. Next, the committee should work with owners of existing and prospective farm, forestry, and tourism businesses in Town to deliver these resources. Examples of activities that the committee might undertake include:

- Working with an owner of open pasture land to establish a small business raising organic free-range beef, or raising sheep or goats for producing high-end cheeses on site.
- Connecting a young aspiring farmer from out of town who is looking for a plot of land to farm with a landowner in Petersham who wants his land to be farmed so that he can claim a Chapter 61A tax abatement.
- Working with a forest landowner and a UMass Extension staffer to initiate a pilot project on half an acre of land raising American ginseng in a natural shade environment to sell as a herbal medicinal product.
- Working to develop a townwide recreation, trails, and attractions map that promotes outdoor recreation in Town while highlighting local businesses that tourists can patronize such as restaurants, bed & breakfasts, and craft stores and studios.
- Helping to establish a weekly farmers' market on the town common or a local Community Supported Agriculture (CSA) program.⁵

⁵ CSAs allow persons to buy a share in a farm for a moderate fee, which guarantees them a certain portion of the farm's output for the duration of the growing season. Farmers benefit from this program since they receive up-front the money needed to cover planting costs, seeds, equipment, and the farmer's salary, while residents benefit by receiving high-quality produce (often organic) at a moderate price. Also, the risk of a crop being ruined by weather or insects is spread among the shareholders, rather than just the farmer, which could ultimately force farmer to sell his land.

Expanding the Tax Base

As discussed earlier in this chapter, about 92% of the Town's tax base is provided by residential property. This excludes payments in lieu of taxes from the Metropolitan District Commission, which add about 25% to the Town's annual income from property taxes. Nevertheless, the Town's tax base struggles to provide enough revenue to fund the Town's annual budget, which is already rather pared-down. For example, the tax rate jumped 26% from fiscal year 2002 to fiscal year 2003 because of payments owed on debt associated with the Center School and Mahar School expansions. There are no "magic bullets" to address Petersham's fiscal challenges, so the Town needs to pursue numerous avenues for increasing revenue.

In the long term, the zoning and other recommendations identified above may reinvigorate the Town's business tax base. Another promising source for new property tax revenue could be senior housing, which usually provides more money in property taxes than it costs in new public facility and service demands.

Simultaneously, the Board of Selectmen and Petersham's elected representatives should work with the state to ensure that the Town receives fair and adequate payment in lieu of taxes for state-owned lands. In many other cities and towns where Harvard University owns property, they make an annual payment in lieu of taxes to the municipality. The Board of Selectmen has been pressuring Harvard to do the same in Petersham, where they own over 2,500 acres and undoubtedly benefit from Town services such as road maintenance and police and fire protection. A final (albeit small) source of revenue that the Town should pursue is the stumpage tax provided for under Chapter 61 of the Mass. General Laws. Landowners who receive a property tax abatement for keeping their land in active forestry use are required to pay the Town an 8% stumpage tax on the value of forest products harvested. In recent years, this often has not happened. The Town assessor should annually send out a form to Chapter 61 landowners requiring the reporting of forest products revenues so they may be taxed appropriately.

CHAPTER 7: PUBLIC FACILITIES AND SERVICES

A. EXISTING CONDITIONS

Growth in a community places new demands on public services, facilities, and infrastructure. Conversely, the development of new public facilities and the provision of services may influence how much growth occurs in a community, and where. This section discusses Petersham's public facilities, services, and infrastructure based on information from discussions with Town officials as well as on-site inspections. The purpose of this section is not to undertake a thorough analysis of each of the Town's facilities and services, but to integrate this information into the overall master planning process so that the Petersham's public investment decisions are consistent with the Town's overall vision for the future.

Summary of Existing Public Facilities & Services in Petersham	
Strengths	Concerns
<ul style="list-style-type: none">• School construction projects underway at Mahar Regional School and recently completed at Petersham Center School will greatly enhance the Town's school facilities.• Petersham has many dedicated citizen volunteers who actively participate in running town government.• For a Town of its size, Petersham has very good social and cultural services, including a high quality library and an active Council on Aging.	<ul style="list-style-type: none">• The Town Office Building is far too small for the functions it houses, and lacks amenities for basic comfort, such as insulation and central heating.• The Police and Fire Departments both need new facilities.• Recent school investments have stretched the Town's fiscal resources, and state funding cutbacks have made matters even worse.• The Town currently lacks a process for long-term coordinated capital investment planning.• Several Town government function are short on staff.• The Town Hall and Town Office Building do not fully comply with ADA accessibility requirements.

General Municipal Facilities and Services

Town Hall

Petersham's Town Hall is located across from the Town Common, at the southeast corner of South Main Street and East Street. Town Hall is an attractive structure with a white wooden façade, columns in front, and a decorative cupola. The present Town Hall, built in 1960, is a replica of the former Town Hall building on the site, which was built in 1850 but destroyed by a fire in 1957. The building consists primarily of two large meeting spaces: a main level accessible from South Main Street, and a lower level that is accessible by stairs from the main level or by a side door on the south side of the building. The main level is used for annual and special town meetings and a variety of other meeting functions. The lower level, which also has a kitchen, is used by the American Legion, the Council on Aging, and for meetings of various local boards, commissions, and organizations.

Town allows many local non-profit organizations to use Town Hall free of charge, and also rents out the space for private functions from time to time. Meeting space in the building is reportedly tight, which

means that much coordination and advance planning are needed to schedule the rooms, and that rooms are not always available for those who want to use them. New space at the Center School, if made available for meeting use, could help alleviate this situation.

Town Hall is only partially handicapped-accessible. The main level is fully accessible, with a handicapped ramp from street level as well as a handicapped accessible restroom. The downstairs is not fully accessible. Although it is possible to avoid stairs by entering the lower level from the side door, the grades near this door are rather steep. In addition, the lower level lacks a handicapped-accessible restroom.

Town Office Building

The Town Office Building, located just south of Town Hall, provides office space for most of the Town's departments, boards, and commissions. The two-story brick structure was built in 1848, and was originally used as a school. Currently, the first floor houses the Administrative Coordinator's office (which includes filing space for the Board of Selectmen and a large table that is used for meetings) and the Assessor's office. The second floor contains a large room with desks for the Town treasurer and the Board of Health, filing cabinets for some of the other boards and commissions, and a small, partitioned-off space with two desks for the Police Department's patrolmen. The second floor also houses the Town Clerk's office, the Police Chief's office, and the Police Sergeant's office.

In general, the Town Office Building is woefully inadequate to meet the Town's current needs. Not only is it much too small for the various functions that it houses; it also lacks basic modern amenities such as central heating and adequate insulation. Many of the Town's boards and departments are hindered by not having a desk, let alone an office, from which to work. For example, recently the Town's Building Inspector was eligible to receive a computer from the state to assist with her work, but there was no place to put it. Similarly, there would be no place in the building for any additional part-time staff to work. In addition, the building has almost no storage space. The basement is not usable for storage because of excessive moisture, and, although the Town now stores some documents in the attic, this area is unheated and not secure. The building is not handicapped accessible, although a temporary handicapped ramp has been placed in front to provide at least some access to the first floor. The second floor, which must be reached by stairs, is completely handicapped inaccessible. In addition, there is no handicapped accessible restroom in the building.

At various times over the past several years, the Town has considered building either a new police/fire complex or a new police/fire/town office "triplex." The triplex concept was considered a desirable design because it could allow for sharing of meeting space, lockers, storage, and training facilities among the Police Department, Fire Department, and other town government functions. However, past opportunities to capitalize on state funding for such a project have come and gone, and there are currently no immediate plans to proceed with a new building. The first steps in planning a new building would be to conduct a siting and feasibility study to evaluate potential sites as to their suitability from an engineering standpoint.

Current staffing in the Town Office Building includes a full-time Administrative Coordinator and several part-time staff including the Town Clerk, Board of Health secretary, Town Treasurer, Town Accountant, Tax Collector, Assessor, and Building Inspector. Most of the part-time staff work at the Town Office Building for only a few hours per week, if at all, and work at home or in the field the remainder of the

time. In many cases, these staff work far more hours than they are compensated for in an effort to keep the Town running smoothly. Despite their efforts, current staff are often unable to provide the Town's volunteer boards and commissions with the support they need, which places an additional burden on citizen volunteers. For example, volunteer board and commission members usually need to prepare all their own hearing notices, certified mail letters, and similar administrative duties—tasks that in other towns are often performed by secretarial staff. In spite these burdens, citizen volunteers in Petersham continue to be generous with their time, and in doing so contribute tremendously to the running of local government.

Petersham Memorial Library

The Petersham Memorial Library is located at 23 Common Street on the west side of the town common. The library is a handsome two-story stone structure that was built in 1890. Designed by Edmund Wilson and constructed of native stone, the library is a fine example of Richardsonian architecture (the Center School, also designed by Wilson, is a “companion piece”). The main floor of the library contains the collections, several tables and a small reading area with comfortable chairs for patrons, a children's area, a card catalog, one public computer, and a small office for the librarians behind the circulation desk. On the “mezzanine” above the entryway and circulation desk there is a bathroom, which is available to staff and patrons, and a small open area, which is now work and storage space but which in the past has been used for meetings. The first floor of the library is handicapped accessible, but the restroom on the second floor is not.

Library facilities include about 21,000 printed volumes as well as videos, audio recordings, and magazines. The library is a member of the Central Massachusetts Regional Library Systems (CMRLS), which allows library patrons to request materials from other library collections in Central Massachusetts. The library also sponsors story times and cultural and historical programs, and regularly makes meeting space available for town organizations. In general, the library has a good-sized collection for a community of Petersham's size, but could benefit from the integration of information technology, such as an electronic catalog and convenient public Internet access.

The library is not owned and operated by the Town. Instead, it is owned by the Petersham Memorial Library Corporation, which was created by state law in 1891 to establish and operate a library in Petersham. The Library Board of Trustees is responsible for operating the library. Funding for the library comes from proceeds from the Corporation's endowment (80%), appropriations from the Town (10%), appropriations from the state (4%), and miscellaneous sources such as gifts, book sales, and overdue fines (6%). The Town appropriation must be voted upon annually.

In general, the library building is in good condition, although, like most old buildings, there are some upkeep needs, such as painting and repairing the walls. While the building is large enough to house the circulating collection, additional space is needed for office work space (for staff) and for storage. The Board of Trustees has begun to consider how to address future facility needs by developing a Long Term Plan in 1995. Funding for any facility upgrades at the library would probably need to come from grants.

As of 2003, the library was open 19 hours per week. Library membership is open not just to year-round Petersham residents but also to seasonal residents and residents of other towns. (This is a requirement for state funding, and is not unique to Petersham.) The library employs four staff, all of whom are part-time: a director, assistant director, and two circulation librarians. According to the Massachusetts Board of

Library Commissioners, this is a very high level of staffing among communities of comparable size, collection, and hours of operation.

Council on Aging

The Petersham Council on Aging (COA) counts among its members any Town resident over the age of 60. The COA is an all-volunteer operation. Lacking a senior center or even a storage room, the COA uses the basement of the Town Hall, which also serves as the local American Legion Hall. On Mondays, the COA hosts a Luncheon Club at this location, which is an adjunct to its “Meals on Wheels” program. The volunteers that participate in these functions must be trained in safe food handling and in elderly health matters. The COA sends a newsletter, containing information on health as well as information from the MA Executive Office of Elder Affairs (EOEA), out to its members eight times a year.

The EOEA provides annual funding to the Petersham COA to cover specific operating costs. This funding, which has recently ranged from \$2,400-\$2,800 per year, is used to finance exercise classes (held in the Town Hall by certified instructors from the Athol YMCA) as well as other health-oriented activities. The funding that the Town receives is the minimum available to communities, due in part to Petersham’s relatively small population of senior residents. The EOEA funds are also used to underwrite the Luncheon Club as well as the speakers the COA often schedules for Monday afternoons following lunch. These lectures focus on topics such as nutrition and dietary concerns, or legal matters such as hospitalization stay ramifications, will-writing, and transference of decision-making authority.

One restriction on the EOEA funds that hinders the COA’s ability to serve its members is the fact that the funds may not be used to provide entertainment activities. However, the Town’s Cultural Council periodically receives a grant for cultural activities, and these funds have been used to take the Town’s seniors on trips to Springfield and to the Berkshires. Since grant writing is very time consuming and the Council’s resources are limited, they are unable to take advantage of this very often. Another restriction on EOEA funds is that, while they could be used to make improvements to a senior center owned by the COA, they cannot be used to modify properties that the COA rents. Since the COA shares its space with the American Legion and numerous other organizations who use the building, it is unable to make any purchases or modifications to the space to enhance its utilization.

The COA provides demand responsive door-to-door service for elderly and disabled patrons that need to get to medical and legal appointments. COA members volunteer their time and serve as drivers using their personal vehicles for transport. The Franklin Regional Transit Authority (FRTA) reimburses the COA drivers for their mileage. Drivers must be approved by the State Registry of Motor Vehicles and must have some experience dealing with elderly patrons, as sometimes additional assistance is needed (e.g. verifying correct prescriptions for blind patrons). While this program has subsequently been emulated by FRTA as a successfully operating program, the COA has been unable to engage additional volunteers and there is some concern that the program will not be able to continue as the COA currently has only five drivers with the youngest one being 72 years old.

The COA needs a senior center. Lack of available land is a primary obstacle to the development of a new senior center. Since much of the downtown is covered by ledge and subject to septic problems, identifying a suitable site for a new senior center has been difficult. One location that was identified as appropriate is now the site of the new Petersham Center School. The only remaining appropriate site might be the Nichewaung complex.

Schools

Petersham has a local elementary school—the Petersham Center School—for grades K-6 and sends its students to the Mahar Regional School in Orange for grades 7-12. The following is a brief description of both schools.

Petersham Center School

The Petersham Center School, located on Spring Street, consists of two connected buildings: the school's original 1906 brick and cedar two-story building and a new single-story building that was completed in 2003. An elevator in the original building allows most of the school, with the exception of the original building's top floor storage space, to be fully accessible. While the Center School plans on using both school buildings, sections of the older building are currently in the process of being renovated and upgraded, and are, as a result, presently not in use. Once the renovation is complete, the original building will house the Center School's teachers' work room, art/music rooms, library, computer lab, multi-media resources, storage, and custodial uses.

The new 27,000 sq. ft. addition, which required a Proposition 2½ debt exclusion to fund, has doubled the size of the school. The original plans called for a \$4.25 million construction project with a 66% reimbursement from the state. Higher bids required the Town to vote an additional \$922,700 to fund the construction. The new building contains the school cafeteria, classrooms, administrative offices, and a new gymnasium. With the construction of the new building, the average classroom size in the school has increased significantly. For example, the new kindergarten room is 1,250 sq. ft., the first and second grade classrooms are approximately 1,100 sq. ft., and classrooms for grades three and up average around 900 sq. ft. The average size classroom in the original school building varied between 600 and 800 sq. ft.

Several years before the Town decided to construct a new school building, a feasibility study was completed to assess the Town's need to accommodate new students. After analyzing about a decade of enrollment numbers and birth rates, the study projected that the Town's school age population would continue to increase at previous steady, low rates. With this consideration, the decision was made to build an addition that would increase the school's capacity to 180 students. However, student enrollment at the Center School over the past few years has increased beyond the projections identified in the feasibility study. While the birth rate has remained steady, it appears that families with school-aged children are moving into Petersham faster than existing families in Town are graduating their children or moving out of Petersham. See **Table 7-1** for current enrollments by grade level for the 2002-03 school year, and **Table 7-2** for historic enrollment figures for the Center School.

Petersham Center School participates in a School Choice Program. Under this program, which the Town must renew on an annual basis, students from other towns who wish to attend the Center School may apply to do so on a first come-first served basis. The School Committee establishes a cap for each classroom (15 students), and School Choice students may not increase total enrollment above this level. Potential School Choice students that have siblings already attending the School are automatically accepted, provided the school has not met the cap for the student's grade level. Petersham is reimbursed for School Choice students by the town sending the pupil, which pays ¾ of per pupil cost for each School Choice student. While the Center School at one time had so many School Choice students in attendance that it was receiving \$125,000 annually from sending towns, the number of School Choice students has

diminished significantly with the growing Petersham resident school population. Recently, School Choice reimbursements funds were averaging around \$50,000 per year.

Table 7-1
Petersham Center School, 2002-03 Enrollment

Grade	Total Enrollment
Kindergarten	14
First	20
Second	18
Third	17
Fourth	15
Fifth	12
Sixth	16
Total	112

Source: Petersham Center School.

Table 7-2
Historic Enrollment at Petersham Center School, 1996-2002

School Year	Petersham Enrollment	School Choice Program	Total Enrollment
1996-97	64	31	95
1997-98	64	30	94
1998-99	67	22	89
1999-2000	68	35	103
2000-01	81	30	111
2001-02	91	18	109
2002-03	101	11	112

Source: Petersham Center School.

The Petersham Center School currently employs a full and part-time faculty and staff of 26. Full-time staff positions include a library technician, media technician, nurse, and counselor. Other employees include a speech therapist, gym instructor, music instructor, and several part-time teachers' aids. Other staff positions, such as occupational and physical therapists, are paid out of Town line items, and are not paid for directly by the school.

Mahar Regional School

The Ralph C. Mahar Regional School serves the towns of Orange, New Salem, and Wendell in addition to Petersham. It is comprised of a middle school (grades 7 and 8) and a comprehensive high school (grades 9 through 12). The total enrollment is approximately 873 with a faculty of 71 and an assisting staff of 40. The Mahar campus is located on South Main Street in Orange, near Routes 2, 202, and 122.

In 2001, the four towns that comprise the Mahar Regional School district approved the construction of a new regional school after the proposal had been defeated several times previously. The approved

construction program was initially expected to cost \$29,700,000, but the discovery of a hazardous in-ground oil spill necessitated the allocation of an additional \$2,000,000 for cleanup. The new school facilities will include two new middle school wings and one new high school wing. The existing school building will be partially torn down and partially renovated.

For the 2002-2003 school year, the enrollment breakdown for the regional school is as follows:

Table 7-3
Mahar Regional School, 2002-03 Enrollment

Town	Enrollment	%
New Salem	76	8.7
Orange	671	76.9
Petersham	69	7.9
Wendell	57	6.5
Total	873	100.0

Public Safety

The Town's public safety services are provided by the Police Department and the Fire Department. The following is a description of each department's facilities and services.

Police Department

The Police Department offices are located on the second floor of the Town Office Building. These facilities consist of the Chief's office, a Sergeant's office, and two desks that are shared among the one full-time and seven part-time patrolmen. The Chief's office and Sergeant's office are separate rooms that can be locked from the outside, but the patrolmen's work space is part of a large room shared by the Town treasurer, Board of Health secretary, a meeting table, and filing space for other Town boards and commissions. The patrolmen's work space is divided off by a low partition, but the space is not secure, nor is there any noise barrier from the adjacent non-police work areas.

In addition to its space in the Town Office Building, the Police Department has a building on East Street that contains a one-car garage, police equipment storage, and an evidence locker. Because the department does not have a lockup or holding room for suspects, officers currently take suspects to the Athol State Police Barracks for interviewing and holding, or, if this facility is full, to the municipal lockup in Athol or Orange. A county lockup is currently planned for a site in West Boylston, but construction had not started as of this writing. Even if Petersham could use this lockup, its location is inconvenient because delivering a suspect to this site would take an officer and patrol car out of town for at least an hour and a half. The Town has two police cruisers, one of which is stored at the East Street garage when not in use, and the other of which is kept at the Chief's house.

The current Police Department facilities are inadequate for the department's needs in several respects. First, there is no private location to interview people, such as crime victims or witnesses. This presents security and privacy concerns, as the only space available for the patrolmen to do their work and hold conversations is in the large open room that they share with other Town officials and volunteers. Second,

the department needs storage space for police records. Current storage space is limited to just a few filing cabinets. Third, the department could benefit from additional office space to provide a more efficient work area for its patrolmen and a location for a part-time secretary, which the department has identified as a staffing need. Finally, the Police Department facilities are not handicapped accessible.

To address these needs, the Town has considered building either a new police/fire complex or a new police/fire/town office “triplex.” Such a facility could be designed to provide adequate space for offices, meetings, storage, and other Police Department functions, as well as room to expand if necessary in the future. The concept of a joint police/fire facility is also appealing because of the possibility of sharing facilities (e.g., meeting space, lockers, and training facilities) and staff between the two departments. However, this concept has not yet moved beyond the “idea” stage.

Fire Department

The current Fire Station on East Street was built in 1957-58 after a fire destroyed the joint Town Hall/Fire Station building in January 1957. Due to its central location, the Fire Station can serve all sections of Petersham with roughly comparable response times. Two additions to the original building, one in 1970 and the second in the late 1980s, have been made. The 1980s addition provided some much-needed meeting space. While the department’s meeting room is adequate for current, day-to-day needs, the room meets its capacity limit (25+ persons) whenever the Town hosts any firefighting training classes.

The Fire Department staff currently includes one Fire Chief, one Assistant Fire Chief, two Deputy Fire Chiefs, two Fire Captains, 15 Firefighters, and two Junior Firefighters for a total department force of 23. All firefighters are volunteers and are paid only if they actually fight a fire. The Chief takes care of the department’s administrative and clerical duties, for which he is paid a small sum. New members are recruited through the Fire Department’s newsletter, personal contact, and direct outreach. According to the Chief, the existing volunteer staffing arrangement is sufficient to serve the Town’s current needs, and considerable growth would need to occur in Petersham to warrant hiring full-time staff.

The department has been making a concerted effort to upgrade obsolete equipment whenever possible. The department’s newest engine, a 2000 Kovatch Mobile Equipment (KME) pumper, was put into service in August 2000. The new engine, which cost \$172,500, replaced a 1972 Ford that had served the Town for nearly 30 years. The new pumper carries 1,000 gallons of water, 1,500 feet of large diameter hose, has a pumping capacity of 1,250 gallons per minute, and carries other fire equipment as well. In December 2001 a “new” Rescue Truck, received from the Town of Phillipston, was put into service. The 1977 Chevrolet converted ambulance replaces the Town’s former 1976 Ford Rescue that had been in use for a number of years. Although not much newer than the vehicle it replaced, the Rescue Truck is more structurally and mechanically sound.¹

Additional equipment purchases in recent years include the replacement of four obsolete breathing air packs, a new automatic defibrillator, and 1,000 feet of large diameter hose. Funding (\$10,000) was appropriated at 2001 Town Meeting to replace the breathing apparatus units, which were nearing 30 years

¹ A full inventory of Fire Department’s active vehicles is as follows: 1988 Ford F-250 pickup (Chief’s Unit); 2000 KME/International 1,250 GPM pump, 1,000 gallon tank; 1990 Four Guys Tanker 750 GPM Pump, Rear Quick Dump, 2,500 gallon tank; 1981 Ford Farrar F-750 4WD 750 GPM Pump, 750 gallon tank, Brush hose reel (Equipped as Class-A pumper as well as forestry unit); 1960 International Tanker, 750 GPM Pump, 2,250 gallon tank; and 1978 Dodge 4WD pickup converted into forestry unit. Retired vehicles include a 1972 Ford Farrar 750 GPM Pump, 1,000 gallon tank; and two 1929 Model A Fords.

old. Town Meeting voters also approved the purchase of the automatic defibrillator in June 2001. The Town now owns three defibrillators: one located in each of the two police cruisers and one in the Rescue Truck. Twenty-two firefighters and police officers are trained in using defibrillators.

Through funding from the State Firefighters Safety Grant program and donations from the Petersham Grange and the local Firefighters' Association, the department was able to purchase a thermal imaging camera, which allows firefighters to search for people in smoky environments and to find fires inside walls and other less accessible areas. In 2002, the department received state funds to purchase three new breathing apparatus units, complete with three spare tanks. Neither of the Town's two recent proposals for funding through the Federal Firefighters Safety and Equipment Program were accepted for funding.

In general, the Fire Department seeks to retire vehicles after they are 40 years old and upgrade to newer equipment. The only vehicle at retirement age is the 1960 International Tanker. The Fire Chief hopes to retire the tanker within the next 5 years and replace it with a new one. It is estimated that a new tanker (with pump) would cost about \$200,000. Additional equipment that should be replaced and upgraded includes the firefighters' turn-out suits, which are about 15 years old. The Town maintains one suit for each firefighter in the department.

All of the Fire Department's active equipment is presently stored in the Fire Station. Non-active or retired equipment is stored elsewhere. Since the Fire Station was constructed in the 1950s, the vehicle entrances are out-of-date, and are very snug for today's modern fire-fighting vehicles.

To combat fires, the department brings 7,000 gallons of water from the Fire Station's well water to get the fire under control until they locate a water source near the fire. As there are no hydrants connected to public water supplies, firefighters look for ponds, brooks, or even swimming pools to provide the necessary water source. There are several dry hydrants throughout Town that provide access to pond water without having to cut holes in the ice during winter months. Additional dry hydrants might provide for easier water access.

Roads, Parks, and Cemeteries

Roads

Petersham's Highway Department is responsible for plowing and maintaining the Town's road network. The Highway Department's facility, located at 31 South Street, was constructed in the mid-1970s for about \$40,000. Consisting primarily of storage space for the department's equipment, interior amenities include only a small (9' x 16') office, lockers, and a sink. The storage facilities include six bays which are currently used to store seven pieces of equipment.

The department's equipment includes a front end loader, three dump trucks, and a backhoe. Due to budget cuts, the department currently employs three full-time workers—down from four in 2002—as well as several part-time seasonal workers for winter snow plowing. With the heavy snowfall during the most recent winter (2002-2003), the full-time staff has been forced to put in many overtime hours.

Severe space limitations in the department's facility mean that some equipment needs to be stored outdoors. Given the department's proximity to water resources that flow toward the Quabbin Reservoir, outdoor storage of its equipment does not comply with water quality regulations. To limit water quality

impacts, the Highway Department refrains from washing its vehicles and equipment on the site, but this means that salt and other materials will, in the long-term, reduce the equipment's longevity.

One potential solution to the environmental issues associated with the location of the Highway Department facility would be to conduct a land swap in order to give the department a more appropriate site. The Metropolitan District Commission (MDC) and Harvard Forest own many acres in Petersham that might provide suitable space for the Highway Department facility and could be traded for the more environmentally sensitive site that the department now uses. However, the dissolution of the MDC in 2003 leaves the possibility of a land swap in limbo for the time being. A new site for the Highway Department would need to be about five acres in size and have sufficient buffering from critical water resources. Even with a new, more environmentally suitable site, the Highway Department would still need to construct a new building, for which the Town has not allocated any funds.

Parks

The three-plus acre Petersham Town Common is located in the town center. The Town's Local Historic District encompasses the Town Common as well as the land located roughly ½ mile to the north and south of the Common along Route 32. The Common includes a Town-owned and maintained bandstand, which is used for brass band concerts during the summer months. A World War I memorial marker is located in the Common, as are several trees dedicated to war veterans. The Lions Club also maintains several Town-owned benches in the Common.

Cemeteries

The Town owns and/or maintains most of the cemeteries located in Petersham—a total of 21 acres of cemetery. Of the Town's eleven cemeteries, three are currently in active use. In addition, during the 1990s, the Town granted permission to the Maronite Monastery to create a cemetery on its land on Dugway Road. While this cemetery has not yet been created, it might still be developed. The following is an overview of the Town's cemeteries.

The East Street Cemetery, at 8 acres, is the Town's largest cemetery. It is presently a little more than half full. With an additional 3,000 or so plots available, it is estimated, given the Town's current population trends and burial rates there, that there will continue to be space available in this cemetery for at least 100-150 years. West Road Cemetery has space available for an additional 300-400 interments. Given the rate of burials here, it is estimated that there will continue to be space available in this cemetery for an additional 100 or so years.

Flat Rock Road, otherwise known as Northwest Cemetery, is one of the Town's smallest cemeteries. Although all the plots have been sold, there is still space available for family members. The 2½ acre Center Cemetery has very little space remaining. Mann Cemetery, located on North Main Street near Harvard Forest, has space available for perhaps 50-60 additional interments.

Given Petersham's relatively small population and the amount of cemetery space still available, the Town does not need to acquire any additional cemetery lands at this time. Custodial maintenance of the cemeteries is currently contracted out by the Town. Given the Town averages only about 15-18 interments per year, a full-time staff is not needed.

Capital Expenditure Planning and Budgeting

Capital expenditures refer major purchases or building projects that are expected to serve the Town for a number of years. Typical examples of capital expenditures would include buying new police or fire department vehicles, constructing a new building or conducting renovations to an old one, or purchasing land. Currently, the process of capital planning and budgeting in Petersham occurs mainly in an ad-hoc manner, facilitated by the Finance Committee. Each Town department identifies its principal needs, then vies for limited funding to have these needs fulfilled. At times, this process has been cooperative and has worked fairly well; but, overall, it has meant that capital expenditures have not been comprehensively planned or deliberately prioritized. This, in turn, can result in poor decisions about the best use of the Town's limited funds—for example, spending too much on a project in one year without realizing that funds should be conserved because several additional facilities or pieces of equipment will be needed over the next five years.

Recognizing the potential value of a coordinated capital expenditure planning process, the Town's Finance Committee has begun the process of establishing a capital planning committee in Petersham. Within the past few months, the Finance Committee has begun to look at the capital planning process in nearby communities such as New Salem and Deerfield and to research possible options for setting up such a committee. Discussions have also been held with each of the Town's departments as well as the Board of Selectmen, who would likely need to appoint a capital planning committee (CPC). Once a CPC was formed in Petersham, its first responsibility would be to speak to all the department heads and identify all of their long-term needs costing more than some pre-defined amount (e.g., \$5,000 or \$10,000). The urgency of each item would also be discussed. Then, the CPC would begin prioritizing all of the desired capital projects and allocate each project to be funded in a given year, based on the Town's fiscal capabilities to fund projects either up-front or by borrowing money. The CPC's final product would be a five-year or seven-year capital improvement plan (CIP) that lays out the recommended capital improvements and funding needs for the next several years. The CIP should be updated annually to reflect newly identified needs and shifting priorities, and so that it always looks 5-7 years into the future.

Long-term capital planning is all the more important in Petersham because the Town currently has little "wiggle room" in terms of its finances. For fiscal year 2003, the Town's tax assessment placed it almost at its levy limit, as dictated by Proposition 2½. Two debt exclusions—one for the Mahar Regional School and one for Petersham Center School—are a further demand on the Town's finances. The FY 2003 tax rate of \$17.68 per \$1,000 of assessed value is 26% higher than the FY 2002 rate of \$14.02—which amounts to a property tax increase of almost \$600 for the average homeowner in Petersham. In addition, as of April 2003, the Town only had \$42,000 in its stabilization account—far less than the 7% of the Town's budget (or about \$140,000) that the Finance Committee would like to have.

Current debt obligations in the Town include repaying the cost of the two school construction projects as well as two Town vehicles—a fire truck and a Highway Department truck. For the school projects, the state is expected to reimburse the towns (Petersham plus the other towns in the Mahar Regional district) for a portion of the project costs, but the state has seven years to begin providing this reimbursement. In the meantime, the towns need to service the debt through short-term loans, for which there is no immediate reimbursement. Currently, Petersham has a debt exclusion of \$219,717 through fiscal year 2007 for interest on the Center School loan and a debt exclusion of \$133,902 through fiscal year 2008 for its share of the interest on the Mahar School loan. In addition, the Town is expected to owe about

\$44,000 in principal and interest in FY 2004 for the fire truck and a Highway Department truck; and about \$34,000 in FY 2005 for the fire truck only. At this time, the only projected debt obligations for FY 2006 and beyond are for the school projects, although these are by far the largest of the obligations.

Looking ahead to the future, the Town's ability to pay for needed capital projects will depend on a few factors. For the time being, the Town is heavily burdened with debt obligations, as witnessed by the sharp increase in tax rate for FY 2003. However, in the future, as some of these obligations are retired or reduced, some capacity for taking on new capital projects will open up. For example, once the state begins making payments on the school projects, it is likely (though not certain) the annual debt payments will go down.² Another unknown factor is the Town's future income from payments in-lieu of tax (PILOT) that are currently provided by the MDC and other state landowners. The dissolution of the MDC and general state budget shortfalls call into question the future of the PILOT programs.

Despite these uncertainties about when and how much the Town will be able to afford future capital investments, it is critical that the Town begin planning for these needs now. That way, when funding does become available—from local sources and/or through various state or federal grant programs—the Town will be in a position to act.

² Once the state begins issuing payments and the debt is financed with municipal bonds, annual debt service will depend on the term of the bond, the interest rate, and, for Mahar School, the portion of the total debt service that Petersham will be required to pay (based on the number Petersham students versus the total number of students in the school).

B. PUBLIC FACILITIES AND SERVICES PLAN

Petersham's public services are generally of a good to excellent quality, especially for a town of its small size. Over time, as the Town's population grows, demand for services shifts, and facilities age, the need for new facilities and services must be constantly assessed and provided for accordingly. Typically, a community embarks upon a capital facilities construction program for one or more of the following reasons: 1) to provide facilities for an expanding population, 2) to remedy existing facility deficiencies, space shortages and overcrowding, and/or, 3) to maintain or increase the quantity and quality of municipal services and programs demanded by and provided to its residents. In Petersham's case, the first two reasons have created the most pressing demand for new facilities to date, although the third reason could become a greater factor in future years.

Capital Planning Process

The Master Plan contains several specific recommendations to help Petersham meet its future public facility and service needs in a cost effective manner. However, the most important first step is for the Town to establish a coordinated capital planning process so that it can plan, budget for, and fund new facilities based on townwide priorities and within the limits of the Town's fiscal resources. As discussed earlier in this chapter, the Finance Committee has already begun the process of establishing a capital planning committee (CPC) in Petersham. Membership on the Committee could include representatives from any Town departments that have facilities, a Planning Board representative, a Finance Committee representative, a member of the Board of Selectmen, and volunteer citizen(s). If possible, at least one member should have direct knowledge and experience in facilities planning and funding. The Committee would serve in an advisory capacity either to the Selectmen or directly to Town Meeting.

Once this committee is formed, its initial job should be to identify the facility needs of all Town departments and prepare an inventory of all Town-owned buildings and parcels of land that are available for municipal purposes. The CPC should also establish criteria for prioritizing facility needs (such as overcrowding of existing space or increases in the number and type of services that the facility is intended to support). Next, the CPC should rank all of the potential capital projects according to their relative priority. With this information, a townwide capital improvement plan (CIP) can be prepared that lays out the recommended capital improvements and funding needs for the next 5-7 years. When the CIP is completed, it should be presented to Town Meeting for adoption as an official Town advisory document.

Once an initial CIP is prepared, the capital planning committee should update this plan every 1-2 years to reflect new needs, priorities, or funding situations. The CPC could also be involved in implementing the plan by, for example, participating in the feasibility studies for and the programming and planning of individual municipal facilities.

Municipal Facilities

The following discussion identifies future needs for Petersham's various municipal facilities.

Public Schools

As noted earlier, the Town has recently completed an expansion of the Center School, and expansions are underway at the Mahar Regional School. The decision to expand the Center School's capacity from about 100 students to 180 was based on demographic projections that have since been exceeded. This

appears to be due to an influx of families with children into the Town that has greatly exceeded the recent rate of residential growth in Petersham. For example, from 1996-2002, 51 residential building permits were issued in Petersham, representing an increase of about 11% in the number of dwellings in the Town. During the same time, the enrollment of Petersham children at the Center School jumped more than 57% from 64 to 101. While the Town still has considerable reserve capacity at the Center School, clearly this will not be the case for long if recent increases continue.

One thing the Town can do to address concerns about school overcrowding is to regulate the rate and timing of new development, which it is already doing. The Town can also encourage the development of non-family housing (such as senior housing) in addition to or in place of family housing. Beyond these steps, there is little that the Town can do to limit the number of families with children moving into or staying in the Town. Therefore, the School Committee must continue to monitor enrollment figures and might wish to conduct future enrollment projections based on a number of different scenarios. For example, as of 2000 a smaller proportion of Petersham's population consisted of school aged children than the state average. One scenario should consider what would happen if this proportion rose so as to equal or even exceed the state average—as has happened in many suburban communities with good schools, which have essentially become “magnets” for families with young children. Detailed enrollment projections will form the basis for evaluating and planning for future facility needs at the Center School.

Town Office Building, Police, and Fire Facilities

To address existing severe space shortages in the Town Office Building and at the Police and Fire Department facilities, the Town should conduct a study to determine space needs and evaluate potential sites for these three facilities. It is preferable to evaluate all three facilities as part of a single study because of the potential to incorporate all of them into a single “triplex” building, which might have benefits in terms of construction and operational savings and better inter-departmental cooperation.

Another alternative might be to combine the Town Offices, Police Department, and perhaps space for a senior center (see below) into a single facility in the town center. One suggestion has been to investigate using a wing of the Nichewaug Inn building for this purpose, although the feasibility of this idea has not been fully explored. A second facility would then contain the Fire Department and the relocated Highway Department (see below), ideally on a site close to, but not directly within, the town center. (These facilities are less desirable in the town center because they require more space and have the potential for causing moderate noise and visual impacts. On the other hand, the Town Offices, Police Department, and senior center should be located in the town center if at all possible because they provide an important civic “anchor” to the village.) A shared Fire Department/Highway Department facility is appealing in that there could be efficiencies in combined vehicle maintenance and storage. In addition, if the Highway Department can obtain a new site through a land swap and the site is large enough, this might address the land needs of the Fire Department, thus allowing the Town Office/Police/Senior Center to be located on a smaller site in the town center.

Once a site has been selected and a general building program established for one of the scenarios discussed above, the Town can move on to conceptual design. Doing so will put the Town in a better position to seek grants to construct these facilities. Planning for these facilities now will allow the Town to act when funding becomes available. Additional bonding capacity may become available in fiscal year 2008 or 2009 as school debt payments decrease due to state reimbursements.

Facilities for Senior Citizens

The future need for programs and facilities serving senior citizens through the Petersham Council on Aging will depend on the Town's future senior population. In the short term, the Town should allocate space within existing facilities for senior citizens to use for various events and programs. In the long term, the possibility of building a senior center in the town center should be investigated. In the past, the lack of available land in the town center has been an impediment to providing such a facility. However, if a centralized wastewater disposal system is constructed in the town center (see below), some capacity could be reserved for such a facility, thus allowing it to be sited on what was previously an unsuitable site. As an alternative to a stand-alone senior center, the Town could incorporate it into a "triplex" facility as discussed above, or perhaps obtain a long-term lease or dedication of space from the future owner of the Nichewaug Inn property to use a small portion of the building for such a facility.

Highway Department Facility

As discussed on page 94, the Highway Department facility on South Street is inadequate to meet current needs, especially for the storage of vehicles and equipment. In addition, its location near wetlands is an environmental concern. For these reasons, the Town should continue to pursue a land swap with the state or another landowner so that the Highway Department facility may be moved to a less environmentally sensitive site with adequate upland acreage to meet the Department's long-term needs. The Town should also construct a building for the storage and maintenance of highway equipment, as well as a vehicle wash facility. This will help prolong the life of the Town's highway equipment.

Infrastructure Systems

Wastewater Management

Currently, numerous properties in the town center have failed or failing septic systems due to small lot sizes, the lack of suitable soils for septic disposal, and the proximity of groundwater to the surface in some areas. According to the Board of Health, there are almost 40 known failed septic systems in the town center, and there may be others that have not been tested but would fail if they were. These systems are mainly located in three areas: 1) in a cluster near the junction of East Street and Route 32; 2) around the brook that crosses under West Street; and 3) in other scattered areas around the town center.

These failed systems raise at least three concerns: 1) the potential for public health problems associated with improperly treated sewage; 2) the potential for environmental problems (especially polluted streams and ponds) caused by improperly treated sewage; and 3) economic costs for the property owner and potentially for the Town associated with the need to undertake costly septic repairs or the inability to sell or redevelop the property. To address these issues, the Board of Health is currently evaluating the possibility of building one or more shared wastewater disposal systems in areas with good soil to treat and dispose of sewage from properties with malfunctioning septic systems. Using grant funds from the Department of Environmental Protection, the Board of Health intends to hire a consulting engineer to conduct a feasibility study for the project. If the project is found to be feasible, these initial planning efforts should be followed by site selection, design, and construction. Unresolved issues regarding shared wastewater treatment system(s) that should be discussed publicly during the planning phase include:

- How will the system(s) be funded? Options include splitting the costs between the Town as a whole and the future users of the system(s), or allocating all the costs to the users through betterments. Home rule legislation may be required to allow certain funding arrangements.

- How will the system(s) be managed and maintained, and how will funds for these activities be collected and used? Will the Town assume this responsibility or will an independent Wastewater Management District and Wastewater Management District Commission be formed? Should an outside contractor be hired to manage the system?
- How much excess capacity should be built into the system(s)? Should their usage be strictly limited to existing development in the service area, or should some new development or redevelopment be programmed for?

Some septic systems in the town center that are still functional may be at risk of failing in the future because of constraints such as small lots and/or less permeable soils. To address these “at risk” systems, the Town should investigate establishing a septic system management program to be administered by the Board of Health. Such a program would require periodic pump-outs and provide homeowner education to maximize the life span of existing systems. Systems checks would be required at the time of pump out to help the Board of Health pinpoint problems. The Town could also apply for money from the DEP to establish a revolving fund for low- or no-interest loans, which could be made available to qualifying homeowners who need to upgrade their system.

High-Speed Internet Access

The Town currently does not have high-speed Internet access, such as Digital Subscriber Line (DSL) service or a cable-based Internet access system. These high-speed systems can be 20-50 times faster than dial-up Internet connections, and therefore are important for enabling telecommuting, home based businesses, and other businesses enterprises in Petersham, as well as for the general convenience of residents. For these reasons, the Town would like to have access to these services as soon as possible. Discussions with utility providers may help encourage them to bring high-speed Internet access to Petersham, especially if the Town can demonstrate a significant demand for such services.

Town Center Public Realm

The Town Common and the historic buildings that surround it are the centerpiece of Petersham’s historic town center. However, some residents are concerned that this landscape has been marred by ugly utility poles and wires, harsh lighting, and a state highway that is too wide and not sensitive to the quaint village context. Some of these elements may be difficult to change overnight, but the Town should strive for the following changes by exerting pressure on the utility and state highway agencies that own these parts of the public realm:

- Bury the overhead utility lines that are located in front of the Town Office Building and the adjacent cemetery. Utility lines have already been placed underground on Common Street, which contributes greatly to the area’s charm.
- Replace the harsh, glary street lights with different lights that cast a more natural looking glow.
- If Route 32 is ever reconstructed, work with MassHighway to narrow the roadway in keeping with the Town’s rural character, except where the shoulders are needed for parking. Smaller paved breakdown lanes or a partially unpaved shoulder would be adequate on a road with Route 32’s traffic volume.

CHAPTER 8: TRANSPORTATION

A. EXISTING CONDITIONS

This section describes Petersham's existing transportation network, including state highways, local roads, paths and trails, and nearby public transportation options.

Summary of Existing Transportation Conditions in Petersham	
Strengths	Concerns
<ul style="list-style-type: none">• Petersham is well-served by a network of state highways that connect it to Boston, Worcester, and the Connecticut River Valley.• Most of the Town's roads are well-suited for bicycling, and there are also numerous off-road paths for mountain biking and walking.• Many of the Town's roads are very scenic and still retain historic stone walls and street trees.• Many of the Town's roads remain unpaved, which contributes to the community's rural character.	<ul style="list-style-type: none">• Future uncontrolled roadside development could impair the safety, capacity, and beauty of the Town's roads.• Increased traffic is a potential threat to bicyclists, especially on narrow roads.• The Town lacks public transportation, with the exception of limited services for the elderly.

Transportation Infrastructure

Highways

The principal highway of northern Worcester County is Route 2, the old Mohawk Trail, which runs across northern Massachusetts and is located about seven miles north of Petersham's town center. Route 2 is a four-lane divided highway most of the way from Boston to Phillipston, narrowing to a two-lane road for most of the stretch from Phillipston to Williamstown at the New York border. Where it intersects Route 32 north of Petersham, Route 2 is a two-lane, limited-access road with a 55-mile per hour speed limit. This stretch of two-lane road from Phillipston to Erving has been the site of several fatal head-on crashes over the years, and recently MassHighway has made some small improvements to this stretch of road to help improve its safety.

State highways located in Petersham include Route 32, which runs north-south through central Massachusetts; Route 32A, which runs due south from Petersham to Hardwick, and is the most direct route to Ware, Palmer, and the Massachusetts Turnpike; Route 101, which runs northeast from the center of Town to Templeton, Route 2, and Ashburnham; and Route 122, which bisects the Town in a northwest-southeast direction. Route 122 is the most direct route from Petersham to Worcester, and also links the center of Town to Route 202 in New Salem, which provides access to Amherst and the Connecticut River Valley.

Town Roads

Petersham's roads are generally in good condition. The Highway Department manages an aggressive road maintenance plan, seeking to repair potholes and other minor problems quickly in an effort to avoid

the need for more costly, large-scale reconstructions. As a very old town that was once almost completely inhabited and cultivated, Petersham has numerous old roads and paths. While a number of local roads were discontinued in the past, the Town currently has very few roads that are not actively used to access at least one or two residences. Discontinuing such roads would, in some cases, cause property to become landlocked (meaning that it would no longer have frontage on a public way), and in many cases would mean that private landowners would need to assume plowing and maintenance work that the Town now provides free of charge.

The public ownership and maintenance of many of the Town's dirt roads has several important implications. First, and most obviously, it means that the Town must pay to plow and maintain these roads. Second, if further development occurs on these roads in the future, residents may request that the road be improved. This has happened in the past, as individual homes have been constructed in remote locations or seasonal homes have become full-time residences, requiring the Highway Department to upgrade back roads to accommodate year-round use. Finally, the number of miles of public road in Town determines the amount of road frontage that is available for Approval Not Required (ANR) development (see **Chapter 4** for further discussion). In this regard, the ownership of minor roads in Town has important implications for future growth and development.

Rail

There is no passenger or freight rail service in Petersham. The Springfield Terminal Railway Line (the former Boston and Maine Railroad) parallels Route 2 and provides access to the network of intermodal facilities serving central and eastern Massachusetts. The nearest Commuter Rail stations offering service to Boston and its suburbs are located in Fitchburg and Worcester. In the past, passenger rail service was also available in Gardner, as an extension of the Fitchburg Commuter Rail line, but this is presently not the case.

Pedestrian and Bicycle Facilities

Because of its rural location, Petersham offers numerous locations for bicycling and walking. Most of the Town's roads are well-suited for on-road cycling because of their low traffic volumes and moderate vehicular speeds. Route 32 from the Athol line to Route 122 has an ample shoulder for cycling. Some cyclists also ride on Route 122, although the section of this road approaching the New Salem line has a minimal paved shoulder and is therefore less suitable for cycling.

For pedestrians, there are sidewalks in key parts of the town center, such as along North Main Street and West Street. In parts of the town center where there are not sidewalks, it is generally safe to walk at the edge of the road, which some people do. Existing sidewalks are generally in good condition.

Many of the Town's best places to walk and bicycle are not on roads but within the Town's network of protected open spaces. Many of these locations are not well-publicized. Although individual landowners such as Harvard Forest and the Trustees of Reservations have produced trail maps for their property, there is no townwide trail map showing connections between properties. See the Open Space and Recreation Plan for further discussion of off-road paths and trails.

Commuting Patterns

Table 8-1 identifies the communities where Petersham employees reside as well as the workplace locations of Petersham residents in 1990. This commuter information is based on the 1990 Census Bureau's Journey-to-Work data (at the time of this report, 2000 Journey-to-Work data were not available). While this information is more than ten years old and many changes to the regional commuting patterns have likely occurred, it is still useful for assessing general commuting patterns. A comparison of 1990 Journey-to-Work data with the 1976 data from the *Study of the Management of Change* in **Table 8-2** reveals some interesting shifts.

- 30% of Petersham's residents work in Petersham, while another 34.1% of Town residents commute to Athol, Worcester, or Barre for work.
- 56% of those employed in Petersham are Town residents. Another 30.2% of those who work in Petersham commute to the Town from the neighboring communities of Orange, Barre, and Athol.
- Town residents are driving further to work than they used to. From 1976 to 1990, the percentage of Petersham residents working in Town or in neighboring Athol dropped from 68% to 46%. The number commuting to Worcester more than doubled.

Table 8-1
Commuting Patterns To and From Petersham, 1990

Workplace of Petersham Residents	# of Persons	%	Residence Location of Those Who Work in Petersham	# of Persons	%
Petersham	157	30.0	Petersham	157	56.5
Athol	84	16.1	Orange	35	12.6
Worcester	57	10.9	Barre	27	9.7
Barre	37	7.1	Athol	22	7.9
Gardner	27	5.2	Rutland	8	2.9
Orange	16	3.1	Winchendon	7	2.5
Leominster	13	2.5	New Braintree	6	2.2
Templeton	12	2.3	Templeton	6	2.2
Boston	10	1.9	Erving	4	1.4
Other MA Towns	103	19.7	Phillipston	3	1.1
Vermont	5	1.0	Oakham	2	0.7
New Hampshire	2	0.4	Royalston	1	0.4
Total	523	100.0	Total	278	100.0

Source: U.S. Census Bureau, 1990.

Table 8-2
Comparison of Commuting Patterns in 1976 and 1990

Workplace of Petersham Residents	1976		1990	
	# of Persons	%	# of Persons	%
Petersham	131	38.8	157	30.0
Athol	99	29.3	84	16.1
Worcester	25	7.4	57	10.9
Gardner	22	6.5	27	5.2
Barre	15	4.4	37	7.1
Orange	12	3.6	16	3.1
Other Locations	34	10.0	145	27.7
Total	338	100.0	523	100.0

Source: U.S. Census Bureau, 1990, and *A Study of the Management of Change*, Petersham Growth Policy Committee, 1976.

Public Transportation

Petersham is a member of the Franklin Regional Transit Authority (FRTA), which provides paratransit services for the elderly and disabled through the Council on Aging (see **Chapter 7**). Additional rides are provided for individuals on Medicaid and approved through MassHealth. This service is contracted out by the FRTA. The Montachusett Regional Transit Authority (MART) also runs a weekday “LINK” service along the Route 2-2A corridor between Gardner and Greenfield, including service to Athol and Orange.

The Orange Municipal Airport, a General Aviation (GA) facility, is the nearest airport. It has two asphalt runways, 5,000’ x 150’ and 4,998’ x 150’. The airport houses only non-precision instrument approaches. The nearest international airports are Bradley International located outside Hartford, Connecticut (63 miles from Petersham) and Logan International in Boston (76 miles from Petersham). The smaller Worcester airport is located 26 miles away.

Transportation Improvement Program

Transportation infrastructure planning in the U.S. is conducted by the Metropolitan Planning Organizations (MPOs), which establish regional priorities for spending state and federal transportation dollars. Each MPO is required to maintain a five-year transportation infrastructure plan called a Transportation Improvement Program (TIP). Petersham is part of the region included in the 2003-2007 Montachusett TIP, which was prepared by the Montachusett Regional Planning Commission. This TIP does not include any projects in Petersham during the five-year period. One proposed project that may affect Petersham is the re-surfacing of Route 101 in Templeton from Dudley Road to the Phillipston town line, which will improve access to Petersham from the east. This project is on the TIP for 2005.

B. TRANSPORTATION PLAN

As a rural town with a small population, Petersham does not have any major roadway capacity issues that need to be addressed. The Town's road network is generally adequate, and is very well maintained by the Highway Department. However, this situation could change as additional growth occurs along narrow rural roads, thus requiring them to be upgraded to handle additional traffic. This concern can be at least partially addressed by adopting the proposed Scenic Overlay District (see page 51) and discontinuing minor Town roads that are not suitable to accommodate new development (see below).

The other major transportation-related issue in the Town is the visual character of Town roads, which can be greatly affected by paving, roadside tree management, and any improvement work. For this reason, a set of guidelines for the management and, if necessary, improvement of roadways in Petersham is proposed below. With regard to parking, it would be wise for the Town to adopting parking requirements now so that it will be in a better position to require the appropriate provision of parking in new developments. Finally, bicycle and pedestrian transportation needs must be considered. The Open Space and Recreation Plan discusses the benefits of expanding and linking the Town's network of public trails, while the section on "Roadway Guidelines" below identifies bicycle transportation objectives for different classes of roads in Petersham.

Roadway Guidelines

For most people, the sense they get of Petersham's character is based on what they see as they drive, bike, or walk along the Town's roads. Scenic roads in Petersham vary tremendously: some are defined by dense woods and an overhanging tree canopy that creates a beautiful "tunnel effect"; others provide long views across open fields and pastures; and still others are defined by their historic buildings, stone walls, or rows of old sugar maples. In order to protect these aesthetic and historic qualities of Petersham's roads, the Town should adopt a set of guidelines for future road corridor management and improvement that addresses the following issues:

1. Road design standards (such as width, grade, and sight distances)
2. Type of road surface (dirt, gravel, or paved)
3. Roadside tree management
4. Pedestrian and bicycle accommodations
5. Criteria for the placement of future development alongside the road (this topic is addressed on page 51, where the Scenic Overlay District is discussed)

Recognizing that the Town's roads vary greatly in their character, it is necessary to distinguish different types of roads based on their condition, function, and aesthetics. The Master Plan thus divides Petersham's roads into five categories: Primitive and Rural Roads; Farm and Natural Rural Roads; Village, Cultural, and Historic Roads; Rural Residential Roads; and State Highways. An initial breakdown of these roads into the five categories is shown in **Table 8-3**, but this categorization could be modified if necessary.¹ A few roads appear in more than one category if they have different segments with different characters.

¹ This categorization was prepared by the Subcommittee on Scenic Roads and Rural and Historic Streets, a subcommittee of the Petersham Ad Hoc Planning Committee consisting of Ellen Anderson, Larry Buell, Robert Clark, and Lynn Shaw.

Table 8-3
Road Categories in Petersham

A. PRIMITIVE & RURAL ROADS		
<i>Characterized by an unpaved surface, narrow travel way, minimal development, and very low traffic volumes.</i>		
Birch Drive (SW portion)	Camel's Hump	Carberry Road
Choate Road	Doe Valley Road	Gay Drive
Glasheen Road	Glen Valley Road	Hammond Lane
Harty Drive	Leighton Road	Loring Hill Road
Monson Turnpike	Narrow Lane	Nelson Road
Pat Connor Road	Phillips Drive	Prospect Hill Road
Tom Swamp Road	Woodard Road	
B. FARM & NATURAL RURAL ROADS		
<i>Characterized by open fields and vistas and generally low traffic volumes.</i>		
Amidon Drive	Carter Pond Rd. (central portion)	Doe Valley Road
East Street	Hall Drive	Maple Lane
Nichewaug Rd. (central portion)	Old New Salem Rd. (east portion)	Oliver Street
Quaker Drive		
C. VILLAGE, CULTURAL, AND HISTORIC ROADS		
<i>Characterized by numerous historic buildings in a village setting. These roads generally have more traffic than the previous two categories, but most of it is local traffic.</i>		
The Common	East Street	Hardwick Road
North Street	Spring Street	Sunset Lane
West Street		
D. RURAL RESIDENTIAL ROADS		
<i>These roads vary from moderately to very scenic, but tend to have a greater amount of roadside residential development in places. Some of these are minor roads that mainly provide access to individual properties, while others serve a through circulation function.</i>		
Birch Drive (NE portion)	Briggs Road (west)	Camel's Hump
Dana Road	East Street	Flat Rock Road
Monson Turnpike (north)	New Athol Road	Nichewaug Lane
Nichewaug Road	Old Barre Road	Old East Street
Old New Salem Road	Shaw Road	West Road
E. STATE HIGHWAYS		
<i>These roads carry almost all of the through traffic in Petersham. They are generally wider, with good sight distances. Many stretches are quite scenic, and pass through areas of protected open space.</i>		
Route 32 (North Main/South Main Streets)	Route 101 (Popple Camp Road)	Route 122 (Barre Road/New Salem Road)
Route 32A (Hardwick Road)		

The following are preliminary guidelines for the future management and improvement of these five road categories:

Primitive and Rural Roads: These roads should generally remain narrow, unpaved rural roads for the foreseeable future. Using the Scenic Overlay District and other growth management tools discussed in **Chapter 4**, the Town should try to minimize types of development along these roads that would necessitate major upgrades or road widening, which, in many cases, would be quite expensive. Roadside trees should be allowed to grow wild to the extent possible to maintain a tree canopy that arches over the road. All of these roads are suitable for bicycling (although many would be of limited benefit because they are dead end roads), and no special improvements are needed since traffic volumes are so low.

Farm and Natural Rural Roads: Some of these roads are paved, while others are gravel. Gravel roads should generally remain as such to help preserve their rustic character. Alongside open fields, roadside trees should be thinned and managed so as to select healthy trees every 30-40 feet that can be allowed to mature into a row of evenly-spaced large street trees, similar to the rows of sugar maples that now line some Town roads. Forward thinking is needed to create a legacy of beautiful street trees for future generations, just as past generations planted these trees for our enjoyment. As with the Primitive and Rural Roads, most of the Farm and Natural Rural Roads are suitable for bicycling, and no special improvements are needed since traffic volumes are so low.

Village, Cultural, and Historic Roads: These paved roads are of an adequate width to accommodate the traffic that uses them; wider roads in the town center are not desirable because they would conflict with the village atmosphere that residents value. Sidewalks currently exist on many of these roads, and people sometimes walk even where there are not sidewalks. In the future, the Town could consider adding sidewalks to streets without them, such as Spring Street, although this is not a high priority. Street trees should be encouraged along these roads (both within the right-of-way and on adjacent private property) to help preserve their wooded feel.

Rural Residential Roads: This category includes most of the Town's through rural roads other than state highways. As such, there is a greater need to address safety issues and also more maintenance concerns associated with a greater (although still quite moderate) traffic volume. In the future, the perceived need to upgrade these roads should be carefully balanced against the desire to preserve their rural character. Through the Town's scenic roads provision and proposed Scenic Overlay District, the Town should make every effort to preserve roadside vegetation to a depth of at least 75 feet, and to preserve stone walls. Care should be taken in siting utility poles and wires so that they do not necessitate the maiming of large, beautiful roadside trees to keep them clear of power lines.

State Highways: These roads are owned and maintained by MassHighway, but the Town can still have input into their condition and management. In general, the state highways have more than enough capacity to serve the circulation demand for the foreseeable future. In some cases, such as along stretches of Route 32, the road is actually too wide for the function it serves. Thus, if state highways are resurfaced or improved in the future, their width should be commensurate with their function and traffic volumes. In terms of road shoulders, the Town's preference is for narrow paved shoulders (about 4-5 feet wide) that are adequate for cyclists but not excessively wide. A narrower cross-section for Route 32 in the town center is also desired, except in places where the shoulder is used for parking. Reducing the amount of

pavement here will make the area more pedestrian friendly and emphasize elements such as the town green and the buildings that ring it rather than a wide state highway.

Road Discontinuances

As discussed on page 33, frontage development (also known as Approval Not Required or Form A development) is the easiest form of residential development to permit in Massachusetts, and has constituted virtually all residential development to date in Petersham. However, frontage development becomes a problem when it is built along roads that are inadequate to provide access to the new houses. What often happens in this situation is that the new homeowners petition the Town to improve the road, which then must be funded by all of the Town's taxpayers.

The Petersham Subdivision Rules and Regulations attempt to address this situation by requiring that any road providing access to a new ANR lot have a minimum right-of-way of 25 feet, a minimum traveled surface of at least 18 feet, and adequate sight distances and drainage. However, as an additional safeguard, the Town should consider discontinuing segments of Town roads that are no longer viable for year-round public travel and/or are not needed to provide access to private property. Road segments that appear to meet these criteria and should be considered for discontinuance are shown on **Figure 4-5**. Again, these roads are only suggestions to **consider** for discontinuance. The Town should investigate each road further to determine whether it actually makes sense to discontinue it. Discontinuing road segments will reduce the potential for frontage development in Petersham and prevent the Town from having to undertake costly upgrades (at their own expense) to these segments in the future.²

Parking Requirements

Petersham currently has very basic parking requirements that specify how many off-street parking spaces must be provided for different types of new development allowed in the Town. These requirements provide a safeguard against out-of-control parking situations where uses on one property spill parking over onto nearby properties or public streets where it is unsafe to park. Looking to the future, the Town may want to tailor its parking requirements to better reflect the type of development and site layouts that it hopes to promote. For example, the Town currently requires the equivalent of about 5.7 parking spaces per 1,000 square feet of business or commercial development. By comparison, a more typical rate for suburban and rural areas is 3.5 to 5 spaces per 1,000 square feet. Excessive parking is undesirable because it is unsightly and contributes to water pollution. In addition, excessive parking requirements act as a disincentive to desirable business development, since parking is often the factor limiting how large a building can be placed on any given site.

Petersham should consider including two additional provisions in their parking requirements. First, applicants should be allowed to apply for a waiver or reduction of the requirements if they can show that the development will need less parking than the Town ordinarily requires because of its location, because many trips to the development would be by bike or foot, or because of the availability of suitable on-street parking. This final consideration may often be the case in the town center. Within the town center, it might be more desirable to allow a limited amount of on-street parking rather than to require new parking

² One caveat to note is that if a road discontinuance eliminates access to private property, the owner may be entitled to receive damages in an amount related to the development value of the land. However, if the land is not developable, this is less of a concern. The Town should seek legal advice on this matter prior to discontinuing any Town roads.

lots, which might adversely affect the town center's character. Second, the Town should consider whether unpaved parking areas are acceptable under any circumstances.

CHAPTER 9: IMPLEMENTATION PLAN

The Implementation Plan is a step-by-step guide for Petersham to follow over the next several years to ensure that the Master Plan recommendations are put into action. Implementing the Master Plan will require a concerted and ongoing effort on the part of the Town's boards, commissions, and paid staff, as well as participation and support from a large number of residents. However, the Master Plan—and the public consensus that it represents—is too important for the Town not to carry through with its recommendations. The actions that the Town takes now will have a lasting legacy that affects future generations.

It should be noted that planning is an iterative process whereby a community should continually evaluate and respond to new external and internal circumstances and challenges as well as changes in the goals and desires of its residents. This Master Plan has a planning horizon of approximately 20 years: that is, planning needs are evaluated over the next two decades and recommendations are made based on their projected benefit over the same timeframe. However, the Implementation Plan only has a five-year timeframe in the sense that most of the Master Plan recommendations are targeted to be implemented (or least commenced) within five years. After about five years (around 2008), Petersham should revisit the Master Plan to determine whether its goals and general strategies are still appropriate to the Town. A full re-write of the Master Plan will probably not be necessary at this time, but the Town should facilitate a public review of the document, modify the goals and strategies as necessary, and prepare a new Implementation Plan for the subsequent five years. The Town should consider preparing a new Master Plan after 15-20 years (around 2020), at which time conditions in the Town will probably have changed significantly and a new plan may be needed to address the challenges that these conditions present.

The Implementation Plan summarizes all of the substantive Master Plan recommendations in a matrix format that identifies the approximate timeline and the group(s) responsible for implementing each one. The recommendations are divided into two categories: 1) regulatory changes, and 2) other strategies. Most of the actions in the first category will cost little or no money to implement because they can be brought about by Town Meeting vote or other action to change local policies. Some of the actions in the second category will require the expenditure of funds, which may come from the Town, the state, and/or other sources. Preparing cost estimates for these items is generally beyond the scope of the Master Plan.

In the "Timeframe" column of the Implementation Plan, most of the actions are classified as either "Immediate" (indicating action within 12-18 months), "Short-Term" (indicating action within 1-3 years), or "Middle-Term" (indicating action within 3-5 years). Any actions that may require more than five years to implement are identified as "Longer-Term."

Table 9-1
Plan for Implementing Regulatory Changes

Recommendation	Responsible Group(s)	Time Frame
R1. Adopt Scenic Overlay District with guidelines for site planning along scenic roads	Planning, Town Mtg.	Immediate
R2. Adopt minimum upland requirements and lot shape requirements	Planning, Town Mtg.	Immediate
R3. Adopt new senior housing bylaw	Planning, Council on Aging, Housing Partnership Committee, Town Mtg.	Immediate
R4. Revise the Town zoning map to include two new districts; adopt new use regulations for all three districts	Planning, Town Mtg.	Short-Term
R5. Change the dimensional requirements in the Residential-Agricultural district to reflect the six different residential development options, and adopt zoning provisions regulating these development methods	Planning, Town Mtg.	Short-Term
R6. Modify zoning bylaw and subdivision rules and regulations to allow common driveways and establish appropriate standards for their creation	Planning, Town Mtg.	Short-Term
R7. Adopt new zoning provision for accessory dwelling units	Planning, Housing Partnership Committee, Town Mtg.	Short-Term
R8. Revise the provision for multi-family conversions and new multi-family housing to require 20% of the units to be affordable and to prohibit multi-family housing in the Residential-Agricultural district	Planning, Housing Partnership Committee, Town Mtg.	Short-Term
R9. Establish guidelines in the zoning bylaw for the creation of affordable housing	Planning, Housing Partnership Committee, Town Mtg.	Short-Term
R10. Adopt a Site Plan Review and Design Review bylaw	Planning, Historic District Commission, Town Mtg.	Middle-Term
R11. Review the special permit granting authority designations and revise as necessary	Planning, Zoning Board of Appeals, Town Mtg.	Middle-Term
R12. Revise setback requirements in the Business district	Planning, Town Mtg.	Middle-Term
R13. Adopt impervious surface limit	Planning, Conservation, Town Mtg.	Middle-Term
R14. Adopt parking requirements	Planning, Town Mtg.	Middle-Term
R15. Establish subdivision phasing bylaw	Planning, Town Mtg.	Longer-Term

Table 9-2
Plan for Implementing Other Strategies

Recommendation	Responsible Group(s)	Time Frame
01. Establish the Housing Partnership Committee	Selectmen, Town Mtg.	Immediate
02. Establish the Agriculture and Rural Development Committee	Selectmen, Town Mtg.	Immediate
03. Establish the Capital Planning Committee	Selectmen, Finance Committee, Town Mtg.	Immediate
04. Finalize and adopt guidelines for roadway management and improvement	Planning, Highway Dept., Tree Warden, Historic Commission, Town Mtg.	Immediate
05. Pursue efforts to expand the tax base through payments in lieu of taxes and the stumpage tax	Selectmen, Assessor	Immediate & Ongoing
06. Continue to pursue a centralized wastewater management solution for the town center	Board of Health, Selectmen, Town Mtg.	Immediate & Ongoing
07. Prepare a Capital Improvement Plan	Capital Planning Committee, Department Heads, Finance Committee, Selectmen, Planning Bd.	Short-Term
08. Revise the Greenprint for Growth to include lands of scenic, historic, and other value that the Town would like to preserve if possible	Conservation, Planning	Short-Term
09. Prepare future school enrollment projections for the Center School	School Committee	Short-Term
010. Commission space needs and siting study for future Town Office Building, Police, and Fire facilities	Capital Planning Committee, Department Heads, Finance Cmte, Selectmen, Town Mtg.	Short-Term
011. Develop short-term and long-term facility strategies for senior citizen programs	Council on Aging	Short-Term
012. Pursue a land swap with state and/or private landowners to acquire a new site for the Highway Department facility	Selectmen, Highway Department	Short-Term
013. Investigate discontinuing the Town roads identified in this plan	Selectmen, Highway Department, Legal Counsel	Short-Term
014. Work with MassHighway and utility agencies to improve the aesthetics of road and utility infrastructure in the town center	Selectmen, Elected Representatives	Short-Term & Ongoing
015. Adopt a septic system management program for “at risk” areas in the town center	Board of Health	Middle-Term
016. Conduct initial planning for a new Highway Department garage	Highway Department, Capital Planning Committee	Middle-Term

APPENDIX A: RESIDENT SURVEY RESULTS

The following pages provide the tabulated results of the resident survey conducted in February 2003.

PART 1: OPEN SPACE AND RECREATION

(Note: Percentages given on this page are based on the total number of responses for each question, which is sometimes less than the total number of surveys returned.)

1. RECREATIONAL ACTIVITIES. Which of these recreational activities do you and your family enjoy? For each activity that you participate in, do you think there is enough opportunity to do this activity in and near Petersham or would you like to have more opportunity? If there is any activity that would you prefer not occur in Petersham, please cross it out.

Activity	Participate; Enough Opportunity	Participate; Need More Opportunity	Do Not Participate	Oppose
Hunting	30/22%	6/4%	81/60%	18/13%
Fishing	66/48%	14/10%	56/41%	1/1%
Hiking	101/74%	14/10%	21/15%	0/0%
Cross-country skiing or snowshoeing...	72/54%	14/11%	46/35%	1/1%
Fitness walking or jogging.....	102/74%	21/15%	15/11%	0/0%
Horseback riding	17/13%	17/13%	95/73%	1/1%
Mountain bicycling.....	43/32%	12/9%	75/56%	3/2%
4-wheeling/dirt biking (motorized)	6/4%	10/7%	81/60%	38/28%
Snowmobiling	14/11%	11/8%	79/61%	26/20%
Power boating	8/6%	12/9%	85/64%	27/20%
Boating – non-power	45/35%	23/18%	59/46%	0/0%
Camping.....	29/22%	30/23%	68/53%	2/2%
Bird watching/nature study	91/67%	13/10%	30/22%	1/1%
Baseball or softball.....	23/18%	24/19%	82/64%	0/0%
Soccer, field hockey, or football	20/16%	20/16%	88/69%	0/0%
Basketball	15/12%	24/19%	88/69%	0/0%
Tennis	8/6%	26/20%	94/73%	0/0%
Golf.....	36/28%	5/4%	84/66%	1/1%
Swimming – lake or pond.....	51/40%	49/39%	27/21%	0/0%
Swimming – pool	31/25%	32/26%	55/44%	7/6%

2. OPEN SPACE. The term “open space” refers to undeveloped land used for conservation, recreation, agriculture, forestry, or similar uses. “Protected open space” is land that is permanently set aside and cannot be developed. Please check any of the following statements about open space that you agree with:

75/51% The town should protect more open space to safeguard its water and habitat resources.

80/54% The town should protect more open space to preserve its rural character.

86/58% Whenever possible, conservation restrictions should be used to protect open space so that land remains in private ownership and on the tax rolls.

45/30% The town already has enough protected open space.

38/26% The town should lobby for better public access to existing protected open space.

55/37% Encouraging logging and other “productive” uses of land is a good way to save open space.

3. LAND CONSERVATION. Which of the following methods would you support to protect additional publicly and privately owned open space in Petersham? (*check one or more*)

45/32% Use town funds to purchase land and/or conservation restrictions.

86/61% Seek or accept land donations and conservation restrictions from landowners.

83/58% Seek state, federal, and nonprofit assistance for land protection and management.

63/44% Maximize the amount of conserved land that remains in private ownership so that it is taxable.

78/55% Adopt zoning bylaws that restrict the rate and density of development (see question 9).

69/49% Adopt zoning bylaws that protect open space as part of the development process (see question 9).

27/19% None. The town doesn't need any more protected open space.

PART 2: OTHER PLANNING ISSUES

4. NATURAL, HISTORIC, AND SCENIC RESOURCES. How highly do you value each of the following natural, historic, and scenic resources in Petersham? Please rate each one in terms of importance from 1 (least important) to 7 (most important).

6.16 Forests

5.80 Farmland and open fields

6.17 Rivers and ponds

5.90 Historic buildings

6.17 Wetlands

5.92 Town common

5.84 Aquifers/drinking water sources

6.10 Other historic and archaeological resources

6.13 Habitat for rare plants and wildlife

5.53 Scenic roads (stone walls, roadside trees, etc.)

5.88 Habitat for game birds and mammals

5.80 Scenic vistas

5.77 Dark night sky

5.71 Trails

____ Other (specify): _____

5. MANAGING GROWTH. Although Petersham has yet to experience large amounts of growth, the Master Plan is a way of helping the town prepare for growth before it is overwhelmed by it. The following are several possible strategies that Petersham could use to manage growth. What is your view on these?

Growth Management Strategy	Support	Neutral/ Don't Know	Oppose
Larger minimum lot size: <i>Increase the required area for a new single-family house (now 1.5 acres).</i>	92	23	28
Cluster development/open space development: <i>In new developments, allow greater density on one part of the site in order preserve the remainder of the site as open space.</i>	49	33	54
Reduced frontage or "pork chop" lots: <i>Flag-shaped lots with the house set further back from the road on more land.</i>	58	38	41
Better development practices: <i>Require builders to retain trees and scenic views and match the town's rural character in new projects.</i>	119	17	11
Scenic overlay district: <i>Require vegetated buffers and larger setbacks along scenic roads.</i>	88	29	21
Growth rate limitation: <i>Limit the number of new homes that can be built in town each year.</i>	97	14	35

6. HOUSING. As people age, get married, have children, and retire, their housing needs change. Keeping in mind the current and future housing needs of your own family, what types of new housing (if any) do you think Petersham should encourage?

Type of Housing	Should Encourage	Neutral/ Don't Know	Should Discourage
Single-family houses	111	13	7
Mobile homes	6	12	117
Duplexes (2-family houses)	25	36	71
Small-scale multi-family housing (3-6 units/bldg.)	18	21	90
In-law apartments	79	43	11
Nursing homes/assisted living facilities	67	47	21
Independent living facilities for seniors	107	25	10
Affordable housing	46	45	39

7. AESTHETICS OF NEW DEVELOPMENT. One way that a community can help protect its character is to establish a design review process to review the architecture and site layout of new development. In Petersham, would you support design review: 37 In the town center only; 3 In the rural parts of town only; 71 Both; or 34 Neither?

8. TOWN CENTER. The town center is Petersham's geographic heart and community gathering place. Which of these statements about the town center do you most agree with?

107 The center should remain generally as it is now.

33 The center should include more housing, businesses, or other activities, consistent with the requirements of the Historic District.

9. ECONOMIC DEVELOPMENT. Business provides communities with jobs and tax revenue. Which of the following types of business (if any) should Petersham promote? For each one, indicate whether you would like to see more of this type of business in the town center, another section of town, or both. If you don't think that Petersham needs more of the type of business, don't check either box.

Type of Business	Town Center	Elsewhere in Town	Type of Business	Town Center	Elsewhere in Town
Restaurant	46	52	Gift, craft, or antique store	67	59
Bank/ATM	35	26	Bed & breakfast	54	60
Home occupations	49	84	Farming	18	106
Gas/service station	25	56	Non-polluting industry	9	50
Professional offices (doctor, lawyer, etc.)	59	55	Contracting/landscaping business	14	68
Commercial recreation (campgrounds, etc.)	1	47	Cottage industry (small engine repair, woodcrafts, etc.)	20	90
Retreats, conference centers, etc.	37	49	Natural resource industries (logging, maple syrup, etc.)	11	89

10. PUBLIC SERVICES. Please indicate your level of satisfaction with each of the following services in Petersham.

Service	Very Satisfied	Satisfied	Dissatisfied	Don't Know/ Don't Use
Elementary school	44	22	9	83
Middle school/high school	13	27	22	70
Police	62	68	9	2
Fire protection	67	67	1	6
Snowplowing & road maintenance	98	43	3	0
General town government	41	79	18	2
Library	55	62	13	13
Cemetery	44	54	2	42

11. PRIORITIZING IMPORTANT ISSUES. What do you think are the three most important goals that the town should pursue over the next few years? Please rank by number with #1 next to the most important. Place an "X" next to any goal that you disagree with. (*Composite score: 3 points for #1 answer, 2 points for #2 answer, 1 point for #3 answer, -1 point for "X".*)

<u>36</u> Protect more open space	<u>80</u> Protect natural resources
<u>157</u> Control residential growth	<u>174</u> Maintain the town's rural character
<u>180</u> Control tax rate	<u>-21</u> Provide more recreational opportunities
<u>15</u> Encourage more business and jobs	<u>1</u> Improve municipal facilities
<u>-16</u> Expand housing opportunities	Other (specify): _____

PART 3: HOUSEHOLD INFORMATION

Please describe the members of your household. We will use this information determine whether we've heard from a representative sample of town residents. This information will not be used to identify you.

12. AGE. Please write the number of people in your household in each age group.

66 Under 18
22 18-30
79 30-45
22 45-60
22 60-75
35 Over 75

13. LENGTH OF RESIDENCY. How long have you lived in Petersham? (*check one*)

7 Less than 2 years
22 2-5 years
22 6-10 years
34 10-20 years
60 More than 20 years

14. INCOME. What is your household's total income per year, before taxes? (*check one*)

9 Under \$20,000
24 \$20,000 - \$39,999
31 \$40,000 - \$69,999
37 \$70,000 to \$99,999
20 \$100,000 or more

18. POSITIVE ATTRIBUTES OF PETERSHAM. What are the reasons you settled in Petersham and/or choose to remain here? (*Mark the top five reasons with a star [*] and check all others that apply.*) (*Composite score: 2 points for a star and 1 point for a check.*)

39 Born here
91 Friends or relatives nearby
50 Job opportunities in town or nearby
91 Outdoor recreation
52 Public schools
29 Affordable housing
129 Safety from crime and vandalism

15. OCCUPATION. What kind of work do the heads of your household do? (*check one or two*)

67 Professional or scientific
21 Manufacturing, construction, or trades
9 Farming, forestry, or fishing
14 Manager or proprietor
13 Clerical
2 Sales
12 Homemaker
36 Retired
10 **Other (student, military, etc.)**

16. WORKPLACE. Where do the heads of your household work? (*check one or two*)

27 Work out of my home or on my land
12 Work elsewhere in Petersham
83 Commute to another city or town to work
32 Retired/do not work

17. PROPERTY: Please check all that apply:

a) I own 123 OR rent 5 my home.
b) I own more than 10 acres of land in town 51
c) I earn income from my land (e.g., farming, timber, cordwood, gravel mining, etc.) 11.

248 Rural/small town character
211 Open fields, forests and trails
214 Clean air/water
232 Peace and quiet
47 Participatory local governance
91 Town values
30 Other

APPENDIX B: PUBLIC MEETING RESULTS

The Petersham Ad-Hoc Planning Committee sponsored three public meetings during the course of the master planning process. The following is a summary of the format of and public input provided at each meeting.

MARCH 17, 2003 PUBLIC MEETING

The first public meeting began with an introduction from two of the Planning Committee members—one representing the Board of Selectmen and the other representing the Planning Board—providing an history of the planning process and why the Town decided to embark on this process. Two planners from Daylor Consulting Group then made a 20-minute presentation explaining the sequence of steps needed to prepare a Master Plan and an Open Space and Recreation Plan, and highlighting some of the trends, issues, and opportunities that Petersham now faces. Some of the points discussed included Petersham’s demographic characteristics; the potential for accelerated residential growth in the future; the amount, type, and purposes of different kinds of open space in the community; and issues and opportunities facing the town center. After the presentation, the 45 or so meeting attendees were divided into eight discussion groups, each of which was moderated by one of the Planning Committee members. The groups were asked to take about an hour to discuss the following four questions:

Part I - Thinking about change:

1. What elements do you feel create the quality of life in Petersham? Which would you most like to preserve or nurture?
2. How might growth and change contribute positively to Petersham’s future?

Part II – Focus on some key topics for Petersham’s future:

3. What is your “ideal” picture of Petersham’s town center in 10 or 20 years? (For example, what types of housing, businesses, and facilities are located there? What does it look like? And how ‘built-up’ is it compared to today?)
4. Keeping in mind that there are many different kinds of open space, should Petersham seek to protect more open space in the future? If so, what types of open space?

During the discussions, the moderators noted residents’ responses to the questions on note pads. At the end of the meeting, each moderator summarized the key points of their group’s discussion. The following is a general transcription of notes from the feedback on each question. See **Chapter 3** for a generalized narrative description of responses to each question.

Question 1: What elements do you feel create the quality of life in Petersham? Which would you most like to preserve or nurture?

- (4) Great town center
- Can walk around to store, library, school, craft center
- (5) Sense of community, strong community, knowing your neighbors
- Small town feel
- Community involvement and participation

- The Lions Club
- (2) Country store, restaurant
- No big commercial things
- Tradition, sense of rootedness
- Older historic buildings
- Architectural character/town center. Few buildings built during 1950-1990 period
- “Like to see it frozen in time” – not many towns like it remain
- No water and sewer in center
- Green space, scenic rural, nature trails, beauty, trees
- Open space
- Natural vistas
- Small, rural, forest community, nature
- Woods & land, low population density, town government, school, library, Brown’s Pond, skating
- People just wander out and participate in nature; people here don’t stay in their houses
- People here love the land. There is accessibility to open space. The land nurtures us.
- No pollution or traffic congestion
- (2) Feel at peace and balanced when you come here
- Feel at home here
- Not a lot of materialism; lack of pretension
- Tolerate lack of access to malls and other aspects of modernity
- All different classes here; friends come from all classes
- No McMansions
- Town attracts educated people. You can learn from people around you. People can have different points of view and real life experience.
- Social conscience
- Quietness
- Family-oriented
- Feeling of safety
- (2) The arts are important here
- Many social/cultural activities
- Town voted to keep school in town center and spent extra money to support local values
- Aging population
- Problem: speed and trucks on side roads
- Problem: tough for newcomers to connect
- Problem: recreational activities for kids are sparse

Question 2: How might growth and change contribute positively to Petersham’s future?

- (2) Change might bring more diversity and retain existing diversity
- (3) Integrated senior housing would contribute to town
- Growth to accommodate needs of certain populations – i.e., elderly
- Nursing home
- Affordable housing
- (3) Allow children to move back – housing, jobs, facilities
- (3) More children – young families – increase quality of life for kids
- (2) “New blood” – but concern that new people don’t understand the community

- Type of people that are drawn to Petersham: if town projected a certain way, it could attract people of like mind
- Positive change would be to maintain the town's character
- Property values will go up; problem if only wealthy people can afford to be here
- More taxes with more growth
- (3) Re-using Nichewaug Inn
- Historic district could expand
- Preserve old houses
- Zoning for business. Selected businesses would be OK (specific ones mentioned: ATM machine, high-tech services/telecommuting, gas station (2), cottage industries (2)). Need to control traffic.
- Business networking
- Four growth areas: ecotourism; cultural elements (artists and artisans); agriculture; telecommuters
- Better services such as restaurants and hairdressers (outside of town center)
- Light industry to increase tax base
- Good restaurant
- Appearance of some local businesses could be improved
- New buildings compatible with existing buildings
- Tighten zoning bylaws including limiting number of building permits
- Plan for growth
- Encourage agriculture
- More scenic vistas across from Harvard
- Explore water resources and recreation possibilities in Nichewaug
- Clean swimming area
- Reduce beaver population
- (2) More/better public services
- Library underutilized, craft center, store
- Need an animal shelter
- Public transportation
- Being able to do what you want with your own land
- (2) Nothing positive about growth & change
- Town's identity is fragile
- (2) Concern: new traffic on limited roads
- Concern: state land is not permanently protected – can be sold down the road

Question 3: What is your “ideal” picture of Petersham’s town center in 10 or 20 years?

- (6) Should remain as is in the future; no change
- Don't let it look like Barre
- Possible additions: elderly housing, sidewalks (especially to the school), bike paths, ATM
- Keep the common as is
- Like the abutting protected land. Like low-density population and neighborliness. No 3-6 unit apartment buildings. No stoplights.
- Sustainable way of life: residents in center should not be disturbed
- More open space
- (2) Have more businesses in existing buildings
- Post office in center
- Need a gathering place

- More country store activities
- (2) Encourage cottage industries
- (4) Nichewaug Inn should be re-used
- Ideas for Nichewaug Inn: re-open private school; senior housing and mixed use; assisted living in brick academy building
- Consider a casino for the Nichewaug
- Historic district important. Add signs for historic district homes. Expand historic district.
- Maintain or expand historic district
- Get historic lights, not bright orange
- Historic oriented themes – tea room, horse rides
- Walking tour map
- Promote town center & other businesses
- Chamber of commerce/business association
- How big is the “town center”?
- Recreation facilities – tennis courts, pond access
- (2) DSL connection
- Keep wires underground
- No public water and sewer
- Septic system for center of town
- Sewered town center
- Encourage pedestrian traffic, lower speed limit, calm traffic
- Maple trees are important
- Resource conservation projects – ride sharing
- Don’t let the town get too kitschy
- No McDonalds, Dunkin Donuts or strip development

Question 4: Keeping in mind that there are many different kinds of open space, should Petersham seek to protect more open space in the future? If so, what types of open space?

- (3) Yes – more open space
- (2) No – do not need more open space
- Seems to be enough open space – until you see other land developed
- Rate of growth is concern
- If there is open space, it must be protected
- Less tax exempt land
- Tax base is of primary concern
- (2) More taxable protected open space – conservation restrictions
- Town should look at purchase/acceptance of land gifts. Town would control logging
- Limit nonprofits from acquiring open space if non-productive
- Encourage Harvard Forest to expand if it will pay taxes
- Small tax base keeps services small and limits development
- (2) Extend wildlife corridors
- (2) Sustainable forestry
- Large farms & agricultural resources should be preserved & protected
- (3) More working farms, horse farms, organic farms
- Views and viewsheds should be preserved
- (2) Clearing views; more “open” land

- Passive recreation should be encouraged. Need town trail map.
- Ecotourism
- More recreational open space
- Tennis courts, ball fields, swimming pools
- Keep the common as is

SECOND PUBLIC MEETING

The second meeting began with a presentation of the draft vision and goals statements followed by an opportunity for feedback from participants. Everyone present agreed that the draft vision and goals statements accurately captured the Town's wishes for the future and were an appropriate platform from which to move ahead with the plans. Next, the planning consultant gave a presentation about different ways that the Town could go about meeting its goals. Different approaches or "alternative scenarios" were presented for four different topics: Rural Roadsides, Conservation Zoning, Affordable Housing, and Economic Development/Tax Base. For each topic, a "no action" scenario was presented along with either two or three scenarios that consisted of various actions that the Town could undertake, such as zoning changes. Following the presentation, the 55-60 people present at the meeting were divided into smaller groups to discuss those topics in which they were most interested. Planning Committee members moderated the breakout groups and noted down feedback from the participants.

For all four topics, the participants agreed almost unanimously that the "no action" scenario was unacceptable and that the Town must take steps to guide its future more pro-actively. There was considerable support for each of the other scenarios, though some residents raised questions or concerns about each one. The following is a summary of the alternative scenarios presented for each of the four topics, and the feedback offered by participants.

TOPIC 1: RURAL ROADSIDES

- **Scenario A: Do Nothing.** Would result in frontage development in the short-term (potential for a house and driveway every 150 ft.), with no protection for scenic landscape features on private land.
- **Scenario B: Large Lot Frontage Development.** Would discourage frontage development by requiring larger lots and more frontage for roadside development, and excluding wetlands from lot area calculations.
- **Scenario C: Scenic Roadsides (Moderate Protection).** Adopt a scenic overlay district to ensure that new frontage development is compatible with the road's character. Also, encourage shared driveways and "estate lots" set back from the road, and discontinue very minor Town roads to prevent frontage development on them.
- **Scenario D: Scenic Roadsides (Maximum Protection).** Includes all of the provisions in Scenario C plus an "access management" provision that would limit driveways to a maximum of one per 1,000 feet of frontage.

Feedback:

- Minimize visual impact
- Flag lots
- Does scenario D encourage McMansions or smaller lots?

- Belief that D may result in more scenic roads but higher population
- Shared drives, private ways
- What should the Town do with discontinued roads?
- Are scenic setback requirements enough?
- 1,000' frontage too restrictive
- Encourage designs that are compatible with historic town character
- Consensus that do nothing is undesirable

TOPIC 2: CONSERVATION ZONING

- **Scenario A: Do Nothing.** No protection for open space or town character. Potential for 7,000+ new houses on 11,500+ acres.
- **Scenario B: Typical Mass Growth Management.** Increase the minimum lot size, adopt a permanent phased growth or subdivision phasing bylaw, and encourage conservation subdivisions.
- **Scenario C: Greenprint & Conservation Design.** Establish a “menu” of development options that encourage more environmentally compatible development patterns. Create a townwide “Greenprint for Growth” map that encourages developments to build around a pre-designated contiguous open space network.
- **Scenario D: Metered Growth with Priority for Compatible Development.** Limit the number of building permits that can be issued townwide each year, and give preference to those proposals that meet Town criteria related to open space and environmental protection, affordable housing, or other goals.

Feedback:

- Residential preference for building permits
- Look at Martha’s Vineyard development plan
- (2) Larger lot sizes are a good idea
- Larger lot sizes less appealing
- Like smaller lot sizes & clustered housing
- Larger frontage
- Cluster zoning, co-housing
- Variance for frontage for relatives to build on land
- Cluster zoning
- No cluster zoning
- In favor of building cap limits
- In favor of greenprint scenario
- For Scenario D, need clear criteria from the town
- Like scenario D with affordable housing
- Group preferred scenarios C & D
- No one in favor of status quo

TOPIC 3: AFFORDABLE HOUSING

- **Scenario A: Do Nothing.** Little or no affordable housing would be created.

- **Scenario B: Preserve Socioeconomic Diversity.** Offer waivers from growth control measures for housing serving local needs. Allow different types of housing such as mobile homes, senior housing, and accessory dwelling units.
- **Scenario C: Small Scale, Compatible with Town Character.** Allow accessory apartments, promote housing at the Nichewaug Inn, and allow small multi-family housing in conservation subdivisions.
- **Scenario D: Address 40B.** Offer a density bonus for providing affordable housing, and promote other types of affordable housing that will count toward the Town's state-mandated 10% affordable housing goal.

Feedback:

- Could the 3-town housing grant require that houses that use funds to upgrade their property be designated as affordable?
- Should Petersham have a housing authority?
- No water/sewer infrastructure an issue
- Nichewaug Inn –estimated \$8 million renovation cost for 30 units
- Develop new housing locally (not outside developers)
- Co-op housing
- Set aside a certain number of permits each year for affordable units
- Pinpoint an area that would lend itself to multiple units

TOPIC 4: ECONOMIC DEVELOPMENT

- **Scenario A: Do Nothing.** Similar to today, residential properties continue to fund most of the Town's budget.
- **Scenario B: Rural Commerce.** Promote ecotourism, niche forest and farm product businesses, and home occupations. Develop and implement a wastewater management solution for town center. Allow dispersed economic development in the rural areas through a Large Parcel Planned Development bylaw.
- **Scenario C: Promote Commercial Development.** Allow for a new or expanded business node, perhaps near the 32/122 intersection. Relax zoning regulations for various types of businesses.

Feedback:

- Wastewater solution for commerce – will cost the Town more than it yields in tax revenue
- Develop wastewater solution for town center
- Establish an economic development committee
- Industrial parks in Orange and Athol aren't full – why come to Petersham when there is space there?
- Downtown Petersham: design controls, gas station
- Petersham is a small town that doesn't need an industrial or commercial zone
- Favor scenario B
- Relax regulations on nursing homes, senior housing, machine shop, lumber yard

THIRD PUBLIC MEETING

The third meeting began with a history of the planning process that included an explanation of the Town's reasons for developing a new Master Plan and Open Space Plan. Next, a planner from Daylor consulting reviewed the purpose of each plan as well as Petersham's Vision for the Future, which had been established at a previous public meeting. Next, the planning consultant reviewed draft goals, objectives, and strategies established for the Master Plan and Open Space Plan; information was presented for six topic areas: Land Use, Housing, Economic Development, Public Facilities & Services, Transportation, and Open Space, Natural Resources, & Historic Resources. Following the presentation, meeting participants were divided into smaller groups to discuss each of the topic areas and provide feedback as to the utility of each strategy presented. Planning Committee members moderated the breakout groups and noted down feedback from the participants. In addition, a formal feedback survey was distributed at the meeting and participants were asked to rank their preferred strategies for each topic area discussed.

The following pages provide the tabulated results of the feedback form distributed at the public meeting.

LAND USE

1. Zoning Districts. Do you support creating two new zoning districts (Business and Town Center) to help guide different types of development to the most appropriate parts of Town? Yes 23 No 1

2. Residential Development Options. Do you favor the general strategy, proposed in the Master Plan, of using incentives and flexible zoning to create more compatible development? Yes 21 No 1 Are there any of the six development options that you think are especially suitable or unsuitable in Petersham?

	Good for Petersham	Bad for Petersham	Need More Info
Standard lot (2½ acres, no open space)	19	6	6
Affordable housing lot (1½ acres)	15	5	9
Flag lot (5 acres, 50 ft. frontage)	17	6	8
Flexible rural development (frontage preserved as open space)	25	3	5
Smaller frontage lots (backlands preserved as open space)	4	12	12
Conservation subdivision	22	3	5

3. Scenic Overlay District. Do you support this strategy? Yes 25 No 3

HOUSING & ECONOMIC DEVELOPMENT

1. Housing. Do you generally support the housing strategies? Yes 29 No 3 If not, why not?

2. Business Zoning. Do you support these proposed business-related zoning changes?

	Yes	No	Don't Know
Establish a Business district & make it easier to locate new businesses there	27	3	1
Allow dispersed, low-impact businesses in the rural areas by special permit	28	1	2
Prohibit higher-impact businesses either townwide or in the town center (depending on the type of business)	28	1	2

OPEN SPACE, RECREATION, AND NATURAL & HISTORIC RESOURCES

1. Open Space. Do you support protecting open space as proposed in the plan (i.e., using outside funds and favoring protection strategies that keep land in local, private ownership)? Yes_**27**___ No_**2**___
If YES, are there any special places you would like to see protected? If NO, why not?

2. Natural Resources. Should the Town require the use of “best development practices” to protect natural resources during development? Yes_**31**___ No_**1**___

3. Historic Resources. Do you support the idea of a demolition delay bylaw to help protect historically significant buildings over 100 years old? Yes_**26**___ No_**3**___

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A. PLAN SUMMARY

Petersham is a unique and beautiful community in north-central Massachusetts whose rural character is defined in large part by its abundant open spaces. Although more than half of the Town's land is protected open space, it would be a mistake to assume that Petersham's rural character and natural resources are adequately safeguarded for the future. In fact, the Town contains more than 11,700 acres of buildable land. If all or even a major portion of this land were developed in a conventional manner, it would change Petersham from a small rural town to a sprawling suburb, with significant consequences for the Town's water resources, ecosystems, and overall character. Based on the community survey conducted in 2003 as part of this planning project, Petersham's residents feel strongly about preserving the Town's natural environment and open space, and about maintaining outdoor recreational opportunities. This Open Space and Recreation Plan is an attempt to help the Town meet its conservation and recreation objectives.

This Open Space and Recreation Plan consists of eleven chapters. The Plan begins by identifying Petersham's community setting and development patterns and trends (**Chapter C**). More detailed information on the Town's population, demographics, and growth issues is provided in the Petersham Master Plan, a companion document to this Open Space and Recreation Plan, which was prepared simultaneously in order to help the Town address a wider range of planning topics. **Chapters D** and **E** provide an inventory of the Town's existing natural resources, historic resources, open spaces, and recreation sites, and the extent to which these resources are protected. Petersham has several critical natural resources, including at least two of statewide importance: 1) the Town's network of streams and wetlands draining to the Quabbin Reservoir, and 2) the Town's large, unfragmented habitat areas. Petersham is an integral part of the North Quabbin Landscape, one of the state's largest, best connected, and most intact network of native habitats and ecosystems.

Based on this inventory of the Town's natural, historic, open space, and recreation resources, as well as public input from Petersham's residents, the Plan then identifies goals, needs, and specific objectives for preserving or enhancing each of these resources (**Chapters F, G, and H**). Eight overall goals became apparent. With regard to open space, these include increasing the amount of protected land in Town and encouraging the maintenance of Petersham's "working landscape" of viable farm and forest products businesses. Recreation goals focus on maintaining public access to a large portion of the Town's open space as well as opportunities for facility-based recreation activities. Natural resource goals include protecting the Town's surface water and groundwater resources, protecting native habitats and ecosystems, and promoting optimal land management. Finally, the Town would like to protect its historic buildings and landscapes while encouraging appropriate adaptive reuse of historic structures.

The final chapter of the Plan (**Chapter I**) presents a "Five-Year Action Plan" consisting of specific steps that the Town intends to take over the next five years to implement each of the eight goals. The tasks described in the Action Plan will require the effort and commitment of numerous Town boards and departments, as well as dedicated volunteers. Key action items include the following:

- Establish a Petersham Open Space Task Force (POST) to lead the Town's efforts to conserve priority open space.
- Through Town actions and in collaboration with other organizations, protect additional open space according to the priorities shown on **Figure I-1**, the Open Space Action Map.

- Encourage or require new development to set aside open space by allowing for flexible site layout patterns.
- Adopt and implement a townwide “Greenprint for Growth” and an environmentally-based site planning process that require the consideration of ecological form and function when designing new developments.
- Establish an Agriculture and Rural Development Committee (ARDC) to promote profitable farming, forestry, and other natural resource based businesses in Petersham.
- Identify and act upon opportunities to connect and expand the Town’s network of trails that are open to the public.
- Encourage or require environmentally friendly stormwater management techniques in new developments.
- Implement the recommendations of the 1999 Davenport Committee report so as to provide for conservation, recreation, and revenue generating uses from the Davenport property.
- Inventory additional historic properties and evaluate the potential to expand the Petersham Historic District, create additional historic district(s), and/or designate additional historic properties.
- Adopt a Demolition Delay Bylaw to discourage the demolition of historically significant buildings more than 100 years old.

With foresight and persistence, Petersham’s current residents can leave future generations a legacy of protected open space, clean water, thriving plant and wildlife communities, and a beautiful rural town in which to live, work, and play.

B. INTRODUCTION

B1. STATEMENT OF PURPOSE

This Open Space and Recreation Plan (OSRP) was prepared simultaneously with Petersham's new Town Master Plan. The Master Plan and the OSRP serve complementary functions in promoting sound land use and planning decisions for Petersham's future. The Master Plan is a comprehensive document that includes a Town-wide land use plan as well as associated plans for housing, economic development, public facilities and services, and transportation. Though not addressed explicitly in the Master Plan, open space and natural resource issues are integrated into the Plan's recommendations on land use, zoning, growth management, and other topics. The Master Plan has a long-term planning horizon: it examines needs, sets goals, and develops strategies for the next 10-20 years.

The OSRP is more specific than the Master Plan in that it mainly addresses issues of open space, natural resources, historic resources, and recreation. In addition, the OSRP has a shorter-term planning horizon (5 years), and accordingly focuses on action steps that the Town can take over the next several years. The goals of the OSRP are to:

- Identify existing open spaces, recreational facilities, and natural and historic resources in the Town of Petersham;
- Increase awareness of Petersham's existing open space and recreational resources, deficiencies, and opportunities for improvement;
- Promote a citizen-based planning process to identify open space, recreation, and natural and historic resource protection needs in Petersham;
- Develop an achievable set of strategies to protect the Town's threatened open space, environmental, and historic resources, and to expand recreational opportunities; and
- Outline a specific Five-Year Action Plan to help Petersham's residents and leaders implement the Open Space and Recreation Plan.

B2. PLANNING PROCESS AND PUBLIC PARTICIPATION

The Petersham Planning Board began to set the planning process in motion in late 2000, when it recognized that Petersham could be faced with unprecedented growth in the upcoming years and that the Town had no coherent strategy and very few growth management tools to address this potential influx. In 2001, the Board applied for and was awarded a grant from the Metropolitan District Commission (MDC) to help fund a Town Master Plan, an Open Space and Recreation Plan, and the preparation of regulatory implementation tools to help put these plans into action. The Town appropriated matching funds, issued a Request for Proposals for planning services, and, in January 2002, selected Daylor Consulting Group of Braintree, Massachusetts, as the consulting team that would assist the Town with its planning efforts. After a delay of several months in receiving the MDC funds, the project began in the fall of 2002.

To ensure direct representation of key constituencies in the planning process, the Board of Selectmen appointed the Petersham Ad-Hoc Planning Committee to guide the preparation of both plans and oversee the work of the consultants. In order to maximize consistency and synergy between the Master Plan and the

Open Space and Recreation Plan, the Committee was asked to lead the preparation of both documents. The Committee had its first meeting in January 2003, and shortly thereafter began seeking input from the Petersham public through several different channels. These include:

- A four-page resident survey that was mailed to every household in February 2003 along with a one-page explanation of the planning process. Of the 496 surveys that the Committee mailed, 151 were completed and returned—an excellent response rate of 30%. The survey is discussed further in the following subsection.
- Three public workshops during the course of the project where the Planning Committee and consultants presented information on the Town or on possible planning strategies and sought feedback from participants. The first of these three meetings was held in March 2003, the second in May of 2003, and the third in August 2003. All three of the meetings will address topics relevant to both the Master Plan and the Open Space and Recreation Plan.
- Additional publicity through the print media, posters and flyers, and direct personal contact. Throughout the project, the Committee is preparing press releases and arranging for coverage of the planning process in local newspapers such as the Athol Daily News, Worcester Telegram and Gazette, and Barre Gazette.

The OSRP was developed through a three-part process that bases sound planning decisions on community input informed by a solid understanding of the Town's existing conditions, issues, and challenges. The first part of the process involved compiling information on Petersham's open space areas, recreational resources, and natural and historic resources. This information was compiled from local, regional, and state sources, field work, and discussions with various town boards and committees, and was presented for public review in an Interim Report in April 2003. Geographic data were compiled and analyzed using a Geographic Information System (GIS), a set of computer programs that allows users to overlay and study the spatial relationships among different landscape features, such as roads, aquifers, and land use.

The second study component was community input and public discussion of the Town's conservation and recreation needs and goals, as well as other planning issues. As discussed above, the Ad-Hoc Planning Committee worked through several channels to obtain residents' input. The final part of the planning process was the integration of the first two components to develop planning goals and objectives leading to the Five-Year Action Plan—a detailed strategy for Petersham's residents, boards, and commissions to implement the OSRP objectives.

As mentioned above, this OSRP was prepared simultaneously with the Town's Master Plan. The objectives and strategies presented in both plans are consistent and complementary, but generally not redundant. For example, the Master Plan addresses several topics relevant to open space and recreation, such as zoning-related strategies to protect open space and natural resources. These topics are presented in **Chapter 4** of the Master Plan (Land Use and Growth Management).

Resident Survey

In February 2003, the Ad Hoc Planning Committee distributed a resident survey to all the households in Petersham. As mentioned above, the survey garnered a 30% response rate, which is considered excellent for a survey of this type. The survey consisted of 18 questions and was divided into several parts to address issues in both the Master Plan and the Open Space and Recreation Plan. The first part asked questions about open space

and recreation, including a question about the respondent's participation in various recreational activities and two questions about open space and land conservation. The second part addressed other planning issues such as growth management, housing, economic development, public services, the town center, aesthetics of new development, and natural, historic, and scenic resources. The third part of the questionnaire requested information about the respondents household, such as the age, income, occupation, and length of residency of its occupants. The survey ended with a space to write in additional comments.

The following are some of the major themes from the resident survey that are most relevant to the Open Space and Recreation Plan:

- **Recreation:** The most popular recreational activities among local residents include fishing, hiking, fitness walking and jogging, cross-country skiing and snowshoeing, boating (non-motorized), nature study/bird watching, and swimming. More than half of the respondents participate in each of these activities. Many residents would like to have more opportunity in Town for swimming (in a lake or pond). A smaller number want more places for pool swimming, camping, tennis, basketball, and baseball.
- **Open Space:** A majority of residents feel that the Town should protect more open space to safeguard natural resources and/or rural character; 30% think that the Town already has enough protected open space. In terms of methods for protecting additional land, about one-third of respondents think that Town funds should be used for this purpose. Several other techniques, such as seeking land donations and adopting zoning tools, each garnered 50-60% support. Interestingly, only 26% of respondents believe the Town should lobby for better access to existing protected open space.
- **Natural, Historic, and Scenic Resources:** Residents were asked to rate the importance on a scale of 1 to 7 of various resources such as forests, farmland, historic buildings, and scenic roads. All of the resources received an average score of between 5.5 and 6.2, suggesting that residents place a high value on all aspects of Petersham's natural environment and rural character.

The full tabulated results of the survey are contained in **Appendix A** of the Master Plan.

Public Meetings

The Planning Committee will hold three public meetings during the preparation of the Master Plan and Open Space and Recreation Plan. Aspects of these meetings that pertain to open space and recreation are summarized briefly below; more detailed meeting notes are contained in **Chapter 3** and **Appendix B** of the Master Plan.

March 2003 Public Meeting

The first public meeting began with an introduction from two of the Planning Committee members, followed by a 20-minute presentation by planners from Daylor Consulting Group, who explained the sequence of steps needed to prepare a Master Plan and an Open Space and Recreation Plan, and highlighted some of the trends, issues, and opportunities that Petersham now faces. After the presentation, the 45 or so meeting attendees were divided into eight discussion groups, each of which was moderated by one of the Planning Committee members. The groups were asked to take about an hour to discuss the four different questions, and moderators noted down responses on note pads. One of the four questions pertained to open space and asked:

Keeping in mind that there are many different kinds of open space, should Petersham seek to protect more open space in the future? If so, what types of open space?

On the surface, residents were divided on whether or not they would like more open space in the Town, but in fact much of the disagreement appeared to stem from differences in interpretation of the term “open space.” There was considerable agreement about the desirability of specific types of open space. For example, there was strong support for working farms, sustainable forestry, and protected open space that continues to pay taxes, such as private land with conservation restrictions. Several residents suggested improving recreational opportunities on open lands, including both “passive” recreation (such as nature trails) and “active” recreation (such as ball fields).

May 2003 Public Meeting

After the first public meeting, the Petersham Planning Committee worked with the planning consultant to translate the public input from the first meeting and the resident survey into a vision statement and a goals statement to guide the preparation of the Master Plan and the Open Space and Recreation Plan. The second meeting began with a presentation of the draft vision and goals statements followed by an opportunity for feedback from participants. Everyone present agreed that the draft vision and goals statements accurately captured the Town’s wishes for the future and were an appropriate platform from which to move ahead with the plans.

Next, the planning consultant gave a presentation about different ways that the Town could go about meeting its goals. Different approaches or “alternative scenarios” were presented for four different topics: Rural Roadsides, Conservation Zoning, Affordable Housing, and Economic Development/Tax Base. For each topic, a “no action” scenario was presented along with either two or three scenarios that consisted of various actions that the Town could undertake, such as zoning changes. Following the presentation, the approximately 55-60 people present at the meeting were asked to break into smaller groups to discuss those topics in which they were most interested. Planning Committee members moderated the breakout groups and noted down feedback from the participants.

For all four topics, the participants agreed almost unanimously that the “no action” scenario was unacceptable and that the Town must take steps to guide its future more pro-actively. There was considerable support for each of the other scenarios, though some residents raised questions or concerns about each one. In general, residents agreed that the Town should adopt additional regulatory tools to help protect the scenic character of the Town’s rural roadsides. In addition, participants felt that developers should be encouraged or required to build in a way that protects open space, natural resources, and scenic resources—rather than “cookie cutter” frontage development and subdivisions.

August 2003 Public Meeting

The third meeting began with a history of the planning process that included an explanation of the Town’s reasons for developing a new Master Plan and Open Space Plan. Next, a planner from Daylor consulting reviewed the purpose of each plan as well as Petersham’s Vision for the Future, which had been established at a previous public meeting. Next, the planning consultant reviewed draft goals, objectives, and strategies established for the Master Plan and Open Space Plan; information was presented for six topic areas: Land Use, Housing, Economic Development, Public Facilities & Services, Transportation, and Open Space, Natural Resources, & Historic Resources. Following the presentation, meeting participants were divided into smaller groups to discuss each of the topic areas and provide feedback as to the utility of each strategy presented. Planning Committee members moderated the breakout groups and noted down feedback from the participants.

In addition, a formal feedback survey was distributed at the meeting and participants were asked to rank their preferred strategies for each topic area discussed.