



# Hadley Master Plan

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## EXECUTIVE SUMMARY

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Hadley is a growing residential community with a strong agricultural base. Historically an active farming and trading center, today Hadley has the most acreage of farmland of any Pioneer Valley town. (Source: DHCD) Growth pressure creates a rift between the town's agricultural heritage and growth in commercial and housing development. The town center, with its stately colonial homes clustered around the Town Common lies in stark contrast to the economically vital commercial strip along Route 9 (Source: DHCD). Today, the town is in a position to direct its future, preserving its agricultural and natural value and accommodating growth with a thorough and thoughtful Master Plan.

The policy recommendations in the Plan reflect the goals and desires of the Town's residents and businesses, expressed through a town-wide survey and in a series of public meetings held in 2003 and 2004 to identify the goals and priorities of the town and craft relevant strategies to answer these needs. A team of consultants, led by Daylor Consulting Group of Braintree assisted the Long Range Planning Committee by helping to frame key issues and opportunities for public discussion, leading public meetings, helping to develop recommendations, and preparing reports, maps and graphics. Residents and other interested parties were able to provide written feedback to the consultants and the Committee.

The following Vision for the future of Hadley, and the accompanying Goals Statements in the Plan, were developed based upon the input provided by the Survey and the many public forums and meetings held throughout the planning process.

<b>Hadley's Vision</b>
A town that values, protects and supports its rural heritage, agricultural resources and the farming way of life.
A town that manages and guides development to be sensitive to the natural environment, our rural character and the financial well being of the community.
A town that actively preserves and protects its natural resources and open space.
A town that values its quality of life, sense of community and rural, small town atmosphere.
A town that is aesthetically pleasing, and that protects its scenic views, waterways, rural streets and historic features.
A town that values and supports its educational system, and that provides a broad range of educational and recreational opportunities.
A town that manages the growth of housing to meet the needs of its residents in balance with the preservation of its rural character and agricultural resources.
A town that encourages strategic economic development by balancing commercial, retail, and light industrial land uses along Route 9 with (i) the capacity of its infrastructure and tax base to sustain such development and (ii) the desire to preserve its significant agricultural and natural resources.

The Plan identifies a series of Goals that represent the town's Vision in the areas of Land Use, Housing and Community, Economic Health, Agricultural, Natural and Historic Resources, Open Space and

Recreation, Transportation, and Public Facilities and Services. The Goals are general, such as **Maintain Hadley's Rural Appearance and Small Town Feel** and they are specific, including **Restrict New Sewer and Water Line Expansions** and **Broaden and Diversify the Tax Base**. Using the goals as a guide, the Plan analyzes the existing conditions in Hadley, with specific attention to the major trends in population growth and development and crafts strategies. Of the nearly sixty strategies recommended in the Plan, approximately twenty key strategies are introduced below. Various boards and commissions have been assigned oversight of the strategies, which are labeled for immediate, short-, middle- or long-term action and low, medium and high priority.

## Land Use

Although blessed with extremely productive agricultural land and valuable natural resources, these areas are succumbing rapidly to residential growth and commercial development. Nearly 1,000 acres of open space were lost between 1971 and 1999; approximately 80% of that land was replaced with residential and commercial development. The consumption of land can be linked to four factors: (1) population growth; (2) larger lot sizes; (3) dispersed development patterns; and (4) retail and commercial development.

First, Hadley has absorbed much of the growth in the Pioneer Valley Planning Region; the town grew by 13% since 1990 while the region's population increased by only 1%. Hadley is expected to grow another 12% by 2010. While this population growth is certainly not as dramatic as some Massachusetts growth communities, it represents a significant impact on Hadley's land use and way of life. Second, the historic, compact layout of the town centers have been abandoned for conventional single family large lot subdivisions. Third, residential development that was historically clustered around the two town centers has spread into the outlying areas of town. Fourth, commercial development has followed the residential market. Large scale suburban retail uses dominate the Route 9 corridor outside the Town Center and three new large retail developments are in the process of being developed along Route 9.

One of the top priorities of this Plan is to strengthen the *Transfer of Development Rights* ("TDR") Program as a creative program to reduce the loss of open space and agricultural land. A TDR Program allows the town to focus growth by "trading" the right of a landowner to develop on valuable open areas with the rights to develop in an area more appropriate for development as designated in the Plan, such as the town centers. The Plan also recommends the creation of a *Village Core Zoning District*, to work in tandem with the TDR Program and other policy recommendations. The Village Core Zoning District encourages more compact development and a mix of uses such as single family residential, mixed-use residential, municipal structures and neighborhood scale business. The Village Core Zoning District and the *Mixed Use Village District* allow the town to respond to both commercial and residential growth in a manner that respects the historically compact development patterns of the town. These districts may become "receiving" areas for the TDR Program. To ensure that the development in these new areas, and elsewhere throughout the town, is in keeping with the town's vision, the Plan also recommends the creation of *Design Review Guidelines* and a Committee to enforce them.

## Housing and Community

Consistent with national trends, single-family detached housing in Hadley is 80% of the town's housing inventory; this housing type is often prohibitively expensive for young families and elderly residents. The median sales price for homes within Hadley has steadily increased and in 2003 was approaching \$250,000. Rental prices increased by 25% in Hadley in the last decade.

The number of elderly residents in Hadley has been and will continue to increase dramatically; the 45-64 year old age cohort makes up 50% of Hadley's population. Since most people prefer to age in place and many elderly people have difficulty retaining a larger home, the town needs to provide a diversity of affordable options for its aging residents. Hadley can achieve this in part with a **Senior Village Overlay District**. A Senior Village Overlay District (1) allows for a variety housing options, including assisted living facilities; (2) creates mechanisms for the town to regulate the rate of growth of this type of development; (3) has stringent open space requirements; (4) has a minimum level of affordable units; and, (5) grants the Planning Board sufficient leverage to require that such developments are designed and constructed in accordance with the intent of the bylaw.

Although the need for additional senior housing is significant, other housing types will be needed to create a truly diverse housing stock. According to Federal standards, 31% of Hadley households are very low-income, low-income, or moderate income; most of these households are eligible for state and federal housing assistance programs. With housing prices increasing across the state, the Plan encourages the use of **Inclusionary Zoning** for Mixed Use and Multi-Family residential developments. Inclusionary Zoning requires developers to provide a deed restrict a set percentage (10% is recommended) of new housing in a multi-unit project other than subdivisions to be affordable for low- and moderate-income families.

Finally, the input from residents and the Committee strongly noted Hadley Center as an area of need. The Town Center lacks a unified system of sidewalks, lighting, shade tress, and other amenities. As a result, it is difficult for pedestrians to circulate through the center and the sense of place usually associated with a town center is lost. There are a wealth of civic buildings and other amenities located here, around which the town can harness community spirit. Although difficult to identify quantitatively, the need is evident in the quality of public spaces and the level of organized activities for residents. Therefore, the Plan recommends creation of a **Town Center Improvement Plan**. Route 9 is admittedly an obstacle to unifying the Town Center. The Town Center Improvement Committee appointed by the town to create the Improvement Plan, will work with Mass Highway, residents, businesses and boards and commissions to craft a plan for a more notable and safer Hadley Town Center.

## Economic Health

Hadley's labor force grew 8% since 1990; these workers are more educated than the county or state as a whole. Likewise, Hadley has had a consistently lower unemployment rate. As can be expected from this data, Hadley's residents are more likely to be employed by "white collar" occupations, which are usually better paying. Therefore it is of little surprise that Hadley's median household income exceeds county, Commonwealth, and national averages. This provides the town with a solid economic base, as its residents generally have secure financial situations, which contributes to the overall stability of the local economy.

Homeowners provide approximately 64% of the tax revenues. In 2003, commercial and industrial properties comprised about 31% and 3%, respectively, of the taxable property. Since 1993, Hadley has experienced strong growth in the commercial and industrial tax base due to new development and redevelopment along the Route 9 corridor. However, the sprawling nature of this development has not met the town's vision. This Plan suggests the creation of an **Economic Enhancement Overlay District for Route 9**; this District would permit the redevelopment and redesign of the mall and industrial areas around Route 9 into a compact shopping area resembling a town center instead of a suburban shopping plaza in a sea of parking. The District requires smaller scale structures, with varied store fronts; higher density in exchange for public open space on a minimum of 15% of the site; and, will be strictly enforced under the new Design Review Guidelines.



Furthermore, the Plan recommends the town ***Establish Retail and Business Size Limitations*** for new development to address the clear concern of many town residents regarding the continued and unchecked growth of “big box” retail development in Hadley. For the bonus or incentive strategies to work effectively the underlying “base zoning” must first be changed to provide a size incentive to developers to propose projects with some public benefit and/or that comply with the town’s stated goals. Therefore, retail and business uses that have a footprint between 5,000 square feet and 25,000 square feet should be regulated through a special permit process. However, the Transfer of Development provisions in conjunction with the Economic Enhancement Overlay District would offer an opportunity to exceed these restrictions. This would ensure that large scale development is of a design and scale that matches the goals of the people of Hadley and provides a significant improvement over conventional commercial development patterns.

Hadley’s employment base is diversifying; with more jobs in service and government. However, despite the trends towards diversification and the comparably balanced tax burden, Hadley’s strong, yet diminishing reliance on the wholesale and retail trade sector could create economic stability issues in the future. Residents have made it clear that they do not support an increase in the amount of land dedicated to commercial and industrial development, this diversification must come largely through redevelopment of existing areas.

Agriculture is the most highly supported form of economic development within the community. In order to continue diversification of the economy, Hadley may look to tourism and expanding agricultural industries. Farming has historically been an important industry and remains a vital presence for the town as a stabilizer to the local economy, which makes agriculture a major factor in land use and economic development decisions. The Plan encourages the town to ***Enhance Agricultural Economy and Tourism*** and reinstating the ***Agricultural Commission*** to increase awareness for Hadley’s agricultural industry.

## **Agricultural, Natural and Historic Resources**

Next to Amherst, Hadley has the most amount of protected farmland in the Commonwealth; however, the town continues to lose agricultural land to development. The protection of agricultural resources is the top priority for Hadley residents and this support provides the town with the opportunity to continue to preserve farmland on a significant scale. Nearly 90% of Hadley residents think protecting the natural environment is very or extremely important. In the previous chapter, the Plan recommends ***Strengthening Agricultural Protection through Zoning***, which includes adopting a ***Right-to-Farm Bylaw*** to protect farmers from nuisance claims and other unwarranted attacks. This bylaw has already been adopted by the town. Other means of strengthening agricultural protection include creating ***New Residential Zoning Districts*** which promote agricultural and open space preservation and the TDR Program.

The Hadley Center Historic District was first listed in National Register of Historic Places in 1977. The district was expanded in 1994 to include the Hadley Common and the Great Meadow. This is the largest Historic District in Hadley and contains a majority of the historically significant places. Residents expressed support for preserving and enhancing historic resources as well as agricultural. To help preserve the historic structures in town, the Plan suggests the adoption of a ***Demolition Delay Bylaw***. This bylaw, topping the Historical Commission’s wish list, establishes a waiting period for historic structures to be demolished; this period of time allows the Commission to review and determine if the structure is worth saving and work with the property owner to save the structure, where possible.

Hadley’s Aquifer Protection District Bylaw, as currently written, does not mirror the state’s model Water Resource Protection Bylaw; the current bylaw is inadequate in its protective measures and leaves Hadley’s water supply vulnerable to poor planning and inappropriate land use. Large paved areas, such as

around Route 9's shopping centers and agricultural run-off contribute to pollution of the town's water supply. In Hadley, where farmers have adopted model techniques, development has a larger impact on water quality. The town should ***Strengthen Town's Water Supply Protection District*** by adapting a variation of the EOEA's model water supply protection district bylaw. The revised Bylaw should include additional submittal requirements, impervious coverage regulations, additional prohibited uses, special permit uses, and a distinction between Zone II and Zone III.

## Open Space and Recreation

The town's open space and recreation efforts are guided by the 1998 Open Space and Recreation Plan. This Master Plan provides an outline for subsequent strategies and incorporates the unrealized goals of the 1998 plan. Hadley has a long history of open space preservation, including various recreational lands, school playing fields, the Norwottuck Rail Trail bike path, Mount Warner, the Connecticut River and Skinner State Park. As of 1999, roughly 85% of the town was open land, with 77% being undeveloped crop or forest. Furthermore, nearly 6,500 acres, or 41% of Hadley's total land, is protected by land preservation programs such as Conservation Restrictions and Agricultural Preservation Restrictions, demonstrating the town's history with land preservation. Thus a high priority strategy for the town is a continued effort to ***Acquire Conservation Land*** in Hadley through the use of ***Open Space Bonds***, ***Conservation Restrictions*** and other means.

Although passive recreation property accounts for a large portion of the open space in Hadley, the sites are scattered throughout the community with little integration. This creates a disjointed collection of open space and inhibits use, recreation potential, and habitat viability. The current playing fields and recreational facilities do not adequately address the active recreational needs of the residents. The suggestion to ***Expand Recreation Opportunities and Playing Fields*** calls attention to these shortcomings. The town needs to improve existing recreational facilities, create new facilities, and work to open existing facilities that are currently unavailable to town residents.

## Transportation

Hadley is a town of commuters; 23% of residents live and work in town. Most residents travel by car to nearby towns and 90% of them drive alone. As a result, Hadley's roads are congested, potentially unsafe, and side roads are used as shortcuts. Although many roads in Hadley have retained their rural character, the Route 9 corridor has grown in intensity in recent years and is expected to become more congested with growth. Pedestrian safety and safe roads are key priorities for Hadley.

The Massachusetts Highway Department plans to expand Route 9 capacity; this project would alter the areas surrounding the historic Town Common and the critical intersections at the town center. Hadley residents are very concerned about this road project and the potentially detrimental effect it could have on town resources and public safety. Of primary importance to the town is the development of a ***Mass Highway Interaction Policy*** to facilitate the communication of Hadley's vision for Route 9 and the Town Center to the State agency. It might also help the town to establish ***Street Design Guidelines*** to be used along Route 9 and in other areas of town where roads are built new or modified. These Guidelines will encourage road characteristics that match Hadley's vision of itself as a rural community. Elements to be addressed include shared streets with pedestrians, bicyclists, automobiles and farm equipment; safe intersections that require vehicles to slow down; landscaping and street trees; and, lights and street furniture.

## Public Facilities and Infrastructure

An inevitable increase in Hadley's population forces the town to think seriously about where growth should occur and how to prepare for it with adequate services, including water and sewer, schools, and public safety. Although the School Department and the Fire and Police Departments are currently meeting local needs, there is a possibility that one or all may need to be expanded in the future. One of the most significant public service issues that arises from this Plan is the need to ***Secure Professional Planning Services*** to provide day-to-day professional and technical resources and implement the recommendations outlined in the Master Plan, Open Space and Recreation Plan, and other planning initiatives.

The water and sewer system is the major public facility concern in this plan. Exceeded in 2001, projections indicate the town will regularly exceed the water usage limit as early as 2005 and will not meet demand after 2010 without repair to existing wells or other strategies. Nearly half the water consumption is attributed to the residential sector. Overall, the wastewater system is in fairly good shape for the needs of Hadley right now. As a result, the Plan suggests that Hadley ***Prohibit Further Expansion of Public Water and Sewer*** to prohibit growth on agricultural and forest lands and other areas not identified in this Plan as appropriate for development. Nearly 80% of town residents wish to see a restriction on further sewer expansion as a means of limiting development.

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# 1 INTRODUCTION

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Creating a Master Plan is a four-step process that starts with data collection and an understanding of 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 Hadley Master Plan, public input was solicited directly—in a town-wide survey conducted in 2003 and several public meetings in 2003 and 2004—and through the representative Hadley Long Range Planning Committee (“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, Inc. of Braintree, Massachusetts, which worked with the Committee to help frame key issues and opportunities for public discussion, lead public meetings, helped develop Master Plan recommendations, and prepared reports, maps and graphics.

Following an introduction and a discussion of the vision and goals for the town, the plan explores the existing conditions in Hadley and identifies issues, challenges, and needs in the areas of Land Use; Housing and Community; Economic Health; Agricultural, Natural, and Historic Resources; Open Space and Recreation; Transportation; and Public Facilities and Infrastructure. A number of strategies or recommendations are provided for each of these seven categories. An Implementation Plan provides the framework for seeing these goals to fruition.

The plan recommends a number of strategies to help Hadley achieve its Town Vision. Hadley’s primary goals are to preserve the agricultural and natural resources that exist in the community, manage future growth and provide necessary resources and public services. Certain recommendations in the plan focus on providing a mix of commercial and residential uses in the right proportion to maintain the town’s rural character while allowing for opportunities to bring in economic development and a diversified tax base. For example, the Mixed Use Village and Village Core districts strive to create a compact development pattern that blends neighborhood scale business with apartments and homes on smaller lots.

Other recommendations focus on creating specific provisions for particular land uses based on the nature of the underlying landscape. This includes the Agricultural Preservation Residential District, which is intended to preserve the agricultural lands in Hadley, while allowing appropriate residential development. Other proposed residential districts with similar goals include the Forest and Heritage Residential Districts. Commercial redevelopment is also a key component of the proposed zoning changes. The Economic Enhancement Overlay District is intended to redevelop the mall and industrial areas along Route 9 in a more compact commercial center with attention to design and the public realm.

The Hadley Master Plan was created to guide the town’s policy and strategy over the next ten to fifteen years. As such, it is a living document that provides a set of guidelines and strategies for future development and planning efforts within the town. The plan is not a static list of instructions, but rather recommends strategies for the town to pursue based on community input, technical analysis, and best practices. The town should review and update the plan every year to be certain that it is consistent with emerging trends and current needs within Hadley.

## 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 **Chapters 3 through 9**, which address Land Use; Housing and Community; Economic Health; Natural, Agricultural and Historic Resources; Open Space and Recreation; Transportation; and Public Facilities and Services. The next step of the

process was to distill public input from the town-wide survey and the public meetings into guiding principles for the town's future. These principles are entitled Goals, and are briefly laid out first in **Chapter 2, Visions and Goals**.

The goals also serve as the framework for presenting the research in Chapters 3 through 9. The method for organizing these chapters—the body of the Master Plan—is provided as a snapshot of the Plan in **Chart 1-1**. For each element, general data collected and analyzed in the first step is presented in an Introduction to provide some context and background. Second, each goal is outlined and relevant data is presented, which leads to an explanation of the issue or opportunity that prompted the goal. Lastly, key strategies toward achieving this goal are introduced.

Strategies introduced in Chapters 3 through 9 are explained in detail in **Chapter 10**; these provide the framework around which the town can apply the Master Plan. The final and perhaps most important step of the process is the 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 11**, helps to ensure that the Master Plan will be actively used for years to come.

**Chart 1-1  
A Snapshot**

<b>4      HOUSING AND COMMUNITY</b>
<b>Introduction</b> <A brief description of what the section will tell you>
<b>Goal 1: Increase housing diversity to meet the economic needs of all Hadley residents</b> Specific Objectives: <ul style="list-style-type: none"><li>▪ Support increased density in certain locations.</li><li>▪ Expand housing types and definitions.</li><li>▪ Ensure that the housing needs of the elderly, first time homebuyers, and others are met within the town.</li><li>▪ Require the private sector to create affordable units to keep pace with new housing developments.</li></ul> <Supporting data including research, charts, tables, and resident survey results> 
<b>Key Strategies:</b> <ul style="list-style-type: none"><li>• Adopt Incentive Zoning</li><li>• Senior Village Overlay District</li><li>• Permit Apartments Above Retail</li><li>• Accessory apartments</li><li>• Various public sector housing programs</li></ul>

## 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, the Planning Board and other boards and commissions, to implement the Plan’s recommendations over the upcoming months and years. In addition to acting on the various policies and initiatives identified in the **Chapter 11, Implementation Plan**, the Committee strongly believes that Hadley’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.



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## **2 VISION AND GOALS**

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### **Vision and Goals Statement**

The following Vision and Goals Statement for the future of Hadley was developed based upon the input provided by the Survey and the many public forums and meetings held throughout the planning process.

### **The Town of Hadley shall be....**

1. A town that values, protects and supports its rural heritage, agricultural resources and the farming way of life.
2. A town that manages and guides development to be sensitive to the natural environment, our rural character and the financial well being of the community.
3. A town that actively preserves and protects its natural resources and open space.
4. A town that values its quality of life, sense of community and rural, small town atmosphere.
5. A town that is aesthetically pleasing, and that protects its scenic views, waterways, rural streets and historic features.
6. A town that values and supports its educational system, and that provides a broad range of educational and recreational opportunities.
7. A town that manages the growth of housing to meet the needs of its residents in balance with the preservation of its rural character and agricultural resources.
8. A town that encourages strategic economic development by balancing commercial, retail, and light industrial land uses along Route 9 with (i) the capacity of its infrastructure and tax base to sustain such development and (ii) the desire to preserve its significant agricultural and natural resources.

## Goals

Based upon the above Vision Statement, the following goals were developed for each of the plan elements or categories:

### LAND USE

#### **Goal 1: Maintain Hadley's rural appearance and small town feel.**

##### **Specific Objectives:**

- Focus new development in sections of town that have the infrastructure and environmental conditions to accommodate growth and limit development in rural and environmentally sensitive areas.
- Limit new commercial development to Route 9 and other identified areas while prohibiting new commercial development on Bay Road, North and South Maple Streets and other agricultural, residential or sensitive areas.
- Ensure that any new development on Route 47 is appropriate for and sensitive to the surrounding neighborhoods and environment.
- Manage new development through appropriate regulation and limit overall size of new buildings.

#### **Goal 2: Enhance the town center as a livable, workable and walkable community center.**

##### **Specific Objectives:**

- Allow for the appropriate use, development and redevelopment of land in the town center to facilitate the creation of a true New England town center.
- Improve and/or create pedestrian network in and around town center.
- Create consistent sign, streetscape and architectural themes.

#### **Goal 3: Ensure new development is in keeping with character of Hadley's landscape and architecture.**

##### **Specific Objectives:**

- Create enhanced design review guidelines that reflect Hadley's architectural heritage, character and preferences.

#### **Goal 4: Protect, enhance and strengthen agricultural lands.**

##### **Specific Objectives:**

- Ensure that development on and near agricultural lands is sensitive to the value of the agricultural resource.
- Create "Purchase of Development Rights" program and enhance Transfer of Development Rights program to help pay for the preservation of farmland.
- See separate Agricultural element for additional goals and objectives.

## **HOUSING AND COMMUNITY**

### **Goal 1: Increase housing diversity to meet the economic needs of all Hadley residents.**

#### **Specific Objectives:**

- Ensure that the housing needs of the elderly, first time homebuyers and others are met within the town.
- Require the private sector to create affordable units to keep pace with new housing developments.

### **Goal 2: Balance growth of housing with protection of rural character.**

#### **Specific Objectives:**

- Provide incentives for better, more sensitive subdivision design with open space preservation
- Allow for development that is more compact and where open space is preserved.
- Allow for flexible lot design when developing a subdivision to promote sensitive design and the preservation of critical open space resources.

### **Goal 3: Increase citizens' sense of community.**

#### **Specific Objectives:**

- Hold appropriate events on the Town Common for town residents.
- Sponsor more community-wide events.
- Improve communication between town boards/committees and town residents.

### **Goal 4: Promote the town center as a focal point for the community.**

#### **Specific Objectives:**

- Create an overall plan for the development of the town center including more “pocket parks”, streetscape, building types, signage and design criteria.
- Hold more special events in the town center.
- Increase utilization of the Town Common by town residents while protecting and preserving its unique historic nature and value.

## **ECONOMIC HEALTH**

### **Goal 1: Broaden and diversify the tax base.**

#### **Specific Objectives:**

- Work to broaden the tax base by permitting a mix of beneficial uses such as agriculture, small retail, tourism, cultural arts and offices.

### **Goal 2: Encourage appropriate economic development that has a low impact on town services and resources.**

#### **Specific Objectives:**

- Minimize negative impacts by using appropriate guidelines and regulations.
- Provide opportunity for smaller retail and trade establishments while mitigating impact from larger commercial buildings and other uses with more impact on the surrounding area.

### **Goal 3: Create an overall economic development strategy that builds off of Hadley's strengths.**

#### **Specific Objectives:**

- Capitalize on Hadley's history, rural character and natural resources to develop an economic strategy that includes tourism, agriculture and recreation.
- Link existing bikeway to new economic development opportunities.
- Pursue agricultural tourism strategies.

### **Goal 4: Ensure that agriculture is a viable economic activity.**

#### **Specific Objectives:**

- Create an Agriculture Commission to represent farmers and work with the town to ensure that local policies support agriculture.
- Preserve and encourage the "right to farm" in Hadley.

## **AGRICULTURAL, NATURAL AND HISTORIC RESOURCES**

### **Goal 1: Strengthen and promote agricultural heritage and way of life.**

#### **Specific Objectives:**

- Comprehensively review town policies to ensure that they are farmer friendly.
- Continue to use Agriculture Preservation Restrictions and other means to protect farmland.

### **Goal 2: Preserve and protect air, soil and water quality.**

#### **Specific Objectives:**

- Protect Hadley's public water supply by purchasing open space within the recharge area.
- Pursue water conservation strategies.

### **Goal 3: Preserve and protect critical habitat and other critical natural resources.**

#### **Specific Objectives:**

- Create land use tools that protect critical habitat and promote conservation land. Specific attention should be given to lands along rivers, streams, mountain slopes, and forest habitat areas.
- Pursue a wide range of conservation options such as Conservation Restrictions, land purchases, encourage donation, etc.

### **Goal 4: Preserve historic and architecturally significant structures.**

#### **Specific Objectives:**

- Create incentives for the reuse of historic structures.
- Create disincentives for the demolition of historic structures.
- Identify and nominate structures and areas for the State Historic Register.

### **Goal 5: Preserve and protect historic and scenic landscapes.**

#### **Specific Objectives:**

- Inventory all historic landscapes within Hadley.
- Pursue Historic Register designations for critical areas.
- Preserve and protect the town's historic public resources such as cemeteries, commons and museums.

## **OPEN SPACE AND RECREATION**

**Goal 1: Establish mechanism for the active protection and long term maintenance of open space.**

**Specific Objectives:**

- Pursue long-term open space funding mechanisms.
- Create open space management standards for lands protected through zoning.
- Pursue and enhance alternative open space protection mechanisms such as land trusts and donations.

**Goal 2: Offer recreation opportunities for residents.**

**Specific Objectives:**

- Improve and expand recreation opportunities, including playing fields, parks and playgrounds.
- Continue and enhance recreational activities available to the elderly through the Council on Aging and otherwise.

**Goal 3: Preserve lands for passive recreation.**

**Specific Objectives:**

- Purchase and preserve conservation lands in a comprehensive and prioritized manner.
- Where practical, develop nature trails and other means to connect and integrate conservation lands.

**Goal 4: Improve access to existing open space resources and the Connecticut River.**

**Specific Objectives:**

- Improve access, signage and parking facilities for open space areas.
- Work with Massachusetts Department of Conservation and Recreation to provide greater access to State lands along the Connecticut River.

**Goal 5: Create an open space network.**

**Specific Objectives:**

- Where practical, link large areas of open space together to form a comprehensive network of habitat and trails.
- Use open space network for natural stormwater management.

## **TRANSPORTATION**

### **Goal 1: Protect the rural and historic character of Hadley's streets.**

#### **Specific Objectives:**

- Produce Street Design Guidelines to guide future road construction, reconstruction and maintenance.

### **Goal 2: Promote traffic calming and pedestrian improvements.**

#### **Specific Objectives:**

- Reduce traffic speeds through neighborhoods and residential streets by using traffic calming techniques.
- Increase pedestrian safety in the town center, residential neighborhoods, and commercial areas.
- Work with MassHighway to mitigate impact of Route 9 traffic on town center.

### **Goal 3: Expand bicycling options.**

#### **Specific Objectives:**

- Improve and encourage increased use of existing Norwottuck Rail Trail bike path.
- Explore possible creation of new bikeways and multi-use paths through town.
- Adopt bicycle-parking requirements for new construction and ensure that new developments are bicycle and pedestrian friendly.

### **Goal 4: Implement strategies that limit vehicle and traffic impacts from new development.**

#### **Specific Objectives:**

- Require detailed traffic impact statements and mitigation measures for new development regardless of State MEPA requirements.
- Carefully manage uses that generate traffic issues such as big box retail, strip malls and drive-throughs.
- Include access management and shared parking provisions to limit curb cuts, increase pedestrian safety and minimize pavement for new commercial development.
- Create parking lot design criteria and mandate where appropriate that parking lots be in the rear or side yards of new commercial structures.

### **Goal 5: Improve opportunity for regional, public transportation and other alternative means of transportation.**

#### **Specific Objectives:**

- Study potential for regional transportation to Amherst, Northampton, Greenfield, and Springfield (PVTa).



## **PUBLIC FACILITIES AND INFRASTRUCTURE**

### **Goal 1: Restrict new sewer and water line expansions.**

#### **Specific Objectives:**

- Prohibit the extension of sewer lines into undeveloped, rural, scenic, agricultural and other sensitive areas that are not suitable locations for new development.

### **Goal 2: Maintain Hadley's safe living environment through effective police, fire and emergency medical services.**

#### **Specific Objectives:**

- Continue to fund emergency services at appropriate levels.
- Provide training and new technology.
- Investigate and enhance regional solutions.

### **Goal 3: Maintain Hadley's commitment to provide superior education opportunities for its residents.**

#### **Specific Objectives:**

- Develop and support adult education programs.
- Bring new technology into schools.
- Produce School Building Master Plan.
- Continuously improve and support existing schools

### **Goal 4: Work with UMASS and other area colleges to ensure that their plans are consistent with this Master Plan and Hadley concerns.**

#### **Specific Objectives:**

- Open a dialogue with UMASS and other area colleges and meet with college representatives at least twice a year to discuss concerns and plans for the future.

## 3 LAND USE

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### Introduction

‘Land use’ is the term used to describe the overall development pattern of a community. The issues surrounding land use cut across the other elements explored as part of this master plan. Issues such as transportation, infrastructure, and housing are all related to land use while conversely, land use is often dependent on the underlying natural resources. Land use is thus the central hub of a master plan, with the other elements acting as critical spokes. All are important, but land use is the element that ties them all together.

Historically, land use policy simply focused on single use zoning, but as the town’s development and buildout analyses demonstrate the folly of such zoning, more creative and comprehensive strategies are called for. Without new and comprehensive land use strategies, future growth will eventually overwhelm Hadley and the town will lose much of the rural character, agricultural heritage and small-town feel that makes Hadley such a special place to live. Creative land use strategies can be used to help Hadley manage future growth in a manner that preserves its character and is consistent with the community’s vision, goals and objectives stated in **Chapter 2**.

This section provides an overview of the town’s existing population trends, land use patterns, existing zoning, and the buildout ramifications of that zoning.

### Hadley’s Landscape

The Town of Hadley is nestled along the eastern bank of the Connecticut River bordered by Amherst on the east, Sunderland to the north, and South Hadley to the south. Route 9, a major state road, cuts through the community from I-91 to Amherst. While Route 9 bisects the town from east to west, Route 47 traverses north/south along Hadley’s western border near the river.

The corridor along Route 9 contains most of the town’s commercial development, yet also contains the historic town center and serves as the principal gateway to the community. Several of the town’s municipal structures, including the library, Town Hall, post office and the middle school/high school are located along Route 9. Closer to Amherst, Route 9 contains one of the larger concentrations of commercial and retail uses in the region.



*Hadley Town Center*

Hadley center is the heart of the community. Not only does the area contain a significant number of municipal structures, but it also has historic and charming residential neighborhoods, the Hadley Senior Center, the Farm Museum, the historic Town Common, important local businesses and religious institutions. To the north on Route 47 lies North Hadley center, a small, compact village center with a meeting hall, church, local businesses, and historic homes located along Lake Warner and Mill River.

Far to the south, along virtually Hadley’s entire southern border lies Skinner State Park, a heavily

wooded landscape in the Mt. Holyoke range that towers over the remainder of the town. To the north lies Mount Warner, the only other major area of woodland within Hadley. These two woodlands are connected through a tenuous ribbon of trees that cling to the various streams and corridors running north to south.

The remainder of the community contains some of the most valuable and productive agricultural land in Massachusetts (see **Figure 7, Special Landscape Features** in Chapter 6). This cropland makes up almost 42 percent of Hadley's total land area and is spread through virtually the entire community. Significant clusters of agricultural land lie along the western half of Route 9, around the Moody Bridge area, in the Great Meadows area, along portions of Route 47 and to the north along Knightly Road, among others.



*An agricultural landscape*  
Photo Credit: Alex MacLean

## Local Population Trends: Hadley Growing Faster Than Region

**Chart 3-1** compares Hadley's population trends to those of the region. In the past decade, Hadley's population has grown significantly faster than the region's. The 2000 population in Hadley was 4,793, an increase of 13% since 1990. During the same time, the Pioneer Valley Planning Commission (PVPC) region grew by only 0.9% and Hampshire County grew by only 3.9%.

Hadley's growth rate during the 1990s was significantly higher than the growth rate during the 1980s, when the town's population increased by only 2.6%. The growth between 1990 and 2000 also significantly exceeded 1990 projections: the town added 562 people during the 1990s compared to the projected 360 people.<sup>1</sup> As shown in **Chart 3-1**, Hadley is expected to continue growing faster than Hampshire County as a whole between 2000 and 2010.

*This population growth and pressure has had and will continue to have an impact on land use patterns. Increases in population inevitably result in more open land being converted to subdivisions and this in turn leads to more land being used for commercial uses and other services to support the increase in population.* While Hadley has taken some steps to mitigate the impacts of this population increase (for example, by instituting a phased growth subdivision bylaw<sup>2</sup>), additional and more comprehensive strategies will be needed to address these issues going forward.

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<sup>1</sup> Massachusetts Institute of Social and Economic Research (MISER), mid-level population projections.

<sup>2</sup> Hadley's phased growth subdivision bylaw was recently invalidated by the Massachusetts Supreme Judicial Court. The Court ruled that permanent restrictions on the rate of development are unconstitutional, though allowing communities to adopt temporary restrictions to slow growth and plan for future development. Recommendations in Hadley's Master Plan shall better accommodate growth going forward.

**Chart 3-1**  
**Population Growth and Projections for Hadley and Hampshire County**  
**1970-2010**

Year	Hadley Population	% Change From Previous	Hampshire County Population	% Change From Previous
1970	3,760	-	123,997	-
1980	4,125	9.7%	138,813	11.9%
1990	4,231	2.6%	146,568	5.6%
2000	4,793	13.3%	152,251	3.9%
2010 (projected) <sup>3</sup>	5,394	11.9%	155,376	2.1%
Buildout	13,144	174.2% (Increase from 2000)		

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Sources: U.S. Census Bureau, Census 1970-2000. MISER population projections for 2010.

## Land Use Patterns

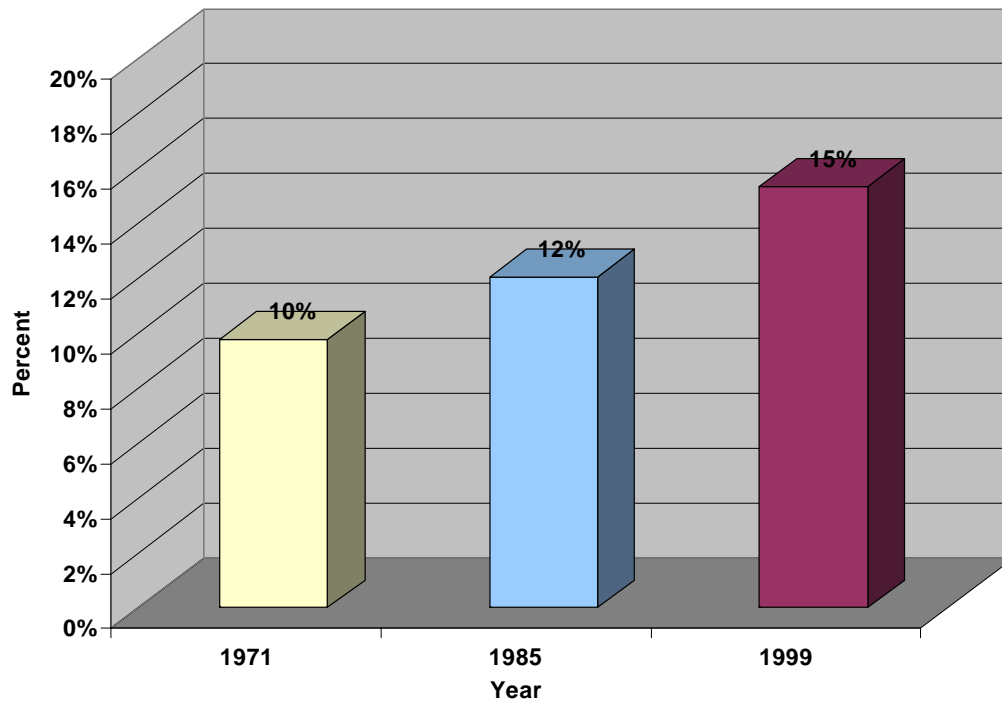
In recent years, Hadley has faced several issues related to its growing population and the new development required to accommodate it. According to census data, the total population in Hadley increased 13 percent (**see Table 3-1**). Predicted to continue at a similar pace, this level of population growth requires creative solutions to accommodate new residents while preserving and maintaining Hadley's rural character.

In addition, the increase in population between 1970 and 2000 corresponds with the increased consumption of land in Hadley. In 1999, 15 percent of the town was developed, up from 10 percent in 1971 (**see Chart 3-2**). Between 1971 and 1999, Hadley lost approximately 925 acres of open space, while residential land use increased by 582 acres (**see Chart 3-3**). There was also a significant expansion in commercial land use. In 1971 only 142 acres were considered commercial, while in 1999, 340 acres were considered commercial.

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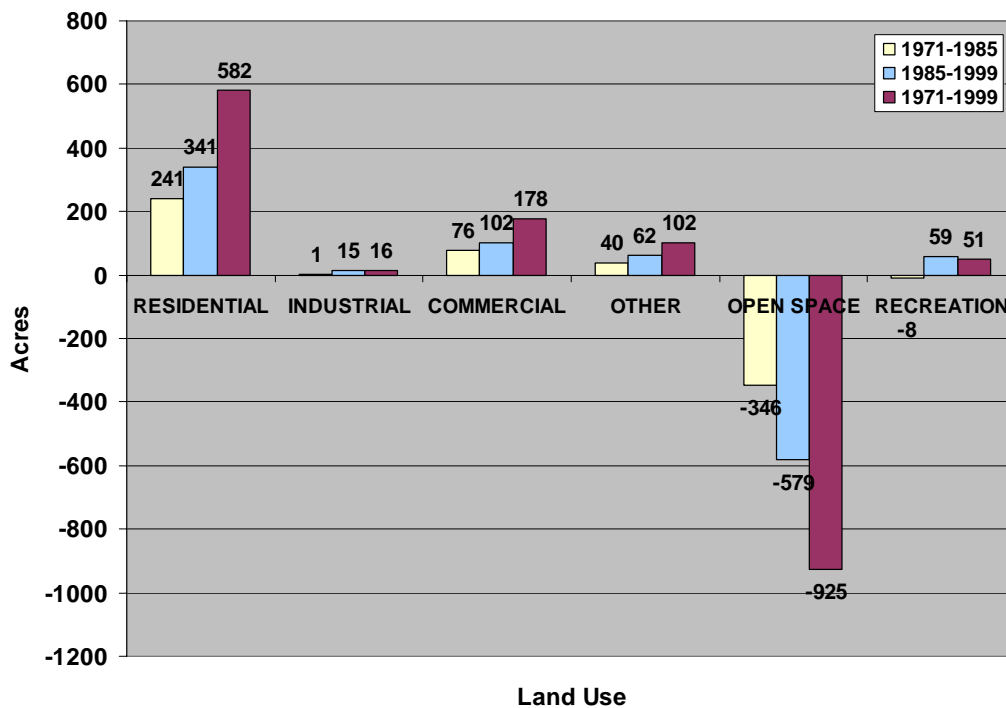
<sup>3</sup> In 1990, MISER estimated low-level, mid-level, and high-level population projections for Hadley and Hampshire County for the years 1995, 2000, 2005, and 2010. From 1990-2000, Hadley nearly followed the high-level projections, growing from 4,231 to 4,793 (vs. a high-level projection of 4,821). Therefore, the high-level projections for Hadley are cited here. Hampshire County, however, grew even less than the low-level projections (152,251 vs. a low-level projection of 156,550). Therefore, the low-level projections for Hampshire County are cited here.

**Chart 3-2**  
**Percent of Total Land Developed**



Source: Mass GIS

**Chart 3-3**  
**Change in Land Use**



Source: Mass GIS

As this Plan is being finalized, at least three new large retail developments are in the process of being developed along Route 9, and several large residential subdivisions have been proposed.

Accompanying the drastic loss of open space was an increase in lot size. In 1970, the average acreage of developed land per person was 0.29. By 2000, this number increased to 0.35, indicating that along with a rise in both population and developed land, there was also an increase in the amount of developed land per person. Over time, development patterns have shifted from the historic, compact centers to conventional single family large lot subdivisions.



*Hadley Open Space*

Another major shift in land development patterns is that residential development has spread past the town center and into the outlying areas of town. Historically, residential development activity was clustered around Hadley Center and North Hadley Center. This relatively compact development helped maintain the small town character that attracted many Hadley residents. Most development prior to 1971 (see **Figure 1-A, Land Use, 1971**) was located around interconnected roads in the center of town while new development has ventured further from this compact pattern (see **Figure 1-B, Land Use, 1999**). Much of this development came at the price of agricultural land; between 1971 and 1999, 8.5 percent of the town's agricultural land was lost to development (see **Figure 2, Changes in Agricultural Land, 1971-1999**).

**Chart 3-4** summarizes the land use changes from 1971 through 1999.

**Chart 3-4  
Land Use Change**

Land Use Category	1971 Acres	1985 Acres	1999	
			Acres	% of Total Town Area
Cropland	7,273	6,991	6,608	41.8
Pasture	704	695	685	4.3
Woody Perennial (orchards & nurseries)	76	88	77	0.5
Forest	4,629	4,563	4,500	28.5
Wetland (non-forested only)	69	69	64	0.4
Mining (sand, gravel & rock)	2	5	7	0.0
Open Land (abandoned fields, power lines)	359	358	251	1.6
Active Recreation	195	187	243	1.5
Water-Based Recreation	6	6	9	0.1
Higher Density Residential <i>(less than ¼ acre lots)</i>	4	4	18	0.1
Low Density Residential <i>(larger than ½ acre lots)</i>	1,087	1,328	1,655	10.5
Commercial	142	218	320	2.0
Industrial	42	43	58	0.4
Parks, Public Facilities, Cemeteries	162	172	217	1.4
Waste Disposal	30	49	51	0.3
Transportation	71	79	92	0.6
Water Bodies	940	936	936	5.9
<b>Total</b>	<b>15,791</b>	<b>15,791</b>	<b>15,791</b>	<b>100.0%</b>

Source: Mass GIS

Note: Skinner State Park is included in this table as ‘Forest.’

## Zoning

Zoning and other land use laws constitute a town’s “blueprint” for its future. Land use patterns over time will continue to look more and more like the town’s zoning map until the town is finally “built out”—that is, there is no more developable land left. Therefore, in looking forward over the master planning period, it is critical that the town focus not on the current use and physical build-out today, but on the potential future uses and build-out that are allowed under the town’s zoning map and zoning bylaws. Zoning is the primary land use tool that the town may use to manage development and direct growth to suitable and desired areas while also protecting critical resources and ensuring that development is in keeping with the town’s character.

Hadley has five base zoning districts and five overlay districts (See **Figure 3, Zoning, 2004**). The base districts define the allowed uses and dimensional requirements in all parts of the town, while the overlay districts provide for additional restrictions in certain areas. These districts are described below, and are shown in **Chart 3-5**.

**Chart 3-5  
Hadley Zoning Districts**

<b>Zoning Districts</b>	<b>Acres</b>	<b>Percentage</b>
Agricultural – Residential (AR)	12,388	82.7
Residential (R)	260	1.7
Business (B)	875	5.8
Limited Business (BL)	329	2.2
Industrial (I)	1,116	7.5

Source: Mass GIS, PVPC

**Residential:** This district allows primarily single family residences with a minimum lot size of 22,500 sq. ft. This is small district located between Rocky Hill and Mount Warner Roads.

**Agricultural-Residential:** This district is spread through the majority of the town and permits single family homes with a minimum lot size of 30,000 sq. ft.

**Business:** This district, spread along the majority of Route 9 and a large portion of Route 47 south of Route 9, permits offices, banks, and retail businesses. The only size limitation imposed is on the structure's height (2.5 - 3 stories).

**Limited Business:** This district is along the majority of Route 47 north of Route 9 and permits businesses of a lesser scale than the Business District. Business size on any one lot shall not exceed 2,500 sq. ft and many uses are permitted only by Special Permit granted by the Planning Board.

**Industrial:** This district, located north and south of the eastern half of Route 9 and encompassing the entire Hadley portion of the UMASS campus along Route 116, permits any use permitted in the Business District plus manufacturing and industrial uses.

Hadley's Overlay Districts further regulate land use within the community. These include:

**Aquifer Protection District:** This overlay district sets forth standards, rules and permitting procedure for uses that are located within the town's drinking water source recharge areas.

**Wireless Communication Services District:** This overlay district establishes the location (town owned land, and all land within the Business and Industrial Districts) which may contain personal wireless facilities (cell towers). It contains a thorough application procedure and review criteria.

**Village Center Overlay:** This district, located along the western sections of Route 9 outlines colonial architectural standards for the area.

**Flood District Overlay:** This district establishes standards to protect against flood related damages within the areas designated Zone A and A1-30 on the Hadley Flood Insurance Maps.

The Zoning Bylaw establishes a Commercial Site Plan Approval procedure for all business, industrial, and commercial buildings within the Business, Limited Business and Industrial Districts. Site Plan Review allows the Planning Board the ability to review the development proposal to ensure that the basic safety and welfare of the people of Hadley are protected.



## Buildout

According to a recent buildout study prepared by PVPC using a methodology developed by the Massachusetts Executive Office of Environmental Affairs, Hadley has enough buildable land to accommodate more than 8,000 additional residents if all the land is developed in accordance with current zoning (see **Figure 4, Buildout Composite Map**). It should be noted that the buildout study provides a general estimate of growth potential. Future land use decisions such as zoning changes, land preservation efforts, or Comprehensive Permit applications, could increase or decrease the buildout potential. In addition, the buildout study does not attempt to estimate how quickly the town will reach buildout, if ever. The rate of growth is highly dependent on regional and national economic and real estate trends.

The impacts associated with buildout are described in **Chart 3-6**.

**Chart 3-6**  
**Potential Impacts of Buildout Development**

Potential Impact Area	Multiplier	Total Impact
Developable Land	--	8,805 acres
New Residential Dwelling Units	--	2,880 units
New Commercial/Industrial Dev't	--	12,551,922 sq. ft.
New Residents		8,351
New Public School Students	0.41 students/dwelling	1,193
Total Additional Water Demand	161 gallons/person/day	1.34 million gallons/day
Total Additional Solid Waste	1,026 pounds/person/year	24,297 tons/year
(Includes recycled and non-recycled solid waste generation)		
Miles of Roadway		58 miles

Source: Pioneer Valley Planning Commission buildout analysis, spring 2000.

## 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 (2000). However, it is unlikely that the actual buildout will be exactly as predicted. One major reason is that, as a result of this Master Plan, the town can make decisions that influence the buildout by amending 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.

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

- Full build out of the town would result in more than 8,351 new residents, a 174 percent increase from the 2000 population. 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 2,880-plus new housing units, almost all are expected to be single-family houses.
- About three quarters of the town's land area is buildable land (as shown in **Figure 4, Buildout Composite Map**). It is unlikely that the town could ever protect all of this land from development. Therefore, the town needs to employ tools for land conservation, but also develop mechanisms to encourage creative types of development that are more in keeping with the town's goals and vision.

## Goals

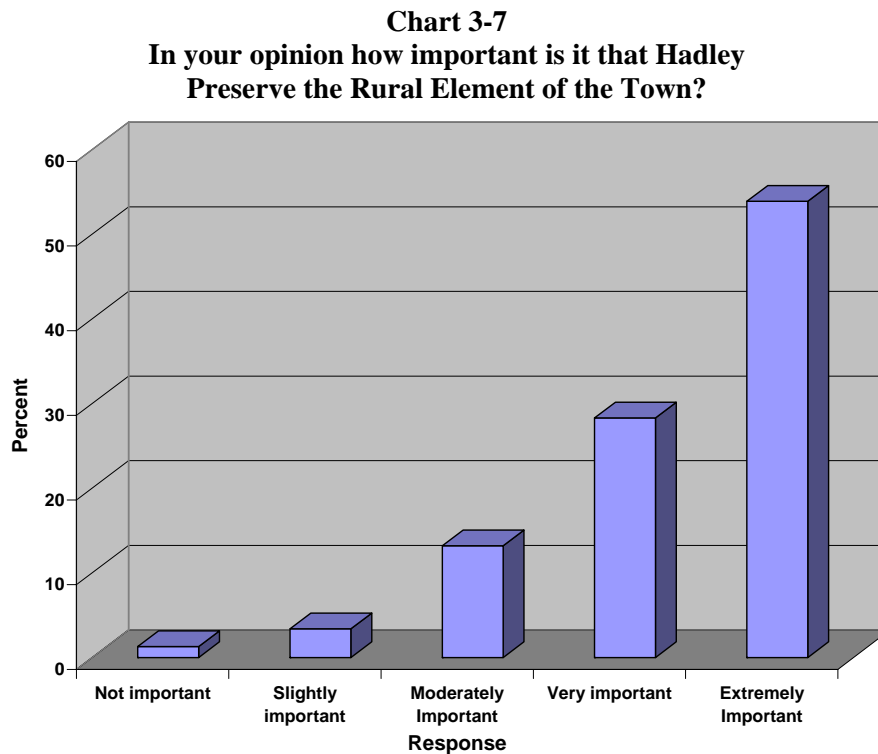
This section provides additional analysis of the land use trends in Hadley in relation to the goals and objectives identified by the town. Later sections will discuss the strategies being proposed to help realize these goals and objectives.

### Goal 1: Maintain Hadley's rural appearance and small town feel.

#### Specific Objectives:

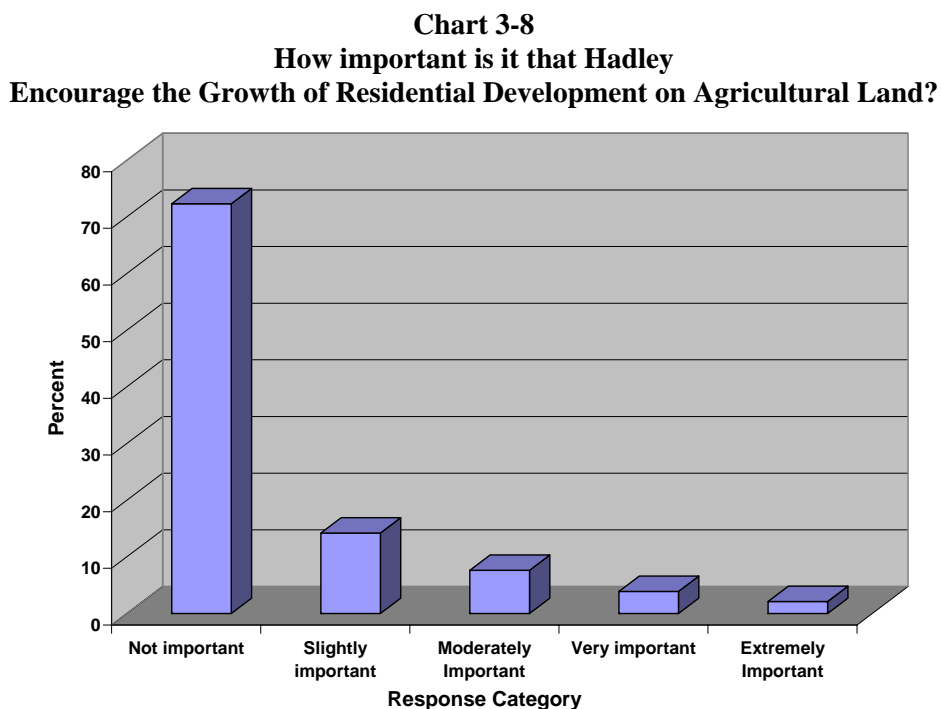
- Focus new development in sections of town that have the infrastructure and environmental conditions to accommodate growth and limit development in rural and environmentally sensitive areas.
- Limit new commercial development to Route 9 and other identified areas while prohibiting new commercial development on Bay Road, North and South Maple Streets and other agricultural, residential or sensitive areas.
- Ensure that any new development on Route 47 is appropriate for and sensitive to the surrounding neighborhoods and environment.
- Manage new development through appropriate regulation and limit overall size of new buildings.

As Hadley develops with new subdivisions, new strip malls, and new large retail establishments, the rural character of the community slowly gives way to a more suburban character. The people of Hadley seek to balance appropriate development with the rural characteristics of their community (see **Chart 3-7** and **Chart 3-8**). This balance is an integral part of this Master Plan and the strategies outlined throughout seek to achieve this balance over time.



Source: Hadley Town Survey

Currently, development in Hadley is not sufficiently encouraged by existing zoning to seek areas where the infrastructure and environmental conditions support such development. Rather, Hadley’s existing zoning permits development, primarily subdivisions, across the entire town with no incentives for guiding that development to more suitable areas. As such, as demonstrated in **Chart 3-3**, the open space of Hadley is giving way to residential and commercial development at an increasing rate. In addition, under existing zoning large commercial development is permitted in areas, such as Route 47 south of Route 9, that are not appropriate for such use. Hadley residents discourage any effort to encourage residential development on agricultural land (as shown in **Chart 3-8** below), signaling a need for the town to create alternative solutions for residential growth.

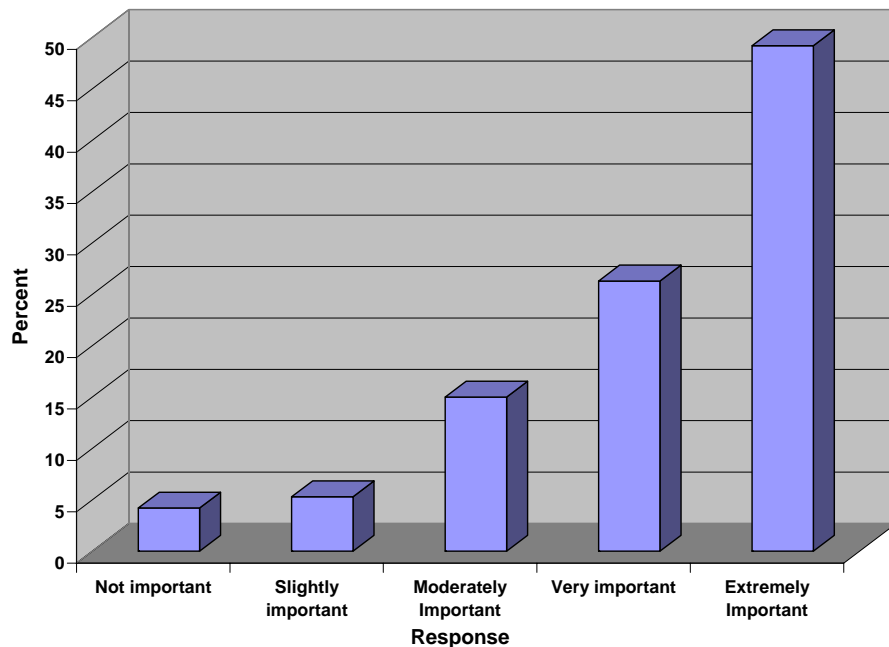


Source: Hadley Town Survey

Appropriate land use strategies would channel this development to areas in town where the infrastructure (sewer, water, road system) and the environment (water resources, agricultural soil, core forests) would support such development. This channeling could take place through a combination of Transfer of Development Rights and creative zoning that would permit increased density and a mixture of uses in certain areas.

Hadley residents would also like to manage and control future commercial development and limit such development to the established commercial areas along Route 9 (See **Chart 3-9**). Managing future development through existing and enhanced permitting structures such as Site Plan Review and Design Review would strengthen the town’s ability to guide development in a manner consistent with local goals and values. In addition, reviewing and modifying the uses allowed in the Industrial and Business District would ensure that future construction is in keeping with the goals of the people of Hadley.

**Chart 3-9**  
**In your opinion, how important is it that Hadley**  
**Manage and Control Commercial Development?**



Source: Hadley Town Survey

#### **Key Strategies:**

- Strengthen Transfer of Development Rights
- Strengthen Site Plan Review Bylaw
- Create new residential zoning districts for Heritage Residential, Agricultural Preservation Residential, and Forest Residential
- Update the Table of Use Regulation

## **Goal 2: Enhance the town center as a livable, workable, and walkable community center.**

### **Specific Objectives:**

- Allow for the appropriate use, development and redevelopment of land in the town center to facilitate the creation of a true New England town center.
- Improve and/or create pedestrian network in and around town center.
- Create consistent sign, streetscape and architectural themes.

Hadley's historic town center contains the Town Hall, Town Library, Senior Center, Farm Museum, Hopkins Academy, the Russell School building (which is currently being used as a charter school but soon to be returned to the town), and numerous businesses. Historic homes surround the center along Middle Street and the Town Common along West Street. The Norwottuck Rail Trail bike path runs through the center, connecting Hadley with Amherst and Northampton. The center is dominated by the intersection of Route 9 and Route 47, two of Hadley's most heavily traveled roadways.

This intersection presents Hadley with its greatest challenge in regards to preserving the historic qualities of the town center. As MassHighway moves forward with their plans for widening Route 9, the town will have to work with Mass Highway to ensure that the historic character of the town center is preserved and even enhanced. Pedestrian connections should be strengthened, signage should be consistent and historically sensitive, trees and landscaping should be retained and enhanced, and the amount of asphalt should be minimized through landscaped islands, alternative paving and other strategies. It is critical that the town work with state and elected officials to insure that the Route 9 project takes into account the needs of Hadley residents, and not just the desire to have a wider, faster moving traffic artery running through the town for the benefit of others.

The town center is currently zoned for conventional commercial development, similar to that permitted further to the east along Route 9. The town center benefits from having a Village Overlay District in place that somewhat guides the architecture of the district; but otherwise, the zoning does not necessarily reflect the historic and rural character of the center. Future development within the town center should be of a kind that enhances the characteristics of the center and helps to create a livable, workable, and walkable town center. Such development should be at a pedestrian scale with parking to the rear or side of the structure, should be constructed of quality materials that reflects the historic surroundings, and should strengthen the economy of the center by allowing suitable shops and mixed use.

**Key Strategies:**

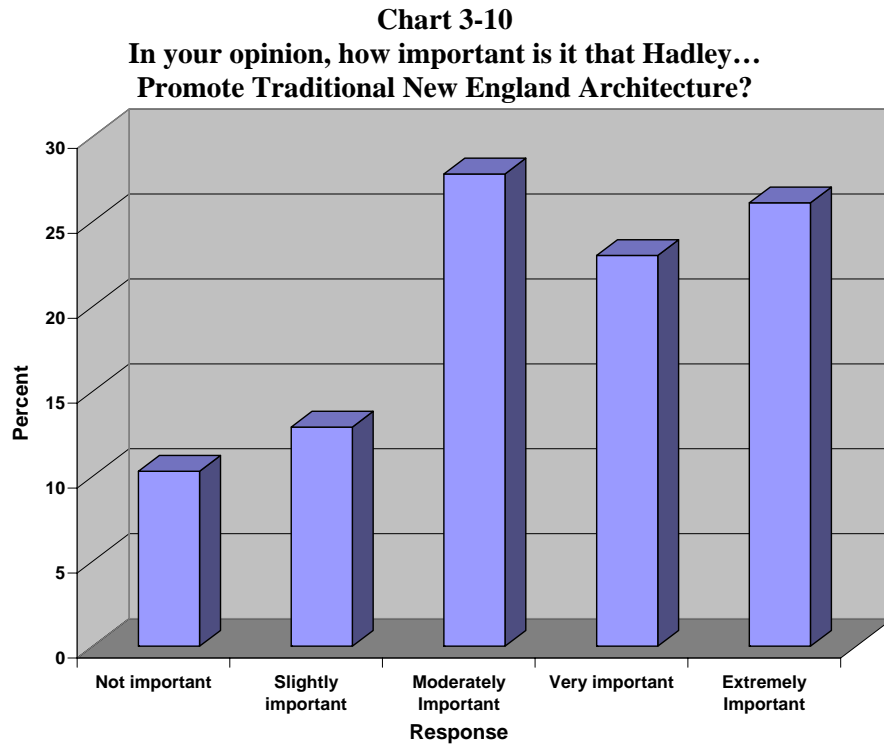
- Create Village Core Zoning District
- Enhance Mixed Use Village Overlay District
- See Housing and Community Goal 3, Increase Citizens' Sense of Community and Transportation Goal 2, Promote Traffic Calming and Pedestrian Improvements

**Goal 3: Ensure new development is in keeping with character of Hadley's landscape and architecture.**

**Specific Objectives:**

- Create enhanced design review guidelines that reflect Hadley's architectural heritage, character and preferences.

The Town of Hadley values its historic and architectural heritage. As shown in **Chart 3-10**, nearly 80% of the town view it as moderately to extremely important to promote traditional New England style architecture in Hadley. Furthermore, 65% of the town supports the strengthening of colonial design guidelines within the Village Overlay District. In fact, design guidelines have been used across the Commonwealth to strengthen economic development initiatives and protect communities' valuable heritage and character. As part of the town's existing site plan review process, the Hadley Historical Commission reviews project site plans and makes recommendations to the Planning Board based upon consideration of the project's exterior appearance and overall architectural design. The Committee believes that an enhanced design review process, including the development of specific design review guidelines to be published and circulated in advance to developers, would enable the town to exert more control over the aesthetics, architecture and design of future development in order to ensure that such development is consistent with the character and rural nature of Hadley.



Source: Hadley Town Survey

#### **Key Strategies:**

- Establish Design Review Committee and Guidelines

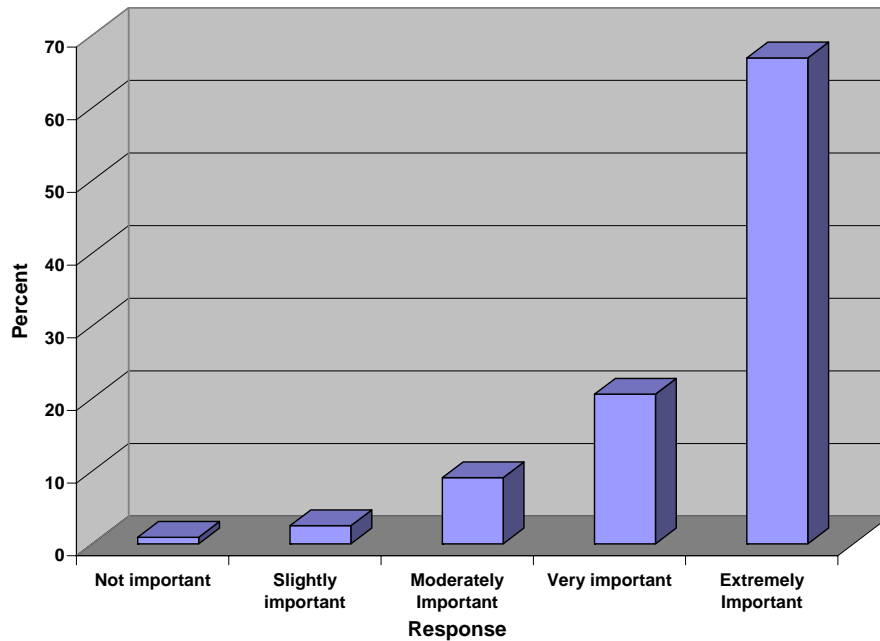
### **Goal 4: Protect, enhance and strengthen agricultural lands.**

#### **Specific Objectives:**

- Ensure that development on and near agricultural lands is sensitive to the value of the agricultural resource.
- Create “Purchase of Development Rights” program and enhance Transfer of Development Rights program to help pay for the preservation of farmland.
- See separate Agricultural element in Chapter 6 for additional goals and objectives.

The Town of Hadley is an agricultural community with some of the most valuable and productive farmland in the Commonwealth. However, this resource is under threat from development, both residential and commercial, and parcel-by-parcel the town is losing the agricultural lands that define the community. As discussed in subsequent sections of this report, the agricultural heritage of the Town of Hadley reaches far beyond the land and includes quality of life issues and economic development issues. However, in this section, the focus is on land use and the future use of agricultural land is a critical element to the people of Hadley, as shown in **Chart 3-11**.

**Chart 3-11**  
**In Your Opinion, How Important is it that Hadley**  
**Protect Agricultural Resources?**



Source: Hadley Town Survey

Current development is not very sensitive to agricultural resources. Often, the valuable top soil is stripped off the site and sold. Farmable portions of the site are taken for home sites or parking lots and traditional field access points may be blocked by fences or new lawns. The town should pursue strategies that preserve these valuable farmlands and if limited development is permitted, it should be sensitive to these issues. Specific zoning provisions, such as an Agricultural Preservation Residential District and Open Space Protection Subdivision Design, could be adopted that protect the most valuable farm land and set guidelines for the limited development of these areas while retaining a farmer's right to farm.

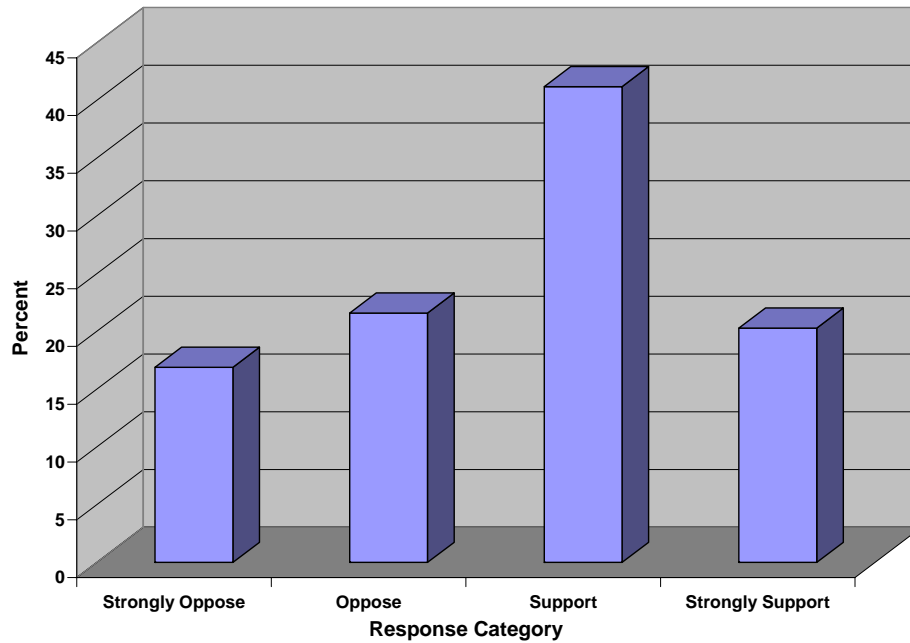


*Local farmland*

The town strongly supports the outright protection of agricultural lands through purchase, development rights transfers, or other mechanism, as shown in **Chart 3-12**. The Transfer of Development Rights provisions would be critical as it would allow farmers to receive money for the development rights of their parcels while ensuring the perpetual protection of the agricultural property. In addition, the development rights could then be used to bolster the development potential of areas in town where development is preferred such as the Route 9 corridor. The Transfer of Development Rights concept is a cornerstone of this Master Plan and is explored in detail in the Strategies Section.

**Chart 3-12**

**In The Future, What Methods for Preserving Agricultural Land Would You Support or Oppose:  
Establish a Tradable Rights Permit Program that Would Require Developers of Large Projects to  
Purchase Development Rights from Owners of Agricultural Land?**



Source: Hadley Town Survey

**Key Strategies:**

- Create and Adopt an Open Space Preservation Subdivision Bylaw
- Strengthen Transfer of Development Rights
- Create New Residential Zoning Districts such as Agriculture Preservation Residential



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## 4 HOUSING AND COMMUNITY

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### Introduction

This section addresses two important topics: housing and community. The housing portion addresses the housing trends and needs for the people of Hadley. This includes an analysis of the future housing and where it is most appropriate to be constructed, what type of housing should be constructed based on the needs of the community, and what strategies should be employed to create housing that is affordable for the people of Hadley. The community aspect of this section relates to the goals of the town to enhance and strengthen the sense of community within the town.

This section introduces Hadley's existing housing supply in the context of the town's goals set forth in **Chapter 2**.

### **Goal 1: Increase housing diversity to meet the economic needs of all Hadley residents.**

#### **Specific Objectives:**

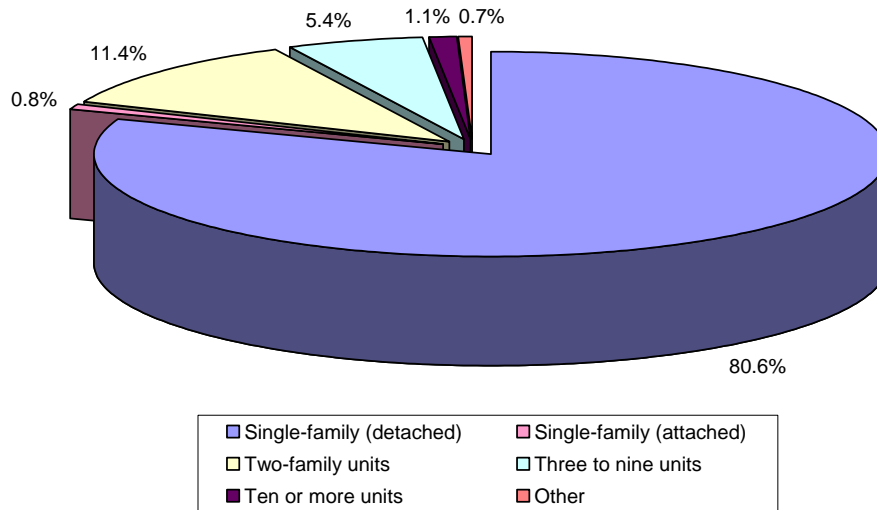
- Ensure that the housing needs of the elderly, first time homebuyers and others are met within the town.
- Require the private sector to create affordable units to keep pace with new housing developments.

A diversity of housing types is essential to providing housing 'to meet the economic needs of all Hadley residents'. Typical housing types include single family homes, two family dwellings, small apartment buildings, apartments above retail, condominiums and townhouses, and larger apartment buildings and assisted living facilities for the elderly. Consistent with national trends, single-family detached housing consisted of 80% of the town's housing inventory in 2000, as shown in **Chart 4-1**. This housing type is relatively expensive for young families and elderly residents trying to stay in the town. However, the town also has a surprisingly large number of two, three and four family units (almost 14 percent of the total) and these do provide some diversity of housing within the community.



*Hadley Housing Types*

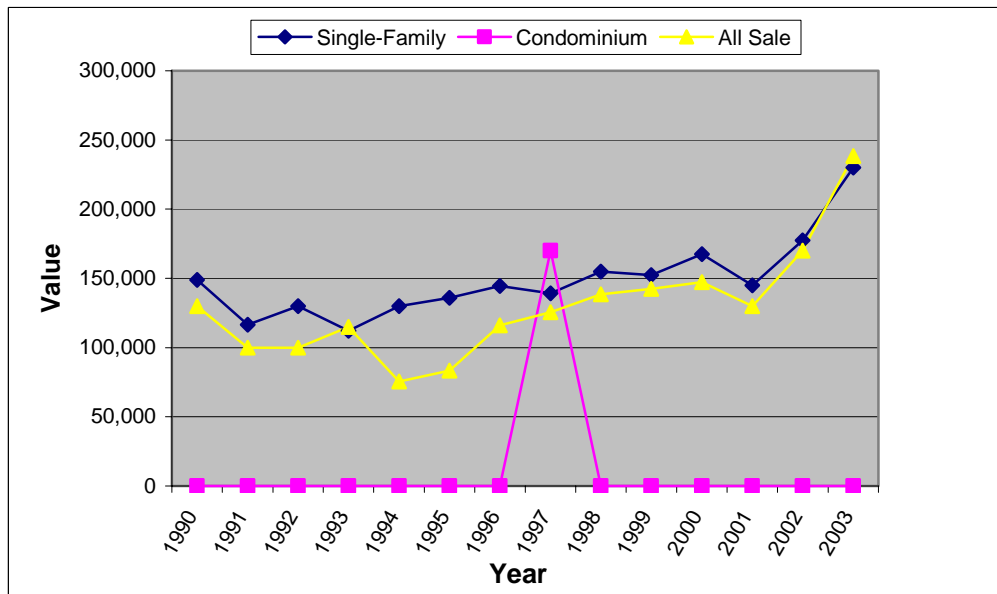
**Chart 4-1**  
**Type of Units, 2000**



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

The median sales price for homes within Hadley has been steadily increasing (see **Chart 4-2**). According to Banker and Tradesman, the median sales price for single-family houses sold in Hadley in 2003 was \$230,000. In addition, rental housing in Massachusetts has become more expensive in recent years. Although rents in western Massachusetts have historically risen more slowly than the rest of the state, the pressure on rental markets is increasing across the Commonwealth as housing availability grows tighter in major metropolitan areas. In 1990, median gross rent in Hadley was \$520 per month, compared to the Hampshire County median of \$421 and the statewide median of \$580. In 2000, median rent in Hadley was \$654 per month, compared to a county median of \$631 and a statewide median of \$684.

**Chart 4-2**  
**Median Home Sales Price, 1990 -2003**  
**Town of Hadley**

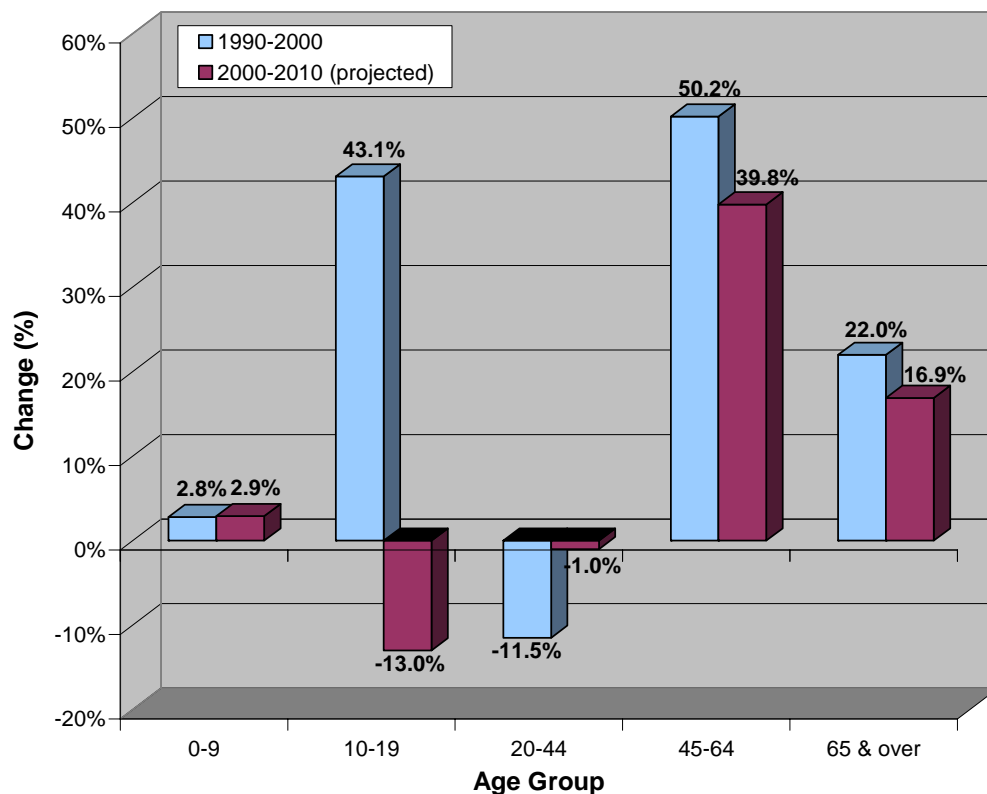


Source: Banker & Tradesman

The steady increase in housing costs, coupled with the town's changing demographics indicate several key housing needs that must be addressed in order for the town to meet its goal of housing diversity. Perhaps the most pressing need is related to the current and projected increase in the over 55 age group. As indicated in **Chart 4-3**, the number of elderly residents in Hadley has been and will continue to increase dramatically. As a result, there will be increased pressure to meet the demand for housing and services designed to serve this demographic group.

In addition, the need for affordable housing among this group is increasingly acute. According to the 2000 census, 55% of elderly households in Hadley earn less than 80% of median income and are thus income eligible for most state and federal housing programs. The latest census data also reveals that 21% of households over 65 are renters. The fixed nature of elderly incomes makes it difficult to afford home maintenance, repair, and increasing housing costs. As a result, 19% of elderly renters and 20% of elderly homeowners are paying more than 30% of their income to housing costs. Clearly, the town should develop strategies that seek to create housing solutions for elderly citizens; this strategy is certainly supported by the town, as demonstrated in **Chart 4-4**. In addition to the construction of smaller units affordable to Hadley's elderly residents, the creation of a program designed to alleviate the costs of homeownership for elderly households living on fixed incomes would be appropriate.

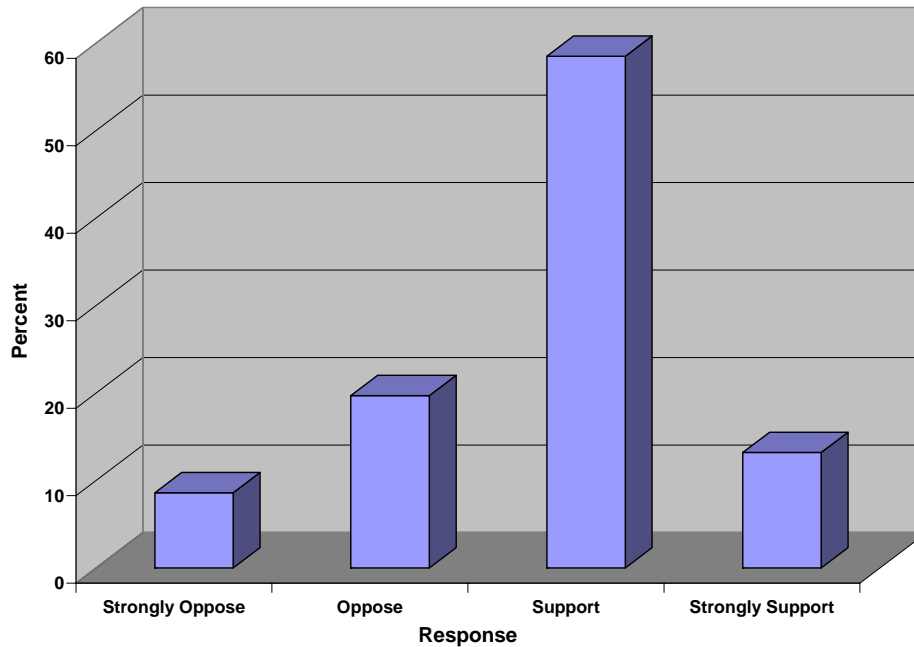
**Chart 4-3**  
**Age Distribution 1990-2000 and 2000-2010**



Sources: U.S. Census Bureau, 2000; MISER 2010 age cohort projections updated by Daylor Consulting Group

Note: MISER age cohort projections were developed based on U.S. Census 1990 data. The actual 2000 population of 4,793 significantly exceeded the mid-level estimated 2000 population of 4,591, but was close to the high-level estimate of 4,821. Therefore, Daylor used the high-level MISER estimates to calculate the estimated population increase in each age cohort between 2000 and 2010. These increases were added to the actual 2000 age cohort distribution to arrive at the estimated 2010 age cohort breakdown.

**Chart 4-4**  
**To What Extent Would You Support or Oppose**  
**the Following Projects that Hadley Might Undertake:**  
**Develop Additional Elderly Housing?**



Source: Hadley Town Survey

Although the need for additional senior housing is perhaps the most pressing need, other housing types will be needed to create a truly diverse housing stock. To understand the need for diverse housing options, it is important to review the various income levels that currently exist in Hadley.

The Department of Housing and Urban Development (HUD) calculates the median income for U.S. metropolitan and non-metropolitan areas each year. Hadley is included within the Springfield Metropolitan Statistical Area (MSA) and the area median family income for 2004 is \$59,400. HUD establishes income groups – very low, low, and moderate – as households whose income falls within specific percentages of the area median income. Most state and federal programs are available for households who make up to 80% of the area median income (\$47,520), adjusted for household size.

**Very Low-Income (0 to 30% of area median income)**

Approximately 188 of a total of 1,856 households in Hadley are very low-income, according to the 2000 census. This represents 10% of all households. The majority of these households (107) own their own home. Eighty-two percent of these owner households pay over 30% of their income for housing. Eighty-one very low-income households are renters and 63.0% of them pay over 30% of their income for rent. After paying their monthly housing costs, a large majority of the very low-income households in Hadley are left with little income to pay for other necessities.

**Low-Income (31% to 50% of area median income)**

Ten percent, or 189, of Hadley households are low-income. The 2000 census shows that 48.1% (91) of the low-income households rent their housing units. Of these renter households, 36.3% pay more than 30% of their income for rent. Fifty-two percent (98) of low-income households own their homes. Thirty-four percent of these homeowners pay over 30% or more of their income on housing.

#### Moderate-Income (51% to 80% of median income)

Nearly 11% (197) of households in Hadley are moderate income. In this income group, 31.5% are renters and 68.5% are homeowners. The housing costs burden on renters in this income group is a bit more than the other low-income groups. Nearly 55.0% of the moderate-income renters are paying over 30% of their income for rent. Twenty-four percent of the moderate-income homeowners are paying over 30% of their income for housing costs.

#### Other Income Groups (81% > of median income)

Data from the 2000 census indicates that approximately 69.0% of households (1,282) earn over 80% of median family income in Hadley. Only 17.0% of these residents rent their units. Of these, none pay over 30% of their income for housing. Eighty-three percent of residents that earn over 80% of median family income own their homes. Nearly eight percent of these homeowners pay over 30% of their income on housing.

It is clear that there is a need for a diverse housing stock in Hadley. This diversity should be in the form of housing for young families, singles, owners, renters, seniors, and should stretch across all income groups.

#### **Key Strategies:**

- Adopt Incentive Zoning
- Adopt Inclusionary Zoning for Mixed Use and Multi-Family Residential Developments
- Create and Adopt a Senior Village Overlay District
- Permit Apartments above Retail in Mixed Use Village Districts
- Carefully Permit Accessory Apartments
- Create an Affordable Housing Trust Fund

## **Goal 2: Balance growth of housing with protection of rural character.**

### **Specific Objectives:**

- Provide incentives for better, more sensitive subdivision design with open space preservation
- Allow for development that is more compact and where open space is preserved.
- Allow for flexible lot design when developing a subdivision to promote sensitive design and the preservation of critical open space resources.

The creation of new and diverse housing may be accomplished while balancing that growth with the protection of the town's rural character. As described in previous goals, Hadley is striving to protect the rural character of the town by preserving open space and directing development to the most suitable areas while steering development away from the more sensitive areas. However, despite the alternative forms of development that the town is exploring, the development of subdivisions is bound to continue. In a historic and rural community such as Hadley, the creation of new, conventional subdivisions, with their wide streets and huge cul-de-sacs can often disrupt the more traditional development patterns found throughout the community. The traditional street patterns and street design found within the traditional neighborhoods surrounding the Town Common and stretching to East Street share very few characteristics with the sterile qualities of newer developments. By altering the Planning Board's Subdivision Rules and Regulations, the town could guide future developments and road layout to provide more consistency with the goals of the people of Hadley and create more of a seamless merging of the traditional neighborhood and newer development.

#### **Key Strategies:**

- Update Subdivision Rules and Regulations
- Create and Adopt an Open Space Preservation Subdivision Bylaw
- Create new residential zoning districts such as Heritage Residential, Agricultural Preservation Residential, and Forest Residential

### **Goal 3: Increase citizens' sense of community.**

#### **Specific Objectives:**

- Hold appropriate events on the Town Common for town residents.
- Sponsor more community-wide events.
- Improve communication between town boards/committees and town residents.

The historic, social and physical center of many a New England town is the Town Common. Hadley's Town Common, surrounded by historic homes and agricultural land, is believed to be the longest town common left intact in the Commonwealth. The area is part of the Hadley Center Historic District, a designated historic district on the state and federal Register of Historic Places. However, the Common's use as the social center of the community is complicated by Route 9, which bisects the Common. **Chapter 8**, the transportation section, addresses the effects of the road on the character of the Town Common, while this section leads to tools to improve the sense of community evoked by the Town Common. As an integral part of the town's history, it is important to prevent the Town Common from becoming an unusable, albeit historic space. As this Master Plan is being finalized, the town is in the process of forming a committee to study this issue. The Committee believes that this is a very important part of the effort to preserve the traditional small town atmosphere of Hadley and should be strongly supported by the town and its officials. Further, any plan for the Town Common must include the common's use for appropriate events designed to unite town residents. These uses should be sensitive to and respectful of the historic nature of the Town Common and the town's desire to preserve the Common.

Hadley has a range of cultural and family-oriented organizations, including ethnic and service-oriented organizations, performance groups and youth programs. The town and these independent organizations can work together to unite the community by providing after-school, evening, weekend and summer programs. For example, in warmer months, the town may support barbeques, family movie nights or weekend festivals on the Town Common or other suitable locations. The town could also seek to build upon its Memorial Day parade by adding other family and community activities before or after the parade. This type of programming promotes community, creates tradition and instills pride; these become unique opportunities for Hadley residents to meet fellow residents. Furthermore, a proud community will be more likely to give back in the future and support town government. The town should facilitate the programming of community-wide events on the Common and elsewhere by providing short-term parking and traffic mitigation and soliciting organizations and funds to support events. **Chapter 10**, Strategies, discusses the Town Common in more detail.

#### **Key Strategies:**

- Town Center Improvement Plan, which includes creation of Town Common Committee
- Enhance Community
- Strengthen Historic and Cultural Role of Town Common

#### **Goal 4: Promote the town center as a focal point for the community.**

##### **Specific Objectives:**

- Create an overall plan for the development of the town center including more “pocket parks”, streetscape, building types, signage and design criteria.
- Hold more special events in the town center.
- Increase utilization of the town center by town residents while protecting and preserving its unique historic nature and value.

Containing the Town Hall, Town Library, Senior Center, Farm Museum, Hopkins Academy, Russell School, and numerous businesses, the town center provides vital services to residents and visitors alike. However, the town center is also challenged by the presence of Route 9 and the major intersection of Route 9 and Route 47. To balance the challenges of the transportation realities (see the Transportation Section) and the valuable attributes of the town center, the town should pursue a detailed and comprehensive Town Center Improvement Plan. Such a Plan needs to address issues such as the appropriate use of the Russell School building, soon to be returned to the town, and the status of other buildings in the area. If practical, for example, the Plan should include the purchase by the town of the St. John’s Church property, which could be used to expand the town library and/or as additional community and public meeting space. The Plan should also ensure that sidewalks are of an adequate width and that pedestrian areas are buffered with trees or historically appropriate street furniture. There should be adequate places for townspeople to congregate, either in pocket parks between buildings, in paved plazas, or at benches or tables along a wide sidewalk. Signage and way finding systems will further enhance the town center environment. As discussed in the Land Use section, future development should be guided to be consistent with the notion of a historic town center.

##### **Key Strategies:**

- Town Center Improvement Plan, which includes creation of Town Common Committee
- Strengthen Cultural and Historic Role of Town Common



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## 5 ECONOMIC HEALTH

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### Introduction

This section provides an overview of the town's existing economy, and then examines the following issues related to economic development: zoning; the strengths and weaknesses of individual industries; and the potential of the town's business areas and industries to meet goals related to employment, tax base, and overall economic health.

### Local Employment Trends

The 2000 Census<sup>4</sup> revealed that there are 2,556 people in Hadley's labor force (including the unemployed), a 7.9% increase from 1990, or an annual average growth rate of 0.8%. While this growth has been moderate, it is higher than both Hampshire County (7.4% increase during this period) and the Commonwealth (1.6% increase).

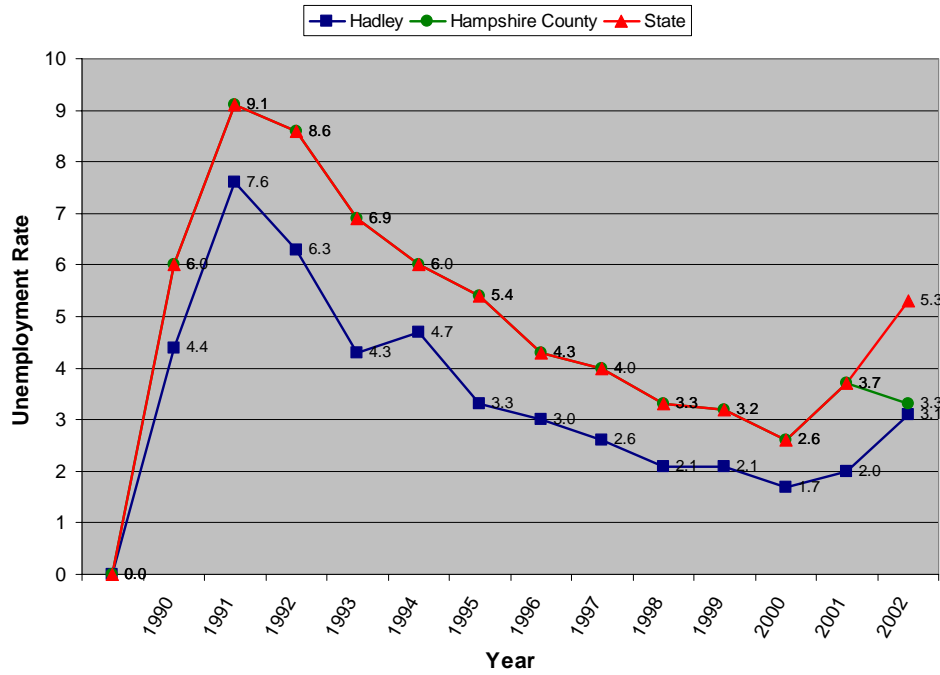
Hadley's population generally has a higher level of education than either Hampshire County residents or Massachusetts residents as a whole. This trend is not surprising given Hadley's proximity to numerous institutions of higher education. Between 1990 and 2000, the share of Hadley residents age 25 or older who completed either some college or an advanced degree increased from 56.7% to 64.6%. Simultaneously, the percentage of residents who did not complete high school decreased significantly during the 1990s. This shows that Hadley's workforce is becoming more educated over time.

Hadley's unemployment rate has consistently been lower than the rate for both Hampshire County and the Commonwealth. Employment trends in Hadley have mirrored those in Hampshire County and in the Commonwealth, with an unemployment peak during the 1991 recession followed by declining unemployment through the 1990s. After bottoming out in 2000, unemployment levels began rising in 2001. See **Chart 5-1** for details.

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<sup>4</sup> The statistics are based on the most recent available data from the U.S. Census, the Massachusetts Division of Employment and Training, the Pioneer Valley Planning Commission, and the Town of Hadley.

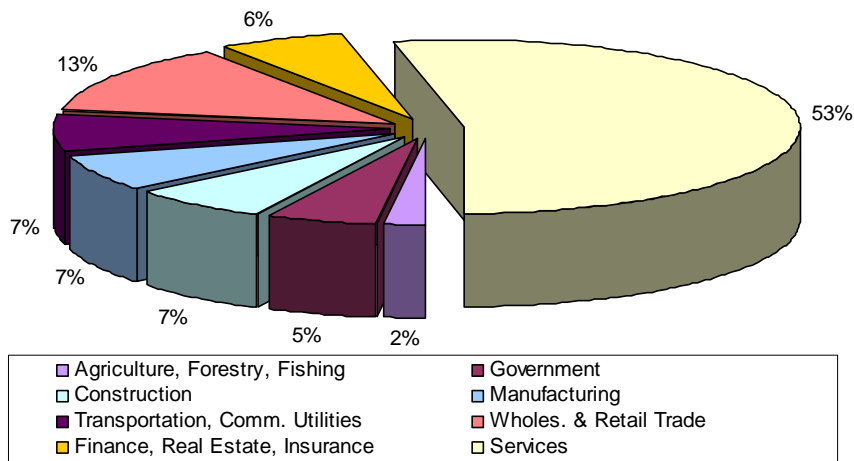
**Chart 5-1**  
**Unemployment Rate: 1990-2002**



Source: Massachusetts Division of Employment and Training.

The percentage of Hadley's residents employed by "white collar" occupations surpasses that of the county, Commonwealth, and national averages (see **Chart 5-2**). In 2000, 45.7% of Hadley's labor force was employed in managerial, professional, and related occupations. These occupation types are usually among the better paying positions, which contribute to a median household income in Hadley that exceeds county, Commonwealth, and national averages. In 2000 the median household income for Hadley residents was \$51,851, compared to \$46,098 for Hampshire County, and \$50,502 for the state. This provides the town with a solid economic base, as its residents generally have secure financial situations, which contributes to the overall stability of the local economy.

**Chart 5-2**  
**Employment by Sector of Hadley Residents, 2000**



Source: U.S. Census Bureau, 2000

Hadley is in a unique position of having numerous employment opportunities outside the community due to the colleges and universities in the area and the larger surrounding communities. As a result, many Hadley residents work outside of the town not by necessity, but by opportunity. In 2000, only 22.5% of Hadley's residents worked in Hadley, while the remainder commuted to other cities and towns. According to the Town Administrator, the academic institutions near Hadley provide economic stability during economic downturns. Due to this institutional presence and the steady supply of students, retailers find this area to be economically stable in times when less diverse economies may struggle.

Whereas the latter discussion focused on the employment status and occupation of Hadley residents, the following statistics outline the share of employment by industry for Hadley workers (those who work in Hadley but may or may not live in the town). In 2000, Hadley had 2,462 employed residents and 4,451 local jobs—a net increase of almost 2,000 jobs from 1990. Thus, Hadley is an importer of labor. While the Commonwealth has 1.1 jobs for every dwelling unit, in Hadley this figure is about 2.5 jobs per dwelling unit. This surplus requires or allows businesses to search for employees outside of Hadley. Furthermore, it necessitates inter-municipal commuting both for Hadley businesses to find employees and for Hadley residents to access jobs in the region.

Consistent with statewide and national trends, the greatest number of jobs in Hadley is in trade, which remained constant in number (around 2,000 jobs) throughout the twelve-year analysis period. As of 2001, the largest employers in Hadley were wholesale and retail trade (47.3%), services (23.5%), government (11.7%), and finance, insurance, and real estate (6.1%). In 2002, the largest individual employers in Hadley were Stop & Shop, Wholefoods Market, U.S. Fish and Wildlife, National Evaluation Systems, Inc. and the University of Massachusetts.<sup>5</sup> The average annual wage for employees in Hadley increased from \$13,523 in 1990 to \$22,099 in 2001, or a 63.4% increase.

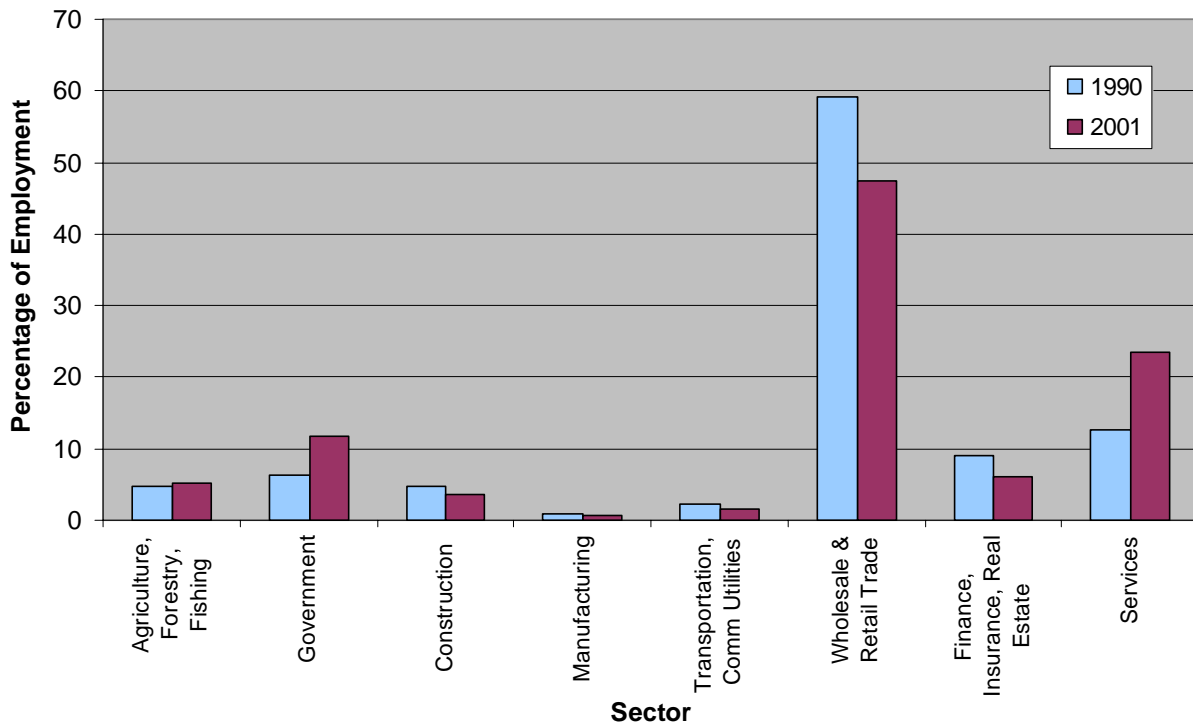
**Chart 5-3** presents a time series comparison of employment by sector in Hadley; however, it does not show the percent change in these sectors.<sup>6</sup> The percentage of trade in Hadley's total employment has decreased from 60% to just below 50% even though the actual number of employees has remained constant. Both the service and government sectors have increased employment by 140% in Hadley during the time period. The town's share of service jobs increased significantly from 425 in 1990 to 1,022 in 2001 and as a percentage of total employment from 13% to 24%. Government jobs increased from 212 in 1990 to 510 in 2001, doubling their presence in Hadley's employment base from 6% to 12%. These shifts indicate a trend towards diversification of Hadley's employment base.

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<sup>5</sup> From Town Administrator, Robin Crosbie. Note that the University of Massachusetts is not located in Hadley; however, it is a significant employer of Hadley residents.

<sup>6</sup> The time series study uses 1990 as the first year because the United States was experiencing a recession during 1991 and, as a result, growth estimates using 1991 as a base are skewed.

**Chart 5-3**  
**Percentage of Employment by Sector (1990, 2001)**



Source: Massachusetts Division of Employment and Training (covered employees only). U.S. Bureau of Labor Statistics, Current Employment Statistics Survey.

## Goals

This section provides additional analysis of the economic trends in Hadley and identification of strategies to promote sustainable economic growth.

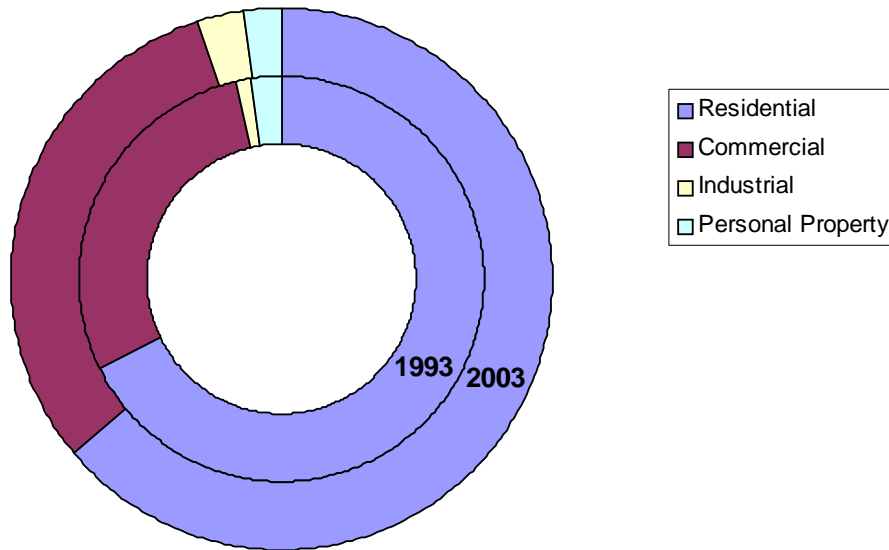
### Goal 1: Broaden and diversify the tax base.

#### Specific Objectives:

- Work to broaden the tax base by permitting a mix of beneficial uses such as agriculture, small retail, tourism, cultural arts and offices.

Although the overall percentage is decreasing, the tax base in Hadley is primarily residential, with homeowners providing approximately 64% of the tax revenues. In 2003, commercial and industrial properties comprise about 31% and 3%, respectively, of the taxable property in Hadley as shown in **Chart 5-4**.

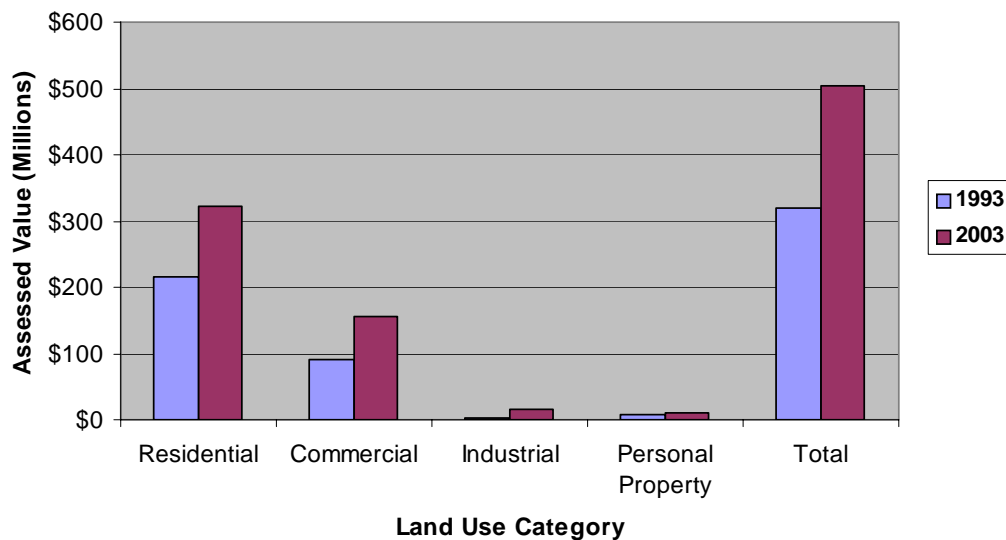
**Chart 5-4**  
**Percentage of Assessed Property Value (1993, 2003)**



Source: Massachusetts Division of Local Services, Municipal Data Bank, 1993 and 2003.  
 Note: Dollars are in current dollars (not inflation-adjusted).

As shown in **Chart 5-5**, Hadley's valuation grew by 58% from 1993 to 2003, an average annual increase of 5.8%. In actual dollar values, the residential tax base grew more than the business tax base with an increase of \$105.3 million. However, the business tax base grew faster in terms of its share of the total, increasing from 30% to 34% of the total, while the residential tax base shrunk from 68% to 64% of the total (see **Chart 5-4**). The strong growth in the commercial and industrial tax base is due to new development and redevelopment along the Route 9 corridor.

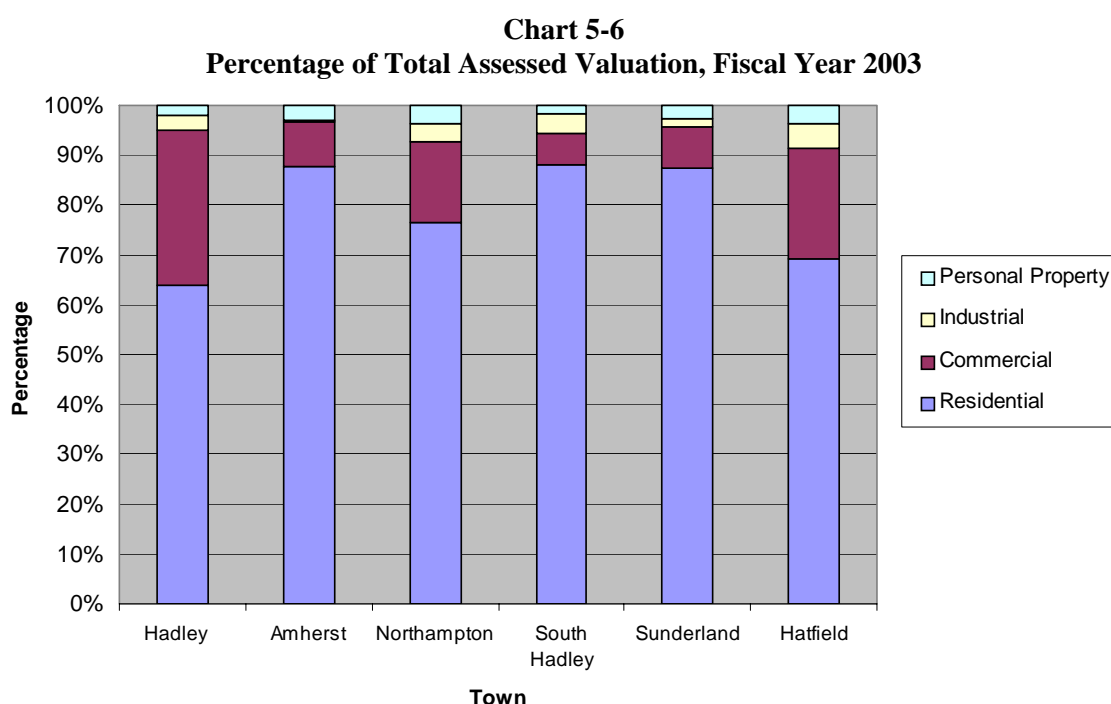
**Chart 5-5**  
**Assessed Property Value in Millions of Dollars (1993, 2003)**



Source: Massachusetts Division of Local Services, Municipal Data Bank, 1993 and 2003.

**Chart 5-6** and **Chart 5-7** compare Hadley's tax base and tax rate with that of neighboring communities. In fiscal year 2004, the town had a single tax rate of \$13.11 per \$1,000 of assessed value. This represents a slight decrease from the FY 2001 tax rate of \$13.68, yet an increase from the FY 2003 tax rate of \$12.94. The average single-family tax bill increased by more than 5% from \$2,121 in FY 2002 to \$2,238 in FY 2003 and increased again by 2% to \$2,293 in FY 2004. In FY 2004, the average single-family tax bill in Hadley was approximately 32.8% lower than the state average of \$3,413.<sup>7</sup> **Chart 5-8** shows that Hadley's average tax bill is also considerably lower than many of its neighboring communities.

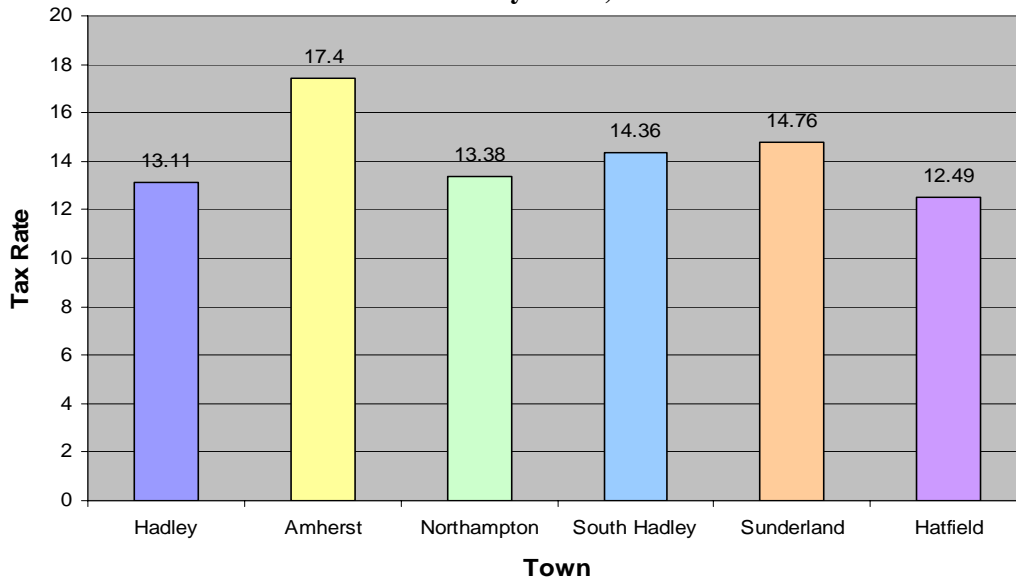
Hadley's current tax base is more diverse than the surrounding towns including Amherst and Northampton (see **Chart 5-6**). Although the tax base is primarily residential in all of the highlighted towns, Hadley's has comparatively the least proportion of a residential base and the highest proportion of a commercial and industrial base. This allows the business community to absorb a sizeable portion of the tax burden from residents.



Source: Mass. Data Bank, Mass. Department of Revenue, 2003.

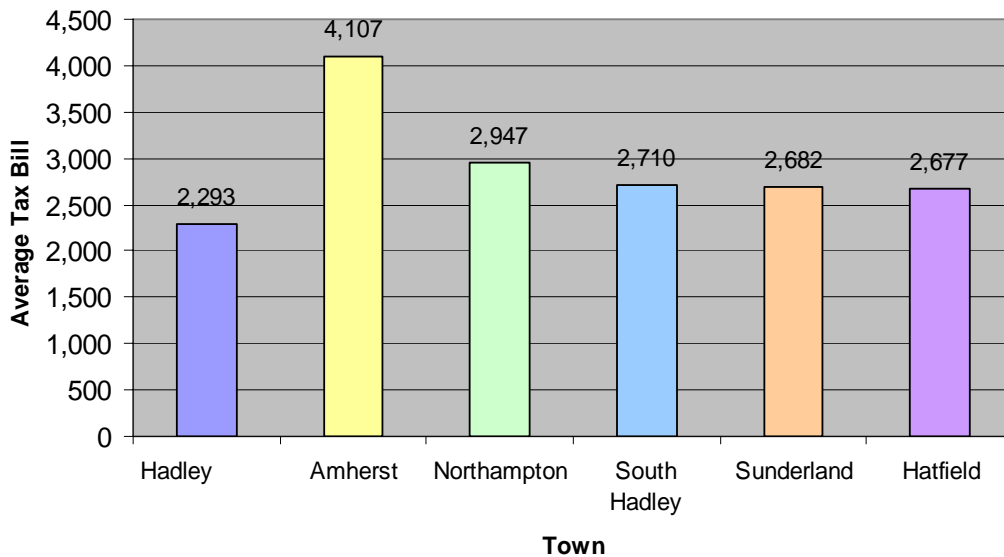
<sup>7</sup> From *City & Town* September 2004, Division of Local Services, MA Department of Revenue 2004.

**Chart 5-7**  
**Tax Rate by Town, 2004**



Source: *City & Town*, MA Department of Revenue, September 2004.

**Chart 5-8**  
**Average Single Family Tax Bill, 2004**



Source: *City & Town*, MA Department of Revenue, September 2004.

However, despite the trends towards diversification and the comparably balanced tax burden, Hadley's strong, yet diminishing reliance on the wholesale and retail trade sector (see **Chart 5-3**) could create economic stability issues in the future. Future strategies for economic development need to focus on continuing the present course of diversification of the commercial and industrial sector. As the people of Hadley have made it clear that they do not support an increase in the amount of land dedicated to commercial and industrial development, this diversification must come largely through redevelopment of existing areas.



#### **Key Strategies:**

- Create Economic Enhancement Overlay District for Route 9 redevelopment

### **Goal 2: Encourage appropriate economic development that has a low impact on town services and resources.**

#### **Specific Objectives:**

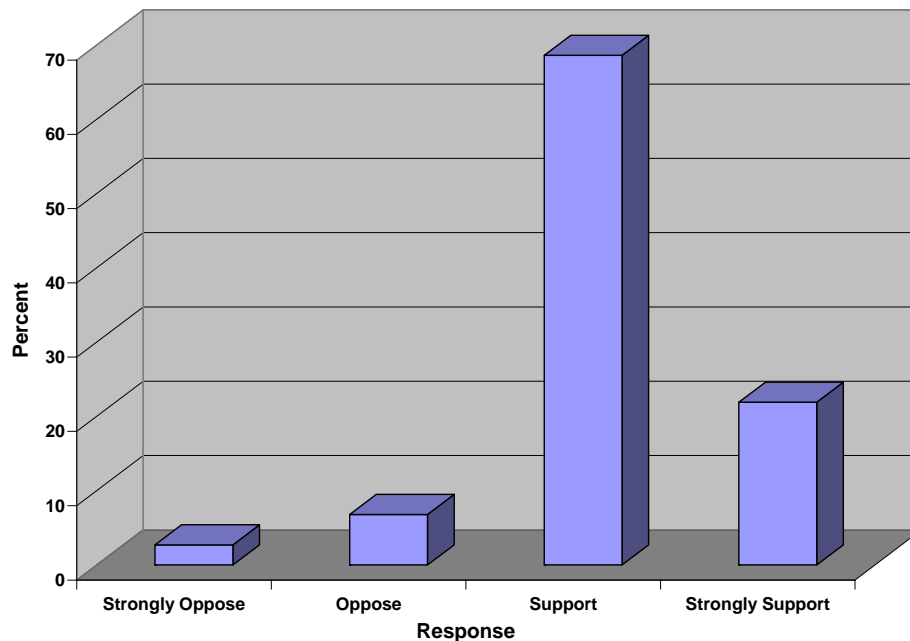
- Minimize negative impacts by using appropriate guidelines and regulations.
- Provide opportunity for smaller retail and trade establishments while mitigating impact from larger commercial buildings and other uses with more impact on the surrounding area.

Hadley contains three zoning districts for economic development activities: Limited Business (LB), Business (B), and Industrial (I). The Business District covers approximately 875 acres in Hadley, or about 5.8% of the town's land area. The Limited Business District covers approximately 329 acres in Hadley, or about 2.2% of the town's land area. The Industrial District covers approximately 1,116 acres in Hadley, or about 7.5% of the total land area. It should be noted however, that a large percentage of the Industrial District is under the control of UMASS or is permanently protected open space.

There are very few regulations placed on existing development within these zoning districts and the impacts from large scale commercial and industrial development could hamper the town's economic development efforts in the future. Additional oversight pertaining to the root cause of these impacts could protect the town and permit it to pursue a successful economic development strategy. The scale, layout, and type of use permitted within the Business, Industrial and Limited Business Districts is a key to minimizing the negative impacts of economic growth.

Based upon the Survey and public meeting feedback, the citizens of Hadley certainly favor those economic development activities that have a minimal impact on municipal services and the environment. For example, **Chart 5-9** shows the community's favorable response to the creation of small retail establishments. This type of smaller scale development, coupled with sound and fair regulation, could permit the town to develop its economic base while protecting and preserving those attributes that make it a unique community.

**Chart 5-9**  
**To what extent do you support or oppose the following forms of economic development in Hadley:**  
**Small Retail Shops?**



Source: Hadley Town Survey

**Key Strategies:**

- Enhance Limited Business Special Regulations
- Establish Business District Yard Setbacks and Other Requirements
- Establish Retail and Business Size Limitations
- Create a Vehicle Service Establishment (Drive-Through) Use
- Amend Current Industrial District to Light Industrial/Office Zoning District

**Goal 3: Create an overall economic development strategy that builds off of Hadley's strengths.**

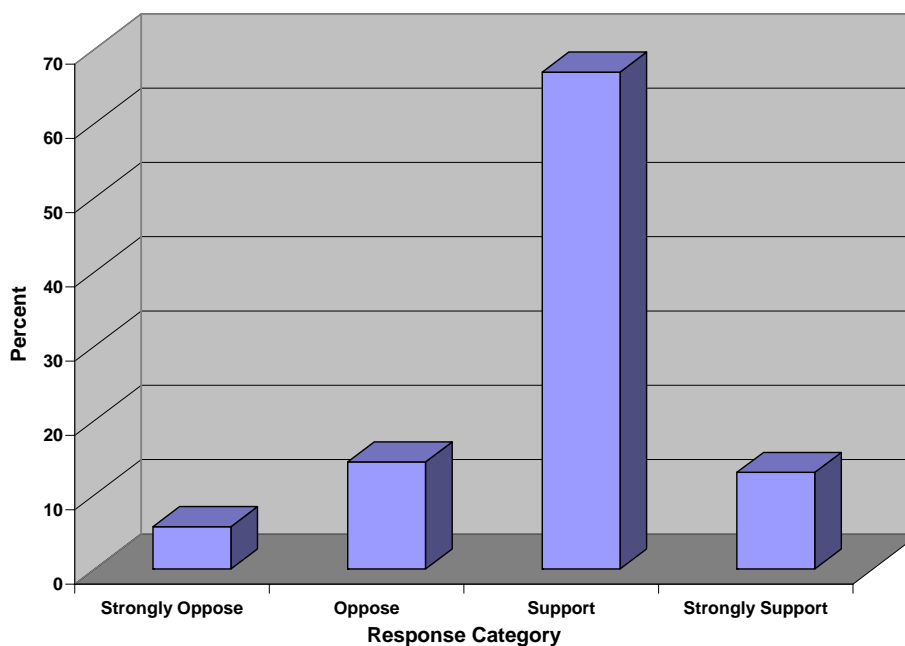
**Specific Objectives:**

- Capitalize on Hadley's history, rural character and natural resources to develop an economic strategy that includes tourism, agriculture and recreation.
- Link existing bikeway to new economic development opportunities.
- Pursue agricultural tourism strategies.

Assets such as agricultural tradition, tourism and recreational space are not readily available to all communities and should be utilized by the town for economic purposes. For example, the Norwottuck Rail Trail provides a vital east-west link through the town, intersecting both the Town Common and the Route 9 business corridor. As a link between two colleges, the bikeway has the potential to be an ancillary business route to the main thoroughfare and contribute to the local economy. The continued redevelopment of the corridor should be guided so as to take advantage of the Rail Trail and the potential customers who ride it.

Nearly 80% of residents support continuing and enhancing tourism and travel-related business as a significant component of Hadley’s economic development, as shown below in **Chart 5-10**.

**Chart 5-10**  
**To What Extent do you Support or Oppose**  
**the Following Form of Economic Development in Hadley:**  
**Tourism and Travel-Related Business?**



Source: Hadley Town Survey

Tourism in the town benefits from the surrounding Universities as Hadley businesses and hotels are often destinations of parents and visitors to UMASS and the other schools. In addition to existing efforts, the town can employ a more robust agricultural tourism development strategy. Farming plays a vital role in the town’s history, economy and way of life. Events or attractions celebrating this heritage could enhance tourism opportunities and benefit many Hadley businesses. The abundance of agricultural land along with key open space assets, including the Holyoke Range, Skinner State Park and the Connecticut River, provide opportunities for the town to market itself as a destination for visitors. This can be a lucrative untapped resource for economic development if properly implemented.

**Key Strategies:**

- Appoint an Economic Development Commission
- Enhance Agricultural Tourism

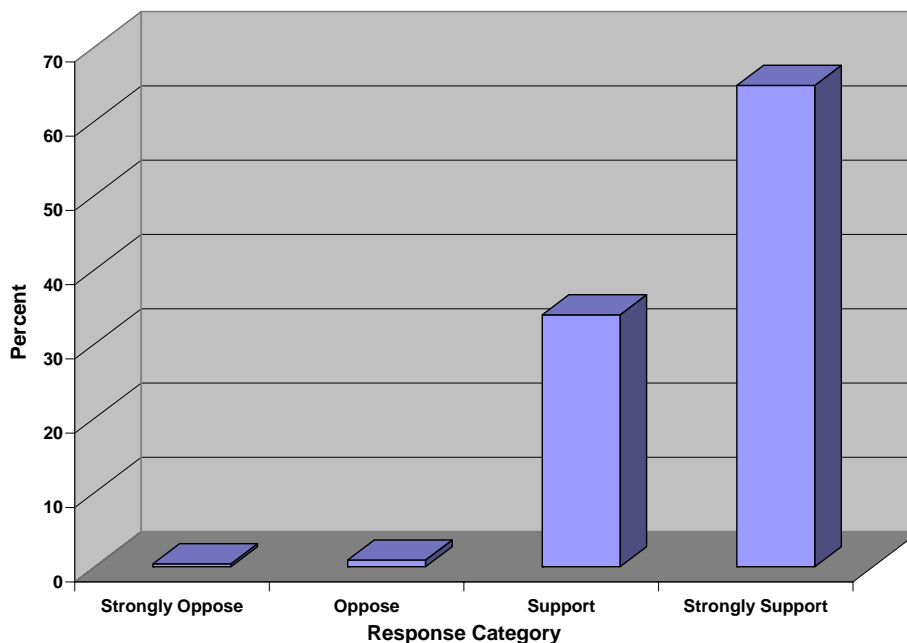
**Goal 4: Ensure that agriculture is a viable economic activity.**

**Specific Objectives:**

- Create an Agriculture Commission to represent farmers and work with the town to ensure that local policies support agriculture.
- Preserve and encourage the “right to farm” in Hadley.

Agriculture provides not only the economic heritage of Hadley, but is also a valuable portion of the town's current and future economy. **Chart 5-11** shows that agriculture is the most highly supported form of economic development within the community with 98.7% of Hadley residents supporting agriculture.

**Chart 5-11**  
**To What Extent do you Support or Oppose**  
**the Following Form of Economic Development in Hadley:**  
**Agriculture/Farming?**



Source: Hadley Town Survey

This support may stem from the fact that farming was the historic base of Hadley's economy and continues to play a vital role in the town. Although farming represented only 0.9 percent of the total share of Hadley's employment in 2001, land use figures show that it plays a viable economic role in town. As of 1999, 41.8 percent of the town was dedicated cropland with an additional 4.3 percent pasture land.

Hadley is one of the most active agricultural communities in the state. The Department of Agriculture reports 81 farms in the Town of Hadley 7,370 acres of cropland, pasture and other agricultural uses.<sup>8</sup> At 47%, agriculture is the largest single land use in town. From 1971 to 1999 approximately 8.5% of agricultural land has been changed to mostly low-density residential development. Farming has historically been an important industry and remains a vital presence for the town as a stabilizer to the local economy, which makes agriculture a major factor in land use and economic development decisions.

Ensuring that agriculture remains a strong segment of the community's economy will require a complex web of strategies. Many of the strategies found within this Master Plan seek to strengthen and support agriculture. The Transfer of Development Rights and Open Space Preservation Subdivision Bylaw are specifically designed to support and preserve agriculture. However, these land use strategies alone will not provide the support and protection that farmers need to stay competitive. The town should look to provide additional protections within the Zoning Bylaw and should also look to create and support an

<sup>8</sup> U.S. Department of Agriculture and U.S. Census

Agricultural Council as has been done successfully in several agricultural communities within the Commonwealth.

**Key Strategies:**

- Strengthen Agricultural Protection within Zoning
- Create an Agricultural Commission

## 6 AGRICULTURAL, NATURAL AND HISTORIC RESOURCES

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### Introduction

This section will discuss the natural, agricultural and historic resources within Hadley as well as goals for preservation of all three. Hadley has resources that are of statewide importance; these include a pastoral landscape, rare and endangered species, the Mt. Holyoke range, and the best agriculture soils in the Commonwealth. Information from this section of the report is largely drawn from the *Hadley Open Space and Recreation Plan*, *Hadley West Street Common and Great Meadow: A Cultural Landscape Study*, other documents, and from interviews with municipal officials.

Hadley's landscape is characterized by acres of contiguous farmland on the flood plain of the Connecticut River. The predominantly flat landscape is only interrupted by two upland and wooded areas, the Holyoke Range and Mount Warner. The agricultural and historic qualities of the town's landscape are significant enough that the Massachusetts Department of Environmental Management classified 75% of the town as "distinctive" or "noteworthy" in 1983.<sup>9</sup>

### Goal 1: Strengthen and promote agricultural heritage and way of life.

#### Specific Objectives:

- Comprehensively review town policies to ensure that they are farmer friendly.
- Continue to use Agriculture Preservation Restrictions and other means to protect farmland.

As shown in **Figure 2, Changes in Agricultural Land, 1971-1999**, the town continues to lose agricultural land to development. However, over 1,900 acres of farmland have been protected through the Department of Food and Agriculture's Preservation and Restriction Program. Next to Amherst, Hadley has the most amount of protected farmland in the Commonwealth. As shown in Goal 1, Land Use, the protection of the agricultural resources is the top priority for Hadley residents and this support provides the town with the opportunity to continue to preserve farmland on a significant scale. Other tools described as part of this Master Plan, such as Transfer of Development Rights, will work to increase the rate at which farmland is preserved.

#### Key Strategies:

- Create an Agriculture Commission
- Increase the use of Agriculture Preservation Restrictions

### Goal 2: Preserve and protect air, soil and water quality.

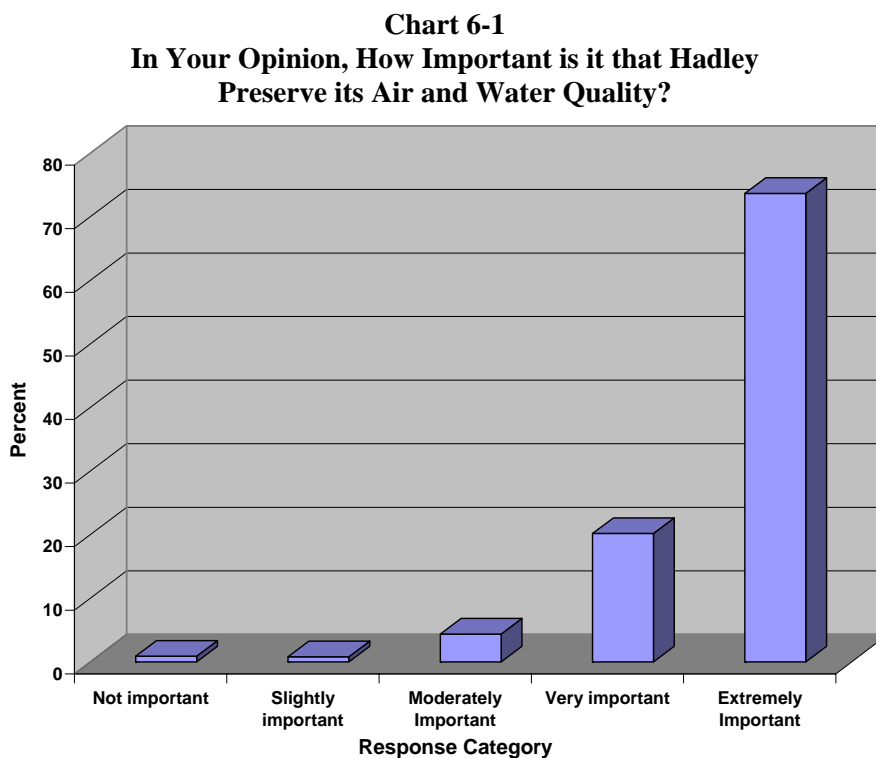
#### Specific Objectives:

- Protect Hadley's public water supply by purchasing open space within the recharge area.
- Pursue water conservation strategies.

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<sup>9</sup> From Massachusetts Department of Environmental Management 1981 in *Hadley Open Space and Recreation Plan* May 29, 1998, p. 11.

The people of Hadley recognize that air, soil and water quality are linked to the overall health of the town and its residents. Over 70% of Hadley residents find it extremely important to preserve the quality of Hadley’s air and water, as shown in **Chart 6-1**.



Source: Hadley Town Survey

## **Soils**

Hadley’s Open Space and Recreation Plan identified soils in Hadley as some of the most fertile agricultural soils in the U.S. Most areas north of Route 9 are prime agricultural soil and often up to twelve feet deep. In particular, the Hadley-Winooski-Limerick soils, a deep, silty mixture found in Hadley Center, are prime agricultural soils for their low acidic value and high water capacity. Although still considered prime agricultural lands, the Hinckley-Merrimac-Windsor soils found at locations along Route 47 are not quite as productive as the previous soil association. The primary soil group in Hadley is the Amostown-Scitico-Boxford association which stretches from the base of the Holyoke Range into North Hadley. Many strategies described in this Master Plan contain provisions for the protection of the town’s valuable agricultural soils. Creating an Agricultural Protection Residential Zoning strategy, as mentioned in the Key Strategies under Goal 1, Land Use, is a prime example of how soil protection permeates several strategies within this Plan.

## **Groundwater Resources**

Groundwater resources in Hadley provide base flow for the streams and rivers in the town and provide potable water for the town’s residences and businesses. The town water supply is drawn from two groundwater wells and wellhead protection areas. The town’s primary source of water is located at the base of Mount Warner, which has two gravel-developed wells. A secondary source is the Callahan well field on Bay Road, which also has two wells; these are only used in high demand periods due to high

manganese concentrations. Most Hadley residents are on the town water supply, although some farmers use private wells for irrigation and related purposes.

### **Water Quality Threats**

Published information on the Connecticut River identifies specific locations of problems such as toxins (e.g., PCBs) in combined sewer overflows (CSOs), bioaccumulation of contaminants, and nonpoint source pollution.<sup>10</sup> Some of these are located in the Hadley-area watershed.

#### Chemicals

The northern town well has perchlorate, which is a byproduct of jet fuel propellant, explosives, fireworks, and fertilizer. The Commonwealth has set new standards as low as one part per billion (ppb) and this shut down the #2 well in North Hadley. The two South wells, also called the Callahan Wells, are potable but have high levels of manganese and iron. More on the condition of the wells can be found in Section 9.

#### Non Point Source Pollution

Although agricultural uses are traditionally assumed to be large contributors to pollution, this seems to be less the case in Hadley. Local farmers have adopted model farming techniques that use fewer pesticides and thus decrease the impact of agricultural pollution in the water supply. Development along Route 9, where the soils are incapable of absorbing the increased stormwater runoff, significantly degrades the water quality of the local water resources, specifically at the Mill and Fort Rivers. Paved and otherwise impervious surfaces are the primary cause of non point source pollution.

### **Existing Protection for Water Resources**

Several federal, state and local environmental regulations protect freshwater resources against filling, inappropriate development, and other forms of alteration. Hadley's Aquifer Protection District is divided into two zones: Zone I and Zone II (see **Figure 5, Water Resources**). Zone I is the protective 400-foot radius around public groundwater wells, and by state law, must remain in public control and undeveloped. Zone II is the primary groundwater recharge area for the public wells, and includes areas that contribute water to the public wells under the most severe pumping conditions.

The 790,000 gpd average permitted usage was exceeded in 2001 in the North Hadley wells. The town is seeking a grant to improve the condition of the Callahan wells. The town currently enforces a water restriction policy in the summer months where residents alternate watering on odd and even days. Furthermore, the town adjusted water rates to promote water conservation and instituted a moratorium on new water line extensions to conserve demand. More conservation efforts will always be necessary to ensure the water supply demand is kept at manageable levels.

#### **Key Strategies:**

- Strengthen the Town's Water Supply Protection District
- Enhance Stormwater Management
- Create Erosion Control and Re-planting Requirements (part of Stormwater Management strategy)

<sup>10</sup> [http://www.ctriver.org/about\\_river/issues.php](http://www.ctriver.org/about_river/issues.php)



### **Goal 3: Preserve and protect critical habitat and other critical natural resources.**

#### **Specific Objectives:**

- Create land use tools that protect critical habitat and promote conservation land. Specific attention should be given to lands along rivers, streams, mountain slopes, and forest habitat areas.
- Pursue a wide range of conservation options such as Conservation Restrictions, purchase, donation, etc.

#### ***Rivers, Ponds and Watersheds***

Hadley lies in the Connecticut River (a Federal National Heritage River) watershed and has nearly fifteen miles of river frontage. The Mill and Fort Rivers are two major tributaries of the Connecticut within the town. The Fort River lies to the Southwest and is fed by numerous streams with headwaters in the Holyoke Range. Fort River provides important wildlife habitat, floodwater storage (nearly the entire length lies within the Flood Overlay district), and helps protect water quality (it is within the recharge area for the backup well field). Russellville Brook, a lesser tributary of the Mill River has been identified by the Department of Environmental Management as the largest and most significant natural community found in Hadley along the Connecticut River.

Lake Warner and the Hadley Reservoir are Hadley's major bodies of water. Water rights to the sixty-eight acre Lake Warner belong to the Valley Land Fund, a private land trust operating in Hampden, Hampshire, and Franklin counties. The town initiated a Mill River/Lake Warner Study Group to perform a water quality study to explore the sources of point and non-point source pollution and the long term sustainability of the water system.

#### ***Wetlands***

Hadley has a range of wetland resources, including floodplain forests, forested swamp and wet meadows. Much of the wetlands lie in heavily forested areas along the Connecticut River and its tributaries. Wet Meadows are more common along the Fort River near Hockanum Flat and Hadley Cove. Many wetlands and wooded swamps in Hadley were drained for agricultural use as Hadley once had many wetland areas, specifically around Lake Warner, Fort River and Mill River, along the Connecticut River riparian corridor and behind Stop and Shop. The remaining wetlands are a critical element in the habitat and stormwater management systems of the town.

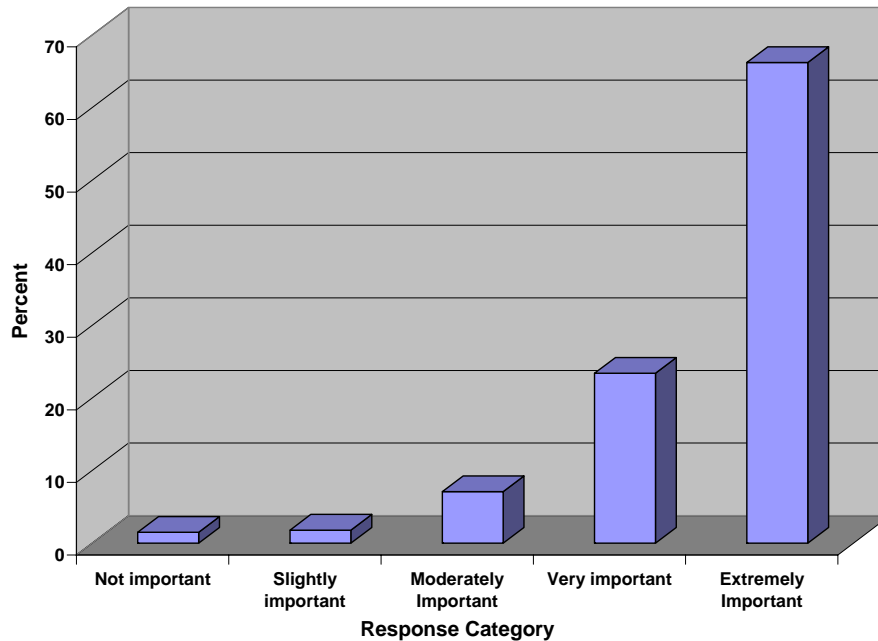
#### ***Rare and Endangered Species and Habitats***

The Massachusetts Natural Heritage and Endangered Species Program (NHESP) provides an inventory of rare and endangered species and their habitats throughout the Commonwealth. This program seeks to identify the habitat of plant and wildlife species that are becoming increasingly rare and are in danger of extinction. NHESP designated a number of Hadley areas as important wildlife habitats, including a 400-1,000 foot corridor along the Connecticut River, the Mill River Corridor, the section between Route 116 and University of Massachusetts' Mullins Center as Estimated Habitat of Rare Wildlife, and Hadley Cove, Hockanum Flat and Great Swamp as High Priority Site of Rare Species. These areas are displayed in **Figure 6, Habitats and Ecosystems**.

Hadley's natural resources provide opportunities for passive recreation and nature study as well as protect water quality and floodwater storage. Nearly 90% of Hadley residents think protecting the natural environment is very or extremely important (as shown in

**Chart 6-2).**

**Chart 6-2**  
**In Your Opinion, How Important is it that Hadley**  
**Protect its Natural Environment (Forests, Wildlife, and Fish)?**



Source: Hadley Town Survey

Many of the existing natural resources are challenged or under threat from various sources. For example, the sixty-eight acre Lake Warner is a significant habitat, however, it is gradually being taken over by non-native species and eutrophication<sup>11</sup> as a result of increasing water temperatures and pollution. In addition, wetlands behind the Stop and Shop on Route 9 are contaminated from stormwater runoff from Route 9 and other paved surfaces.

A strategy for prioritizing and protecting these remaining resources is highly supported by the citizens of Hadley. However, the town has not the resources or ability to protect every acre of undeveloped land. A comprehensive prioritization of existing open space, based on sound ecological principles, agricultural sustainability, and the values and priorities of the people should be a key strategy as the town moves forward with protecting these remaining resources.

**Key Strategies:**

- Create an Open Space Prioritization Plan
- Acquire Conservation Land

<sup>11</sup>This is a process that occurs in waters such lakes and ponds that have high concentrations of mineral and organic nutrients. The nutrients foster the unfettered growth of plant life, especially algae, which ultimately reduce the dissolved oxygen content and often cause the extinction of other organisms.

## **Goal 4: Preserve historic and architecturally significant structures.**

### **Specific Objectives:**

- Create incentives for the reuse of historic structures.
- Create disincentives for the demolition of historic structures.
- Identify and nominate structures and areas for the State Historic Register.

Settled in 1659 by religious dissenters from Hartford, Wethersfield and Windsor Connecticut, the town was incorporated in 1661. Hadley was the third town in Western Massachusetts, after Springfield and Northampton. Hatfield, Granby, South Hadley and Amherst all broke from Hadley in the mid-1700's to form separate towns. The original town layout remained intact for seventy years; this layout was a system of houses lining both sides of a mile long street with commonly held agricultural land and open space beyond the home lots.<sup>12</sup>

The Hadley Center Historic District was first listed in National Register of Historic Places in 1977 and is bounded by Town Farm Lane, Spruce Hill Road, Fort River and the Connecticut River. The district was expanded in 1994 to include the Hadley Common and the Great Meadow. The Common is maintained by the Board of Selectmen, abutting owners, the Hadley Historic Commission, and the Hadley Highway Department. This is the largest Historic District in Hadley and contains a majority of the historically significant places.

Three National Historic Districts were created in 1993. The Hockanum Rural Historic District contains 47 properties. It consists of the area surrounding Hocakanum Road from the cemetery to the northeast corner of Skinner State Park in southwestern Hadley. The North Hadley Historic District includes over 200 properties along River Drive from Stockwell Road to Stockbridge Street along the Connecticut River. Two properties at 147 Hockanum Road comprise the Hockanum School Historic District (see **Figure 7, Special Landscape Features**).

Though the town attempted to form an historic district around West Street, they could not reach agreement among the homeowners and the plan failed. However, extensive efforts have been made to preserve the West Street Common and the Great Meadow as discussed in the report *Hadley West Street Common and Great Meadow: A Cultural Landscape Study* prepared by UMass in 2004.

The Porter-Phelps-Huntington House in North Hadley was the town's first listing on the National Register of Historic Places in 1973; it was deed restricted in 1985. Built in 1752, the house now serves as a museum to Colonial-style living. There are a number of other historic buildings including Town Hall, the Hadley Farm Museum, various churches, taverns, and homes.

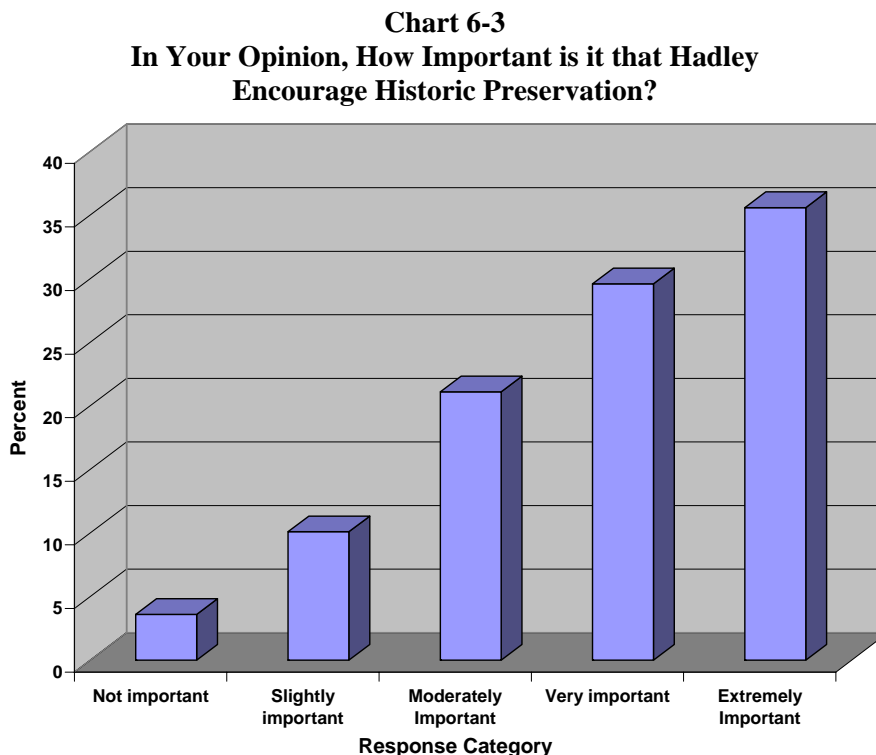
In 1974, Hadley created its Historic Commission under MGL Ch. 40, S. 8d to ensure the preservation, protection and development of the historical or archeological assets the town. Their first role was to inventory all the historic buildings in town; they created a list of over 300 buildings. Today, the Commission serves as design review for the Planning Board whether a site is historic or not. They review not only historic features, but also architectural design in general, and offer recommendations in the hope of influencing the architecture of the proposed project, but they have no actual decision-making authority.

Although many historic resources have been protected, the town needs to make concerted efforts to continue to preserve these cultural landmarks amidst increasing development pressures. Hadley residents

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<sup>12</sup>From University of Massachusetts, Amherst *Hadley West Street Common and Great Meadow: A Cultural Landscape Study* June 22, 2004, p. 7.

strongly support historic preservation in town. As shown in **Chart 6-3** below, only 3.6% of residents find historic preservation unimportant.



Source: Hadley Town Survey

The town should harness this support to create a comprehensive strategy for protecting the remaining historic resources within the community. Further, the town should strengthen the regulatory protections and should continue to inventory noteworthy buildings, nominating them to the State Historic Register to ensure their preservation. The town should also adopt a demolition delay bylaw, which would enable the review of all projects subject to demolition and create other disincentives to destroying historic properties.

#### **Key Strategies:**

- Prepare an Historic Preservation Plan
- Nominate structures to the State and Federal Historic Register
- Adopt a Demolition Delay Bylaw

### **Goal 5: Preserve and protect historic and scenic landscapes.**

#### **Specific Objectives:**

- Inventory all historic landscapes within Hadley.
- Pursue Historic Register designations for critical areas.
- Preserve and protect the town's historic public resources such as cemeteries, commons and museums.

Historic landscapes include farms, stone walls, historic streets, viewsheds, and archeological sites. One of the most significant local landscapes is the Town Common. The Common and the surrounding Great

Meadow are remnants of a 17<sup>th</sup> century landscape. Other landscapes may not receive such attention and protection. These landscapes are in danger of being lost to development and should be identified as soon as possible.

The Hadley Historic Commission bears the same responsibility for landscapes as it does for buildings; likewise, an inventory of all the significant landscapes should be undertaken. In addition to the Common, the town has numerous meadows, forests, fields and cemeteries worth preserving.

**Key Strategies:**

- Prepare an Historic Preservation Plan (focus on landscapes)
- Strengthen Historic and Cultural Role of the Town Common

## 7 OPEN SPACE AND RECREATION

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### Introduction

Hadley is largely defined by its large tracts of “open space.” The woodlands of the Holyoke Range provide acres of wildlife habitat, scenic views of the Connecticut River valley, and passive recreation opportunities. The vast agricultural lands provide income to the town’s many farmers and preserve the town’s heritage, while helping to maintain the small town quality of life that attracts Hadley families.

This section details Hadley’s open space and recreation goals and describes the current characteristics and data relevant to those goals. It should be noted that this section excludes agricultural preservation, which is specifically addressed in **Chapter 6**. The issues, strategies, and characteristics of agricultural land are vastly different from ‘open space’ in general. Therefore, this section details trends relating to the town’s open space goals in an effort to provide context for those goals and subsequent strategies. Although agricultural lands are referenced in this section, a more comprehensive analysis of agricultural goals and strategies can be found in **Chapter 10**.

### Open Space Preservation Efforts in Hadley

Hadley has a long history of open space preservation. Residents and visitors already enjoy the use of various recreational lands, including school playing fields, the Norwottuck Rail Trail bike path, and Skinner State Park. As of 1999, the latest year for which such land use data is available, roughly 85% of the town was open land, with 77% being undeveloped crop or forest land (as shown in **Figure 1-B, Land Use, 1999**). Furthermore, nearly 6,500 acres, or 41% of Hadley’s total land, is protected by land preservation programs such as Conservation Restrictions (CR) and Agricultural Preservation Restrictions (APR), demonstrating the town’s history with land preservation (see **Figure 8, Open Space**). For example, the town was able to secure land along the dike through the APR program in an effort to create more open space near the Connecticut River.

The town’s open space and recreation efforts are guided by the 1998 Open Space and Recreation Plan. Residents, officials, and professionals compiled a comprehensive inventory of possible sites slated for protection, along with an analysis of Hadley’s landscape, including environmentally sensitive habitats, historic locations, and scenic views. Through the process, they assessed the major issues surrounding open space preservation, focused on Hadley’s most pertinent and pressing needs, and outlined goals for future preservation efforts. The finalized document detailed a five-year strategic plan of specific actions to achieve those goals, as summarized in **Chart 7-1** on the following page. The plan is set to be updated in the next ten months, as required by the Commonwealth.

**Chart 7-1**  
**Hadley 1998 Open Space and Recreation Plan**

Goal	Objective	Action	Status
<b>I. Protect Hadley's agricultural resources</b>	1: Use voluntary incentive programs, land use regulation and community planning to protect important farmland.	Identify and map land in active agricultural use	No Action
		Set goal for critical mass of permanently protected farmland	No Action
		Hold information session about the APR program for Hadley landowners	Some Progress
		Provide assistance to farmers applying to the program	Some Progress
		Consider local funding mechanisms to provide match for APR	In Progress
		Invite local land trust representatives to discuss conservation options	In Progress
		Host strategy session for land trust representatives, state officials, and local officials	Some Progress
		Propose limits for town infrastructure to reduce development pressure	In Progress
		Develop and adopt buffer requirement between residential and agricultural land uses	No Action
	2: Improve the economic viability of local farms	Develop brochure promoting direct marketing opportunities	Completed
		Promote new farmer's market	Some Progress
<b>II. Protect Hadley's natural resources</b>	3: Foster community support for agriculture	Encourage participation in the state's Farm Viability program	No Action
		Host town event/fundraiser at local farms	No Action
		Organize farm tour	Ongoing
	1: Protect Hadley's drinking water.	Review and improve the aquifer protection bylaw	Completed
		Prioritize land acquisition options in the recharge area	Completed
		Secure a secondary water supply – compare cost of acquiring new site versus filtration system of old site	In Progress
		Prioritize protection of wetlands that provide habitat for rare and endangered species	No Action
		Identify vernal pools which are essential breeding areas for rare species	Completed
		Target land protection projects along river corridors	In Progress
		Identify land projects that connect large blocks of protected land	In Progress
	2: Protect and enhance wildlife habitat	Work with local land trusts and landowners to combine habitat enhancement in APRs and other land protection projects	In Progress
		Sponsor family-oriented events that highlight important habitats	Ongoing
<b>III. Protect, maintain, and promote Hadley's historic resources</b>	1: Identify additional historic resources and maintain or restore known resources	Complete survey of Route 9 businesses	In Progress
		Seek funding and volunteers to continue cemetery restoration	In Progress
	2: Increase residents' awareness and appreciation of Hadley's heritage	Update and distribute brochure of historic sites	No Action
		Establish central location for distribution of educational materials and make available to weekend visitors	In Progress
<b>IV. Provide additional recreational opportunities to Hadley residents</b>	1: Create sites with water access	Investigate cost of creating beach area and picnic site at the Hadley Reservoir	In Progress
		Work with private landowners to provide passive recreational opportunities along the river	No Action
	2: Promote existing facilities and programs	Develop a map highlighting recreational opportunities in town	Some Progress
		Develop part-time, funded position for the 504 coordinator	Some Progress
	3: Make resources accessible to all residents and visitors	Revise non-discrimination policy	No Action
		Develop resource list for 504 compliance	No Action
<b>V. Implement the Open Space Plan</b>	1: Gain additional staff	Contact area colleges about availability of interns	No Action
		Investigate feasibility of sharing staff with neighboring communities	No Action
	2: Acquire funding	Apply for grants	In Progress
		Apply to local land trusts	In Progress
	3: Facilitate communication and cooperation between town boards	Schedule annual strategy session for town boards	Some Progress

## Goals

The 1998 Open Space and Recreation Plan was thorough in its assessment of Hadley's landscape and prevailing development pressures. Yet a number of issues remain unresolved with regard to the town's long-range open space goals.

Analysis of open space trends and discussions with Hadley residents through open forums, meetings, and the Survey established an updated set of open space and recreation goals. This section provides an outline for subsequent strategies and incorporates the unrealized goals of the 1998 plan.

### **Goal 1: Establish mechanism for the active protection and long term maintenance of open space.**

#### **Specific Objectives:**

- Pursue long-term open space funding mechanisms.
- Create open space management standards for lands protected through zoning.
- Pursue and enhance alternative open space protection mechanisms such as land trusts and donations.

The long term health of open space in Hadley is directly related to how well the town can maintain and protect its open space. As noted in the 1998 Open Space and Recreation Plan, the town should seek out long-term funding sources, such as allocations through the Community Preservation Act or a Local Open Space Protection Fund.

Although open space preservation is a top priority for the town, no organized program has been established to determine the best sites for preservation, nor has the town fully utilized the opportunity to create a funding mechanism to acquire strategic parcels of property as they become available for purchase. The latter can be particularly important when Chapter 61 land is put on the market. In this case, the town has a 120 day right of first refusal on the property. A local Open Space Fund can be a key factor in a town's ability to quickly allocate the funds required to purchase the land in the allotted time.

Currently, Hadley has a fund established for open space acquisitions, with \$56,000 committed to certain parcels and another \$375,000 to be provided from Lowe's Home Improvement upon the issuance of a building permit for the construction of their new store along Route 9. In 1994 and 2000, the town voted to borrow \$100,000 for acquisition of agricultural land and open space. Town officials also successfully used a Massachusetts Urban Self Help grant to buy part of the dike along the river. These actions support the town's desire to protect open space, but other actions can be taken to provide additional support and financial stability.

In this regard, one of the cornerstones of the Master Plan is the adoption and implementation of the Community Preservation Act. The Committee was a strong proponent of the CPA and actively supported and participated in the effort to get the CPA adopted in the November 2004 election. As discussed more fully in the strategy section below, the implementation of the CPA and the use of the funds to be generated by the Act present the town with an unprecedented opportunity to preserve open space lands in a prioritized and meaningful way.

Other than creating specific open space funds and funding mechanisms, the town can also employ other mechanisms, such as working with local and regional land trusts or protecting land through Conservation Restrictions. Hadley officials have previously worked with both the Valley Land Fund and Kestrel Trust to preserve small areas of important habitat and landscape features, such as the riparian rights of Lake Warner. They have also attempted to spur interest amongst landowners in CR programs, but subsequent



attempts to educate the public about these land preservation mechanisms have been haphazard and ineffective.

**Key Strategies:**

- Acquire Conservation Land
- Create Open Space Standards for lands protected through zoning

**Goal 2: Offer recreation opportunities to residents.**

**Specific Objectives:**

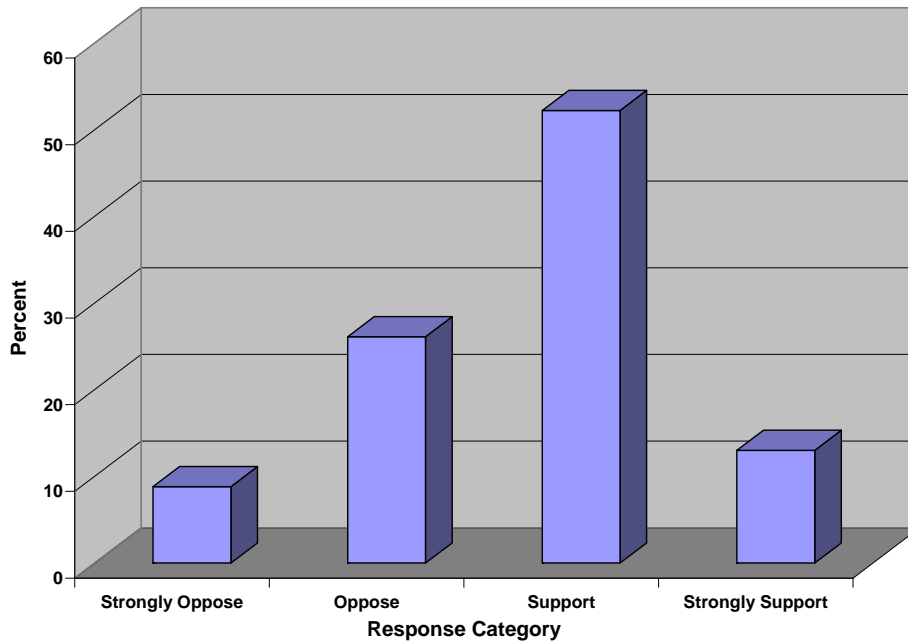
- Improve and expand recreation opportunities, including playing fields, parks and playgrounds.
- Continue and enhance recreational activities available to the elderly through the Council on Aging and otherwise.

Currently, the Hadley Parks and Recreation Department provides several organized programs for residents in various age groups, including yoga, tae kwon do classes, and recreational leagues for sports such as tee-ball, baseball, basketball and soccer. Both passive and active recreation opportunities are available to residents and visitors. Some of the most heavily used recreational areas include the dike along the Connecticut River, the Norwottuck Rail Trail bike path, Skinner State Park, and the playing fields for baseball and soccer that are scattered throughout the western side of town. Additional areas and resources that could potentially be more effectively utilized include the various facilities owned by the University of Massachusetts (UMass) including the Mullins Center Ice Rink and the horse farm. In addition, there are a few recreational facilities such as Mitch's Marina and Sportsmen's Marina that are only open to fee paying members.

The 2004-2005 fiscal year operating budget of \$31,717 for the Parks and Recreation Department is meant to provide for, among other things, the various town organized programs and upkeep of playing fields and passive recreation sites. The only staff members include a recreational coordinator, hired for 25 hours a week, and a part-time secretary. Volunteers donate their time to help maintain the activities of the department. The town needs to improve existing facilities, create new facilities, and work to open existing facilities that are currently unavailable to town residents. For example, while a number of classes are held at the North Hadley Village Hall, the town lacks a proper recreational center to serve as a centralized place for activities.

As shown in **Chart 7-2**, over 60% of residents support the development of new recreation and playing fields. The current playing fields do not adequately address the active recreational needs of the residents. Several of the fields are very small and in poor condition. They are not located in such a way that is conducive to spontaneous recreational activity, with only a few in North Hadley and no fields on the east side of town. However, a recent initiative spearheaded by the privately-organized Field Development Committee resulted in the construction of two youth baseball fields and the renovation of existing soccer fields, all on existing town lands behind the elementary school. Funding for this initiative was provided by a private foundation, the George Edwards Fund, and from private donations by individuals and town businesses. In addition to new and improved playing fields, feedback from Hadley residents in open forums, meetings and the town-wide survey also identified playgrounds, picnic areas, public access to the Connecticut River, tennis courts and the possibility of a town beach as being among several recreational needs to be addressed in the future. The passage of the Community Preservation Act (discussed below) should provide funds to be earmarked for the creation and enhancement of these types of recreational opportunities for Hadley's residents.

**Chart 7-2**  
**To What Extent Would You Support or Oppose**  
**the Following Projects that Hadley Might Undertake:**  
**Develop New Recreation and Playing Fields?**



Source: Hadley Town Survey

It should be noted that some recreational opportunities are currently provided by non-town facilities. The Mullins Center ice rink at UMASS provides figure skating and ice hockey clubs for area children. Other facilities at the University, including racquetball courts, are available for public use. The horse farm hosts a community riding program, in which several Hadley residents currently participate. Local hotels with outdoor pools offer seasonal passes. Finally, for a small fee, Hadley residents can participate in residential programs offered through Amherst's Leisure Services Department. These types of programs should be continued, enhanced and encouraged in addition to the continued improvement of Hadley's own recreational programs.

**Key Strategies:**

- Expand recreation opportunities and playing fields

**Goal 3: Preserve lands for passive recreation.**

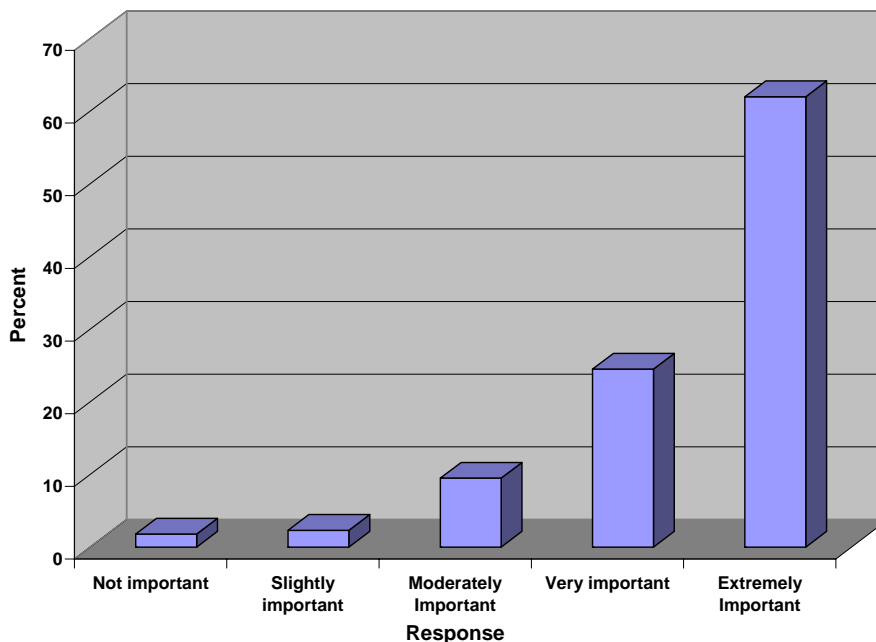
**Specific Objectives:**

- Purchase and preserve conservation lands in a comprehensive and prioritized manner.
- Where practical, develop nature trails and other means to connect and integrate conservation lands.

A major portion of Hadley's open space is used for passive recreation, such as hiking, biking, boating and bird watching. For example, Hadley Cove is well known to birdwatchers as a good site to observe waterfowl, shorebirds, herons and osprey and the beach area off of Ferry Road in North Hadley provides a place for visitors to enjoy the Connecticut River. The most popular passive recreation activities are hiking and walking along the dike bordering the Connecticut River and biking and walking along the

Norwottuck Rail Trail. Other frequented areas include Skinner State Park, which provides many trails to explore and high summits from which to take in views of the Connecticut River Valley.

**Chart 7-3**  
**In your opinion how important is it that Hadley**  
**Preserve Open Space?**



Source: Hadley Town Survey

Although passive recreation property accounts for a large portion of the open space in Hadley, the sites are scattered throughout the community with little integration. Each site operates as a single entity, not as a part of a larger open space network. This creates a disjointed collection of open space and inhibits use, recreation potential and habitat viability. For example, the Holyoke Range, one of the major recreational assets in town, is located on the south end of Hadley and is fairly remote from both the center of town and most residential areas. The park is not linked with any other areas suitable for walking or hiking, such as the Town Common or the dike. Over time, the town should seek wherever practical to connect and integrate together various open space and recreational areas to form a more comprehensive and usable network of open space. This network could be further enhanced through the creation of a trail network that would connect these passive recreation nodes. This notion of connectivity should be one of the priorities included in a long term priority open space plan that should be created by the town. By prioritizing potential open space preservation options, the town will be able to utilize its limited resources in a planned and timely manner. As shown in **Chart 7-3**, the town strongly supports the protection of open space and the town should continue to explore and utilize a variety of open space protection measures.

**Key Strategies:**

- Acquire Conservation land
- Increase the use of Conservation Restrictions
- Develop Walking/Biking trails

## **Goal 4: Improve access to existing open space resources and the Connecticut River.**

### **Specific Objectives:**

- Improve access, signage and parking facilities for open space areas.
- Work with Massachusetts Department of Conservation and Recreation to provide greater town access to State lands along the Connecticut River.

Though Hadley has a wealth of open space and recreational facilities, not all sites are able to be used to their maximum capacity due to lack of access, a key issue that was highlighted in the 1998 Open Space and Recreation Plan and repeated during this Master Plan process.

The state-owned parks and facilities, though a regional draw and a valuable recreational asset, are not easily accessible and fail to provide adequate access for pedestrians. There are limited signs directing visitors to the limited access points. In addition, very few parking facilities are provided, which limits the number of people who are able to enjoy the park. Town officials can work with the Commonwealth on creating more access points and adequate parking facilities for visitors to the Holyoke Range.

The Connecticut River is another asset that is underutilized by the citizens of Hadley due to lack of public access. The only boat launching facilities are private, Mitch's Marina and Sportsmen's Marina. The small beach area at the end of Ferry Road is a popular location for many visitors and this state-owned land provides direct access to the water and is a location for canoe launching. However, to access the site visitors must pass through private property. In addition, the site has no signage, thereby limiting its use. Further, as this is the only canoe/kayak access point, other sites are needed to provide both 'put in' and 'take out' sites. Other potential beach areas are also hampered by lack of public access.

### **Key Strategies:**

- Create comprehensive signage and parking plan

## **Goal 5: Create an open space network.**

### **Specific Objectives:**

- Where practical, link large areas of open space together to form a comprehensive network of habitat and trails.
- Use open space network for natural stormwater management.

As discussed in Goal 2, the disconnect between open spaces hampers the recreation potential and ecological health of the properties. In recreation terms, this creates limitations on the sites' utility as trails systems become limited in scope and every site does not have adequate parking and other facilities. In ecological terms, habitat remains fragmented thereby lessening its value to species that need larger territories and lessening the lands' ability to manage stormwater and protect water resources.

The town has determined that there are a few specific parcels that they would like to see integrated into its current open space inventory, especially near the dike along the Connecticut River. The Committee supports acquiring these sites. However, it is worth noting that these parcels were selected based on their availability and proximity to existing open space areas and not necessarily as part of a comprehensive and prioritized plan. Ideally, such purchases should take into account the town's overall open space vision or how each parcel fits into an overarching strategy to connect various recreational areas. With limited

funds, the town would be well served to ensure that the protection of open space is highly prioritized and planned.

Particular gaps exist between the larger and more frequently used areas. There is a distinct disconnect between the Holyoke Range and the rest of the town. The Town Common also stands on its own, though an east-west link exists via the Norwottuck Rail Trail intersection and with the dike. North Hadley contains Lake Warner, Mount Warner, and the Red Rock area, which provide ample opportunities for recreational activities, but are only accessible by car and by bicycle, though not on dedicated bike trails.

The reasoning behind creating an interconnected open space network is not only to allow for easy movement between various areas, but also to protect and enhance the habitat and ecosystems within the town. The Connecticut River valley provides vital habitat for a number of species and by forging a network of open space, the town can create a network of viable habitat. In addition, these open space areas can be utilized for the management of stormwater, thereby contributing to the protection of the town's surface and ground water resources.

In order to create this network, town officials will need to focus preservation efforts through prioritization. This entails taking a thorough and organized approach to identifying key parcels of land that form links between larger recreational sites. This should be completed with the perspective of how each parcel fits into an overall scheme for the town. The town will need to create a visual plan for open space preservation that identifies where links can be created on a larger scale and incorporates specific sites earmarked for preservation.

We do not suggest that the efforts to connect existing open space areas should be the only priority reflected in the town's Open Space Prioritization Plan, and recognize that there are several other important goals and objectives to be furthered by the strategic purchase of open space sites, including the ability to help manage future growth and development in large undeveloped areas.

**Key Strategies:**

- Create an Open Space Prioritization Plan

## 8 TRANSPORTATION

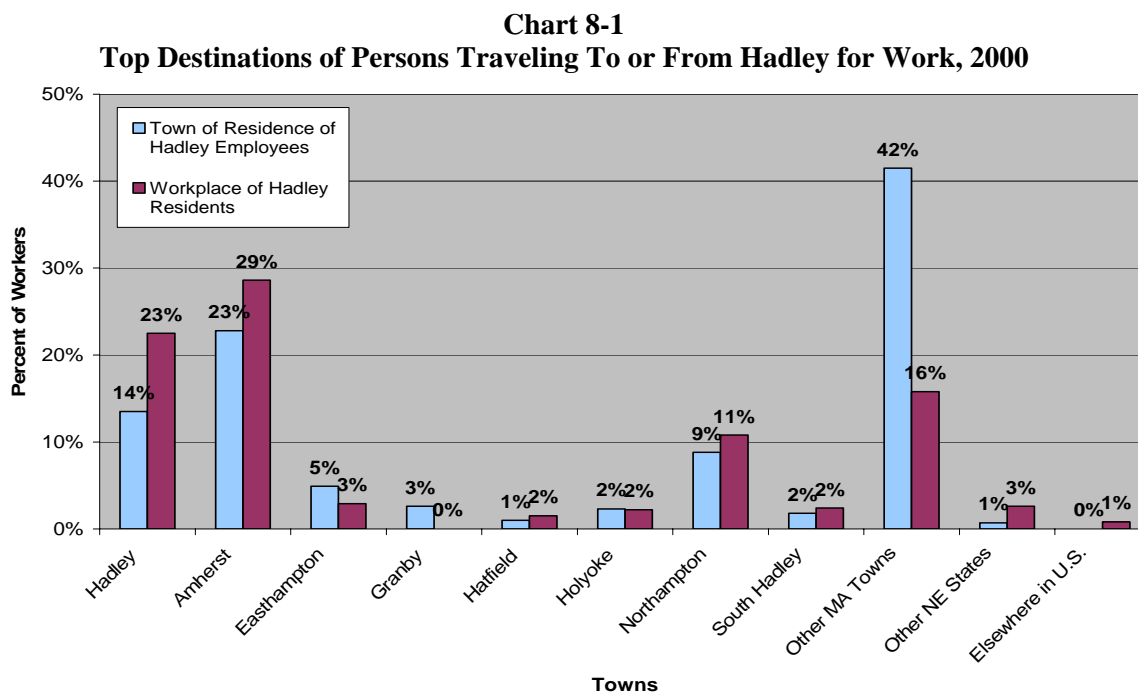
### Introduction

This section discusses the town's transportation network, including existing road conditions, alternative forms of transportation and an analysis of the transportation issues associated with new development. **Chapter 10** includes recommendations for transportation policies and infrastructure improvements to create a more efficient transportation system and mitigate the impacts of new development.

Much of the information within this section comes from the MassHighway Department traffic study<sup>13</sup> which addresses congestion within the nearby Connecticut River communities, particularly tied to east-west travel. This study, which involved representatives from the town as part of the study advisory group, led to a comprehensive program of regional solutions to transportation congestion and safety problems in the study area.

### Regional Highway System and Commuting Patterns

The regional highway system is one of the most important infrastructure elements influencing a community's development pattern. The accessibility provided by a regional highway not only stimulates new development, but allows residents greater flexibility in making decisions that are affected by locational factors such as, where to work, where to live, or where to shop. Regional transportation access to Hadley is provided primarily by Route 9, which runs east-west, in the southern portion of the town. To the west, Route 9 provides access to I-91 at Exit 19. In addition to I-91, north-south regional access is provided by Route 116.

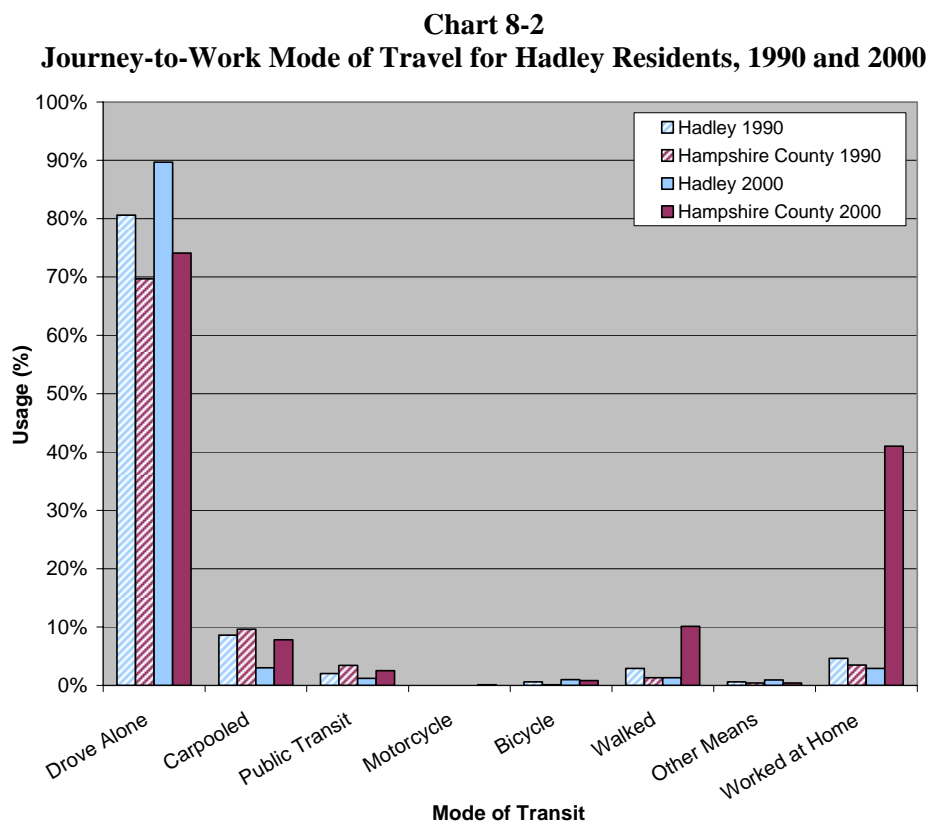


Source: U.S. Census Bureau, Census 2000.

<sup>13</sup> From *Connecticut River Crossing Transportation Study*, Vanasse Hangen Bruslin, February, 2004

**Chart 8-1** identifies the place of residence of those working in Hadley and the workplace destinations of Hadley residents in 2000. Individuals employed in Hadley come primarily from within Amherst (22.8%) or from other neighboring Massachusetts municipalities (76.5%). As described in **Chapter 5**, only 22.5% of the town's residents work in Hadley. Most of the remaining residents commute to other Massachusetts towns (74.2%), with Amherst and Northampton topping the list. Of the 3.4% of the population that does not work in Massachusetts, 2.4% work in Connecticut and 0.2% in Vermont. The remaining 19 residents commute to other states.

Given the wide range of residents' workplaces, it is not surprising that Hadley residents and workers rely heavily upon their autos to reach their jobs. In 2000, 89.7% of all employed Hadley residents 16 and over drove alone to their workplace, while for Hampshire County this figure was 74.1%. Another 3.0% traveled to work via carpool in 2000, while Hampshire County had 7.8% of its labor force carpooling. Overall, Hadley falls behind the county in use of travel modes other than driving alone. In 2000, 1.2% of Hadley workers took public transportation while 2.9% worked at home and 1.3% walked to work. See **Chart 8-2** for additional details, including the changes between 1990 and 2000.

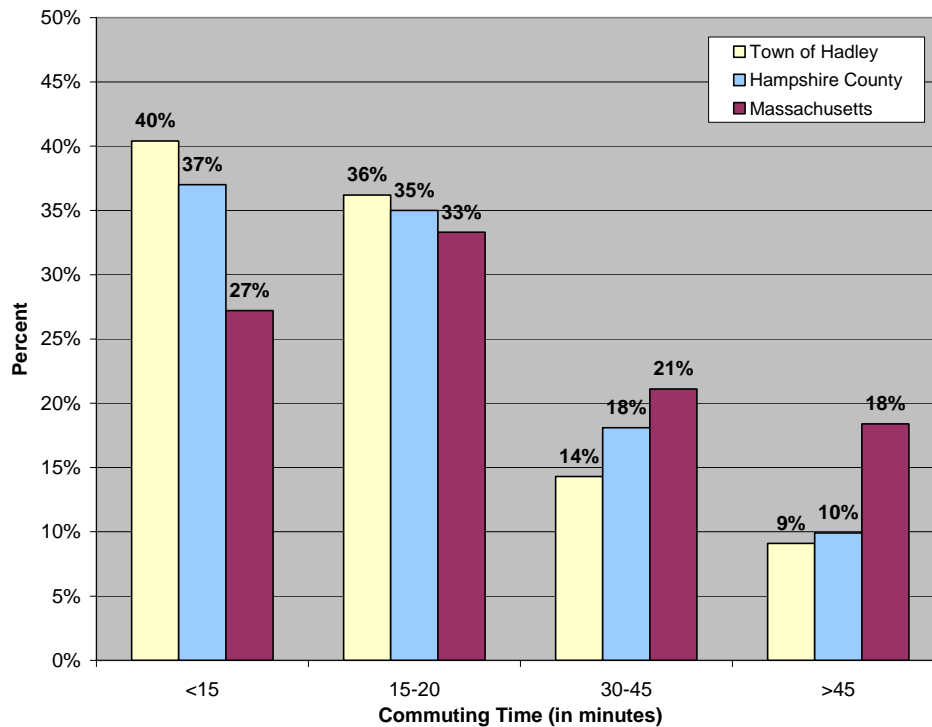


Source: U.S. Census Bureau, Census 1990 and 2000.

Commuting times for Hadley residents in 2000 was lower than Hampshire County and state averages (see **Chart 8-3**).<sup>14</sup> For example, whereas about 37% of Hampshire County residents and 27.2% of state residents commuted less than 15 minutes, nearly 41% of Hadley residents had commutes shorter than 15 minutes. Conversely, the percent of resident workers driving more than 30 minutes is about 28% for Hampshire County, 40.4% for the state, and 23.4% for Hadley. This statistic is likely due to the fact that many Hadley residents commute to local area jobs.

<sup>14</sup> These statistics are determined for resident workers age 16 and over who do not work at home.

**Chart 8-3**  
**Average One-Way Commuting Time for Hadley Residents, 2000**



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

## Existing Street System in Hadley

A town's character is not only affected by its proximity to the regional highway system; it is also very much influenced by the pattern and condition of its local street network. Nearly 85 miles of road run through Hadley. The street network in Hadley is dominated by various local roads connected directly or indirectly with Route 116, Route 47, North Hadley Road and Route 9. Since travel in Hadley is heavily oriented toward private automobile transportation, it is essential that the road capacity be able to accommodate existing and future volumes of traffic efficiently and safely. Conversely, if the town's position is to refrain from widening the local, rural streets that contribute to Hadley's rural character, it is critical that the town plan future land uses so as not to overburden the existing street network.

The jurisdictional and functional classification of Hadley's streets is important to understanding how the streets relate to one another, how they are used, and who exercises control over them. **Chart 8-4** lists the agencies that have jurisdiction over the use and maintenance of the streets in Hadley. Hadley's roads are generally town-owned with the exception of several numbered state highways, several roads that run through parklands, and some privately owned roadways. In addition, unlike many other Massachusetts communities, the length of roadways owned by state agencies is relatively small.



**Chart 8-4**  
**Jurisdictional Classification of Hadley Streets**

<b>Controlling Agency</b>	<b>Location</b>	<b>Mileage</b>
Town of Hadley	Throughout town	67.0
Massachusetts Highway Department	Route 9; Route 116; Route 47	9.4
State Park or Forest	Skinner State Park	1.2
Unaccepted but open to public travel	Throughout town	3.4
State College or University	University of Massachusetts	3.5
<b>Total Roadway Mileage</b>		<b>84.5</b>

Source: MassHighway Road Inventory File.

While no interstates travel through Hadley, Interstate 91, which provides north-south access, is located just west of the town in Northampton. Of the three state numbered routes in the town, two—Route 116 and portions of Route 47 (Lawrence Plain Road/Hockanum Road/Middle Street/Bay Road)—function as rural minor arterials, carrying commuters north-south through town and connecting to Route 202 in South Hadley. The third, Route 9 runs east-west and connects Route 116 and Route 47 to I-91; it is also the primary road from I-91 to Amherst. Route 47 also functions as a rural major collector, along with a number of other streets (totaling 20 miles of roadway). The majority of streets in Hadley—65.6 miles or roughly 69% of the total roadway mileage—function as local or residential streets designed to provide access to individual residential parcels or neighborhoods.<sup>15</sup>

## Goals

### **Goal 1: Protect the rural and historic character of Hadley's streets.**

#### **Specific Objectives:**

- Produce Street Design Guidelines to guide future road construction, reconstruction and maintenance.

Although many roads in Hadley have retained their narrow alignment and rural character as they pass through fields or wooded areas, the Route 9 corridor has grown in intensity in recent years. The 2004 VHB study anticipated increased congestion along the Route 9 Corridor from I-91 to Amherst Center. This study also predicted that household growth in the Connecticut River Crossing communities would average 16% between 2000 and 2025, with a higher average (20%) expected in Hadley.

Massachusetts Highway Department plans to expand Route 9 capacity to four lanes of travel in each direction. This project would alter the areas surrounding the historic Town Common and the critical intersections at the town center. MassHighway, the private sector and even the town will continue to redesign intersections and 'improve' roadways; these improvements could have drastic impacts in terms of traffic capacity, automobile speed and overall character of the town. To ensure the pastoral and rural character of Hadley's roads, it is imperative that the town create street guidelines that outline the desired character and characteristics of future roads and intersections.

It is also imperative that the town proactively work with MassHighway to influence the Route 9 widening project. Route 9 passes directly through the critical center of town and runs in front of the High School and other charter and private schools. The priorities and concerns of Hadley residents – safety, lower speeds and preserving/rebuilding the character of our town center – are almost certainly not the priorities and goals of MassHighway. The proactive intervention by town officials and residents is crucial to

<sup>15</sup> Source: MassHighway Road Inventory File

address the needs and desires of Hadley; without the town's input, the project may be designed to serve the interests of the surrounding region in providing faster travel between Northampton and Amherst – regardless of the impacts on Hadley.

In 2004, Route 47 in Hadley and South Hadley was designated a scenic byway by the Commonwealth as part of the Connecticut River Scenic Farm Byway. The purpose of the designation is to recognize the scenic, cultural and recreational resources along this stretch of road, preserve the character of the corridor, improve safety, expand opportunities for farm related business and contribute to tourism.<sup>16</sup> Other Hadley roadways have been designated scenic roads under the provisions of Massachusetts General Laws, Chapter 40, Section 15C. On any designated Scenic Road, Planning Board approval and a public hearing are required prior to the alteration of the road layout or the alteration or removal of significant trees or stone walls within the road right-of-way. The scenic roadway designation has no effect on land outside of the right-of-way. Identifying other roads with these qualities and monitoring development along them will contribute to the town's goal of preserving its rural character. In addition, land use regulations in the area of such roads should be sensitive to and protective of the very features and resources that prompted the designation.

Street design in Hadley should also be sensitive to the needs of working farmers. Fast-moving traffic presents safety concerns to the farmer who is operating tractors or other farm machinery or equipment and traveling at slow speeds on or along the local roads. Signage and other methods should be utilized to increase awareness, promote safety and slow traffic where necessary in order to address this issue.

#### **Key Strategies:**

- Develop Street Design Guidelines
- MassHighway Interaction Policy

## **Goal 2: Promote traffic calming and pedestrian improvements.**

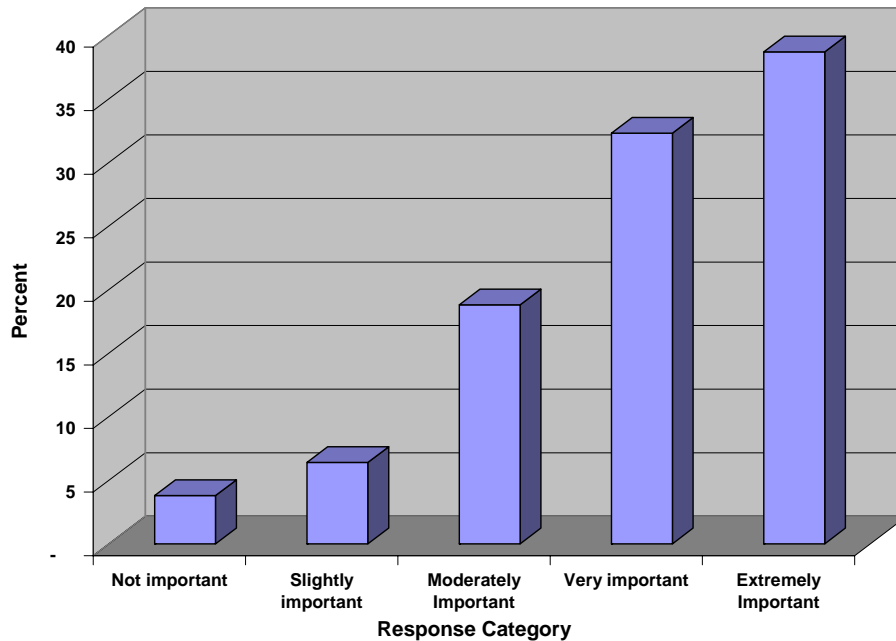
### **Specific Objectives:**

- Reduce traffic speeds through neighborhoods and residential streets by using traffic calming techniques.
- Increase pedestrian safety in the town center, residential neighborhoods and commercial areas.
- Work with MassHighway to mitigate impact of Route 9 traffic on town center.

According to the VHB report, intersections in the Route 9 Corridor between Northampton and Amherst have the highest concentration of crash locations compared to other highway locations within the Connecticut River Crossing communities. These sub-standard existing road conditions, together with the anticipated increase in traffic and congestion resulting from the new large scale commercial developments already underway, suggest a need for traffic calming techniques to improve both the automobile and pedestrian experience on Hadley's roads. Furthermore, increased traffic puts pressure on Hadley's neighborhoods as commuters find new "short cut" routes through the neighborhoods to bypass the congested major streets. As shown in **Chart 8-5** below, 71% of Hadley residents consider it very or extremely important to control through traffic on side streets and in residential neighborhoods.

<sup>16</sup> From *Chapter 64 of the Acts of 2004*, Massachusetts General Law, April 1, 2004.

**Chart 8-5**  
**In Your Opinion, How Important is it that Hadley:**  
**Control through Traffic on Side Streets and in Residential Neighborhoods?**



Source: Hadley Town Survey

Traffic calming can be used to reduce the likelihood that drivers will find a faster route on side streets than on the major roads. Traffic calming is the combination of policies and measures that reduce the negative effects of motor vehicle use, alter driver behavior and improve conditions for non-motorized street users.<sup>17</sup> Examples of possible traffic calming techniques to be considered include speed bumps, raised pedestrian crossing islands, narrowed intersections ('neckdowns'), deliberate curves ('chicanes') to slow traffic, partial road closures to divert traffic off certain streets and landscaped medians to slow traffic while also improving the aesthetics. Traffic calming is a challenge as there are limited guidelines outlined by the Commonwealth. However, several Massachusetts cities and towns have had some success in experimenting with successful traffic calming programs.

Pedestrian safety must also be addressed, particularly in the town center and along Route 9. There are few sidewalks in Hadley, and of those few, many need repair. In addition, the town has historically been reluctant to construct additional sidewalks. A particular area of concern is the eastern portion of Route 9. The Commonwealth mandated sidewalks near the Stop & Shop, which connect to nothing; however, the Commonwealth will not allow crosswalks if sidewalk outlets do not exist on both sides of the street. As a result, residents (including elderly shoppers and children) routinely attempt to cross Route 9 in heavy traffic. The Commonwealth also opposed crosswalks at such locations as Maple Street/Route 9 (Home Depot development) because they impede vehicular traffic flow. These actions encourage automobile use and essentially prohibit safe pedestrian activity. If the town seeks to create a safe pedestrian experience, the town needs to work with MassHighway and ensure that adequate sidewalks are designed and constructed and that these sidewalks connect to safe intersections and parking lots.

<sup>17</sup>From *Traffic Calming Information* accessed at <http://www.gocapecod.org/calming.htm> on September 22, 2004. Original source: Lockwood, Ian *ITE Traffic Calming Definition*. ITE Journal, July 1997, pg. 22.

#### **Key Strategies:**

- Initiate traffic calming
- Improve pedestrian safety along Route 9
- See Town Center Improvements (Land Use, Goal 2 and Housing and Community, Goal 4)

### **Goal 3: Expand bicycling options.**

#### **Specific Objectives:**

- Improve and encourage increased use of existing Norwottuck Rail Trail bike path.
- Explore possible creation of new bikeways and multi-use paths through town.
- Adopt bicycle-parking requirements for new construction and ensure that new developments are bicycle and pedestrian friendly.

The DEM-owned Norwottuck Rail Trail is one of two paved rail trails within the Massachusetts State Forest and Park System. Stretching over ten miles from Northampton to Belchertown, the extremely popular bicycling, skating and walking trail runs through all of Hadley and connects to the UMASS connector in Amherst. Its unique location along Route 9 provides pedestrian and bicycle access to places such as the Mountain Farms Mall, other shopping areas, UMASS and Amherst College. Survey data from the 2003 Pioneer Valley Planning Commission Trail Study indicates the trail is used heavily for commuting.<sup>18</sup> In 2002, 31% of trips were non-recreational/fitness in nature; this suggests a need for more connections to the universities, business centers and town center. With no bike lanes in town, the Norwottuck Trail provides a critical service for non-motorized access to local services. However, the town lacks a north-south connector and could benefit from enhanced bicycle accommodations.

The area has a significant bicycling community that would benefit from bicycle-related amenities. The 2004 VHB report suggested pedestrian and bicycle improvements including Norwottuck Trail maintenance and widening and Route 9 on-road bicycle lanes. In addition to an unfavorable road condition, bicycle use is further inhibited by a lack of storage and other amenities for pedestrians and bicyclists. The town should require new development to provide bicycle facilities, provide sidewalks and open onto the trail where possible.

#### **Key Strategies:**

- Develop walking/biking trails
- Improve pedestrian safety along Route 9
- Enhance Requirements for Traffic Impact Statements and mitigation (include bicycle travel and safety in requirements)

### **Goal 4: Implement strategies that limit vehicle and traffic impacts from new development.**

#### **Specific Objectives:**

- Require detailed traffic impact statements and mitigation measures for new development regardless of State MEPA requirements.
- Carefully manage uses that generate traffic issues such as big box retail, strip malls and drive-throughs.

<sup>18</sup> From Pioneer Valley Planning Commission *Survey of Users on the Norwottuck Rail Trail*, June 2003.

- Include access management and shared parking provisions to limit curb cuts, increase pedestrian safety and minimize pavement for new commercial development.
- Create parking lot design criteria and mandate where appropriate that parking lots be in the rear or side yards of new commercial structures.

Traffic generated by the numerous retail uses along Route 9 results in longer travel times during the midday and evening peak hour. There is also additional traffic on Rocky Hill Road (5,000 vehicles per day), and on Bay Road near South Amherst. To reduce the expected congestion increase from anticipated development, Hadley should require detailed impact analyses and traffic demand management measures from new construction. These impact analyses and reports should be submitted as part of Site Plan Review and should contain specific written submittal requirements and review criteria. Specific attention should be paid to those uses known to create traffic issues such as big box retailers and malls. Design guidelines for parking lots and site access should strive to further minimize the impacts of new development.

#### **Key Strategies:**

- Permit and advocate shared access
- Traffic impact statements and mitigation
- See Goal 2, Economic Health
- Improve pedestrian safety along Route 9

### **Goal 5: Improve opportunity for regional, public transportation and other alternative means of transportation.**

#### **Specific Objectives:**

- Study potential for regional transportation to Amherst, Northampton, Greenfield, and Springfield (PVTa).

The enhancement of regional public transportation networks reduces the environmental and congestion impacts of single-user automobiles along Route 9 and elsewhere in Hadley. Route 9 is the region's major bus corridor; however, service is often infrequent and unbalanced. The 2004 VHB study encouraged more service to the south as well as service to public facilities including the malls. The five-college consortium provides a bus service between campuses, with the colleges absorbing the cost. The Pioneer Valley Transit Authority (PVTa) service is handicap accessible; the Northern Tier, which includes Hadley, provides paratransit for those who need additional assistance. Furthermore, the PVTa provides bicycle storage on all its buses in Hampshire County and thus facilitates alternative commutes.

New development in surrounding towns has also increased traffic volumes through Hadley. Some regional solutions identified in the 2004 VHB study include establishing transportation demand management solutions as follows:

- Renew the Route 9 Transportation Management Association
- Develop Transit Options/Enhancements, such as:
  - establishing a Route 9 Express Bus with signal preemption
  - increase bus service to shopping malls
  - increase north-south bus service
  - extend night service

The Route 9 Transportation Management Association provides services designed to use the existing road capacity more effectively.<sup>19</sup> An active ride share bulletin connects commuters and travelers. However, the Association is in need of greater business support to continue and expand its services to the region.

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<sup>19</sup> From *Route 9 Transportation Management Association: Services* accessed at <http://www-parking.admin.umass.edu/tma/services.htm> on September 22, 2004.

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## 9 PUBLIC FACILITIES AND SERVICES

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### Introduction

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, and where. This section discusses Hadley's public facilities, services, and infrastructure based on information from town officials and existing reports. The purpose of this section is not to undertake a thorough analysis of the town's facilities and services, but to integrate this information into the overall master planning process so that the town's public investment decisions are consistent with the community's overall vision for the future.

### Public Works

#### *Public Water Supply*

The water infrastructure includes eighty miles of pipe, four pumps, and four wells in two locations. Municipal water is supplied by groundwater sources from four town-operated wells: Mount Warner Wells No. 1 and No. 2, and Callahan Wells No. 3 and No. 4 at Bay Road. According to the 2003 report prepared by Comprehensive Environmental Inc., Hadley's well capacity was 4,968 mgd.<sup>20</sup> However, the larger capacity Callahan Wells cannot run continuously without treatment.

#### Existing Capacity and Demand

The average daily permitted water usage is 790,000 gpd. Exceeded in 2001, projections indicate the town will regularly exceed the limit as early as 2005.<sup>21</sup> Without the Callahan Wells operating correctly, the town's wells will not meet projected water demand after 2010. Twenty-one percent of the current water usage is unaccounted for, which exceeds the Commonwealth's acceptable standard of 10-15%. To respond to this issue, the town conducts leak detection twice a year and has applied for a grant to conduct a water audit and replace all meters with remote-read meters. This effort will take two-years and cost \$200,000. The 2003 Water Supply Master Plan provided three options for obtaining additional water; these include:

1. Treat the Callahan wells for iron and manganese;
2. Investigate and develop a new groundwater source; and
3. Purchase water from a neighboring town.

There are 1,900 connections to the system and over 5,000 users. Almost every Hadley resident is on the town water supply, although many farmers also use private wells for irrigation. **Chart 9-1** shows the breakdown of sectors using the public water supply. Nearly half the consumption is attributed to the residential sector. However, the town indicated that commercial use has increased more rapidly in the last few years. **Appendix B** contains the water budget analysis, which was conducted to determine current water use and recharge potential and compare these figures with future/build-out conditions.

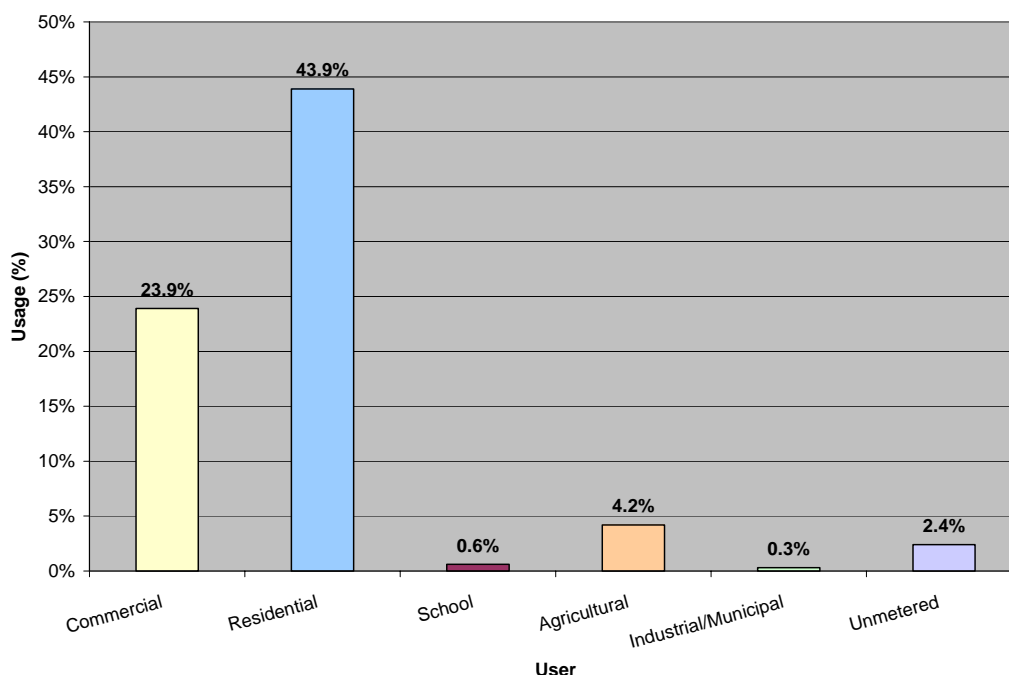
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<sup>20</sup> From Comprehensive Environmental Inc., *Town of Hadley, MA Water Supply Master Plan Draft Report*, October 2003, page 3-1.

<sup>21</sup> Ibid, page 3-5.



**Chart 9-1  
Public Water Usage**



Source: Comprehensive Environmental Inc., *Town of Hadley, MA Water Supply Master Plan* August 2004

### **Facilities and Equipment**

The town plans to upgrade the treatment plant, the Bay Road wells and the Ultrafiltration plant. Recent improvements include repairing or replacing water lines along West Street and Route 9. However, as of March 30, 2004, the town placed a moratorium on new water line extensions as a water conservation mechanism.

### **Wastewater System**

Overall, the wastewater system is in fairly good shape for the needs of Hadley. The system has 800 connections serving Route 9, Route 47 and the side streets surrounding drinking water wells. In 2000, the Wastewater Treatment Plant received 114 million gallons to be treated and took in 431 loads of septage, according to the Annual Report. Hadley accepts out of town septage and in 2000 the town received \$23,400 for treating 234,834 gallons and an additional \$23,500 for 235,695 gallons of septage treated from in-town residents. This income is used to maintain and expand the collection pipeline system without cost to the system users.<sup>22</sup>

The treatment plant located at 230 South Middle Street was remodeled in 1988 and is in good condition. The average daily flow to the treatment plant is 300 mgd; this represents 55% of the plant's 540 mgd capacity. No lines have been added since 1988; however, the town is currently replacing older sewer lines which have been causing problems.

<sup>22</sup> From *Three Hundred and Forty First Annual Report* for the Town of Hadley, Massachusetts, 2000, page 57.

## **Fire and Police Services**

### ***Fire Department***

Hadley's Police and Fire Department share a main facility at 15 East Street. This building was built seven years ago. Consisting of five bays, the Fire Department portion of the facility is nearing capacity. This facility houses one each of a Ladder, Engine, Rescue and Tanker Truck; two antique trucks; and a fire boat. According to the Fire Chief, there is room for only one more major piece of equipment. The fire department also has a forty-year old two-bay facility in North Hadley which houses a Ladder Truck and a mini-pump truck. In its 2004 annual needs assessment, the department anticipated replacing Ladder 4 at the North Hadley facility within five years.

### **Services and Facilities**

The Fire Department employs twenty-eight people on its call-force, which is a part-time position. However, most employees work full-time jobs outside of the Fire Department; as a result, according to the Fire Chief, administrative duties and staff development suffer. At the 2004 Fall Town Meeting, the town approved without funding a full-time staff position in the Fire Department to serve as both a Compliance Officer for fire safety issues and as an Emergency Manager for keeping up to date on Homeland Security mandates and other local response issues. The latter will help the town remain eligible for certain funding options. In the first year, the position will be funded through an agreement with Home Depot; the town will need to determine funding for subsequent years.

In addition to town funds, the Department uses federal grants and local fundraising to obtain new equipment. The current fundraising effort seeks to replace the thirty year old fire boat. Recent grant money has been used to purchase new bunk gear, to upgrade the radio system, and purchase thermal imaging equipment. According to the Fire Chief, immediate needs include a full time staff person and a new Ladder Truck.

### **Regional Cooperation**

The Hadley Fire Department observes a Mutual Aid agreement with its neighbors, including South Hadley, Sunderland, Northampton, and Amherst. Because Hadley owns a large ladder truck, the local force is often called to large fires in these neighboring towns. The towns further collaborate through monthly meetings. Though regional cooperation is important, Hadley's forces should not be overextended without adequate reciprocity as a result of this agreement. The town may look to its neighbors to assist in staff training to keep abreast of updated Federal and State security standards.

### ***Police Department***

In addition to the Police Chief, the Department had 10 full time officers (including two sergeants) and 6 part-time and special officers as of March 24, 2005. Staffing is a perennial concern, as the Department and many residents would prefer a larger force. In 2000, the Police Department instituted a two officer per shift staffing change to ensure prompt response and officer safety. The Police Department currently owns 5 marked and 2 unmarked vehicles. The bicycle patrol was expanded to enhance the community policing program and reach more areas of the town. This was enabled by a \$15,200 grant.<sup>23</sup>

Current initiatives of the Police Department include a speed monitoring program throughout town using a borrowed speed trailer and a gun safety program, providing education and free gun locks to homeowners. The Department recently received \$1,750 from Wal-Mart as a "Safe Neighborhood" grant. Hadley's public safety officers cooperate regionally on drug investigations through the Franklin County Task

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<sup>23</sup> From *Three Hundred and Forty First Annual Report* for the Town of Hadley, Massachusetts, 2000, page 58.

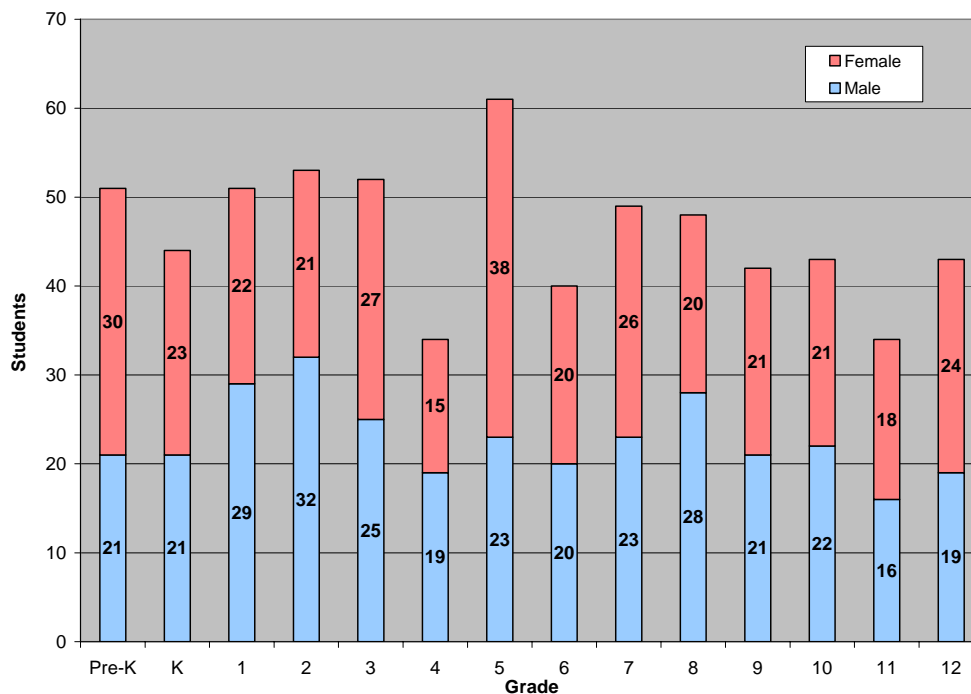
Force. The Police Chief did not identify any immediate needs aside from additional staff and indicated that current facilities are adequate.

As the town's population grows, the town must continue to ensure that its public safety departments keep pace with such growth and that sufficient resources are devoted to this effort.

## Schools

The town has two public schools: Hadley Elementary serves Pre-Kindergarten through grade 6 and the Hopkins Academy junior- and senior high school serves grades 7 through 12. Other schools in Hadley include the Pioneer Valley Performing Arts Charter School, serving grades 8 through 12, and the private Hartsbrook School, serving Pre-Kindergarten through grade 12. The Pioneer Valley Performing Arts Charter School shares a facility with the Council on Aging in addition to its own facility in the former Hooker School. This school will be leaving Hadley in 2005. In 2004-2005, 645 students enrolled in public Pre-Kindergarten through Grade 12. See **Chart 9-2** for the number of students per grade in the 2004-2005 school year. Currently, only the 4<sup>th</sup> grade and the 11<sup>th</sup> grade are significantly under capacity according to the Superintendent. The School Department projections maintain an average grade size at both schools of fifty students. However, there has been a modest upward trend in enrollment and the School Department is watching those numbers carefully.

**Chart 9-2**  
**Students per Grade**



*Hadley Elementary*

### Hadley Elementary

Previously housed in the Russell Elementary School and the Hooker Elementary School across Route 9, the current Hadley Elementary School building was built on River Drive in 1996. Although relatively new and in good condition, Hadley Elementary School is already nearing capacity and according to the Superintendent there is “not a lot of wiggle room.” According to the Superintendent, if elementary grade

sizes increase, the administration will need to think about expanding capacity. Given the current situation, anticipated future population growth during the upcoming decade will almost certainly require the town to take measures to address this issue.



*Hopkins Academy*

### **Hopkins Academy**

Once a private school, Hopkins Academy was founded in 1664 with an endowment from Edward Hopkins, a wealthy Connecticut merchant. It is the seventh oldest school in New England. Hopkins Academy's last addition was over fifty years ago and its last substantial renovation was over thirty years ago. The town has determined that a substantial renovation and expansion of the school is necessary and a Hopkins Building Committee has been formed and is preparing a plan for such a project. However, changes in the Commonwealth of Massachusetts

school construction funding practices may make the financing of the project more difficult than was originally anticipated by the town.

Depending upon the outcome of the Hopkins expansion plan, future population growth may also create capacity issues at Hopkins. The town needs to plan well in advance of these capacity issues and must focus on a coordinated and comprehensive district-wide solution to its future school capacity needs.

### **Staff**

The schools are served by 29 elementary teachers, 26 secondary teachers and 56 staff including custodians, aides and administrators. New State accreditation standards for high schools will require the town to hire one new school library position. Similarly, the schools must respond to new State laws regarding English as a second language as a result of a dramatic increase in non-English speaking students in 2004-2005.

### **Adult-Education and Programming**

A few years ago the School Department partnered with the Council on Aging to provide access to a classroom and a teacher to introduce local seniors on the computer. The school offers little other outside programming, but it does allow a number of local organizations such as Girl Scouts, the Parks and Recreation Department and a parent-run after school program to use their facilities. Fee based adult education was strongly supported by the 2003 Survey and deserves further consideration.

## **Goal 1: Restrict new sewer and water line expansions.**

### **Specific Objectives:**

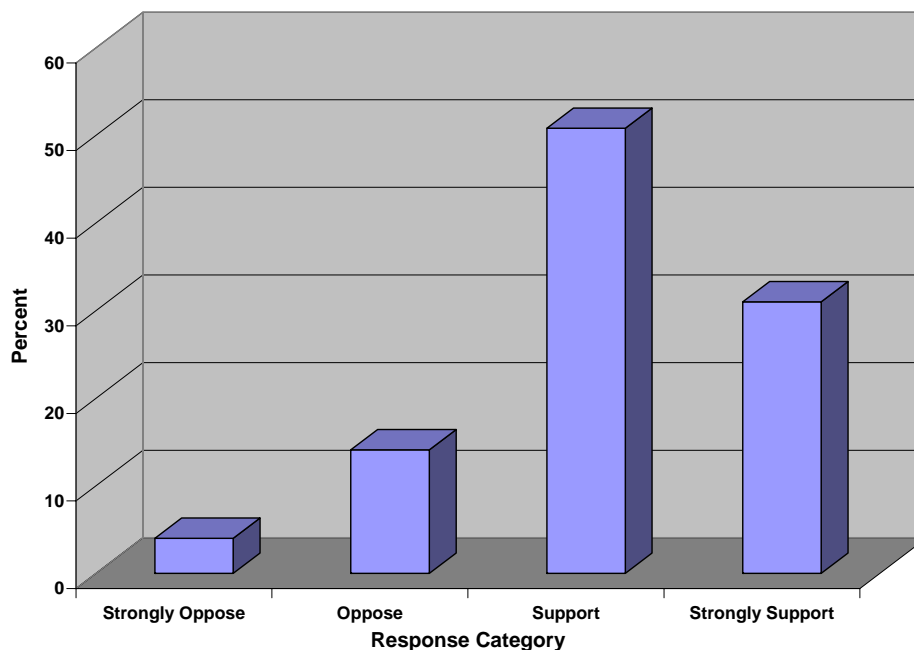
- Prohibit the extension of sewer lines into undeveloped, rural, scenic, agricultural and other sensitive areas that are not suitable locations for new development.

There is growing pressure to expand the sewer lines to accommodate additional growth and mitigate environmental concerns related to unsewered waste water. However, the town is rightly concerned about expanding sewer lines as this would inevitably trigger additional development. **Chart 9-3** shows that approximately 80% of residents support imposing a restriction on sewer and water extensions into agricultural areas. Based upon the feedback reviewed in this process, there is little or no need for expansion of the sewer system beyond its current area. This Master Plan has identified limited areas where the town is willing to see additional growth. However, almost all of these areas have access to the existing sewer system. Allowing sewer expansions would only open up other areas, not designated as preferred growth areas, for development. In areas where there is a vital, pressing need for environmental mitigation or protection, a sewer expansion may be allowable upon close review; this should be a limited

and seldom used exception. Where possible, the town should seek to prohibit all private sewer extensions unless they are in an area deemed appropriate by the town or contribute to the goals and objectives of the Plan. Furthermore, as an alternative to private sewer extensions, the town should aggressively promote clustered systems and other environmentally sound alternatives where practical (see **Strategy 8**).

**Chart 9-3**

**In the Future, What Methods for Preserving Agricultural Land Would You Support or Oppose: Restrict Town Sewer and Water Extensions into Areas of Town with Prime Agricultural Land in Order to Restrict Future Residential Growth and Development?**



Source: Hadley Town Survey

**Key Strategies:**

- Prohibit Further Expansion of Public Water and Sewer
- Create Department of Public Works (DPW)

**Goal 2: Maintain Hadley's safe living environment through effective police, fire and emergency medical services.**

**Specific Objectives:**

- Continue to fund emergency services at appropriate levels.
- Provide training and new technology.
- Investigate and enhance regional solutions.

Though the physical equipment of Hadley's emergency response team is in good condition, personnel shortages can have a significant impact on the breadth of service the departments provide. For example, the all part-time Fire Department responds to all calls, but has little remaining time to catch up with administrative duties including paperwork, permits and continuing education. In the past year, the Police Department has seen an increase in calls needing police response; thus the Department could benefit from

additional staff. Furthermore, both Departments have to increasingly be aware of new training and technology, specifically the activities of the National Office of Homeland Security.

Continued growth adds significant pressure to the emergency services staff; without an appropriate increase in funding for new development, the administration of safe and responsive emergency services is at risk. The town needs to explore new ways to keep the emergency services operating at pace with development in Hadley. Hadley's Fire Department is already part of a regional system with neighboring towns. In fact, the town's equipment is more capable of handling large fires than some of its neighbors and thus very often responds to other towns' emergencies. The town needs to explore ways to: (i) expand regional opportunities; (ii) pass costs of increased services on to commercial developers where appropriate, and (iii) as a town, develop a long term public safety plan addressing issues such as if and when the town may need a full-time fire department or more police officers, etc.

### **Goal 3: Maintain Hadley's commitment to provide superior education opportunities for its residents.**

#### **Specific Objectives:**

- Develop and support adult education programs.
- Bring new technology into schools.
- Produce School Building Master Plan.
- Continuously improve and support existing schools.

Adult education programs are limited to computer training offered by the Council on Aging with the assistance of the schools. Hadley residents have resources available for continuing education at the University of Massachusetts, but those resources are not often utilized. The town should pursue additional local options available for the adult population, including programs ranging from adult basic education to basic technology training to more recreational classes and programs that could be administered by the Park and Recreation Department. Grants are available for some of these programs, as is other private funding, and should be explored.

The development of a School Building Master Plan allows the town to attempt to forecast into the future and anticipate needs before reaching a crisis situation. The Elementary School is relatively new and already reaching capacity; the Hopkins School needs to be updated. In preparing the School Building Master Plan, the town can attempt to prepare to upgrade aging or out-of-date facilities and replace retiring staff. However, the town has difficulty predicting the number of children attending Hadley schools. With new residential development comes new school children; the town needs to study the true capacities of the school and develop a solution for accommodating additional school children if growth continues at this pace.

#### **Key Strategies:**

- Study feasibility of Adult Education
- Produce a District-wide School Building Master Plan
- Strengthen training opportunities for appointed and elected officials

**Goal 4: Work with UMASS and other area colleges to ensure that their plans are consistent with this Master Plan and Hadley concerns.**

**Specific Objectives:**

- Open a dialogue with UMASS and other area colleges and meet with college representatives at least twice a year to discuss concerns and plans for the future.

UMASS has a tremendous impact on the town of Hadley. Most of UMASS's high impact uses are within the town of Hadley. These include the sewer treatment plant,<sup>24</sup> the power plant to be built, Football Stadium, the Mullins Center and large parking lots. In addition, Route 9 is used by most of the UMASS population as the main road from I-91 to campus. Although there is a pre-existing agreement between the town and UMASS, a continuous dialogue is critical to ensure that Hadley's concerns and issues are addressed by the University. This agreement expires in August 31, 2006 and the town should retain this agreement indefinitely. The town should continue to seek mitigation payments or other consideration from UMASS in order to mitigate some of the impacts visited upon Hadley, including traffic-related impacts, by the University. Town officials should also benchmark and communicate with Amherst town officials as to Amherst's arrangements with UMASS in order to insure that Hadly is receiving fair and appropriate consideration.

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<sup>24</sup> This plant actually belongs to the Town of Amherst, where the university is located.

## 10 STRATEGIES

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The Vision and Goal Statements, as described in **Chapter 2**, are based on the realities and conclusions found within **Chapter 3** through **Chapter 9**. The strategies suggested in **Chapters 3** through **9** are described in detail in this Chapter as a comprehensive set of strategies and policies that have been tailor-made to assist the Town of Hadley meet its goals and achieve its Vision. Arriving at an appropriate set of strategies requires weighing different community objectives voiced during the public process and trying to translate these objectives into planning or policy proposals. For example, one way to help the town meet its goal of providing more affordable housing would be to allocate some vacant land or infill sites for higher-density housing types. However, such a proposal must be balanced against the competing interests of conserving vacant land as open space, protecting the character of existing neighborhoods, and limiting the impacts of new housing on the town's roads, schools, water supply system, and other facilities. In many cases, it is possible to develop creative policies that find common ground between potentially competing community interests; in other situations, real tradeoffs must be made. By addressing these tradeoffs and complexities, the Master Plan seeks to address Hadley's future in a comprehensive manner—not just from the perspective of one or two issues or interest groups.

This section includes a detailed and comprehensive list of recommendations or strategies. The Implementation Plan in **Chapter 11** outlines the responsible party, timeline and level of priority for the actions outlined in this section. The Master Plan by itself does not change the town's zoning or other local policies. To put the Master Plan into action, the town, through town meetings and its various boards and commissions, will need to make the policy changes recommended in the Master Plan over the upcoming months and years. The Strategies have also been organized into strategy clusters, where foundation strategies are linked with their subsequent building blocks and quick fix strategies that are related to the foundation strategy. These strategy links may be observed in the Strategies Flow Chart (see **Appendix C, Strategies Flow Chart**).

### Land Use Suitability Map and Land Use Guide Plan

The Land Use Suitability Map helped to inform the planning process and in turn led to the Land Use Guide Plan. The Land Use Suitability Map (see **Figure 9**) displays several key resources such as wildlife habitat, water resources, and wellhead protection areas. The mapped resources are explored in more detail in previous chapters of this Master Plan. The map shows where these various resources overlay with one another and in so doing indicates where development is more or less suitable based on the number of underlying resources. Those areas with few or no underlying resources are presumably more suitable for development than those areas with more resources present.

The 'Guide Plan' (see **Figure 10**) displays several key strategies that are described in this following chapter. The location of many strategies is dictated, in part, by the suitability of development in that area. For example, areas that had several resources on the Land Use Suitability Map are targets for preservation or areas where open space linkages are recommended to be established. Meanwhile, areas that had limited resources present and are suitable for development are recommended to be rezoned to facilitate development that will have a positive impact on the community and serve the goals of this Master Plan.



## 10-3 Land Use Strategies

### 1. *Strengthen Transfer of Development Rights*

This strategy is one of the cornerstones of this Master Plan. The town-wide survey and other feedback throughout the Master Planning process clearly communicated that a top priority among town residents is the preservation of open space and agricultural land. A Transfer of Development Rights (TDR) bylaw seeks to do just that, while still allowing landowners in the protected area(s) to benefit economically. Transfer of Development Rights is a term used to describe a land use regulation whereby the actual development rights of a parcel are purchased and transferred to another parcel. In a TDR a landowner in a designated open space or protection area of Hadley may sell the “development rights” attached to their land to a developer for use in another area of the town where development is more appropriate. The Committee believes that the adoption of a system such as this is critical to the town’s ability to meet the goals and objectives identified by this process.

The area where development rights may be purchased is called the sending district. The areas where development rights may be transferred and relocated is called the receiving district. The property owners in the sending district benefit because they receive fair market value for the development potential of their property and their property becomes permanently protected thus proving certain tax benefits as well. The property owners in the receiving district benefit because they may use the development rights that they purchase to enhance the development potential of their parcel. The town benefits because critical open space and agricultural lands are protected at no cost to the town and development occurs in specific areas where the town has indicated that such development is appropriate.

The town already has a Transfer of Development Rights (TDR) program that relates primarily to parking spaces. The existing program provides a structure whereby farmland may be preserved and the development rights of that farmland may be transferred to a commercial property to allow for additional square footage of commercial development and a reduction in parking requirements. This program has had limited success due in part to the limited ‘bonus’ of the transfer of development rights (1 acre of farmland to 2000 sq. ft of commercial space) and the lack of preservation options associated with the Bylaw. The Committee recommends that the existing program and structure be expanded significantly and that a comprehensive TDR bylaw and program be adopted. Plymouth, Massachusetts is one town with a TDR Program in place. Their bylaw can be found under “Smart Growth Planning Tools Workshop” at [http://www.essexcountyforum.org/tools\\_resources/model\\_bylaws\\_regulations.html](http://www.essexcountyforum.org/tools_resources/model_bylaws_regulations.html).

This technique works best if the underlying density in the sending zones is low. In Hadley, the underlying “base zoning” in the receiving districts must be modified to limit the scale and scope of development that can be undertaken “as of right” so that the developer has an incentive to purchase the bonus TDR rights from the sending district landowners. Accordingly, the town must adopt more stringent “as of right” restrictions on allowable building size, density, lot coverage, parking and other such provisions (including use provisions). The bylaws must then create the “bonus” development rights that may be purchased in order to allow the developer to develop a project that is larger or more intense than what is allowed as of right. The proper balance must be struck, as the intent is to provide an incentive to developers to build in a manner favored by the town. If the cost of the “bonus rights” is too high, the developer will ignore the program. If the “bonus” size, density or other increased rights are too generous, it will defeat the purpose of the program.

**Responsible Entity** – The Planning Board and the Long Range Plan Implementation Committee should work together to write transfer of development provisions into existing and proposed bylaws. The Town Meeting will have to vote the bylaw(s) into law.

### Box 10-1: Suggested Elements of a TDR Program

The following principles should be included in the town's revised TDR program:

**Receiving Districts should include Residential and Commercial areas:** The town should institute a more flexible and 'bonus driven' transfer of development rights program that allows the development rights of farmland to be used for both commercial and residential bonuses. Throughout this Master Plan, there are several proposed strategies that describe a type of development that is not currently permitted under the town's zoning code. Such development includes senior villages, Life Style Centers within the Economic Enhancement District, and mixed use structures within the Mixed Use Village District. These development types must be explicitly tied to a TDR program to ensure that the only method to permit the increased density inherent with these different bylaws is the TDR program.

**Choices for preserving open space:** The developer should have an option of transferring density from:

1. another parcel that they may own within the sending district;
2. donating off-site, developable open space directly to the town;
3. or donating a fee in lieu of an open space donation or transfer of development rights.

**Dedicated fund:** The fees collected as part of the TDR program would be dedicated funds that could only be used to purchase open space or Agricultural Preservation Restrictions, or Conservation Restrictions.

**Fair and realistic tradeoffs and bonuses:** The town must establish reasonable density incentive provisions. If the town requires too much open space (or too large a payment-in-lieu) in exchange for the right to build bonus housing units, developers will not take advantage of the creative zoning techniques. If the open space requirement is too low, the town will not be realizing the maximum potential to conserve open space. The payment-in-lieu amount per bonus dwelling unit should be set ahead of time by the Planning Board, but may be changed from time to time. The payment-in-lieu should be some percentage of the estimated additional marginal profit that the developer could earn by building each bonus unit.<sup>25</sup>

## 2. Create New Residential Zoning Districts for Heritage Residential (HR), Agricultural Preservation Residential (AR), and Forest Residential (FR)

Currently, the town has one uniform residential zoning district which does not take into account the different characteristics of various portions of town and the corresponding difference in the needs, goals and objectives of those areas. The town should seek to replace the existing uniform residential zoning district with three new zoning districts called Agriculture Preservation Residential (AR), Forest Residential (FR) and Heritage Residential (HR). The recommended location for these districts may be found within **Figure 10, Land Use Guide Plan**.

**Agricultural Preservation Residential:** This district would seek to protect the valuable farm land within the Town of Hadley by setting larger lot sizes and containing specific provisions for the protection of critical agricultural lands. Within this District, Open Space Subdivision Preliminary Plans would be mandatory, to allow the Planning Board the option of choosing the development plan with the least

<sup>25</sup> For the bonus units, generally there is little or no additional marginal cost for land, infrastructure, engineering, or permitting—since these are all fixed costs associated with the project as a whole. Thus, the marginal profit per bonus unit is the sale price of the unit minus the cost of building and marketing the unit. This marginal profit figure can be estimated from information on comparable projects in the area. The payment in lieu should be some fraction (e.g., two-thirds) of the estimated marginal profit per unit in order to give the developer adequate incentive to use the bonus provisions.

impact on the agricultural resource. The open space preservation design should be designed to preserve agricultural land while abutting farmers would be given an option to lease the land for continued agricultural purposes.

Subdivision plans within this district should

1. Map and preserve agricultural soils;
2. Limit erosion during construction and in the long term through the planting of native vegetation;
3. Retain or create access to surrounding farmland to permit tractors and other equipment rights of passage through critical access points;

#### **Box 10-2: Suggested Elements of Agriculture Preservation District:**

- Mandatory Open Space Preservation design submittal
- Reduced density (through larger minimum lot sizes or other means)
- Preserved agricultural vehicle access
- Strong Right to Farm provisions

**Forest Residential:** This district would seek to protect the forest resources and character by setting moderate lot sizes with specific provisions for the protection of forested lands. Within this District, Open Space Subdivision Preliminary Plans would be mandatory, to allow the Planning Board the option of choosing the development plan with the least impact on the forest (please see **Strategy 8, Open Space Preservation Subdivision**). Subdivision Plans within this district would:

1. Map and preserve significant forest resources and habitat;
2. Limit erosion during construction and in the long term through the planting of native vegetation;
3. Limit long term water use by using native plantings ;
4. Retain and create walking paths;
5. Require significant visual screening in the form of native trees and vegetation within the front and side yard setbacks.



*This house in Hadley is an example of the Forest Residential concept done well.*

In addition, the Planning Board would have the authority to mandate an open space preservation subdivision design if they found that such a design would preserve significant forest land. The open space preservation design would preserve forest land and critical habitat and, where appropriate, walking paths or similar areas could be open to the public for passive recreation. Ideally the open space would be in large segments and would be adjacent to other protected open space (See **Strategy 43, Open Space Standards**). A premium would be placed on preserving forestation and screening.

#### **Box 10-3: Suggested Elements of Forest Residential District**

- Mandatory Open Space Preservation design submittal
- Moderate density
- Flexible lot line provisions to allow designers to protect critical forest lands
- Strong front and side yard screening regulations including native vegetation requirements

**Heritage Residential:** This district would protect the unique, historic development patterns found within the traditional neighborhood centers of Hadley by using smaller lot sizes and flexible setbacks. Within this District, Open Space Subdivision Preliminary Plans would not be mandatory, but could be requested by the Planning Board if such a plan would be appropriate given the individual parcel's resources (please see **Strategy 8, Open Space Preservation Subdivision**). Subdivision plans within this district would:



*Hadley Town Common is a significant historical asset; the houses lining the Common could be preserved through Heritage Residential zoning.*

1. Map and preserve significant historic and agricultural resources.
2. Limit erosion during construction and in the long term through the planting of native vegetation
3. Set Maximum front yard setbacks to ensure that houses are close to the street as is the case with most existing houses within the traditional town centers.

In addition, the Planning Board would have the authority to mandate an open space preservation subdivision design if they found that such a design would preserve critical land. The open space preservation design would preserve agricultural land and/or historic landscapes and structures and would be open to the public for passive recreation. Ideally the open space would be in large segments and would be adjacent to other protected open space. (See **Strategy 43, Open Space Standards**)

#### **Box 10-4: Suggested Elements of Heritage Residential District**

- Discretionary Open Space Preservation design submittal
- Higher density consistent with surrounding neighborhoods
- Flexible street design to create streets in keeping with Hadley's neighborhood centers. Such street design could include center greens, alternatives to cul-de-sacs such as T turnarounds, sidewalks setback from the street with lawn, and a strong emphasis on pedestrian amenities such as crosswalks, benches, and pedestrian scale lighting.
- Maximum front yard setbacks to ensure that houses are closer to the street as is the case with most existing houses within the traditional town centers.

### **3. Create Village Core Zoning District**

The center of Hadley and the small village center in North Hadley are unique and special places that warrant their own zoning district. This new base zoning district (as shown in **Figure 10, Land Use Guide Plan**) should be sensitive to the historic qualities of the area and should seek to enhance the civic, cultural, and economic activities within the centers. The purpose of this district is not to create a 'downtown' but rather to enhance the civic, residential, and commercial character of this unique area. Development and redevelopment should be careful to respect the surrounding neighborhoods and it is recommended that most uses within this special district be permitted only by Special Permit.



*When adding uses, maintain the existing character of the Center*

Dimensional requirements should be established so as to allow only smaller scale buildings and projects. Sidewalks, benches and similar amenities should be emphasized. While the Committee believes that civic and cultural uses should be strongly encouraged, appropriate neighborhood-focused commercial and residential uses will also add to the vitality of the area and make it a natural meeting place for town residents on a day to day basis. Over time, the town should introduce and permit the phasing in of residential units in the area, including apartments over first floor commercial structures. Such housing should be designed with town residents in mind, to enhance the sense of community, and should include senior and affordable housing opportunities.

#### **Box 10-5: Suggested Elements of Village Core Zoning District**

- Permit small scale neighborhood business uses that have minimal impact to their surroundings. Such uses would include cafes, small scale retail, specialty food stores and other like uses.
- For uses that would require a special permit, require public realm improvements such as sidewalks, street trees, pedestrian amenities, pocket parks, lighting, etc.
- Permit, by special permit, 'top of shop' housing at a slightly higher density (perhaps 5 units/acre). Use inclusionary zoning (**see Strategy 11, Inclusionary Zoning**) to ensure that at least 10% of all units are affordable to low and moderate income households.
- Enact strong design guidelines to create and maintain "small town" rural character and appearance.
- Require strict signage provisions.

#### **4. Enhance Mixed Use Village Overlay District**

The existing Village Overlay District should be enhanced and greater guidelines for village style development provided to facilitate the creation of a mixed use district (as shown in **Figure 10, Land Use Guide Plan**). In addition, it should be expanded to either side of the Village Core along Route 9 to provide a transition from the large scale commercial uses to the east and the traditional residential neighborhoods that are adjacent to the commercial area. This district would permit small to moderate economic development uses and residential uses designed in a village setting and scale.

The existing "colonial style" architecture requirements need to be strengthened, an observation strongly supported in the Town Survey. Many of the newer projects built under the current colonial architecture provisions do not appear, in the opinion of many residents, to be consistent with the intent of the bylaw. More rigorous design guidelines, together with stronger enforcement, are needed to address this issue. Also, maximum building sizes allowed "as of right" in this district should be decreased and maximum height limitations reduced from three stories to two. Furthermore, more stringent signage provisions are required in order to insure more consistent signage throughout the district in terms of size, lighting and aesthetics/design. Signage should be subject to design and aesthetic criteria intended to compliment the colonial architecture and style required of the structures in this district.

Over time, the town should introduce and permit the phasing in of residential units in the area, including apartments over first floor commercial structures. Such housing should be designed with town residents in mind, to enhance the sense of community and should include senior and affordable housing opportunities.

#### **Box 10-6: Suggested Elements of Mixed Use Village Overlay District**

- Establish stronger design guidelines to further enhance the colonial and small-town style intended for this district.
- Permit economic development uses such as retail, service, and office, but limit the size and bulk of these uses so as to be consistent with village character.
- Allow for 'top of shop' housing at a higher density (perhaps 10 units/acre or more). Use Inclusionary Zoning to ensure that at least 10% of all units are affordable to low and moderate income households.
- Set maximum setbacks (fifteen to thirty feet) to allow parking to be to the rear or side of structures.
- Decrease "as of right" building size (5,000 sq. ft maximum) and height limitations (two stories maximum) and tie anything beyond these limits to the TDR provisions. Through the use of TDR the size limits should be able to increase to at least 25,000 sq ft. and three stories.
- Create more stringent signage provisions.

### **5. Establish Phased Growth Bylaw and Use Time to Implement this Master Plan**

The town had a "phased growth" or Growth Management Bylaw limiting the amount of residential development that could occur within a single year. In 2004, this bylaw was overturned by the Massachusetts Supreme Judicial Court because, among other things, the bylaw did not have a "sunset provision" and because the Court found that the town did not take any action to develop and implement a Master Plan that would work to manage the growth. The town has since adopted a new phased growth bylaw that was approved by the Attorney General. The current bylaw has a sunset provision, meaning that its restrictions will expire in the future.

Through this bylaw, the town now has the time to plan for future growth. The Court very clearly noted Hadley's failure to implement prior long range plans and similar studies and stated that bylaws such as these cannot be used as a substitute for true zoning and planning efforts. Having been burned once, the town must use the time provided by the current Phased Growth Bylaw to implement the recommendations found within this Master Plan. Going forward, if the town fails to enact serious long-term planning and zoning measures, any such failure will again threaten the town's ability to legally enforce its existing zoning and growth management provisions.

Measures such as a phased growth bylaw, building permit limitations and other tools to allow the town to manage the pace of growth should continue to be studied and considered strongly by the town. But the underlying zoning must also be redesigned to insure that the type of build-out allowed under the Zoning Bylaws is consistent with the long term goals and objectives of the town and in keeping with its small-town heritage.

### **6. Strengthen Site Plan Review Bylaw**

Site plan review allows the Planning Board to review site design, lighting, vehicle and pedestrian access, architecture, landscaping, parking, stormwater management and other site features prior to the granting of a permit for the construction of commercial, industrial and multi-family housing developments.

Hadley's current Site Plan Review Bylaw is limited in scope compared to that employed by many other towns and municipalities. Additional review criteria and submittal requirements should be added to strengthen the review process. Further, detailed submittal requirements and review criteria could help to take the "guess work" out of the permitting process and help to foster a fair process.

#### **Box 10-7: Suggested Elements of Site Plan Review**

- Enhanced review procedure with pre-application meetings and site visits.
- Enhanced application materials to include documented design process conducted by a registered Landscape Architect showing site constraints, distinctive features, and neighborhood context. Application materials should also include detailed plan requirements so that the requirements of each sheet of the site plan are clear and orderly. The application should also include detailed impact reports for environmental issues, traffic and fiscal impacts and these reports should detail any proposed mitigation.
- Create “Site Plan Regulations” that are referenced in the Bylaw but are similar to Subdivision Rules and Regulations that may be amended by the Planning Board from time to time.
- Add notification of abutters, paid for by the applicant.
- See **Appendix D** for an example of a comprehensive Site Plan Bylaw in the town of Franklin, MA.

**Responsible Entity**-The Planning Board should revise the Site Plan Review Bylaw. These changes would need to be approved by Town Meeting. The various land use boards should work together with a consultant to create Site Plan Best Development Practices.

### **7. Establish Design Review Committee and Guidelines**

The town has a long and successful, although limited, history with design review. Currently, the Historic Commission performs design review for the Planning Board on an advisory basis and the Board relies on the Commission's opinion for many architectural elements. The Committee believes that a more stringent and comprehensive design review process is appropriate.

The town should establish a Design Review Committee and an accompanying set of Design Review Guidelines to guide the design of all new signs, commercial projects and multi-family projects in the town. **THIS PROCESS WOULD NOT APPLY TO SINGLE FAMILY DWELLINGS.** The Design Review Committee<sup>26</sup> typically reviews the building architecture, building materials, landscape treatments, lighting design and signage of proposed projects with reference to the published Design Review Guidelines. The Design Review Committee then provides a non-binding advisory report to the actual permit granting authority (Planning Board, Zoning Board of Appeals, Building Inspector, etc.). In practice, developers appreciate having a set of pre-published design guidelines to assist in the design of their building and site plan. The Design Review process is a complement to the existing Site Plan review process. Site Plan Approval addresses technical criteria such as conformance with zoning, proper drainage and safe access. Design Review focuses on aesthetic criteria.

The Design Review Guidelines are a written document that identifies what types of building designs, building materials and landscape treatments are preferred in the town. In Hadley's case, preferred designs would probably be consistent with the rural development patterns and historic structures. The Guidelines give developers an up-front idea of what the town is looking for and ensures that the Design Review process is as objective as possible.

<sup>26</sup> A Design Review Committee typically consists of five members appointed by the Board of Selectmen (3 appointees), Planning Board (1 appointee), and Historical Commission (1 appointee). Members of the Design Review Committee should include individuals familiar with design, construction, and real estate, such as architects, landscape architects, lawyers, realtors, and contractors.



### Box 10-8: Suggested Elements of Design Review

- Architectural Standards that address building materials, roof lines, windows, facades and other elements.
- Sign standards that give preference to pedestrian scale monument signs over tall, highway scale internally lit signage. Materials and lighting should also be addressed.
- Landscape standards that address screening and buffering considerations and give preference to native species.

These guidelines could be established through the assistance of a consultant and/or could be created by a citizen task force comprised of land use regulators, business representatives, historical advocates, landscape architects and architects. It is critical that business leaders be involved at the beginning of the process to ensure that the guidelines are fair and reasonable. For an example of Design Review Guidelines, visit the Town of Franklin's website at:

<http://www.franklin.ma.us/auto/town/pacdev/drcguide/default.htm>.



*Standard Dunkin' Donuts design*



*Dunkin' Donuts with Design Review*

**Responsible Entity** – A separate committee, appointed by the Board of Selectmen, should work on the Community Character Statement and the Design Review Guidelines. The Planning Board should work with this Design Review Committee to produce the Design Review Bylaw and finally, the Town Meeting will need to approve the Bylaw.

### 8. Create and Adopt an Open Space Preservation Subdivision Bylaw

One of the most important planning issues in Hadley is the future of the town's remaining large, undeveloped, unprotected tracts of land. In addition, there are numerous smaller tracts of land that are still large enough to be subdivided, but have not yet been developed. One possibility for these parcels is to protect them as open space through an outright purchase or conservation restriction. However, this may not be possible due to cost or other factors. For this reason, the town must have in place a zoning framework to encourage environmentally and aesthetically sensitive development if these lands are developed in the future, while preserving as much of the open space as possible. The need to preserve open space was perhaps the single most consistent theme apparent in the Survey responses provided by town residents, and this is one of many tools and strategies designed to allow the town to better accomplish this goal.



It is the intent of the Master Plan that for any given site there is at least one development option that is more appealing to a developer than a conventional residential subdivision. However, in a rural community such as Hadley, not all areas can accommodate the densities and types of housing that would be permitted under alternative housing strategies. In contrast, an Open Space Subdivision Bylaw may be applied in all residential settings. In this way, the town can ensure that each new residential development provides at least some public benefits—open space, affordable housing, or increased housing diversity—as opposed to a conventional subdivision, which usually provides none.

- **Conventional Subdivision:** In a conventional subdivision, all of the land is taken up with individual house lots and roads. While some natural vegetation is often retained on the site, it is usually so fragmented as to provide little value for habitat, recreation, or the preservation of rural character. In addition, conventional subdivisions do not contribute to housing diversity in Hadley because they only provide one type of housing—single-family detached—and rarely provide any affordable housing.
- **Open Space Subdivision (OSS):** The open space subdivision technique seeks to promote a more efficient use of land by allowing houses to be “clustered” on smaller lots on one or more sections of a tract in order to set aside open space on the remainder of the tract. This technique is a relatively simple way of protecting open space, natural resources, scenic vistas, and rural character as part of new subdivisions. The Metropolitan Area Planning Commission ([www.mapc.org](http://www.mapc.org)) has an excellent document that will help the town get started with an Open Space Subdivision Bylaw: *The Conservation Subdivision Design Project: Booklet for Developing a Local Bylaw*.



*A Conventional Subdivision layout  
Image Credit: Randall Arendt*



*An Open Space Subdivision Layout  
Image Credit: Randall Arendt*

### Box 10-9: Suggested Elements of a Open Space Subdivision Bylaw

The following are some possible elements that Hadley may include in the Open Space Subdivision Bylaw to make it attractive to developers, the town, and more likely to create a desirable outcome:

**Minimum Tract Size:** Do not include a minimum tract size requirement so as to allow the conservation cluster technique to be used on more of the town's vacant sites. If a minimum tract size is preferred, make sure that is it no more than 5 acres.

**Submission Requirement:** As described in **Strategy 2, New Residential Zoning Districts**, an open space preservation design should be mandatory for any subdivision within the Agricultural Preservation District and the Forest Residential District and any other areas determined by the town to be appropriate for heightened open space protection. The developer can also submit a conventional subdivision plan if he or she chooses. This policy means that no more time is required for an applicant to obtain an Open Space Subdivision Special Permit than to undergo ordinary subdivision review. Within the Agriculture Preservation District and the Forest Residential District, and any other areas designated by the town, the Planning Board would retain the ability to chose which development option should be pursued.

**Site Planning Process:** Site planning for all subdivisions should be conducted by a registered landscape architect and should begin with the preparation of an "environmental constraints and opportunities plan" that shows not only regulated areas (e.g., wetlands and flood plains) but also vegetation cover, viewsheds, stone walls, and scenic, unique, or notable site features that might merit preservation. The Planning Board and the applicant should discuss this constraints and opportunities plan and establish general guidelines for site planning prior to the preparation of the preliminary conservation cluster development plan.<sup>27</sup>

**Lot Size:** Do not require minimum lot sizes within the Open Space Subdivision except as driven by waste water concerns and as a device to determine overall site density. (See below for a discussion on waste water concerns) This maximizes the flexibility of the design process, thus allowing the town and the developer to preserve the best land as open space. Frontage and other requirements should also be flexible to allow for the most sensitive design of the development.

**Minimum Open Space Percentage:** At a minimum, 50% of the original site should be permanently protected as open space. This requirement may be less within the Heritage Residential District, but should not be less than 25%. The Planning Board should create detailed open space standards (See **Strategy 43, Open Space Standards**) that describe the types of open space that may be included, how it should be arranged within the site, how it should interact with surrounding lands, and how it should be preserved.

### Wastewater Management Considerations

Within Open Space Subdivisions, there are several different options for the disposal of wastewater. In a single-family development where house lots are at the larger end of the scale (e.g., 20,000 sq. ft. to 80,000 sq. ft. or more), all of the septic systems might be able to be situated within each individual lot. On smaller lots (under 20,000 sq. ft.) or in developments where there are multi-family homes, the individual house lots may not be large enough or have enough adequate soils to accommodate the septic leach field. In this case, there are two options. The first option is to pipe wastewater from several residential structures to one or more shared septic systems, ranging in size from 1,000 to 9,999 gallons per day (2-40 dwelling units), which would drain to a leaching field 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. The second option is to use one septic system per residential structure, but allow the leach field to extend onto the common open

<sup>27</sup> Please refer to Conservation Design for Subdivisions: a Practical Guide to Creating Open Space Networks by Randall G. Arendt.

space if necessary. The system could then be maintained by a homeowners' association and enforced through a deed restriction (for a multi-unit building), or by the individual homeowner (for a single-family house). In this latter case, the homeowner would be granted an easement to use a portion of the common open space for his/her leach field.

Wastewater disposal in decentralized systems up to 15,000 gallons per day (equivalent to about 35-40 single-family homes) is regulated by Title 5 of the State Environmental Code, which is administered locally by the Hadley Board of Health. The Planning Board and Board of Health should be flexible about accepting a wide variety of system types, so long as they comply with Title 5 and will not pose a long-term administrative burden for the town. The Massachusetts Department of Environmental Protection has many resources that may assist the town when researching shared and innovative waste water management proposals. (<http://www.state.ma.us/dep/brp/www/t5pubs.htm>)

**Responsible Entity** – The Planning Board should work with the Conservation Commission and the Board of Health (with respect to wastewater issues) to develop appropriate Open Space Preservation Subdivision language.

## **9. Update the Table of Use Regulations**

Hadley's current Table of Use is outdated and rather generic. No one commercial or industrial use is the same; each type of use presents a different set of issues and impacts. The more generic the Table of Uses, the less capable the town is of appropriately distinguishing between and planning to manage the impacts of these uses. For example, all manufacturing and industrial uses are grouped under one definition and are permitted as of right in the Industrial District. Other uses, such as Health Clubs and Shopping Malls are not described or defined, thus leaving interpretation up to the Zoning Enforcement Agent and the Zoning Board of Appeals. A detailed Table of Use Regulation would take the guess work out of deciding if a particular use is permitted or not and allow the town to manage future growth with more precision. Further, such a table protects the town from uses that may not have been anticipated when the bylaw was originally created.

In this regard, we understand that a recent recommendation from Town Counsel on this issue included the proposed elimination of several use definitions on the basis that such terms were not included in the Table of Uses. We respectfully, but strongly, disagree with this approach. The current bylaw needs more—not fewer—specific use definitions; it must anticipate and address common uses that are not yet present. These uses should be appropriately defined and added to the Table of Uses, where they should be allowed by special permit where appropriate and prohibited elsewhere. The alternative of overly broad and general use definitions—or none at all—only hampers the towns' ability to properly guide and manage future growth and to enforce the intent of the bylaw.

In addition to adding several specific use definitions, the Planning Board should revisit those that are allowed "as of right" to insure that this designation remains appropriate given existing development and growth patterns, or should instead consider requiring that some of these uses be allowed only via special permits. The Committee believes that a greater emphasis should be placed on the use of special permits to insure appropriate review of the impact of new development on the surrounding neighborhoods. Further, they encourage the town to resist the granting of "use variances" in situations where the statutory requirements for the granting of a variance are not met.

In updating the current Table of Use Regulation with new uses that reflect current development practices, this plan will not attempt to list every single use that should be specifically defined and added. However, the following are examples of specific uses that should be defined and added to the Table of Use as either Permitted as of Right, Special Permit Required, or Prohibited:

**CORRECTIONAL FACILITY-** Public or privately owned and operated facilities housing persons serving a sentence after being found guilty in a court of law. This use includes juvenile detention facilities, and temporary detention facilities, but does not include those facilities customarily found within a police station or a court house.

**ELECTRIC POWER PLANT-** A facility that creates electricity by any means, including thermal, steam, wind, solar, wood, trash, coal, oil, nuclear, natural gas with a generating capacity of more than 500 kilowatts.

**HEALTH CLUB-** A building or portion of a building designed and equipped for the conduct of sports, exercise, muscle building, and physical fitness. This use may include indoor and outdoor uses as well as swimming pools.

**INDOOR COMMERCIAL RECREATION, GENERAL-** A commercial recreation use conducted entirely within a building and having minimum external impacts on the surrounding neighborhood. Such uses include assembly halls, auditoriums, exhibit halls, performance theaters, swimming pools, skating rinks, and art centers.

**INDOOR COMMERCIAL RECREATION, CONCENTRATED-** A commercial recreation use conducted entirely within a building with potentially significant, external impacts on the surrounding neighborhood. Such uses include bowling alleys, skating rinks, billiard halls, gymnasiums, racing tracks, and shooting ranges.

**MANUFACTURING, BIOPHARMACEUTICAL-** A laboratory or similar facility that has as its primary purpose the manufacture of products related to the fields of medicine, pharmacology and biology, which may involve radioactive materials, high intensity electromagnetic radiation, recombinant DNA, controlled substances, or involve chemical or biological processes that produce medical, biological, chemical or radioactive wastes that shall be disposed off-site in accordance with all applicable federal and state regulations. Research and development uses accessory to the Biopharmaceutical Manufacturing shall be allowed. Such use may include accessory commercial uses.

**MANUFACTURING AND PROCESSING, LIGHT-** The manufacture, predominantly from previously prepared materials, of finished products or parts, including processing, fabrication, assembly, treatment, storage, packaging, and sales of such products, which activities are conducted solely within an enclosed building. The processing of raw materials is not included in this use. This use is capable of operating with minimal external effects such as noise, odor, smoke, dirt, and vibration.

**MANUFACTURING AND PROCESSING, MEDIUM-** The manufacture, predominantly from raw materials, of products or parts usually for sale to wholesalers or other industrial users. This includes processing, fabrication, assembly, treatment, storage, packaging and sales of such products, which activities are conducted primarily within an enclosed building, but may include temporary outdoor storage of finished or partially finished products. This use produces moderate external effects such as noise, odor, smoke, dirt, and vibration.

**MANUFACTURE AND PROCESSING, HEAVY-** The manufacture or compounding process of raw materials. These activities would necessitate the storage of large volumes of flammable, hazardous, toxic, corrosive, or explosive materials. These activities may include outdoor operations as part of their manufacturing process. This use produces moderate to significant external effects and may pose significant risks due to the nature of the use and materials stored and utilized on site.

**MOVIE HOUSE-** A specialized theatre or no more than two screens or a total of 350 seats for showing movies or motion pictures. Such use may include refreshment stands and accessory retail and restaurant uses.

**OUTDOOR COMMERCIAL RECREATION, LIGHT-** A commercial recreation land use primarily conducted outside of a building, characterized by minimal impact on traffic, the natural environment, and the surrounding neighborhood. Such uses may include botanical gardens, hiking trails, historic sites, picnic areas, and cross country ski areas.

**OUTDOOR COMMERCIAL RECREATION, GENERAL-** A commercial recreation land use primarily conducted outside of a building, characterized by potentially moderate impacts on traffic, the natural environment, and the surrounding neighborhood. Such uses may include athletic fields, paint ball course, miniature golf, pitch and put, skateboard park, tennis club, basketball courts, batting cages, and driving ranges.

**OUTDOOR COMMERCIAL RECREATION, CONCENTRATED-** A commercial recreation land use primarily conducted outside of a building, characterized by potentially significant impacts on traffic, the natural environment, and the surrounding neighborhood. Such uses may include water parks, amphitheater, amusement parks, auto cycle or go-cart tracks, campgrounds, recreation vehicle parks, stadium, horse or dog racing track, shooting range, zoo, automobile race track, outdoor movie theatre, and other like uses.

**PUBLIC RECREATION-** Any recreational facility, not including golf courses, owned and operated by Town of Hadley, the Commonwealth of Massachusetts, or the Federal government, including active recreational facilities (such as soccer fields, tennis courts, community swimming pools and the like) and passive recreational facilities (such as trails, canoe launches and the like), including accessory structures.

**RESEARCH AND DEVELOPMENT-** A laboratory or similar facility that has as its primary purpose research, investigation, experimentation, and testing activities related to the fields of electronics, engineering, geology, physics, or other scientific area, but which does not involve research with radioactive materials, high intensity electromagnetic radiation, recombinant DNA, or controlled substances, or ordinarily involve processes that produce medical, biological, chemical or radioactive wastes. Such use may include accessory commercial uses.

**SOLID WASTE FACILITY-** Establishment for the management and storage of solid waste material, including garbage, sewage, automobiles and parts, rubble, construction debris, and all other kinds of organic and inorganic refuse. Management and storage includes transfer, dumping, incineration, recycling, composting, reduction, burial, or other similar means of management. This use excludes onsite sewage disposal systems used in conjunction with an approved use.

**STORAGE FACILITY-** Any structure that is rented or sold for the purpose of storing goods, materials, or personal property

***Responsible Entity*** – The Planning Board should work with the Town Attorney and agencies like the Pioneer Valley Planning Commission to modernize and update the Table of Uses.

## Housing and Community Strategies

### **10. Adopt Incentive Zoning**

The Zoning Code neither mandates nor provides any incentive for the private sector to produce affordable housing. As a result, the town continues to experience residential growth primarily through the creation of expensive single family subdivisions. This type of development is beginning to impact the town's rural character as well as impact the cost of home ownership within the community.

Therefore, the Town of Hadley should adopt 'Incentive Zoning' for the residential districts. Incentive Zoning would permit single family subdivisions by right at the density provided in each Residential Zoning District; but ONLY if the subdivision utilizes an open space preservation subdivision design process **and** provides ten percent (10%) of the units as affordable to moderate and low-income families. If a subdivision pursued a conventional design and did not provide affordable units, the maximum density would be reduced by 15%. For example, on a 10-acre 100% buildable lot (flat and with no wetlands), using the provisions of incentive zoning described above, one could construct 16 units on 4,500 acres lots on the same 10-acre parcel. Of these 16 units 1 (10%) would be deed restricted as affordable for low and moderate income households. However, if a conventional approach is pursued, only 14 lots would be permitted. Existing conforming lots will not be impacted by this bylaw.

This type of bylaw has been successfully utilized in Ipswich, Massachusetts and effectively provides incentives for smart growth, open space preservation, and the creation of affordable housing. It accomplishes these goals without the appearance of infringing on private property rights. A copy of the bylaw can be found at [http://www.essexcountyforum.org/tools\\_resources/model\\_bylaws\\_regulations.html](http://www.essexcountyforum.org/tools_resources/model_bylaws_regulations.html) or on the town's website.

**Responsible Entity** – The Planning Board and the Long Range Plan Implementation Committee should work together to write an Incentive Zoning Bylaw. The Town Meeting will have to vote the bylaw into law.

### **11. Adopt Inclusionary Zoning for Mixed Use and Multi-Family Residential Developments**

For projects other than subdivisions, such as top of shop housing, and multifamily developments the town should require that at least ten percent (10%) of all units are deed restricted in perpetuity for low and moderate income families. This will be critical to continue to keep pace with the 10% requirement of MGL Ch. 40B. For those developments where the actual construction of affordable units is neither feasible nor desired, the town should allow a payment in lieu of the construction of the affordable units. The payment formula should equal the cost of constructing one unit.

**Responsible Entity** – The Planning Board and the Long Range Plan Implementation Committee should work together to write an Inclusionary Zoning Bylaw. The Town Meeting will have to vote the bylaw into law.

### **12. Create and Adopt a Senior Village Overlay District**

The need for senior housing was very strongly expressed by the Survey respondents. The Committee agrees that the town should proactively address this issue and strongly supports the adoption of a Senior Village Overlay District (as shown in **Figure 10, Land Use Guide Plan**). This Senior Village Overlay District (SVOD) will encourage responsible development of a variety of senior housing communities along with the mandated preservation of open space, creation of affordable housing, protection of historic

and architecturally significant structures and archaeologically significant sites. These Senior Villages will be an alternative to conventional residential development and should be permitted by Special Permit granted by the Planning Board.

As this Master Plan was being finalized, the Planning Board was in the process of designing a Senior Village Overlay bylaw to be presented to the town. It is our understanding of the Planning Board's current thinking as to the concept of such a bylaw, that their recommendation would be to create an overlay district in one location (along Route 9) and to require, among other things, significant open space preservation requirements, a minimum percentage of affordable units in each development and a cap on the number of senior housing units as a percentage of the total housing units in town.

The Committee strongly supports the Planning Board's proposal to create a Senior Village Overlay District. We further support the idea that the town should proceed with appropriate deliberation, in order to insure that the concept works in reality the way it is intended to work in theory. However, over the course of the master planning period, the Committee would urge the town to expand the permitted physical location of the Senior Housing Overlay District beyond that initially contemplated by the Planning Board. While many seniors report that they would enjoy living along Route 9 given the proximity to stores, bus stops and other conveniences, many others would prefer other locations. Assuming that the concept proves workable, the Committee recommends that the town consider a number of alternative locations, including the possibility of the entire town constituting the overlay district.

As detailed below, any senior housing overlay bylaw should include (i) provisions allowing for a variety of types of housing options, including assisted living facilities; (ii) mechanisms to allow the town to regulate the rate of growth of this type of development so that it is properly paced and does not result in a disproportionate number of senior housing units over time; (iii) stringent open space requirements; (iv) a minimum level of affordable units designed to allow the town to keep pace with its Chapter 40B requirements (we suggest at least a 15% requirement), with incentives for additional affordable units; and, (v) provisions granting the Planning Board sufficient leverage to require that such developments are designed and constructed in accordance with the intent of the bylaw.

While this strategy is primarily aimed at increasing the availability of quality housing options for our town's seniors, it is secondarily an open space preservation tool. As currently envisioned by the Planning Board, a permitted senior housing project must be located in an area where town sewer is present. While that may be a prudent way to begin, the Senior Village Overlay District (and other cluster development and open space preservation strategies) **MUST** eventually be available for use, and in fact actively encouraged, in areas where sewer is not located. The vast majority of undeveloped open space and other sensitive areas of town that are most in need of protection are, almost by definition, areas where sewer does not exist. As such, if the town is going to successfully protect its open space in the future, land use tools which require such protection while also providing attractive options for land owners and developers must be utilized in these sensitive areas. Of course, stringent requirements as to the private septic systems and wastewater disposal must be established and strictly enforced. This approach has been adopted in many towns across the Commonwealth and should be adopted in Hadley as well. The town of Franklin, Massachusetts adopted a Senior Village District and their bylaw can be obtained by contacting the Planning & Community Development Department at (508) 520-4907.

**Responsible Entity** – The Planning Board and the Long Range Plan Implementation Committee should work together to write a SVOD. The Town Meeting will have to vote the bylaw into law.

#### **Box 10-10: Suggested Elements of a Senior Village Overlay District**

**Minimum Tract Size:** Age restricted housing must have a minimum tract size of five (5) acres per state law.

**Range of housing and development types:** The SVOD should accommodate a range of housing types including traditional detached homes, attached or townhouse single family homes, condominium style, and congregate living facilities such as assisted living. The bylaw should also accommodate the reuse of existing structures and should build in incentives for historic and architectural preservation.

**Site Planning Process:** One of the main goals of this bylaw is to preserve valuable open space. Therefore, site planning should be conducted by a registered landscape architect and should begin with the preparation of an “environmental constraints and opportunities plan” that shows not only regulated areas (e.g., wetlands and flood plains) but also vegetation cover, view sheds, stone walls and scenic, unique or notable site features that might merit preservation.

**Minimum Open Space Percentage:** At a minimum, 50% of the original site should be permanently protected as open space. This requirement may be less if the underlying district is the Business District or the Heritage Residential District. The bylaw should allow for the possibility of trading additional density for more open space either on site or provided as part of the Transfer of Development Rights Bylaw.

**Affordable Housing:** The SVOD should mandate that at least fifteen percent (15%) of the total units shall be deed restricted in perpetuity as affordable to low and moderate income seniors. The bylaw should allow for the possibility of trading additional density for more affordable units.

**Site Design:** The bylaw should have explicit and detailed site design guidelines that address site layout, street design, lighting, landscaping, parking lot configuration, etc. As the SVOD permits additional density, it is critical that each development be unique and built to the highest standards.

**Cutoff:** To ensure that Hadley is not overwhelmed with senior housing developments, the SVOD should have a cutoff where it would not be applicable when senior housing makes up more than twenty percent (20%) of the total residential units within the community.

**Special Permit:** All projects are to be allowed only via special permit and the Planning Board should be encouraged to apply a high standard in deciding whether to grant such special permits.

### **13. Permit Apartments above Retail in Mixed Use Village Districts**

The Village Core District and the Mixed Use Village Overlay District (See **Strategy 3, Village Core Zoning** and **Strategy 4, Mixed Use Overlay District**) are designed to create a more traditional town center form of development with pedestrian friendly design and mixed use. To achieve the mixed use component of the Districts and as a long term goal for the community, the town should permit residential units above first floor commercial uses by Special Permit. Small-scale mixed-use structures will not only provide housing opportunities for many Hadley residents, but will also contribute to the vitality and economic health of the village areas.

The bylaw is recommended to allow for minor increases in density (by using the Transfer of Development Bylaw and perhaps maxing out at 10 units/acre) providing wastewater management is adequately addressed. Further, for projects over 5 units in size, the town should stipulate that at least fifteen percent 15% of the units be affordable in perpetuity as described within the Inclusionary Housing strategy. This is a long term goal and the town should work to address issues such as student housing concerns.



**Responsible Entity** – The Planning Board and the Long Range Plan Implementation Committee should work together to write mixed use provisions into a Mixed Use Village Overlay District and Village Core District. The Town Meeting will have to vote the bylaw into law.

#### **14. Update Subdivision Rules and Regulations**

The current Planning Board Subdivision Rules and Regulations are based on sound engineering principles, but are not necessarily based on the town's vision and goals related to street design, land use development patterns, subdivision design, and stormwater management. For example, the subdivision rules and regulations mandate a one hundred foot wide paved cul-de-sac. This requirement is inconsistent with a community that wants to retain rural character and preserve trees and open space.

The Planning Board, with assistance from a planning consultant should conduct a review of the rules and regulations. The revisions to the Subdivision Rules and Regulations should include:

##### **Box 10-11: Suggested Elements of Subdivision Rules and Regulations**

- Erosion and stormwater best management practices (See **Strategy 36, Stormwater Management**).
- Progressive street design with traffic calming. These should also include specific design standards for different types of streets. For example, streets within the Heritage Residential District should be permitted to be slightly more 'formal' with perhaps a central green running through the middle of the street, or sidewalks set back further from the street similar to Middle Street, and more street trees. (See **Strategy 48, Traffic Calming** and **Strategy 47, Street Design**)
- Additional landscaping requirements such as only permitting indigenous species, drought tolerant plantings, minimizing lawn (to reduce irrigation and water use) and using landscaping for stormwater management. (See **Strategy 36, Stormwater Management**)
- Alternative surface materials for sidewalks, crosswalks, and shoulders complete with revised construction standards. These materials are especially applicable within the Heritage Residential District.
- Pedestrian connections to other neighborhoods, schools, main streets, and commercial areas.
- Additional submittal requirements detailing the design process as conducted by a Landscape Architect as opposed to an Engineer. Please refer to the book, Conservation Design for Subdivisions by Randall Arendt for more on the design process.
- Deed restriction requirements that address long term maintenance requirements.
- Special requirements for agriculture land access.
- Tree preservation techniques and standards.

**Responsible Entity** – The Planning Board. No Town Meeting vote is necessary.

## 15. Town Center Improvement Plan



*Buildings such as this emphasize the unique character of Hadley's Town Center.*

Hadley's town center currently lacks a unified system of sidewalks, lighting, shade trees, and other amenities. The major intersection is vehicle friendly, but certainly not pedestrian friendly, thus hampering pedestrian movement throughout the center and beyond. The amenities of the town center, including the library, town hall, senior center, monuments, schools and businesses, present a unique opportunity to strengthen the sense of place and enhance the civic center.

The biggest obstacle to the creation of the type of town center envisioned is the presence of Route 9 and the pending expansion project planned by Mass Highway. As stated elsewhere, it is absolutely imperative that the town use all means available to seek to influence the Route 9 project so that

Hadley's interests take priority. It is also important to note that the town center concept could be expanded north and south of Route 9 and does not need to be limited only to areas immediately adjacent to Route 9.

The town is in the process of forming a Town Center Committee, which this Committee strongly supports. The Town Center Committee will begin the process of redesigning the town center, help locate funds and other mechanisms to complete the work, work closely with Mass Highway to ensure that the state plans do not contradict the town's goals and oversee the completion of the work over time. This type of project will take years to complete, but is possible through cooperation between the town, local businesses, the Commonwealth, Mass Highway and other agencies and groups.

The following projects and elements should be included in a Town Center Improvement Plan:

### **Box 10-12: Suggested Elements of a Town Center Improvement Plan**

- Construct shared access and parking facilities for municipal uses. Instead of each building having its own parking, allow for shared parking to maximize green space and minimize pavement. Further, parking lots should be buffered from the public way by trees, low shrubbery, and tasteful fences or walls.
- Encourage pocket parks or other green spaces.
- Paint the Town Hall and ensure that other municipal structures are well maintained over time.
- Work with other groups on the reuse of the Russell School building and St. John's Church (which the town should attempt to purchase). The school could be used for municipal office space, a community center and meeting space or other use. The Church could be purchased by the town to serve as an extension of the existing library. This would create a larger, more vital library with expanded meeting space that could be used for adult education and other uses. It may also provide space for expanded town archives.
- Work aggressively with Mass Highway to ensure that their plans for the redesign of Route 9 and the major intersections within the town center are consistent with the town's goals and sensitive to the rural and historic nature of the center. This element is critical to the successful future of the town center and needs to be addressed immediately.
- Use uniform signage themes. Consistent signage themes that employ external illumination,

monument style signage, carved wood elements, etc should be utilized for all municipal structures and parks in the vicinity and private signage should compliment this uniform theme as well. The signage scheme for commercial activity in this area should be consistent with the municipal signage aesthetics and unique to the town center area.

- Improve pedestrian paths, crosswalks, and amenities. Sidewalks, paths and pedestrian amenities such as benches and pedestrian refuges should be integrated into the redesign of the area. In addition, wheelchair ramps and other design elements should be included to comply with ADA requirements.
- Create a child friendly area that will facilitate the safety of children walking from school to the library and surrounding neighborhoods. Crosswalks, walk signals, pedestrian crossing signage, lit crosswalks, pedestrian lighting, and other techniques should be explored to make this intersection safer for children who will be walking from school to the library.
- Install amenities such as benches, street trees, trash receptacles, and decorative lights. These amenities should have a consistent theme through out the area. Street trees and flowering trees should be installed along all road sides, parks, plazas, and parking lots.
- Link the town center to any existing or planned pedestrian networks.

**Responsible Entity** – The Board of Selectmen should oversee this process with guidance from the Town Center Committee.

#### **16. Strengthen Historic and Cultural Role of the Town Common**

The Town Common is a significant cultural and historic component of the town’s character. To ensure these significant characteristics carry into the future, the town should support the Town Common Committee in revitalizing the Town Common with programming and aesthetic upkeep. Events on the Town Common will be a significant community builder (see **Strategy 17, Enhance Community**) and restore interest in this valuable resource. In addition, landscaping and continued aesthetic improvements will increase the value of the property for residents and visitors alike. The Town Common Committee will be integral in guaranteeing that any transportation changes to Route 9 or other nearby roads are respectful of the historic character of the Town Common. Similarly, any improvements undertaken by the Committee or other town agency should also mind the value of this site. In fact, substantial modification to the Town Common should be tied to the improvement efforts of the Route 9 corridor, perhaps as public benefit or mitigation.

**Responsible Entity** – The Board of Selectmen with assistance from the Historical Commission and the Town Common Committee

#### **17. Enhance Community**

As discussed in **Strategy 16, Strengthen Town Common**, community events are a significant contributor to local morale and can deepen residents’ commitment to the town and boost revenue by drawing visitors. Thus, the Town Common Committee, the Town Center Committee and other volunteer boards and groups should hold more events to draw the community together. These could be fairs, concerts, agricultural competitions or markets.

In addition to holding more community-wide events, the town should also increase efforts to improve the communication between town boards and the residents. There are a variety of potential tools on which to focus. The town should actually seek to promote and increase awareness of the Hadley’s internet website and should increase its use as a communication vehicle, with report postings, meeting schedules and

reports from various boards and committees. Similarly, the town should consider devoting additional resources to Channel 5 and Local Access Cable in general. The current scope and effectiveness of Channel 5 is remarkable given the relatively meager resources devoted to it. But its operation is extremely dependent upon one individual. The town should seek additional resources—financial and non-financial—from local businesses, volunteers, and students. In addition, negotiation concerning the town's cable television contract should include demands that the cable company contribute more generously to the effort. Other possible communications vehicles, such as town newsletters or articles and reports for inclusion in existing media (Chalk Talk, etc.) should also be explored.

Although the town will need to recruit volunteers to initiate many of these efforts, the result of these community building efforts will likely bring new volunteers and new supporters of town efforts.

**Responsible Entity** – The Town Common Committee, Town Center Committee, Council on Aging, Historical Commission or Parks and Recreation may be involved in events on the Town Common or in the Town Center. Community Television shall oversee the study of Local Access Cable. The Board of Selectmen or Long Term Planning Committee may appoint a volunteer to oversee the strategy in general.

### **18. Carefully Permit Accessory Apartments**

Hadley should permit attached accessory apartments within the Residential Districts, subject to appropriate conditions and safeguards. Although the community recognizes the positive attributes of accessory apartments, there is concern that this provision could potentially provide housing for college students instead of providing housing for family members and Hadley residents. While the town would like to more readily permit accessory apartments, it wants to do so in a manner that ensures that such apartments are used only for the intended purposes.



*How an Accessory Apartment can blend with existing neighborhood.*

The town should amend the Zoning Bylaw to allow Accessory Apartments **only by Special Permit** granted by the Planning Board. Further, the definition of accessory apartment should include converted freestanding structures as well as attached apartments. Free standing structures such as garages, barns, and cottages could easily blend into the existing landscape and character of Hadley's Residential Districts.

Other regulations such as parking requirements, and design review are suggested to be added to the review process as well. Further, the town may wish to allow a streamlined approval process for those accessory units that provide a deed restriction that would stipulate the unit's affordability in perpetuity. The town should also require an annual license renewal for the accessory apartment that is administered by an agent of the Planning Board to ensure the conditions and requirements of the permit are still being met. By allowing more review of accessory residential structures, the town hopes to permit appropriate accessory units that provide housing for those in need.

#### **Box 10-13: Suggested Elements of an Accessory Apartment Bylaw**

- Allowed by special permit only; permit should lapse unless renewed by Planning Board
- Owner-occupied only; the owner must occupy one of the dwelling units in structure or on lot (if a detached accessory unit)
- No more than one accessory apartment per principle dwelling.
- Initiate size limitations to ensure the unit remains accessory to the principal dwelling. A 600 sq. ft maximum would be reasonable.
- Not more than two residents allowed in an accessory apartment without Planning Board approval and accessory units must be the year-round primary residence of such residents.
- Deed restrictions to ensure that the accessory unit may not be sublet.
- Subject to Design Review Guidelines (See **Strategy 7, Design Review Guidelines**)

**Responsible Entity** – The Planning Board should tighten accessory apartment regulations. The Town Meeting will have to vote the bylaw into law.

#### **19. Create an Affordable Housing Trust Fund**

Affordable Housing Trust Funds are public funds established by legislation, ordinance or resolution to receive specific revenues that can only be spent on housing. Trust funds provide a flexible vehicle through which resources may be committed to the production and/or preservation of affordable housing. Dedicated, predictable and ongoing sources of revenue, such as linkage payments, specific taxes (hotel tax), fees, inclusionary housing mandates and loan repayments are desirable, however even one time donations proceeds from the sale of property, or negotiated contributions may be used to build the funds revenue. Once the Affordable Housing Trust Fund is established, the town should establish a program to accept donations from local companies to supplement the other funding mechanisms such as the payment in lieu provisions recommended in the bylaws contained within this Plan.

**Responsible Entity** – The Board of Selectmen should create an Affordable Housing Trust Fund and submit the necessary state special legislation.

#### **20. Study Opportunities for Adaptive Reuse**

In the future, Hadley may have municipal structures or other structures such as the Russell School building and St. John's Church that become abandoned, underutilized or functionally obsolete.

The Town of Hadley should study the potential for reusing these structures as the need arises. Reusing these properties as housing is a strategy that enables the community to accommodate growth in established locations instead of on green space and at the same time preserve or restore the architectural fabric of the community.

**Responsible Entity** – The Housing Partnership should study opportunities for adaptive reuse. Their recommendations could be passed onto the Board of Selectmen and the Housing Authority for further action.

## **21. Study Town Property and Tax Title Property**

There may be town-owned property that could accommodate some affordable housing. Future tax title property may also provide the community with opportunities to construct affordable housing for its residents.

The town should study municipal land holdings to determine if any are appropriate for affordable housing. The town has conducted preliminary analysis and has not identified any specific properties at this time. In the future, whenever the community analyzes property for future municipal uses, affordable housing potential should be taken into consideration. If any parcel is determined to have potential, land planners or other consultants could be hired to conduct a more rigorous analysis of the property. If a property is deemed appropriate for the construction of affordable housing, the town could work with a nonprofit developer and target the disposition of the property for the specific purpose of creating affordable housing. The town will retain control over the review process and will structure the deed in such a way as to protect the community and public interest.

The town will analyze future tax title properties as to their potential for affordable housing. Tax title properties are land and/or buildings that are in the process of being taken by the municipality because the owner has failed to pay property taxes.

**Responsible Entity** – The Housing Partnership should study opportunities for housing on town owned property and tax title property.

## **22. Cautiously Consider Comprehensive Permits where Appropriate**

Although Hadley currently has over ten percent (10%) of its housing stock as low and moderate income housing, nonprofit developers and others may still apply for ‘friendly 40Bs’ (Comprehensive Permits). To ensure compliance with Hadley’s Master Plan and Zoning Bylaws, it is imperative that the town maintain a low and moderate income housing inventory that meets or exceeds the Commonwealth’s 10% standard. True friendly 40Bs have the backing of the Board of Selectman and should go before the Planning Board and the Conservation Commission and the Board of Health before going to the Zoning Board of Appeals. However, friendly 40B’s are not as of right and should be approved only when they provide a clear benefit to Hadley. The town should proactively pursue friendly 40B’s if they are consistent with the Master Plan; in this situation, the town should work with each Comprehensive Permit applicant to ensure continued consistency with this Master Plan and the rules and regulations and bylaws of the town throughout the development process. If the proposal is not consistent, the town should utilize its right to deny the project.

**Responsible Entity** – All Boards and Commissions should assist the Zoning Board of Appeals with Comprehensive Permits.

## Economic Development Strategies

### **23. Establish Retail and Business Size Limitations**

For the bonus or incentive strategies (such as **Strategy 1, Strengthen Transfer of Development Rights** and **Strategy 8, Open Space Preservation Bylaw**) suggested elsewhere in Chapter 10 to work effectively, the underlying “base zoning” must first be changed to provide an incentive to developers to propose projects with some public benefit and/or that comply with the town’s stated goals. Therefore, retail and business uses that have a footprint between 5,000 square feet and 25,000 square feet should be regulated through a special permit process due to their potential impact on the community. Uses with a footprint over 25,000 square feet, or a total floor area over 50,000 square feet, should be prohibited in every zoning district under the “base zoning”. However, the Transfer of Development provisions in conjunction with the Economic Enhancement Overlay District (see **Strategy 24**) would offer an opportunity to exceed these restrictions. This would ensure that large scale development is of a design and scale that matches the goals of the people of Hadley and provides a significant improvement over conventional commercial development patterns.

Retail and business size limitations are also necessary to address the clear concern of many town residents regarding the continued and unchecked growth of “big box” retail development in Hadley. There was strong support in the town-wide survey (and throughout the master planning process) for limiting the future growth of large-scale retail projects. The size limitations recommended above are intended to prohibit such developments from being constructed as of right. In addition, while the TDR program will allow these size limitations to be exceeded under the appropriate circumstances and with the appropriate benefits to the town, the TDR program must be designed with an overall cap on allowable building size designed to reflect the town’s desire to limit further “big box” development. It is the Committee’s view that such projects, if allowed at all, should face a very high hurdle given the impacts on the town.

#### **Box 10-14: Suggested Definitions for Shopping Center and Office Park**

**SHOPPING CENTER** -- A single retail establishment with a building footprint of 25,000 square feet or greater, or a group of contiguous or adjacent stores, shops and similar commercial establishments, with a total footprint of 40,000 square feet or greater, planned as a total entity with customer and employee parking provided on-site.

**OFFICE PARK**-- A single office building with a building footprint of 25,000 square feet or greater, or a group of contiguous or adjacent office buildings, with a total footprint of 40,000 square feet or greater, planned as a total entity with supporting ancillary uses and employee parking provided on-site. Office Parks include, but are not limited to, medical or dental, professional, clerical, and administrative offices. Retail and service uses, but excluding VSEs, (see **Strategy 28**) that are permitted within the underlying zoning district, may be incorporated into the office park as an accessory use. These accessory uses may include, but are not necessarily limited to, restaurants, coffee shops, barber shops, dry cleaners, and banks.

*Responsible Entity* – The Planning Board

### **24. Create Economic Enhancement Overlay District for Route 9 Redevelopment**

The Route 9 Business District is the town’s primary economic development area with large concentrations of commercial and retail uses; however, it also contains the historic town center, houses several municipal structures and serves as the principal gateway to the community. Over time, the



existing buildings have been redeveloped as market conditions shift and older uses become obsolete. This trend will continue into the future and the town wants to be prepared for this inevitable redevelopment. As this Plan is being finalized, at least two new large retail developments are in the process of being developed along Route 9, and several large residential subdivisions have been proposed. Hadley residents would like to manage and control future commercial development and limit such development to the established commercial areas along Route 9.

The town should establish an Economic Enhancement Overlay District (EEOD) to accommodate and provide guidance for the redevelopment of the Route 9 Business area (as shown in **Figure 10, Land Use Guide Plan**). This overlay district would provide property owners and developers the option to build at a higher density in exchange for public open space. The EEOD will carry strict commercial and residential use design standards to ensure quality development meeting the needs of the community and the priorities of this Master Plan. Managing future development through existing and enhanced permitting structures such as Site Plan Review, Design Review and an EEOD specifically for the Business District will strengthen the town's ability to allow new commercial development, yet guide it in a manner consistent with local goals and values. A suggested plan for the Route 9 Commercial District is shown below in the before and after photographs. Notice the balance between development and landscaping, the reduction in paved surfaces, and the small scale of buildings.



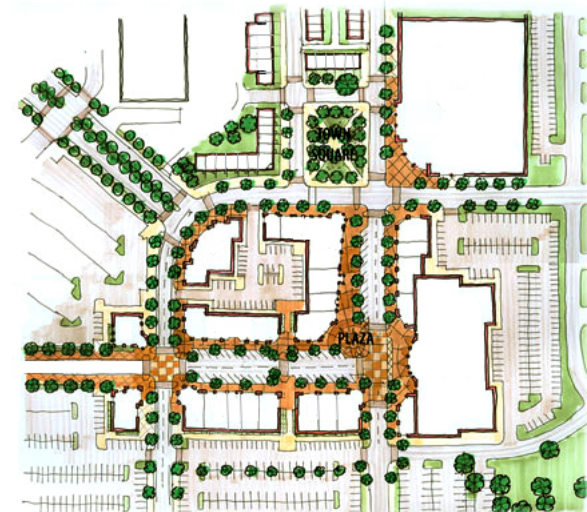
*Route 9 Commercial Area – Before*



*Route 9 Commercial Area – After (Suggested)*



*"Big Box" development (photos on left) will be discouraged. New commercial areas can improve on existing by allowing additional height, structured parking and design review to better integrate with neighborhoods (see right photos).*





#### **Box 10-15: Suggested Elements of the Economic Enhancement Overlay District**

**Transfer of Development Rights:** The TDR provisions are the engine that would drive the redevelopment of this district. The development rights purchased from the open farm land and forest could be used to increase the square footage of buildings otherwise limited by the restrictions in **Strategy 23, Retail and Business Size Limitations**. They could also be used to permit residential units above the commercial spaces to create housing diversity, and create a neighborhood where there is currently only asphalt.

**Scale:** The EEOD should mandate the creation of smaller scale structures with varied store fronts and facades. New England Main Streets are not dominated by large, plain facades and the smaller scale structures would help to create a more pedestrian friendly environment. However, the redevelopment of the large scale structures should be accommodated by permitting the larger structures to have the appearance of smaller scale through the use of design techniques. Further, structures should be permitted (through the use of TDR) to add a story or two in the center of the redevelopment area. This added height could be used for office space or residential units and would help to create a core main street within the redevelopment area. The redevelopment area is NOT intended to permit new large scale, big box retail, but it would permit for the consistent conversion of an existing big box with additional stories and varied façade.

**Open Space:** At a minimum, 15% of the original site should be permanently protected as open space. The open space should be set aside as town greens or other formal open areas where shoppers and residents could gather and eat lunch. The open space should be planned to work with the overall site as demonstrated by the Common in the picture of the redevelopment above. Other open space could include agricultural areas or valuable habitat.

**Site Design:** The bylaw should have explicit and detailed site design guidelines that address site layout, street design, lighting, landscaping, parking lot configuration, etc. As the EEOD permits additional density, it is critical that each development be unique and built to the highest standards. It is the intent of the redevelopment area to create a new, dense, economic development area that is pedestrian friendly, with a more town center design framework, and with varied uses including residential and smaller scale commercial uses.

**Responsible Entity** – The Planning Board and Long Range Plan Implementation Committee should develop the Bylaw with assistance from a planning consultant or the Town Planner; Town Meeting vote would be required.

#### **25. Rezone Route 47 (South of Route 9) From Business to Limited Business**

Throughout the Master Plan process, the stretch of Route 47 lying south of Route 9 (Lawrence Plain Road, Hockanum Road, etc.) was a heavily discussed topic. Clearly of special significance to the town and a portion of which was designated a Scenic Byway, this area is overwhelmingly residential in nature and contains large open spaces, spectacular views of the mountain range, and forestland. Currently, this area is inappropriately zoned as a Business District; the same designation given to Route 9. Eighty two and one half (82.5%) of survey respondents either opposed or strongly opposed further commercial development here, providing strong support for this strategy. Because of this response, the town should at least consider whether to reclassify this area as residential. However, the Committee recommends that the southern portion of Route 47 be zoned “Limited Business,” as explained below.

Given its largely residential nature and the many unique characteristics, the Committee understands that this section of town merits heightened protection. However, many residents made a compelling argument that there needs to be some area in town other than Route 9 where small businesses and trades are allowed

to conduct business. Crucial to this argument is the recognition that high land prices on Route 9 effectively prohibit small business owners or tradesmen from acquiring land or leasing space. According to residents, the Route 47 area is an appropriate location for this type of business because such uses have historically existed there and continue to do so today.

Currently, the Limited Business District (including the northern portion of Route 47) is intended to serve the purpose of facilitating the operation of small businesses and trades. This type of business is an important part of Hadley's character and should continue to be encouraged. Due to a lack of more suitable areas for small business in town, the Committee recommends that the southern portion of Route 47 be rezoned and included in the Limited Business District. If the town were to find an alternate area(s) of town more appropriate and economically feasible for the small business, then the town should consider rezoning southern Route 47 for residential and agricultural use only.

This recommendation is clearly a compromise between those who would go further and those who oppose any rezoning at all. The Committee believes this to be an appropriate compromise, but only in conjunction with the strengthening of the protections built into the Limited Business District (see **Strategy 26** below). As the vast majority of land in the Limited Business District is and will continue to be residential and agricultural in nature, it is critical that any limited business uses in these areas be subject to stringent provisions as to screening, buffers, landscaping, design, parking, noise and other aesthetic issues in order to minimize the impact on the surrounding neighborhood and that these provisions be strictly enforced.

**Responsible Entity** – The Planning Board should work with a consultant or the Town Planner.

## **26. Enhance Limited Business Special Regulations**

The existing Limited Business District currently allows for the creation of Special Regulations to guide the granting of special permits. The Planning Board should take advantage of this and create regulations that would preserve and enhance the rural character of the neighborhoods where the Limited Business District is located. These regulations should reference the Design Review Guidelines as described in **Strategy 7, Design Review Guidelines** but should take those guidelines further to support the following principles:

### **Box 10-16: Suggested Elements of the Limited Business Special Regulations**

**Pedestrian Orientation:** Although most people will still drive to these locations, once there they should be free and safe to walk from their car to the stores. Sites should have a strong pedestrian orientation with connections to other sites and any surrounding neighborhoods.

**Parking Lots:** Small, well designed parking lots that are to the rear or side of structures.

**Landscaping and street trees:** Heavy landscaping with plenty of native trees and plantings should be encouraged. Landscaping should be used for screening, stormwater management, and buffers. Screening and buffer requirements should be significant in order to mitigate impact on surrounding neighborhoods.

**Building materials and architecture:** Given that much of this district is very close to residential neighborhoods and is within a rural setting, the design and character of the buildings is very important.

**Front and Side Yards:** Special attention should be given to front and side yard setbacks and the use of such areas for storage of machinery, parts, etc. should be carefully considered.

**Signage:** Signage must be appropriate in size, scale and design to the special nature of the Limited

Business District.

**Conditional Licenses:** Where possible, licenses granted to businesses in this district should be expressly conditioned on the ongoing compliance with all applicable special regulations. Enforcement of all conditions should be a priority.

In addition, the Planning Board should review the types of business uses currently allowed in the Limited Business District and ensure that the list remains appropriate and consistent with the intent of the District and the nature and character of the relevant portions of town. The Planning Board should further consider any other regulations relating to the size of the permitted business activity (number of employees), size of permitted buildings, hours of operation and the like that may be necessary to ensure that the District is truly benefiting the small, local business owner and not a larger and more intensive business user.

**Responsible Entity** – The Planning Board should work with a consultant or the Town Planner.

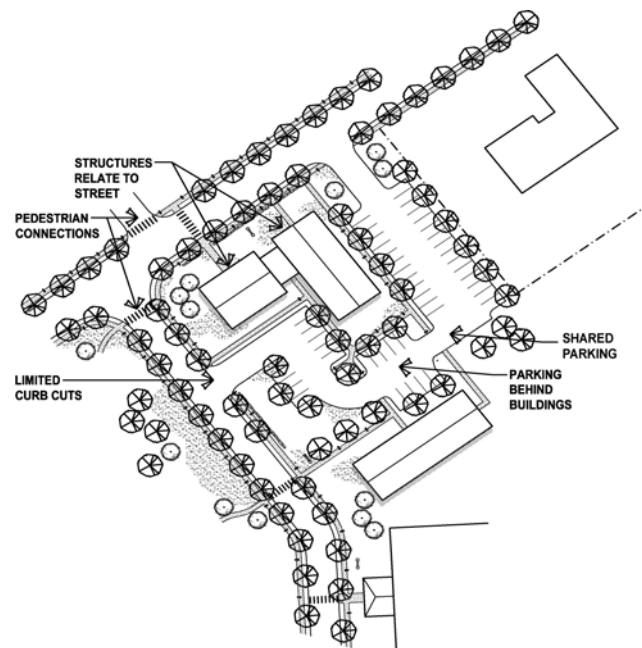
## **27. Establish Business District Yard Setbacks and Other Requirements**

With new commercial development, the front yard is usually used for parking, which isolates the building from the public realm and creates an unbroken mass of asphalt next to the street. This is the case with many existing Hadley businesses. On the other hand, buildings located close to the road with parking to the side or rear yard can help to define the street line and create a sense of pedestrian scale. Other design issues such as too many curb cuts, lack of pedestrian amenities, and parcel specific parking further isolate new commercial structures from the public realm.

In Hadley's Village Overlay and Village Core zoning districts, the town should establish a 15 foot minimum front yard setback and a 30-foot maximum setback to encourage development that faces the public way. The town should also prohibit parking in the front setback areas. This prohibition partnered with the setback requirements would effectively require the placement of new parking lots to the side or rear of buildings. To encourage pedestrian activities within these village areas, outdoor seating and patios could be allowed within the front yard.

In addition, new development within the Village Overlay and Village Core should be required to include pedestrian connections and amenities such as raised crosswalks, sidewalks, and logical pedestrian walkways. Curb cuts should be minimal and parking should be planned in conjunction with abutting properties. Shared parking relationships should be contained within the deed and such restrictions should be enforced as part of the site plan approval process.

**Responsible Entity** – The Planning Board



*Suggested Parcel Development Plan for Commercial Development in 'Village' Districts*

## **28. Create a Vehicle Service Establishment (Drive-Through) Use**

Vehicle Service Establishments (VSE) can include drive-through establishments, car washes, gas stations, or any other use that services and caters to vehicles. These uses have tremendous traffic and visual impacts and should require a Special Permit and/or be prohibited in certain areas where excessive vehicle traffic is undesirable. Hadley does not currently have a specific definition of these types of uses, and the town is therefore not well-equipped to manage their growth. Accordingly, these uses should be defined, as detailed below, added to the Table of Use Regulation (see **Strategy 9**), and, with few exceptions, prohibited outright in every Zoning District.

It should be noted that it is not the Plan's intent to alter existing VSE uses, which would be grandfathered under applicable zoning law, but only to regulate future growth of these uses. The criteria for review should be stringent as the potential impact from drive-through can be significant. In general, VSEs should be prohibited within the Village Core District, Limited Business District, and the Mixed Use Village Overlay District, but should be permitted by Special Permit in the Business District. Automatic teller machines (ATM's) and bank drive-throughs should be defined separately and permitted by Special Permit within all commercial and village districts. Gas stations and car washes are of special concern, as they are the most intensive uses in this category; these uses should be limited only to the easternmost portion of Route 9. Car sales lots should likewise be limited to the Business District. On the other hand, small automobile repair and service establishments, if operated in accordance with stringent size, design, screening and other such conditions, may be appropriate for use within the Limited Business and Mixed Use Village Overlay District, but only by special permit. Such special permits should be granted only when there is no impact on the surrounding neighborhood, as the town-wide survey clearly indicated, the prevailing sentiment is that there is no need or desire for further growth of the number of vehicle-related uses.

### **Box 10-17: Suggested VSE Definition**

VEHICULAR SERVICE ESTABLISHMENT (VSE) -- A commercial or business establishment where patrons are provided goods and/or services while in or near their motor vehicle. "VSE" includes eating and drinking establishments where food is purchased on the premises from a drive-through or drive-up window, but is not regularly consumed within the building. The term also includes establishments where patrons receive goods and/or services from drive-through or drive-up establishments, including, but not limited to: dry-cleaners, drive-through automotive facilities, car washes, gasoline/refueling operations and substantially similar establishments.

**Responsible Entity** – The Planning Board

## **29. Amend Current Industrial Zoning to Light Industrial/Office Zoning District**

Hadley's Industrial District permits such uses as heavy manufacturing, warehouses, distribution facilities, junk yards, and construction equipment sales. These types of uses can have serious negative impacts while generating little tax revenue.

The town should amend the existing Industrial Districts to a Light Industrial/Office Zoning District that would seek to prohibit intense uses with limited tax benefit including distribution facilities, and warehouses. Uses such as Office Parks, Hotels, Conference Centers, light manufacturing, and Research and Development should be permitted, but the town may wish to use Special Permits for those uses that may have a significant impact on the community including those over 40,000 sq. ft.

*Responsible Entity* – The Planning Board

### **30. Sign Regulations**

The Town should continue to work on producing a comprehensive sign bylaw and should include signs within the Design Guidelines. Although a specific sign bylaw is beyond the scope of this Master Plan, more stringent signage regulations are necessary in order to achieve more consistency in size and design features. Existing signage along Route 9, and elsewhere in town, significantly detracts from many of the goals and objectives outlined elsewhere in this Plan. Certain districts and areas, such as the Village Core, Town Center, and Mixed Use Village Overlay District, should have area-specific signage requirements and design guidelines that are consistent with the intent of the respective district.

In addressing these issues, the town should solicit input from the local business community; any new signage regulations should recognize and give appropriate weight to the legitimate and reasonable concerns of business owners. Finally, a reported lack of consistency in applying and enforcing sign regulations from business to business is a significant concern. In this regard, steps must be taken to (i) increase enforcement of any violations in this area and (ii) insure that all relevant town boards reach consensus as to the proper application of the sign regulations and the circumstances, which should be quite limited, in which variances from the strict application of the regulations are appropriate.

*Responsible Entity* – The Planning Board and Design Review Committee

### **31. Create an Agriculture Commission**

The town used to have an active Agriculture Commission, but it has not been active in some time. The town should work to rebuild the Agriculture Commission. Town agricultural commissions are appointed committees that encourage the pursuit of agriculture and sustain the community's farm businesses and farmlands. Agriculture commissions work to address local priorities such as agricultural business development, increasing public awareness of the many benefits of agriculture, leadership development, outreach and education to increase the visibility of farms as businesses, and farmland protection. Agriculture commissions also help farmers network with service providers, resolve potential problems in the early stages and encourage political activity. Given the importance of agriculture to Hadley's way of life, our town's Agricultural Commission should be given a broad and proactive charter and should also function as an ombudsman, working as a liaison between the farming community and the town's boards and committees.

Agricultural commissions are being organized throughout southeastern Massachusetts as a result of the Pilgrim Resource Conservation & Development Area Council (RC&D). A CD-ROM is available for \$10 from the Pilgrim RC&D Area Council (contact at 508-295-1317, x131) that would assist Hadley in starting this strategy.

*Responsible Entity* – The Board of Selectmen

### **32. Strengthen Agricultural Protection within Zoning**

Farming is an integral part of the Hadley community. The town should pursue a strong Right to Farm Bylaw that would seek to protect farmers from nuisance claims and other unwarranted attacks. At the writing of this Master Plan, a Right to Farm effort has already been initiated. See **Appendix D: Model Bylaws** for the State's Model Right-to-Farm Bylaw.

*Responsible Entity* – The Planning Board and Agriculture Commission

### **33. Enhance Agricultural Tourism**

The town should work with the Commonwealth and other organizations to ensure that Hadley's farms have adequate directional signage and are designated on the Agriculture Tourism maps. Signage such as that found in Vermont would help to support the agricultural tourism in town. Further, the town should work with local farmers and provide support and assistance when possible. There are a number of agricultural-based tourism ideas that should be actively pursued, presuming that the town's farming community is in agreement. Events such as an annual "harvest festival," or a similar celebration, highlighting the town's agricultural heritage could serve to promote Hadley's farming economy, attract visitors who will contribute to the local economy, and draw the community together. Many towns have similar events and Hadley would be an ideal fit for such an effort.

*Responsible Entity* – The Agriculture Commission

### **34. Appoint an Economic Development Commission**

The town should establish an Economic Development Commission (EDC) comprised of local business leaders as well as one or more representatives from the town. Once established, the EDC should build on this Plan's priorities for business promotion, which might include some or all of the functions identified below.

#### **Box 10-18: Suggested functions of a Economic Development Commission**

- Work with the town to implement the economic development recommendations in the Master Plan.
- Prepare an economic development plan that spells out additional business-related goals and strategies for Hadley.
- Explore Hadley's and the region's potential as a tourist destination taking advantage of the rural scenery, agriculture, and open spaces.
- Develop a strategy to recruit and retain businesses in the Town Center. This strategy could include, for example, organizing seasonal festivals or events showcasing local merchants and their product and services; providing direct outreach and business assistance to existing and prospective downtown businesses; or developing a collaborative advertising strategy that promotes Hadley businesses as a whole.
- Maintain relationships with existing large employers and commercial property owners in Hadley and work with them to address needs and resolve concerns.
- Follow trends and establish contacts within the target industries that Hadley seeks to attract so that the town can position itself to attract these industries.
- Work with regional economic development organizations to help direct target industries to sites in Hadley.
- Conduct targeted marketing of key parcels within the town for development or redevelopment by helping landowners prepare informational packages about their land.
- Serve as the town's point of contact with the state and neighboring communities in matters related to economic development.
- Provide business-related policy recommendations to the Board of Selectmen and other town bodies.

- Function as the liaison between the business community and local government.
- Work with the town and property owners to pursue outside funding support for local economic development initiatives.

***Responsible Entity*** – The Board of Selectmen should help coordinate this process.

## Agricultural, Natural and Historic Resources Strategies

### **35. Strengthen the Towns' Water Supply Protection District**

Section XII of the Town of Hadley Zoning Bylaw is the Aquifer Protection District Bylaw. This bylaw, as currently written, does not mirror the state's model Water Resource Protection Bylaw. For example, there is no distinction between Zone II and Zone III and there are no percent impervious requirements. The current bylaw is inadequate in its protective measures and leaves Hadley's water supply vulnerable to poor planning and inappropriate land use.

The town should adapt a variation of the EOEAs model Water Supply Protection Overlay District Bylaw (see **Appendix D**). The Planning Board, in cooperation with the Board of Health and the Conservation Commission should draft Hadley-specific language that will work within the confines of Hadley's Zoning Bylaw. The revised Bylaw should include additional submittal requirements, impervious coverage regulations, additional prohibited uses, special permit uses, and a distinction between Zone II and Zone III.

**Responsible Entity** – The Planning Board should work with the Board of Health and the Conservation Commission to draft a version of the EOEAs model Water Supply Protection Bylaw.

### **36. Enhance Stormwater Management**

In 1999, the U.S. Environmental Protection Agency adopted its own stormwater management standards through the NPDES Phase II program.<sup>28</sup> This program regulates municipal separate storm sewer systems (MS4s) in "urbanized areas," including Hadley. To comply with the NPDES Phase II regulations, Hadley is required to develop a stormwater management program that includes the following six "Minimum Control Measures."<sup>29</sup>

2. **Public education and outreach:** Provide educational materials to the community on the impacts of stormwater and how the public (residents and businesses) can help address these impacts.
3. **Public involvement:** Provide an opportunity for the public to participate in developing the stormwater management program and activities such as volunteer "stream teams."
4. **Illicit discharge detection and elimination:** Implement a program to detect and eliminate illicit stormwater discharges and illegal dumping.
5. **Construction site runoff control:** Adopt local regulations and other measures to control sedimentation and erosion from construction sites.
6. **Post-construction runoff control:** Adopt local regulations to address post-construction runoff in new development and redevelopment projects. Establish procedures to ensure adequate long-term operation and maintenance of stormwater management structures and practices.
7. **Pollution prevention and good housekeeping:** Implement a program to reduce pollutant runoff from municipal operations such as road maintenance, parks and open space, vehicle fleets, construction projects and drainage systems. This would include a regulation that prohibits the

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<sup>28</sup> NPDES stands for "National Pollutant Discharge Elimination System."

<sup>29</sup> The following is a brief summary of the six Minimum Control Measures. The Town should use the actual EPA rule in developing its stormwater management program.



plowing or dumping of treated snow and ice into drainage swales, detention ponds and drainage ditches.

In addition to the NOI and Management Plan, the town should adopt an erosion control policy to minimize site disturbance and address temporary and permanent site stabilization. Finally, the town should adopt a local Stormwater Management Bylaw that requires developers to follow the DEP's Stormwater Management Policy for all projects, not just those that are subject to the Wetlands Protection Act or Rivers Protection Act. This policy should be incorporated in the town's Zoning Bylaw and Subdivision Rules and Regulations. These policies should be pursued as a two tier strategy, with the first priority being the town's "urbanized areas" as defined through the Phase II regulations and the second phase should be the remainder of the community.

### Environmentally Friendly Stormwater Management Systems

The town should encourage the use of environmentally friendly stormwater management systems, or green stormwater infrastructure. This type of system can also be tied to an open space prioritization plan as detailed in **Strategy 40, Open Space Prioritization Plan**.

#### Box 10-19: Characteristics of Green Stormwater Infrastructure

- They rely less on structural solutions and more on natural systems.
- They recharge water to the ground locally (rather than relying on extensive piping systems that dump the water into streams that then carry that water out of the aquifer recharge area).
- They catch water near its source, while it is still clean (for example, roof runoff).
- They utilize the natural physical and biochemical filtering abilities of vegetation to treat stormwater.
- They often require less land because they can be integrated into gardens and other landscaped areas.

**Table 10-1** provides some general information about various stormwater management systems (conventional and environmentally friendly) and where they may be appropriate for use in Hadley.

**Table 10-1: Structural and Nonstructural Stormwater Management Systems**

Practice	Description	Suggested Policy	Appropriate Uses
Vegetated Swales	Earthen channels covered with dense growth of grass or other vegetation; can be dry or wet.	Strongly encourage	Roadsides, parking lots
Vegetated Filter Strips	Bands of dense vegetation located between the pollutant source and receiving water body; trap sediment and pollutants.	Strongly encourage	Roadsides, residential frontage areas, parking lots, perimeter protection
Constructed Wetlands	Shallow pools containing marsh plants that remove pollutants through retention, settling, and biological uptake.	Strongly encourage	Commercial/industrial sites, municipal buildings, subdivisions
Bioretention Cells (Rain Gardens)	Upland landscaped areas to treat and infiltrate runoff. Can be a low-cost alternative to conventional systems in residential developments.	Strongly encourage	Residential lots, parking lot islands

Practice	Description	Suggested Policy	Appropriate Uses
Pervious Paving Surfaces	Permeable pavement or “grass pavers” with underlying sand and gravel.	Encourage where soils are suitable	Residential driveways and parking aprons, parking overflow areas
Roof Gardens	Vegetation mats and underlying soil placed on rooftops. Reduce runoff and pollution while insulating the building.	Encourage	Municipal and office/industrial buildings
Retention Basins	Constructed basins that are always wet; deeper than constructed wetlands.	Neutral	Subdivisions, office developments
Detention Basins	Constructed basins that capture and slowly release stormwater to prevent flooding.	Allow in combination with other practices	All areas of development, if necessary
Drain Pipe/Catch Basin System	Storm drains that capture and pre-treat stormwater, then pipe it to one of the other types of systems.	Allow when other systems are not practical or sufficient	All areas of development, if necessary

**Responsible Entity** – The Planning Board should coordinate with the Board of Health and the Conservation Commission

### Erosion Control and Re-Planting Requirements

The town should adopt erosion control and revegetation standards as part of its Zoning Bylaw and Subdivision Rules and Regulations. Sample language for Erosion Control is provided in **Box 10-20**.

#### Box 10-20: Sample Erosion Control Language

##### **Minimize Site Disturbance**

During the construction of the roadway and drainage systems, disturbance of the site shall be minimized. Construction equipment and trucks must stay within the areas of proposed work as shown on the approved plan.

##### **Temporary Stabilization**

Temporary vegetation, mulching, or other protective measures must be provided for areas that will be exposed for one or more months. These temporary measures must be applied immediately after disruption. Temporary measures include seeding with rye grass or other annual grasses, jute netting, spreading straw mulch, or any other method acceptable to the Planning Board. The Board may require a specific type of temporary stabilization for any given area within the development. If a disturbed area will be exposed for longer than one year, permanent grasses or other approved cover must be installed. In disturbed areas, if the surface material is not suitable for planting seed, a minimum of four (4) inches of loam must be added prior to seeding.

##### **Temporary Sediment Control for Drainage**

Temporary sediment controls are required for unpaved roads, paved roads where curbing has not been installed, drainage inlets, and drainage outfalls. Temporary sediment controls are also required for all unpaved driveways and disturbed lots that slope toward the road. Temporary sediment control devices include silt fences, filter strips, double row staked haybales, silt traps, sediment basins, and crushed rock berms. Temporary sediment control devices must be placed along roadsides where runoff may occur and around storm drain inlets and outfalls. The Board may require a specific type of temporary sediment controls. All sediments must be removed from the roadway and other collection areas at least weekly.

## Box 10-20: Sample Erosion Control Language

### **Permanent Stabilization**

For all areas where the natural vegetation is disturbed, a plan detailing the proposed re-vegetation of the site must be submitted. Areas where the horizontal disturbance is less than eight feet must be treated with a perennial grass mixture or sod, at a minimum. In areas where the horizontal disturbance is greater than eight feet, additional vegetation including shrubs and trees is required. The size, quantity, species, and spacing shall be in accordance with the Board's replanting requirements). When posting a bond or other surety for the installation of loam, seed, sod, shrubs, trees, or other vegetation, the money shall be held for two growing seasons.

A minimum of four (4) inches of topsoil free of roots with a minimum organic matter content of 2% and a texture of sandy loam is required for areas that will be seeded. The loam must be raked and free of roots, stones, and twigs.

If the Board or its representative questions the installation or quality of the required stabilization material, they may request an inspection by a registered landscape architect. If the installation or the material used is found to be inadequate, it must be replaced. This inspection shall be at the developer's expense.

### **Responsibility**

The developer is responsible for preventing all erosion and the build-up of sediment within the area disturbed due to the construction of the road and drainage system.

The Low Impact Development web page at [www.lowimpactdevelopment.org](http://www.lowimpactdevelopment.org) is a good resource for these strategies.

## **37. Prepare an Historic Preservation Plan**

The town should pursue volunteer support and grant funding for the identification and mapping of all archeological and historic resources within the town. This Archeological Sensitivity and Historic Resources Map could be used to help promote awareness of these important resources. This type of survey is a critical step in the overall protection and preservation of the town's historic resources. Such a survey could be used to help the Planning Board in their review of development projects, help the town receive grant funds for the protection of these resources, contribute to an understanding of the town's history and even result in special events centered on these resources. Programs through the Massachusetts Historical Commission can assist with this effort.



*An early view of Hadley Town Hall  
(undated photo)*

The survey could be expanded to a complete Historic Preservation Plan with goals and priorities for preservation. The plan would ideally address archaeological resources, historic structures, and historic landscapes. The work of this plan should also be incorporated in to the Open Space Prioritization Plan as discussed in **Strategy 40**.

**Responsible Entity** – The Historical Commission

### **38. Nominate Structures to the State and National Historic Register**

The town should continue to nominate structures, areas and landscapes for inclusion on the National and State Historic Register. The National Register of Historic Places is the Nation's official list of cultural resources worthy of preservation. Listing in the National Register contributes to preserving historic properties in a number of ways:

- Recognition that a property is of significance to the Nation, the State, or the community
- Consideration in the planning for Federal or federally assisted projects
- Eligibility for Federal tax benefits
- Qualification for Federal assistance for historic preservation, when funds are available

Inclusion on the State and Federal Historic Register DOES NOT interfere with the private property rights of the property. The property may be altered or even destroyed if the property owner so chooses. However, there are certain benefits for listing a property: Any government funded project that may affect the historic property requires that Federal agencies allow the Advisory Council on Historic Preservation an opportunity to comment. This protects the property from harmful road projects, or other such projects that could negatively affect the property. Further, owners of properties listed in the National Register may be eligible for a 20% investment tax credit for the certified rehabilitation of income-producing certified historic structures such as commercial, industrial, or rental residential buildings. This credit can be combined with a straight-line depreciation period of 27.5 years for residential property and 31.5 years for nonresidential property for the depreciable basis of the rehabilitated building reduced by the amount of the tax credit claimed. Federal tax deductions are also available for charitable contributions for conservation purposes of partial interests in historically important land areas or structures.

**Responsible Entity** – The Historical Commission

### **39. Adopt a Demolition Delay Bylaw**

The Hadley Historical Commission has long been advocating for a Demolition Delay Bylaw. This Bylaw would create a system whereby if a historic structure was requested to be demolished, the Demolition Permit would be delayed for a certain amount of time. This time would allow the Historical Commission to review the structure and determine if it was worth saving due to its unique history or architectural importance. If the Commission deemed that it was in fact worth saving they would have the time to work with the property owner and perhaps come to a solution where the structure could be saved. If, at the end of the time limit, no agreement could be reached, the Demolition Permit would be granted and the owner could continue with the destruction of the structure.

These Bylaws are very popular throughout the Commonwealth and they vary in their details from town to town. For example, some towns create a list of structures that would trigger the bylaw. Other towns ask the property owners if they would like their structure to be on the list. Some towns have a long demolition delay while others have a shorter time frame. The Bylaw should be structured to meet the needs and values of the Town of Hadley and there is no shortage of good examples in neighboring communities.

**Responsible Entity** – The Historical Commission should work with the Board of Selectmen.

## Open Space and Recreation Strategies

### ***40. Create an ‘Open Space Prioritization Plan’***

Hadley’s Open Space and Recreation Plan discusses the need for prioritization, assessment, and connected habitat preservation. Unfortunately, the Plan does not set out a framework for prioritization, nor does it present a comprehensive guide for what the future of open space should look like in Hadley. Although Hadley has been very successful in preserving critical open space, a comprehensive prioritization process and future vision of open space could enhance this process even more. Where practical, the Prioritization Plan will link new and existing open space properties. Creating a network is one tool; it should be supplemented and enhanced by later strategies in the Plan, which call for the strategic acquisition of open space sites and give Hadley the ability to help manage future growth and development in large undeveloped areas and conserve unprotected sites.

#### **Open Space Committee**

In order to achieve a truly thorough and effective Prioritization Plan, the town would benefit from establishing an Open Space Committee to oversee the process. This Committee would act in an advisory capacity to the Conservation Commission and have roles outside of the Prioritization Plan, where necessary and appropriate. The formation of the Open Space Committee would require approval by the Board of Selectmen.

#### **Open Space Prioritization Plan**

With an Open Space Committee in place, the town should proceed with a comprehensive open space prioritization planning process; this would be a thorough and detailed public process that is based on the town’s goals AND ecological and agricultural sustainability. The goal would be to create a concrete plan that would lead to the creation of a comprehensive network of open space. This entails identifying key parcels of land that form links between larger sites, enhance existing open space or preserve critical areas. Each parcel or area would be prioritized based on its role in achieving the town’s overall vision. The end result of this process would be a complete guide and visual picture of the future open space network within Hadley.

Creating an integrated network of open space and water resources could provide numerous public benefits, from strengthening the tourism market, protecting wildlife, providing additional recreation opportunities, preserving agricultural resources, to creating a green stormwater management system. The Connecticut River valley provides vital habitat for a number of species and by forging a network of open space, the town can create a network of viable habitat. In addition, these open space areas can be utilized for the management of stormwater, thereby contributing to the protection of the town’s surface and ground water resources. The integrated network could be based on one or several frameworks and would provide a picture of the town’s future open space network. A very good example of this type of plan, called the Green Ring Plan, can be found on Ipswich’s web page at <http://www.town.ipswich.ma.us>.

***Responsible Entity*** – The Conservation Commission and the Open Space Committee

### ***41. Acquire Conservation Land***

The town should explore passing an Open Space Bond that would give the town the flexibility needed to purchase critical open space when it comes on the market rather than waiting for the funds to be raised, found, allocated, voted, and finally spent.

## Open Space Bond

An Open Space Bond provides the town the flexibility it needs to make critical purchases of open space. Because the town meeting vote is needed to authorize the bond, the town meeting does not have to reconvene each time a critical parcel comes up for sale. The bond can be administered by a Open Space Bond Steering Committee appointed by the Board of Selectmen and the funds could be used as a significant local match to federal and state grants. The town could also use these funds to bolster the purchasing power of the Community Preservation Act funds that will start flowing into the community. The town of Ipswich has a very successful bond program: <http://www.town.ipswich.ma.us/plandev/>

**Responsible Entity** – The Board of Selectmen should coordinate this process while working with the Conservation Commission and the Open Space Committee.

## 42. Increase the Use of Conservation Restrictions

A conservation restriction (CR) is a restriction on the use of property. It is a recorded deed restriction, and the right to enforce the restriction is given to a tax-exempt charitable organization (generally in the conservation field) or a government agency.

Hadley should create a CR policy and handbook for interested landowners. The policy should simply state that the town supports the use of CRs within the community and that the town will review and if appropriate, accept donations of CRs. Further, the town should produce a guidebook that guides a property owner through the CR process and the town should identify and work with property owners that are interested in donating or selling CRs. Many Cape Cod Communities have such a policy and an example may be found in **Appendix D**. The town should also coordinate a public relations program to educate property owners about the option of CRs

**Responsible Entity** – The Conservation Commission should work with the Town Attorney and the Board of Selectmen

## 43. Create Open Space Standards for Lands Protected Through Zoning

As the town uses the various zoning strategies described in this bylaw, it will be important to ensure that the open space being preserved through zoning is quality open space that will provide a public benefit. Therefore, it is critical for the Planning Board to create Open Space Standards that outline the requirements for open space preserved through the various zoning bylaws such as the Open Space Preservation Subdivision and the Senior Village Overlay District. The standards should be referenced within the individual bylaws and should be created as regulations of the Planning Board. The regulations should address the preferences for type, location, and ownership of the preserved open space.

### Box 10-21: Sample Open Space Standards

- The following shall not be counted as part of the required open space: community buildings or other buildings housing common facilities, median strips, landscaped areas within parking lots, constructed stormwater management facilities including retention basins, lawn/landscaped areas on individual home site lots or private residential yards.
- A minimum of 40 percent of the required open space shall be suitable for use for passive and/or active recreational purposes.
- The percentage of open space that is wetland resource areas as defined and regulated pursuant to the Massachusetts Wetlands Protection Act (M.G.L. Chapter 131A) shall not normally exceed

#### Box 10-21: Sample Open Space Standards

the percentage of the tract that is wetlands; provided however, that the applicant may include a greater percentage of wetlands in such open space upon a determination that such inclusion promotes the purposes of this bylaw and upon the written recommendation of the Conservation Commission.

- Unless otherwise approved by the Board in its decision, open space shall be maintained in its pre-development, open state. Maintaining such land in its pre-development, open state shall mean that the land shall remain in its natural state without the removal or disturbance of trees, vegetation or earth. Neither temporary site access nor temporary structures shall be permitted on reserved open space, nor shall open space be used as staging areas during construction.
- The required open space shall be contiguous, unless the Board finds that it is not practical for all the open space to be contiguous due to the particular shape or topography of the site or, for the same reasons, that it is advantageous to allow separated open space areas in order to best protect natural features of the site. Portions of the open space may also consist of village greens, commons, or passive parks.
- The plan should take into account any Town of Hadley or other public agency plans for preservation or improvements to public open space adjacent to the site, so as to provide potential for linkage and access to said adjacent public open space. As a condition of issuance of the Permit, the Board may require the applicant to provide paths, walkways, or other appropriate physical connections to adjacent open spaces or public lands.

**Responsible Entity** – The Planning Board should work with the Open Space Committee and the Conservation Commission.

#### 44. Create Comprehensive Signage and Parking Plan

The town needs to work with the Commonwealth to develop a comprehensive signage and parking plan for the State Parks and the town's various open space resources.

**Responsible Entity** – The Open Space Committee

#### 45. Develop Walking/Biking Trails

The town should develop a trail plan in conjunction with the Open Space Prioritization Plan described in **Strategy 40**. This effort should also highlight and expand the existing bicycle trails within Hadley and should work to connect these trails to the neighborhoods and commercial centers of the community. Second, whenever possible, the Planning Board and Zoning Board of Appeals should work with developers to include trail easements through new developments, connecting to existing or proposed trails. Third, if key trails require segments to pass through private property in order to complete a usable trails network, the town, perhaps with the Open Space Committee, should work with the private landowners to see if they would be willing to grant a trail easement.

**Responsible Entity** – Open Space Committee



Successful components of Hadley's existing bike trail network: signage and connection to commerce.



#### ***46. Expand Recreation Opportunities and Playing Fields***

The town should explore how to expand the recreation program. A feasibility study that examines the market and infrastructure would be a good place to start. The recently adopted CPA should provide funds to be spent on enhancing recreational opportunities. The town should continue to support the efforts of private groups to improve and expand the recreation and playing fields in Hadley. Public/private partnerships, such as the partnership that recently built two new baseball fields and renovated soccer fields at the elementary school, should be explored to finance these projects. One partnership in particular, with the University of Massachusetts, should be enhanced both in creating new resources and helping the town benefit from existing resources. Areas of need include new or improved athletic fields and playgrounds, tennis courts, expanded adult education opportunities and non-athletic programs. As resources warrant, the town should make additional funds available for recreation resources and should seek private matching funds or public grants to supplement the town's limited resources. As indicated in the town-wide survey, child play areas are high on the list of desired recreation facilities.

#### **Study Feasibility of Adult Education**

The town should study the feasibility of increasing adult education. This could also include increased senior education and other programs.

***Responsible Entity*** – The Board of Selectmen and Parks and Recreation Committee



## Transportation Strategies

### 47. Develop Street Design Guidelines

The town's rural roads have unique attributes that need protecting and enhancing. As Mass Highway, private developers and the town go about creating new roads and modifying existing roads, a set of Street Design Guidelines could provide guidance and direction as to the characteristics of streets that are supported by the public. The town should work to produce a short (5-10 page) document that outlines the preferred characteristics and attributes of the town's streets.

#### Box 10-22: Elements Included within Street Design Guidelines

**Shared Streets:** Streets are not just for cars. Hadley should address the gap between street design and the shared nature of streets. Pedestrians, bicyclists, and even farm equipment should be included in the design.

**Intersections:** Modern intersections have a huge turning radius designed for large trucks. However, shorter turning radii make vehicles slow down more and make for a shorter cross walk.

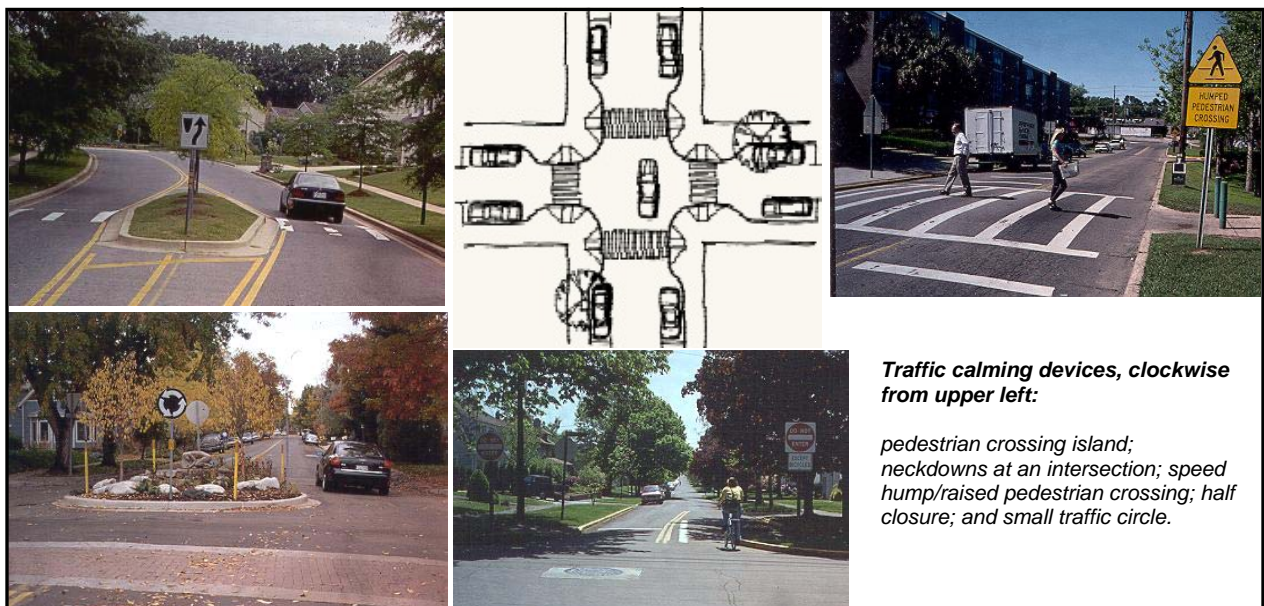
**Landscaping and street trees:** Streets and street trees should go hand in hand.

**Lights and street furniture:** Hadley should address if the town supports spun aluminum poles or if they would prefer more decorative lighting and traffic lights.

**Responsible Entity** – The Planning Board and the DPW and interested citizens.

### 48. Initiate Traffic Calming

The town should integrate traffic calming design solutions to address the myriad of issues discussed above. Traffic calming measures should be included in the Planning Board's Subdivision Rules and Regulations and the Site Plan Review Criteria. Examples of potential traffic calming measures include a range of strategies to slow down traffic and deter the use of local residential roads for through traffic.



Examples of traffic calming devices include one-way streets, neckdowns, bump outs, traffic circles, narrow travel lanes, raised crosswalks or intersections, pavement markings, on-street parking, and alternative paving materials (see the photos above). Non-structural traffic calming measures such as traffic law enforcement and traffic impact statements can also play an important role. However, traffic calming must be conducted in a comprehensive manner—not piecemeal—otherwise traffic might simply shift from one problem area to another.

The best way for Hadley to proceed with traffic calming is on a gradual, experimental basis. Two or three sites should be selected for trial applications—key intersections near schools and areas within the Business District—and the results of these trials should be evaluated before moving ahead with additional sites.

Concerns are often raised about how traffic calming devices affect snowplowing operations. While it is true that some traffic calming measures require additional care when plowing, others (such as one-way streets) do not. Many Massachusetts communities, most notably Cambridge but also Boston, Gardner, Brookline, and others, have successfully adapted their plowing operations to accommodate traffic calming devices.

**Responsible Entity** – The Board of Selectmen should work with the Planning Board and the DPW and interested citizens.

#### **49. Permit and Advocate Shared Access**

The Planning Board should encourage developers of commercial properties to share curb cuts and provide shared parking, shared vehicular access, and shared pedestrian access. Shared access requirements should be included in the updated Site Plan Review Criteria. When reviewing proposals, the Planning Board should negotiate shared parking and shared vehicular and pedestrian access between adjacent commercial sites. If the abutting property owner is not willing to cooperate, the town could still get the applicant to agree to shared provisions and negotiate for improvements when and if there is a change proposed to the abutting property.

**Responsible Entity** – The Planning Board

#### **50. Develop Mass Highway Interaction Policy**

The town should immediately enter into a public dialogue with Mass Highway regarding the future plans for Route 9 and any future attempts to resuscitate the idea of a second Connecticut River Crossing in the Hadley area. This dialogue should stress public involvement and should involve the strong participation of Hadley’s political representatives. As discussed elsewhere in this Plan, the town’s ability to positively influence the Route 9 project is vitally important to the success of several strategies outlined herein.

**Responsible Entity** – The Board of Selectmen

#### **51. Improve Pedestrian Safety along Route 9**

Along the length of Route 9 where appropriate, pedestrian connections should be strengthened and the pedestrian environment improved with trees and landscaping either added or retained. Recent commercial development along Route 9 has done little to improve the pedestrian environment. As a result, the area remains primarily accessible only by automobile, is unsafe for pedestrians, and creates a congestion issue for the town. It would be the role of the newly formed Department of Public Works to oversee the repair,

maintenance and creation of new sidewalks, where necessary. The town should work with MassHighway to ensure that pedestrian safety is not sacrificed for traffic movement, especially at the commercial development on the eastern portion of Route 9 and around the Town Common.

**Responsible Entity** – The Board of Selectmen and the Department of Public Works

## **52. Enhance Requirements for Traffic Impact Statements and Mitigation**

The town needs to monitor the traffic safety and traffic impacts resulting from new developments. Without these measures in place, the town cannot control and monitor the traffic growth and vehicle delays that may further deteriorate traffic safety, impact remaining (excess) roadway capacity and destroy the rural character of the town.

The town should create a more detailed Traffic Impact Assessment process to be used by Permit Granting Authorities. This process would be used for Site Plan review as well as Subdivision Review. The purpose of the process is to ensure consistency in the review of traffic-related issues related to development plans submitted to the town.

### **Box 10-23: Traffic Impact Assessment**

[1] Purpose: To document existing traffic conditions (both vehicular and pedestrian) in the vicinity of the proposed project, to describe the volume and effect of projected traffic generated by the proposed project, and to identify measures proposed to mitigate any adverse impacts on traffic.

[2] Applicability: Projects with one or more of the following characteristics shall prepare a Traffic Impact Assessment: 1) proposing thirty (30) or more parking spaces, 2) proposing a Vehicular Service Establishment, 3) containing frontage and access on a state road. The Board or town staff may request any applicant to prepare a Traffic Impact Assessment even if the project does not meet any of the above criteria.

[3] Qualifications: Author of the Traffic Impact Assessment shall be a certified traffic engineer.

[4] Format and Scope:

(i) Existing traffic conditions: average daily and peak hour volumes, average and peak speeds, sight distances, accident data, and levels of service (LOS) of intersections and streets likely to be affected by the proposed development. Generally, such data shall be presented for all streets and intersections adjacent to or within 1000 feet of the projected boundaries, and shall be no more than six (6) months old at the date of application. Further, information regarding existing pedestrian circulation and ways shall be provided.

(ii) Projected traffic conditions for design year of occupancy: statement of design year of occupancy, background traffic growth on an annual average basis, impacts of proposed developments which have already been approved in part or in whole by the Town.

(iii) Projected impact of proposed development: projected peak hour and daily traffic generated by the development on roads and ways in the vicinity of the development; sight lines at the intersections of the proposed driveways and streets; existing and proposed traffic controls in the vicinity of the proposed development; proposed pedestrian ways and design elements to maximize pedestrian safety and usage; and projected post-development traffic volumes and LOS of intersections and streets likely to be affected by the proposed development.

**Box 10-23: Traffic Impact Assessment**

(iv) Proposed measures to minimize traffic conflict and mitigate any affected intersections or ways.

***Responsible Entity*** – The Board of Selectmen should work with the Planning Board and the DPW (see **Strategy 57, Create a DPW**).

## Public Facilities and Services Strategies

### 53. Secure Professional Planning Services

The town is fortunate to have many residents who dedicate a considerable amount of time to address the community's many planning and zoning issues. However, a Town Planner can provide the day-to-day professional resources necessary to undertake careful review of development projects and implement the recommendations outlined in the Master Plan, Open Space and Recreation Plan, and other planning initiatives.

Box 10-24: Town Planner Options		
	Pro	Con
<b>Town Planner Reporting to Town Administrator</b>	Clear line of command. Planner is insulated from changes in Planning Board. Free to advise based on professional knowledge and not politics.	May lack accountability to the people.
<b>Town Planner Reporting to Planning Board</b>	Acts more as agent of elected Board.	Very political nature of position may cloud opinions. Often this creates revolving door syndrome.
<b>Part Time or Shared Planner</b>	Save money.	Only time to do administrative tasks.

The Town Planner would provide technical assistance to the Planning Board and other town boards and committees with regard to subdivision design, site plan review, and zoning analysis. Other responsibilities would include budget preparation, master plan development and implementation, and grant writing and administration. The planner would also respond to public inquiries, meet with developers to review potential development projects, maintain and update the master plan, coordinate the project review process with other boards and commissions, research bylaws, statutes and planning practices, and make recommendations on bylaw changes to the Planning Board. The planner would serve as a resource to the Planning Board, Board of Selectmen, Long Range Plan Implementation Committee, Community Preservation Committee, Open Space Committee, Park Commission, and Zoning Board of Appeals. Application fees from developers and grants could help pay for the planners salary.

The Planning Board and other town boards should continue to hire consultants, using funds obtained from developers, to review specific development proposals. In addition, at least until the town hires a qualified Town Planner, the town should provide funding to the Planning Board to hire consultants for projects that do not involve specific development proposals (e.g. public outreach and review of zoning bylaws).

The Committee acknowledges that the Planning Board has begun using the Pioneer Valley Planning Commission for planning services on a project basis. While we support this initiative as a short-term measure, we believe that the task of true and effective long-term planning cannot be handled on a part-time basis and certainly cannot be accomplished by a combination of boards that are already extremely busy with their day to day obligations and resident volunteers. The Committee recommends that as the town continues to grow, and development and planning become more complex, the town consider moving

over time to a full-time Town Planner. In our view, the Town Planner should report to the Select Board, but should work with all town boards and committees.

**Responsible Entity** – The Board of Selectmen

#### **54. Prohibit Further Expansion of Public Water and Sewer**

The town only supports expanding sewer and water capacity to areas where additional development is preferred as identified within this Master Plan. The town has carefully laid out a development strategy that focuses development along Route 9 and within the village center areas. The sewer and water systems must correspond with this plan and should not be expanded to the open agricultural and forest lands remaining in Hadley.

The town does not support expanding sewer into agricultural lands or forest lands. Expanding water and sewer lines into agricultural or natural areas that are not identified on this Master Plan will only encourage development of areas that may already be targeted for conservation, agriculture, or a landscape replacement program.

**Responsible Entity** – The Board of Selectmen

#### **55. Upgrade Enforcement Efforts**

As the town progresses with the recommendations of this Plan it will be necessary to have an effective enforcement program. Particularly in need of conscientious and strict enforcement are the Design Review and Sign Guidelines, definition of uses, revised Limited Business and Business District Bylaws and Regulations, landscaping guidelines, and pedestrian design and safety issues. Enforcement is a critical step to ensure consistency and actualize real benefits. Therefore the town should ensure that the Enforcement Officer(s) has all the resources and training (see **Strategy 58, Training for Elected/Appointed Officials**) that may be necessary to uphold the concepts, bylaws and regulations put forth in this Plan, and should insist that proactive enforcement be a priority.

**Responsible Entity** – The Board of Selectmen and Planning Board

#### **56. Produce A District-Wide School Building Master Plan**

The School Department should work with the town to create a School Building Master Plan to assist in capital planning and land use planning. Despite School Department projections that maintain an average grade size, there has been a modest upward trend in enrollment in Hadley's schools, which are already nearing capacity. Since this Plan suggests population growth in the next decade, the town should be prepared to accommodate additional school children that may result from the anticipated increase in residential units. The town needs to plan well in advance of these capacity issues and must focus on a coordinated and comprehensive district-wide solution.

**Responsible Entity** – The Board of Selectmen and School Department

#### **57. Create Department of Public Works (DPW)**

The town should work to create a consolidated Department of Public Works. Coordination will become increasingly critical as the town grows and the infrastructure demands increase. The necessary elements are described in **Box 10-25** below.

**Box 10-25: Element of Department of Public Works**

- Water Division
- Sewer Division
- Highway Division
- Town Engineer
- Maintenance (town property, cemeteries, buildings, etc.)

**Responsible Entity** – The Board of Selectmen

**58. Strengthen Training Opportunities for Elected and Appointed Officials**

As in any paid staff position, it is imperative that the volunteers in town government have the requisite knowledge and understanding to implement the strategies put forth in this plan. Elected and appointed officials serving on all town boards should have access to training and conferences to further their understanding of emerging concepts and techniques. Training can be obtained through the Citizen Planner Training Collaborative (CPTC) through organizations such as the UMass Extension School and the Massachusetts Association of Conservation Commissions and at seminars and conferences provided throughout the region and/or online.

**Responsible Entity** – The Board of Selectmen

**59. Create a Long Term Capital Plan**

The town should create and continually update a Long Term Capital Plan to manage and prioritize the long term fiscal responsibilities in terms of infrastructure, maintenance, new facilities, and other capital projects. This process should be informed by work of the Town Center Committee and any other groups looking at town owned buildings.

**Responsible Entity** – The Board of Selectmen

## 11 IMPLEMENTATION PLAN

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The Implementation Plan is a step-by-step guide for Hadley to follow over the next fifteen 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, volunteers and dedicated citizens. The actions that the town takes now will create a lasting legacy for future generations. Implementing the Master Plan is the best way to ensure that Hadley will continue to be a desirable community in which to live, work and play five, ten, twenty and even fifty years into the future.

Implementation is a critical step in the Master Plan process. As shown by the recent SJC decision on Hadley's Phased Growth Bylaw, failure to implement recommendations of a Master Plan has significant legal consequences. Failure to implement this plan would have serious impacts on planning and growth in Hadley and all efforts should be made to advance the implementation of the Plan's strategies.

The Implementation Plan is divided into two components. The first part is the Implementation Action Plan, which identifies the group or groups responsible for implementing each Master Plan recommendation as well as the approximate timeline for action. The second component is a simple evaluation form template designed to help the town measure the success of the Master Plan recommendations (once they have been implemented) compared to the public mandate and the goals that were established early in the planning process.

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 15 years: that is, planning needs are evaluated and recommendations are made based on their projected benefit over the same timeline. However, the Implementation Plan only has a six-year timeframe in the sense that most of the Master Plan recommendations are targeted to be implemented (or least commenced) within six years. After about five years (around 2010), Hadley 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 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 six years. The town should consider preparing a new Master Plan after 15 years (around 2020), at which time conditions in the town will probably have changed substantially and a new plan will be needed to address the challenges that these conditions present.

### Implementation Action Plan

The Implementation Action Plan summarizes all of the 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 according to the element in the master plan that is addressed. Most of the actions 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. In some cases, the town may need to devote staff resources or hire an attorney or consultant to assist with this process (e.g., to help prepare zoning changes). If the town is able to hire a professional planner, this staff person may take the place of a consultant in many of these recommendations. Some of the actions that involve facility or infrastructure improvements will require the expenditure of funds, which may come from the town, the state, and/or other sources.



In the “Timeframe/Priority” column of the Action Plan matrices, actions are classified as either “Immediate” (indicating action within 12 months), “Short-Term” (indicating action within 12-24 months), “Middle-Term” (indicating action within 2-4 years), “Long-Term” (indicating action within 4-6 years), or Ongoing (indicating action that should be continually repeated as necessary). A priority designation is also given to each Action Plan item indicating “high”, “middle” or “low priority.” All items and strategies within this Master Plan are important however, and the priority designation is simply a means to prioritize generally among all the actions contained within the plan. A handful of actions that require state involvement and/or major capital expenditures may require more than six years to implement.

Many strategies are linked to one another, requiring much effort in the early phases to lay the groundwork for future progress. The feasibility of implementing certain strategies will be dependent on the town’s ability to set the foundation with a number of the shorter-term strategies and allow the longer-term strategies build from those efforts.

### ***Long Range Plan Implementation Committee***

Upon the acceptance of this Master Plan, the town should immediately form a **Long Range Plan Implementation Committee**. The formation of this Committee is CRITICAL to the successful implementation of this Master Plan. The Committee should be a nine person committee made up of:

- One Planning Board Representative;
- One Conservation Commission Representative;
- Two Long Range Planning Committee Representatives;
- Five Interested residents appointed by Select Board.

The Long Range Planning Committee should work with this Implementation Committee to transition responsibility and ensure continuity. The committee should be responsible for making sure that the action items identified in this Master Plan are being implemented in a timely and organized manner. Suggested duties include:

- Meeting regularly (monthly at first, perhaps quarterly over time) to assess progress in implementing the plan
- Twice annual meetings with key boards such as the Planning Board, Board of Selectmen, Conservation Commission and Board of Health. These meetings would be to ensure that all the Boards are on the same page, receive updates on progress, and let the Boards know what implementation steps are next on the horizon.
- Asking for updates regularly from the key boards and agencies responsible for implementation as identified in the Implementation Plan.
- Working with key Boards to help involve the public in the implementation process.
- Making recommendations to the Board of Selectmen and Town Administrator on issues related to the Master Plan including the hiring of consultants who may be assisting the town in implementation.

Plan for Implementing Land Use Strategies			
Recommendation	Strategy	Responsibility	Timeframe / Priority
Strengthen Transfer of Development Rights	1	Planning Board and Long Range Plan Implementation Committee; Town Meeting vote	Immediate / High
Create new residential Zoning Districts for: Heritage Residential (HR), Agricultural Preservation Residential (AR), and Forest Residential (FR)	2	Planning Board and Town Meeting vote	Short-term / High
Create Village Core Zoning District	3	Planning Board and Town Meeting vote	Short-term / High
Enhance Mixed Use Village Overlay District	4	Planning Board and Town Meeting vote	Short-term / High
Establish Phased Growth Bylaw	5	Planning Board	Ongoing / High
Strengthen Site Plan Review Bylaw	6	Planning Board; Town Meeting vote	Immediate / High
Establish Design Review Committee and Guidelines	7	Committee appointed by Town Selectmen; Planning Board review; Town Meeting vote	Short-term / High
Create and Adopt an Open Space Preservation Subdivision Bylaw	8	Planning Board and Conservation Commission	Immediate / High
Update the Table of Use Regulation	9	Planning Board and Town Attorney	Middle-term / High

<b>Plan for Implementing Housing and Community Strategies</b>			
<b>Recommendation</b>	<b>Strategy</b>	<b>Responsibility</b>	<b>Timeframe / Priority</b>
Adopt Incentive Zoning	10	Planning Board and Long Range Plan Implementation Committee; Town Meeting vote	Middle-term / High
Adopt Inclusionary Zoning for Mixed Use and Multi-Family Residential Developments	11	Planning Board and Long Range Plan Implementation Committee; Town Meeting vote	Middle-term / High
Create and Adopt a Senior Village Overlay District	12	Planning Board and Long Range Plan Implementation Committee; Town Meeting vote	Immediate / High
Permit Apartments above Retail in Mixed Use Village Districts	13	Planning Board and Long Range Plan Implementation Committee; Town Meeting vote	Long-Term / Medium
Update Subdivision Rules and Regulations	14	Planning Board	Short-term / High
Town Center Improvement Plan	15	Board of Selectmen with guidance from Town Center Committee	Ongoing / Medium
Strengthen Historic and Cultural Role of the Town Common	16	Board of Selectmen with Historical Commission	Ongoing / Medium
Enhance Community	17	Various (see Strategy)	Ongoing / Medium
Carefully Permit Accessory Apartments	18	Planning Board with Town Meeting vote	Ongoing / Medium
Create an Affordable Housing Trust Fund	19	Board of Selectmen	Immediate / High
Study Opportunities for Adaptive Reuse	20	Housing Partnership with further review by Board of Selectmen and Housing Authority	Ongoing / Medium
Study Town Property and Tax Title Property	21	Housing Partnership	Ongoing / Low
Cautiously Consider Comprehensive Permits where Appropriate	22	Zoning Board of Appeals assisted by all other Boards and Commissions	Ongoing / Low

<b>Plan for Implementing Economic Development Strategies</b>			
<b>Recommendation</b>	<b>Strategy</b>	<b>Responsibility</b>	<b>Timeframe/Priority</b>
Establish Retail and Business Size Limitations (linked to TDR Program)	23	Planning Board	Immediate / High
Create Economic Enhancement Overlay District for Route 9 Redevelopment	24	Planning Board and Long Range Plan Implementation Committee; Town Meeting vote	Short-term / High
Rezone Route 47 (South of Route 9) from Business to Limited Business	25	Planning Board; Town Meeting vote	Short-term / High
Enhance Limited Business Special Regulations	26	Planning Board with consultant or Town Planner	Short-term / High
Establish Business District Yard Setbacks and Other Requirements	27	Planning Board	Short-term / High
Create a Vehicle Service Establishment (Drive-Through) Use	28	Planning Board	Short-term / Medium
Amend Current Industrial Zoning to Light Industrial/Office Zoning District	29	Planning Board	Short-term / High
Sign Regulations	30	Planning Board and Design Review Committee	Short-term / High
Create an Agriculture Commission	31	Board of Selectmen	Short-term / Medium
Strengthen Agricultural Protection within Zoning - Adopt Right-to-Farm Bylaw	32	Planning Board and Agriculture Commission; Planning Board	Short-term / High Immediate / High
Enhance Agricultural Tourism	33	Agriculture Commission	Long-term / Medium
Appoint an Economic Development Commission	34	Board of Selectmen	Middle-term / Medium

## Plan for Implementing Agricultural, Natural and Historic Resources Strategies

Recommendation	Strategy	Responsibility	Timeframe/Priority
Strengthen the Towns' Water Supply Protection District	35	Planning Board with Select Board, Board of Health and Conservation Commission	Immediate / High
Enhance Stormwater Management - Adopt Erosion Control and Re-Planting Requirements	36	Planning Board with Board of Health and Conservation Commission	Long-term / Medium Middle-term / Medium
Prepare an Historic Preservation Plan	37	Historical Commission	Middle-term / High
Nominate structures to the State and National Historic Register	38	Historical Commission	Ongoing / Medium
Adopt a Demolition Delay Bylaw	39	Historical Commission with Board of Selectmen	Short-term / High

### Plan for Implementing Open Space and Recreation Strategies

Recommendation	Strategy	Responsibility	Timeframe/Priority
Create an 'Open Space Prioritization Plan' - Form Open Space Committee	40	Conservation Commission and Open Space Committee	Middle-term / High
Acquire Conservation Land - Open Space Bond	41	Board of Selectmen with Conservation Commission and Open Space Committee	Ongoing / High
Increase the Use of Conservation Restrictions	42	Conservation Commission with Town Attorney and Board of Selectmen	Ongoing / High
Create Open Space Standards for Lands Protected Through Zoning	43	Planning Board	Short-term / Medium
Create Comprehensive Signage and Parking Plan	44	Open Space Committee	Middle-term / Medium
Develop Walking/Biking Trails	45	Open Space Committee	Long-term / High
Expand Recreation Opportunities and Playing Fields	46	Board of Selectmen with Open Space Committee and Parks and Recreation Committee	Ongoing / Medium

### Plan for Implementing Transportation Strategies

Recommendation	Strategy	Responsibility	Timeframe/Priority
Develop Street Design Guidelines	47	Planning Board	Middle-term / Medium
Initiate Traffic Calming	48	Board of Selectmen with Planning Board and Department of Public Works	Middle-term / Medium
Permit and Advocate Shared Access	49	Planning Board	Long-term / Medium
Develop Mass Highway Interaction Policy	50	Board of Selectmen	Immediate / High
Promote Pedestrian Safety along Route 9	51	Department of Public Works with Board of Selectmen	Long-term / High
Enhance Requirements for Traffic Impact Statements and Mitigation	52	Board of Selectmen with Planning Board or Department of Public Works	Long-term / High

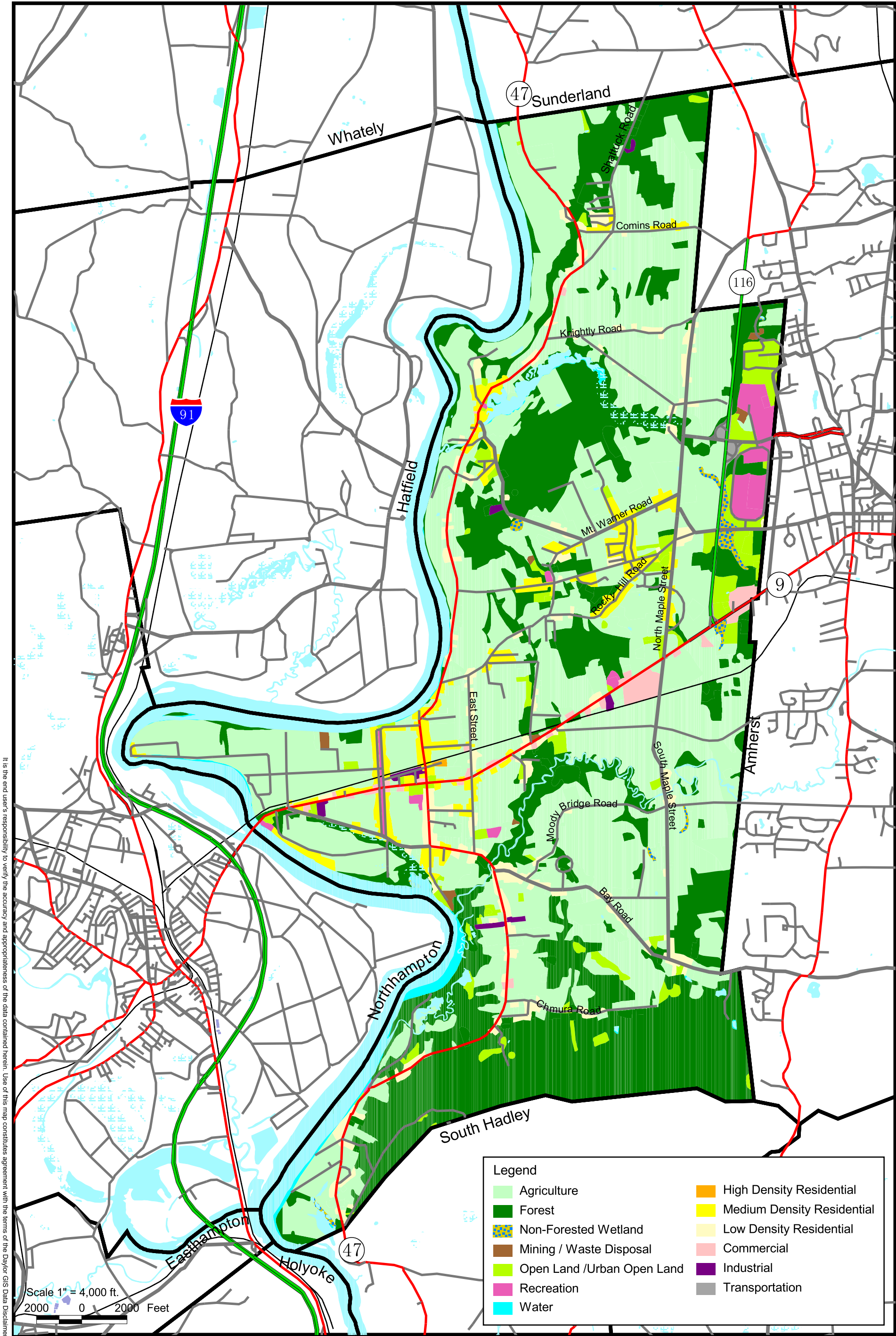
<b>Plan for Implementing Community Facilities and Services Strategies</b>			
<b>Recommendation</b>	<b>Strategy</b>	<b>Responsibility</b>	<b>Timeframe/Priority</b>
Secure Professional Planning Services	53	Board of Selectmen	Middle-term / High
Prohibit Further Expansion of Public Water and Sewer	54	Board of Selectmen and Department of Public Works	Long-term / High
Upgrade Enforcement Efforts	55	Board of Selectmen with Planning Board	Immediate / High
Produce a School Building Master Plan	56	School Department and Board of Selectmen	Middle-term / Medium
Create Department of Public Works (DPW)	57	Board of Selectmen	Short-term / High
Strengthen Training Opportunities for Elected and Appointed Officials	58	Board of Selectmen	Long-term / Medium
Create a Long Term Capital Plan	59	Board of Selectmen	Ongoing / High

## **Evaluation Program**

The Evaluation Program is a tool to help the Town measure the success of the Master Plan recommendations (once they have been implemented) in relation to the goals established by the community. The Evaluation Program is also a way for the town to revisit the Master Plan three, five, or even ten years into the future and take stock of new challenges and opportunities. In this way, the town can keep the Master Plan current without undertaking a complete re-write of the document every few years. The following page can be photocopied, modified for each specific goal, and filled out every few years by the Planning Board as a concise summary of the successes and failures toward meeting each of the Master Plan goals.



Hadley Master Plan – Follow-up Evaluation		Date _____
<b>Master Plan Goal:</b>		
A) Overall, is the Town closer to meeting this goal than it was in 2005 <i>[or the date of the last evaluation]</i> ? Please comment.		
B) List any Master Plan strategies related to this goal that have been implemented since the date of the last evaluation. Has each strategy helped, hurt, or had no effect on meeting the goal?		
Strategy	Effect (positive, negative, or none)	Comments
C) Are there any other factors, internal or external, that have affected the Town's progress toward meeting this goal (e.g., major new developments or state actions or policies)?		
Positive Factors:		
Negative Factors or New Challenges:		



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Created by: J.C.

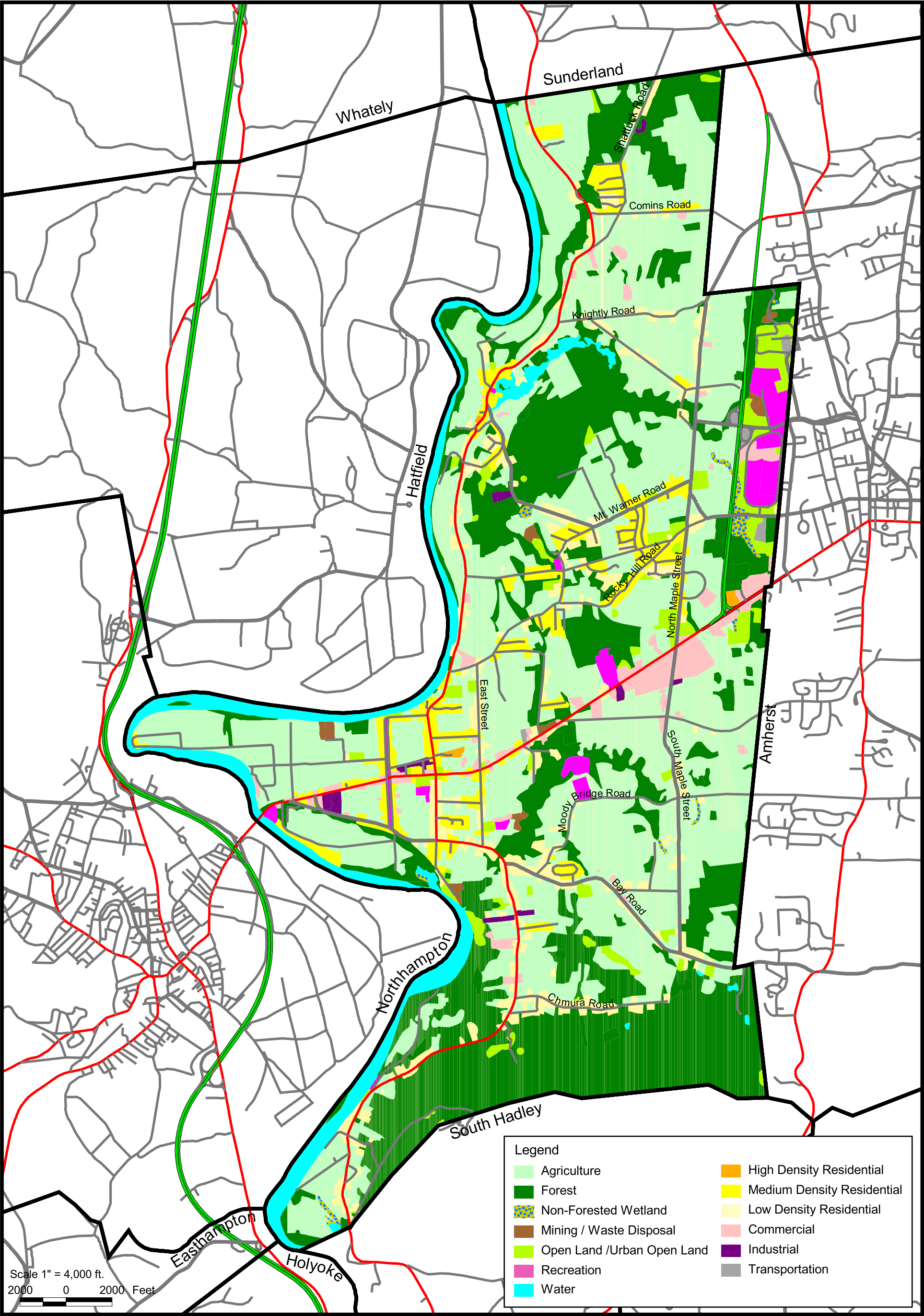
## Land Use 1971 Hadley Master Plan



Source: MassGIS

Figure  
**1-A**

2232.apr



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Created by: J.C.

## Land Use 1999 Hadley Master Plan

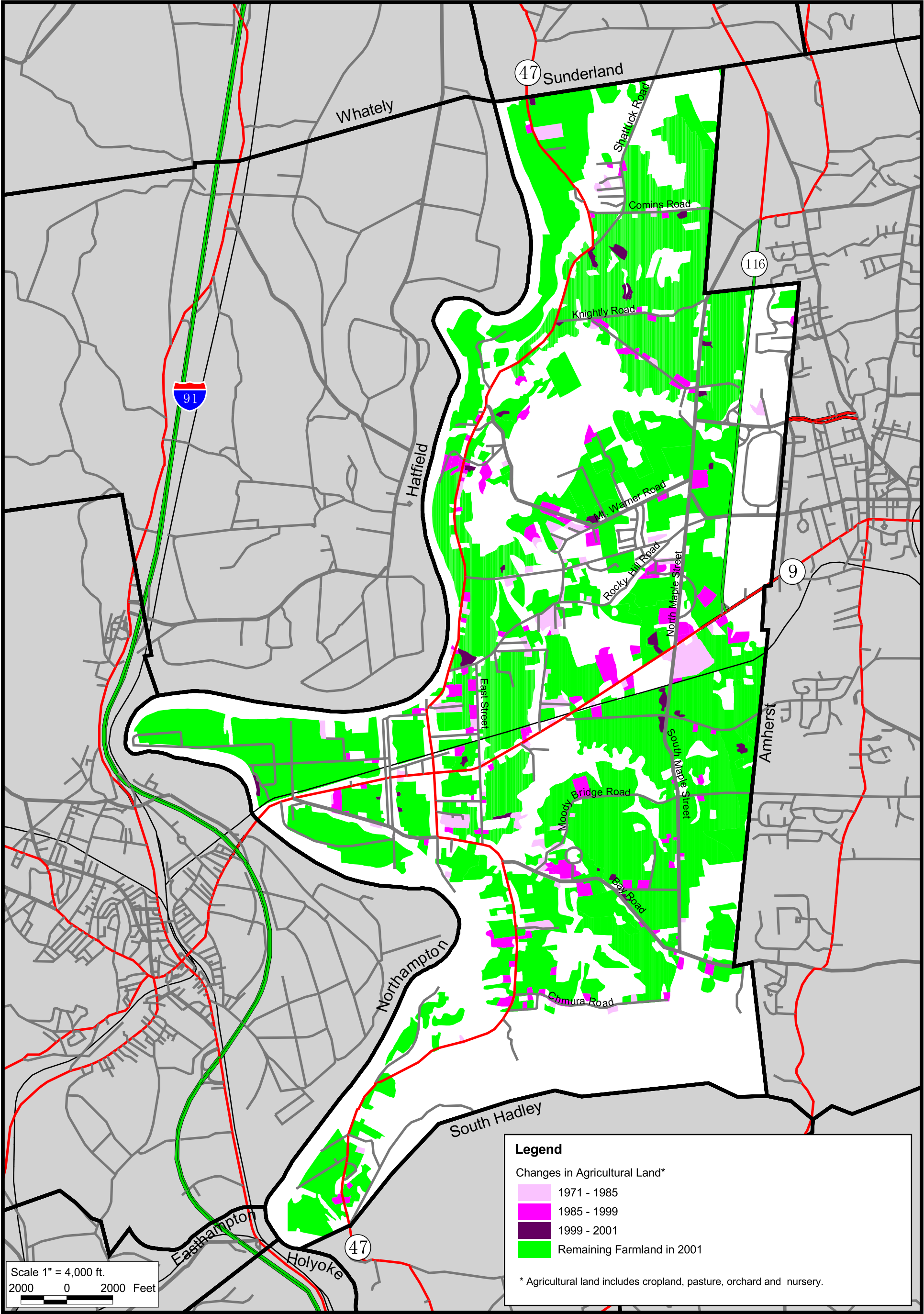


Source: MassGIS

Figure  
1-B

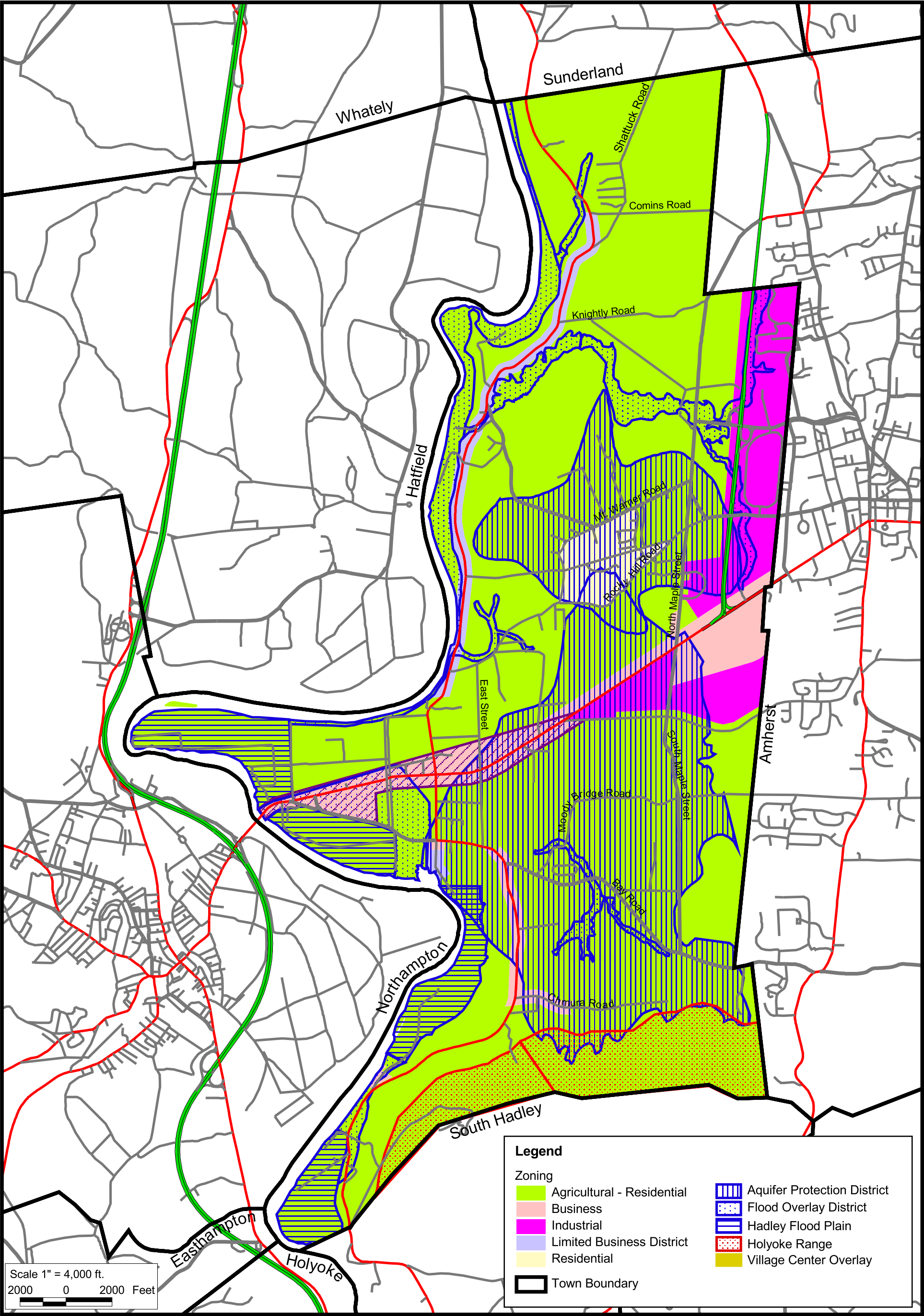
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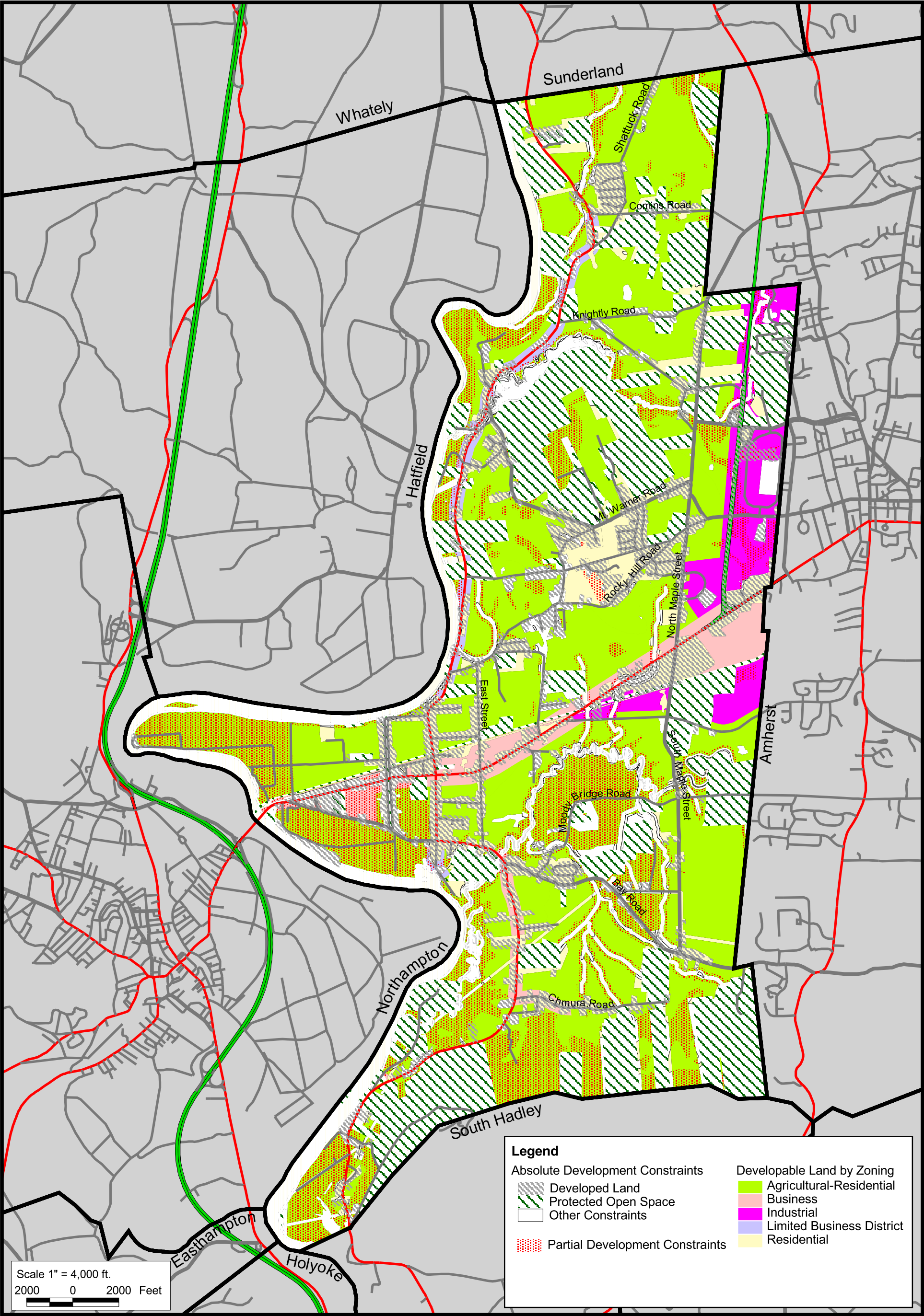




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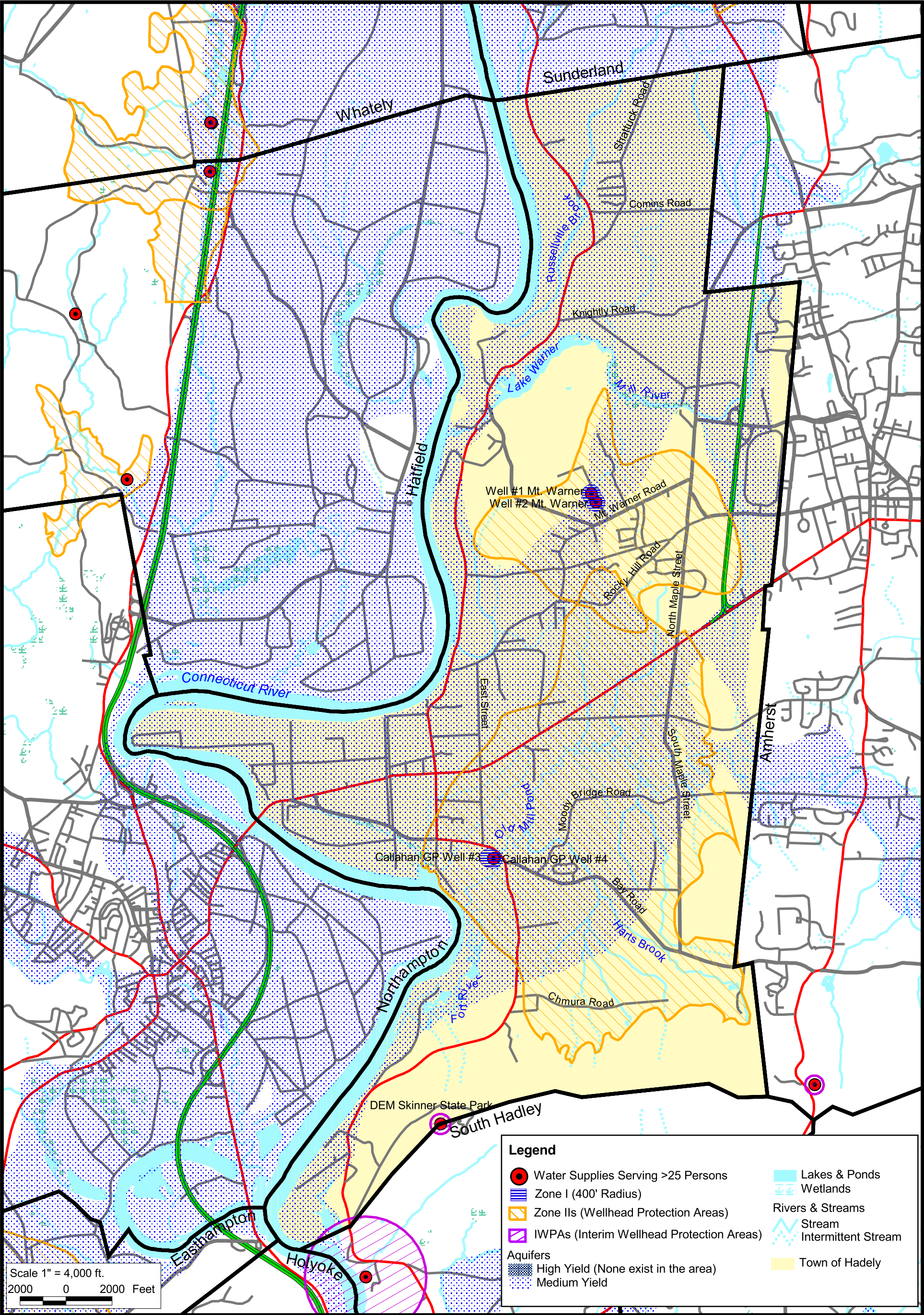
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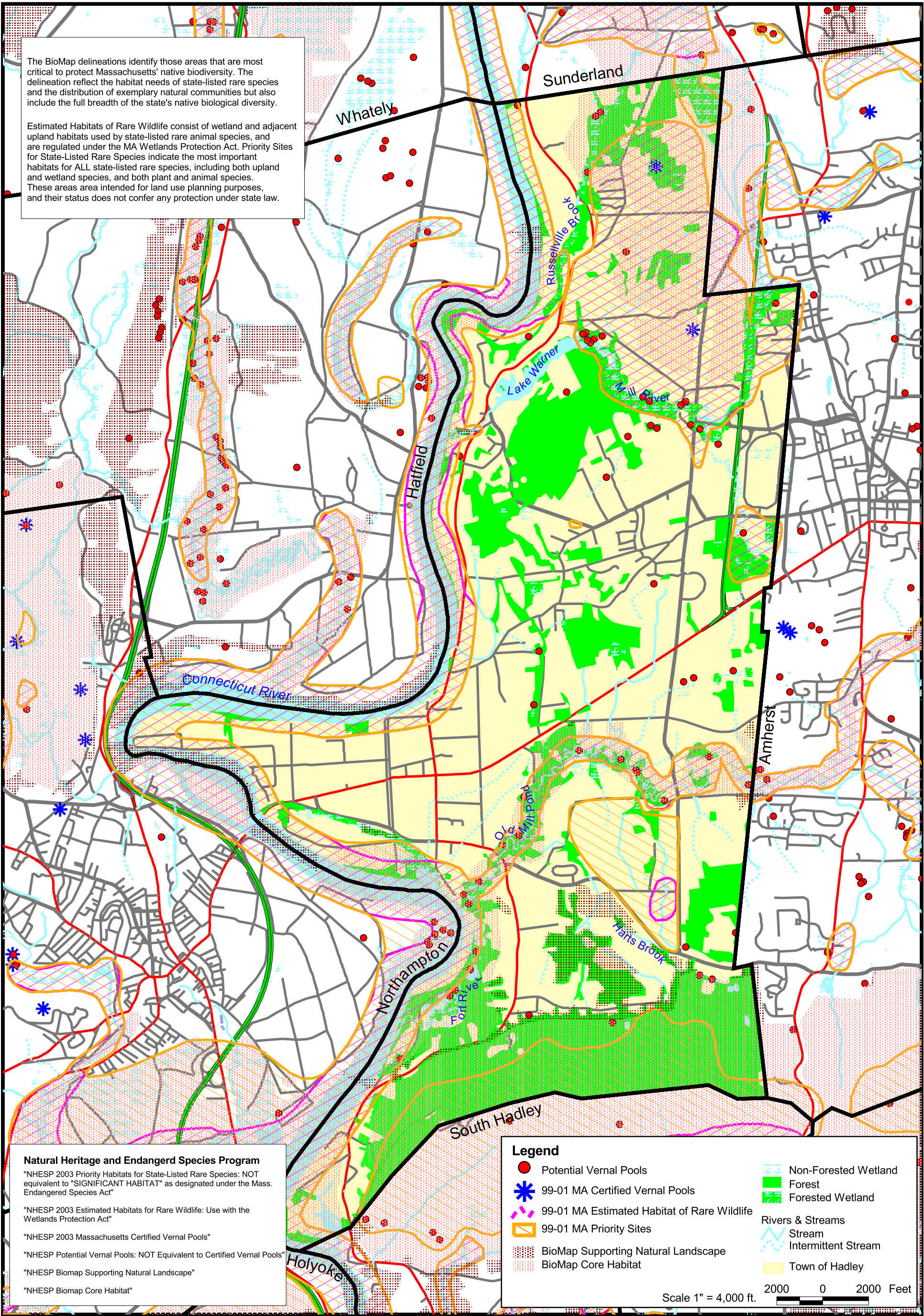


# Buildout Composite Map

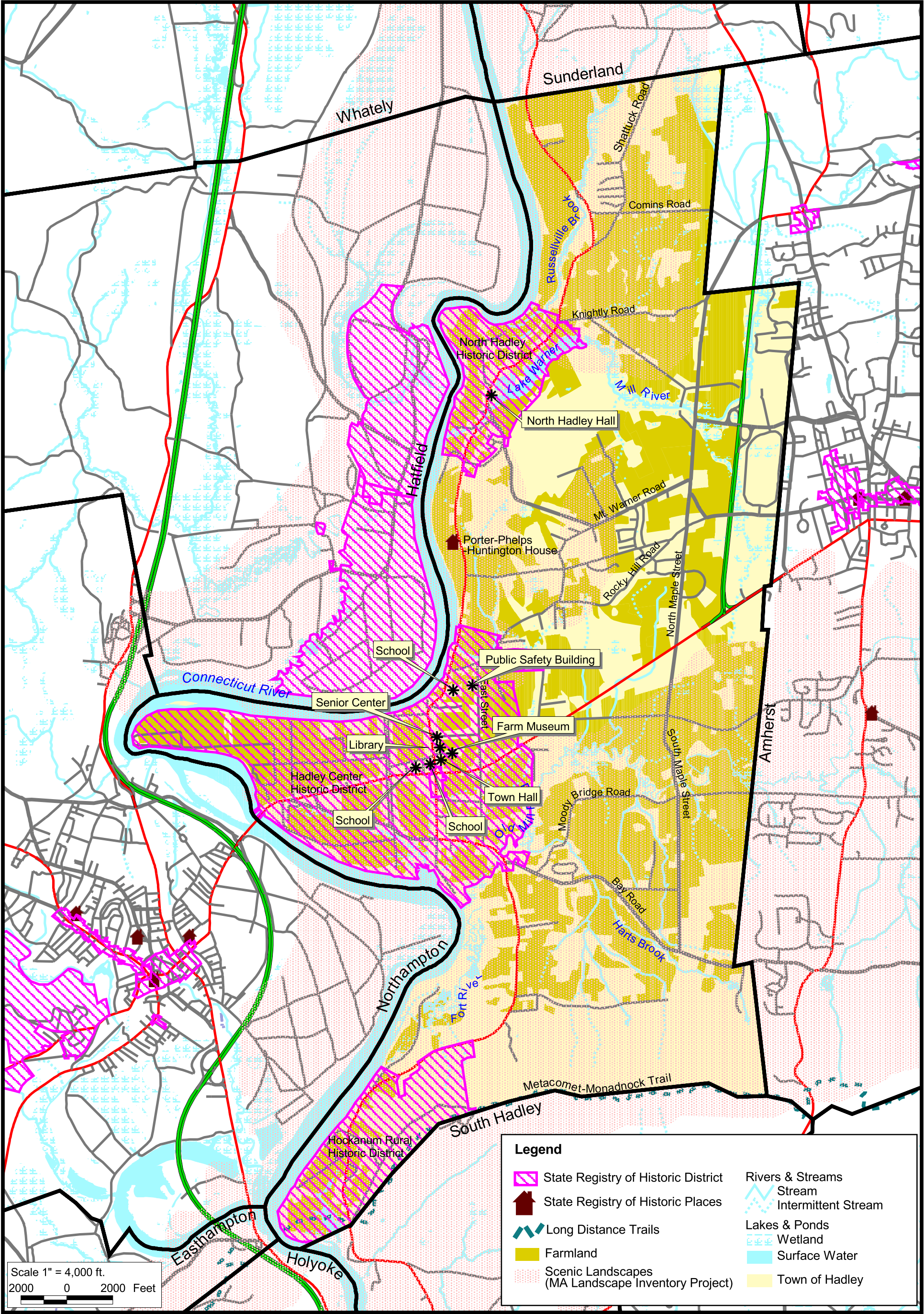
## Hadley Master Plan











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Created by: J.C.

## Special Landscape Features

### Hadley Master Plan

12/20/02

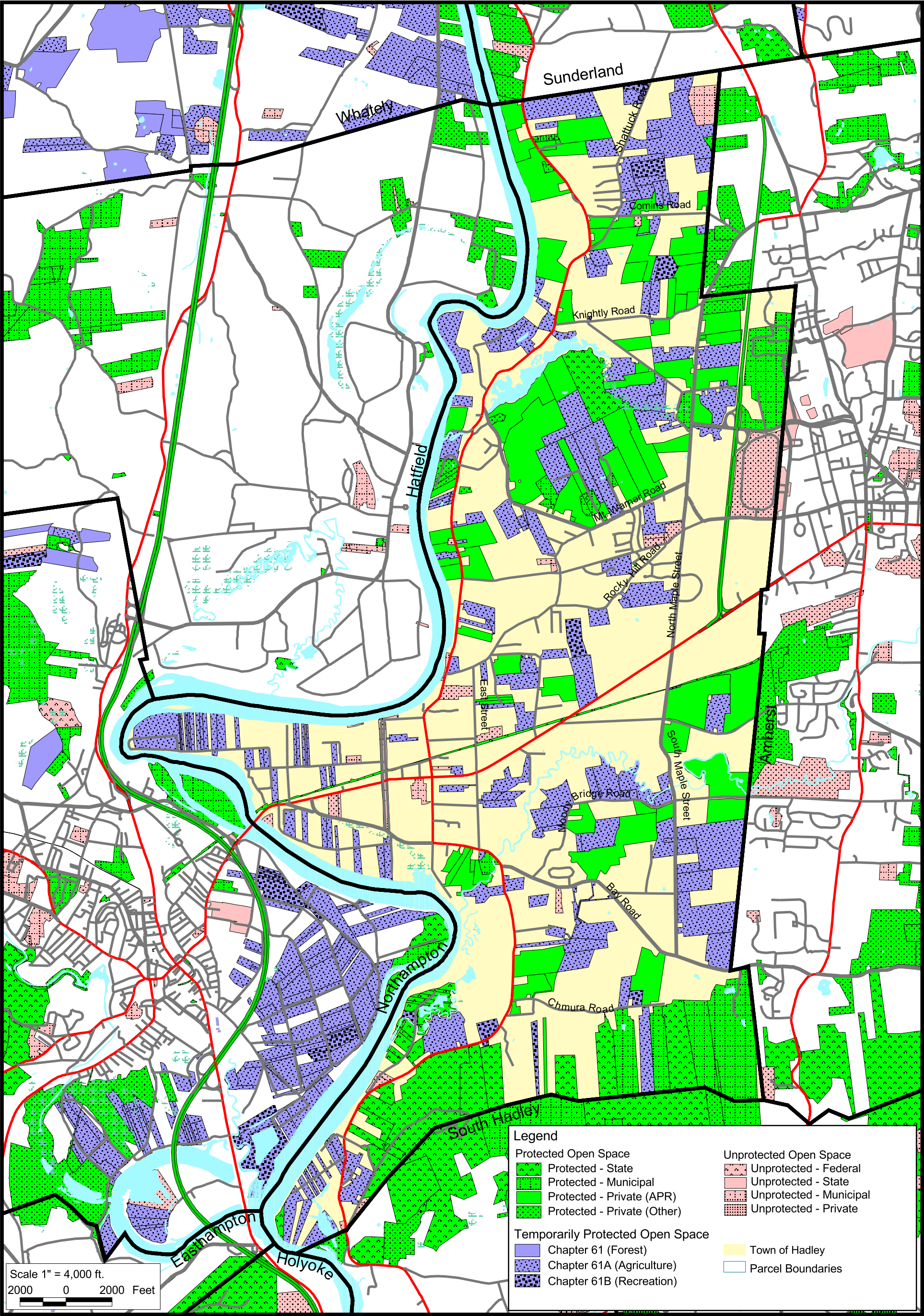


Source: MassGIS

Figure  
7

2232.apr





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Created by: J.C.

# Open Space Hadley Master Plan

9/12/03

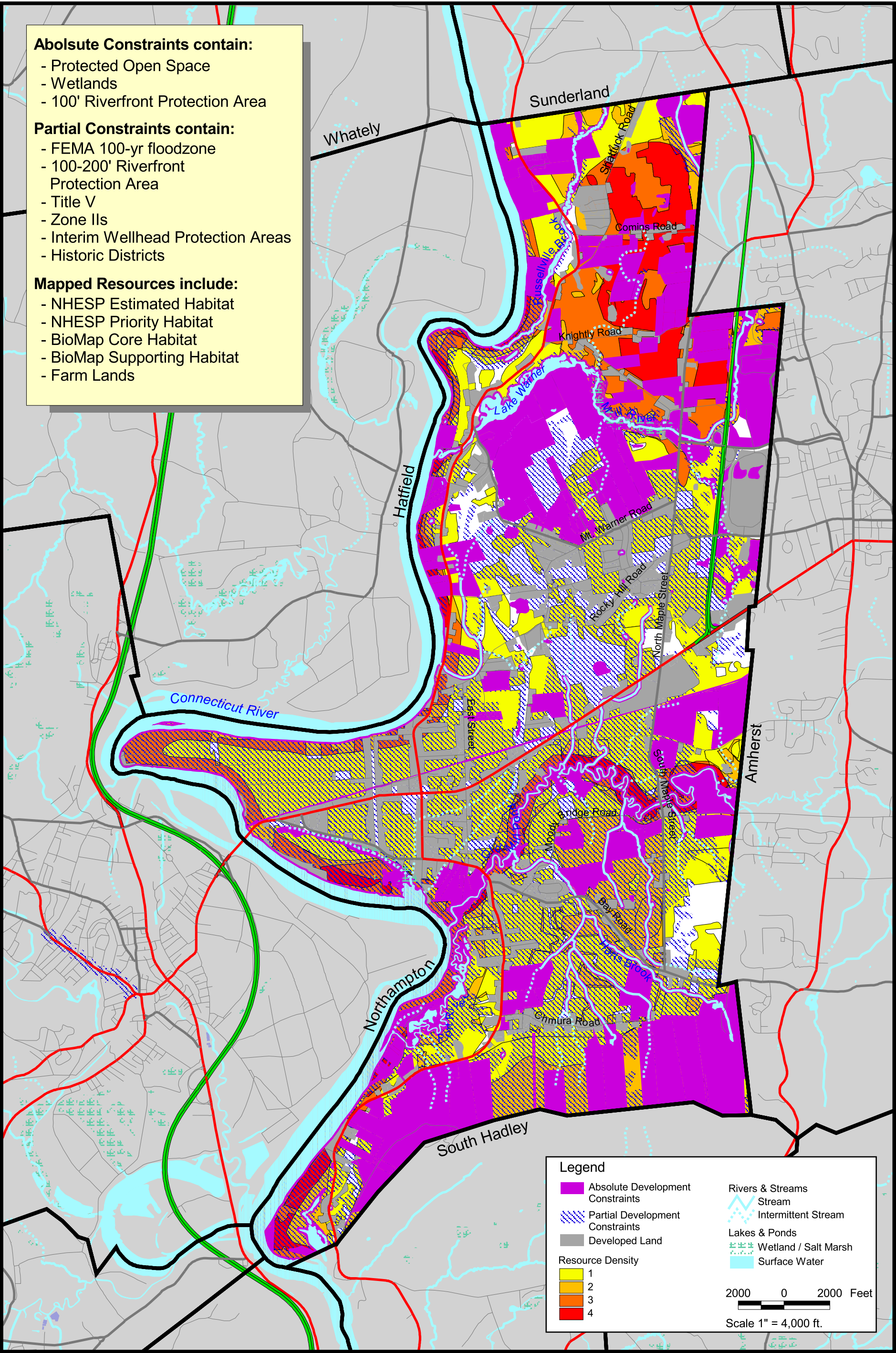


Source: MassGIS

Figure  
8

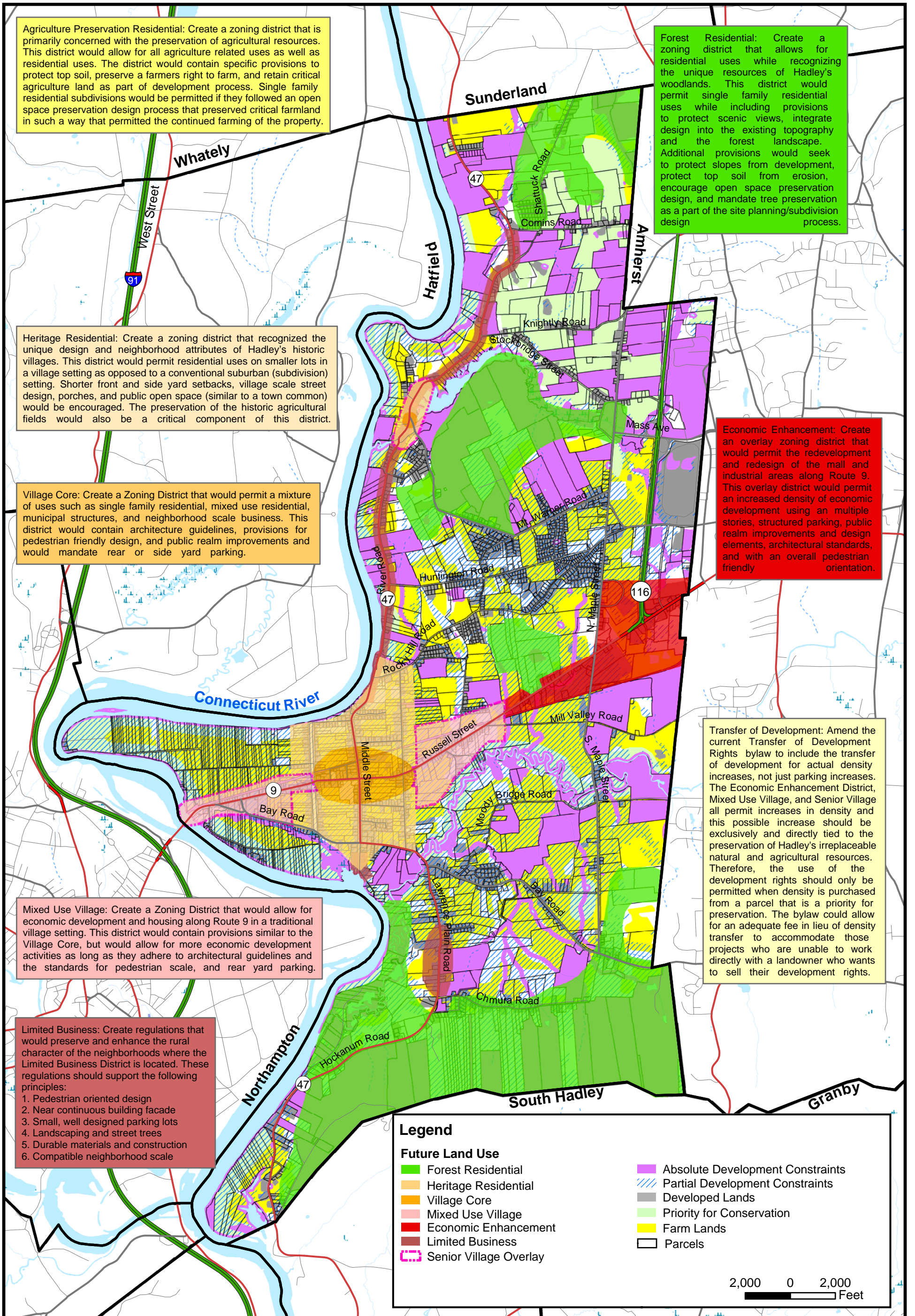
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## Land Use Guide Plan

### Hadley Master Plan

Scale 1" = 4,000 ft.



Figure  
10

Source: MassGIS, EOE, Hadley



# Hadley Master Plan

October 2005

## APPENDICES

Appendix A: Housing Analysis  
Appendix B: Water Budget Analysis  
Appendix C: Strategies Flow Chart  
Appendix D: Model Zoning Bylaws

### Prepared by:

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#### **Daylor Consulting Group, Inc.**

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Darlene Gallant, Planner



## APPENDIX A: HOUSING ANALYSIS

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## APPENDIX A: HOUSING ANALYSIS SUPPLEMENT

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The Housing Section provides insight into the nature of Hadley's housing needs by examining: (1) local area demographics and their impacts on housing demand; (2) characteristics of Hadley's existing housing supply; (3) housing market activity; (4) housing costs and affordability; (5) housing needs; (6) existing subsidized housing; and (7) an estimate of the number and types of affordable housing units that will be required to meet the housing demand.

### Local Area Demographics

This demographic profile provides an overview of Hadley's population and household growth, as well as social characteristics of the town's population, including household composition, age, and income. This information is relevant for determining future housing trends in Hadley and how they may affect growth and the need for housing, public facilities, and services.

While the focus of the demographic profile is on Hadley, regional and statewide data are provided for the purpose of comparison. In some instances, information for adjacent communities is also included so that a sense of Hadley's role in the region may be established. Hadley is a member of the Pioneer Valley Planning Commission (PVPC). The PVPC area is comprised of 43 cities and towns. Hadley's neighboring communities include Amherst, Granby, South Hadley, Easthampton, Northampton, and Hatfield.

### *Population and Growth*

**Table 1** compares Hadley's population trends to trends in the region. **In the past decade, Hadley's population has grown faster than the region's.** The 2000 population in Hadley was 4,793, an increase of 562 people or more than 13% since 1990. During the same time, Hampshire County grew by only 3.9%. Nearby communities that grew the fastest between 1990 and 2000 include Belchertown (22.6%), Granby (10.2%), South Hadley (3.1%), Easthampton (2.9%) and Hatfield (2.0%). Several nearby communities lost population during the 1990s, including Holyoke (-8.8%), Northampton (-1.1%), and Amherst (-1.0%).

Hadley's growth rate during the 1990s (13.3%) was significantly higher than the growth rate during the 1980s, when the Town's population increased by only 2.6%. The growth between 1990 and 2000 also significantly exceeded 1990 projections: the Town added 562 people during the 1990s compared to the projected 360 people<sup>1</sup>. As shown in **Table 1, Hadley is expected to continue growing faster than Hampshire County as a whole between 2000 and 2010.**

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<sup>1</sup> Massachusetts Institute of Social and Economic Research (MISER), mid-level population projections.

**Table 1**  
**Population Growth and Projections 1970 - 2010**  
**Town of Hadley and Hampshire County**

Year	Hadley		Hampshire County	
	Population	Percent Change	Population	Percent Change
1970	3,760	-	123,997	-
1980	4,125	9.7%	138,813	11.9%
1990	4,231	2.6%	146,568	5.6%
2000	4,793	13.3%	152,251	3.9%
2010 <sup>2</sup>	5,394	12.5%	155,376	2.1%
2025 <sup>3</sup>	5,692	5.5%	169,417	11.3%

Sources: U.S. Census Bureau, 1970-2000; MISER population projections for 2010; PVPC population projects from *The Republican*

### **Households**

As illustrated in **Table 2**, the number of households in Hadley increased from 1,633 in 1990 to 1,895 in 2000, an increase of 262 or approximately 16%. Consistent with regional, state, and national trends, **the household growth rate of 16% between 1990 and 2000 is higher than the town's overall population growth rate of 13.3%. This disparity indicates a shrinking household size.**

The number of persons per household in Hadley declined from 2.58 in 1990 to 2.45 in 2000. In 2000, the average household size in Hadley (2.45) was higher than the average for Hampshire County (2.39) but lower than the statewide average (2.51). This indicates that Hadley has a slightly lower proportion of small households than is typical for Hampshire County, but slightly more than is typical for Massachusetts. Average household size is expected to continue to shrink over the coming decades. **This trend reflects the increasing number of adult and elderly residents living in households of one or two persons, as well as the increasing number of single-parent households.**

**Table 2**  
**Households Trends, 1990-2000**  
**Town of Hadley and Hampshire County**

Year	Hadley		Hampshire County	
	Households	% Change From Previous	Persons Per Household	Persons Per Household
1990	1,633	-	2.58	2.54
2000	1,895	16%	2.45	2.39

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

<sup>2</sup> In 1990, MISER estimated low-level, mid-level, and high-level population projections for Hadley and Hampshire County for the years 1995, 2000, 2005, and 2010. From 1990-2000, Hadley nearly followed the high-level projections, growing from 4,231 to 4,793 (vs. a high-level projection of 4,821). Therefore, the high-level projections for Hadley are cited here. Hampshire County, however, grew even less than the low-level projections (152,251 vs. a low-level projection of 156,550). Therefore, the low-level projections for Hampshire County are cited here.

<sup>3</sup> These projects are believed to be low for the Town of Hadley, according to the Town Administrator.



## ***Household Composition***

**In 1990, 1,107 Hadley households (67.8%) consisted of families. The majority of family households, 912 or 56% of total households, were married-couple families.** The remainder was divided between female-headed families (9%) and male-headed families (3%). Non-family households in Hadley represented 32.2% of total households, or 526 households. The majority of these (358 households) consisted of single-householders living alone, and of these, 194 households, or 12% of total households, consisted of a single householder at least 65 years old living alone.

An analysis of data from 2000 Census has identified some interesting changes in Hadley's household demographics. Many of these changes parallel state and national trends. **Between 1990 and 2000, the percentage of households comprised of families dropped from 67.8% to 65.9%.** While the majority of family households, 53% or 1,006 households, continued to be married-couple families, **the share of female-headed families continued to grow, increasing to nearly 10% of total households. The proportion of non-family households in Hadley also continued to grow, increasing from 526 to 646, or 34.1% of total households.** The majority of these (468 households) consisted of single-householders living alone, and of these, 231 households, or 12.2% of total households, consisted of a single householder 65 years or older living alone.

**In the future, more housing will be needed on a regional basis as a result of the projected increase in population coupled with the shrinking household size.** In addition, Hadley's future population will require smaller housing units for single person households and non-family households. Although the relative proportion of some household categories will decrease, the actual number of households in each category is expected to continue to increase. For example, family households as a percentage of the total has decreased from 67.8% in 1990 to 65.9% in 2000, but the actual number of family households increased by 142 during this period.

## ***Age Characteristics***

**Table 3 and Table 4** provide a breakdown of Hadley's current and projected population by age group. **Between 1990 and 2000, the most substantial population growth in Hadley has been among school-aged children and older age groups.** The number of residents in the 45 to 64 year old age group increased by 412, or 50.%, between 1990 and 2000. The population of children in the 10 to 19 age range grew by 43.1%, while the 65+ group increased by 22.0%. The 20 to 44 year old age group decreased by 11.5%. These recent changes have likely been the result of recent growth in single-family housing, which is typically occupied by families with school-aged children. The growth in the Town's senior population reflects a nationwide trend toward an older population that is projected to continue and accelerate as the "baby boom" generation reaches retirement age over the next two decades.

The median age for the town was 37.8 years in 1990 as compared to 30.3 for Hampshire County and 33.6 for the state. The median age for Hadley in 2000 was 42.3 years as compared to 34.4 for Hampshire County and 36.5 for the state.

**Table 3**  
**Age Distribution, 1990-2000**  
**Town of Hadley**

Age	1990		2000		1990 – 200 Change	
	Persons	Percent	Persons	Percent	Persons	Percent
0-9	467	11.0%	480	10.0%	13	2.8%
10-19	399	9.4%	571	11.9%	172	43.1%
20-44	1,777	42.0%	1,573	32.8%	-204	-11.5%
45-64	820	19.4%	1,232	25.7%	412	50.2%
65 & over	768	18.2%	937	19.5%	169	22.0%
<b>Total</b>	<b>4,231</b>	<b>100.0%</b>	<b>4,793</b>	<b>100.0%</b>	<b>562</b>	<b>13.3%</b>

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

**Table 4** shows projections for Hadley through 2010. As shown in this table, the 45-64 and 65+ year old age groups are expected to increase proportionally, while most all other age groups are expected to decrease proportionally by 2010. **The actual number of persons in the 10-19 and 20-44 age groups is projected to decline, even as the overall population continues to grow. The number of persons in the 0-9, 45-64, and 65+ age cohorts is expected to increase.**

**Table 4**  
**Age Distribution Projections, 2000-2010**  
**Town of Hadley**

Age	2000 Actual		2010 Projected		2000 – 2010 Change	
	Person	Percent	Persons	Percent	Persons	Percent
0-9	480	10.0%	494	9.2%	14	2.9%
10-19	571	11.9%	497	9.3%	-74	-13.0%
20-44	1,573	32.8%	1,558	29.0%	-15	-1.0%
45-64	1,232	25.7%	1,722	32.1%	490	39.8%
65 & over	937	19.5%	1,095	20.4%	158	16.9%
<b>Total</b>	<b>4,793</b>	<b>100.0%</b>	<b>5,366</b>	<b>100.0%</b>	<b>573</b>	<b>12.0%</b>

Sources: U.S. Census Bureau, 2000; MISER 2010 age cohort projections updated by Daylor Consulting Group

Note: MISER age cohort projections were developed based on U.S. Census 1990 data. The actual 2000 population of 4,793 significantly exceeded the mid-level estimated 2000 population of 4,591, but was close to the high-level estimate of 4,821. Therefore, Daylor used the high-level MISER estimates to calculate the estimated population increase in each age cohort between 2000 and 2010. These increases were added to the actual 2000 age cohort distribution to arrive at the estimated 2010 age cohort breakdown.

It should be noted that the MISER population projections (and the modified version of these projections prepared by Daylor Consulting Group) are based on a projection model that considers total births, deaths, and net migration from both domestic and international sources. This model does a relatively good job of accounting for aging, births, and deaths within the town's existing population. However, the net migration factors are much harder to estimate because they are based on numerous factors that are in constant flux. For example, the net migration figures for Hadley, which are based on 1990 Census data, may not fully consider the recent building boom of single-family homes in Hadley, or the fact that the town's location and setting make it an attractive place for families with children. The age cohort projections should

therefore be regarded as a good starting point, but not as definitive predictions to be used as the sole basis for planning for Hadley's future facility needs.

### ***Income Distribution***

**Table 5** and **Table 6** compare the Town's 1990 and 2000 household income distribution with that of Hampshire County and the state. **In 1990, the town had a higher share of households earning \$50,000 or more and a lower share of households earning less than \$25,000 than either the county or the state.** In 1990, approximately 35.5% of the town's households had incomes of \$50,000 or more, as compared to 28.6% of Hampshire County households and 34.3% of Massachusetts households. Comparatively, 30.7% of the town's households earned less than \$25,000 per year. This figure was 35.9% for Hampshire County and 33.3% for the state.

**In 2000, Hadley continued to have higher household income levels than either the county or state averages.** Approximately 54.1% of the Town's households earned \$50,000 or more as compared to 46% for Hampshire County and slightly less than 41% for the state. Just over 23% of Hadley households earned less than \$25,000 in 2000. This figure was approximately 25% for both Hampshire County and for the state. See **Table 5** and **Table 6** for the detailed breakdown.

**Table 5**  
**Income Distribution, 1990**  
**Town of Hadley, Hampshire County, and the Commonwealth of Massachusetts**

Income Range	Hadley Households	Hadley Percent	Hampshire	
			County Percent	Massachusetts Percent
Less than \$10,000	156	9.6%	12.7%	13.4%
\$10,000 - \$24,999	342	21.1%	23.2%	19.9%
\$25,000 - \$49,999	549	33.8%	35.5%	32.4%
\$50,000 - \$99,999	505	31.1%	24.2%	27.6%
\$100,000 or more	72	4.4%	4.4%	6.7%

Source: U.S. Census Bureau, 1990

**Table 6**  
**Income Distribution, 2000**  
**Town of Hadley, Hampshire County, and the Commonwealth of Massachusetts**

Income Range	Hadley Households	Hadley Percent	Hampshire	
			County Percent	Massachusetts Percent
Less than \$10,000	128	6.8%	7.7%	8.8%
\$10,000 - \$24,999	315	16.6%	17.7%	15.8%
\$25,000 - \$49,999	426	22.5%	28.6%	24.9%
\$50,000 - \$99,999	718	37.9%	33.6%	32.9%
\$100,000 or more	308	16.3%	12.4%	7.7%

Source: U.S. Census Bureau, 2000

## Characteristics of Existing Housing Supply

### *Housing Units*

As of 2000, there were 1,953 housing units in Hadley, as shown in **Table 7**.<sup>4</sup> This represents a net increase of 238 units, or 13.9% from the 1990 total of 1,715 units. During the 1990s, the number of housing units grew by 10.5% in Hampshire County and by 6.0% statewide.

**Table 7**  
**Housing Units, 2000**  
**Town of Hadley, Hampshire County, and the Commonwealth of Massachusetts**

Housing Units	1990	2000	Percent Change
Hadley	1,715	1,953	13.9%
Hampshire County	53,068	58,644	10.5%
Massachusetts	2,472,711	2,621,989	6.0%

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

### *Age and Condition of Occupied Housing Stock*

Information from the 2000 U.S. Census on the age of the Town's housing stock is presented in **Table 8**. Approximately 26.8% of the Town's housing stock was constructed prior to 1940, 18.6% between 1940 and 1959, and 31.1% between 1960 and 1979. **About 23.4% of the Town's housing has been constructed during the past 20 years, with 11.2% constructed since 1990.**

**Table 8**  
**Age of Housing Stock, 2000**  
**Town of Hadley**

Year Built	Total Units	Percent
1939 or Earlier	524	26.8%
1940 to 1959	364	18.6%
1960 to 1979	607	31.1%
1980 to 1989	239	12.2%
1990 to 1998	202	10.3%
1999 to March 2000	17	0.9%
<b>Total</b>	<b>1,953</b>	<b>100.0%</b>

Source: U.S. Census Bureau, 2000

### *Housing Stock by Type*

**Table 9** summarizes Hadley's housing stock by type of unit. **Consistent with national trends, single-family detached housing comprised the majority (80.6%) of the Town's housing inventory in 2000.** The Town's total housing inventory grew by 238 units during the 1990s, and the majority of those units (200) were single-family detached homes. From 1990 to 2000, the share of single-family attached units,

<sup>4</sup> U.S. Census Bureau, 2000.

or townhouses declined slightly. In contrast, the number of two-family units in Hadley increased by 36 units. Other types of multi-family housing remained roughly the same or decreased slightly.

**Table 10**  
**Type of Units, 1990 and 2000**  
**Town of Hadley**

Type of Units	1990		2000		1990-2000
	Units	Percent	Units	Percent	Change
Single-family (detached)	1,375	80.2%	1,575	80.6%	200
Single-family (attached)	19	1.1%	15	0.8%	-4
Two-family units	187	10.9%	223	11.4%	36
Three or four units	55	3.2%	46	2.4%	-9
Five to nine units	48	2.8%	59	3.0%	11
Ten to nineteen units	9	0.5%	0	0.0%	-9
Twenty or more units	0	0.0%	22	1.1%	22
Mobile Home*	8	0.5%	7	0.4%	-1
Other	14	0.8%	6	0.3%	-8
<b>Total Units</b>	<b>1,715</b>	<b>100.0%</b>	<b>1,953</b>	<b>100.0%</b>	<b>238</b>

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

## Ownership

**Hadley's rate of homeownership increased slightly between 1990 and 2000.** Approximately 72.5% of housing units in Hadley were owner-occupied in 2000 as compared to 70.3% in 1990. The proportion of total units that was renter-occupied decreased slightly from 24.9% in 1990 to 24.6% in 2000. The total housing stock increased during the 1990s, however, the majority of new units constructed are now owner-occupied. These trends reflect the construction of new single-family homes during the 1990s (which are almost exclusively owner-occupied).

**Table 11**  
**Ownership, 1990-2000**  
**Town of Hadley**

	1990		2000		1990 - 2000
	Units	Percent	Units	Percent	Change
Owner Occupied	1,206	70.3%	1,415	72.5%	209
Renter Occupied	427	24.9%	480	24.6%	53
Vacant	82	4.8	58	3.0%	-24
<i>Seasonal, Recreational, or Occasional Use</i>	16	0.9%	10	0.5%	-6
<b>Total</b>	<b>1,715</b>	<b>100.0%</b>	<b>1,953</b>	<b>100.0%</b>	<b>238</b>

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

## ***Length of Residency***

**Table 12** shows the length of residency for Hadley residents as compared to Hampshire County and the state. The “length of residency” statistic indicates how long the head of household has lived in his or her current residence, not how long the householder has lived in the town. Thus, it is a measure of the average turnover of housing units—and not a direct measure of new residential influx. Turnover is a useful statistic because it is related to the rate of new construction as well as to changes in the cost of rental and sale units. Very often, areas that are subject to escalating prices experience higher than normal turnover rates. As previously affordable units become unaffordable, residents are either forced to move because of rising rents or property taxes, or choose to “cash in” by selling their home.

**As shown in Table 12, the rate of turnover in Hadley is considerably lower than in Hampshire County or the state overall.** The percentage of households that has been in place for five years or less in Hadley is 33.0% as compared to 42.9% for Hampshire County, and 44.4% for the state. In addition, the percentage of households that has been in place for eleven years or longer is slightly more than state and county averages: 52.8% in Hadley, compared to 41.5% for Hampshire County, and 40.0% statewide.

**Table 12**  
**Length of Residency by Householder, 2000**  
**Town of Hadley, Hampshire County, and the Commonwealth of Massachusetts**

Length	Town of Hadley		Hampshire County	Massachusetts
	Number	Percent	Percent	Percent
One year or less	151	8.0%	16.8%	16.4%
Two to five years	474	25.0%	26.1%	28.0%
Six to ten years	269	14.2%	15.6%	15.6%
Eleven to twenty years	322	17.0%	16.9%	16.1%
Twenty-one to thirty years	262	13.8%	10.8%	10.5%
Thirty-one years or longer	417	22.0%	13.8%	13.4%
<b>Total Householders<sup>5</sup></b>	<b>1,895</b>	<b>100.0%</b>	<b>100%</b> <b>(55,991)</b>	<b>100%</b> <b>(2,443,580)</b>

Source: U.S. Census Bureau, 2000

## **The Housing Market**

### ***Vacancy Rate and Unoccupied Units***

Vacancy rate indicates the availability of housing units in a community. In general, a vacancy rate of 5% is considered ideal because it allows the population to move freely in the marketplace. The vacancy rate for ownership units in Hadley in 2000 was considerably less than rates observed for the state and the county: Hadley (0.3%), Hampshire County (0.7%), and Massachusetts (0.7%). The 2000 vacancy rate for rental units in Hadley was 2.0%, down from 3.0% in 1990 (see **Tables 13 A & B**). **Both vacancy rates for rental and ownership housing are far below 5%, which indicates that there is a significant demand for additional housing.**

<sup>5</sup> This total reflects the total number of occupied units, which is smaller than the total number of units.

While the vacancy rate identifies the availability of units for rent or for sale, the percentage of vacant or unoccupied units also includes dwelling units that are not available for rent or sale because they are abandoned, dilapidated, or otherwise not suitable for habitation. In 2000, Hadley had 26 unoccupied units, which comprised 1.3%<sup>6</sup> of the Town's housing stock. The low vacancy rate and unoccupied units rate indicates that Hadley has a limited supply of housing for sale and that the overall condition of the housing is good.

**Table 13A**  
**Vacancy Rate, 1990**  
**Town of Hadley, Hampshire County, and the Commonwealth of Massachusetts**

Vacancy Rate	Hadley		Hampshire County		Massachusetts	
	Percent	Units	Percent	Units	Percent	Units
Homeowner Units	1.3%	16	2.0%	644	1.7%	23,288
Rental Units	3.0%	13	3.6%	697	6.9%	67,772

Source: U.S. Census Bureau 1990.

**Table 13B**  
**Vacancy Rate, 2000**  
**Town of Hadley, Hampshire County, and the Commonwealth of Massachusetts**

Vacancy Rate	Hadley		Hampshire County		Massachusetts	
	Percent	Units	Percent	Units	Percent	Units
Homeowner Units	0.3%	4	0.7%	253	0.7%	10,861
Rental Units	2.0%	10	2.9%	594	3.5%	34,174

Source: U.S. Census Bureau 2000.

### **Home Sales Activity**

According to the Banker and Tradesman, home sales activity in Hadley remained fairly constant during the first half of the 1990s, and then increased substantially during the second half. The increase was considerably steeper for single-family home sales than for all real estate sales.<sup>7</sup> The lowest point of home sales activity was in 1990 when only 18 homes were sold.<sup>8</sup> The market for condominiums was very limited, with only a handful being sold between 1990 and 2003.

<sup>6</sup> This figures includes units: (1) rented or sold, not occupied; and (2) other vacant housing units. This figure does not include seasonal housing units.

<sup>7</sup> The "All Sales" category includes all property transactions with a sales price greater than \$100.00 as recorded by the Registry of Deeds. This would include, in addition to single-family homes and condominiums, all commercial, industrial, and other non-residential property sales.

<sup>8</sup> Source: Banker and Tradesman, a publishing and information services organization that provides services to professionals working in the fields of real estate, banking and commerce.

**Table 14**  
**Home Sales Activity, 1990-2003**  
**Town of Hadley**

<b>Year</b>	<b>Single-Family Home Sales</b>	<b>Condominium Sales</b>	<b>Other Sales</b>	<b>All Sales</b>
1990	18	0	33	51
1991	20	0	35	55
1992	31	0	34	65
1993	30	1	58	89
1994	29	0	58	87
1995	33	1	61	95
1996	38	1	52	91
1997	48	3	50	101
1998	54	1	34	89
1999	52	2	45	99
2000	48	1	27	76
2001	54	0	33	87
2002	51	0	55	106
2003	54	0	52	106

Source: Banker and Tradesman.

### ***Housing Permit Data and Construction Costs***

In reviewing housing permit data from 1995 through 2001, two trends become apparent. First, while the number of single-family homes constructed in Hampshire County remained fairly constant during the seven year period, the number being constructed in Hadley has decreased dramatically from its 1996 peak. Second, the average construction cost of single-family homes in Hadley generally parallels the cost of homes constructed in Hampshire County.



**Table 15**  
**Housing Permit Data and Construction Costs**  
**Single-Family Units, 1995 - 2003**  
**Town of Hadley and Hampshire County**

Year	Total Cost	Hadley		Hampshire County		
		Number of	Average	Total Cost	Number	Average
		Units	Cost/Unit		of Units	Cost/Unit
1995	\$2,799,050	22	\$127,230	\$45,915,845	372	\$123,430
1996	\$4,490,599	39	\$115,144	\$52,691,931	429	\$122,825
1997	\$4,623,796	29	\$159,441	\$47,412,596	368	\$128,839
1998	\$2,284,300	17	\$134,371	\$49,355,488	391	\$126,229
1999	\$2,358,500	16	\$147,406	\$58,074,847	432	\$134,433
2000	\$1,215,500	9	\$135,056	\$51,179,221	356	\$143,762
2001	\$2,579,940	15	\$171,996	\$58,521,822	370	\$158,167
2002	NA	18	NA	NA	NA	NA
2003	NA	18	NA	NA	NA	NA
2004	NA	4*	NA	NA	NA	NA

Source: Commonwealth of Massachusetts; Town of Hadley

\* To date as of ?

## Affordability Indices

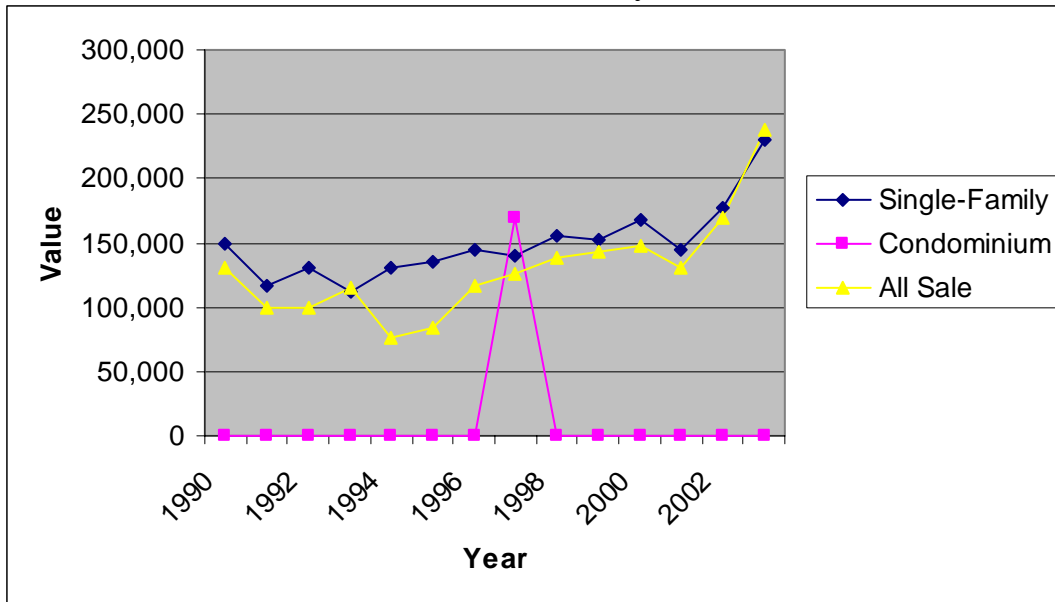
A generally accepted standard used to define affordability is that monthly housing costs should not exceed 30% of household income. A guideline used by banks when evaluating home mortgage applications is that monthly payments should not exceed 30-33% of household income (including taxes and insurance).

## Housing Costs

### Cost of Homeownership Units

According to Banker and Tradesman, the median sales price for single-family houses sold in Hadley in 2003 was \$230,000. According to this dataset, no condominiums were sold in Hadley during 2003.

**Figure 1**  
**Median Home Sales Price, 1990 -2003**  
**Town of Hadley**



### Costs of Rental Housing

Rental housing in Massachusetts has become more expensive in recent years. Although rents in western Massachusetts have historically risen more slowly in the past, the pressure on rental markets is increasing across the Commonwealth as housing availability grows tighter in major metropolitan areas. In 1990, median gross rent in Hadley was \$520 per month, compared to the Hampshire County median of \$421 and the statewide median of \$580. In 2000, median rent in Hadley was \$654 per month, compared to a county median of \$631 and a statewide median of \$684.

### **Housing Needs**

Overall, the greatest housing needs in Hadley are for: (1) senior housing; and (2) various alternatives to single-family housing (housing for individuals living alone, single-parent households, empty-nesters, and younger couples with children). Additional affordable housing is needed, and this need will become more acute if the recent market driven escalation of housing prices continues.

### ***Low and Moderate Income Households***

The Department of Housing and Urban Development (HUD) calculates the median income for U.S. metropolitan and non-metropolitan areas each year. Hadley is included within the Springfield Metropolitan Statistical Area (MSA) and the area median family income for 2004 is \$59,400. HUD establishes income groups – very low, low, and moderate – as households whose income falls within specific percentages of the area median income. Most state and federal programs are available for households who make up to 80% of the area median income (\$47,520), adjusted for household size.

### Very Low-Income (0 to 30% of area median income)

Approximately 188 of a total of 1,856 households in Hadley are very low-income, according to the 2000 census. This represents 10% of all households. The majority of these households own their own home (107). Eighty-two percent of these owner households pay over 30% of their income for housing. Eighty-one very low-income households are renters and 63.0% of them pay over 30% of their income for rent. After paying their monthly housing costs, a large majority of the very low-income households in Hadley are left with little income to pay for other necessities.

### Low-Income (31% to 50% of area median income)

Ten percent, or 189, of Hadley households are low-income. The 2000 census shows that 48.1% (91) of the low-income households rent their housing units. Of these renter households, 36.3% pay more than 30% of their income for rent. Fifty-two percent (98) low-income households own their homes. Thirty-four percent of these homeowners pay over 30% or more of their income on housing.

### Moderate-Income (51% to 80% of median income)

Nearly 11% (197) of households in Hadley are moderate income. In this income group, 31.5% are renters and 68.5% are homeowners. The housing costs burden on renters in this income group is a bit more than the other low-income groups. Nearly 55.0% of the moderate-income renters are paying over 30% of their income for rent. Twenty-four percent of the moderate-income homeowners are paying over 30% of their income for housing costs.

### Other Income Groups (81% > of median income)

Data from the 2000 census indicates that approximately 69.0% of households (1,282) earn over 80% of median family income in Hadley. Only 17.0% of these residents rent their units. Of these, none pay over 30% of their income for housing. Eighty-three percent of residents that earn over 80% of median family income own their homes. Nearly eight percent of these homeowners pay over 30% of their income on housing.

### ***Elderly***

According to the 2000 census, 40.9% of elderly households have very low and low-incomes (235) and another 14.1% (81) have moderate incomes. This means that 55% of elderly households in Hadley make less than 80% of median income and would be income eligible for most state and federal housing programs.

The latest census data also reveals that 20.9% of households over 65 are renters. Among elderly renters 19.2% pay more than 30% of their income for rent. This represents about 23 elderly households who are already paying too high a percentage of their income for housing. While rents rise, many elderly incomes are fixed. Over time, they will be forced to devote greater percentages of their income to housing.

Seventy-nine percent of households over 65 own their home. Twenty percent of owners 65 years old and over, pay 30% or more of their incomes for housing costs. Most elderly have owned their homes for many

years. For the elderly this means that most no longer carry a mortgage on their property. Therefore, their monthly housing costs should be lower. Despite this, due to their proportionally lower-income, elderly homeowners are still paying a greater percentage of their income to own a home. Since most elderly are on fixed incomes, their income will not rise to meet increasing housing costs and the expenses of maintenance and repair that aging properties require.

### **Renters**

Only 24.6% of all Hadley households are renters. In 2000, the U.S. Census estimated that **at least 26.0% of renters in Hadley spent more 30% or more of their income on housing.** In 1990, median gross rent in Hadley was \$520 per month, compared to the Hampshire County median of \$421 and the statewide median of \$580. In 2000, median rent in Hadley was \$654 per month, compared to a county median of \$631 and a statewide median of \$684.

Based on the area median family income published by HUD for 2004, the maximum affordable monthly rent, including utilities, for a very low-income household is \$446; for a low-income family it is \$743; for a moderate-income family it is \$1,188; and for a middle-income family it is \$1,411. These figures would suggest that rental units in Hadley are affordable to all but very-low income households.

As shown in **Table 16**, the town's stock of rental housing grew by 53 units, or 12.4% during the 1990s, and accounted for 24.6% of total occupied units.

**Table 16**  
**Housing Occupancy, 1990 and 2000**

Category	1990		2000	
	Number	Percent	Number	Percent
<b>Occupied Housing Units</b>	<b>1,633</b>	<b>95.2</b>	<b>1,895</b>	<b>97.0</b>
<i>Owner-Occupied Housing Units</i>	<i>1,206</i>	<i>70.3</i>	<i>1,415</i>	<i>72.4</i>
<i>Renter-Occupied Housing Units</i>	<i>427</i>	<i>24.9</i>	<i>480</i>	<i>24.6</i>
<b>Vacant Housing Units</b>	<b>82</b>	<b>4.8</b>	<b>58</b>	<b>3.0</b>
<b>Total Housing Units</b>	<b>1,715</b>	<b>100.0</b>	<b>1,953</b>	<b>100.0</b>

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. Italicized lines are subsets of the preceding boldface lines.

### **Owners**

Based on the 2000 census, 72.4% of housing units in Hadley are owner-occupied. Nearly 17.0% of all owners are paying more than 30% of their incomes on housing costs. Eighty-two percent of the very low-income owners (88) households, 33.7% of the low-income owners (33) households, and 24.4% of the moderate-income owners (33) households pay over 30% of their incomes on housing costs. This totals 154 homeowner households who are income eligible for many state and federal housing programs, but for whom housing is absorbing an excessive portion of their income. In addition there are 1,063 owner

households that earn more than 80% of are median family income. Of these, 7.8% pay more than 30% of their incomes on housing costs.

## **Inventory of Subsidized Housing**

### ***Chapter 40B-Qualifying Affordable Housing***

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 as defined by HUD. In order to qualify as affordable under Chapter 40B, housing units must be subsidized<sup>9</sup> by the state or federal government.

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 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. 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.

According to Department of Housing and Community Development (DHCD), 261 out of a total 1,943 units or an impressive 13.43% of Hadley's housing inventory qualified as affordable under Chapter 40B, as illustrated in **Table 17** on the following page. The qualifying units include a variety of housing types including two residential group homes established and operated by the State's Department of Mental Health and the State's Department of Mental Retardation, family housing, and senior housing. The supply consists of only rental housing as there are no ownership opportunities available.

### ***Senior Housing and Special Needs Housing***

The Town's current stock of elderly housing includes the 80 unit Windfields Senior Estates 55+ residential community, as well as one project containing 40 units known as Golden Court Apartments and operated by the Hadley Housing Authority.

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<sup>9</sup> Initially, "subsidized" in the context of Chapter 40B was taken to mean financial subsidies only. As a result, communities had little incentive to undertake housing initiatives not involving direct state or federal financial assistance, even if they were otherwise consistent with the intent of the statute. This changed in 1989 when the definition of "subsidized" was broadened to include programs providing subsidies in-kind or through technical assistance or other supportive services. As a result, several non-traditional subsidy programs came into wide use during the 1990s. These include the Department of Housing and Community Development's (DHCD) Local Initiative Program (LIP), the Federal Home Loan Bank of Boston Affordable Housing Program, and the New England Fund (NEF).

### ***Projects in Process and Under Review***

No new affordable housing development proposals have been submitted to the Town of Hadley for review.

**Table 17**  
**Current Affordable Housing Inventory**  
**Town of Hadley**

<b>Project</b>	<b>Location</b>	<b>Group Served</b>	<b>Total Units</b>	<b>Rental vs. Ownership</b>	<b>Comprehensive Permits</b>	<b>Subsidizing Agency</b>
Hadley Housing Authority	Burke Way	Family	12	Rental	No	DHCD
Golden Court Apartments	42 Golden Court	Senior	40	Rental	No	DHCD
Mountain View Apartments	Campus Plaza Road	Family	25	Rental	No	RHS
Windfields Senior Estates	Russell Street	Senior	80	Rental	Yes	DHCD and MHP
Windfields Family Estates	Russell Street	Family	80	Rental	Yes	DHCD and MHP
DMR Group Homes	Confidential	Rental	20	Rental	NA	DMR
DMH Group Homes	Confidential	Rental	4	Rental	NA	DMH
<b>Total</b>			<b>261</b>			

Source: Town of Hadley

### ***Unmet Needs***

As the Town creates a plan to develop additional units it is important to understand the housing gaps that exist so that new development strategies can be tailored to address specific deficits.

**Table 18** illustrates where the most dramatic deficits exist among renter households, if any. There are a total of 66 non-family households earning less than 80% of median family income and 52 of those households pay over 30% of their income for housing. There are no units appropriate for this group indicating a need for additional rental opportunities. The shortfall would suggest that the development of additional one and two bedroom rental units designed to accommodate non-family households would be appropriate.

Family and elderly renter household seem to be adequately served by the existing supply of affordable housing.

**Table 18**

**Rental Housing Gaps  
Town of Hadley**

<b>Households by Type and Cost Burden</b>	<b>Elderly</b>	<b>Small Family (2 to 4)</b>	<b>Large Family (5 or more)</b>	<b>All Other Households</b>	<b>Total Renters</b>
<b>Extremely Low-Income</b>	<b>49</b>	<b>24</b>	<b>0</b>	<b>8</b>	<b>81</b>
% Cost Burden >30%	38.8%	100.0%	NA	100.0%	63.0%
Number Cost Burden >30%	19	24	NA	8	51
<b>Low-Income</b>	<b>44</b>	<b>8</b>	<b>0</b>	<b>39</b>	<b>91</b>
% Cost Burden >30%	0.0%	50.0%	NA	74.4%	36.3%
Number Cost Burden >30%	0	4	0	29	33
<b>Moderate-Income</b>	<b>8</b>	<b>35</b>	<b>0</b>	<b>19</b>	<b>62</b>
% Cost Burden >30%	50.0%	42.9%	NA	78.9%	54.8%
Number Cost Burden >30%	4	15	0	15	34
<b>All Other Households</b>	<b>19</b>	<b>65</b>	<b>10</b>	<b>125</b>	<b>219</b>
% Cost Burden >30%	0.0%	0.0%	0.0%	0.0%	0.0%
Number Cost Burden >30%	0	0	0	0	0
<b>Income Eligible Households</b>	<b>101</b>	<b>67</b>	<b>0</b>	<b>66</b>	<b>234</b>
Number Cost Burden >30%	23	43	0	52	118
Affordable Units Supplied	120	117		0	261

Source: U.S. Census Bureau, 2000; Department of Housing and Urban Development.

Notes: Due to confidentiality and rounding problems the total number of households used in creating these tabulations is smaller than the figure reported earlier in the report.

**Table 19** provides data on unmet needs for affordable homeownership opportunities. There are 340 homeowners earning less than 80% of the area median family income and 154 of those pay more than 30% of their income for housing. The elderly have few affordable ownership options. As Hadley's population continues to age, appropriate ownership housing for elderly residents will be required. Of the 215 Hadley homeowners over the age of 65, forty percent of them are overly burdened by housing costs. In addition to the construction of smaller units affordable to Hadley's elderly residents, the creation of a program designed to alleviate the costs of homeownership for elderly households living on fixed incomes would be appropriate.

There is also a need for affordable homeownership opportunities for families (smaller families in particular). There are 89 families eligible for affordable housing and 50.6% of those households pay over 30% of their income for housing. In addition, there are 22 non-family income-eligible households with no homeownership opportunities.

**Table 19**  
**Ownership Housing Gaps**  
**Town of Hadley**

<b>Households by Type and Cost Burden</b>	<b>Elderly</b>	<b>Small Family (2 to 4)</b>	<b>Large Family (5 or more)</b>	<b>All Other Households</b>	<b>Total Owners</b>
<b>Extremely Low-Income</b>	<b>73</b>	<b>20</b>	<b>0</b>	<b>14</b>	<b>107</b>
% Cost Burden >30%	74.0%	100.0%	NA	100.0%	82.2%
Number Cost Burden >30%	54	20	0	14	88
<b>Low-Income</b>	<b>69</b>	<b>15</b>	<b>10</b>	<b>4</b>	<b>98</b>
% Cost Burden >30%	42.0%	0.0%	0.0%	100.0%	33.7%
Number Cost Burden >30%	29	0	0	4	33
<b>Moderate-Income</b>	<b>73</b>	<b>44</b>	<b>0</b>	<b>18</b>	<b>135</b>
% Cost Burden >30%	5.5%	56.8	NA	22.2	24.4
Number Cost Burden >30%	4	25	0	4	33
<b>All Other Households</b>	<b>239</b>	<b>599</b>	<b>125</b>	<b>100</b>	<b>1,063</b>
% Cost Burden >30%	1.7%	6.5%	16.0%	20.0%	7.8%
Number Cost Burden >30%	4	39	20	20	83
<b>Income Eligible Households</b>	<b>215</b>	<b>79</b>	<b>10</b>	<b>36</b>	<b>340</b>
Number Cost Burden >30%	87	45	0	22	154
Affordable Units Supplied	0		0	0	0

Source: U.S. Census Bureau, 2000; Department of Housing and Urban Development.

Notes: Due to confidentiality and rounding problems the total number of households used in creating these tabulations is smaller than the figure reported earlier in the report.

## Conclusions

Key findings responsible for influencing the establishment of the following housing goals and the creation of strategies described later in this document include the following:

- In the past three decades, Hadley's population has grown at a significantly faster rate than the region, and this trend is projected to continue. This rapid growth rate was a key factor in influencing the need for development of a comprehensive set of policies designed to guide appropriate housing development.
- Between 1990 and 2000, Hadley's household growth rate was higher than the overall population growth rate indicating a shrinking household size. This trend reflects the increasing number of adult and elderly residents living in households of one or two persons, as well as the increasing number of single-parent households. This finding would suggest the need for smaller housing units.



- The number of elderly residents in Hadley is expected to increase dramatically in the next 20 years. As a result, there will be increased pressure to meet the demand for housing and services designed to serve this demographic group.
- The Town of Hadley's resident income levels increased during the 1990s, with the Town's median household income exceeding both the county and the state medians. This increase in wealth has influenced the overall costs of housing and will continue to do so. As a result, older Hadley residents may be faced with few housing options should housing costs exceed their means and younger families seeking to move into Hadley may be priced out of the market.
- Single-family housing comprises the majority of the Town's housing inventory, which is a barrier to certain population groups seeking to enter the Hadley housing market or modify their housing choice.

## **APPENDIX B: WATER BUDGET ANALYSIS**

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## **APPENDIX B: WATER BUDGET ANALYSIS**

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The water budget analysis was conducted to determine current water use and recharge potential and compare these figures with future/build-out conditions.

To determine the current water recharge potential of Hadley, the MassGIS 1999 Land Use data was compiled into categories, as shown in Table B-1 – Hadley Water Budget Analysis. The description column corresponds to land use codes identified by MassGIS Land Use data. Each land use category was assigned an impervious cover percentage, which are estimates of typical values as published in stormwater design manuals and other resources found on the website of the Center for Watershed Protection ([www.cwp.org](http://www.cwp.org)). The impervious cover percentages were then used to determine the percentage of infiltration that would occur on a given land use. The infiltration percentages employed in this analysis are derived from the EPA report on Preliminary Data Summary of Urban Stormwater Best Management Practices. Assuming an annual rainfall of 45.36 inches, the recharge volume was calculated by multiplying the area by the rainfall and percent of infiltration for current land use conditions.

In order to calculate the recharge volume for future conditions, the EOEA build-out study for Hadley was used to determine projected land usage. The same calculation was employed, substituting the projected figures to determine future conditions.

The analysis shows that under current conditions, 26,012 acre-ft of annual recharge occurs on average (or 23.2 million gallons per day); and under the future build-out conditions, the recharge value decreases by approximately 22% and is at 20,243 acre-ft/yr or 18.1 mgd due to the development (mostly residential/single family) of 8,804 acres of currently undeveloped land. Based on the water demand assumption of 161 gallons per person that was used in the EOEA build-out study, the current water demand is estimated at 0.77 mgd and the future water demand at 2.12 mgd. Water demand for commercial use will also increase under a maximum build-out scenario. Based on the assumption of 75 gallons of water used per 1,000 square feet of commercial/industrial space, the current water demand is estimated at 1.25 mgd and the future water demand at 2.19 mgd.

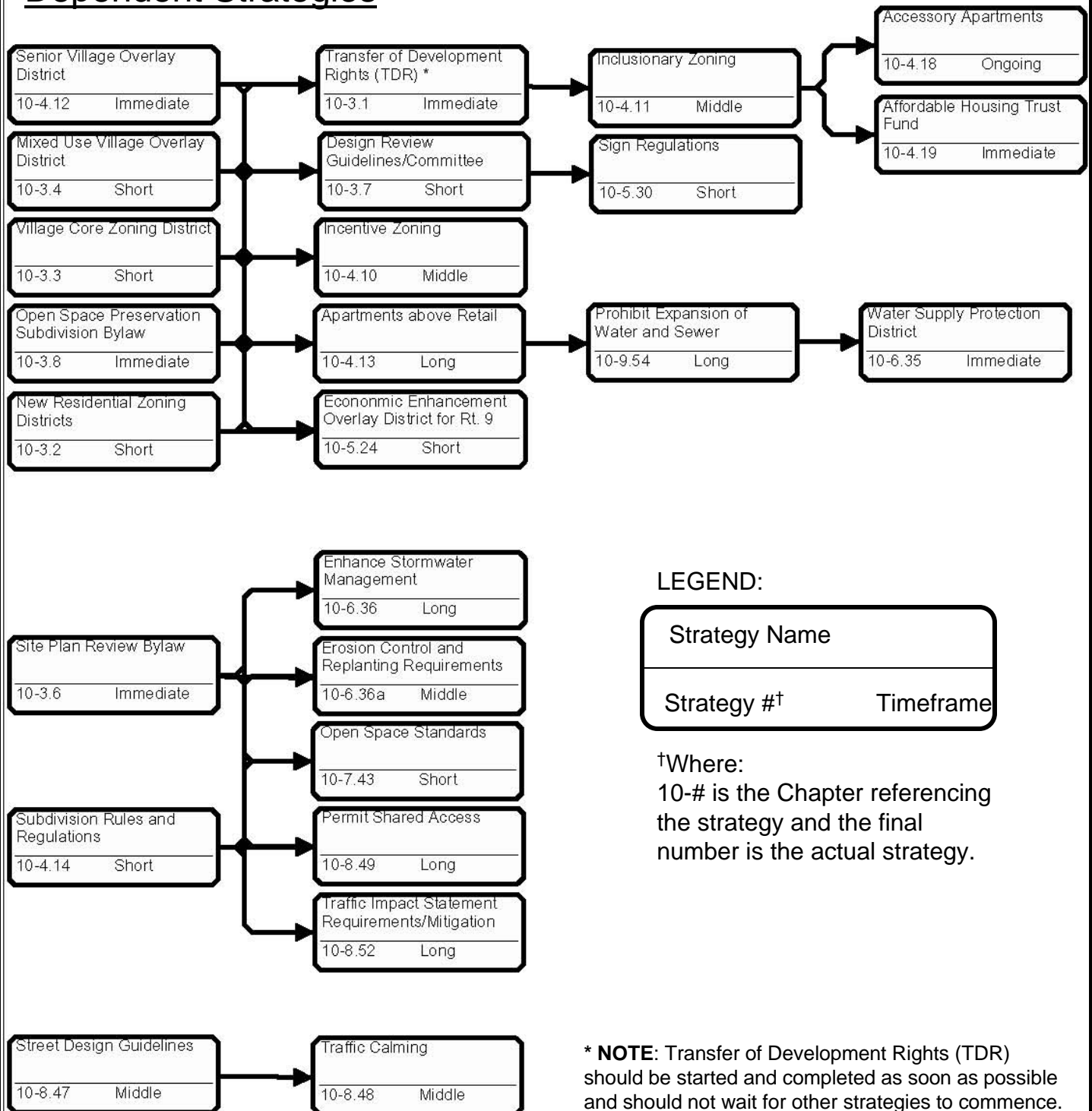
Table B-1

Hadley Water Budget Analysis									
Land Use Category	Description	Area 1999 (acres) <sup>1</sup>	Area Buildout (acres) <sup>2</sup>	% Impervious <sup>3</sup>	% Infiltration <sup>4</sup>	Recharge 1999 (af/year)	Recharge 1999 (gallons/year)	Recharge Buildout (af/year)	Recharge Buildout (gallons/year)
Single Family	medium density	786	1,077	40	35	1,039	338,668,535	1,425	464,207,446
Single Family (non urban/ low density)	low density	869	8,354	30	35	1,150	374,695,635	11,052	3,601,447,312
Multi Family	high density	18	39	80	15	10	3,349,654	22	7,284,075
Commercial	commercial, spect rec	325	762	80	15	184	59,994,461	432	140,698,578
Office	office		322	80	15	0	0	182	59,449,135
Industrial	industrial	58	307	80	15	33	10,749,192	174	56,665,760
Civic	urban public, cemeteries, powerlines	218	218	50	35	289	94,074,833	289	94,074,957
Park	part rec, urban open, golf	213	213	10	42	339	110,344,579	339	110,344,725
Transportation	transportation	92	92	100	0	0	0	0	0
Undeveloped	crop, pasture, forest, mining, open land, orchard, nursery	12,153	3,348	0	50	22,968	7,484,286,829	6,328	2,061,964,355
Water	water, water based rec	1,010	1,010	100	0	0	0	0	0
Other	waste disposal	51	51	100	0	0	0	0	0
<b>Total</b>		<b>15,792</b>	<b>15,792</b>			<b>26,012</b>	<b>8,476,163,717</b>	<b>20,243</b>	<b>6,596,136,342</b>
Assumptions:									
Assume Annual Rainfall - 45.36" (Source: USDA - Natural Resources Conservation Service)									
1. Area values were calculated using the MassGIS Land Use layer for 1999 for current land use.									
2. Future land use breakdown was taken from the EOEa build out study.									
3. Impervious cover percentages are a compilation of stormwater design criteria manuals, technical papers, and information found in www.cwp.org - Center for Watershed Protection									
4. Source: Preliminary Data summary of Urban Stormwater Best Management Practices; EPA-821-R-99-012, August 1999, p. 4-4									

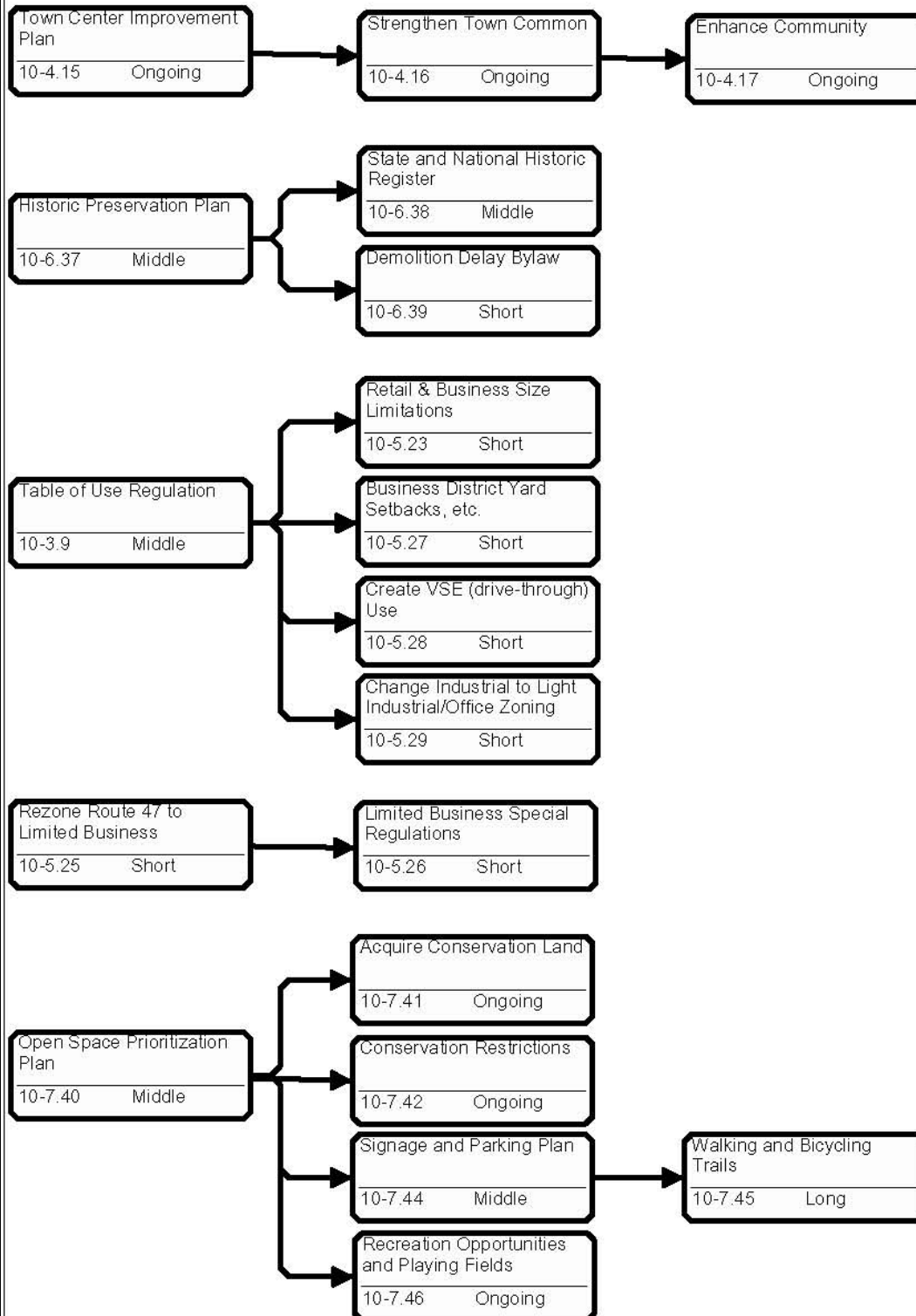
## **APPENDIX C: STRATEGIES FLOW CHART**

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## Dependent Strategies



## Dependent Strategies



## Independent Strategies: Organized by Timeframe to Completion

Right to Farm Bylaw 10-5.32a      Immediate	Mass Highway Interaction Policy 10-8.50      Immediate	Enforcement Efforts 10-9.55      Immediate	
Agriculture Commission 10-5.31      Short	Agricultural Protection with Zoning 10-5.32      Short	Secure Professional Planning Services 10-9.53      Short	Department of Public Works 10-9.57      Short
Economic Development Commission 10-5.34      Middle	School Building Master Plan 10-9.56      Middle		
Agricultural Tourism 10-5.33      Long	Pedestrian Safety along Route 9 10-8.51      Long	Training Opportunities for Officials 10-9.58      Long	
Phased Growth Bylaw 10-3.5      Ongoing	Study Adaptive Reuse 10-4.20      Ongoing	Study Town/Tax Title Property 10-4.21      Ongoing	
Guide Comprehensive Permits 10-4.22      Ongoing	Long Term Capital Plan 10-9.59      Ongoing		





## **APPENDIX D: MODEL BYLAWS**

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### **1. Right to Farm Bylaw**

## **MODEL RIGHT TO FARM BY-LAW**

### **Section 1      Legislative Purpose and Intent**

The purpose and intent of this By-law is to state with emphasis the Right to Farm accorded to all citizens of the Commonwealth under Article 97, of the Constitution, and all state statutes and regulations thereunder including but not limited to Massachusetts General Laws Chapter 40A, Section 3, Paragraph 1; Chapter 90, Section 9, Chapter 111, Section 125A and Chapter 128 Section 1A. We the citizens of [Farm-Town] restate and republish these rights pursuant to the Town's authority conferred by Article 89 of the Articles of Amendment of the Massachusetts Constitution, ("Home Rule Amendment").

This General By-law encourages the pursuit of agriculture, promotes agriculture-based economic opportunities, and protects farmlands within the Town of [Farm-Town] by allowing agricultural uses and related activities to function with minimal conflict with abutters and Town agencies. This By-law shall apply to all jurisdictional areas within the Town.

### **Section 2      Definitions**

The word "farm" shall include any parcel or contiguous parcels of land, or water bodies used for the primary purpose of commercial agriculture, or accessory thereto.

The words "farming" or "agriculture" or their derivatives shall include, but not be limited to the following:

- farming in all its branches and the cultivation and tillage of the soil;
- dairying;

- production, cultivation, growing, and harvesting of any agricultural, aquacultural, floricultural, viticultural, or horticultural commodities;
- growing and harvesting of forest products upon forest land, and any other forestry or lumbering operations;
- raising of livestock including horses;
- keeping of horses as a commercial enterprise; and
- keeping and raising of poultry, swine, cattle, ratites (such as emus, ostriches and rheas) and camelids (such as llamas and camels), and other domesticated animals for food and other agricultural purposes, including bees and fur-bearing animals.

“Farming” shall encompass activities including, but not limited to, the following:

- operation and transportation of slow-moving farm equipment over roads within the Town;
- control of pests, including, but not limited to, insects , weeds, predators and disease organism of plants and animals;
- application of manure, fertilizers and pesticides;
- conducting agriculture-related educational and farm-based recreational activities, including agri-tourism, provided that the activities are related to marketing the agricultural output or services of the farm;
- processing and packaging of the agricultural output of the farm and the operation of a farmer's market or farm stand including signage thereto;
- maintenance, repair, or storage of seasonal equipment, or apparatus owned or leased by the farm owner or manager used expressly for the purpose of propagation, processing, management, or sale of the agricultural products; and
- on-farm relocation of earth and the clearing of ground for farming operations.

### **Section 3      Right To Farm Declaration**

The Right to Farm is hereby recognized to exist within the Town of [Farm-Town]. The above-described agricultural activities may occur on holidays, weekdays, and weekends by night or day and shall include the attendant incidental noise, odors, dust, and fumes associated with normally accepted agricultural practices. It is hereby determined that whatever impact may be caused to others through the normal practice of agriculture is more than offset by the benefits of farming to the neighborhood, community, and society in general. The benefits and protections of this By-law are intended to apply exclusively to those commercial agricultural and farming operations and activities conducted in accordance with generally accepted agricultural practices. Moreover, nothing in this Right To Farm By-law shall be deemed as acquiring any interest in land, or as imposing any land use regulation, which is properly the subject of state statute, regulation, or local zoning law.

### **Section 4      Disclosure Notification**

Not later than 21 days after the purchase and sale contract is entered into, or prior to the sale or exchange of real property if no purchase and sale agreement exists, for the purchase or exchange of real property, or prior to the acquisition of a leasehold interest or other possessory interest in real property, located in the Town of [Farm-Town], the landowner shall present the buyer or occupant with a disclosure notification which states the following:

“It is the policy of this community to conserve, protect and encourage the maintenance and improvement of agricultural land for the production of food, and other agricultural products, and also for its natural and ecological value. This disclosure notification is to inform buyers or occupants that

the property they are about to acquire or occupy lies within a town where farming activities occur. Such farming activities may include, but are not limited to, activities that cause noise, dust and odors. Buyers or occupants are also informed that the location of property within the Town may be impacted by commercial agricultural operations including the ability to access water services for such property under certain circumstances.”

A copy of the disclosure notification shall be given on a form prepared by the Town and shall be signed by the landowner prior to the sale, purchase, exchange or occupancy of such real property. A copy of the disclosure notification must be filed with the Board of Selectmen or its designee prior to the sale, purchase, exchange or occupancy of such real property. In addition to the above, a copy of this disclosure notification shall be provided by the Town to landowners each fiscal year by mail.

A violation of Section 4 shall be subject to a fine of \$300 and shall be enforced by the Board of Selectmen or its designee. The Town is authorized to enforce Section 4 under the non-criminal disposition provision of G.L. c. 40, § 21D.

## **Section 5      Resolution of Disputes**

[Applicable only in communities that have Agricultural Commissions.]

Any person who seeks to complain about the operation of a farm may, notwithstanding pursuing any other available remedy, file a grievance with the Select Board, the Zoning Enforcement Officer, or the Board of Health, depending upon the nature of the grievance. The filing of the grievance does not suspend the time within which to pursue any other available remedies that the aggrieved may have. The Zoning Enforcement Officer or Select Board may forward a copy of the grievance to the Agricultural Commission or its agent,

which shall review and facilitate the resolution of the grievance, and report its recommendations to the referring Town authority within an agreed upon time frame.

The Board of Health, except in cases of imminent danger or public health risk, may forward a copy of the grievance to the Agricultural Commission or its agent, which shall review and facilitate the resolution of the grievance, and report its recommendations to the Board of Health within an agreed upon time frame.

#### **Section 6      Severability Clause**

If any part of this By-law is for any reason held to be unconstitutional or invalid, such decision shall not affect the remainder of this By-law. The Town of [Farm- Town] hereby declares the provisions of this By-law to be severable.

## **APPENDIX D: MODEL BYLAWS**

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### **2. NPDES Phase II Model Stormwater Bylaws**

# **ADOPTION OF LOCAL STORMWATER BYLAWS**

## **Guidance for Massachusetts Municipalities with NPDES Phase II Model Stormwater Bylaws**

**April 2004**

These model bylaws and guidance are the result of the efforts of the following people and we are grateful to these professionals who generously shared their expertise:

Jay Brolin, Fuss and O'Neill, Inc.  
Mike Cuneo, Conservation Agent, Town of Dedham  
John W. Giorgio, Esq., of Kopelman and Paige  
Kelli Lawrence, Assistant Attorney General  
Tyler Phillips, Comprehensive Environmental, Inc.  
Martin Pillsbury, Metropolitan Area Planning Council  
Ginny Scarlet, Comprehensive Environmental Inc.  
Tom Simbro, Woodard & Curran  
Margaret Van Dusen, Esq., Charles River Watershed Association  
Vincent Vignaly, Department of Conservation and Recreation  
Ernest Williams, Superintendent of Public Works, Town of Canton

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# **ADOPTION OF LOCAL STORMWATER BYLAWS**

## **Guidance for Massachusetts Municipalities**

### **Introduction**

These model bylaws are intended to help regulated Massachusetts communities comply with the National Pollutant Discharge Elimination System (NPDES) Storm Water Phase II permit program. Phase II requires that regulated municipalities reduce the discharge of pollutants in stormwater to the maximum extent practicable. As part of the reduction measures municipalities must develop and adopt, or already have in place, bylaws, ordinances, or other regulatory mechanism to address control of sources of pollutants entering the municipal storm drain system. While Phase II allows the use of local regulations to administer and enforce certain of the required minimum control measures, the adoption of a municipal bylaw is an effective and more commonly used means of accomplishing such objectives. Accordingly, these model bylaws and related guidance were developed for use by Massachusetts municipalities regulated by the Phase II Storm Water Rule.

### **Phase II requirements applicable to Small MS4s**

The federal Phase II requirements for adopting bylaws or ordinances in connection with the implementation of certain of the required minimum control measures by small municipal separate storm sewer systems (“small MS4s”) are contained in 40 CFR 122.34(b)(3-5), and in the Massachusetts Department of Environmental Protection’s (DEP) revised Surface Water Discharge Permit Regulations at 314 CMR 3.06(11)(b)5. These requirements are also incorporated in the small MS4 General Permit jointly issued by EPA and DEP. See sections II.B. 3.(b), IIB.4. (a)-(g), and II.B.5.(a)&(b) of the General Permit. A Small Municipal Separate Storm Sewer System or “small MS4” is defined in 40 CFR 122.26(b)(8) and 314 CMR 3.02 as “all separate storm sewers that are:

Owned or operated by the United States, the Commonwealth of Massachusetts, a city, town, borough, county, parish, district, association, or other public body (created by or pursuant to state law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under state law such as a sewer district, flood control district or drainage district, or similar entity or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the Federal Act that discharges to waters of the United States. Not defined as a large or medium municipal separate storm sewer systems pursuant to 40 CFR s.122.26(b)(4) and (b)(7) or designated under 40 CFR s.122.26(a)(1)(v). This term includes systems similar to separate storm sewer systems in municipalities, such as systems at military bases, large hospitals or prison complexes, and highways and other thoroughfares. The term does not include separate storm sewers in very discrete areas such as individual buildings.”

The key components of the required bylaws, ordinances or other regulatory mechanisms are as follows:

1. A bylaw, ordinance, or other regulatory mechanism that addresses Illicit Connection Detection & Elimination and must: prohibit non-stormwater discharges into the MS4, and contain enforcement procedures and actions.
2. A bylaw, ordinance, or other regulatory mechanism to control Construction Site Stormwater Runoff that must: apply to sites disturbing 1 acre or more THAT contribute RUNOFF TO THE MS4; also apply to smaller sites that are part of a common plan that together will disturb 1 or more acres of land; require Erosion and Sedimentation controls; include a process for public input; ensure site plan review, including preconstruction review, and that considers potential water quality impacts; require control of construction waste; provide for site inspections; and have procedures for enforcement of control measures.
3. A bylaw, ordinance, or other regulatory mechanism to control Post-construction Stormwater Management from New Development and Redevelopment that must: apply to projects that newly discharge runoff to the MS4; apply to projects that disturb 1 or more acres; apply to projects less than one acre if part of a common plan that all together will disturb 1 or more acre; require permanent stormwater controls to minimize water quality impacts; require stormwater controls appropriate to the community; and ensure long-term operation & maintenance of structural stormwater controls.

### **Evaluating the task of adopting the required bylaws**

At the outset, the relevant municipal officials and their legal counsel should evaluate the extent to which the municipality's existing bylaws, ordinances or other regulatory mechanisms already address the required small MS4 minimum control measures described above. For example, as authorized in the Small MS4 General Permit for Massachusetts, for storm water discharges resulting from construction site and post-construction site activities in areas subject to jurisdiction under the Wetlands Protection Act, compliance with the Department's Storm Water Policy as reflected in an Order of Conditions issued by the local conservation commission satisfies the relevant minimum control measure. The involvement of municipal counsel is critical at this and subsequent stages of the bylaw evaluation and development task. Municipal counsel should review existing bylaws, ordinances and regulations, determine what relevant legal controls are already in place, and provide advice on the scope and substance of any new or modified bylaws or ordinances needed to comply with the relevant small MS4 minimum control measures. The model bylaws contained in this guidance have been drafted as separate bylaws to emphasize each area that must be addressed and to provide the required elements of each. However, municipalities may decide to combine the models into a master stormwater management bylaw or keep them separate. Alternatively, a municipality may cut and paste as appropriate to develop the needed modifications or additions to existing bylaws. The goal is to make sure that all of the required Phase II components are incorporated into one or more municipal bylaws. Municipalities have flexibility in how they accomplish that goal.

### **The decision whether to amend existing bylaws or adopt new bylaws**

As a general rule, it is easier to persuade town meeting to amend an existing bylaw than to adopt a whole new bylaw. On the other hand, a series of amendments to existing bylaws may result in a more complicated and unwieldy process, or a municipality may be faced with a current board of selectmen who are philosophically opposed to the purpose and intent of the amendments. A municipality, in consultation with its legal counsel, should weigh the pros and cons of these alternative approaches. Keep in mind that even if a municipality decides to adopt one of the models in its entirety, it must first ensure that each section of the model bylaw applies appropriately to the municipality – i.e., it accurately reflects the physical landscape, the types of existing infrastructure, and is not conflict with any existing bylaw.

### **The Use of General Bylaws vs. Zoning Bylaws**

Zoning bylaws must be adopted in accordance with the procedures provided in G.L. c. 40A, § 5, (<http://www.state.ma.us/legis/laws/mgl/40a%2D5.htm>), have prospective effect only on uses and structures, and enjoy certain "grandfathering" protections. In comparison, non-zoning (or "general") bylaws do not require extra procedures for adoption, are not given certain statutory protections, and do not grandfather existing uses unless the bylaw itself otherwise provides. More specifically, zoning bylaws require a 2/3 majority of town/city council or town meeting, while general by-laws require a simple majority vote.

The distinction between "general" bylaws and a zoning by-law is important because zoning bylaws are also accorded additional levels of protection under G.L. c. 40A. For example, zoning bylaws provide protection to land shown on subdivision plans that is related to the effective date of a bylaw. Specifically, G.L. c. 40A, § 6, allows land shown on a definitive subdivision plan (or preliminary plan followed within seven months by a definitive plan) to be governed by the zoning bylaws that are in effect at the time of the first submission of the plan to the planning board *as long as* (emphasis added) written notice is also given to the town clerk before the effective date of the amended zoning by-law. Therefore, if a plan is submitted and written notice is given to the town clerk before the amended or subsequent zoning by-law takes effect (i.e., date of adoption by town meeting), the land shown on that plan will be protected from amendments to the zoning bylaws by town meeting for eight years (or longer if an appeal is taken.). <http://www.state.ma.us/legis/laws/mgl/40a-6.htm> The delay in effect caused by such "grandfathering" protections means zoning changes will not provide effective controls on the relevant stormwater activities until after the end of the first 5 year term of the Phase II small MS4 General Permit.

### **Assign responsibility for drafting amendments or bylaws**

The decision to amend or draft the required bylaws should be made or ratified by the chief executive of the municipality. Consultation among town boards and departments during the drafting process is essential. A committee of municipal officials with the most relevant responsibilities is one way to achieve this consultation. Recruiting volunteers from the community to the committee can spread the workload and start the necessary process of publicizing the project. As stated earlier, municipal counsel should be involved at this and subsequent stages in the process.

## **Set a schedule**

Phase II requires that the municipal stormwater controls be in place no later than the end of the first permit term in 2008. It is a good idea to adopt the bylaws as soon as practical. The bylaws give the town necessary mechanisms to use in complying with Phase II. For example, the bylaw Governing Discharges to the Municipal Storm Drain System confers express enforcement authority on the municipality to require elimination or correction of improper or “illicit” connections to its sewer system. The process from the drafting of a bylaw through its final adoption is lengthy. Consultation with and the assistance of municipal legal counsel is essential throughout the bylaw development and adoption process.

When developing a schedule for adopting the bylaw(s), include time for Attorney General review and subsequent publication and posting of the bylaw(s). This is because the new bylaw(s) will not take effect until these steps have been completed. The effective date of a general bylaw is governed by G.L. c. 40 § 32, which establishes the procedures that must be followed in order for a general bylaw to take effect. First, the bylaw must be submitted to and approved by the Attorney General or ninety days elapse after submittal without any action by the Attorney General. Second, once approved by the Attorney General (or if the bylaw is constructively approved by failure of the Attorney General to act within 90 days), the town must post and publish the bylaw as set out in section 32. (To read the text of G.L. c. 40, § 32, go to <http://www.state.ma.us/legis/laws/mgl/40-32A.htm>). In comparison, the effective date of zoning bylaws is more complicated and is governed by G.L. 40A § 5. If a municipality is amending or adopting a zoning bylaw, it is particularly important to consult with municipal legal counsel to confirm the process and timing of adopting such a bylaw.

## **Designating Responsibility for Administering the Bylaw**

Designate the most appropriate municipal board or department to administer each new bylaw. Consider the current task and expertise distribution in town. There may be an obvious choice. Planning Boards, Zoning Boards of Appeals, Conservation Commissions, and Boards of Health can legally collect consultant fees using a special account (See fees section below). Without the use of some sort of special account any funds taken in by any board must go into the municipality’s general fund. If the municipality has in house expertise (i.e., town engineer or engineering dept.), fees for review can appropriately go to the general fund and be based on average review costs. DPW probably knows the most about the MS4.

## **Whole Town vs. Urbanized Area**

The Phase II small MS4 Rule requires the adoption of bylaws in small MS4s located within the boundaries of an “Urbanized Area” of Massachusetts, which have been designated by EPA based on federal Census Bureau data. Accordingly, a municipality is required to adopt bylaws that apply only to the “Urbanized Area” of the municipality. However, as a practical matter, this approach of limiting the scope of the bylaws to the Urbanized Area of the municipality may be difficult to administer. For example, the coverage area would need to be changed at Town Meeting after each decennial census when the Census Bureau recalculates

Urbanized Areas.

### **Entry onto Private Property**

Municipal officials do not have the authority under a local bylaw to conduct warrantless searches of private property without permission of the owner. Commonwealth v. John G. Grant & Sons Co., Inc., 403 Mass. 151, 159-60 (1988). When entry upon private property is necessary or appropriate for the investigation of an apparent or suspected violation of a bylaw, it would be necessary for the municipal body authorized to enforce the bylaw to obtain a warrant to do so in the absence of express permission by the owner or other lawful means. In a nutshell; start by asking nicely. If refused, get a warrant. Consult municipal legal counsel about the procedure for getting a warrant and a reasonable expectation of the time needed to do so.

### **Agriculture**

Agriculture is protected from local regulation by state laws that exempt regulation of agriculture, therefore the model bylaws contain exemptions for agricultural activities. G.L. c. 40A, § 3, paragraph. 1 – provides that towns cannot prohibit, unreasonably regulate, or require a Special Permit for the use of land for the primary purpose of agriculture. The only exception is land under 5 acres that is not zoned agricultural. In addition, please note that the Storm Water Management and Land Disturbance model bylaw and the Post-Construction Storm Water Management model bylaw exempt the normal maintenance and improvement of land in agricultural use, as such activities are defined under the term “agriculture” in DEP’s Wetlands Regulations. As explained in more detail in the above referenced regulatory definition, land in agricultural use means land within wetland resources areas or the buffer zone that is primarily used in producing or raising specified agricultural commodities for commercial purposes. In developing and enforcing the above referenced bylaws, municipalities should rely on their local conservation commission for assistance in understanding the scope and substance of the agricultural use exemption as defined in 310 CMR 10.04. Conservation commissions should have a copy of 310 CMR 10.00 (DEP’s Wetlands Regulations). Copies are also available from the State House Bookstore and DEP’s website at: <http://www.state.ma.us>.

### **Fees**

Towns should be aware that application of their fee provisions could result in municipal revenues brushing up against or exceeding the limits imposed on local government by state statutes. The town should discuss with town counsel whether the fee provisions, collectively, and as applied, amount to a tax not specifically authorized by the Legislature and are therefore unlawful.

Valid fees are generally distinguishable from invalid taxes by three criteria: (i) the fee is assessed for a particular government service benefitting the party paying the fee in a manner not shared by other persons; (ii) the person assessed has the option to decline the service and thus avoid the charge; and (iii) the amounts paid compensate the town for its costs and expenses of providing the services rather than raising revenues. Emerson College v. Boston, 391 Mass. 415, 427-428 (1984). Moreover, a lawful fee is one that only covers the Board’s reasonably

anticipated costs of providing the services for which the fee is assessed. Southview Cooperative Housing Corp. v. Rent Control Board of Cambridge, 396 Mass. 395, 402 (1985).

### **Fees to Cover the Cost of Review by a Municipality's Consultant**

General Laws Chapter 44 § 53, [found at, <http://www.state.ma.us/legis/laws/mgl/44-53.htm>] provides that “all moneys received by a city, town or district officer or department, except as otherwise provided by special acts and except fees provided for by statute, shall be paid by such officers or department upon their receipt into the city, town or district treasury. Therefore, any fees collected by the town from an applicant to cover consultant review must be deposited with the Town Treasurer and made part of the town's general fund. Such funds would **only** be available for the purpose for which they were assessed (paying the consultant) once an appropriation is made by Town Meeting.

General Laws Chapter 44, Section 53G, is an illustration of “as otherwise provided by special acts and except fees provided for by statute.” General Laws Chapter 44 § 53G authorizes conservation commissions, zoning boards, planning boards, and boards of health acting under authority conferred by G.L. c. 40, § 8C, 40A, § 9 and 12, c. 41 § 81Q, c. 40B, § 21, and c. 111, to impose a fee to pay for its anticipated expenses in retaining a consultant, to draw upon the funds collected for the stated purpose, and to return unused portions to the applicant.

Another such general law is established by G.L. c. 44, § 53E-1/2, authorizing revolving funds. There are many practical problems and difficulties in trying to adapt the functionality of the revolving fund to purposes which the fund established under G.L. c. 44, 53G, was uniquely designed to achieve. Revolving funds were authorized by the Legislature for the deposit of “departmental receipts received in connection with the programs supported by such revolving fund.” It is not entirely clear whether the term “programs” is malleable enough to be applicable to the project-oriented review functions of an administering board, or that the “consultant fee” is the functional equivalent of the “program fee” for which revolving fees were authorized by the Legislature. It is important to point out, however, that the purposes intended require an applicant to give money to the town to cover anticipated “but only estimated” expenses for consulting services. Moreover, unused portions of the fee may not be returned to the applicant if the fee was deposited either to the general fund under G.L. c. 44, § 53, or in a revolving fund under G.L. c. 44 § 53E-1/2. Section 53G funds are equipped with a statutory basis for the return of unused portions.

Lastly, G.L. c. 44 § 53E-1/2, requires revolving funds to be established and renewed annually by Town Meeting, and may not be set up in the body of a town by-law. Each town meeting has the power to decide whether or not to authorize a revolving fund for the upcoming fiscal year and if so, what particular receipts will be credited to the fund and how the funds may be spent. One town meeting cannot bind future town meetings with respect to authorizing a revolving fund. The town should consult with Town Counsel so as to assure that all of the provisions of G.L. c. 44, § 53E-1/2, are complied with in the handling of such fees.

### **State and Federal Government**

Legislatively created state entities, such as state agencies and public authorities, are generally exempt from local regulation if such regulation would prevent or interfere with the performance of an “essential governmental function” of that state entity or unless the relevant statute expressly subjects the state entity to local regulation or when the state entity has chosen to submit to local regulation. This does not mean, however, that a legislatively created state entity has absolute immunity from all local regulation. It remains subject to local regulations that do not interfere with its ability to fulfill its essential governmental purposes and have only a negligible effect on its operations. See Greater Lawrence Sanitary District v. Town of North Andover, 439 Mass. 16, 785 N.E. 2d 337 (2003). The doctrine of federal supremacy protects the legitimate activities of the United States Government from regulation by state and local authorities. Municipalities should consult with their legal counsel as to the circumstances in which state and federal government will be subject to the provision of the model bylaws.

### **Non-criminal Disposition**

General Laws, Chapter 40, Section 21D, allows municipalities to use non-criminal disposition as a method to enforce town bylaws. The law has several specific requirements. Section 21D requires that a bylaw contain a reference to the enforcing person. The enforcing person is the person empowered to enforce the particular bylaw. Section 21D also requires that the violation be subject to a specific penalty. Non-criminal disposition is not available for the violations having a range of penalties. Before the town applies the non-criminal disposition provision of a bylaw, the town must provide for an enforcing person and specific penalty for violations.

### **Public Education**

In addition to the adoption of the required minimum controls applicable to small MS4s under Phase II, enactment of new or amended municipal bylaws requires publication, posting, and persuasion. These activities can be part of meeting the public education requirements of Phase II. It is wise to start public education early. Have at least one public meeting about the proposed bylaws before town meeting, even if a hearing is not required. Assemble and present information about specific stormwater effects in your town to illustrate the need for and effect of the bylaws.

### **More Resources**

<http://www.epa.gov/region01/npdes/ms4.html> The Draft National Pollutant Discharge Elimination System General Permit For Storm Water Discharges From Small Municipal Separate Storm Systems (Small MS4s).

[http://www.umass.edu/masscptc/Tips\\_on\\_Drafting.html](http://www.umass.edu/masscptc/Tips_on_Drafting.html) This website has a very helpful document about drafting bylaws.

<http://www.stormwatercenter.net/> This site has other model bylaws. They don't fit well with the structure of Massachusetts governments but are useful for other viewpoints on stormwater management.



<http://www.state.ma.us/legis/laws/mgl/> The General Laws of Massachusetts. The site cautions that it is not official but the index and search features make it an excellent ready reference during the drafting process.

<http://www.state.ma.us/dep/brp/stormwtr/stormlis.htm> The list of Stormwater Phase II communities based on Urbanized Areas calculated from 2000 Census and 1990 Census.

<http://www.state.ma.us/dep/brp/stormwtr/stormpub.htm> Stormwater Management Information including Stormwater Policy Handbook (scroll down).

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## **Bylaw Governing Discharges To The Municipal Storm Drain System**

### **SECTION 1. PURPOSE**

Increased and contaminated stormwater runoff is a major cause of impairment of water quality and flow in lakes, ponds, streams, rivers, wetlands and groundwater; contamination of drinking water supplies; alteration or destruction of aquatic and wildlife habitat; and flooding.

Regulation of illicit connections and discharges to the municipal storm drain system is necessary for the protection of the [*city or town's*] water bodies and groundwater, and to safeguard the public health, safety, welfare and the environment.

The objectives of this by-law are:

1. to prevent pollutants from entering the [*city or town's*] municipal separate storm sewer system (MS4);
2. to prohibit illicit connections and unauthorized discharges to the MS4;
3. to require the removal of all such illicit connections;
4. to comply with state and federal statutes and regulations relating to stormwater discharges; and
5. to establish the legal authority to ensure compliance with the provisions of this by-law through inspection, monitoring, and enforcement.

### **SECTION 2. DEFINITIONS**

For the purposes of this by-law, the following shall mean:

**AUTHORIZED ENFORCEMENT AGENCY:** The [*insert appropriate Town body/dept./board*] (hereafter [*the Board*]), its employees or agents designated to enforce this by-law.

**BEST MANAGEMENT PRACTICE (BMP):** An activity, procedure, restraint, or structural improvement that helps to reduce the quantity or improve the quality of stormwater runoff.

**CLEAN WATER ACT:** The Federal Water Pollution Control Act (33 U.S.C. § 1251 *et seq.*) as hereafter amended.

**DISCHARGE OF POLLUTANTS:** The addition from any source of any pollutant or combination of pollutants into the municipal storm drain system or into the waters of the United States or Commonwealth from any source.

**GROUNDWATER:** Water beneath the surface of the ground.

**ILLCIT CONNECTION:** A surface or subsurface drain or conveyance, which allows an illicit discharge into the municipal storm drain system, including without limitation sewage, process wastewater, or wash water and any connections from indoor drains, sinks, or toilets, regardless of whether said connection was previously allowed, permitted, or approved before the effective date of this by-law [or ordinance]

**ILLCIT DISCHARGE:** Direct or indirect discharge to the municipal storm drain system that is not composed entirely of stormwater, except as exempted in Section 7. The term does not include a discharge in compliance with an NPDES Storm Water Discharge Permit or a Surface Water Discharge Permit, or resulting from fire fighting activities exempted pursuant to Section 7, subsection 4, of this by-law.

**IMPERVIOUS SURFACE:** Any material or structure on or above the ground that prevents water infiltrating the underlying soil. Impervious surface includes without limitation roads, paved parking lots, sidewalks, and rooftops.

**MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) or MUNICIPAL STORM DRAIN SYSTEM:** The system of conveyances designed or used for collecting or conveying stormwater, including any road with a drainage system, street, gutter, curb, inlet, piped storm drain, pumping facility, retention or detention basin, natural or man-made or altered drainage channel, reservoir, and other drainage structure that together comprise the storm drainage system owned or operated by the *[town/city of \_\_\_\_\_]*.

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORM WATER DISCHARGE PERMIT:** A permit issued by United States Environmental Protection Agency or jointly with the State that authorizes the discharge of pollutants to waters of the United States.

**NON-STORMWATER DISCHARGE:** Discharge to the municipal storm drain system not composed entirely of stormwater.

**PERSON:** An individual, partnership, association, firm, company, trust, corporation, agency, authority, department or political subdivision of the Commonwealth or the federal government, to the extent permitted by law, and any officer, employee, or agent of such person.

**POLLUTANT:** Any element or property of sewage, agricultural, industrial or commercial waste, runoff, leachate, heated effluent, or other matter whether originating at a point or nonpoint source, that is or may be introduced into any sewage treatment works or waters of the Commonwealth. Pollutants shall include without limitation:

- (1) paints, varnishes, and solvents;
- (2) oil and other automotive fluids;
- (3) non-hazardous liquid and solid wastes and yard wastes;

- (4) refuse, rubbish, garbage, litter, or other discarded or abandoned objects, ordnances, accumulations and floatables;
- (5) pesticides, herbicides, and fertilizers;
- (6) hazardous materials and wastes; sewage, fecal coliform and pathogens;
- (7) dissolved and particulate metals;
- (8) animal wastes;
- (9) rock, sand, salt, soils;
- (10) construction wastes and residues; and
- (11) and noxious or offensive matter of any kind.

**PROCESS WASTEWATER:** Water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any material, intermediate product, finished product, or waste product.

**RECHARGE:** The process by which groundwater is replenished by precipitation through the percolation of runoff and surface water through the soil.

**STORMWATER:** Storm water runoff, snow melt runoff, and surface water runoff and drainage.

**SURFACE WATER DISCHARGE PERMIT.** A permit issued by the Department of Environmental Protection (DEP) pursuant to 314 CMR 3.00 that authorizes the discharge of pollutants to waters of the Commonwealth of Massachusetts.

**TOXIC OR HAZARDOUS MATERIAL or WASTE:** Any material, which because of its quantity, concentration, chemical, corrosive, flammable, reactive, toxic, infectious or radioactive characteristics, either separately or in combination with any substance or substances, constitutes a present or potential threat to human health, safety, welfare, or to the environment. Toxic or hazardous materials include any synthetic organic chemical, petroleum product, heavy metal, radioactive or infectious waste, acid and alkali, and any substance defined as Toxic or Hazardous under G.L. Ch.21C and Ch.21E, and the regulations at 310 CMR 30.000 and 310 CMR 40.0000.

**WATERCOURSE:** A natural or man-made channel through which water flows or a stream of water, including a river, brook or underground stream.

**WATERS OF THE COMMONWEALTH:** All waters within the jurisdiction of the Commonwealth, including, without limitation, rivers, streams, lakes, ponds, springs, impoundments, estuaries, wetlands, costal waters, and groundwater.

WASTEWATER: Any sanitary waste, sludge, or septic tank or cesspool overflow, and water that during manufacturing, cleaning or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct or waste product.

### **SECTION 3. APPLICABILITY**

This by-law shall apply to flows entering the municipally owned storm drainage system.

### **SECTION 4. AUTHORITY**

This bylaw is adopted under the authority granted by the Home Rule Amendment of the Massachusetts Constitution and the Home Rule Procedures Act, and pursuant to the regulations of the federal Clean Water Act found at 40 CFR 122.34.

### **SECTION 5. RESPONSIBILITY FOR ADMINISTRATION**

[*The Board*] shall administer, implement and enforce this by-law. Any powers granted to or duties imposed upon [*the Board*] may be delegated in writing by the [*the Board*] to employees or agents of [*the Board*].

### **SECTION 6. REGULATIONS**

[*The Board*] may promulgate rules and regulations to effectuate the purposes of this by-Law. Failure by the [*the Board*] to promulgate such rules and regulations shall not have the effect of suspending or invalidating this by-law.

### **SECTION 7. PROHIBITED ACTIVITIES**

Illicit Discharges. No person shall dump, discharge, cause or allow to be discharged any pollutant or non-stormwater discharge into the municipal separate storm sewer system (MS4), into a watercourse, or into the waters of the Commonwealth.

Illicit Connections. No person shall construct, use, allow, maintain or continue any illicit connection to the municipal storm drain system, regardless of whether the connection was permissible under applicable law, regulation or custom at the time of connection.

Obstruction of Municipal Storm Drain System. No person shall obstruct or interfere with the normal flow of stormwater into or out of the municipal storm drain system without prior written approval from [*The Board*].

### **SECTION 8. EXEMPTIONS**

Discharge or flow resulting from fire fighting activities.

The following non-stormwater discharges or flows are exempt from the prohibition of non-stormwaters provided that the source is not a significant contributor of a pollutant to the municipal storm drain system:

- (1) Waterline flushing;
- (2) Flow from potable water sources;
- (3) Springs;
- (4) Natural flow from riparian habitats and wetlands;
- (5) Diverted stream flow;
- (6) Rising groundwater;
- (7) Uncontaminated groundwater infiltration as defined in 40 CFR 35.2005(20), or uncontaminated pumped groundwater;
- (8) Water from exterior foundation drains, footing drains (not including active groundwater dewatering systems), crawl space pumps, or air conditioning condensation;
- (9) Discharge from landscape irrigation or lawn watering;
- (10) Water from individual residential car washing;
- (11) Discharge from dechlorinated swimming pool water (less than one ppm chlorine) provided the water is allowed to stand for one week prior to draining and the pool is drained in such a way as not to cause a nuisance;
- (12) Discharge from street sweeping;
- (13) Dye testing, provided verbal notification is given to the [*the Board*] prior to the time of the test;
- (14) Non-stormwater discharge permitted under an NPDES permit or a Surface Water Discharge Permit, waiver, or waste discharge order administered under the authority of the United States Environmental Protection Agency or the Department of Environmental Protection, provided that the discharge is in full compliance with the requirements of the permit, waiver, or order and applicable laws and regulations; and
- (15) Discharge for which advanced written approval is received from the [*the Board*] as necessary to protect public health, safety, welfare or the environment.

## **SECTION 9. EMERGENCY SUSPENSION OF STORM DRAINAGE SYSTEM ACCESS**

[*The Board*] may suspend municipal storm drain system access to any person or property without prior written notice when such suspension is necessary to stop an actual or threatened discharge of pollutants that presents imminent risk of harm to the public health, safety, welfare or the environment. In the event any person fails to comply with an emergency suspension order, the Authorized Enforcement Agency may take all reasonable steps to prevent or minimize harm to the public health, safety, welfare or the environment.

## **SECTION 10. NOTIFICATION OF SPILLS**

Notwithstanding other requirements of local, state or federal law, as soon as a person responsible for a facility or operation, or responsible for emergency response for a facility or operation has information of or suspects a release of materials at that facility or operation resulting in or which may result in discharge of pollutants to the municipal drainage system or waters of the Commonwealth, the person shall take all necessary steps to ensure containment, and cleanup of the release. In the event of a release of oil or hazardous materials, the person shall immediately notify the municipal fire and police departments and [insert other appropriate departments]. In the event of a release of non-hazardous material, the reporting person shall notify the Authorized Enforcement Agency no later than the next business day. The reporting person shall provide to the Authorized Enforcement Agency written confirmation of all telephone, facsimile or in-person notifications within three business days thereafter. If the discharge of prohibited materials is from a commercial or industrial facility, the facility owner or operator of the facility shall retain on-site a written record of the discharge and the actions taken to prevent its recurrence. Such records shall be retained for at least three years.

## **SECTION 11. ENFORCEMENT**

[*The Board*] or an authorized agent of [*the Board*] shall enforce this by-law, regulations, orders, violation notices, and enforcement orders, and may pursue all civil and criminal remedies for such violations.

**Civil Relief.** If a person violates the provisions of this by-law, regulations, permit, notice, or order issued thereunder, the [*the Board*] may seek injunctive relief in a court of competent jurisdiction restraining the person from activities which would create further violations or compelling the person to perform abatement or remediation of the violation.

**Orders.** [*The Board*] or an authorized agent of [*the Board*] may issue a written order to enforce the provisions of this by-law or the regulations thereunder, which may include: (a) elimination of illicit connections or discharges to the MS4; (b) performance of monitoring, analyses, and reporting; (c) that unlawful discharges, practices, or operations shall cease and desist; and (d) remediation of contamination in connection therewith.

If the enforcing person determines that abatement or remediation of contamination is required, the order shall set forth a deadline by which such abatement or remediation must be completed. Said order shall further advise that, should the violator or property owner fail to abate or perform remediation within the specified deadline, the [*city or town*] may, at its option, undertake such work, and expenses thereof shall be charged to the violator.

Within thirty (30) days after completing all measures necessary to abate the violation or to perform remediation, the violator and the property owner will be notified of the costs incurred by the [city or town], including administrative costs. The violator or property owner may file a written protest objecting to the amount or basis of costs with [the Board] within thirty (30) days of receipt of the notification of the costs incurred. If the amount due is not received by the expiration of the time in which to file a protest or within thirty (30) days following a decision of [the Board] affirming or reducing the costs, or from a final decision of a court of competent jurisdiction, the costs shall become a special assessment against the property owner and shall constitute a lien on the owner's property for the amount of said costs. Interest shall begin to accrue on any unpaid costs at the statutory rate provided in G.L. Ch. 59, § 57 after the thirty-first day at which the costs first become due.

**Criminal Penalty.** Any person who violates any provision of this by-law, regulation, order or permit issued thereunder, shall be punished by a fine of not more than \$ [\_\_\_\_]. Each day or part thereof that such violation occurs or continues shall constitute a separate offense.

**Non-Criminal Disposition.** As an alternative to criminal prosecution or civil action, the [city or town] may elect to utilize the non-criminal disposition procedure set forth in G.L. Ch. 40, §21D and the insert citation town enabling vote/bylaw (if applicable) of the Town of [city or town], in which case the insert title or other authorized agent of the city/town shall be the enforcing person. The penalty for the 1st violation shall be \$[\_\_\_\_]. The penalty for the 2nd violation shall be \$[\_\_\_\_]. The penalty for the 3rd and subsequent violations shall be \$[\_\_\_\_]. Each day or part thereof that such violation occurs or continues shall constitute a separate offense.

**Entry to Perform Duties Under this By-Law.** To the extent permitted by state law, or if authorized by the owner or other party in control of the property, [the Board], its agents, officers, and employees may enter upon privately owned property for the purpose of performing their duties under this by-law and regulations and may make or cause to be made such examinations, surveys or sampling as [the Board] deems reasonably necessary.

**Appeals.** The decisions or orders of [the Board] shall be final. Further relief shall be to a court of competent jurisdiction.

**Remedies Not Exclusive** The remedies listed in this by-law are not exclusive of any other remedies available under any applicable federal, state or local law.

## **SECTION 12. SEVERABILITY**

The provisions of this by-law are hereby declared to be severable. If any provision, paragraph, sentence, or clause, of this by-law or the application thereof to any person, establishment, or circumstances shall be held invalid, such invalidity shall not affect the other provisions or application of this by-law.

## **SECTION 13. TRANSITIONAL PROVISIONS**



Residential property owners shall have [\_\_\_\_\_] days from the effective date of the by-law to comply with its provisions provided good cause is shown for the failure to comply with the by-law during that period.

# **STORMWATER MANAGEMENT AND LAND DISTURBANCE BYLAW**

## **SECTION 1. PURPOSE**

A. The harmful impacts of soil erosion and sedimentation are:

1. impairment of water quality and flow in lakes, ponds, streams, rivers, wetlands and groundwater;
2. contamination of drinking water supplies;
3. alteration or destruction of aquatic and wildlife habitat;
4. flooding; and
5. overloading or clogging of municipal catch basins and storm drainage systems.

B. The objectives of this bylaw are to:

1. protect water resources;
2. require practices that eliminate soil erosion and sedimentation and control the volume and rate of stormwater runoff resulting from land disturbance activities;
3. promote infiltration and the recharge of groundwater;
4. ensure that soil erosion and sedimentation control measures and stormwater runoff control practices are incorporated into the site planning and design process and are implemented and maintained;
5. require practices to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality;
6. comply with state and federal statutes and regulations relating to stormwater discharges; and
7. establish the [city or town's] legal authority to ensure compliance with the provisions of this by-law through inspection, monitoring, and enforcement.

## **SECTION 2. DEFINITIONS**

**ABUTTER:** The owner(s) of land abutting the activity.

**AGRICULTURE:** The normal maintenance or improvement of land in agricultural or aquacultural use, as defined by the Massachusetts Wetlands Protection Act and its implementing

regulations.

**APPLICANT:** Any person, individual, partnership, association, firm, company, corporation, trust, authority, agency, department, or political subdivision, of the Commonwealth or the Federal government to the extent permitted by law requesting a soil erosion and sediment control permit for proposed land-disturbance activity.

**AUTHORIZED ENFORCEMENT AGENCY:** The [appropriate Town body/dept./board, hereafter the Board], its employees or agents designated to enforce this by-law.

**CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL (CPESC):** A certified specialist in soil erosion and sediment control. This certification program, sponsored by the Soil and Water Conservation Society in cooperation with the American Society of Agronomy, provides the public with evidence of professional qualifications.

**CONSTRUCTION AND WASTE MATERIALS:** Excess or discarded building or site materials, including but not limited to concrete truck washout, chemicals, litter and sanitary waste at a construction site that may adversely impact water quality.

**CLEARING:** Any activity that removes the vegetative surface cover.

**EROSION:** The wearing away of the land surface by natural or artificial forces such as wind, water, ice, gravity, or vehicle traffic and the subsequent detachment and transportation of soil particles.

**EROSION AND SEDIMENTATION CONTROL PLAN:** A document containing narrative, drawings and details developed by a qualified professional engineer (PE) or a Certified Professional in Erosion and Sedimentation Control (CPESC), which includes best management practices, or equivalent measures designed to control surface runoff, erosion and sedimentation during pre-construction and construction related land disturbance activities.

**ESTIMATED HABITAT OF RARE WILDLIFE AND CERTIFIED VERNAL POOLS:** Habitats delineated for state-protected rare wildlife and certified vernal pools for use with the Wetlands Protection Act Regulations (310 CMR 10.00) and the Forest Cutting Practices Act Regulations (304 CMR 11.00).

**LAND-DISTURBING ACTIVITY:** Any activity that causes a change in the position or location of soil, sand, rock, gravel, or similar earth material.

**MASSACHUSETTS ENDANGERED SPECIES ACT:** (G.L. c. 131A) and its implementing regulations at (321 CMR 10.00) which prohibit the “taking” of any rare plant or animal species listed as Endangered, Threatened, or of Special Concern.

**MASSACHUSETTS STORMWATER MANAGEMENT POLICY:** The Policy issued by the Department of Environmental Protection, and as amended, that coordinates the requirements prescribed by state regulations promulgated under the authority of the Massachusetts Wetlands

Protection Act G.L. c. 131 §. 40 and Massachusetts Clean Waters Act G.L. c. 21, §. 23-56. The Policy addresses stormwater impacts through implementation of performance standards to reduce or prevent pollutants from reaching water bodies and control the quantity of runoff from a site.

**MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4)** or municipal storm drain system: The system of conveyances designed or used for collecting or conveying stormwater, including any road with a drainage system, street, gutter, curb, inlet, piped storm drain, pumping facility, retention or detention basin, natural or man-made or altered drainage channel, reservoir, and other drainage structure that together comprise the storm drainage system owned or operated by the [town/city of \_\_\_\_\_].

**OWNER:** A person with a legal or equitable interest in property.

**PERSON:** An individual, partnership, association, firm, company, trust, corporation, agency, authority, department or political subdivision of the Commonwealth or the federal government, to the extent permitted by law, and any officer, employee, or agent of such person.

**PRE-CONSTRUCTION:** All activity in preparation for construction.

**PRIORITY HABITAT OF RARE SPECIES:** Habitats delineated for rare plant and animal populations protected pursuant to the Massachusetts Endangered Species Act and its regulations.

**RUNOFF:** Rainfall, snowmelt, or irrigation water flowing over the ground surface.

**SEDIMENT:** Mineral or organic soil material that is transported by wind or water, from its origin to another location; the product of erosion processes.

**SEDIMENTATION:** The process or act of deposition of sediment.

**SITE:** Any lot or parcel of land or area of property where land-disturbing activities are, were, or will be performed.

**SLOPE:** The incline of a ground surface expressed as a ratio of horizontal distance to vertical distance.

**SOIL:** Any earth, sand, rock, gravel, or similar material.

**STABILIZATION:** The use, singly or in combination, of mechanical, structural, or vegetative methods, to prevent or retard erosion.

**STORMWATER:** Storm water runoff, snow melt runoff, and surface water runoff and drainage.

**STRIP:** Any activity which removes the vegetative ground surface cover, including tree removal, clearing, grubbing, and storage or removal of topsoil.

VERNAL POOLS: Temporary bodies of freshwater which provide critical habitat for a number of vertebrate and invertebrate wildlife species.

WATERCOURSE: A natural or man-made channel through which water flows or a stream of water, including a river, brook, or underground stream.

WETLAND RESOURCE AREA: Areas specified in the Massachusetts Wetlands Protection Act G.L. c. 131, § 40 and in the (city or town's) wetland bylaw/ordinance.

WETLANDS: Tidal and non-tidal areas characterized by saturated or nearly saturated soils most of the year that are located between terrestrial (land-based) and aquatic (water-based) environments, including freshwater marshes around ponds and channels (rivers and streams), brackish and salt marshes; common names include marshes, swamps and bogs.

### **SECTION 3. AUTHORITY**

This bylaw is adopted under authority granted by the Home Rule Amendment of the Massachusetts Constitution, the Home Rule statutes, and pursuant to the regulations of the federal Clean Water Act found at 40 CFR 122.34

### **SECTION 4. APPLICABILITY**

This bylaw shall apply to all activities that result in disturbance of one or more acres of land that drains to the municipal separate storm sewer system *[insert a reference to maps or Board where this information can be obtained]*. Except as authorized by the *[insert appropriate board, commission, department or its agent, hereafter known as "The Board"]* in a Land Disturbance Permit or as otherwise provided in this bylaw, no person shall perform any activity that results in disturbance of an acre or more of land. Normal maintenance and improvement of land in agricultural or aquacultural use, as defined by the Wetlands Protection Act regulation 310 CMR 10.4, are exempt. In addition, as authorized in the Phase II Small MS4 General Permit for Massachusetts, storm water discharges resulting from the above activities that are subject to jurisdiction under the Wetlands Protection Act and demonstrate compliance with the Massachusetts Storm Water Management Policy as reflected in an Order of Conditions issued by the Conservation Commission are exempt from compliance with this bylaw.

### **SECTION 5. RESPONSIBILITY FOR ADMINISTRATION**

A. *[The Board]* shall administer, implement and enforce this bylaw. Any powers granted to or duties imposed upon *[the Board]* may be delegated in writing by *[the Board]* to its employees or agents.

B. Waiver. *[The Board]* may waive strict compliance with any requirement of this by-law or the rules and regulations promulgated hereunder, where:

- (1) such action is allowed by federal, state and local statutes and/or regulations,

(2) is in the public interest, and

(3) is not inconsistent with the purpose and intent of this by-law.

C. Rules and Regulations. [The Board] may adopt, and periodically amend rules and regulations to effectuate the purposes of this by-law. Failure by [the Board] to promulgate such rules and regulations shall not have the effect of suspending or invalidating this by-law.

## **SECTION 6. PERMITS and PROCEDURE**

A. Application. A completed application for a Land Disturbance Permit shall be filed with [the Board]. A permit must be obtained prior to the commencement of land disturbing activity that may result in the disturbance of an area of one acre or more. The Land Disturbance Permit Application package shall include:

1. a completed Application Form with original signatures of all owners;
2. a list of abutters, certified by the Assessors Office;
3. three (3) copies of the Erosion and Sediment Control Plan as specified in Section VI of this bylaw;
4. payment of the application and review fees; and,
5. one (1) copy each of the Application Form and the list of abutters filed with the Town Clerk.

B. Entry. Filing an application for a permit grants [the Board] or its agent, permission to enter the site to verify the information in the application and to inspect for compliance with permit conditions.

C. Other Boards. The [the Board] shall notify the Town Clerk of receipt of the application, and shall give one copy of the application package to [each of the other relevant boards. Fill in the Planning Board, the Conservation Commission, or Department of Public Works as appropriate].

D. Public Hearing. [The Board] shall hold a public hearing within twenty-one (21) days of the receipt of a complete application and shall take final action within twenty-one (21) days from the time of the close of the hearing unless such time is extended by agreement between the applicant and [the Board]. Notice of the public hearing shall be given by publication and posting and by first-class mailings to abutters at least seven (7) days prior to the hearing. [the Board] shall make the application available for inspection by the public during business hours at the [city or town] [specify office]

E. Information requests. The applicant shall submit all additional information requested by [the Board] to issue a decision on the application.

F. Action by *[the Board]*.

*[The Board]* may:

1. Approve the Land Disturbance Permit Application and issue a permit if it finds that the proposed plan will protect water resources and meets the objectives and requirements of this by-law;
2. Approve the Land Disturbance Permit Application and issue a permit with conditions, modifications or restrictions that *[the Board]* determines are required to ensure that the project will protect water resources and meets the objectives and requirements of this by-law;
3. Disapprove the Land Disturbance Permit Application and deny the permit if it finds that the proposed plan will not protect water resources or fails to meet the objectives and requirements of this by-law.

G. Failure of *[the Board]* to take final action. Failure of *[the Board]* to take final action upon an Application within the time specified above shall be deemed to be approval of said Application. Upon certification by the Town Clerk that the allowed time has passed without *[the Board's]* action, the Land Disturbance Permit shall be issued by *[the Board]*.

H. Fee Structure. Each application must be accompanied by the appropriate application fee as established by *[the Board]*. Applicants shall pay review fees as determined by *[the Board]* sufficient to cover any expenses connected with the public hearing and review of the Land Disturbance Permit Application before the review process commences. *[the Board]* is authorized to retain a Registered Professional Engineer or other professional consultant to advise *[the Board]* on any or all aspects of the Application.

I. Project Changes. The permittee, or their agent, must notify *[the Board]* in writing of any change or alteration of a land-disturbing activity authorized in a Land Disturbance Permit before any change or alteration occurs. If *[the Board]* determines that the change or alteration is significant, based on the design requirements listed in Section 7.B. and accepted construction practices, *[the Board]* may require that an amended Land Disturbance Permit application be filed and a public hearing held. If any change or alteration from the Land Disturbance Permit occurs during any land disturbing activities, *[the Board]* may require the installation of interim erosion and sedimentation control measures before approving the change or alteration.

## **SECTION 7. EROSION AND SEDIMENT CONTROL PLAN**

A. The Erosion and Sediment Control Plan shall contain sufficient information to describe the nature and purpose of the proposed development, pertinent conditions of the site and the adjacent areas, and proposed erosion and sedimentation controls. The applicant shall submit such material as is necessary to show that the proposed development will comply with the design requirements listed in Section 7.B. below.

B. The design requirements of the Erosion and Sediment Control Plan are:

1. Minimize total area of disturbance;
2. Sequence activities to minimize simultaneous areas of disturbance;
3. Minimize peak rate of runoff in accordance with the Massachusetts Stormwater Policy;
4. Minimize soil erosion and control sedimentation during construction, provided that prevention of erosion is preferred over sedimentation control;
5. Divert uncontaminated water around disturbed areas;
6. Maximize groundwater recharge;
7. Install and maintain all Erosion and Sediment Control measures in accordance with the manufacturers specifications and good engineering practices;
8. Prevent off-site transport of sediment;
9. Protect and manage on and off-site material storage areas (overburden and stockpiles of dirt, borrow areas, or other areas used solely by the permitted project are considered a part of the project);
10. Comply with applicable Federal, State and local laws and regulations including waste disposal, sanitary sewer or septic system regulations, and air quality requirements, including dust control;
11. Prevent significant alteration of habitats mapped by the Massachusetts Natural Heritage & Endangered Species Program as Endangered, Threatened or Of Special Concern, Estimated Habitats of Rare Wildlife and Certified Vernal Pools, and Priority Habitats of Rare Species from the proposed activities;
12. Institute interim and permanent stabilization measures, which shall be instituted on a disturbed area as soon as practicable but no more than 14 days after construction activity has temporarily or permanently ceased on that portion of the site;
13. Properly manage on-site construction and waste materials; and
14. Prevent off-site vehicle tracking of sediments.

C. Erosion and Sedimentation Control Plan Content. The Plan shall contain the following information:

1. Names, addresses, and telephone numbers of the owner, applicant, and person(s) or firm(s) preparing the plan;



2. Title, date, north arrow, names of abutters, scale, legend, and locus map;
3. Location and description of natural features including:
  - (a) Watercourses and water bodies, wetland resource areas and all floodplain information, including the 100-year flood elevation based upon the most recent Flood Insurance Rate Map, or as calculated by a professional engineer for areas not assessed on these maps;
  - (b) Existing vegetation including tree lines, canopy layer, shrub layer, and ground cover, and trees with a caliper twelve (12) inches or larger, noting specimen trees and forest communities; and
  - (c) Habitats mapped by the Massachusetts Natural Heritage & Endangered Species Program as Endangered, Threatened or of Special Concern, Estimated Habitats of Rare Wildlife and Certified Vernal Pools, and Priority Habitats of Rare Species within five hundred (500) feet of any construction activity.
4. Lines of existing abutting streets showing drainage and driveway locations and curb cuts;
5. Existing soils, volume and nature of imported soil materials;
6. Topographical features including existing and proposed contours at intervals no greater than two (2) feet with spot elevations provided when needed;
7. Surveyed property lines showing distances and monument locations, all existing and proposed easements, rights-of-way, and other encumbrances, the size of the entire parcel, and the delineation and number of square feet of the land area to be disturbed;
8. Drainage patterns and approximate slopes anticipated after major grading activities (Construction Phase Grading Plans);
9. Location and details of erosion and sediment control measures with a narrative of the construction sequence/phasing of the project, including both operation and maintenance for structural and non-structural measures, interim grading, and material stockpiling areas;
10. Path and mechanism to divert uncontaminated water around disturbed areas, to the maximum extent practicable;
11. Location and description of industrial discharges, including stormwater discharges from dedicated asphalt plants and dedicated concrete plants, which are covered by this permit;
12. Stormwater runoff calculations in accordance with the Department of Environmental Protection's Stormwater Management Policy;

13. Location and description of and implementation schedule for temporary and permanent seeding, vegetative controls, and other stabilization measures;
14. A description of construction and waste materials expected to be stored on-site. The Plan shall include a description of controls to reduce pollutants from these materials, including storage practices to minimize exposure of the materials to stormwater, and spill prevention and response;
15. A description of provisions for phasing the project where one acre of area or greater is to be altered or disturbed;
16. Plans must be stamped and certified by a qualified Professional Engineer registered in Massachusetts or a Certified Professional in Erosion and Sediment Control; and
17. Such other information as is required by [*the Board*].

## **SECTION 8. INSPECTION AND SITE SUPERVISION**

A. Pre-construction Meeting. Prior to starting clearing, excavation, construction, or land disturbing activity the applicant, the applicant's technical representative, the general contractor or any other person with authority to make changes to the project, shall meet with [*The Board*], to review the permitted plans and their implementation.

B. Board Inspection. [*The Board*] or its designated agent shall make inspections as hereinafter required and shall either approve that portion of the work completed or shall notify the permittee wherein the work fails to comply with the land disturbance permit as approved. The Permit and associated plans for grading, stripping, excavating, and filling work, bearing the signature of approval of [*the Board*], shall be maintained at the site during the progress of the work. In order to obtain inspections, the permittee shall notify [*the Board*] at least two (2) working days before each of the following events:

1. Erosion and sediment control measures are in place and stabilized;
2. Site Clearing has been substantially completed;
3. Rough Grading has been substantially completed;
4. Final Grading has been substantially completed;
5. Close of the Construction Season; and
6. Final Landscaping (permanent stabilization) and project final completion.

C. Permittee Inspections. The permittee or his/her agent shall conduct and document inspections of all control measures no less than weekly or as specified in the permit, and prior to and following anticipated storm events. The purpose of such inspections will be to determine the overall effectiveness of the control plan, and the need for maintenance or additional control measures. The permittee or his/her agent shall submit monthly reports to [*the Board*] or

designated agent in a format approved by *[the Board]*.

D. Access Permission. To the extent permitted by state law, or if authorized by the owner or other party in control of the property, *[the Board]* its agents, officers, and employees may enter upon privately owned property for the purpose of performing their duties under this by-law and may make or cause to be made such examinations, surveys or sampling as *[the Board]* deems reasonably necessary to determine compliance with the permit.

## **SECTION 9. SURETY**

*[The Board]* may require the permittee to post before the start of land disturbance activity, a surety bond, irrevocable letter of credit, cash, or other acceptable security. The form of the bond shall be approved by town counsel, and be in an amount deemed sufficient by *[the Board]* to ensure that the work will be completed in accordance with the permit. If the project is phased, *[the Board]* may release part of the bond as each phase is completed in compliance with the permit but the bond may not be fully released until *[the Board]* has received the final report as required by Section 10 and issued a certificate of completion.

## **SECTION 10. FINAL REPORTS**

Upon completion of the work, the permittee shall submit a report (including certified as-built construction plans) from a Professional Engineer (P.E.), surveyor, or Certified Professional in Erosion and Sediment Control (CPESC), certifying that all erosion and sediment control devices, and approved changes and modifications, have been completed in accordance with the conditions of the approved permit. Any discrepancies should be noted in the cover letter.

## **SECTION 11. ENFORCEMENT**

A. *[The Board]* or an authorized agent of *[the Board]* shall enforce this by-law, regulations, orders, violation notices, and enforcement orders, and may pursue all civil and criminal remedies for such violations.

### **B. Orders**

1. *[The Board]* or an authorized agent of the *[the Board]* may issue a written order to enforce the provisions of this by-law or the regulations thereunder, which may include:

(a) a requirement to cease and desist from the land-disturbing activity until there is compliance with the bylaw and provisions of the land-disturbance permit;

(b) maintenance, installation or performance of additional erosion and sediment control measures;

(c) monitoring, analyses, and reporting

(d) remediation of erosion and sedimentation resulting directly or indirectly from the

land-disturbing activity.

2. If the enforcing person determines that abatement or remediation of erosion and sedimentation is required, the order shall set forth a deadline by which such abatement or remediation must be completed. Said order shall further advise that, should the violator or property owner fail to abate or perform remediation within the specified deadline, the [city or town] may, at its option, undertake such work, and the property owner shall reimburse the [city or town's] expenses.

3. Within thirty (30) days after completing all measures necessary to abate the violation or to perform remediation, the violator and the property owner shall be notified of the costs incurred by the [city or town], including administrative costs. The violator or property owner may file a written protest objecting to the amount or basis of costs with [the Board] within thirty (30) days of receipt of the notification of the costs incurred. If the amount due is not received by the expiration of the time in which to file a protest or within thirty (30) days following a decision of [the Board] affirming or reducing the costs, or from a final decision of a court of competent jurisdiction, the costs shall become a special assessment against the property owner and shall constitute a lien on the owner's property for the amount of said costs. Interest shall begin to accrue on any unpaid costs at the statutory rate, as provided in G.L. Ch. 59, § 57, after the thirty-first day following the day on which the costs were due.

C. Criminal Penalty. Any person who violates any provision of this by-law, regulation, order or permit issued there under, shall be punished by a fine of not more than \$[\_\_\_\_]. Each day or part thereof that such violation occurs or continues shall constitute a separate offense.

D. Non-Criminal Disposition. As an alternative to criminal prosecution or civil action, the [city or town] may elect to utilize the non-criminal disposition procedure set forth in G.L. Ch.. 40, §21D and [the insert citation town enabling vote/bylaw (if applicable)] of the Town of [\_\_\_\_], in which case [the insert title or other authorized agent] of the [city/town] shall be the enforcing person. The penalty for the 1st violation shall be \$[\_\_\_\_]. The penalty for the 2nd violation shall be \$[\_\_\_\_]. The penalty for the 3rd and subsequent violations shall be \$[\_\_\_\_]. Each day or part thereof that such violation occurs or continues shall constitute a separate offense.

E. Appeals. The decisions or orders of [the Board] shall be final. Further relief shall be to a court of competent jurisdiction.

F. Remedies Not Exclusive. The remedies listed in this by-law are not exclusive of any other remedies available under any applicable federal, state or local law.

## **SECTION 12. CERTIFICATE OF COMPLETION**

The issuing authority will issue a letter certifying completion upon receipt and approval of the final reports and/or upon otherwise determining that all work of the permit has been satisfactorily completed in conformance with this bylaw.

## **SECTION 12. SEVERABILITY**

If any provision, paragraph, sentence, or clause of this by-law shall be held invalid for any reason, all other provisions shall continue in full force and effect.

## LAND DISTURBANCE PERMIT APPLICATION

To [*The Board*]:

The undersigned wishes to submit a Land Disturbance Permit Application as defined in the Zoning By-Laws of the Town of [insert Town] Section [reference] and requests a review and determination by the [*the Board*] of said Land Disturbance Plan.

The Land Disturbance Plan involves property where owner's title to the land is derived under deed from \_\_\_\_\_, dated \_\_\_\_\_, and recorded in the [Insert] County Registry of Deeds, Book \_\_\_\_\_, Page \_\_\_\_\_, or Land Court Certificate of Title No. \_\_\_\_\_, Registered in \_\_\_\_\_ District, Book \_\_\_\_\_, Page \_\_\_\_\_.

Give a brief summary of the nature of the project.

The property (building) is described as being located at \_\_\_\_\_; it is currently used as \_\_\_\_\_ and the changes proposed to be made are \_\_\_\_\_.

The project is located on the parcel shown on Assessors Map \_\_\_\_\_, Parcel \_\_\_\_\_.

Applicant's Signature \_\_\_\_\_ Owners' Signature(s) \_\_\_\_\_

Applicant's Name (print) \_\_\_\_\_ Owners' Names(s) \_\_\_\_\_

Applicant's Address \_\_\_\_\_ Owners' Address \_\_\_\_\_

Date Received by Town Clerk: \_\_\_\_\_

Signature \_\_\_\_\_

Please note: 1) An applicant for a Land Disturbance Plan Review must file with the [*the Board*] a completed Land Disturbance Permit Application, a list of abutters, three (3) copies of the Land Disturbance Plan Package, and the application and review fees as noted in the Land Disturbance Plan Review Fee Schedule. 2) The applicant shall also file a copy of the Land Disturbance Plan and the application with the Town Clerk. The date of receipt by the Town Clerk shall be the official filing date.

### Land Disturbance Plan Review Fee Schedule

The following fee schedules are minimum fees. [The Board] may require higher fees if deemed necessary for proper review of an application or to ensure compliance.

<u>Lot Area</u>	<u>Professional Review Fee</u>	<u>Application Fee</u>
Less Than 3 Acres	\$ ____.	\$ ____.
3 to 10 Acres	\$ ____.	\$ ____.
Greater than 10 Acres	\$ ____ times the acreage	\$ ____.
Resubmittal/Amendment		
Filing Fee	\$ ____	
Review Fee	\$ ____	

### GENERAL

1. Any application not accompanied by the appropriate fee shall be deemed incomplete. Payment must be made to [the Board] in cash, money order, bank or certified check payable to the Town of [insert name].
2. An Applicant's failure to pay any additional review or inspection fee within five business days of receipt of the notice that further fees are required shall be grounds for disapproval.
3. [The Board] will publish the public notice and send abutter notifications. Abutter notification shall be by certified mail-return receipt requested. The applicant shall pay all costs associated with the publication and notification requirements. These costs shall not be imposed on the applicant if the applicant completes the public notice and abutter notification requirements, and provides [the Board] with copies of the public notices and the return receipt cards.

Professional review fees include engineering review, legal review, and clerical fees associated with the public hearing and permit processing. A fee estimate may be provided by [the Board's] consulting engineer.

# **BY-LAW GOVERNING POST-CONSTRUCTION STORMWATER MANAGEMENT OF NEW DEVELOPMENTS & REDEVELOPMENTS**

## **SECTION 1. PURPOSE**

Regulation of discharges to the municipal separate storm sewer system (MS4) is necessary for the protection of the [*city or town's*] water bodies and groundwater, and to safeguard the public health, safety, welfare and the environment. Increased and contaminated stormwater runoff associated with developed land uses and the accompanying increase in impervious surface are major causes of impairment of water quality and flow in lakes, ponds, streams, rivers, wetlands and groundwater;

- 1) impairment of water quality and flow in lakes, ponds, streams, rivers, wetlands and groundwater,
- 2) contamination of drinking water supplies,
- 3) erosion of stream channels;
- 4) alteration or destruction of aquatic and wildlife habitat; and
- 5) flooding.

Therefore, this bylaw establishes stormwater management standards for the final conditions that result from development and redevelopment projects to minimize adverse impacts offsite and downstream which would be born by abutters, townspeople and the general public.

The objectives of this by-law are:

1. To require practices to control the flow of stormwater from new and redeveloped sites into the [town/city] storm drainage system in order to prevent flooding and erosion;
2. To protect groundwater and surface water from degradation;
3. To promote groundwater recharge;
4. To prevent pollutants from entering the [city or town's] municipal separate storm sewer system (MS4) and to minimize discharge of pollutants from the MS4;
5. To ensure adequate long-term operation and maintenance of structural stormwater best management practices so that they work as designed;
6. To comply with state and federal statutes and regulations relating to stormwater discharges; and
7. To establish the [*city or town's*] legal authority to ensure compliance with the provisions of this by-law through inspection, monitoring, and enforcement.

## **SECTION 2. DEFINITIONS**

**ALTERATION OF DRAINAGE CHARACTERISTICS:** Any activity on an area of land that



changes the water quality, force, direction, timing or location of runoff flowing from the area. Such changes include: change from distributed runoff to confined, discrete discharge, change in the volume of runoff from the area; change in the peak rate of runoff from the area; and change in the recharge to groundwater on the area.

**BEST MANAGEMENT PRACTICE (BMP):** An activity, procedure, restraint, or structural improvement that helps to reduce the quantity or improve the quality of stormwater runoff.

**THE BOARD** – Town of \_\_\_\_\_ [*Planning Board, or whatever Dept. the Town decides is appropriate OR its authorized agent(s)*].

**CLEARING:** Any activity that removes the vegetative surface cover.

**DEVELOPMENT:** The modification of land to accommodate a new use or expansion of use, usually involving construction.

**DISTURBANCE OF LAND:** Any action that causes a change in the position, location, or arrangement of soil, sand rock, gravel of similar earth material.

**GRADING:** Changing the level or shape of the ground surface.

**GRUBBING:** The act of clearing land surface by digging up roots and stumps.

**IMPERVIOUS SURFACE:** Any material or structure on or above the ground that prevents water infiltrating the underlying soil. Impervious surface includes without limitation roads, paved parking lots, sidewalks, and roof tops.

**MASSACHUSETTS STORMWATER MANAGEMENT POLICY:** The Policy issued by the Department of Environmental Protection, and as amended, that coordinates the requirements prescribed by state regulations promulgated under the authority of the Massachusetts Wetlands Protection Act G.L. c. 131 § 40 and Massachusetts Clean Waters Act G.L. c. 21, §. 23-56. The Policy addresses stormwater impacts through implementation of performance standards to reduce or prevent pollutants from reaching water bodies and control the quantity of runoff from a site.

**MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) or MUNICIPAL STORM DRAIN SYSTEM:** The system of conveyances designed or used for collecting or conveying stormwater, including any road with a drainage system, street, gutter, curb, inlet, piped storm drain, pumping facility, retention or detention basin, natural or man-made or altered drainage channel, reservoir, and other drainage structure that together comprise the storm drainage system owned or operated by the [town/city of \_\_\_\_\_].

**OPERATION AND MAINTENANCE PLAN:** A plan setting up the functional, financial and organizational mechanisms for the ongoing operation and maintenance of a stormwater management system to insure that it continues to function as designed.

**OUTFALL:** The point at which stormwater flows out from a point source discernible, confined and discrete conveyance into waters of the Commonwealth.

**OUTSTANDING RESOURCE WATERS (ORWs):** Waters designated by Massachusetts Department of Environmental Protection as ORWs. These waters have exceptional sociologic, recreational, ecological and/or aesthetic values and are subject to more stringent requirements under both the Massachusetts Water Quality Standards (314 CMR 4.00) and the Massachusetts Stormwater Management Standards. ORWs include vernal pools certified by the Natural Heritage Program of the Massachusetts Department of Fisheries and Wildlife and Environmental Law Enforcement, all Class A designated public water supplies with their bordering vegetated wetlands, and other waters specifically designated.

**OWNER:** A person with a legal or equitable interest in property.

**PERSON:** An individual, partnership, association, firm, company, trust, corporation, agency, authority, department or political subdivision of the Commonwealth or the federal government, to the extent permitted by law, and any officer, employee, or agent of such person.

**POINT SOURCE:** Any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, or container from which pollutants are or may be discharged.

**REDEVELOPMENT:** Development, rehabilitation, expansion, demolition or phased projects that disturb the ground surface or increase the impervious area on previously developed sites.

**RUNOFF:** Rainfall, snowmelt, or irrigation water flowing over the ground surface.

**STORMWATER MANAGEMENT PLAN:** A plan required as part of the application for a Stormwater Management Permit. See Section 7.

**STORMWATER:** Storm water runoff, snow melt runoff, and surface water runoff and drainage.

**TSS:** Total Suspended Solids.

### **SECTION 3. AUTHORITY**

This bylaw is adopted under authority granted by the Home Rule Amendment of the Massachusetts Constitution, the Home Rule statutes and pursuant to the regulations of the federal Clean Water Act found at 40 CFR 122.34.

### **SECTION 4. APPLICABILITY**

A. No person may undertake a construction activity, including clearing, grading and excavation that results in a land disturbance that will disturb equal to or greater than one acre of land or will disturb less than one acre of land but is part of a larger common plan of development or sale that will ultimately disturb equal to or greater than one acre of land draining to the *[name of town]*

municipal separate storm sewer system without a permit from [*the Board*]. Construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity or the original purpose of the site

## B. Exemptions

Normal maintenance and improvement of land in agricultural use as defined by the Wetlands Protection Act regulation 310 CMR 10.04;

Maintenance of existing landscaping, gardens or lawn areas associated with a single family dwelling;

The construction of fencing that will not substantially alter existing terrain or drainage patterns;

Construction of utilities other than drainage (gas, water, electric, telephone, etc.) which will not alter terrain or drainage patterns;

As authorized in the Phase II Small MS4 General Permit for Massachusetts, storm water discharges resulting from the activities identified in Section 4 that are wholly subject to jurisdiction under the Wetlands Protection Act and demonstrate compliance with the Massachusetts Storm Water Management Policy as reflected in an Order of Conditions issued by the Conservation Commission are exempt from compliance with this bylaw.

## SECTION 5. ADMINISTRATION

A. [*The Board*], shall administer, implement and enforce this bylaw. Any powers granted to or duties imposed upon [*the Board*] may be delegated in writing by [*the Board*] to its employees or agents.

B. Rules and Regulations. [*The Board*] may adopt, and periodically amend, rules and regulations relating to the procedures and administration of this Stormwater Management By-law, by majority vote of [*the Board*], after conducting a public hearing to receive comments on any proposed revisions. Such hearing dates shall be advertised in a newspaper of general local circulation, at least seven (7) days prior to the hearing date.

## SECTION 6. PERMITS and PROCEDURE

A. Filing Application. The site owner or his agent shall file with [*the Board*] hereinafter *the Board*, three (3) copies of a completed application package for a Stormwater Management Permit (SMP). Permit issuance is required prior to any site altering activity. While the applicant can be a representative, the permittee must be the owner of the site. The SMP Application package shall include:

1. a completed Application Form with original signatures of all owners;
2. a list of abutters, certified by the Assessors Office;
3. three (3) copies of the Stormwater Management Plan and project description as specified in Section 7.A.;

4. three (3) copies of the Operation and Maintenance Plan as required by Section 8 of this bylaw;
5. one (1) copy of the application form, the Stormwater Management Plan, the Operation & Maintenance Plan, and the list of abutters filed with the Town Clerk; and
6. payment of the application and review fees.

B. Entry. Filing an application for a permit grants *[the Board]*, or its agent, permission to enter the site to verify the information in the application and to inspect for compliance with the resulting permit

C. Other Boards. The *[the Board]* shall notify the Town Clerk of receipt of the application, and shall give one copy of the application package to *[each of the other relevant boards. Fill in the Planning Board, the Conservation Commission, and/or Department of Public Works as appropriate]*.

D. Fee Structure. *[The Board]* shall obtain with each submission an Application Fee established by *[the Board]* to cover expenses connected with the public hearing and application review of the Stormwater Management Permit and a technical Review Fee sufficient to cover professional review. *[The Board]* is authorized to retain a Registered Professional Engineer or other professional consultant to advise *[the Board]* on any or all aspects of these plans. Applicants must pay review fees before the review process may begin.

E. Public Hearing. The *[the Board]* shall hold a public hearing within twenty-one (21) days of the receipt of a complete application and shall take final action within twenty-one (21) days from the close of the hearing unless such time is extended by agreement between the applicant and *[insert appropriate board or department]*. Notice of the public hearing shall be given by publication in a local paper of general circulation, by posting and by first-class mailings to abutters at least seven (7) days prior to the hearing.

F. Actions. *[The Board's]*'s action, rendered in writing, shall consist of either:

1. Approval of the Stormwater Management Permit Application based upon determination that the proposed plan meets the Standards in Section 7 and will adequately protect the water resources of the community and is in compliance with the requirements set forth in this by-law;
2. Approval of the Stormwater Management Permit Application subject to any conditions, modifications or restrictions required by the *[the Board]* which will ensure that the project meets the Standards in Section 7 and adequately protect water resources, set forth in this by-law;
3. Disapproval of the Stormwater Management Permit Application based upon a determination that the proposed plan, as submitted, does not meet the Standards in Section 7 or adequately protect water resources, as set forth in this by-law.

G. Failure of *[the Board]* to take final action upon an Application within the time specified above shall be deemed to be approval of said Application. Upon certification by the Town Clerk that the allowed time has passed without Board action, *[the Board]* must issue a Stormwater Management

Permit.

H. Plan Changes. The permittee, must notify [*the Board*] in writing of any drainage change or alteration in the system authorized in a Stormwater Management Permit before any change or alteration is made. If [*the Board*] determines that the change or alteration is significant, based on the Stormwater Management Standards in Section 7.B. and accepted construction practices, [*the Board*] may require that an amended application be filed and a public hearing held.

I. Project Completion. At completion of the project the permittee shall submit as-built record drawings of all structural stormwater controls and treatment best management practices required for the site. The as-built drawing shall show deviations from the approved plans, if any, and be certified by a Registered Professional Engineer.

## **SECTION 7. STORMWATER MANAGEMENT PLAN**

A. The application for a stormwater management permit shall consist of submittal of a Stormwater Management Plan to the [*the Board*]. This Stormwater Management Plan shall contain sufficient information for the [*the Board*] to evaluate the environmental impact, effectiveness, and acceptability of the measures proposed by the applicant for reducing adverse impacts from stormwater. The Plan shall be designed to meet the Massachusetts Stormwater Management Standards as set forth in Part B of this section and DEP Stormwater Management Handbook Volumes I and II. The Stormwater Management Plan shall fully describe the project in drawings, and narrative. It shall include:

1. A locus map,
2. The existing zoning, and land use at the site,
3. The proposed land use,
4. The location(s) of existing and proposed easements,
5. The location of existing and proposed utilities,
6. The site's existing & proposed topography with contours at 2 foot intervals,
7. The existing site hydrology,
8. A description & delineation of existing stormwater conveyances, impoundments, and wetlands on or adjacent to the site or into which stormwater flows,
9. A delineation of 100-year flood plains, if applicable,
10. Estimated seasonal high groundwater elevation (November to April) in areas to be used for stormwater retention, detention, or infiltration,
11. The existing and proposed vegetation and ground surfaces with runoff coefficients for each,
12. A drainage area map showing pre and post construction watershed boundaries, drainage area and stormwater flow paths,
13. A description and drawings of all components of the proposed drainage system including:
  - a. locations, cross sections, and profiles of all brooks, streams, drainage swales and their method of stabilization,
  - b) all measures for the detention, retention or infiltration of water,
  - c) all measures for the protection of water quality,

- d) the structural details for all components of the proposed drainage systems and stormwater management facilities,
  - e) notes on drawings specifying materials to be used, construction specifications, and typicals, and
  - f) expected hydrology with supporting calculations.
14. Proposed improvements including location of buildings or other structures, impervious surfaces, and drainage facilities, if applicable,
  15. Timing, schedules, and sequence of development including clearing, stripping, rough grading, construction, final grading, and vegetative stabilization,
  16. A maintenance schedule for the period of construction, and
  17. Any other information requested by *the Board*.

#### B. Standards

Projects shall meet the Standards of the Massachusetts Stormwater Management Policy, which are as follows:

- 1) No new stormwater conveyances (e.g. outfalls) may discharge untreated stormwater directly to or cause erosion in wetlands or water of the Commonwealth.
- 2) Stormwater management systems must be designed so that post-development peak discharge rates do not exceed pre-development peak discharge rates.
- 3) Loss of annual recharge to groundwater should be minimized through the use of infiltration measures to the maximum extent practicable. The annual recharge from the post-development site should approximate the annual recharge rate from the pre-development or existing site conditions, based on soil types.
- 4) For new development, stormwater management systems must be designed to remove 80% of the average annual load (post development conditions) of Total Suspended Solids (TSS). It is presumed that this standard is met when:
  - (a) Suitable nonstructural practices for source control and pollution prevention and implemented;
  - (b) Stormwater management best management practices (BMPs) are sized to capture the prescribed runoff volume; and
  - (c) Stormwater management BMPs are maintained as designed.
- 5) Stormwater discharges from areas with higher potential pollutant loads require the use of specific stormwater management BMPs (see Stormwater Management Volume I: Stormwater Policy Handbook). The use of infiltration practices without pretreatment is prohibited.
- 6) Stormwater discharges to critical areas must utilize certain stormwater management BMPs approved for critical areas (see Stormwater Management Volume I: Stormwater Policy Handbook). Critical areas are Outstanding Resource Waters (ORWs), shellfish beds, swimming beaches, cold water fisheries and recharge areas for public water supplies.
- 7) Redevelopment of previously developed sites must meet the Stormwater Management

Standards to the maximum extent practicable. However, if it is not practicable to meet all the Standards, new (retrofitted or expanded) stormwater management systems must be designed to improve existing conditions.

- 8) Erosion and sediment controls must be implemented to prevent impacts during disturbance and construction activities.
- 9) All stormwater management systems must have an operation and maintenance plan to ensure that systems function as designed.

When one or more of the Standards cannot be met, an applicant may demonstrate that an equivalent level of environmental protection will be provided.

### C. Project Changes

The permittee, or their agent, shall notify [*the Board*] in writing of any change or alteration of a land-disturbing activity authorized in a Stormwater Management Permit before any change or alteration occurs. If [*the Board*] determines that the change or alteration is significant, based on the design requirements listed in Section \_\_\_\_\_ and accepted construction practices, [*the Board*] may require that an amended Stormwater Management Permit application be filed and a public hearing held. If any change or deviation from the Stormwater Management Permit occurs during a project, [*the Board*] may require the installation of interim measures before approving the change.

## SECTION 8. OPERATION AND MAINTENANCE PLANS

An Operation and Maintenance plan (O&M Plan) is required at the time of application for all projects. The maintenance plan shall be designed to ensure compliance with the Permit, this Bylaw and that the Massachusetts Surface Water Quality Standards, 314, CMR 4.00 are met in all seasons and throughout the life of the system. [*The Board*] shall make the final decision of what maintenance option is appropriate in a given situation. [*The Board*] will consider natural features, proximity of site to water bodies and wetlands, extent of impervious surfaces, size of the site, the types of stormwater management structures, and potential need for ongoing maintenance activities when making this decision. The Operation and Maintenance Plan shall remain on file with [*the Board*] and shall be an ongoing requirement. The O&M Plan shall include:

A. The name(s) of the owner(s) for all components of the system

B. Maintenance agreements that specify:

1. The names and addresses of the person(s) responsible for operation and maintenance
2. The person(s) responsible for financing maintenance and emergency repairs.
3. A Maintenance Schedule for all drainage structures, including swales and ponds.
4. A list of easements with the purpose and location of each.

5. The signature(s) of the owner(s).

C. Stormwater Management Easement(s).

1. Stormwater management easements shall be provided by the property owner(s) as necessary for:
  - a. access for facility inspections and maintenance,
  - b. preservation of stormwater runoff conveyance, infiltration, and detention areas and facilities, including flood routes for the 100-year storm event.
  - c. direct maintenance access by heavy equipment to structures requiring regular cleanout.
2. The purpose of each easement shall be specified in the maintenance agreement signed by the property owner.
3. Stormwater management easements are required for all areas used for off-site stormwater control, unless a waiver is granted by the [*The Board*].
4. Easements shall be recorded with the \_\_\_\_\_ County Registry of Deeds prior to issuance of a Certificate of Completion by the [Board].

D. Changes to Operation and Maintenance Plans

1. The owner(s) of the stormwater management system must notify [*the Board*] of changes in ownership or assignment of financial responsibility.
2. The maintenance schedule in the Maintenance Agreement may be amended to achieve the purposes of this by-law by mutual agreement of [*the Board*] and the Responsible Parties. Amendments must be in writing and signed by all Responsible Parties. Responsible Parties shall include owner(s), persons with financial responsibility, and persons with operational responsibility.

## SECTION 9. SURETY

[*The Board*] may require the permittee to post before the start of land disturbance or construction activity, a surety bond, irrevocable letter of credit, cash, or other acceptable security. The form of the bond shall be approved by town counsel, and be in an amount deemed sufficient by [*the Board*] to ensure that the work will be completed in accordance with the permit. If the project is phased, [*the Board*] may release part of the bond as each phase is completed in compliance with the permit but the bond may not be fully released until *the Board* has received the final inspection report as required by Section 10 and issued a Certificate of Completion.



## **SECTION 10. INSPECTIONS**

[*The Board*] shall inspect the project site at the following stages:

- A. Initial Site Inspection: prior to approval of any plan.
- B. Erosion Control Inspection: to ensure erosion control practices are in accord with the filed plan.
- C. Bury Inspection: prior to backfilling of any underground drainage or stormwater conveyance structures.
- D. Final Inspection. After the stormwater management system has been constructed and before the surety has been released, the applicant must submit a record plan detailing the actual stormwater management system as installed. [*The Board*] shall inspect the system to confirm its "as-built" features. This inspector shall also evaluate the effectiveness of the system in an actual storm. If the inspector finds the system to be adequate he shall so report to [*the Board*] which will issue a Certificate of Completion.

If the system is found to be inadequate by virtue of physical evidence of operational failure, even though it was built as called for in the Stormwater Management Plan, it shall be corrected by the permittee before the performance guarantee is released. If the permittee fails to act the [*town of \_\_\_\_\_*] may use the surety bond to complete the work. Examples of inadequacy shall be limited to: errors in the infiltrative capability, errors in the maximum groundwater elevation, failure to properly define or construct flow paths, or erosive discharges from basins.

## **SECTION 11. WAIVERS**

A. [*The Board*] may waive strict compliance with any requirement of this by-law or the rules and regulations promulgated hereunder, where:

- 1) such action is allowed by federal, state and local statutes and/or regulations,
- 2) is in the public interest, and
- 3) is not inconsistent with the purpose and intent of this by-law.

B. Any applicant may submit a written request to be granted such a waiver. Such a request shall be accompanied by an explanation or documentation supporting the waiver request and demonstrating that strict application of the by-law does not further the purposes or objectives of this bylaw.

C. All waiver requests shall be discussed and voted on at the public hearing for the project.

D. If in the [*the Board's*] opinion, additional time or information is required for review of a waiver request, [*the Board*] may continue a hearing to a date certain announced at the meeting. In the event the applicant objects to a continuance, or fails to provide requested information, the waiver request shall be denied.

## **SECTION 12. CERTIFICATE OF COMPLETION**

[*The Board*] will issue a letter certifying completion upon receipt and approval of the final inspection reports and/or upon otherwise determining that all work of the permit has been satisfactorily completed in conformance with this bylaw.

## **SECTION 13. ENFORCEMENT**

A. [*The Board*] or an authorized agent of [*the Board*] shall enforce this by-law, regulations, orders, violation notices, and enforcement orders, and may pursue all civil and criminal remedies for such violations.

### **B. Orders**

1. [*The Board*] or an authorized agent of the [*the Board*] may issue a written order to enforce the provisions of this by-law or the regulations thereunder, which may include requirements to:

- a. cease and desist from construction or land disturbing activity until there is compliance with the by-law and the stormwater management permit;
- b. repair, maintain; or replace the stormwater management system or portions thereof in accordance with the operation and maintenance plan.
- c. perform monitoring, analyses, and reporting;
- d. remediate adverse impact resulting directly or indirectly from malfunction of the stormwater management system.

2. If the enforcing person determines that abatement or remediation of adverse impacts is required, the order shall set forth a deadline by which such abatement or remediation must be completed. Said order shall further advise that, should the violator or property owner fail to abate or perform remediation within the specified deadline, the [*city or town*] may, at its option, undertake such work, and the property owner shall reimburse the [*city or town's*] expenses.

3. Within thirty (30) days after completing all measures necessary to abate the violation or to perform remediation, the violator and the property owner shall be notified of the costs incurred by the [*city or town*], including administrative costs. The violator or property owner may file a written protest objecting to the amount or basis of costs with [*the Board*] within thirty (30) days of receipt of the notification of the costs incurred. If the amount due is not received by the expiration of the time in which to file a protest or within thirty (30) days following a decision of [*the Board*] affirming or reducing the costs, or from a final decision of a court of competent jurisdiction, the costs shall become a special assessment against the property owner and shall constitute a lien on the owner's property for the amount of said costs. Interest shall begin to accrue on any unpaid costs at the statutory rate provided in G.L. Ch. 59, § 57, after the thirty-first day at which the costs first become due.

C. Criminal Penalty. Any person who violates any provision of this by-law, or regulation, order or permit issued thereunder, shall be punished by a fine of not more than \$\_\_\_\_\_. Each day or part thereof that such violation occurs or continues shall constitute a separate offense.

D Non-Criminal Disposition. As an alternative to criminal prosecution or civil action, the [city or town] may elect to utilize the non-criminal disposition procedure set forth in G.L. Ch. 40, §21D and [the insert citation town enabling vote/bylaw (if applicable)] of the Town of \_\_\_\_\_, in which case [the insert title or other authorized agent] of the [city/town] shall be the enforcing person. The penalty for the 1st violation shall be \$\_\_\_\_. The penalty for the 2nd violation shall be \$\_\_\_\_. The penalty for the 3rd and subsequent violations shall be \$ \_\_\_\_\_. Each day or part thereof that such violation occurs or continues shall constitute a separate offense.

#### E. Appeals

The decisions or orders of [the Board] shall be final. Further relief shall be to a court of competent jurisdiction.

#### F. Remedies Not Exclusive

The remedies listed in this by-law are not exclusive of any other remedies available under any applicable federal, state or local law.

### **SECTION 14. SEVERABILITY**

If any provision, paragraph, sentence, or clause of this by-law shall be held invalid for any reason, all other provisions shall continue in full force and effect.

### **STORMWATER MANAGEMENT PERMIT APPLICATION**

To [The Board]:

The undersigned wishes to submit a Stormwater Management Permit Application as defined in the [Zoning] By-Laws of the Town of [insert Town] Section [reference] and requests a review and determination by [The Board] of the Stormwater Management Plan.

The Stormwater Management Plan involves property where owner's title to the land is derived under deed from\_\_\_\_\_, dated\_\_\_\_\_, and recorded in the [Insert] County Registry of Deeds, Book \_\_\_\_\_, Page\_\_\_\_\_, or Land Court Certificate of Title No. \_\_\_\_\_, Registered in \_\_\_\_\_ District, Book \_\_\_\_\_, Page \_\_\_\_\_.

Give a brief summary of the nature of the project.

The property (building) is described as being located at \_\_\_\_\_  
\_\_\_\_\_; it is currently used as \_\_\_\_\_, and the changes  
proposed to be made are \_\_\_\_\_  
\_\_\_\_\_.

The project is located on the parcel shown on Assessors Map \_\_\_\_\_, Parcel \_\_\_\_\_.

Applicant's Signature \_\_\_\_\_ Owners' Signature(s) \_\_\_\_\_  
Applicant's Name (print) \_\_\_\_\_ Owners' Names(s) \_\_\_\_\_  
Applicant's Address \_\_\_\_\_ Owners' Address \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Date Received by Town Clerk: \_\_\_\_\_  
Signature \_\_\_\_\_

Please note: 1) An applicant for a Stormwater Management Plan Review must file with [*the Board*] a completed Stormwater Management Permit Application Form, a list of abutters, three (3) copies of the Stormwater Management Plan Package, three (3) copies of the Operation and Maintenance Plan, and the Application and Review Fees as noted in the Stormwater Management Plan Review Fee Schedule. 2) The applicant shall also file a copy of the Stormwater Management Plan, Operation & Maintenance Plan, and the Application Form with the Town Clerk. The date of receipt by the Town Clerk shall be the official filing date. 3) This application grants [*the Board* and its agents] permission to enter the property for inspection and verification of information submitted in the application.

### Stormwater Management Plan Review Fee Schedule

The following fee schedules are minimum fees. [The Board] may require higher fees if deemed necessary for proper review of an application or to ensure compliance.

<u>Lot Area</u>	<u>Professional Review Fee</u>	<u>Application Fee</u>
Less Than 3 Acres	\$_____	\$_____
3 to 10 Acres	\$_____	\$_____
Greater than 10 Acres	\$_____ times the acreage	\$_____
Resubmittal/Amendment		
Filing Fee	\$_____	
Review Fee	\$_____	

#### GENERAL

1. Any application not accompanied by the appropriate fee shall be deemed incomplete. Payment must be made to [The Board] in cash, money order, bank or certified check payable to the Town of [insert name].
2. An Applicant's failure to pay any additional review or inspection fee within five business days of receipt of the notice that further fees are required shall be grounds for disapproval.
3. The [The Board] will publish the public notice and send abutter notifications. Abutter notification shall be by certified mail-return receipt requested. The applicant shall pay all costs associated with the publication and notification requirements. These costs shall not be imposed on the applicant if the applicant completes the public notice and abutter notification requirements, and provides [The Board] with copies of the public notices and the return receipt cards.

Professional review fees include engineering review, legal review, and clerical fees associated with the public hearing and permit processing. A fee estimate may be provided by [The Board's] consulting engineer.

## **APPENDIX D: MODEL BYLAWS**

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### **3. Conservation Restriction Model Bylaw**



## CONSERVATION RESTRICTION SAMPLER WITH COMMENTARY

The Division of Conservation Services of the Executive Office of Environmental Affairs offers this sampler as a guide to draftsmen in thinking how to do their work. Neither the DCS, the EOE, the Commonwealth, nor individual advisors to the DCS are hereby offering any legal advice, and the DCS presents this sampler as an educational tool, not a form to be followed without independent analysis and careful drafting by counsel. Each reader must rely solely on the advice of his or her legal counsel. Also, check with the Division of Conservation Services of the Executive Office of Environmental Affairs to determine the most recent version of this Sampler. **COMMENTS OR SUGGESTIONS FOR IMPROVEMENTS TO BE INCORPORATED IN ANY SECOND EDITION ARE WELCOME AND SHOULD BE SENT IN WRITING TO THE DCS, 251 Causeway Street, Boston, Massachusetts 02114.**

The Sampler which follows is intended to serve as a guide to the draftsman of a perpetual conservation restriction for charitable gift purpose,<sup>5</sup> but draftsmen interested in other types of restrictions can contact the appropriate state agency for further information, though the outline of this Sampler might well be useful in those contexts.

The content of each section of the document may vary depending upon the policies of the grantee acquiring or exacting the conservation restriction and the Executive Office of Environmental Affairs. The draftsman of an "exacted" conservation restriction may also wish to omit the sections of the Sampler on extinguishment and assignability entirely.

In summary, the provisions of this Sampler are designed to meet three overlapping objectives: satisfying the tests for favorable federal tax treatment, Secretarial approval and workability for the grantor and grantee.

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<sup>5</sup>The draftsman may want to refer to the Model Conservation Easement and Commentary prepared by Thomas S. Barrett, Esq., of the Public Resource Foundation of San Francisco, which helped in the preparation of this Sampler. It is part of the Conservation Easement Handbook which may be purchased from the Land Trust Alliance, 1331 H Street, NW, Suite 400, Washington, D.C. 20005.4711 (lta@lta.org)



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## SAMPLER

### CONSERVATION RESTRICTION TO GREENWAYS ASSOCIATION, INC.

#### I. Grantor Clause:

We, [JOHN LANDOWNER and MARY LANDOWNER], husband and wife having an address at \_\_\_\_\_ ("Grantor(s)"), acting pursuant to Sections 31, 32 and 33 of Chapter 184 of the General Laws, grant, with quitclaim covenants, to [GREENWAYS ASSOCIATION, INC., a Massachusetts non-profit corporation located at 1 Green Place, Boston, Massachusetts], and its successors and permitted assigns ("Grantee") in perpetuity and exclusively for conservation purposes, the following described Conservation Restriction on a parcel of land located in the Town of Exurban, Massachusetts, constituting approximately \_\_\_\_\_ acres, said parcel being described in Exhibit A attached (the "Premises"). For Grantor's title see \_\_\_\_\_ Registry of Deeds Book \_\_\_\_\_, page \_\_\_\_\_.

Comments:

Introductory Note: Throughout these comments references to "the Regulations" shall mean the regulations promulgated by the U.S. Treasury regarding Section 170(h) of the Internal Revenue Code of 1986, as amended.

1. The draftsman may prefer instead of "Grantor(s)" to say "hereinafter, together with (his, her, or its) successors in title for the time being to any or all of the Premises, referred to as the Owner" and instead of "Grantee" to say "the Holder" or "Holders" if more than one is involved. See below. If, for example, the restriction is contained in a deed from a charitable or governmental organization to a new owner who must comply, this change of definitions may be particularly needed. Also, it is important for draftsmen to recognize that while Conservation Restrictions have all the incidents of traditional rights in property and the transfer of them, Conservation Restrictions involve the creation of a continuing relationship between the owner of the land subject to the restriction and the holders of the restriction, and to some degree, public authorities involved with its approval. See below.
2. Section 31 of Chapter 184 of the General Laws recognizes testamentary grants. This sampler, however, addresses only lifetime transfers of Conservation Restrictions.
3. The Grantee must meet the requirements of Section 32 of Chapter 184 of the General Laws. For federal tax purposes the Grantee must be a "qualified organization" within the meaning of Sections 170(h)(1)(B) and 170(h)(3) of the Internal Revenue Code. Governmental units (such as towns), charitable corporations, and private non-profit land trusts, exempt under Section 501(c)(3) and enjoying public foundation status are examples of "qualified organizations". Section 1.170A-14(c)(1) of the Regulations requires the Grantee to have the commitment and resources to enforce the terms of the restriction. If the Grantee is not "organized

or operated primarily or substantially" for a qualified conservation purpose or if its resources are limited, special attention should be given to Section 1.170A-14(c)(1) of the Regulations, above.

4. The Exhibit A device eliminates from the body of the Conservation Restriction the often lengthy legal description of the Premises and puts it into a separate attachment. If the description can be condensed by sufficient identification to a plan already recorded or registered or to be simultaneously recorded or registered, or by reference to a deed or deeds already recorded, it may not be necessary to resort to the Exhibit device. Thus, if the land to be restricted is registered, normal identification of acreage, type of land, abutting or nearest streets or public ways and numbers thereon, if any, and the Land Court plan and certificate of title numbers and lot number or numbers, if any, should be sufficient. If the land is unregistered, there should be proper reference by Book and Page to the deed or other source of the grantor's title, and if all conveyed is being restricted, adding "to which deed" or "to which deed and plan" reference is made for more particular description.

If the Conservation Restriction applies to less than the entire premises, or rights are reserved in specific portions of the premises such circumstances should be clarified with the same specificity as required for the description itself.

Most new surveys include some tie-in to latitude and longitude or the State Plan Coordinate System. Agencies and charities are increasingly likely to require such plans and tie-ins for ease of monitoring and enforcement. If not provided initially, provision should be added to encourage them and necessary amendments later.

5. The grantor clause does not warrant title. A title search is desirable to reveal liens and encumbrances which might adversely affect the Conservation Restriction.
6. Baseline documentation should be maintained by the Grantee for enforcement purposes. Such documentation should include a topographic map and any available written reports documenting the significance of the land. EOEA may require such material as part of the approval process. The baseline documentation will also be important to the Internal Revenue Service. (See the requirements in Section 1.170A-14(g)(5)(i) of the Regulations, especially the signed statement requirement.) The baseline documentation need not be included in the body of the Conservation Restriction, itself, and thus recorded. Some draftsmen may wish to incorporate it by reference. The Sampler does not do so out of concern with ambiguity.
7. Note that Section 31 of Chapter 184 of the General Laws also authorizes term restrictions. Only perpetual restrictions are deductible for federal income, gift and estate tax purposes.
8. Any mortgage on the land to be restricted must be subordinated to the restriction. See Section 1.170A-14(g)(1) of the Regulations.

## **II. Purposes:**

**The Premises, comprised of approximately \_\_\_ acres of land (and/or water) contain unusual, unique or outstanding qualities the protection of which in their predominately natural or open condition will be of benefit to the public. These qualities include:**

**[Insert here a description of such qualities whether cultural (for example, an historic battleground or a colonial mill site); scientific (for example, a geological feature comprised of sedimentary rock containing the footprints of dinosaurs or habitat for endangered or threatened animal or plant species); aesthetic (for example, a vista of a scenic range of hills or seashore); economic (for example, farming, agriculture, or water resources); and recreational values.]**

Comments:

1. The above purpose clause is intended to be specific in terms of the values to be protected. Some draftsmen prefer to use "whereas" clauses in addition to a specific description of purpose. Given the statutory interest of the Commonwealth and the Internal Revenue Service in the underlying public benefit to be derived and the desirability of an historical record, specific description seems desirable. The description must fit and fully describe the situation. A reasonably specific purpose clause may help provide guidance if, at some point in the future, a court or a party is called upon to determine exactly what it was the Grantor was trying to protect with this particular deed of easement. For example, if the purpose of a Conservation Restriction is to protect a scenic vista from the county road and to permit the continued use of property for agricultural purposes, the implicit prohibition against construction of barns in such a manner that would impair the scenic vista could make easier future enforcement efforts directed against that sort of infringement. The draftsman should study the defining language in the first paragraph of Section 31 of Chapter 184 of the General Laws.
2. A Conservation Restriction authorized by Sections 31-33 of Chapter 184 of the General Laws is a "qualified real property interest" within the meaning of Section 170(h)(1)(A) of the Internal Revenue Code governing the deductibility of charitable gifts of Conservation Restrictions.
3. If the Premises are subject to any governmental conservation or recreational policies or programs (for example, watershed or floodplain regulation), reference to such policies or programs will enhance the purpose clause. Section 1.170A-14(d) of the Regulations expands on this point.

## **III. Prohibited Acts and Uses, Exceptions Thereto, and Permitted Uses:**

- A. **Prohibited Acts and Uses. Subject to the exceptions set forth in paragraph B below, the following acts and uses are prohibited on the Premises:**

1. **Constructing or placing of any building, tennis court, landing strip, mobile home, swimming pool, fences, asphalt or concrete pavement, sign, billboard or other advertising display, antenna, utility pole, tower, conduit, line or other temporary or permanent structure or facility on or above the Premises;**
2. **Mining, excavating, dredging or removing from the Premises of soil, loam, peat, gravel, sand, rock or other mineral resource or natural deposit;**
3. **Placing, filling, storing or dumping on the Premises of soil, refuse, trash, vehicle bodies or parts, rubbish, debris, junk, waste or other substance or material whatsoever or the installation of underground storage tanks;**
4. **Cutting, removing or otherwise destroying trees, grasses or other vegetation;**
5. **The subdivision of the Premises;**
6. **Activities detrimental to drainage, flood control, water conservation, erosion control or soil conservation;**
7. **Any other use of the Premises or activity which would materially impair significant conservation interests unless necessary for the protection of the conservation interests that are the subject of this Conservation Restriction.**

Comments:

1. In paragraph A certain acts and uses are prohibited. In paragraph B exceptions are made. Paragraph C makes clear the intent of the Conservation Restriction to permit all uses not specifically prohibited. (In some situations, an alternative drafting approach is to enumerate permissible acts and uses and to prohibit all others.) Note that compatible commercial activities are not prohibited. Thus, businesses such as riding instruction are permitted.
2. Most of the prohibited acts and uses are familiar ones. The prohibition against subdividing is intended to protect conservation values such as agriculture that may be practical only on a large parcel in single ownership. The prohibition may not be desirable in estate planning contexts where, for example, children may wish to divide the property, in which case the prohibition should either be dropped in paragraph A or modified in paragraph B(6).
3. The prohibition stated in paragraph 7 is intended to comply with the requirement in Section 1.170A-14(e) of the Regulations. This is the so-called "pesticide" prohibition which applies when the use of pesticides would impair significant conservation interests. The prohibition is broadly stated and has the effect of protecting conservation values beyond those envisaged by the purpose provision of the restriction. Thus, in the case of a restriction intended to protect only the scenic qualities of a meadow, the use of pesticides which would not adversely affect the scenery must also be prohibited if the use of pesticides would destroy significant unique habitat.

**B. Exceptions to Otherwise Prohibited Acts and Uses [If Any]. The following acts and uses otherwise prohibited in subparagraph A are permitted but only if such acts or uses do not materially impair significant conservation interests.**

- 1. [Construction of a building, other structure, or improvement incident to woodland, farming and animal husbandry operations carried on in accordance with sound agricultural and forest management practices.]**
- 2. [Use of off-road and similar vehicles, including snowmobiles.]**
- 3. [Excavation and removal from the Premises of soil, gravel or other mineral resource or natural deposit as may be incidental to the installation or maintenance or removal of underground tanks, septic systems, utilities, and other underground structures or to the maintenance of good drainage, soil conservation practices or to other permissible use of the Premises.]**
- 4. [The maintenance of piles of limbs, brush, leaves and similar biodegradable material provided such piles are not conspicuous or otherwise interfere with the conservation objectives of this Conservation Restriction.]**
- 5. [The placement or construction of facilities for the development and utilization of energy resources, including without limitation, wind, solar, hydroelectric, methane, wood alcohol, and fossil fuels, for use principally on the Premises.]**
- 6. [Subdivision of the Premises in which case the Grantor shall make reference to this restriction in the conveyance.]**
- 7. [The placing of fences that do not interfere with the conservation purposes of this restriction.]**
- 8. [Digging or drilling of water wells.]**
- 9. [Selective cutting of trees for fire protection, unpaved trail and road maintenance, tick control, or otherwise to preserve the present condition of the Premises, including vistas.]**
- 10. [Woodland, farming and animal husbandry operations carried on in accordance with sound agricultural and forest management practices (including but not limited to the cultivation of fields, the mowing and grazing of meadows and the selective cutting and planting of trees).]**
- 11. [Erection of signs by the Grantor or Grantee identifying the Grantee as holder of the restriction and to educate the public about the conservation values protected and any limitations relating to public access.]**

Comments:

1. THE ENUMERATED EXCEPTIONS ARE EXAMPLES ONLY AND ARE BRACKETED TO INDICATE THEIR OPTIONAL NATURE AND THE NEED FOR SPECIAL CARE TO INSURE THAT THE CONSERVATION PURPOSES OF THE RESTRICTION ARE PRESERVED.
2. Situations will arise when a prohibited use may be irrelevant to the protection of the conservation purposes involved. The addition of a building, a septic tank, or the selective cutting of trees may not in every case derogate from the conservation objectives involved and therefore exceptions may be made to permit them. When exception to the broadly stated prohibition is sought, consideration should be given to the likely consequences of an excepted act or use. If experience teaches that selective cutting of trees may impair scenic qualities for a substantial period of time (old field pines at the edge of a great meadow, for example), then the draftsman may wish to require the prior written approval of the Grantee. In some instances prior notice suffices as a practical matter. In others--the construction of a building, for example--not only may prior notice be desirable but prior approval as well. Section 1.170A-14(g)(5)(ii) of the Regulations calls for prior notification before exercising any right which "may have an adverse impact on the conservation interests". While the Sampler does not contain a Notice Provision, the need for such a provision should be considered in each actual situation.
3. Accessory uses such as a building or house, a well, an earth dam to create a pond, a tennis court, or swimming pool are prohibited by paragraph III(A)(1). Consequently, specific exception must be made in subparagraph (B) if any of those or similar uses are intended. Flexibility is desirable on economic grounds as long as the conservation objectives are not significantly threatened. As an alternative to carving out exceptions, the landowner may decide to redefine the premises so that an area such as the house, barn, and accessory building are not subject to the Conservation Restriction.
4. The draftsman will want to consider making one or more exceptions subject to the prior written approval of the Grantee in which case it may be desirable to provide that if such approval is not forthcoming within a stated period after receipt of notice, it shall be deemed given. As an alternative to prior approval, written advance notice may be sufficient.
5. The reservation of one or more building rights presents drafting problems if the approximate location of a future building is not defined and is therefore omitted in this Sampler. The Secretary of Environmental Affairs will not approve a "floating" building right because of the potential for impairment of conservation values; scenic values, for example. The Regulations limit the use of such rights. See Section 1.170A-14(f) (Examples 3 and 4) of the Regulations. One solution is to define "building envelopes" on the Premises within which future building may be placed. The draftsman may want to exclude such envelopes entirely from the Premises or to include the envelopes but with exceptions to permit building. The latter approach means the owner-builder is more confined than if the envelopes are entirely unrestricted. If the envelope technique is used, the draftsman may wish to consider language permitting access roads and excavating for utility lines and septic tanks in

the Premises, themselves, outside of the envelope, as long as such exception does not impair conservation values.

6. Note that Paragraph B permits enumerated acts otherwise prohibited by Paragraph A, "but only if such acts or uses do not materially impair significant conservation interests." This limitation reflects the so-called "inconsistent use" prohibition found in Section 1.170A-14(e)(2) of the Regulations. An example given involves the use of pesticides on lands protected by a scenic easement if such use would threaten endangered animal species found on the land. Landowners should avoid activities presenting significant risk of triggering this limitation.



**C. Permitted Acts and Uses. All acts and uses not prohibited by subparagraphs A and B are permissible.**

Comment:

The listing of permissible activities is not necessary since all activities not prohibited are permissible. Some landowners, however, want the comfort provided by listing examples such as fishing, clamming, hunting, boating, hiking, horseback riding, and any other passive outdoor recreational activity.

#### **IV. Legal Remedies of the Grantee(s):**

##### **A. Legal and Injunctive Relief**

**The rights hereby granted shall include the right to enforce this Conservation Restriction by appropriate legal proceedings and to obtain injunctive and other equitable relief against any violations, including, without limitation, relief requiring restoration of the Premises to its condition prior to the time of the injury complained of (it being agreed that the Grantee(s) may have no adequate remedy at law), and shall be in addition to, and not in limitation of, any other rights and remedies available to the Grantee(s).**

##### **B. Reimbursement of Costs of Enforcement**

**The Grantor(s), and thereafter the successors and assigns of the Grantor(s) covenant and agree to reimburse the Grantee(s) for all reasonable costs and expenses (including without limitation counsel fees) incurred in enforcing this Conservation Restriction or in remedying or abating any violation thereof.**

##### **C. Grantee(s) Disclaimer of Liability**

**By its acceptance of this Conservation Restriction, the Grantee(s) do(es) not undertake any liability or obligation relating to the condition of the Premises.**

##### **D. Severability Clause**

**If any provision of this Conservation Restriction shall to any extent be held invalid, the remainder shall not be affected.**

##### **E. Non-Waiver**

**Any election by the Grantee as to the manner and timing of its right to enforce this Conservation Restriction or otherwise exercise its rights hereunder shall not be deemed or construed to be a waiver of such rights.**

#### **Comments:**

1. Restoration of premises is a form of relief the availability of which is required by Section 1.170A-14(g)(5)(ii) of the Regulations.
2. Opinions vary on the wisdom of a reimbursement clause.
3. Section 32 of Chapter 184 of the General Laws speaks of the restriction being enforced by the "holder", which may involve more than one "holder", hence the reference here to grantee(s) to highlight the issue. See Comment 3 relating to access, below.

4. The issue of which public parties, such as the Secretary of Environmental Affairs, or even conceivably private parties, might have rights to enforce a Conservation Restriction without being explicitly named a "holder" as §32 provides, is not addressed in this Sampler.

## V. Access:

**The Conservation Restriction hereby conveyed does not grant to the Grantee, to the general public, or to any other person any right to enter upon the Premises except there is granted to the Grantee and its representatives the right to enter the Premises at reasonable times and in a reasonable manner for the purpose of inspecting the same to determine compliance herewith.**

Comments:

1. Public Access.

The following additional language is optional:

"The Grantor(s) grants to the Grantee a permanent easement to enter said Premises by its conservation commission or its designees to plant and selectively cut or prune trees, brush or other vegetation to improve the scenic view and to implement disease prevention measures."

or

"The Grantor(s) grants to the Grantee and to the general public an easement to pass and repass upon said parcel on foot for purposes of fishing, hiking, winter sports or nature study, and to permit the Grantee to clear and mark trails for said purposes."

The Grantor and Grantee will want to define such an access easement with great care.

Draftsmen in considering public access will want to examine §17c of Chapter 21 of the General Laws which grants limited liability to the landowner who permits access for recreational purposes.

2. Access for Compliance Monitoring.  
§32 of Chapter 184 of the General Laws provides that "Such a [Conservation Restriction] . . . shall entitle representatives of the holder to enter the land in a reasonable manner and at reasonable times to assure compliance."
3. Co-Holders.  
It is the apparent practice of some co-holders to share the responsibility for monitoring and enforcement, with the local holder seeing to on-site inspection and the larger holder to enforcement, if any, as required. (Such a practice may be reduced to a written understanding between the holders.)

**VI. Extinguishment:**

**A. Grantee's Receipt of Property Right**

The Grantor(s) and the Grantee agree that the donation of this Conservation Restriction gives rise for purposes of this paragraph to a real property right, immediately vested in the Grantee, with a fair market value that is at least equal to the proportionate value that this Conservation Restriction determined at the time of the gift bears to the value of the unrestricted Premises at that time.

**B. Value of Grantee's Property Right**

Such proportionate value of the Grantee's property right shall remain constant.

**C. Right of Grantee to Recover Proportional Value at Disposition**

If any occurrence ever gives rise to extinguishment or other release of the Conservation Restriction under applicable law, then the Grantee, on a subsequent sale, exchange or involuntary conversion of the Premises, shall be entitled to a portion of the proceeds equal to such proportionate value, subject, however, to any applicable law which expressly provides for a different disposition of proceeds.

**D. Grantor/Grantee Cooperation Regarding Public Action**

Whenever all or any part of the Premises or any interest therein is taken by public authority under power of eminent domain or other act of public authority, then the Grantor(s) and the Grantee shall cooperate in recovering the full value of all direct and consequential damages resulting from such action.

**E. Allocation of Expenses upon Disposition**

All related expenses incurred by the Grantor(s) and the Grantee shall first be paid out of any recovered proceeds, and the remaining proceeds shall be distributed between the Grantor(s) and Grantee in shares equal to such proportionate value.

**F. Continuing Trust of Grantee's Share of Proceeds of Conservation Restriction Disposition**

The Grantee shall use its share of the proceeds in a manner consistent with the conservation purposes of this grant.

**Comments:**

1. The proceeds rule is derived from Section 1.170A-14(g)(6) of the Regulations.

2. Note that no provision is made at this time for the amendment of the Conservation Restriction. If amendment, release or termination is under consideration, counsel should examine section 32 of Chapter 184 of the General Laws, Article 97 of the Amendments to the Massachusetts Constitution, and the common law of charitable uses, and also consult with the Executive Office of Environmental Affairs for compliance with the Massachusetts Environmental Policy Act and for further information on this issue. (See: 301 CMR 11.26, Clause 5.)
3. Article VI does not directly address the disposition of proceeds in the event of a condemnation. If the proceeds reflect the fair market value of the land unrestricted, then allocation of the proceeds between the Grantor(s) and Grantee according to the formula in Article VI would be appropriate. If the proceeds are some lesser amount, application of the formula would be inappropriate. Until the underlying legal questions are resolved, it seemed inappropriate to make any provision in this sample Conservation Restriction for the disposition of condemnation proceeds (other than to call for the cooperation of the Grantor(s) and the Grantee in recovering damages). Section 1.170A-14(g)(6) of the Regulations is silent on this point.
4. Municipally held CR's require any such proceeds derived under VI.F. be placed into a special fund as per M.G.L. ch.44, s.63.

## **VII. Assignability:**

### **A. Running of the Burden**

**The burdens of this Conservation Restriction shall run with the Premises in perpetuity, and shall be enforceable against the Grantor(s) and the successors and assigns of the Grantor(s) holding any interest in the Premises.**

### **B. Execution of Instruments**

**The Grantee is authorized to record or file any notices or instruments appropriate to assuring the perpetual enforceability of this Conservation Restriction; the Grantor(s) on behalf of themselves and their successors and assigns appoint the Grantee their attorney-in-fact to execute, acknowledge and deliver any such instruments on their behalf. Without limiting the foregoing, the Grantor(s) and their successors and assigns agree themselves to execute any such instruments upon request.**

### **C. Running of the Benefit**

**The benefits of this Conservation Restriction shall be in gross and shall not be assignable by the Grantee, except in the following instances and from time to time:**

- (i) **as a condition of any assignment, the Grantee requires that the purpose of this Conservation Restriction continue to be carried out, and**

- (ii) the assignee, at the time of assignment, qualifies under Section 170(h) of the Internal Revenue Code of 1986, as amended, and applicable regulations thereunder, and under Section 32 of Chapter 184 of the General Laws as an eligible donee to receive this Conservation Restriction directly.**
- (iii) the grantee complies with the provisions required by Article 97 of the Amendments to the State Constitution.**

Comment:

Subparagraph (i) and (ii) are required by Section 1.170A-14(c)(2) of the Regulations.  
Subparagraph (iii) required only for municipal CRs.

#### **VIII. Subsequent Transfers:**

**The Grantor(s) agree to incorporate by reference the terms of this Conservation Restriction in any deed or other legal instrument by which they divest themselves of any interest in all or a portion of the Premises.**

Comment:

This provision is particularly important in the case of Conservation Restrictions obtained from developers as a precondition to the granting of permits.

#### **IX. Estoppel Certificates:**

**Upon request by the Grantor(s), the Grantee shall within twenty (20) days execute and deliver to the Grantor(s) any document, including an estoppel certificate, which certifies the Grantor(s) compliance with any obligation of the Grantor(s) contained in this Conservation Restriction.**

Comment:

Subsequent purchasers and lenders will want to know they are not buying into prior violations. The burden on the Grantee is slight.

#### **X. Effective Date:**

**This Conservation Restriction shall be effective when the Grantor(s) and the Grantee have executed it, the administrative approvals required by Section 32 of Chapter 184 of the General Laws have been obtained, and it has been recorded, or if registered land, it has been registered.**

Comments:

1. The effective date provision in this Sampler reflects a design that the instrument will not be effective between the parties until the requisite public approvals and recordation or registration have occurred.
2. Ordinarily, a conveyance between grantor and grantee is effective when made as between them. Under Massachusetts law, however, "a conveyance of an estate in fee simple...shall not be valid as against any person, except the grantor...his heirs and devisees and persons having actual notice of it, unless it, is recorded in the registry of deeds for the county or district in which the land to which it relates lies." General Law, Ch 183, §4. While a conveyance of a Conservation Restriction might not be deemed to constitute a "conveyance of an estate in fee simple," careful conveyancers advise recordation as consistent with the statutory scheme of minimizing encumbrances without record notice.
3. Moreover, as for registered land, "... [N]o deed ... or other voluntary instrument ... purporting to ... affect registered land, shall take effect as a conveyance or bind the land, but shall operate only as contract between the parties .... The act of registration

only shall be the operative act to convey or affect the land ...." M.G.L. Ch. 185, §57.

4. Thus for enforceability against the world, some additional action is advised or required beyond the conveyance itself.
5. Also, a Conservation Restriction does not acquire perpetual, as opposed to terminable, status (requiring re-recording under M.G.L. Ch. 184, §26 *et seq.*) until the restriction acquires the character of a Conservation Restriction approved by the Secretary of Environmental Affairs and other relevant agencies as set out in Ch. 184, §§31-32.
6. Thus, it is these twin concerns: enforceability against third parties, and duration of the restriction, that argues for making relevant approvals and filings events conditions precedent to the restriction being effective, moving the effective date of the restriction to after they have occurred. (The Division of Conservation Services also has indicated that it wants to have assurance that the restriction, once imposed, will be also be clearly binding on third parties.)

#### XI. Miscellaneous

“Approval of this Conservation restriction pursuant to M.G.L. Chapter 184, Section 32 by any municipal officials and by the Secretary of Environmental Affairs is not to be construed as representing the existence or non-existence of any pre-existing rights of the public, if any, in and to the Premises, and any such pre-existing rights of the public, if any, are not affected by the granting of this Conservation Restriction.”

#### Comments:

1. Recently the Town of Rockport was sued by Mr. and Mrs. Robert Hooper to prevent the town from improving a trail across the Hoopers’ property, to which the town believed the public had acquired a right of access through years of purported use. The town lost. One of the arguments used by the plaintiff’s attorneys was that in approving a conservation restriction given by the Hoopers to The Trustees of Reservations that did not include any mention of public access rights, the Secretary of Environmental Affairs acknowledged that no such rights existed.

The Secretary’s approval of conservation restrictions is intended to carry no such implication.



**XII. Recordation:**

The Grantor(s) shall record this instrument in timely fashion in the \_\_\_\_\_ County Registry of Deeds.

Executed under seal this \_\_\_\_ day of \_\_\_\_\_, 20\_\_ .

**XIII. Amendment:**

If circumstances arise under which an amendment to or modification of this Conservation Restriction would be appropriate, Grantor and Grantee may jointly amend this Conservation Restriction; provided that no amendment shall be allowed that will affect the qualification of this Conservation Restriction or the status of Grantee under any applicable laws, including Section 170(h) of the Internal Revenue Code of 1986, as amended, or Sections 31-33 of Chapter 184 of the General Laws of Massachusetts, and any amendment shall be consistent with the purposes of this Conservation Restriction, and shall not affect its perpetual duration. Any such amendment shall be approved by the parties herein and recorded in the \_\_\_\_\_ Registry of Deeds.

\_\_\_\_\_  
John Landowner

**COMMONWEALTH OF MASSACHUSETTS**

\_\_\_\_\_, ss. \_\_\_\_\_, 20

Then personally appeared before me the above-named [JOHN LANDOWNER and MARY LANDOWNER] and proved to me through satisfactory evidence of identification, which was *(personal knowledge of identity) (a current driver's license) (a current U.S. passport)*, to be the person whose name is signed on the document and acknowledged to me that he/she signed it voluntarily for its stated purpose.

\_\_\_\_\_  
Notary Public  
My Commission expires:

**ACCEPTANCE OF GRANT**

The above Conservation Restriction is accepted this \_\_\_\_ day of \_\_\_\_\_, 20\_\_.

[GREENWAYS ASSOCIATION, INC.]

By

**COMMONWEALTH OF MASSACHUSETTS**

\_\_\_\_\_, ss. \_\_\_\_\_, 20

Then personally appeared before me the above-named\_[GREENWAYS ASSOCIATION, INC.]\_ and proved to me through satisfactory evidence of identification, which was **(personal knowledge of identity) (a current driver's license) (a current U.S. passport)**, to be the person whose name is signed on the document and acknowledged to me that he/she signed it voluntarily for its stated purpose.

\_\_\_\_\_  
Notary Public  
My Commission expires:

APPROVAL BY [SELECTMEN]

We, the undersigned, [being a majority of the] [Selectmen] of the [City/Town] of \_\_\_\_\_, Massachusetts, hereby certify that at a meeting duly held on \_\_\_\_\_, 20\_ the [Selectmen] voted to approve the foregoing Conservation Restriction to [GREENWAYS ASSOCIATION, INC.] pursuant to M.G.L. Ch. 184, §32.

[Selectmen]

COMMONWEALTH OF MASSACHUSETTS

\_\_\_\_\_, ss. \_\_\_\_\_, 20

Then personally appeared before me the above-named [BOARD OF SELECTMEN] \_\_\_\_\_ and proved to me through satisfactory evidence of identification, which was *(personal knowledge of identity) (a current driver's license) (a current U.S. passport)*, to be the person(s) whose name is signed on the document and acknowledged to me that they signed it voluntarily for its stated purpose as Selectmen of the (Town)

\_\_\_\_\_  
Notary Public  
My Commission expires:

Comments:

1. If the Conservation Restriction is held by any governmental body including a commission, authority, or other instrumentality, Section 32 of Chapter 184 requires only the approval of the Secretary for Environmental Affairs. Note, however, that Section 8C of Chapter 40 of the General Laws requires approval by a board of selectmen of gifts of Conservation Restrictions.
2. If the Conservation Restriction is held by a charitable corporation or trust, it must be approved not only by the Secretary but also by the mayor in the case of a city in which the land is situated (or in cities having a city manager, then the city manager) as well as the city council. If the land is situated in a town, then in addition to the Secretary's approval, the board of selectmen or the town meeting must approve. See

M.G.L. Ch. 184, §32. The Draftsman should make appropriate adjustments in the relevant language.

3. WHILE THE SECRETARY'S APPROVAL FALLS AT THE END OF THE SAMPLER, EARLY REVIEW WITH THE DIVISION OF CONSERVATION SERVICES IS ADVISABLE TO AVOID UNDERTAKING A PROTRACTED EXERCISE ONLY TO BE DENIED APPROVAL AT THE END.

**APPROVAL BY SECRETARY OF ENVIRONMENTAL AFFAIRS  
COMMONWEALTH OF MASSACHUSETTS**

The undersigned, Secretary of the Executive Office of Environmental Affairs of the Commonwealth of Massachusetts, hereby certifies that the foregoing Conservation Restriction to [GREENWAYS ASSOCIATION, INC.] has been approved in the public interest pursuant to M.G.L. Ch. 184, §32.

Date: \_\_\_\_\_, 20\_\_

Secretary of Environmental Affairs

**COMMONWEALTH OF MASSACHUSETTS**

\_\_\_\_\_, ss. \_\_\_\_\_, 20\_\_

Then personally appeared before me the above-named \_\_\_\_\_ and proved to me through satisfactory evidence of identification, which was *(personal knowledge of identity) (a current driver's license) (a current U.S. passport)*, to be the person whose name is signed on the preceding page of the document and acknowledged to me that he/she signed it voluntarily as Secretary of Environmental Affairs for the Commonwealth of Massachusetts, for its stated purpose.

\_\_\_\_\_  
Notary Public  
My Commission expires:

Comments:

1. The approvals required by the local Board of Selectmen and the Secretary for Environmental Affairs tend to establish the "significant public benefit" required by Section 170(h)(4)(A)(iii) of the Internal Revenue Code and by the Secretary.

## EXHIBIT A

[Deed Description and/or sketch plan]

## **APPENDIX D: MODEL BYLAWS**

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### **4. Town of Franklin Site Plan Review Bylaw (Sept. 2005 Draft)**

## Draft Site Plan Review Bylaw Amendment

DRAFT September 2005

### ] (1) Site Plan Review

#### A. Purpose

The purpose of this section is to protect the health, safety, and welfare of the inhabitants of the Town of Franklin by providing for a review of plans for uses and structures which may have impacts on traffic, environmental quality, community economics, community character, and parking.

#### B. General Provisions

**(1) General.** The Planning Board (Board) and in limited cases, the Technical Review Committee (TRC), shall conduct site plan review and approval. Notwithstanding any provisions of this by-law to the contrary, any structure, addition, use, alteration or improvement, permanent or temporary, which: 1) is not wholly interior in nature; 2) requires a Building Permit; and 3) meets any of the following criteria (excluding detached single-family dwellings and associated structures, and all uses exempt from such zoning regulation as set forth under MGL Chapter 40A, Section 3) shall require site plan review and approval as set forth in this section.

**(2) Building Permits.** No Building Permit shall be issued for, and no person shall undertake, any use, alteration or improvement subject to this section unless an application for site plan review has been prepared for the proposed development in accordance with the requirements of this Section 185-31, and unless such application has been approved by the TRC or the Board in accordance with this Section 185-31.

**(3) Occupancy Permits.** For developments subject to Limited Site Plan Review or Complete Site Plan review, no occupancy permit, shall be granted by the Building Commissioner until the Board has given its written approval that the development and any associated offsite improvements conform to the approved application for site plan review and approval, including any conditions imposed by the Board. Such approval shall be in accordance with Section 185-31(1)(E)(3)(d).

#### C. Applicability

**(1) Change of Tenancy.** Any change of tenancy, that meets the criteria for a Limited Site Plan Review as described in Section 185-31(1)(C)(2) below, and does not involve a free standing building, but rather involves a change of tenancy in a structure with two or more tenants such as a shopping center, or a downtown building, shall be exempt from this Section in its entirety. A change of tenancy in a free standing building that involves a like-use, as defined in this Bylaw, may also be exempt from this Section. However, any member of the TRC may request that such a change of tenancy go before the TRC for a vote to review per 185-31(1)(C)(2) below;

**(2) Technical Review Committee Approval.** Any exterior addition, alteration, improvement, or change in use of any existing structure or group of structures, that meets all of the following criteria: 1) has previous site plan approval from the Board or was constructed prior to 1945, 2)



results in the addition of ten (10) or fewer parking spaces, 3) results in the addition, alteration, improvement or construction of 3,500 square feet or less, 4) results in an increase in impervious surface of five (5) percent of existing impervious coverage or less, 5) does not alter the access to a public way, 6) does not exceed any requirement as set forth in the Schedule of Lot, Area, Frontage, Yard and Height Requirements, and 7) does not require any additional zoning relief from the ZBA and/or the Board shall be subject to the provisions of the Section 185-31(1)(D) herein with regard to Technical Review Committee Approval;

**(3) Limited Site Plan Review.** Any exterior addition, alteration, improvement, or change in use of any existing structure or group of structures, that meets all of the following criteria: 1) has previous site plan approval from the Board, or was constructed prior to 1930, date of original zoning bylaw 2) results in the addition of ten (15) or fewer parking spaces, 3) results in the addition, alteration, improvement or construction of 7,000 square feet or less, 4) results in an increase in impervious surface of ten (10) percent of existing impervious coverage or less, 5) does not alter the access to a public way, 6) does not exceed any requirement as set forth in the Schedule of Lot, Area, Frontage, Yard and Height Requirements, and 7) does not require any additional zoning relief from the ZBA and/or the Board shall be subject to the provisions of the Section 185-31(1)(E) herein with regard to Limited Site Plan Review;

**(4) Complete Site Plan Review.** Any new structure, or group of structures under the same ownership on a lot or contiguous lots, or any exterior addition, alteration, improvement, use, or change in use of any existing structure or group of structures, that exceeds the requirements of 185-31(1)(C) above, shall be subject to this Section 185-31 in its entirety.

#### **D. Change of Tenancy Review Procedure**

Anyone seeking approval of a Change of Tenancy that meets the requirements of Section 185-31(1)(c)(1) above, shall submit a Change of Tenancy Application to the Building Department. The Building Department shall forward said application to all members of the TRC. Members of the TRC shall have five (5) business days to review said application and respond in writing to the applicant and the Building Department. If no comments are received, or there is no objection from any member of the TRC, the Building Commissioner may issue the necessary permits for the change of tenancy. However, within the initial five business days, any member of the TRC may request that the application be forwarded to the TRC for further review under Section 185-31(1)(E) below.

#### **E. Technical Review Committee Review Procedure**

##### **(1) Procedure**

Anyone seeking approval of a site plan that meets the requirements for Technical Review Committee review as set forth in Section 185-31(1)(C)(2) shall comply with the following sequential procedures.

##### **(a) Filing of Application**

The completed application, checklist, and plans, together with other documentation required by this Section 185-31, shall be submitted by the applicant to DCP, accompanied by the appropriate application fee.

##### **(b) Initial DCP Review**

Upon receipt of the completed application, DCP shall review the application for completeness. DCP shall make a determination of completeness within seven (7) business days of receiving said application. If the application is deemed complete, the applicant shall be notified and the application materials shall be transmitted to town staff for further review and the application shall be placed on the TRC's agenda. If the application is found to be incomplete, DCP shall notify the applicant that the application has been denied and a new application submittal or application supplements shall be required accompanied by the appropriate filing fee.

**(c) Town Staff Review**

Once a wholly complete application has been approved by DCP, DCP shall transmit one copy each to the Inspection and Zoning Department, the Engineering Department, the Department of Public Works, the Board of Health, the Conservation Commission and members of the TRC. Such agencies shall, within seven (7) business days of receiving said documents, report to DCP and the applicant in writing on any concerns and issues associated with the proposed site plan. Said agencies may recommend conditions or remedial measures to avoid, mitigate, or replicate the conditions associated with the expected impacts of the proposed development.

**(d) Decision**

The TRC shall not render a decision on said application until it has received and considered all reports requested from town departments and boards, or until the 7-day time period has expired, whichever is earlier. The TRC shall issue a decision on the application to approve, deny, or approve with conditions. In granting approval of an application, the TRC may impose conditions, limitations, and safeguards that shall be in writing and shall be part of the decision.

The applicant, when other than the owner(s), and the owner(s) of land shall be responsible for mitigation measures or conditions that are required as part of a favorable decision for issuance of site plan approval.

**(e) Denial**

If the application is denied by the TRC, the applicant may proceed, without bias, with Limited Site Plan Review as outlined in Section 185-31(1)(E).

**(2) Contents and Scope of Applications**

The applicant shall file five (5) complete copies of the application, plans, and supporting materials with DCP. The application shall be prepared and stamped by qualified professionals, including a Registered Professional Engineer, a Registered Architect, and/or a Registered Landscape Architect, and shall conform to the requirements set forth in this section.

**(a) Site Plans.** The TRC site plan shall consist of appropriate, previously approved site plan sheets. Where changes have been proposed, the changes shall be clearly drawn on the plans, in a darker shade than the previously approved site plan, and appropriate notes shall be included on the plans which list, reference, and detail each alteration to be made.

**(b) Text.** A written description of the proposed alterations and changes. The text shall clearly reference the plans to enable easy cross-referencing between the text and the plans.

**(c) Application.** TRC review Application

**(d) Past Decision.** Copy of signed Site Plan Decision issued by the Planning Board

**(e) Design Review.** Materials required for the DRC as provided for in §185-31(2) if applicable.

**(f) Filing Fee**

**(g) Other.** Additional materials requested by town staff and/or the TRC.

## **E. Limited Site Plan Review**

### **(1) Procedure**

Anyone seeking approval of a site plan that meets the requirements for limited site plan review as set forth in Section 185-31(1)(B)(3) shall comply with the following sequential procedures.

#### **(a) Mandatory Pre-Application Meeting**

Anyone seeking approval of a limited site plan shall obtain a limited site plan review application and checklist from the DCP. Prior to submitting the application, the applicant, and the site development and design team shall meet with the designee of the Board (DCP staff) and other town staff and/or consultants. The purpose of this meeting is to introduce the applicant to the Town of Franklin's Zoning Bylaw and other land use regulations, to discuss the applicant's objectives, and to schedule site inspections, meetings and plan submissions as described below. Failure to schedule and attend a pre-application meeting shall constitute an incomplete submittal and shall be grounds for immediate denial of the application.

#### **(b) Filing of Application**

The completed application, checklist, and plans, together with other documentation required by this Section 185-31, shall be submitted by the applicant to DCP, accompanied by the appropriate application fee.

#### **(c) Initial DCP Review**

Upon receipt of the completed application, DCP shall review the application for completeness. DCP shall make a determination of completeness within seven (7) business days of receiving said application. If the application is deemed complete, the applicant shall be notified and the application materials shall be transmitted to town staff for further review and the application shall be placed on the Board's agenda under General Business. If the application is found to be incomplete, DCP shall notify the applicant that the application has been denied and a new application submittal or application supplements shall be required accompanied by the appropriate filing fee.

#### **(d) Town Staff Review**

Once a wholly complete application has been approved by DCP, DCP shall transmit one copy each to the Inspection and Zoning Department, the Engineering Department, the Department of Public Works, the Board of Health, the Conservation Commission and other departments and boards as DCP may determine appropriate. Such agencies shall, within seven (7) business days of receiving said documents, report to DCP and the applicant in writing on any concerns and issues associated with the proposed limited site plan. Said agencies may recommend conditions or remedial measures to avoid, mitigate, or replicate the conditions associated with the expected impacts of the proposed development. Failure by any such agency to report within

the allotted time shall constitute approval of that agency of the adequacy of the submittal and also that, in the opinion of that agency, the proposed project will cause no adverse impact.

**(e) Decision**

The Board shall not render a decision on said application until it has received and considered all reports requested from town departments and boards, or until the 7-day time period has expired, whichever is earlier. The Board shall issue a decision on the application to approve, deny, or approve with conditions. In granting approval of an application, the Board may impose conditions, limitations, and safeguards that shall be in writing and shall be part of the decision.

The applicant, when other than the owner(s), and the owner(s) of land shall be responsible for mitigation measures or conditions that are required as part of a favorable decision for issuance of limited site plan approval.

**(f) Denial**

If the application is denied by the Board, the applicant may proceed, without bias, with Complete Site Plan Review as outlined in Section 185-31(1)(E).

**(2) Contents and Scope of Applications**

The applicant shall file ten (10) complete copies of the limited site plan application, plans, and supporting materials with DCP. The application of limited site plan review shall be prepared and stamped by qualified professionals, including a Registered Professional Engineer, a Registered Architect, and/or a Registered Landscape Architect, and shall conform to the requirements set forth in this section.

**(a) Site Plans.** The limited site plan shall consist of appropriate, previously approved Site Plan sheets. Where changes have been proposed, the changes shall be clearly drawn on the plans, in a darker shade than the previously approved site plan, and appropriate notes shall be included on the plans which list, reference, and detail each alteration to be made.

**(b) Text.** A written description of the proposed alterations and changes. The text shall clearly reference the plans to enable easy cross-referencing between the text and the plans.

**(c) Application.** Limited Site Plan Review Application

**(d) Past Decision.** Copy of signed Site Plan Decision issued by the Planning Board

**(e) Design Review.** Materials required for the DRC as provided for in §185-31(2) if applicable

**(f) Filing Fee**

**(g) Other.** Additional materials requested by town staff and/or the Board

**F. Complete Site Plan Application and Review Procedure**

**(1) Overview of Procedures**

Anyone seeking approval of a complete site plan shall comply with the following sequential

procedures. These steps may be modified only at the discretion of DCP.

**(a) Mandatory Pre-Application Meeting**

Anyone seeking approval of a site plan shall obtain an application and checklist from DCP. Prior to submitting the application, the applicant, and the site development and design team, shall meet with the designee of the Board (DCP staff) and other town staff and/or consultants. The purpose of this meeting is to introduce the applicant to the Town of Franklin's Zoning Bylaw and other land use regulations, to discuss the applicant's objectives, and to schedule site inspections, meetings and plan submissions as described below. Applicants are encouraged to present the Existing Resources and Site Survey, Analysis, and Existing Conditions Plan as described in this Section 185-31(1)(G)(1) at this meeting along with any preliminary site design sketch. Failure to schedule and attend a pre-application meetings shall constitute an incomplete submittal and shall be grounds for immediate denial of the application.

**(b) Filing of Application**

Prior to filing with the Board, the applicant shall secure all necessary decisions from the Zoning Board of Appeals, and shall, if necessary, file with the Conservation Commission. The completed Board application, filing fee, checklist, plans, and requested waivers (if applicable), together with other documentation required by this Section 185-31(1)(F), shall be submitted by the applicant to the Board, through the DCP.

**(c) Initial Completeness Review**

Upon receiving the completed application, DCP shall review the application for completeness. The DCP shall review the application for completeness and compliance with the submittal requirements of this Section 185-31(1)(F) and within fourteen (14) business days of receiving said application materials, the DCP shall notify the applicant in writing as to the completeness of said application. The DCP shall use the Completeness Review Checklist for the purposes of this review. Any incomplete application, accompanied by the appropriate waiver requests, shall be considered a complete application for the purpose of completeness review. If the application is complete, in the opinion of the DCP, the application materials shall be transmitted to town staff and the application shall be scheduled on the Board's agenda for a Public Hearing. If the application is found to be incomplete, DCP shall notify the applicant in writing that the application has been denied due to an incomplete submittal. A new application submittal or application supplements shall be required, accompanied by the appropriate filing fee. If DCP fails to make a completeness decision within the fourteen (14) day time limit, the application shall automatically proceed to town staff review and shall be scheduled for a Public Hearing with the Planning Board.

**(d) Independent Consultant Review**

Projects subject to this section 185-31(1)(E), may be subject to review by independent consultants. These consultants may include, but are not limited to, general engineer consultant, traffic consultant, and wastewater/stormwater consultant. The applicant shall pay for the services of these consultants and all fees shall be collected prior to site plan endorsement per Section 185-45(L). Town staff and/or the Board may request the services of an independent consultant. The independent consultant shall report to DCP, the Board, and the town agency that may have requested the service. The independent consultant shall submit their review in writing to the Board and the applicant at least seven (7) business days prior to the proposal's public hearing with the Board. It is the responsibility of the applicant to forward all application

materials to the Independent consultants.

**(e) Town Staff Review**

Once a complete application has been approved by DCP, DCP shall transmit one copy each to the Inspection/Zoning Department, the Engineering Department, the Police Department, the Fire Department, the Department of Public Works, the Board of Health, the Conservation Commission and other departments and boards as the Board or DCP may determine appropriate. Such agencies shall, within fourteen (14) business days of receiving said copy, report to the Board and the applicant in writing on: (1) the adequacy of the data and the methodology used by the applicant to determine impacts of the proposed development; (2) the effects of the projected impacts of the proposed development; and (3) the proposals conformance with state and local laws regulations, and guidelines. Said agencies may recommend conditions or remedial measures to avoid, mitigate, or replicate the conditions associated with the expected impacts of the proposed development. Failure by any such agency to report within the allotted time shall constitute approval of that agency of the adequacy of the submittal and also that, in the opinion of that agency, the proposed project will cause no adverse impact.

**(f) Public Hearing Requirements**

The Board shall hold a public hearing on any properly completed and submitted application within 60 calendar days of DCP's written approval of filing. Notice of all public hearings shall be in accordance with Article VI Section 4-15 of the Code of the Town of Franklin.

**(g) Public Hearing**

The Board shall not render a decision on an application until it has received and considered all reports requested from town departments and boards, or until the fourteen (14) day period has expired, whichever is earlier. Where circumstances are such that the fourteen (14) day period is insufficient to conduct an adequate review, the Board may, at the written request of any department or agency, extend such period to no more than a total of sixty (60) days. In reviewing the impacts of a proposed development, the Board shall consider the information presented in the application for site plan approval, including all items specified in this Section 185-31(1)(F); all reports from town departments submitted to the Board; reports submitted by the independent consultants; and any additional information available to the Board, submitted to the Board by any person, official or agency, or acquired by the Board on its own initiative or research.

**(2) Decision Procedures and Process**

**(a) Written Findings**

Prior to granting approval or disapproval, the Board shall make written findings with supporting documentation as specified in this Section 185-31. Such findings shall pertain to the entire proposed development including off-site and on-site plan or design modifications imposed by the Board as a condition of its approval.

**(b) Approval**

The Board may approve a site plan, based on the Board's review of the proposal, if the Board finds that the proposed development is in conformance with this Section 185-31 in its entirety

and other applicable town bylaws, regulations, and guidelines.

**(c) Disapproval**

The Board may deny a site plan that fails to furnish adequate information required by this Section 185-31. Further, the Board may reject a site plan where, although proper in form, the project fails to meet the bylaws, regulations, guidelines or standards of the Town of Franklin, or depicts a use or structure so contrary to the health, safety, and welfare of the public in one regulated aspect or another, that rejection by the board would be tenable.

**(d) Conditions**

The Board may impose conditions of approval on the site plan in conformance with Section 185-31(1)(H).

**(e) Filing of Decision**

The Board shall file the decision with the Town Clerk within 30 calendar days of the closure of the public hearing and shall mail a copy of said decision to the applicant.

**(f) Appeal**

A site plan decision that involves a special permit and/or a variance may be appealed in accordance with M.G.L. Ch. 40A §17. A Site plan decision that does not involve a special permit and/or a variance may be appealed once the Building Commissioner has acted on the request for a Building Permit.

**(3) Endorsement**

**(a) Submittal and Review**

After the decision has been certified with the Town Clerk, the applicant shall apply for site plan endorsement. Five (5) full copies and one original mylar of the approved site plan shall be submitted to the Board, through DCP, accompanied by any documentation, modifications, or other conditions imposed by the Board. The applicant shall also submit a copy of the signed, written decision with accompanying text on how and where the applicant has met each of the conditions of approval. DCP shall transmit one copy of all submittals to the Building Commissioner, the Engineering Department, the Department of Public Works, the Conservation Commission, and other departments and boards as DCP and the Board may determine appropriate. Such agencies shall, within seven (7) business days of receiving said copy, report to DCP and the applicant in writing on if the submitted site plan and accompanying documentation satisfy the conditions of approval. Failure by any such agency to report within the allotted time shall constitute approval of that agency of the adequacy of the submittal and also that, in the opinion of that agency, the Board should endorse the approved site plans.

**(b) Endorsement of Approved Site Plans**

The Chair of the Board may endorse the original mylar of the approved site plan once all reviewing agencies have reported that there are no outstanding issues or once the seven day time period has expired, whichever is earlier.

**(c) Final Filing of Endorsed Plans**

The applicant shall submit to the DCP, DPW, and the Town Clerk a copy of the endorsed set of plans and accompanying documentation. Failure to do so within 30 calendar days of

endorsement shall constitute a breach in the decision of approval and shall result in an automatic recession of the Board's approval with no further action needed by the Board. No Building Permit may be issued until said copies are received.

#### **(4) Construction of Required Improvements**

##### **(a) Two Year Limitation**

Any site plan approved hereunder, or any modification of any such site plan previously approved, shall receive an approval which shall be automatically limited to a period of two years from the date of endorsement, unless one of the following two events occurs within that two year period:

[1] Affirmative vote on a Certificate of Completion by the Board in accordance with §185-31(1)(E)(4)(d) below.

[2] Issuance of a one-year extension by the Board, which extension may only be granted upon petition by the applicant per Section 185-31(1)(E)(4)(b);

##### **(b) One Year Extension**

An applicant may request a one-year extension in order to complete the work as approved by a site plan process. A Request for Extension form (Appendix ?) shall be completed by the applicant and filed with the Board. A Request for Extension shall be accompanied by a schedule of completion. The request shall be heard before the Board as general business within 30 calendar days of filing.

##### **(c) Failure to Perform**

In the event than an applicant has failed to meet the requirements of this Section 185-31(1)(E)(4)(a) within the requisite period, the previously issued conditional site plan approval is deemed rescinded without any further action by the Board and no extension or modification shall be granted. The applicant may apply for a new site plan approval per this Section 185-31.

##### **(d) Certificate of Completion**

A Certificate of Completion (Appendix ?) accompanied by the required inspection fee shall be submitted by the applicant's engineer upon completion of all required improvements. The Board's designated inspector, DPW, DCP and DRC shall complete a final inspection of the site within twenty (20) calendar days of the filing of the Certificate of Completion by the applicant. DPW, DCP and DRC shall inform the board's designated inspector of any outstanding issues regarding the completion of work. As a result of the inspections, the inspector shall submit to the Board one of the following:

[1] Applicant's Certificate of Completion signed by the inspector indicating that all work has been completed to the satisfaction of the Town of Franklin. If the Certificate of Completion is signed by the Board's inspector, the applicant may proceed to request a Final Certificate of Occupancy. A Certificate of Completion signed by the Board's inspector officially terminates the Board's involvement in the site plan process.

[2] A complete list and associated cost of work yet to be completed on or off site in conformance with the approved site plan. If the Certificate of Completion is not signed by the Board's



inspector, the applicant shall be placed on the Board's agenda for action on the remaining work yet to be completed. the applicant shall post security may file for a Temporary Certificate of Occupancy (TCO) as provided in §185-31(1)(E)(3)(f) and the applicant shall take the necessary steps to complete the project to the satisfaction of the Board.

**(e) Certificate of Occupancy**

The Building Commissioner shall issue no CO until all requirements of the approved plan have been completed to the satisfaction of the Town of Franklin in accordance with this Section 185-31(1)(E)(3).

**(f) Temporary Certificate of Occupancy**

An applicant may request a temporary, 30-day CO. Prior to the granting of such a request, the applicant shall provide the Building Commissioner with a schedule of completion for the remaining items to be completed. If a schedule of completion has been submitted and approved by the Building Commissioner, the Building Commissioner may grant the applicant a TCO. A 30-day TCO may be extended by another 30 day period only if significant progress has been made to complete the remaining items as outlined in the schedule of completion. Prior to the issuance of a third 30-day TCO, the applicant shall prepare an updated schedule of completion and submit it to the Board for their review and approval. The Board shall review the schedule under General Business and vote to accept or deny the schedule of completion. If the schedule is denied, no further 30-day TCO's shall be granted by the Building Commissioner. Under no circumstances shall an applicant receive in access of three 30-day TCO's.

**(g) Security**

[1] The Building Commissioner may grant a TCO if the applicant posts, and the Board approves in writing, a performance guarantee with the Town of Franklin to secure faithful and satisfactory construction of all proposed improvements yet to be constructed or completed.

[2] The amount of security shall be based on the DPW's list of outstanding items as described in §185-31(1)(E)(3)(d). The applicant shall establish a cash bond to secure the faithful completion of all remaining work to be completed.

[3] The Board shall vote to release the cash bond once a Certificate of Completion has been successfully filed and signed by the DPW Director and approved by the Board as described in §185-31(1)(E)(3)(d).

**(h) On-site Construction Changes**

An applicant may make limited, on-site changes to an approved site plan. Said changes shall be based on unforeseen conditions, situations, or emergencies. Prior to undertaking the on-site alterations the applicant shall submit to DCP, DPW, and the Board, a letter detailing the proposed changes. The Board may review the letter under General Business and may either approve the on-site changes or request a limited site plan review per Section 185-31(1)(D).

**F. Contents and Scope of Applications**

The applicant shall file eleven (11) complete copies of the site plan application, plans and supporting materials with the Board as well as eleven (11) sets of plan reductions depicting the site plans as detailed in Section 185-31(1)(F)(1). The application materials of site plan review

and approval shall be prepared by qualified professionals, including a Registered Landscape Architect, Registered Professional Engineer, and a Registered Architect, and shall conform to the requirements set forth in this section.

### **(1) Site Plans**

A series of site plans at a scale of one inch equals forty feet (1"=40'), or such other scale as detailed in this section. Where applicable, all sheets shall contain a referenced north arrow, Planning Board signature block, list of revisions and associated dates, name of project, name of plan, scale, sheet number, stamp of registered professional responsible for the content of said sheet, applicable notes, and other appropriate information. The site plan shall consist of the following sheets with the associated contents:

#### **(a) Cover Sheet**

[1] Name of project, name and address of owner, name and address of applicant, name and address of engineering, landscape architecture, and other firms and individuals responsible for the plans;

[2] Current date;

[3] List of revision dates if applicable;

[4] Project street address;

[5] Project Assessor's Map and Parcel Number;

[6] List of requested waivers as allowed in this Section;

[7] List of Drawings/Contents.

#### **(b) Sheet 1: Site Context Map**

[1] For sites less than 100 acres in area, such maps shall be at a scale not less than 1 inch=200 feet and shall show the relationship of the subject property to natural and man-made features existing within 1,000 feet of the site. For sites of 100 acres or more, the scale shall be 1 inch=400 feet, and shall show the above relationships within 2,000 feet of the site;

[2] Topography from USGS survey maps;

[3] Stream valleys, wetland complexes, high points, knolls, and ridgelines;

[4] Public roads and trails, utility easements and rights-of-way;

[5] Land protected under conservation easements or other methods of protection including public lands and lands owned by a land conservation organization.

[6] Characteristics of surrounding neighborhoods and areas.

**(c) Sheet 2: Site Survey, Analysis, and Existing Conditions** (May use additional sheets if necessary)

[1] A vertical aerial photograph enlarged to a scale not less detailed than 1 inch = 400 feet, with site boundaries clearly marked;

[2] Boundary of the entire parcel held in common ownership by the owner/applicant, regardless of whether all or part is being developed at the present time;

[3] Topography, the contour lines of which shall generally be at two-foot intervals, determined by photogrammetry (although 10-foot intervals are permissible beyond the parcel boundaries, interpolated from USGS maps). Slopes between 15 and 25 percent and exceeding 25 percent shall be clearly indicated;

[4] The location and delineation of rivers, lakes, ponds, streams, ditches, drains, vernal pools, and natural drainage swales, as well as the 100-year floodplains and wetlands including their associated buffers per state and local laws;

[5] Vegetative cover conditions on the property according to general cover type including cultivated land, meadow, pasture, old field, hedgerow, deciduous, evergreen, or mixed woodland, and wetland; trees with a breast height caliper in excess of ten (10") inches, the actual canopy line of existing trees and woodlands. Vegetative types shall be described by plant community, relative age, and condition;

[6] Soil series, types, and phases, as mapped by the U.S. Department of Agriculture, Natural Resources Conservation Service, in the published soil survey for the County, and accompanying data published for each soil relating to its suitability for construction, stormwater infiltration, and, in unsewered areas, for septic suitability;

[7] Watershed boundaries;

[8] A viewshed analysis showing the location and extent of views into the property from public roads and from public parks, forests, and other public lands;

[9] Geologic formations on the property, including rock outcroppings, cliffs, and sinkholes;

[10] All existing man-made features including, but not limited to, streets, driveways, trails, farm roads, wood roads, buildings, foundations, walls, wells, drainage fields, dumps, utilities, fire hydrants, and storm and sanitary sewers;

[11] Locations of all historically significant sites or structures on the property, including but not limited to barns, other buildings, cellar holes, stone walls, earthworks, and graves;

[12] Locations of rails or rail corridors;

[13] All easements and other encumbrances of property that are or have been filed with the

Registry of Deeds;

[14] Total acreage of the property, wetland acreage of the property.

**(d) Sheet 3: Site Design Sketch**

[1] Underlying information such as that delineated on Sheet 2 in lighter ink to demonstrate how the site design responds to the site encumbrances, resources, and opportunities;

[2] Proposed location of structures, parking areas, stormwater structures, pedestrian areas, roads, and other proposed elements of the site plan. Sketch should be prepared by a Certified Landscape Architect and should demonstrate a high level of sensitivity to the encumbrances, resources, and opportunities presented on site.

**(e) Sheet 4: Plan Information**

[1] Drawing and Planting Legends;

[2] Zoning classification(s) of the property and the location of zoning district boundaries;

[3] A table outlining the proposal's conformance with zoning dimensional requirements including lot area, continuous frontage, lot depth, lot width, front, side, and rear setbacks, building heights in stories and feet, percent of lot covered by structures and structures plus paving, gross floor area, breakdown of indoor and outdoor floor area as to proposed use, maximum seating capacity, number of employees, or sleeping units if applicable, and resulting parking requirements;

[4] Construction and site notes, as applicable;

[5] Assessor's Map showing all abutting properties and associated information such as owner and map and parcel number;

[6] Planting List with common name, botanical name, quantity, size, and comments;

[7] Other information as needed.

**(f) Sheet 5: Site Layout Plan**

[1] The bearings and distances of all property lines;

[2] Location and dimensions of all proposed buildings and structures with all applicable setbacks;

[3] Locations and dimensions of all driveways, maneuvering spaces and aisles, parking stalls and loading facilities, and proposed circulation of traffic;

[4] Location and dimensions of pedestrian areas, walkways, flow patterns and access points,

and provisions for handicapped parking and access;

[5] Locations and dimensions of all signs, walls, fences, outdoor lighting, and snow storage areas;

[6] Wetland, stream and flood zone lines and buffer zones. A professional botanist shall delineate wetland lines.

#### **(g) Sheet 6: Site Materials Plan**

[1] All requirements of Sheet 5 (minus dimensions, snow storage), in addition to the type of material and reference to associated detail of all structures and surfaces. Structures may include, but are not limited to, walls, curbing, fences, guardrails, signs, exterior lights, wheel stops, and planters;

[2] Types of entry to the building (service, main, emergency, mechanical);

#### **(h) Sheet 7: Site Grading Plan**

[1] All requirements of Sheet 5 (minus dimensions, snow storage), in addition to all existing and proposed grading;

[2] Limit of work and limit of clearing;

[3] Direction of flow for stormwater management purposes;

#### **(i) Sheet 8: Landscaping Plan**

[1] All requirements of Sheet 5 (minus dimensions), in addition to limit of work, and existing tree lines;

[2] Existing landscape features of note, including trees with a caliper in excess of ten (10") inches depicting which are to be removed and which are to be retained;

[3] All proposed landscape features and improvements including line of clearing, proposed surface vegetation, streetscape and other man-made landscape features, planting areas, with references to Planting List;

[4] Plans to eliminate and prevent invasive species on site.

#### **(j) Sheet 9: Drainage and Erosion Plan**

[1] All requirements of Sheet 5 (minus dimensions, snow storage);

[2] All proposed stormwater drainage mechanisms and layouts, identified and labeled;

- [3] Proposed slopes between 15 and 25 percent and exceeding 25 percent;
- [4] Drainage-related materials, and surfaces;
- [5] Drainage computations and limits of floodways shall be shown where applicable;
- [6] Erosion control measures including sedimentation barriers, and stabilizing materials;
- [7] Notes on construction sequencing and other plans to prevent pollution of surface and groundwater, erosion of soil, run-off, and flooding of other properties as applicable.

**(k) Sheet 10: Site Utilities Plan**

- [1] All requirements of Sheet 5 (minus dimensions, snow storage);
- [2] All proposed utilities mechanisms, materials, and layouts, identified and labeled, including waste disposal, water, stormwater, electricity, gas, and fire service;

**(l) Sheet 11: Lighting Plan**

- [1] All requirements of Sheet 5 (minus dimensions, snow storage);
- [2] Location of all proposed lighting fixtures and devices with resulting maintained, horizontal, foot-candle projections taken at grade and displayed using numeric values throughout the site and up to the property boundaries;
- [3] Details of all proposed lighting structures and fixtures.

**(m) Sheet 12 and additional as needed: Site Details and Profiles**

- [1] Details of all applicable mechanisms, structures, materials, surfaces, systems, and facilities;
- [2] Profiles of applicable utilities, access roadway and others as needed;
- [3] Building elevation plans at a scale of one-quarter inch equals one foot ( $1/4"=1'-0"$ ) or one-half inch equals one foot ( $1/2"=1'-0"$ ) or such other scale as may be approved by the Planning Board, showing all elevations of all proposed buildings and structures in relation to the surrounding structures.

**(n) Design Review Architectural Plans**

- [1] Basic architectural plans showing all information as requested by DRC. This may include color, style, materials, signage, and lighting.

Plans may also include any additional information required by the Board, DCP, DRC, or other town board or department, to ensure compliance with this section. The Board may waive any of the above requirements upon written request by the applicant. Such a request shall be filed with

the application.

## **(2) Developmental Impact Statement**

The Development Impact Statement shall contain a written description of the proposed project and shall describe potential impacts of the proposed development, identify all significant positive or adverse impacts, and propose an acceptable program to prevent or mitigate adverse impacts. *The Development Impact Statement shall be written in common language and shall avoid industry jargon to the greatest extent possible.* Development Impact Statement shall consist of the following five elements:

### **(a) Traffic Impact Assessment**

[1] Purpose: To document existing traffic conditions (both vehicular and pedestrian) in the vicinity of the proposed project, to describe the volume and effect of projected traffic generated by the proposed project, and to identify measures proposed to mitigate any adverse impacts on traffic.

[2] Applicability: Projects with one or more of the following characteristics shall prepare a Traffic Impact Assessment: 1) proposing thirty (30) or more parking spaces, 2) proposing a Vehicular Service Establishment, 3) containing frontage and access on a state road. The Board or town staff may request any applicant to prepare a Traffic Impact Assessment even if the project does not meet any of the above criteria.

[3] Qualifications: Author of the Traffic Impact Assessment shall be a certified traffic engineer.

[4] Format and Scope:

(i) Existing traffic conditions: average daily and peak hour volumes, average and peak speeds, sight distances, accident data, and levels of service (LOS) of intersections and streets likely to be affected by the proposed development. Generally, such data shall be presented for all streets and intersections adjacent to or within 1000 feet of the projected boundaries, and shall be no more than six (6) months old at the date of application. Further, information regarding existing pedestrian circulation and ways shall be provided.

(ii) Projected traffic conditions for design year of occupancy: statement of design year of occupancy, background traffic growth on an annual average basis, impacts of proposed developments which have already been approved in part or in whole by the Town.

(iii) Projected impact of proposed development: projected peak hour and daily traffic generated by the development on roads and ways in the vicinity of the development; sight lines at the intersections of the proposed driveways and streets; existing and proposed traffic controls in the vicinity of the proposed development; proposed pedestrian ways and design elements to maximize pedestrian safety and usage; and projected post-development traffic volumes and LOS of intersections and streets likely to be affected by the proposed development.

(iv) Proposed measures to minimize traffic conflict and mitigate any affected intersections or ways in accordance with Section 185-31(1)(g)(1).

## **(b) Environmental Impact Assessment**

[1] Purpose: To describe the impacts of the proposed development with respect to on-site and off-site environmental quality.

[2] Applicability: Projects with one or more of the following characteristics shall prepare a Environmental Impact Assessment: 1) proposing 30 or more parking spaces, 2) proposing a building footprint of 15,000 square feet or greater, 3) proposing to disturb 30,000 square feet or greater. If the proposed project has submitted a full Massachusetts Environmental Protection Act (MEPA) certification, that certification document may serve to replace the applicable information normally contained within the Environmental Impact Assessment. However, the Board or town staff may require certain elements of the Environmental Impact Assessment, not adequately addressed by the MEPA process, to be completed by the applicant.

[3] Qualifications: Author of the Environmental Impact Assessment shall be qualified to prepare MEPA or NEPA reports.

[4] Format and Scope:

(i) Identification of potential impacts: description and evaluation of potential impacts on the quality of air, surface water, and ground water adjacent to, or directly affected by, the proposed development; on-site or off-site flooding, erosion, and/or sedimentation resulting from alterations to the project site, including grading changes and increases in impervious area; on-site or off-site impacts on wildlife habitat, and ecological connectivity; on-site or off-site hazards from radiological emissions or other hazardous materials; impacts on solar access of adjacent properties; quantity, size, and species of trees to be removed; existing invasive species of flora; and off-site noise or light impacts.

(ii) Erosion and Sedimentation Control Plan: temporary and permanent measures to control and limit erosion and sedimentation; work schedule; maintenance proposal; provisions for attenuation of runoff pollutants.

(iii) Natural capacity: evaluation of the adequacy of existing natural systems to support and maintain proposed activity. Analysis shall include: impact of stormwater on surrounding natural systems including nitrogen and other nutrient loading capacities; impact on surrounding aquifers and surface water bodies; impact on surrounding natural habitat with specific emphasis on habitat connectivity, critical habitats.

(iii) Systems capacity: evaluation of the adequacy of existing or proposed systems and services for electricity, stormwater, natural gas, water supply, and disposal of liquid and solid wastes.

(iv) Proposed avoidance measures: description of proposed measures for avoidance of any potential adverse impacts identified above.

(v) Proposed mitigation measures: if impacts cannot be avoided, provide a description of proposed measures for mitigation of any potential adverse impacts identified above.

(vi) Proposed replication measures: if impacts cannot be avoided or mitigated, provide a



description of proposed measures for replication of any potential adverse impacts identified above.

**(c) Fiscal Impact Assessments**

[1] Purpose: To evaluate the fiscal and economic impacts of the proposed development on the Town.

[2] Applicability: All proposals shall prepare a Fiscal Impact Assessment.

[3] Qualifications: Author of the Fiscal Impact Assessment shall be a certified accountant.

[4] Format and Scope:

- (i) Projections of costs arising from increased demands for public services and infrastructure.
- (ii) Projections of financial benefits from increased tax revenues, employment (construction and permanent), and value of public infrastructure to be provided.
- (iii) Projections of the impacts of the proposed development on the values of abutting properties.
- (iv) Ten year projection of Town revenues and costs resulting from the proposed development.

**(d) Community Impact Assessment.**

[1] Purpose: to evaluate the impacts of the proposed development with respect to the town's visual and historic character.

[2] Applicability: All proposals shall prepare a Community Impact Assessment.

[3] Qualifications: Author of the Community Impact Assessment shall be familiar with community character issues.

[4] Format and Scope:

- (i) Site design and neighborhood impact: evaluation of the relationship of proposed new structures or alterations to nearby pre-existing structures in terms of character and intensity of use (e.g., scale, materials, color, and other major design elements); and of the location and configuration of proposed structures, parking areas, and open space with respect to neighboring properties. Special attention shall be placed on efforts to preserve and enhance existing trail networks, buffer zones, view-sheds, and cultural areas. Materials for DRC may supplement this section.
- (ii) Historic impact: identification of impacts on historic properties, districts or areas, or archaeological resources in the vicinity of the proposed development.
- (iii) Development goals: evaluation of the proposed project's consistency or compatibility with

existing local and regional plans, including but not limited to the Open Space and Recreation Plan, and the Master Plan.

#### **(e) Parking Impact Assessment**

[1] Purpose: To document existing neighborhood parking conditions, to evaluate the off-site impacts of the proposed parking, and to mitigate any adverse parking impacts on the neighborhood.

[2] Applicability: Projects proposing thirty or more parking spaces shall prepare a Parking Impact Assessment.

[3] Qualifications: Author of the Parking Impact Assessment shall be familiar with parking standards and impacts.

[4] Format and Scope:

- (i) existing off-site and on-street neighborhood parking conditions, including identification of streets likely to be affected by the proposed development;
- (ii) projected impact of proposed parking on neighborhood;
- (iii) proposed mitigation measures for adverse impacts identified above. Information may include percent of parking shaded by trees, screening, alternative pavers, and creative parking lot design.

The Planning Board, at its discretion, upon written request by the applicant, and based on preliminary assessment of the scale and type of development proposed, may waive or modify the requirements for submission of any of the elements of the development impact assessment listed in this Section 185-31(1)(F)(2) above. Such waiver shall be issued in writing.

#### **(3) Materials required for the DRC as provided for in §185-31(2)**

#### **(4) All applicable decisions from the Zoning Board of Appeals, Conservation Commission, Health Department, and DRC**

#### **(5) Filing fee**

#### **(6) Other forms and decisions from other Boards and Departments as required**

#### **G. Development Impact Standards**

The following standards shall be used in evaluating projected impacts of proposed developments. New building construction or other site alteration shall be designed, to the greatest extent feasible, and after considering the qualities of the specific location, the proposed land use, the design of building form, grading, egress points, and other aspects of the development, so as to comply with the following standards:

## **(1) Traffic Impact Standards**

**(a) Level of Service.** The "level of service" (LOS) of all impacted intersections and streets shall be adequate following project development, or the total value of off-site traffic improvements required or approved by the Planning Board as a condition of approval in any location within the Town affected by the proposed project shall be roughly proportional to the cost of mitigating the affects of the proposed project. For purposes of this standard:

[1] "level of service" (LOS) shall be determined according to criteria set forth by the Transportation Research Board of the National Research Council.

[2] "impacted" means intersections projected to receive at least five per cent (5%) of the anticipated average daily or peak hour traffic generated by the proposed development.

[3] "adequate" shall mean a level of service "B" or better for rural, scenic and residential streets and for all new streets and intersections to be created in connection with the project; and "D" or better for all other streets and intersections;

[4] "mitigating" shall mean the strategies and methods used to ensure that the LOS is adequate in all impacted areas.

**(b) Traffic Conflict.** The proposed site plan shall minimize points of traffic conflict, both pedestrian and vehicular. The following guidelines shall be used to achieve this standard:

[1] Entrance and exit driveways shall be so located and designed as to achieve maximum practicable distance from existing and proposed access connections from adjacent properties.

[2] Where possible, adjoining parcels shall have unified access and promote inter-parcel circulation.

[3] Left-hand turns and other turning movements shall be minimized.

[4] Driveways shall be so located and designed as to discourage the routing of vehicular traffic to and through residential streets.

[6] Pedestrian and bicycle circulation shall be maximized on and off site and shall be separated from motor vehicle circulation as much as practicable. Existing pedestrian ways shall be maintained and where no pedestrian way exist, proposals shall create pedestrian ways and connections between streets, the proposed development, surrounding neighborhoods, and other surrounding uses. Said ways shall be landscaped and handicapped accessible.

## **(2) Environmental Impact Standards**

**(a) General nuisance.** The proposed development shall not create any significant emission of noise, dust, fumes, noxious gases, radiation, or water pollutants, or any other similar, significant, adverse environmental impact.

**(b) Construction Techniques.** All construction techniques, temporary and permanent

stormwater management techniques, resource extraction techniques, waste disposal techniques, and hydrologic/habitat modification techniques shall comply with the Department of Environmental Protection's Nonpoint Source Program, *Massachusetts Nonpoint Source Management Manual "The Megamanual"* of June 1993 as may be updated from time to time.

**(c) Stormwater Runoff.** The proposed development shall not increase the potential erosion, flooding or sedimentation, either onsite or on neighboring properties; and shall not increase rates of runoff from the site.

**(d) Erosion.** Erosion of soil and sedimentation of watercourses and water bodies shall be minimized by employing the following best management practices (BMPs):

[1] Erosion and sedimentation control devices shall be installed prior to the stripping of vegetation or other construction activity that would disturb the soil.

[2] The duration of exposure of disturbed areas shall be a maximum of ten (10) days;

[3] Temporary vegetation, geo-textiles, or other BMPs shall be used to protect exposed areas during development;

[4] Permanent (final) vegetation and mechanical erosion control measures shall be installed as soon as possible;

[5] Until a disturbed area is stabilized, sediment in storm water shall be trapped by the use of debris basins, sediment basins, silt traps, or other acceptable BMPs.

**(e) Natural Features and Trails.** The site design of the proposed development shall minimize the destruction of natural features. Existing trails and natural linkages shall be maintained and enhanced to the greatest extent possible.

**(f) Natural Systems.** The proposed use shall not place unsustainable burden on the existing natural systems.

**(g) Avoidance, Mitigation, Replication.** The site design process shall demonstrate all reasonable efforts to avoid environmental concerns. Those issues that cannot be avoided shall be mitigated to the greatest extent possible. Those issues that cannot be mitigated to the satisfaction of the Board shall be addressed through replication of the damaged natural system or condition either on-site, or off-site if needed.

### **(3) Fiscal Impact Standards**

**(a) Positive Fiscal Impact.** The project shall generate a projected positive net fiscal flow for the Town of Franklin for the first ten (10) years after design year of occupancy.

### **(4) Community Impact Standards**

**(a) Neighborhood Character.** Design elements shall be compatible with the character and

scale of neighboring properties and structures.

**(b) Buffers.** Proposals within or abutting residential zoning districts or residential units shall buffer and protect the residential area to the greatest extent possible. The sighting of the building, access road, parking, loading, and other site amenities shall be located as far from these areas as possible. At least fifty (50) feet of either supplemented existing woodland or dense, native vegetation shall be employed to buffer the proposed use from the residential area. The vegetation may be supplemented with earth berms of a reasonable height and quality fencing using wood or other materials approximating wood. Noise, light, visibility, and odor shall be minimized to the greatest extent possible.

**(c) Screening.** The design of the development shall minimize the visibility of visually degrading elements such as trash collectors, loading docks, etc. Suitable types of screening include wood fences and dense, native, evergreen hedges of five (5) feet or more in height at time of planting. The use of chain link fence shall be avoided except in Industrial Zones.

**(d) Local Plans.** The design of the development shall be consistent or compatible with existing local plans, including plan elements adopted by the Planning Board, Conservation Commission, and other Town bodies having such jurisdiction. Such plans include, but are not limited to the Open Space and Recreation Plan, Concentrated Development Center Plan, and the Master Plan.

**(e) Earth Removal.** The design of the development shall minimize earth removal and volume of cut and fill. Any grade changes shall be in keeping with the general appearance of neighboring developed areas. All grades 15% and greater shall be maintained by the use of geo-textiles. Rip rap shall be avoided.

**(f) Cultural Features.** Where stone walls, foundations, wells or other culturally significant features exist, care should be taken to avoid damaging or altering these areas to the greatest extent possible.

**(g) Outdoor Lighting.** Outdoor lighting, including lighting on the exterior of a building or lighting in parking areas, shall be arranged to minimize glare and light spillover to neighboring properties. No light shall be over twenty (20) feet in height. Foot candle readings at neighboring residential property lines shall not exceed .05fc. 'Shoebox' style lights shall be prohibited in all districts but Industrial and Office.

## **(5) Parking Standards**

**(a) Hazards.** The parking area and access road shall not create a hazard to abutters, vehicles or pedestrians.

**(b) Placement of Parking Facilities.** Within all Zoning Districts, except Industrial, parking facilities shall be in the rear or side of the proposed structure and shall not abut a public way for more than twenty (20) feet. If site encumbrances make this requirement impossible to achieve, parking may be allowed to abut a public way only if the parking lot is buffered and screened from the public way using dense, native vegetation to the greatest extent possible. The design

of the parking facility shall take into consideration natural and cultural features and setting.

**(c) Pedestrian Traffic.** Parking areas shall be oriented for pedestrian traffic through the use of raised cross walks, usable landscaped islands, benches, and abundant shade trees among other design attributes.

**(d) Plantings.** Parking facilities shall be adequately buffered and shaded using native vegetation. Parking lots containing five or more spaces shall be planted with at least two shade trees per five spaces, with each tree providing shade to the parking area. Only trees providing shade to the parking area shall be counted as meeting this requirement.

**(e) Emergency Access.** Appropriate access for emergency vehicles shall be provided to the principal structure. Such access need not be paved, yet shall be stable and constructed to withstand a fire vehicle.

## **(6) Trees and Landscaping**

**(a) Tree Replacement.** The total diameter of all trees over ten (10) inches in diameter that are removed from the site shall be replaced with trees that equal the total breast height diameter of the removed trees. The replacement trees may be placed on or off site upon approval by the Board.

**(b) Street Trees.** Planting of new or replacement trees every twenty-five (25) feet along both sides of an access road is mandatory. Said trees shall be native, deciduous hardwoods from the list below:

- [1] Red Oak, *Quercus borealis*
- [2] Pin Oak, *Quercus palustris*
- [3] Scarlet Oak, *Quercus coccinea*
- [4] Red Maple, *Acer rubrum*
- [5] Silver Maple, *Acer saccharinum*
- [6] Sugar Maple, *Acer saccharum*
- [7] Thornless Honey Locust, *Gleditsia triacanthos inermis*
- [8] Green Ash, *Fraxinus pennsylvanica*

**(c) Total Tree Requirement.** The total number of all trees planted as a result of the proposed development, including the trees planted to replace any removed trees, and those used to shade and buffer (or otherwise associated with) the parking facilities, and the trees necessary to line the access drive, shall equal at least one tree per 1000 sq.ft. of building area. If site encumbrances make this requirement impossible to achieve, trees may be placed off site upon approval by the Board.

**(d) Tree Size.** New and replacement trees shall be a minimum of two and one half (2.5) inches in breast height diameter and a minimum of ten feet in height.

**(e) Landscape Requirements.** All additional landscaping, including grass, shrubs, flowers, etc. shall be of the highest quality and shall meet the following requirements:

- [1] indigenous to the area or certified as 'non-invasive' by a professional horticulturist
- [2] drought-tolerant
- [3] pest-tolerant

**(f) Irrigation.** If the site is to be irrigated, all irrigation shall be micro-irrigation and the use of lawn irrigation and sprinkler systems shall be prohibited unless their use is strictly for horticulture or agriculture purposes.

**(g) Invasive Species.** Whenever feasible, existing invasive species of flora shall be permanently removed from the site using accepted horticultural practices.

#### **H. Conditions, Limitations, and Safeguards**

In granting approval of an application the Board may impose conditions, limitations and safeguards that shall be in writing and shall be a part of such approval. Such conditions may include, but are not limited to:

- (1) Controls on the location and type of access to the site;
- (2) Controls on the number of vehicles that arrive or depart during the morning and/or evening peak hours (including controls on the maximum number of vehicles that may use the off-street parking areas during said periods);
- (3) Requirements for off-site improvements to improve the capacity and safety of roads, intersections, pedestrian ways, water, sewer, drainage, and other public facilities which are likely to be affected by the proposed development;
- (4) Requirements for donation and/or dedication of land for right-of-way to provide for future roadway and/or intersection widenings or improvements;
- (5) Conditions to minimize off-site impacts on traffic and environmental quality during construction.
- (6) Requirements for reductions in the scale of the proposed development, including reductions in height, floor area, or lot coverage, provided, however, that any such reduction be limited to that which is reasonably necessary to reduce the level of impact of the proposed development to a level that will permit the Board to make the written findings required by this Section 185-31;
- (7) Requirements for screening parking facilities from adjoining premises or from the street by walls, fences, plantings, or other devices to mitigate adverse impacts;
- (8) Conditions to mitigate adverse impacts to the neighborhood and abutters, including but not limited to adverse impacts caused by noise, dust, fumes, odors, lighting, headlight glare, hours of operation, or snow storage.

The applicant, when other than the owner(s), and the owner(s) of land shall be responsible for mitigation measures or conditions which are required as part of a favorable decision for issuance of site plan approval.

## **I. Administration**

(1) The Board shall establish and may periodically amend rules and regulations relating to the administration of this section, including additional regulations relating to the scope and format of reports required hereunder.

(2) The Board may waive any part of this Section 185-31 upon the written request of the applicant and upon the written decision of a majority of the Board accompanied by reasons for granting such a waiver.

(3) The Building Commissioner shall be responsible for interpreting the meaning or intent of any provision of this section that may be unclear or in dispute.

(4) Any person aggrieved by a decision of the Planning Board with regard to Site Plan Review may appeal such decision to a court having jurisdiction, in accordance with Massachusetts General Laws, Chapter 40A, Section 17.

## **J. Severability**

The invalidity of one or more provisions or clauses of this section shall not invalidate or impair the section as a whole or any other part hereof.

Last Accessed at: <http://www.franklin.ma.us/town/planning/SitePlanDraft.htm> on October 10, 2005.