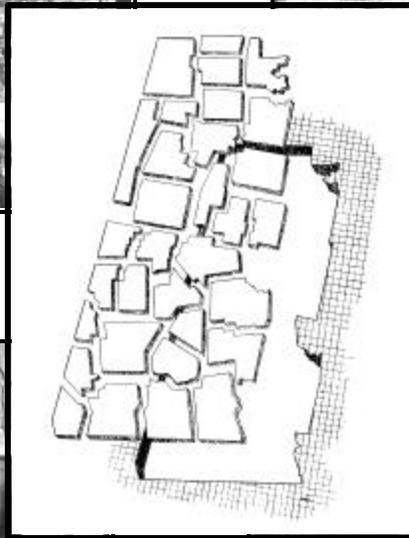


# The **REGIONAL PLAN** for the **BERKSHIRES**



*working to retain a sense  
of place and community*

**Berkshire Regional Planning Commission  
May, 2000**

# **The Regional Plan for the Berkshires**

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# Table of Contents

|             |  |               |
|-------------|--|---------------|
| <b>I</b>    | <b>INTRODUCTION .....</b>  | <b>I-1</b>    |
|             | Guiding Principles of the Regional Plan for the Berkshires .....   | I-1           |
| <b>II</b>   | <b>PRESERVATION OF SENSITIVE ENVIRONMENTS AND OPEN SPACE .....</b> | <b>II-1</b>   |
|             | Natural Resources .....  | II-2          |
|             | Open Space.....  | II-26         |
| <b>III</b>  | <b>COMMUNITY AND QUALITY OF LIFE.....</b>                          | <b>III-1</b>  |
|             | Population .....   | III-2         |
|             | Housing .....  | III-6         |
|             | Community Resources.....   | III-17        |
|             | Other Community Services.....                                      | III-30        |
| <b>IV</b>   | <b>ECONOMIC DEVELOPMENT AND FISCAL RESPONSIBILITY.....</b>         | <b>IV-1</b>   |
|             | Economic Overview and Indicators .....                             | IV-2          |
|             | Regional Communities and Fiscal Responsibility .....               | IV-16         |
| <b>V</b>    | <b>EFFICIENT LAND USE DEVELOPMENT AND MANAGEMENT .....</b>         | <b>V-1</b>    |
|             | Land Use.....  | V-2           |
|             | Transportation.....  | V-17          |
| <b>VI</b>   | <b>IMPLEMENTATION.....</b>   | <b>VI-1</b>   |
|             | Coordination .....   | VI-1          |
|             | Where Does My Community Begin? .....                               | VI-4          |
|             | Implementation Toolbox .....                                       | VI-6          |
|             | Toolbox of Tools and Techniques .....                              | VI-8          |
| <b>VII</b>  | <b>APPENDICES.....</b>   | <b>VII-1</b>  |
| <b>VIII</b> | <b>REFERENCES.....</b>   | <b>VIII-1</b> |
|             | Other Useful Publications .....                                    | VIII-3        |



# I INTRODUCTION

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The Berkshires, defined as a region in a true sense of the word, geographically, economically and culturally, possesses an outstanding quality of life that makes it an attractive and desirable place. For many, the Berkshire region (consisting of the 32 towns and cities in Berkshire County) is unmatched anywhere in the country. The *Regional Plan for the Berkshires* articulates a broad collective vision designed to maintain and enhance that high quality of life into the future.

The various Guiding Principles, Goals, Policies and Approaches contained in this Plan define the essence of the Berkshires. More importantly they are intended to enable a future for the region whereby the people of the Berkshires have opportunities for meaningful, productive work and effective community involvement amidst a high quality natural environment. Furthermore, these items are intended to enable current residents leave an equally strong legacy for future generations.

More than a static document, the *Regional Plan for the Berkshires* is intended to serve as a forum and as a mechanism for discussion about the future of the Berkshires. Hopefully this Plan will stir debate and discussion about the items that are at the core of most personal value systems. After thorough review it is expected that this Plan will stimulate informed actions leading to the betterment of the Berkshires.

## **GUIDING PRINCIPLES OF THE REGIONAL PLAN FOR THE BERKSHIRES**

The Four Guiding Principles and accompanying Goals form the heart of the Plan. They were initially developed from available municipal comprehensive plans, such as Master Plans, and have been refined over the last two years. Communities in the Berkshires are unique, with their own histories, characteristics and assets. There are, however, a number of common items shared by many, if not most, of the communities. These broad commonalities form the basis for the Guiding Principles. The Four Guiding Principles also were designed to reflect the four dominant factors that shape interaction with the land and with others. The four Guiding Principles of the *Regional Plan for the Berkshires* are:

**Preservation of Sensitive Environments and Open Space**  
**Community and Quality of Life**  
**Economic Development and Fiscal Responsibility**  
**Efficient Land Use Development and Management**

### **Preservation of Sensitive Environments and Open Space**

Communities in the Berkshires are concerned about their quality of life. The specific definition of quality of life is different for the each community. However, the definition of quality of life for Berkshire communities contains several distinct physical, social, cultural and political facets. One aspect of that quality of life is the natural environment. Residents in Berkshire communities recognize that land and the landscape contributes to why they like living in the Berkshires. As the region's resource base, the natural environment greatly influences the region's

opportunities. Protecting and maintaining natural resources and the landscape remains a top priority for communities in the region. The following goals would preserve the natural environment for the benefit of all, now and in the future:

- Preserve and improve the ecological integrity of important natural environments and resources: surface waters and watersheds, forested areas, critical wildlife and plant habitats, wetlands, prime agricultural soils, flood prone areas, aquifers and recharge areas, steep slopes and mountain tops.
- Maintain and improve the overall quality and quantity of the Berkshire's surface and ground waters.
- Enhance the protection and management of open space in order to provide wildlife habitat, protect natural resources, provide recreational opportunities, maintain scenic views, and maintain the character of the Berkshires.

### **Community and Quality of Life**

Residents in Berkshire communities also recognize that quality of life is related to the small town feel of the region's communities. The many aspects of community interaction can be found in all communities in the Berkshires. A strong sense of community distinguishes the Berkshires from other regions of the state and country. The following goals are intended to maintain a strong sense of community as well as build strong communities.

- Respect the rights and dignity of all members of the community, regardless of income, age, race, sex, or ethnicity when undertaking economic revitalization and development activities.
- Promote mixed types of housing that blend with the character of the Berkshires and with attention to a supply that is affordable, available, and convenient.
- Provide adequate community facilities and services to meet community and regional needs.
- Protect and preserve historic and cultural features that are important components of the Berkshire's heritage.
- Preserve undeveloped areas so that residents of the Berkshires may maintain their ways of life.

### **Economic Development and Fiscal Responsibility**

A third theme relates to an economy that offers opportunities for all residents to obtain meaningful and well-paying work. Maintaining and attracting good jobs is paramount for the future of the Berkshires. Increasingly communities are realizing that a strong investment climate that could maintain or attract jobs is reliant on strong, fiscally stable communities. A strong investment climate and strong economic growth, in turn, could increase "ratables," such as valuable taxed property. These properties would provide additional revenue for communities to respond to land use and demographic changes occurring in their community. The following goals foster a strong economy in partnership with strong communities:

- Create and sustain an atmosphere of partnership between the public and private sectors which recognizes their joint roles in investing resources to stimulate continuous, diverse, and environmentally responsible economic development.

- Provide access and opportunity for job training and retraining, and encourage the retention and creation of good jobs, both to stem the population loss of people with roots in the Berkshires, and attract new and younger people to the regional workforce.
- Encourage a variety of economic development strategies suited to the various needs of the communities throughout the region in order to maintain the fiscal integrity of all the region's cities and towns.
- Promote local fiscal stability and regional growth planning as a means of attracting private sector investment, balanced with public provision of services and financing of infrastructure and other community capital improvements.

### **Efficient Land Use Development and Management**

Maintaining the region's traditional patterns of development, which have recognized and promoted a distinction between settled and open areas, is another theme that consistently appears from community plans. Concerns have been raised about the inefficient use of land and its affects, commonly referred to as sprawl, that have occurred recently in the Berkshires. In outlying communities those affects have been on natural resources, open space, and increased costs to municipalities to provide new or expanded services. In the more established urban areas, concern has been expressed about providing services in the face of declining tax revenues. The following goals suggest that new development be guided so that it is compatible with the existing community character, strengthens existing developed areas and maintains natural areas:

- Encourage balanced growth and development consistent with the capacity of the natural environment in order to maintain the Berkshire's economic health and strong sense of community.
- Encourage the preservation of rural, village, town, community and regional centers as vibrant centers for living, working and shopping.
- Maintain and revitalize existing urban areas and industrial centers.
- Preserve and support agricultural uses in order to maintain traditional occupations, economic diversity, and scenic resources associated with agricultural views.
- Develop and sustain a balanced and diverse transportation system which provides for the safe, economical, and efficient movement of goods and people, and is compatible with the Berkshire's social patterns, land use, economy and environment.

The approaches and policies and tools and techniques in the *Regional Plan for the Berkshires* lay out a comprehensive framework for the Berkshire Regional Planning Commission, in strong partnership with communities, state government officials and the private sector to address recent and future changes. This Plan is offered to the residents of the Berkshires to achieve a desired future.

### **Why a Regional Plan?**

The Berkshire Region does possess an outstanding quality of life that makes it an attractive and desirable place for business, industry, research, educational institutions and homes. There is, however, another side to the region. Amid a robust national and state economy, the economy of the Berkshires still lags behind. High-wage manufacturing jobs, traditionally the region's economic backbone, have drastically declined, replaced by generally lower paying and uncertain service jobs. The abandoned and heavily polluted Pittsfield General Electric site, formerly one of the region's proudest symbols of prosperity, now aptly symbolizes the decline of

manufacturing and contributes to a negative image nationally. Perhaps more importantly, for many the sense of opportunity is weak. The Berkshire region has lost population in recent years, a trend expected to turnaround in this decade. Many of the region's young, sources of hope for the future, have left or are leaving, partly a result of a weak economy.

The famed Berkshire landscape is also being compromised. Sprawl, and the insidious effects of sprawl are very conspicuously manifesting themselves throughout the entire region. Commercial strips, development which doesn't fit into the terrain and landscape, housing along rural roadsides, unnecessarily repetitious and competitive roadside signs, unattractive highway improvements, spot clearing on forest lands, and loss of open lands are changing the essence of the Berkshires. If the region's economy becomes more tourism based, the landscape will become more important.

Throughout the state, and indeed the country, other regions have successfully met the challenges described above. Cape Cod has attacked the sprawl that was contaminating its water supply. The Connecticut River Valley to the east has made a dramatic economic recovery. These regions have addressed their pressing problems cooperatively and, as a result, have become more competitive and have been the beneficiaries of the last eight to ten years of economic upsurge. Closer to home, the Town of Lee and, more recently, the City of North Adams, have or are on the road to turning the corner on downtown decline. Regions and communities have successfully dealt with difficult problems using, at least on the surface, a simple recipe. They have defined a common vision, developed a unified approach, one that didn't sacrifice local autonomy, and have worked and continue to work together to put the plans into action.

This simple recipe is missing here. No such common vision, unified approach, or cooperative action exists for the Berkshires. More frequently, there is a lack of cooperation, coordination, and consistency between communities, especially on land use issues. In some instances, there is outright competition for development projects, seen as desirable means to increase tax bases and provide tax revenues. Major issues, such as contamination of the Housatonic River and a north-south access highway, have divided and continue to divide the region. There is no strong regionwide forum in the Region to discuss differences, identify common interests and chart a common course. Leadership, on many levels, is often fragmented or divided.

A likely future for the Berkshires is a continuation of the recent past. The Berkshire region could slowly continue to lose ground and continue to become less competitive economically: this despite gains of nearby regions. Fragmented and unguided patterns of land development could continue, resulting in further compromise of the landscape. Fiscal problems for communities could increase. Small rural communities could be forced to finance increasingly expensive and unaffordable new services, such as schools and infrastructure, such as sewer. The region's larger communities could become increasingly less able to provide services for their citizens. The best and brightest of the region's youth could continue to leave because of the lack of attractive jobs.

There is, however, the strong potential for a different future for the Berkshires. This future would utilize a cooperative, comprehensive regional approach to a future for the Berkshires whereby the landscape and the natural environment would be enhanced, economic opportunities would be improved for all residents, and community character would be maintained.

There are several local examples of successful regional approaches to solving problems. Regional school systems throughout the Berkshires are one. Regional schools offer a way to better provide education, often with additional courses and finer facilities, at lesser cost per student than without regionalization. The Tri-Town Health Department, which services the towns of Lee, Stockbridge, and Lenox, is an example of shared professional services. The Pittsfield sewer system, which serves at least a portion of the towns of Lanesborough, Dalton and Hinsdale, shows that infrastructure services can be shared. Several communities are exploring the possibility for common land use planning. The towns of Lee and Lenox have prepared municipal Master Plans cooperatively. The towns of Egremont and Mt. Washington similarly are undertaking a joint master planning effort.

The time is right to advance the concept of using regional approaches to problem solving. There is growing awareness of the usefulness to using regional applications to advance community goals. There is a commonly shared understanding by the region's communities, at least at a very broad level, as to what are the important considerations in long range planning. Mostly, the *Regional Plan for the Berkshires* has been prepared in order to help the Region compete effectively in the future.

## **Planning Process**

**Invitation to Participate:** This Plan has had a long genesis. Discussed initially in 1993, it has taken several years to come to fruition. Despite the long effort to date, this version of the *Regional Plan for the Berkshires* is intended only as a beginning point. This Plan is intended to initiate a prolonged dialogue, or "multilogue" involving numerous parties about the future of the Berkshires: about the natural environment, open space, housing, infrastructure, roads, economic development, people and their needs, in short all the items that weave the fabric of society.

Widespread participation in that "multilogue" is welcome to contribute to achieving a future expressed in the Plan. BRPC is extremely interested in forming partnerships with communities, agencies, business groups, or citizen groups to carry out the ideas expressed in the Plan.

**Draft Plan:** The building blocks for the *Regional Plan for the Berkshires* were concerns, desires or opportunities stated in comprehensive community plans. A Draft Plan was prepared in June 1999 by the staff of the Berkshire Regional Planning Commission based on those ideas as well as new research and the use of pre-existing planning material. The Draft Plan was consistent with pre-existing Berkshire Regional Planning Commission goals and policy statements.

A Cross-Acceptance process was used to get input about the Plan. Over the last two years, staff from Berkshire Regional Planning Commission met with Planning Boards and other officials of the region's cities and towns to discuss the Plan. The first year's visit focused on the Guiding Principles. The second year's visit focused on explaining the Draft Plan. Cross-Acceptance in this context means a collaborative and iterative "negotiation" whereby the goals and desires of municipalities and other important regional interests are folded into the concepts of this Plan.

This version of the Plan is a product of the Cross-Acceptance Process and work with the BRPC Regional Issues Committee. As much as possible, BRPC incorporated input from meetings with local officials and other interested individuals and groups in this revised Plan.

**Regional Issues Committee of BRPC:** Along with the Cross-Acceptance process, the Berkshire Regional Planning Commission Regional Issues Committee served as an advisory committee to the final Plan development. The Regional Issues Committee has reviewed and commented on the draft Plan. The Regional Issues Committee will continue to serve as a “sounding board” to help integrate community comments into future Plan related actions or revisions.

**"Living" Document:** Plans, such as this, have frequently been criticized. Some common criticisms include the following: they are not connected to power and hence are not likely to be implemented; they are too general; they are too future oriented to address the needs of the present; they take too long to develop; once they are developed they become outdated too soon; they restrict development; they impinge on the “free market;” they try to accomplish too much; or they accomplish too little. It is the hope of this effort to overcome those limitations to create a useful, effective tool for the communities of the Berkshire Region to address change in the most appropriate manner. Informed participation by a wide range of diverse interests can overcome those criticisms. It is vital for a variety of individuals and interests to assist BRPC in turning this document into a frequently used and evolving document.

### **Intent and Use of the Regional Plan for the Berkshires**

The *Regional Plan for the Berkshires* aims to provide continuing guidance for change in the region. This Plan presents a regional context for balanced growth and preservation. Based on the Guiding Principles and Goals this Plan recommends policies and approaches needed to further the vision of a better Berkshire region. The issues of land use, growth management, transportation, economic development, housing, open space, service provision, fiscal management, environmental protection, and community character are inseparable from the other issues. These issues must be carefully balanced.

Local planning officials will find that this Plan can be used as a regional guideline for local planning efforts. Towns and cities are encouraged to develop plans that reflect the goals and objectives of that community, but consistency with this *Regional Plan* will ensure that planning occurs in a coordinated fashion and that municipal plans are compatible with one another. Concerned citizens, state and federal agencies, and other organizations will find this Plan a valuable source of current information. With the understanding that this Plan is not static in nature, the BRPC will continue to update the information and refine policies contained within as new strategies and technologies emerge.

Primarily advisory in nature, this Plan is not intended as a regulatory tool. It is intended to provide guidance and information for communities as they work toward strengthening local government. Its value in guiding new development will be achieved primarily in support of town and city plans and local regulations.

The mission of the Berkshire Regional Planning Commission is to provide technical planning services, advice and recommendations to its member communities. The Berkshire Regional Planning Commission has no authority over land use regulation and development in the region. That authority rests with the 32 cities and towns. This plan does not intend to seek or establish that authority.

Another primary use of the *Regional Plan for the Berkshires* is to guide and direct the activities of the Berkshire Regional Planning Commission. It will serve as a guide to the policy making body of BRPC Delegates and Alternates, as well as the professional planning staff. The

*Regional Plan for the Berkshires* will provide direction about how the Planning Commission comments on developments of regional concern. One such comment area is projects undergoing review through the Massachusetts Environmental Policy Act (MEPA.) Another area of comment is significant regional land use items, such as zoning changes adjacent to community boundaries.

The *Regional Plan for the Berkshires* will guide the Commission's grant applications and other efforts to bring planning funds to the benefit of the region's communities. It will also provide direction to the educational planning and training efforts of the Commission.

Another important use of the *Regional Plan for the Berkshires* is as the framework for the Commission to provide advisory comments to state and federal officials. Frequently, the Berkshire Regional Planning Commission is asked to provide comments to different state and federal agencies about a wide range of planning topics. These topics range from funding requests from communities for infrastructure to business development loan and grant applications and land preservation applications. Future Berkshire Regional Planning Commission comments to state and federal agencies will be based on consistency with items contained in the *Regional Plan*.

The Plan is intended to improve the delivery, predictability, and consistency of planning services the Commission provides to its member communities. The Plan will provide the framework to better assist and enable communities of the Berkshires to grow and develop according to their stated wishes and consistent with their neighboring communities.

The challenges that lie before the Berkshires require creative, cooperative solutions. Protecting and enhancing the region's quality of life will not happen over night; it will require working together to solve problems such as economic development, sprawl and pollution. Change, be it growth or decline, when properly managed can expand or present different economic, cultural, and social opportunities for today's and future generations. BRPC remains committed to a better Berkshires.

## **Berkshire Regional Planning Commission**

The Berkshire Regional Planning Commission (BRPC) is the official area-wide planning agency in the Berkshire region with comprehensive planning responsibilities, which include land use, transportation, economic development and environmental management. BRPC was established under Chapter 40B of the Massachusetts General Laws and, as such, the Commission, composed of one Delegate and one Alternate ("Commissioners") from each of the 32 member communities, is required to study the problems, needs, and resources of the region and to make recommendations for physical, social, governmental, and economic improvements in the Berkshires. With a professional staff of full-time planners, BRPC's activities include technical planning assistance to member towns, involvement in regional issues and projects, mapping and information services, and major development review. The BRPC is also an affiliate data center for the U.S. Census, and maintains a database and planning library that is used by municipalities, governmental agencies, consultants, students, and citizens. Assessments are levied on the member cities and towns and are apportioned among member communities on a per capita basis according to the most recent national census. Local assessment money is used to fund activities for which no grants are available and to meet matching grant requirements. Major funding sources are derived from grants and contracts entered into with the federal government, the Commonwealth, local cities and towns.

## History of the Berkshire Regional Planning Commission

The Berkshire County Industrial Development Commission sponsored the formation of the Berkshire County Regional Planning Commission in 1966. BCRPC was formally organized in early 1966 by the votes of ten cities and towns in Berkshire County. On May 9, 1966, the Commonwealth of Massachusetts approved the ten-member region and designated its area of jurisdiction as being the 32 municipalities that comprise the Berkshire region. Since then, all 32 municipalities have voted to join the Commission as members.

The formally adopted BRPC Mission Statement, adopted in December 1993, declares that BRPC shall:

- serve the cities and towns and their common good
- provide technical assistance, maintain a forum for the discussion of regional issues, and deliver regional planning services
- commit to promote a balance between economic development and resource preservation
- foster the enhancement of the region's human, natural, and manmade resources without prejudice

In February 1997, Delegates voted to change the name of the Commission to the Berkshire Regional Planning Commission.

## History of Comprehensive Regional Planning

**The Regional Planning Law:** Section 5 of Chapter 40B of the Massachusetts General Laws states: "A planning commission established hereunder shall make careful studies of the resources, problems, possibilities and needs of its districts and, on the basis of such studies, shall prepare a comprehensive plan of development or a schematic study plan of such district or of such part or parts thereof as the commission may deem necessary and in such plans shall make such recommendations for the physical, social, governmental or economic improvement of the district as in their opinion will be in the best interest of the inhabitants of the district. Such plans and recommendations shall concern, among other things, the general use of the district, including land use, principal highways and expressways, bridges, airports, public utilities, public facilities, parks, recreational areas, public institutions and such other matters as in the opinion of said commission will be beneficial to the district and will promote with the greatest efficiency and economy the coordinated development of the district and the general welfare and prosperity of its people...."

**Executive Order 385:** On April 23, 1996. Governor William A. Weld signed Executive Order No. 385, entitled "Planning for Growth". The declaration of policy enunciated in Sections 1 and 2, states:

Section 1. The Commonwealth shall actively promote sustainable economic development in the form of; a) economic activity and growth which is supported by adequate infrastructure and which does not result in, or contribute to, avoidable loss of environmental quality and resources, and b) infrastructure development designed to minimize the adverse environmental impact of economic activity.

Section 2. The dual objectives of resource protection and sustainable development shall be pursued as much as possible through means other than new rules and regulations, such as proactive planning, interagency coordination, incentives and assistance to interested private parties as well as local and regional governments and organizations, and streamlining of regulatory processes so as to facilitate economic activity consistent with this policy.”

**1959 Regional Plan:** In December 1959, *The Regional Plan* for Berkshire County was prepared for the Berkshire County Commissioners and the Massachusetts Department of Commerce. It was the initial as well as most recent attempt at looking at Berkshire County as a region and in a comprehensive manner.

**1976 Regional Growth Policies:** Under the aegis of the Massachusetts Growth Policy Act (Chapter 807, Acts of 1975), a Regional Growth Policy Statement was prepared. This effort was the basis of a *Regional Growth Policy* report for Berkshire County written in 1976.

Over the years, the Berkshire Regional Planning Commission has acted as a focal point for discussing and evaluating area-wide inter-municipal problems and needs and has worked to develop plans for appropriate solutions. BRPC has worked closely with the member communities on numerous issues including transportation, land use, water supply, sewerage, lake management, and solid waste management. These issues are all of regional concern.

### **Current Goals of the Berkshire Regional Planning Commission**

On December 16, 1993, in recognition of the Berkshire’s unique geographic characteristics and quality of life, the Commissioners of the Berkshire Regional Planning Commission adopted the following goals:

1. To develop and promote regional and subregional planning.
2. To provide technical assistance to municipalities.
3. To take an active role in local planning issues that are significant to the Berkshires.
4. To provide a forum for discussion of issues that are significant to the Berkshires and to seek consensus.
5. To promote a balance between economic development and resource preservation by analysis and persuasion.
6. To assist communities in providing the growth, stability and prosperity of businesses which provide quality jobs for a diverse work force.
7. To encourage efficient utilization of existing infrastructure and buildings.
8. To research, analyze and encourage innovative and progressive methods of land use planning and land use management.
9. To assure Berkshire Regional Planning Commission is responsible and open institutionally to change through continuing evaluation of its missions and goals.
10. To advocate the interests of the Berkshires on issues.
11. To develop a regional policy plan.

### **Growth Policies**

The current goals adopted in 1993 were reinforced on December 16, 1996, when the Berkshire Regional Planning Commission adopted Growth Policies with information obtained through community surveys. The eight Growth Policies are interdependent, and should be considered as a unified piece to understand the evolution of BRPC’s program for the region’s future. The policies

are presented in alphabetical order to avoid implying that any one policy is more important than another. The Growth Policies have directed the work of the BRPC since they were adopted. The *Regional Plan*, with the four Guiding Principles, encompasses the original intent of the Growth Policies and strengthens them.

- Comprehensive Planning
- Fiscal Reform
- Natural Resources Management
- Pursue Varied Solutions to Transportation Needs
- Regional Planning
- Reinvest in Developed Areas
- Strategic Economic Development
- Stronger Municipal Power Over Land Development

The Guiding Principles, together with tools, techniques, and approaches outlined in the following chapters, lay the framework for the Berkshires as the region works toward the desired end result.

Therefore, based upon the authority granted to the Berkshire Regional Planning Commission under the M.G.L. Ch. 40A and Executive Order 385 of 1996 entitled, Planning for Growth, the BRPC's goals statements of 1993 and most recently adopted Growth Policies for 1996, the BRPC has prepared this Regional Plan for the Berkshires.

## **The Berkshire Region: Geography and Physical Description**

The Berkshire region consists of 32 towns located in western Massachusetts. Vermont borders the Region on the north, New York on the west, and Connecticut on the south. The Commonwealth counties of Franklin, Hampshire, and Hampden are to the east. The Berkshires is true region, well defined by physical features, geographic relationships, political boundaries, historical traditions and social organizations.

The Berkshire region has an area of 605,437 acres or 946 square miles. Elevations range from 3,491 feet at Mount Greylock, the highest point in the state, to 594 feet in Williamstown. Two major rivers drain the region, the Hoosic in the north and the Housatonic in the south. Their adjacent valley lands contain the majority of the region's development and population. The region also includes small portions of the Deerfield, Westfield, Farmington, and other Hudson River watersheds.

Hills and mountains on the east and west characterize the topography of the Berkshires with flatter lands in the valleys of the Hoosic and Housatonic Rivers. Bounded by significant natural features, the Taconic Mountains lie along the western edge of the region and the Berkshire Hills lie along the eastern edge. The climate is generally cooler than in the neighboring regions to the east (Connecticut River Valley), to the west (Hudson River Valley), and to the south (Connecticut).

The east/west running Massachusetts Turnpike provides access to the Region, while other major arteries such as State Highways 2, 7, 8, 9 and 20 also transect the region. (See Topography Map.)

## **The Berkshire Region: A Historical Perspective**

Originally inhabited by native Americans, the Berkshire Hills were used as hunting grounds for eight to ten thousand years before the first white settlement began to change the environment. The region generally resisted penetration by early settlers who were attracted instead to the fertile Connecticut River Valley with its convenient river trade. The first white settlers, Dutch and English traders during the late 17<sup>th</sup> century, moved in and out of the region as the economics of the fur trade dictated. The first settlements were along the Housatonic River near Sheffield. The Berkshire territory was purchased from the Housatonic Tribe's Chief Konkapot in 1724 and Sheffield was settled in 1727. The region grew and separated from Hampshire Region in 1761. Settlement occurred slowly in the fertile river valleys and sparsely in the mountainous areas.

Slowly after the beginning of the nation, the sparsely settled Berkshires began to grow. Agriculture was the first dominant industry, and it spread across the face of the region. It has been estimated that up to 90% of the region was cleared for farming by land-hungry settlers. Though the soil was difficult, farming was the only resource of most of the towns and many reached their peak population during this period including Alford, Hancock, Mount Washington and Peru. These peaks occurred before the advent of full industrial growth which was to draw labor from the "hilltowns". Thereafter, most of the towns would follow a one to two century long population decline.

Architecture during this period reached a new high. Many areas attained a new prosperity through agriculture as an economic base. Many large Georgian and Federal houses were constructed during this period. Williams College was founded in 1793 by a legacy given by Colonel Ephriam Williams, and boasted three brick federal style buildings by 1838.

Industrial and urban growth steadily increased during the period from 1830 to 1880. The birth of the industrial revolution found industry locating along the banks of the Housatonic and Hoosic Rivers and their tributaries where waterpower was easily harnessed. Initial industries included cloth dressing and wool carding, followed by iron, potash, and iron manufacturing. Zenas Crane began the paper industry in Dalton and paper manufacture was established as the lifeblood of the region. Paper manufacturing is still a major industry today. Cotton and woolen mills followed. Soon the area was well known for its quarrying that produced marble for the Washington Monument and the Federal Capital.

After the Civil War, business and industry rapidly developed wherever waterpower was available. By the end of the century, the urban areas of Pittsfield and North Adams were quite prosperous. It was during this time that railroads made the region highly accessible from both Boston and New York, a cultural overlap that continued to flourish through the twentieth century. Beginning in 1880, Berkshire County became the "Newport of the Hills" with the construction of seventy-five mansions by the year 1900. Many towns in the central Berkshire region became elite resort towns, particularly Lenox, Lee, and Stockbridge. Culture and the arts flourished. The Berkshires became the place to be for socialites and attracted a significant tourism industry as well.

The mid-twentieth century brought a new period of urban growth. Textile and paper manufacturing that had dominated the 19<sup>th</sup> century changed to one centered on the electronics industry. William Stanley's pioneering experiments with electricity in Great Barrington in the 1880's evolved into General Electric which, at its height, employed over ten thousand people.

The recent decades have seen a reverse trend away from electronics and defense-oriented industry.

The Berkshire region today is well aware of its esteemed place in history, ready to take on the challenges of the new millennium.

### **The Berkshire Region: Population**

Relatively large in land area (946 square miles), the Berkshire region has the feel of a small and stable community where residents feel safe and welcomed. Comprised of many medium sized, moderately populated towns, the Berkshires are home to a diverse population of hard working artisans, farmers, business people, and retailers.

According to U.S. Census figures for 1998, the Berkshire region had a population of 138,038, which represented about 2.2 percent of the state's total of 6,147,132 people. Pittsfield (population of 45,513) and North Adams, (15,496) are the two larger cities in the region. The medium sized towns are: Adams with a population of 8,768; Williamstown with a population of 7,948; Great Barrington with a population of 7,592; and Dalton with a population of 6,854. The smallest towns in the region are Alford, Tyringham, New Ashford and Mount Washington with 407, 363, 190, and 130 residents respectively. Minority residents make up approximately 4% of the population. Additional information on population statistics can be found in Section III.

Although the region has experienced a declining birthrate and increases in retirees, there is still a strong presence of families and long-time residents. This by nature makes the Berkshires a neighborly place in which to live. Actions in the public domain should continue to account for the needs and rights of all residents of the Berkshires.

## **II PRESERVATION OF SENSITIVE ENVIRONMENTS AND OPEN SPACE**

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To maintain the environmental health of the Berkshire region, it must be recognized that growth and change are appropriate only as long as they respect environmental tolerances and physical constraints. The Berkshire region is fortunate to have a wealth of valuable natural resources—vast forestlands, wide river valleys, clean upland streams, and abundant wetlands. These natural resources sustain numerous species of plants and animals in addition to supporting human habitation. The destruction of natural resources and fragmentation of open space inevitably degrades our landscape, and lessens economic and social values. This interconnected ecosystem of humans, plants, animals, air, and water can be sustained through careful resource use and preservation. Therefore, the goals of environmental protection and continued growth must be reconciled if the quality of life in the region is to be preserved and enhanced.

This chapter presents approaches and policies designed to maintain and protect the natural resources and open spaces of the Berkshires. If these approaches and policies are carried out, constructive growth will be accommodated, the long-term value of land in the region will be preserved, the precious water resources that supports diverse land uses will be protected, and the character of the natural landscape will be retained. Preservation of undeveloped land is a long-term investment in the natural beauty, wildlife diversity and community character valued throughout the region. Our unique natural resources are at the core of the Berkshires' identity.

Issues and opportunities are presented for several specific types of resources found in the region, as well as for open space. These resources include wetlands and floodplains, forests, soils, air quality, plants and wildlife, and scenic resources. These resources are discussed in detail in each section and are meant to support the approaches and policies that follow.

The goals outlined under the guiding principle are:

- Preserve and improve the ecological integrity of important natural environments and resources: surface waters and watersheds, forested areas, critical wildlife and plant habitats, wetlands, prime agricultural soils, flood prone areas, aquifers and recharge areas, steep slopes and mountain tops.
- Maintain and improve the overall quality and quantity of the Berkshire's surface and ground waters.
- Enhance the protection and management of open space in order to provide wildlife habitat, protect natural resources, provide recreational opportunities, maintain scenic views, and maintain the character of the Berkshires.

## NATURAL RESOURCES

### Water Resources

The Berkshire region's water resources support not only human populations but sustain a diverse natural resource base. The abundance of water in the region has made it easy to take these resources for granted, and to treat land and water as if they were unrelated. However, the interdependence of land use, water quality, and water quantity is well documented, and must be considered as related components when planning for growth. It is also important to recognize the links between groundwater and surface water supplies, and the critical roles of watersheds, floodplains, and wetlands in the hydrologic system. Allowing water supplies to be damaged from pollution and overuse can threaten the region's environmental, social, and economic well-being.

### *Lakes and Ponds*



Research of community Master Plans and Open Space and Recreation Plans has revealed that Berkshire residents place a high priority on the protection of water resources, especially the lakes and ponds that dot the landscape throughout the region. Providing for a range of needs including drinking water, recreation, and wildlife habitat, the lakes and ponds of the Berkshires are important natural features that residents and visitors appreciate and value. Development pressures and inappropriate land uses have the potential to degrade these fragile resources, diminishing water quality and wildlife/fish habitat.

Aside from recreation and scenic beauty, many towns depend on surface waters to supply municipal drinking water needs. Throughout the region, reservoirs and public wells supply drinking water to approximately 75% of the residents. Some of these reservoirs are still subject to the pressures of unchecked development and associated problems of nonpoint source pollution.

Many of the waterbodies in the region are experiencing exotic and accelerated weed growth and algae blooms related to nutrient loading from nonpoint source pollution. This nutrient loading is derived from sources such as agricultural runoff, polluted storm water, household chemicals, and failing septic systems. The excessive growth and decay of aquatic plants leads to eutrophication which decreases the quality of fish habitat and diminishes recreation potential. As the region becomes more popular as a summer home resort area, with many of these homes built on the shore of lakes and ponds, the region's open water bodies may continue to suffer from development impacts.

In 1999, the Massachusetts Department of Environmental Protection and Department of Environmental Management published a draft Generic Environmental Impact Report on lake

and pond management covering topics such as weed control, fisheries management, and water quality. This report provided much-needed direction to the many parties involved in lake management, including lake and pond associations throughout the region, on important matters. In addition, the Berkshire Regional Planning Commission is active in coordinating LAPA-West, the Lake and Pond Association of Western Massachusetts, whose mission is to bring together and coordinate stakeholders and disseminate information on lake related issues. *Lakes and ponds in the region, larger than 50 acres, are identified in the Appendices.*

The Berkshire region is renowned for outstanding water based recreational opportunities, highly valued by residents and visitors alike. Fishing, swimming, and boating are some of the more popular water based recreational activities that attract users. Yet, access points to the numerous lakes and ponds are limited. It is important that lakes and any public lands surrounding them be accessible to the public. Recreational use and access must be managed, however, to ensure that excessive or inappropriate use does not damage the environment or result in conflicts among different user groups.

Development pressures will continue to be a problem in the region and may pose further water quality threats and increased competition among surface water users. Competition for the use of the region's surface water resources is expected to continue. These pressures can be offset by sound planning and through cooperation at the local, regional, and state level.

The following approaches and policies will contribute to preserving and improving the ecological integrity of the regions surface waters.

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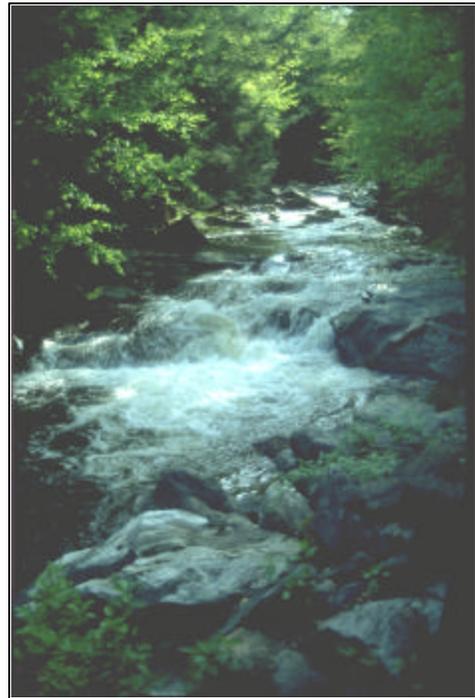
#### **APPROACHES and POLICIES**

- Maintain or enhance the existing water quality of the region's surface waters.
  - Encourage maintenance of undisturbed buffers of vegetation around lakes and ponds.
  - Support identification and appropriate management of water resources with exceptional natural, ecological, and recreational value.
  - Identify and address both point source and nonpoint source pollution to eliminate or reduce the effects of such pollution on surface waters.
  - Encourage the use of best management practices to reduce the contamination of surface waters from uses such as landfills, junkyards, residential areas, and parking lots.
  - Promote watershed and sub-watershed planning to ensure the preservation of good water quality.
  - Support efforts to increase public access to Berkshire lakes and ponds.
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## ***Rivers and Streams***

The rivers and streams of the Berkshires have long been important to the people of the region. Native American encampments and early settlers inhabited the land along the rivers because the waterways provided a travel route and a source of drinking water and food. Over time, the rich bottomlands in the river valleys became dominated by agriculture. Farms used the rivers for irrigation. Communities grew around the rivers and, with the birth of the Industrial Revolution, began to rely on them to power mills and factories and carry away industrial wastes. Today, the residents of the Berkshires still cherish these waterways and the many environmental, economic, and recreational benefits they provide. However, many of the rivers and streams in the area are experiencing problems with floodplain encroachment, streambank erosion, degraded habitat for fish and wildlife, and contamination by PCB's.

The region contains two principal watersheds, the Housatonic and Hoosic. Three minor watersheds—the Farmington, Westfield, and Deerfield—all drain to the Connecticut River to the East. The region also contains portions of the Kinderhook and Bash Bish which, like the Hoosic, drain west to the Hudson River Watershed. The Housatonic drains south, discharging directly to the Long Island Sound. All of these river basins contain many smaller rivers and brooks, each with their own unique values, functions and uses. Protection of surface waters has begun at the watershed level, with watershed plans in place to address land use and development issues within each basin. The table that follows lists the primary watersheds in the Berkshire region as well as land area.



Because of the mountainous character of the Berkshire terrain, most of its rivers have steep gradients with fast runoff of surface water. Although flooding could be a problem under these conditions, numerous small dams have been constructed to minimize flooding and flood damage. These dams have, in turn, contributed to environmental problems including stream siltation, water level and flow fluctuations, and impeded fish passage. Dams and reservoirs built for water supply or power have reduced the variability of stream floods.

In 1993, the Commonwealth of Massachusetts changed the approach to managing the state's water resources with the adoption of the Watershed Initiative. This strategy is designed to implement integrated, watershed-based resource management by establishing collaborative efforts among individuals, groups, and agencies in each watershed. Team leaders, designated by the State Executive Office of Environmental Affairs (EOEA), coordinate stakeholders and see that the resources within the watersheds are managed properly. This approach to watershed planning and protection is making positive strides in the Berkshires. The Berkshire Regional Planning Commission has been and plans to continue to be an active participant on the watershed teams.

**Table II.1. Watersheds in the Berkshire Region**

| <b>Watershed</b> | <b>Acres</b>         |
|------------------|----------------------|
| Housatonic       | 319,945              |
| Hudson           |                      |
| Hoosic           | 106,536              |
| Kinderhook       | 13,973               |
| Bash Bish        | 9,832                |
| Connecticut      |                      |
| Deerfield        | 29,529               |
| Westfield        | 62,688               |
| Farmington       | 62,934               |
| <b>Total</b>     | <b>605,437 acres</b> |

Source: MA GIS Data, 1995

The rivers and streams of the region provide important fish and wildlife habitat. The Hoosic River, as well as the many tributaries of the Hoosic and Housatonic Rivers, provide important cold-water fisheries habitat. Shaded stream banks, clean gravel and rock bottoms, and clean, cool water are necessary to maintain these cold-water fisheries. Sedimentation from storm water runoff, bacteria from poorly maintained septic systems, and lowered instream flows all have an impact on these important fish habitats.

The Housatonic River, a visible symbol of the toxic legacy left behind by the General Electric Corporation, is making a comeback thanks to the dedicated efforts of many organizations. Polluted with Polychlorinated Biphenyls (PCB's) during years of electrical transformer manufacturing in Pittsfield, the river is the subject of a major clean up campaign. In 1998, GE negotiated an agreement with the U.S. Environmental Protection Agency (EPA) over how to clean up the contamination in Pittsfield and in the Housatonic River, its former oxbows, and floodplains. Parties to the agreement include the Massachusetts Executive Office of Environmental Affairs, Connecticut Department of Environmental Protection, and the City of Pittsfield. This agreement and a settlement package are incorporated into a Consent decree that is awaiting entry into Federal Court. Once entered, the Consent Decree becomes a legally binding document that will include:



- Three-phase cleanup of 100 acres of the 245-acre General Electric transformer plant in Pittsfield
- GE to clean oxbow and floodplain properties from the plat south to Woods Pond in Lenox
- PCB contamination to be completely removed from Allendale School playground; Silver Lake's bottom to be capped, its shores and banks to be cleaned and landscaped
- GE to pay \$15 million to Natural Resource Trustees for natural resource damages
- GE to continue sampling, testing and cleanup of residential fill properties

In the past few years, local and regional environmental groups, including the Housatonic River Initiative, Housatonic River Restoration, and Housatonic Valley Association have worked to clean up the Housatonic River and plan for its enhanced recreational and scenic use.

In the Hoosic River Watershed, PCB clean up of the former Sprague Electric plant promises to improve water quality of the Hoosic River. Plans are also proposed to reduce river temperatures related to the concrete flood control chutes in Adams.

The rivers and streams of the region have played an enormous role in the region's history, serving as both natural and economic resources. Agriculture, industrial, passive and active recreational users have utilized the rivers throughout the past few centuries, although their respective uses have sometimes been at odds with each other. Continued efforts at local and regional levels are necessary to ensure that these valuable resources are protected for the health and welfare of people and animals.

The following approaches and policies will contribute to maintaining and improving the overall quality and quantity of the Berkshire's rivers and streams.

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#### **APPROACHES and POLICIES:**

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- Maintain undisturbed buffers of vegetation along watercourses in order to minimize effects of erosion, protect shorelines, and maintain scenic, recreational, and habitat values.
  - Maintain water flows in streams at levels that will support a full range of in-stream uses and values.
  - Encourage a continued educational program for Conservation Commissions on the regulations governing rivers and streams.
  - Encourage the use of soil bioengineering solutions to bank erosion along rivers and streams rather than revetments and hard structures.
  - Encourage stormwater management improvements in heavily developed areas along rivers and streams.
- 

#### ***Wetlands and Floodplains***

The region contains numerous wetlands and floodplains that benefit flood storage, water quality, wildlife habitat, and outdoor recreation. These valuable resources are an important part of a river's watershed.

Wetlands are areas transitional between aquatic and terrestrial systems that, at least periodically, have waterlogged soils or are covered with a shallow layer of water. Wetlands support a diverse array of plants and animals that are adapted to living in a wet environment. Wetlands are important for their ability to recharge groundwater, filter pollutants, control flood and stormwater, and provide fish and wildlife habitat. Wetlands also provide open space and aesthetic qualities. In Massachusetts, the state Wetlands Protection Act and local non-zoning wetlands bylaws protect wetlands and watercourses. In addition, wetlands are protected at the federal level.

Within the Berkshire region, wetlands such as open marshes, forested wetlands, bogs, and vernal pools dot the landscape. These resources are important not only to the character of the region but also to the quality of life for its residents. Yet, examples of high quality wetland resource areas are declining, not only locally but statewide due to water level fluctuations, filling and dredging, invasion by exotic plant species, and non-point source pollution.

The Massachusetts Wetlands Protection Act, enacted in 1972, recognizes public interests of wetland resource areas deemed important to the residents of the state. The goals of the Act are to preserve water quality, maintain drinking water quality and quantity, provide recharge through infiltration, retain natural flood storage, sustain fisheries, and protect wildlife habitat. Wetland values not protected by the Act include plant habitat, recreation, aesthetics, and cultural values.

Local Conservation Commissions have the responsibility to carry out and enforce the regulations contained within the Act. Amended in 1996 with the addition of the Rivers Protection Act, the regulations give local commissions jurisdiction over work performed within 100 feet of wetlands and 200 feet from perennial rivers and streams between the resource areas and any development. Many towns have strengthened the State Wetlands Protection Act through their own local wetland bylaws.

Floodplains are the lands bordering rivers, streams, and lakes which periodically are flooded. These areas provide flood storage capacity during periods of heavy rain and snowmelt, and are important to preventing storm damage. In addition, floodplains are important wildlife habitat areas and can reduce non-point source pollution before it reaches waterways.



Significant floodplains exist along the Housatonic and Hoosic Rivers, as well as the smaller rivers in the region. Development in floodplains is inherently dangerous, due both to the immediate hazards associated with flooding, and to the increased flooding that may occur downstream when developed floodplains are no longer capable of retaining flood waters. Most Berkshire towns and cities (23 of the 32) in the region have adopted floodplain district overlay zones and regulations based on federal standards and maps.

Vernal pools are a unique and rare wetland type that are inhabited by species, many rare and endangered, totally dependent on vernal pool habitat for their survival. Vernal pools are found in confined basin depressions that hold water in most years for two continuous months. These depressions do not support adult fish populations.

Vernal pools are given “automatic” protection in the Massachusetts Wetland Protection Act only if they occur in the 100-year floodplain, on Isolated Land Subject to Flooding, or in a Bordering Vegetated Wetland. Additionally, the Massachusetts Natural Heritage and Endangered Species Program must document their existence. A vernal pool may be a federally protected wetland, even if it is not protected under the state wetland law. Regardless of whether they are protected under the Wetlands Protection Act, all certified vernal pools are protected from discharges of fill, stormwater, or pollutants under the Massachusetts Surface Water Quality Standards, adopted under the federal Clean Water Act. Statewide, only 1,400 vernal pools of the estimated 25,000 statewide have been officially certified. In the region, twenty-nine vernal pools have been

certified under the Massachusetts Natural Heritage and Endangered Species Program. Fifteen have been certified in Stockbridge.

Wetlands and floodplains are important resources on the landscape that require special attention in the planning process. Incremental loss of wetland area has led to degraded habitats, loss of flood storage, and diminished water quality. The Wetlands Protection Act has focused attention on these issues and the need to protect these areas. Communities can also take steps to protect wetlands. Wetland losses can impose significant economic and environmental costs on the region. To safeguard these important resource areas, it is necessary to encourage a greater understanding of freshwater wetland resources.

The following approaches and policies will contribute to preserving and improving the ecological integrity of the region's floodplains and wetlands.

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**APPROACHES and POLICIES:**

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- Encourage the maintenance of vegetated filter strips of 100 feet or more along shorelines and wetlands to provide habitat, minimize effects of pollutants, and maintain scenic qualities.
  - Identify both point and nonpoint sources of pollution to eliminate degradation of water bodies and wetlands and address solutions to deal with the sources.
  - Encourage the use of appropriate best management practices to eliminate contamination of wetlands and waterways.
  - Encourage the adoption of floodplain bylaws.
  - Identify and address any adverse environmental impacts of development proposals that could alter floodplains, wetlands, and vernal pools.
  - Encourage certification of vernal pools by private landowners.
  - Discourage forestry practices such as tree harvesting and skid road construction within 200 feet of vernal pools.
  - Encourage the development and use of strong local wetlands protection bylaws that establish jurisdiction over seasonal wetlands such as vernal pools.
  - Support on-going educational efforts for local Conservation Commissioners to better understand wetland processes, regulations, and enforcement procedures.
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## **Groundwater**

Groundwater provides the primary supply of drinking water for much of the region. The aquifers of the Berkshire region are vulnerable to contamination. Among the region's most important resources, aquifers and groundwater remains poorly understood. Groundwater moves beneath the ground through aquifers—underground water bearing formations in sand, gravel and fractured rock—which allow percolation of runoff.

Groundwater is highly susceptible to contamination and moves through rock fractures without any appreciable purification. Groundwater moves slowly through soils and bedrock and, as a result, does not undergo the self-cleansing processes that take place in wetlands and surface waters. Once an aquifer is polluted, it may remain polluted for many years. Once aquifer contamination occurs, control and abatement are extremely difficult and costly. Often it is less costly to develop a new water supply than to clean up the one that is contaminated. Hence, the important challenge in environmental planning is to prevent pollutants from entering the groundwater to ensure an adequate supply of clean drinking water.

Groundwater supplies within the Berkshires are susceptible to a variety of contamination, including industrial waste discharges, road deicing salts, leaking underground fuel storage tanks, fuel spills, leachate from landfills, failing septic systems, and innumerable household, commercial, and agricultural chemicals. It is crucial to the health and welfare of the region that groundwater resources be accurately mapped, adequately protected, and that residents are educated about the need for groundwater protection.

Groundwater resources are closely related to the geology of the Berkshires. It is important to understand the distribution and thickness of the various types of bedrock and other surficial geology in order to prevent potential contamination of groundwater from inappropriate land uses. Additionally, the mapping of the zones of contribution to wells and aquifers is an important element to adequately safeguard groundwater resources.

Massachusetts is one of several states that have developed an aggressive approach to groundwater protection. Proactive strategies are implemented under various programs such as the Department of Environmental Protection's (DEP) Groundwater Discharge Permit Program, the Wellhead Protection Program, and the Massachusetts Environmental Protection Act. Yet, groundwater protection must be a local task. Towns have numerous tools, both regulatory and nonregulatory, to protect groundwater supplies. Additionally, communities should use the latest mapped information to make wise decisions regarding groundwater.

Ground and surface water resources form large scale, complex natural systems whose geographical limits are completely independent of political boundaries. Surface water and groundwater systems relate instead to the watershed boundaries determined by the shape of the land, and to subsurface geological characteristics. Greater collaborative efforts are needed by all levels of government to ensure a safe drinking water supply where the resources cross municipal boundaries.

The following approaches and policies contribute to maintaining and improving the overall quality and quantity of the Berkshire's groundwater.

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**APPROACHES and POLICIES:**

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- Identify and remediate potential sources of groundwater contamination such as underground storage tanks and failing septic systems to current state standards.
  - Identify and map the regions most important groundwater resources including areas of recharge, storage, and transmission.
  - Monitor closely the design, construction, and maintenance of sewage disposal systems to ensure protection of groundwater.
  - Ensure that contamination of groundwater from the drilling of wells be avoided through the use of proper well-drilling technology and appropriate placement.
  - Support efforts aimed at preventing the contamination of groundwater from the use of household chemicals through public awareness and reduced reliance on such products.
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## Air Quality

Air quality is generally good in the Berkshires, despite the fact that all of Massachusetts is classified as a “non-attainment” area for air quality. The U.S. Environmental Protection Agency (EPA) sets National Abatement Air Quality Standards (NAAQS) to monitor air pollution. Pollutants measured include sulfur dioxide, ozone, carbon monoxide, particulate matter, nitrogen dioxide, and lead. If a state does not meet one or all of the established criteria pollutant standards it is considered in “non-attainment”.

Threats to air quality in the region are primarily transported from distant sources. Transported sources include heavy metals, ozone, and acid precipitation. These air pollutants can cause mortality in human and wildlife populations, reduce soil fertility and cause physical damage to property. Some pollutants contribute to global warming as well.

Sprawling development, as occurring within the Berkshire region, also can negatively impact air quality. Sprawl contributes to longer driving times, as it forces residents to drive to work, school, or secure goods and services. Because so much of the existing zoning separates residential, commercial, and industrial uses, it is often no longer possible to walk to a corner store or to work. Thus, residents have become totally dependent upon the private automobile, even for the simplest of everyday tasks and needs.

Transportation is the main local contributor to air quality problems in that motor vehicles emit pollutants that accumulate in the atmosphere. Automobiles are the major mode of transportation in the region, with single occupancy vehicles comprising the largest mode of transportation. Consequently, reducing total quantities of vehicular emissions will improve air quality. Fortunately, transportation control measures designed to alleviate traffic congestion and reduce energy consumption will also reduce total vehicle emissions and result in improved air quality. For example, highway projects that minimize stop-and-go driving and improve operating speeds will result in reduced emissions. Mass transit improvements may also reduce total emissions to the extent that riders will use automobiles less. Energy conservation efforts such as carpooling will also reduce total emissions as less fuel is consumed. However, the greatest gains in reducing total motor vehicle pollution result from improved vehicle and fuel technologies. In addition, an enhanced state program for the inspection of vehicles to ensure compliance with vehicle emissions standards can be expected to make a major contribution to improved air quality. Other local threats to air quality include combustion by-products from wood burning stoves, industry and manufacturing practices.



Controlling air quality is difficult as topography, prevailing wind, and weather system patterns cause air pollutants to travel from other regions and states. Due to this transport phenomenon, it is difficult to control air quality on a local, regional, or even state level. The Berkshire region is dependent upon federal standards to regulate both imported and locally generated air pollution.

In addition to improving air quality in the Berkshires, the following approaches and policies contribute to transportation and land use goals.

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**APPROACHES and POLICIES:**

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- Improve and expand public transit and programs that promote ridesharing and alternative modes of transportation.
  - Discourage development or other activities that significantly degrade air quality.
  - Reduce the use of older or less fuel-efficient and pollutant emitting vehicles.
  - Encourage the use of high-efficiency wood and coal burning stoves for home use.
  - Support efforts to reduce regionally generated air pollutants from residential, industrial, and transportation uses.
  - Solicit “clean” industry for economic development.
  - Encourage the use of solar and wind power energy generation where appropriate, provided that facilities are sited in such a way as to not significantly distract from aesthetic, wilderness, recreational, or ecological values.
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## Soils

Soil is a layer of mineral and organic content that covers the rock of the earth's crust. A substrate for vegetation, soils provide nutrients such as nitrogen and potassium necessary for plant growth. Soil characteristics can create opportunities for or site limitations to a variety of land uses such as farming, forestry, mineral extraction, and land development.

The soils that are found in the region occur in a pattern that is related to geology, relief, climate, and the natural vegetation of the area. Soil types are related to landscape position, parent material, weather, and time. Most of the soils found within the region are derived from materials that were transported by glaciers and deposited on hills and plateaus when the glaciers receded. The soils of the higher elevations are generally thin and stony while soils of the lower elevations are deep. Glacial till dominates the region and rocks of all sizes are found throughout the range of soils.

Prime agricultural soils are those that have a high rating for crop production potential because of a combination of physical and chemical characteristics. These soils are generally located in the fertile river valleys of the Housatonic and Hoosic Rivers, but can be found in other parts of the region as well. Approximately 7% of the total land area in the region is prime farmland soil.

Since most prime agricultural soils occur in nearly level, well-drained locations, they are very easily developable. Examples of recent development, mainly of single-family homes, abound in the fertile soils of the region. Development on prime agricultural soils should be discouraged as these soils represent the best producing agricultural areas. Even though the trend is toward a decline in agriculture, communities should strive to preserve, or "bank", these resources until a time when local farming may once again become economically important or necessary. A later section on agriculture contains a map of prime soils and agricultural land use.



Development in the region has traditionally been encouraged on soils suitable for in-ground sewage disposal systems. Residential septic systems rely on septic absorption fields to distribute and cleanse effluent. A soils ability to adequately handle effluent is based on its properties, site features, depth to bedrock, and proximity to the water table.

Permeable soils are generally associated with sites having a high potential for aquifer recharge, and pollution of subsurface and surface waters may result from development of these soils. The rate of flow for liquid wastes, the rate of absorption, and the location of groundwater and surface waters are important factors for consideration in planning development on permeable soils. Recent revisions to Title 5 of the Massachusetts Environmental Code which regulates on-site septic systems now allow for innovative and alternative (I&A) systems. Alternative systems are those systems which provide substitutes or alternatives for one or more of the components of a conventional system while providing for the same degree of environmental or public health protection. These I&A systems are becoming more widely used. They are especially important

as cost-effective upgrades of old failing systems on difficult sites which cannot accommodate conventional systems in environmentally sensitive areas, or in areas where conventional systems simply don't function properly. Examples of approved technologies include composting toilets, recirculating sand filters, and biofilters.

The major soil associations found in the Berkshires closely follow the geology of the region. The Generalized Soils Map shows the soil patterns of the region based on the composition of the parent material. Although these soils are mapped together and share basic characteristics, they have little else in common. The general soil associations are listed below:

Turnbridge-Lyman-Peru: Moderately deep, shallow and very deep, well drained, somewhat excessively drained, and moderately well drained, gently sloping to very steep, loamy soils formed in glacial till derived from schist, gneiss, and granite. Found on uplands, this map unit makes up about 51% of the region.

Taconic-Macomber-Lanesborough: Shallow, moderately deep, and very deep, somewhat excessively drained and well drained, gently sloping to very steep, loamy soils formed in glacial till derived from phyllite, slate, and shale. Found on uplands, this map unit makes up about 11% of the region.

Amenia-Pittsfield-Farmington: Very deep and shallow, moderately well drained, well drained, and somewhat excessively drained, nearly level to very steep, loamy soils formed in glacial till derived from limestone. Found on uplands, this map unit makes up about 26% of the region.

Copake-Hero-Hoosic: Very deep, somewhat excessively drained and moderately well drained, nearly level to moderately steep, loamy soils formed in glacial outwash. Found on outwash plains and terraces, this map unit makes up about 9% of the region.

Limerick-Saco-Winooski: Very deep, poorly drained, very poorly drained, and moderately well drained, nearly level, loamy soils formed in alluvial deposits. Found on flood plains, this map unit makes up about 3% of the region.

Erosion, the wearing away of the land surface by water, wind, ice, and other factors, and sedimentation, the deposition of soil particles that have been eroded, can impact water resources in a variety of ways. Soil erosion is a function of four variables (soil type, topography, climate, and soil cover) and can lead to reduced flood storage capacity, altered aquatic habitat, and increases in surface water temperatures. The effects of erosion from natural processes are difficult to control, while effects from human activities can be minimized through the use of Best Management Practices or other land use controls.

Development constraints and erosion potential increase as slope increases. Slopes of 5 to 15 percent generally place moderate limitations on land use development. Slopes greater than 15 percent can be considered severe constraints, while slopes greater than 25% are very severely constrained for development and should be avoided for most land uses. Steep slopes shed greater amounts of surface water at higher velocities than level areas, often leading to soil erosion problems when land is disturbed or cleared. Steep slopes also tend to be covered by shallow soils that cannot filter septic wastes effectively unless extraordinary septic systems are used. Another factor limiting the use of steep slopes is cost. Developing and maintaining steep areas properly, in ways that limit erosion, provide adequate waste treatment, and preserve natural land characteristics, is often costly. Roads, utilities, and building construction in rough terrain can require extensive cutting and grading.

The following approaches and policies contribute to preserving and maintaining the region's soil "heritage" as well as maintaining overall water quality and wildlife habitats.

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**APPROACHES and POLICIES:**

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- Encourage special precautions when proposing development on slopes to avoid environmental damage, including negative consequences associated with erosion.
  - Avoid intensive development in areas dominated by slopes greater than 25% and minimize areas of earth disturbance, grading and vegetation clearing on steep slopes over 15%.
  - Encourage the implementation local soil erosion bylaws.
  - Ensure that new development address soil erosion control and drainage with adequate plans.
  - Avoid development on constrained soils, i.e. poorly drained, very poorly drained, and alluvial soils.
  - Promote use of alternative and innovative technologies for on-site sewage disposal in developed areas where failing systems exist.
-

## Mineral Resources

Mineral resources mined from the earth have historically been important to the local economy in the Berkshires. With the exception of limestone, sand, and gravel operations, the number of industries utilizing mineral resources has steadily declined in the region. This decline in the use of mineral resources can be attributed to a decreased demand and a change in the economic landscape, rather than exhaustion of the mineral reserves. Present use of mineral resources is confined primarily to limestone production, sand, gravel, and crushed stone. Land use estimates from 1997 show approximately 2,000 acres of active mining within the region, an increase of 13% over 1985 figures

Mineral deposits found in the region are the result of an active geologic past. Limestone deposits are found in the region, extending in a north-south band from Sheffield to Adams in what is called the Limestone Valley. This valley extends from Connecticut to Vermont, between



the Taconic Mountains and the Berkshire Hills. Limestone and marble is still actively mined in Adams, Lee, and West Stockbridge and is produced primarily for agricultural and industrial use.

In the Berkshires, bricks and drain tiles were historically kilned from local silts and clay deposits. Iron ore was quarried in Lanesborough, West Stockbridge, and Richmond, along with limestone. Large furnaces, fired with charcoal and limestone, smelted the iron ore and produced iron.

The iron ore deposits were mined from colonial days to the early part of this century. Iron from the Richmond furnaces was used primarily for castings. Examples of these large outdoor furnaces can still be seen today throughout the region.

Marble was quarried in Lee and Lenox, as well as in Great Barrington and Sheffield. A number of buildings in Washington, D.C. were constructed from Berkshire marble. Tombstones were also quarried in the eighteenth and nineteenth centuries from this marble.

Sand and gravel are currently excavated in the many valleys throughout the region. Good quality sand, readily useable for a variety of purposes, occurs in large reserves along the Housatonic and Hoosic River Valleys and near most of the larger tributaries. Deposits of gravel, on the other hand, are usually small and isolated to terraces along the Housatonic and Hoosic Rivers. Gravel deposits in the Limestone Valley often contain large amounts of limey shale and thin limestone fragments. This mixture limits the use of such deposits to fill material. As the region continues to grow, sand and gravel deposits will continue to be extracted for building foundations, road construction, and fill.

Mining operations represent approximately 2,000 acres (one-third of one percent) of land use within the region. While a relatively small acreage, the impacts of the mining activities could be potentially damaging, especially to groundwater resources. Generally, sand and gravel pits are located in outwash deposits that supply recharge to the groundwater system. In most cases these pits lack a significant soil and vegetative cover which acts both as a buffer and a filter to incoming contaminants. Exposed soil and mineral resources are subject to wind and water erosion. In addition, the storage of diesel fuel, motor oil, hydraulic fluid and solvents in these

sensitive areas can result in groundwater contamination if spills/leaks occur or if the spent products are disposed of improperly.

The challenge in the region is to find ways to utilize an adequate supply of these resources without degrading other environmental resources. To meet this challenge, the following approaches and policies are proposed.

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**APPROACHES and POLICIES:**

- Require that proposals for new mineral extraction demonstrate that efforts will be made to minimize the effects of noise and any adverse effects to air quality, surface and ground waters, wetlands, adjacent properties and the character of the area.
  - Ensure mining and mineral extraction not be sited in or immediately adjacent to sensitive natural areas, including recharge areas and critical habitat areas.
  - Ensure that valuable mineral resources areas are not developed in a manner that could preclude any future use of the land for mineral extraction.
  - Ensure that funds for site rehabilitation are in place prior to operation and that rehabilitation plans are implemented when the mining operation has ceased. These plans must allow for appropriate new land uses.
  - Prohibit mineral extraction within 200 feet of a surface water or wetland and within 10 feet of the water table.
  - Require a reasonable phasing plan for new mineral extraction in order to minimize areas susceptible to erosion.
-

## Forests

Forests are an important resource in the Berkshires representing approximately 75% of the total land area. These woodlands provide numerous benefits to the region and help prevent soil erosion. Forests also reduce the effects of flooding, contribute to air and water quality, and provide habitat for numerous species of plants and animals. Forests are also highly valued for their aesthetic and recreational values. To protect these values, it is important to ensure the continued existence of continuous, unfragmented, and unspoiled forestland.

The Massachusetts Department of Environmental Management (DEM) manages approximately 117,000 acres of forestland in the region, including, among others, the October Mountain State Forest, the Mount Greylock Reservation and the Sandisfield State Forest. Much of the remaining forestland is privately owned. According to the University of Massachusetts Resource Mapping Project from 1985, forestland in the region declined from 463,883 acres to 459,406 acres between the years 1971-1985. The DEM is currently inventorying all of their forestland properties in order to determine changes in the forests. This Continuous Forest Inventory is updated every twenty years and provides valuable data for forest managers

The Berkshire region is composed of three distinct forest types. Much of the Housatonic River Valley, from Sheffield to Pittsfield, is composed of the Transition Hardwoods. White pine, oak, and hemlock dominate this forest type. In this region, beech, birch and maple overlap with the oaks and hickories that dominate to the south. Running north/south along the New York border and up through the Berkshire Hills is a forest type of Northern Hardwoods made up of beech, sugar maple, and yellow birch, growing beside white pine and hemlock in the richer soils of this region. The third forest type, the Northern Hardwoods, is composed of spruce and fir. This forest type dominates the higher elevations in the northern part of the region. In this forest type, red spruce, paper birch, aspen and red maple can also be found.

The forests of the Berkshire region, as well as most of Southern New England, were cleared during the 1800's for pasture and farmland, evidenced today by the many miles of stone walls that can be found. Despite this massive disrobing of the forest cover, a few stands of old growth trees can be found in the region. The DEM has recently drafted a policy for the management of old growth forests, valued for their scientific, ecological, and social significance.

Much of the forestland in the region is suitable for the production of sustained yields of forest products. Proper forest management activities can sustain and even increase yield as well as create a healthy forest ecosystem with diverse wildlife habitat. The harvesting of forest products must meet minimum requirements set forth in the Forest Cutting Practices Act (M.G.L. Ch. 132). Massachusetts also provides incentives for woodland owners who wish to properly manage their forestlands with programs such as the Forest Stewardship Program. In addition, the Forest Tax Law, revised in 1982, allows for significant property tax deferral to woodlot owners that follow an approved ten-year Forest Cutting plan. This plan must be approved by the Massachusetts Department of Environmental Management. Once a Forest Management Plan is submitted to the local Tax Assessor, the land is classified as "forestland" and will be assessed at 5% of its fair market value. The Plan must be written by a professional forester and include a schedule of planned management activities.

In western Massachusetts, forests contribute significantly to the character of communities, as well as to environmental quality and the economy. While many recognize the necessity of providing wood products for residential and commercial use, forest management rarely is seen

as an important tool for providing recreation, water, and wildlife opportunities. Thoughtful management is needed to maintain the balance as development pressures alter more and more of the region's landscape.

The following approaches and policies contribute to preserving and improving the Berkshires forestlands.

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**APPROACHES and POLICIES:**

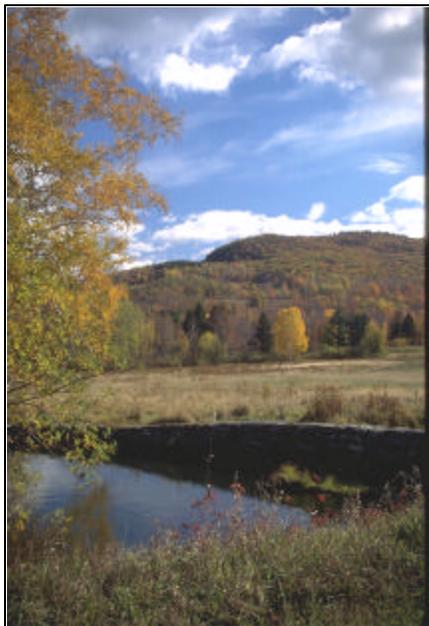
- Support initiatives to preserve forestland that contains high quality habitat or important surface and groundwater recharge areas.
  - Encourage sustainable timber cutting practices and the utilization of BMP's to reduce erosion and sedimentation.
  - Encourage landowners to enroll in state/federal forest management programs such as Stewardship Incentive Program and the Chapter 61 tax incentive program to ensure long-term production of forests in the region.
  - Encourage initiatives that direct land uses and future development away from areas of prime forest soils and reduce the fragmentation of forestland.
-

## Wildlife and Plant Habitat

From the high peak of Mount Greylock to Bartholomew's Cobble in Sheffield, the Berkshire region is home to some of the most dramatic landscape and unique plant and animal habitat in Massachusetts. Rich in areas of high ecological value, the region contains an unusually diverse mix of wildlife and plant communities, including a number of species that are rare or declining in number. According to the Massachusetts Natural Heritage and Endangered Species Program, endangered or threatened species have been identified in all 32 towns in the region. Indeed, the unique patterns of the Berkshire region provide refuge to numerous plants and animals, both common and rare that thrive in the region. Continued patterns of development that fragment habitat could potentially be detrimental to the habitat that important wildlife and plant species depend upon.

The Berkshire region is composed of rich mesic forests, acidic peatlands, calcareous wetlands, emergent marshes, and river and stream communities. The major ecoregions in the region, the Berkshire Highlands and the Hoosic and Housatonic River valleys, dominate the landscape. In these areas, one can find sphagnum bogs, spruce and fir-clad rocky summits, and remnants of old-growth forest.

Within the Berkshires are four areas designated as Areas of Critical Environmental Concern (ACEC) due to the presence of resources of regional or statewide significance. These areas—the Kampoosa Bog Drainage Basin in Lee and Stockbridge, the Hinsdale Flats Watershed in Hinsdale, and the Karner and Schenob Brook Watersheds in Mount Washington and Egremont—are important ecosystems in the region. To be designated an ACEC these areas must contain a rich complex of fish habitat, inland wetlands, inland surface waters, water supply areas, and high priority habitat areas. Though not protected through regulation, designation as an ACEC is meant to add more thorough review to proposed development and changes in land use.



The surface waters in the region provide important fish habitats. Sedimentation from runoff, bacteria from septic systems, clearing of streambank vegetation, damming rivers and streams, and lowering instream flows can all have a negative impact on these important habitats. Surface waters also provide specialized habitats for fish, reptiles, and migratory birds.

The mountainous, forested landscape is ideal habitat for many large mammals, including black bear, bobcat, deer, fisher, coyote, fox, and beaver. Other inhabitants of the forest landscape include small mammals, reptiles, amphibians, game birds, songbirds, and insects. The most important factor in maintaining viable populations of these animals is protection of their habitat. Maintaining large, unfragmented tracts of forestlands are critical to supporting and maintaining these species. Development in forest areas, as well as indiscriminate timber cutting, reduces the quantity and quality of forest habitat.

Many species require a combination of wetland and upland habitat for foraging, breeding, and nesting. Wildlife habitat is an interest protected by the Wetlands Protection Act. As such, the Act sets performance standards for work on banks, land under water, and in floodplains and other resource areas. The Act provides for the protection of rare, state-listed wetland wildlife habitat that has been identified and mapped by the Massachusetts Natural Heritage and Endangered Species Program. However, the 100-foot buffer area around inland wetlands is not protected. Maintaining a natural vegetated buffer around wetland resource areas is important in maintaining productive habitat.

It is generally assumed that more common and widespread plants, animals, and natural communities have stable or increasing population trends, retain their environmental integrity and function, or are well represented in natural areas—are less in need of conservation. These plants, animals, and wildlife habitats are important to the overall biodiversity of the region. Communities should continue to protect and manage high-quality examples of common and representative components of biodiversity even as they make concerted efforts to protect rare ones.

The following approaches and policies contribute to preserving and maintaining the region's important wildlife and plant habitats.

#### **APPROACHES and POLICIES:**

- Support the protection of significant ecosystems and habitat of threatened and endangered species.
  - Support management of wildlife populations consistent with human cohabitation.
  - Support state, federal, and local efforts to acquire and protect important land areas through conservation restrictions or other methods for plant and wildlife conservation.
  - Encourage private and public landowners to recognize the importance of protecting, maintaining, and enhancing important ecosystems and plant, fish, and wildlife habitats by supporting a variety of tax incentives and local, regional, and state protection programs.
  - Protect important habitat areas from development impacts. Encourage adequate buffer areas and appropriate BMP's to mitigate potential negative impacts.
  - Require a habitat evaluation as part of major site plan review in sensitive areas.
  - Expand the identification and mapping of threatened and endangered species habitats and important ecosystems.
  - Discourage the use and planting of invasive exotic plants that may displace natural species.
-

## Scenic Resources

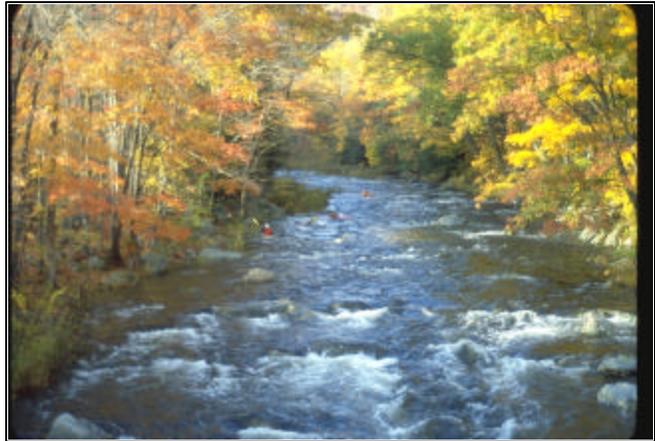
One of the region's most important resources is the scenic quality of the landscape. Characterized by expansive grassy fields, lofty peaks, breathtaking vistas, and charming small towns, the scenic resources of the Berkshire region provide a unique visual experience for residents and attract a significant tourist population. The scenic qualities of the region are subject to change as the region changes. Good land use planning and design are necessary to offset the impacts that could potentially occur.



Mountain ranges, farm landscapes, lake shorelines, scenic views and corridors are highly desirable as places to live and are frequently subject to development pressure. Towns have several options for scenic resource protection

including purchasing easements or development rights, designation of local scenic roads, and regulation through zoning and subdivision regulations. The Scenic Mountains Act, unique to the Berkshires, is a law designed to protect prominent ridgelines and mountaintops from development that could degrade scenic and environmental qualities. Conservation Commissions can impose this special land use regulation on mountaintops. To date, Stockbridge is the only community in the region that has implemented the Scenic Mountains Act. Several other communities in the region are currently working on implementing the Act.

Scenic resources can also be protected along roadways. Municipalities may designate municipal ways as scenic roads. A scenic road designation allows the planning board to take into account environmental, historic, scenic and other values when deciding what work may be done on the road. Scenic Byways are another important tool to bring additional attention or resources to unique roadways. Scenic Byways in the region include Route 2 (the Mohawk Trail), Route 20 (the Jacob's Ladder Trail, extending thirty-five miles through Berkshire, Hampden, and Hampshire Counties), and the route up and over Mount Greylock.



Both significant natural areas and scenic resources enhance environmental health, diversity, and the quality of life in the Berkshire region. As development pressures continue and as more land is utilized for urban and suburban uses, many of these important areas may become degraded. Scenic qualities must be considered when planning for growth. Efforts to maintain the scenic attributes of the region must continue to expand.

The following approaches and policies contribute to the maintenance of the Berkshires character and scenic views.

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**APPROACHES and POLICIES:**

- Consider high quality scenic landscapes and scenic corridors during any project development reviews and approvals.
  - Encourage the improvement of sites that detract from scenic views, particularly along state roads.
  - Encourage the siting, design and management of new development and roadways to be in keeping with the landscape.
  - Minimize visual impact of communication and other high-elevation or ridgeline structures through co-location, design, siting, or color choice. Design and site communication and other high elevation towers so that they do not require nighttime illumination.
  - Encourage communities to adopt the Scenic Mountains Act, where appropriate, in order to protect significant ridgeline features
  - Encourage zoning changes that allow back lot development through flexible lot frontages and provide enticements for developers to set aside open space for scenic preservation, recreation and/or conservation in their projects through easements or dedications.
  - Support redevelopment of existing sites to minimize the visual and environmental impacts of continued sprawl.
-

## Agriculture

Agriculture is a vital component of the Berkshires rural heritage. Some of the region's most productive soils are still cultivated, especially in the lower Housatonic River valley. Agricultural land use provides a system of open space that aids stormwater retention, and water quality. It offers a wildlife sanctuary between forests and fields. Farms and farmland are an asset to the Berkshires, providing a unique sense of place and aesthetic quality. A working agricultural landscape is crucial to maintaining the region's rural character while providing irreplaceable aesthetic value to both residents and visitors.



While the number of large farms has decreased in the region over the past several decades, as in much of New England, a number of active farms remain. Today, dairying and nursery crop production remain the primary commercial agricultural activities in the Berkshires. Recent census data reinforce several well-known trends in farming within the region. That is, the amount of land devoted to farming practices has seen an overall decline over the past forty years while the value of the land and buildings has steadily increased. The actual number of farms

increased from 352 in 1985 to 387 in 1997. This can be explained by the fact that many smaller “niche” farms have started up, catering to smaller specialty markets. Farms under 49 acres increased 53% from 1992 to 1997. Niche farming in the region includes honey, unusual varieties of vegetables, and other small market products.

Many factors are responsible for the decline in large scale farming in the region, including the high cost of production, or decline of profits and market stability, escalating land values and development pressures, and the relatively low cost of food being imported into Massachusetts and the Berkshires.

Census figures from 1990 indicate that approximately 1,000 people were employed in agriculture, an increase of 13% from 1980. This figure represents less than 2% of the total region workforce. This figure is consistent with the statewide average, estimated at 1.14%.

**Table II.2. Highlights of Agriculture in the Berkshire Region**

|                               | 1985      | 1997      |
|-------------------------------|-----------|-----------|
| Farms (number)                | 352       | 387       |
| Land in Farms (acres)         | 58,719    | 55,866    |
| Average Size of Farms (acres) | 166       | 144       |
| Value of Land & Buildings     | \$226,719 | \$546,679 |

Source: MassGIS, 1995; BRPC, 1997

Individuals or families run the majority of the farms, with a few operated by a partnership or corporation. Between 1992 and 1997, the market value of agricultural products sold per farm on average in the Berkshires decreased 5% from \$56,145 to \$53,553. This trend is presumed to continue as long as a small number of farms generate the majority of the agricultural income.

The market value of all agricultural products increased 15% over a five-year time frame to \$20,725,000 in 1997, with dairy products the top selling commodity accounting for \$9,578,000. The following table ranks the top five selling commodities and their values within the region.

**Table II.3. Top Five Selling Agricultural Commodities in the Berkshire Region, 1997**

| Commodity                    | Value       |
|------------------------------|-------------|
| Dairy Products               | \$9,578,000 |
| Nursery and Greenhouse Crops | \$4,812,000 |
| Hay, Silage, Seeds           | \$1,474,000 |
| Vegetables, Corn, Melons     | \$1,165,000 |
| Poultry Products             | \$1,159,000 |

Source: Census of Agriculture, 1997

In 1996, Massachusetts agriculture generated approximately \$497 million in cash receipts from 6,100 farms with a total of 570,000 acres in production. In Massachusetts, the average farm size is 93 acres with a value of \$5,597 per acre, the 4<sup>th</sup> highest in the U.S. In the Berkshire region, the average value per acre of farmland is \$3,375 in 1997, up from \$2,930 in 1992. Statewide, the largest commodity is greenhouse and nursery crops which accounted for 30%, or \$182 million, of total agricultural sales.



In addition to economic opportunities, a working agricultural landscape is crucial to maintaining the region's rural character while providing irreplaceable aesthetic value to both residents and visitors. The pastoral views of animals, fields, farmhouses, and barns create the rural landscape that characterizes the region. As a local natural resource based industry, albeit a very minor component of the overall Berkshire economy, agriculture continues to be a desirable and valuable element to the local economy.

The following approaches and policies will contribute to the maintenance of a productive agricultural economy, while helping maintain scenic views and the character of the region.

#### **APPROACHES and POLICIES:**

- Encourage farmers to enroll in state programs such as the Agricultural Preservation Program and Chapter 61A-tax abatement program to ensure the long-term viability of farming operations.
- Support programs that provide technical assistance to farmers to improve financial viability of farming operations.
- Encourage sustainable agricultural practices such as crop rotation and organic farming.
- Promote the use of Berkshire-based agricultural products.
- Support agricultural demonstration sites and test projects as well as initiatives such as agri-tourism, community supported agriculture, producer cooperatives, and farmers markets.
- Encourage the preservation of prime farmland soils.

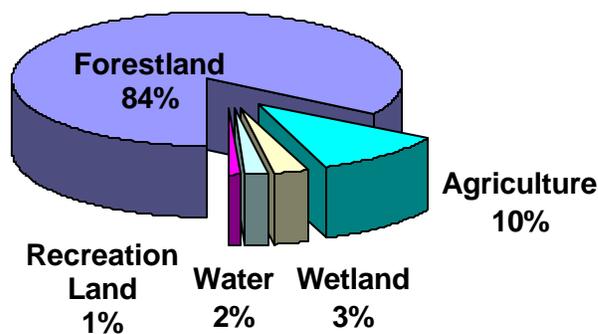
## OPEN SPACE

The open spaces of the Berkshires are one of region's strongest assets, providing an exceptional quality of life for residents. With approximately thirty percent of the landscape of the Berkshires as protected open space, this conserved land is important to the environmental health of the region. The natural beauty helps draw over 2 million visitors to the Berkshires each year. They come to enjoy the exceptional natural resources, open land, picturesque valleys and mountains, and quiet countryside along with the rich cultural attractions. Residents choose to live in the region for the same reasons.

Open space is characterized as land that is not developed. Open space is abundant throughout the region and can include areas in uplands as well as wetlands, all of which have important functions and values. Values that make open space important to society are related to public health and safety, environmental quality, wildlife habitat and quality of life factors such as recreation and enjoyment of the natural world.

The values of open space can be clustered into four groups: biological and ecological diversity, water supply and water quality, aesthetics and recreation, and community character and agricultural land. While these open spaces possess intrinsic values, they are also critical to our way of life as well as our health and safety. The following chart clusters land uses in the region that can be broadly classified as open space. Note: These numbers are different from *protected* open space, which is quantified in the trends section on the following page.

**Figure II.1. Open Space in the Berkshire Region, 1997**



|                            |                    |
|----------------------------|--------------------|
| Forestland:                | 453,414 ac.        |
| Agriculture:               | 55,866 ac.         |
| Wetland:                   | 14,888 ac.         |
| Water:                     | 10,859 ac.         |
| Recreation Land:           | 5,566 ac.          |
| <b>Total:</b>              | <b>540,593 ac.</b> |
| <hr/>                      |                    |
| Total acreage in region:   | 605,437 ac.        |
| % of region in open space: | 83%                |

## Trends in the Berkshire Region

Over 190,000 acres, approximately thirty percent of the Berkshire region, can be classified as protected open space. These lands encompass woodlands, rolling meadows, and clear flowing brooks. This protected open space includes state and municipally owned parks and forests, wildlife management areas, land trust holdings, land with conservation restrictions, and land in the Agricultural Preservation Restriction (APR) program.

State owned forest and parkland represents over 125,000 acres of the open space. These lands are forever protected. Some of the larger state owned lands include Mount Greylock Reservation and October Mountain State Forest. Municipal and nonprofit holdings represent over 50,000 acres. Numerous organizations such as land trusts, sportsman clubs, and conservation commissions have protected these non-profit and municipal lands.



Through the development of local Open Space and Recreation Plans, many Berkshire communities have sought to protect significant natural and fragile areas such as lakes, rivers, aquifers, bogs, and wetlands. Important open space related resources that presently have little protection include archaeological sites, scenic roads, and scenic views.

The hills and mountains have been the focus of much deserved land preservation attention. The percentage of open space land increases with elevation. Much of the land above 3,000 feet is fully protected, whereas only 15% of the acreage below 1,000 feet is protected. Conversely, the number of rare species decreases as elevation increases. Approximately 112 state-listed species use habitats below 1,000 feet in contrast with just 12 species of plants and animals that occur above 3,000 feet.

The percent of a community's protected open space in Berkshire communities ranges from 77% in Washington to 0% in Alford. Even the relatively urban areas of North Adams and Pittsfield have significant acreage of open space. The following table highlights the breakdown of protected open space in the region by municipality, use restriction, and ownership.

**Table II.4. Protected Open Space in the Berkshire Region, 2000**

| <i>Municipality</i> | <i>Restrictions on Land</i> |              | <i>Outright Ownership of Land</i> |                  |                   |                | <i>Total Municipal Acreage</i> | <i>% Protected</i> |
|---------------------|-----------------------------|--------------|-----------------------------------|------------------|-------------------|----------------|--------------------------------|--------------------|
|                     | <i>APR*</i>                 | <i>CR*</i>   | <i>State of Massachusetts</i>     | <i>Municipal</i> | <i>Non-profit</i> | <i>Federal</i> |                                |                    |
| Adams               | 561                         | 234          | 4,256                             | 743              |                   |                | 14,657                         | 40%                |
| Alford              |                             |              |                                   | 4                |                   |                | 7,375                          | 0%                 |
| Becket              |                             |              | 3,837                             | 774              | 1,289             | 93             | 30,581                         | 20%                |
| Cheshire            | 542                         |              | 4,532                             | 748              | 16                | 362            | 17,599                         | 35%                |
| Clarksburg          |                             |              | 3,261                             | 123              | 25                |                | 8,191                          | 42%                |
| Dalton              | 345                         |              | 1,564                             | 629              | 999               | 808            | 14,003                         | 31%                |
| Egremont            | 137                         | 35           | 1,313                             | 214              | 423               |                | 12,077                         | 18%                |
| Florida             |                             |              | 5,071                             | 435              | 191               |                | 15,755                         | 36%                |
| Gt. Barrington      | 828                         | 15           | 7,080                             | 713              | 1,314             | 201            | 29,299                         | 35%                |
| Hancock             | 389                         | 131          | 7,515                             | 296              | 529               |                | 22,866                         | 39%                |
| Hinsdale            |                             |              | 1,713                             | 2,322            |                   | 427            | 13,872                         | 32%                |
| Lanesborough        |                             |              | 2,463                             | 96               | 1,156             |                | 18,917                         | 20%                |
| Lee                 | 129                         |              | 2,479                             | 1,267            | 219               | 220            | 17,282                         | 25%                |
| Lenox               |                             | 66           | 1,121                             | 1,876            | 1,641             |                | 13,871                         | 34%                |
| Monterey            | 179                         | 111          | 4,550                             | 61               | 1,722             | 12             | 17,512                         | 38%                |
| Mt. Washington      |                             |              | 7,124                             | 63               | 852               |                | 14,319                         | 56%                |
| New Ashford         |                             |              | 3,262                             | 5                |                   |                | 8,617                          | 38%                |
| New Marlborough     | 268                         | 1,139        | 3,605                             | 19               | 1,975             | 102            | 30,642                         | 23%                |
| North Adams         |                             |              | 1,993                             | 1,779            | 64                | 20             | 13,205                         | 29%                |
| Otis                |                             | 31           | 4,554                             | 427              | 555               |                | 24,358                         | 23%                |
| Peru                |                             |              | 5,980                             | 1,026            | 417               |                | 16,646                         | 45%                |
| Pittsfield          |                             |              | 2,233                             | 2,155            | 956               | 22             | 27,166                         | 20%                |
| Richmond            |                             | 327          | 255                               | 208              | 312               |                | 12,175                         | 9%                 |
| Sandisfield         |                             | 206          | 6,305                             | 299              | 470               |                | 33,890                         | 21%                |
| Savoy               |                             | 48           | 13,602                            | 79               |                   |                | 23,037                         | 60%                |
| Sheffield           | 1002                        | 574          | 1,570                             | 299              | 2,398             | 959            | 31,086                         | 22%                |
| Stockbridge         | 83                          | 282          | 171                               | 924              | 1,156             |                | 15,149                         | 17%                |
| Tyringham           | 62                          | 457          | 417                               | 14               | 811               | 1,432          | 12,063                         | 26%                |
| Washington          |                             | 145          | 12,152                            | 6,706            |                   |                | 24,802                         | 77%                |
| West Stockbridge    |                             |              | 313                               | 405              | 62                |                | 11,933                         | 6%                 |
| Williamstown        | 332                         | 403          | 6,202                             | 1,463            | 1,468             |                | 29,992                         | 33%                |
| Windsor             | 14                          | 137          | 4,581                             | 733              | 3,203             |                | 22,500                         | 39%                |
|                     |                             |              |                                   |                  |                   |                |                                |                    |
| <b>TOTAL</b>        | <b>4,871</b>                | <b>4,343</b> | <b>125,074</b>                    | <b>26,904</b>    | <b>24,222</b>     | <b>4,657</b>   | <b>605,437</b>                 | <b>31%</b>         |

Source: MassGIS, 1995; BRPC update 2000

\*APR (Agricultural Preservation Restriction), CR (Conservation Restriction)

## Benefits of Open Space

Conserving open space can have financial benefits for communities. Findings from Cost of Community Services studies, among them studies by the Southern New England Forest Consortium, conclude that open space lands provides more town revenue than they cost in town services. The New England study found that for each dollar in tax revenue brought to a Massachusetts community from open space and farmland, an average of \$0.42 is spent by the community on services. For residential development, an average of \$1.09 is spent on services to each dollar of revenue. The ways communities may gain by investing in parks and open space are outlined below:

- Attract taxpaying businesses and residents;
- Help communities “grow smart” and avoid high costs of unplanned growth;
- Stimulate urban revitalization;
- Support important industries such as agriculture, recreation, and tourism;
- Help reduce expensive flood damages; and
- Perform valuable environmental services, such as safeguarding public drinking water.

Open space is critical to maintaining healthy ecosystems. Open space lands, as they are free of development and in their natural state, filter and purify ground and surface waters, retain storm water runoff preventing flooding, and often create recreational opportunities. These benefits often come without cost.

A preliminary study from the town of Sheffield concluded that in addition to supporting a healthy, regional tourism economy, conservation land indirectly creates jobs through tourism in the Berkshires without increasing the need for more town services. Many businesses in the region are in retail trade and services, catering to the tourist industry and are dependent on the rural character of the Berkshires for their livelihood.

Communities with thoughtful land protection programs and strategies may improve their bond rating (*Community Choices: the Trust for Public Land, 1998*). Bond ratings, measures of the financial community’s faith in the ability of a government to meet its obligations and manage its debt, are beginning to reflect that unlimited or unmanaged growth can threaten a community’s fiscal health, while sound land use planning can help sustain it. Favorable bond ratings allow a community (or other governing entity) to raise money for capital improvements at relatively low costs. Lending organizations remain committed to wise investments and smart returns. Rationally limiting growth can be much less expensive than allowing growth to continue unconstrained.

The State of Massachusetts offers temporary incentives for open space protection in the form of Chapter 61 programs. These programs offer private landowners reductions in property taxes for keeping land in forest (Ch. 61), agriculture (Ch. 61A), and recreational use (Ch. 61B). These programs support traditional uses and can reduce business costs to farmers and forestland owners. These programs do not protect land permanently, as landowners may withdraw at any time. However, substantial penalties are incurred for withdrawing early. By law, towns always have the “first right of refusal” to purchase Chapter lands that are put on the market.

## Land Protection Target Areas

The Berkshire Natural Resources Council (BNRC) is the largest private landowner in the region, owning 3,650 acres outright and protecting 8,365 acres in total. They have identified several broad classifications of lands and specific locations within the Berkshire region that deserve protection, either through acquisition by conservation agencies or through protective land-use regulation. These include:

### Ridgelines

- Three-Mile Hill (Great Barrington): Important wildlife link to Monument Mountain and Great Barrington State Forest.
- Tom Ball Mountain (West Stockbridge): Prominent south Berkshire ridge with no protected lands or public access.
- Hoosac Range (Adams, Cheshire): The eastern hills above these towns include farms, extensive woodlands, and valuable wildlife habitat and corridors to protected lands on the Berkshire Plateau. Valuable watershed protection area for Hoosic River.
- Brodie Mountain (New Ashford, Hancock): While much work has been done along this ridgeline in Williamstown and through protection of Pittsfield State Forest, the ridge is virtually unprotected.
- Taconic Range (along the western edge of the Berkshire region): This dominant mountain range is valued for its scenic beauty, numerous rare species, and as headwaters of numerous watersheds.

### Agricultural Lands

- Sheffield Plain (Sheffield): Outstanding floodplain farms, probably the most productive soils in the region.
- Working farmland in the Housatonic and Hoosic River Valleys: The working farms in these river valleys are using highly productive soils. Development of these farmlands, especially those that have frontage along the major transportation corridors, could create negative impacts on traffic movement. Presently, there are several large parcels along the major corridors that serve to define the differentiation between settled areas and countryside.

### Special Areas

- Mount Washington (Town of): Much of the town is in state ownership, with protected lands on the eastern and western parts of town. Protection of land connecting Mt. Everett/Mt. Race and Mt. Washington/Mt. Alander would serve to create extensive wildlife corridors. Parts of town are also an ACEC.
- Thousand Acre Swamp (New Marlborough): Outstanding, extensive and isolated wetlands.
- Mt. Greylock (Adams, Cheshire, Lanesborough): Identified here because some outstanding additions to the reservation are in order, particularly sensitive environs in Cheshire and Lanesborough.

### Valleys

- Alford Valley: Alford Brook, abundant farmland
- Tyringham Valley: Hop Brook, farms, Tyringham Cobble
- Richmond Valley: numerous farms, extensive wetlands associated with Cone Brook
- Monument Valley (Great Barrington): Stony and Muddy Brooks, wildlife connection between Beartown, Great Barrington, and Monument Mountain Forests.

The need for land protection arises from the fact that land supports such things as public drinking water supplies, biodiversity, recreational resources, and working landscapes. While these resources possess intrinsic values, they are also important to our way of life, as well as our health and safety.

The following approaches and policies will contribute to the goal of enhancing the protection and management of open space in order to provide wildlife habitat, protect natural resources, provide recreational opportunities, maintain scenic views, and maintain the character of the Berkshires.

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#### **APPROACHES and POLICIES:**

- Support the development and implementation of local Open Space and Recreation Plans.
  - Support local, state, and federal acquisition of land and conservation restrictions and scenic easements to protect open space.
  - Encourage towns to adopt zoning and infrastructure strategies that protect open space identified in local Open Space Plans through such strategies as conservation restrictions and transfer of development rights.
  - Encourage tax assessment practices that reward the donation of conservation restrictions to public and private conservation groups.
  - Educate communities and individual property owners about the values of land protection and various protection techniques and programs available.
  - Encourage towns to aggressively seek to acquire tax title lands and hold them for community purposes including open space.
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### III COMMUNITY AND QUALITY OF LIFE

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Quality community resources contribute to the high quality of life that residents of Berkshire region enjoy. Educational facilities, cultural institutions, and the public health infrastructure are just a few of the many community resources that residents depend on. Public and private utilities, facilities, and services in the region represent valuable investments that must be managed and supported so that they will continue to contribute favorably to the region's quality of life.

Residents of the Berkshires are concerned about the future. Much of this concern centers on finding the balance between social diversity, economic prosperity, and environmental and aesthetic protection. Actions in the public domain should continue to account for the needs and rights of all members of the community.

As the Berkshire region moves into the new millennium, municipalities must work diligently to preserve the present combination of traditional New England atmosphere and small town community spirit, steeped in history, culture, and diversity. Residents, civic leaders, and organizations must continue to foster adaptation that will promote social diversity and economic prosperity while protecting and preserving important historic and cultural features. Communities must continue to provide the high quality services, facilities, and opportunities necessary to meet the social and economic needs of present and future generations.

This chapter presents approaches and policies designed to maintain strong communities as well as enhance the quality of life in the Berkshires. To achieve this, the *Regional Plan* proposes the following goals:

- Respect the rights and dignity of all members of the community, regardless of income, age, race, sex or ethnicity when undertaking economic revitalization and development activities.
- Promote mixed types of housing that blend with the character of the Berkshires and with attention to a supply that is affordable, available, and convenient.
- Provide adequate community facilities and services to meet community and regional needs.
- Protect and preserve historic and cultural features that are important components of the Berkshire's heritage.
- Preserve undeveloped areas so that residents of the Berkshires may maintain their ways of life.

## POPULATION

Population trends have major land use and community quality of life implications. Whether planning for open space and recreation opportunities, educational facilities, housing needs and location, or other community services, communities try to match the level and type of services needed to community population profiles and projections. Different age cohorts have different needs and preferences for everything from housing (apartments, single-family residences, congregate living quarters) to community services.

Population trends – which age groups are increasing or decreasing, what kinds of population changes are taking place and at what rate – can have a significant effect on community budgeting and planning, as well as community life and land use patterns.

### Population Trends

The 1990 U.S. Census records Berkshire County's population as 139,352 continuing a decline begun in the 1970's. According to the latest reported estimate (1998) the regional population now stands at 133,038. The Berkshire region ranks 11<sup>th</sup> of the 14 counties in the Commonwealth followed by Franklin County (also in western Massachusetts) and the smaller island counties of Dukes and Nantucket. From 1990 to 1998 only 3 counties in the state lost population. Berkshire County suffered the highest proportional loss with 4.5% of the region's population leaving.

How did this population change compare to overall population movement (gains and losses) throughout the U.S.? Overall, the state grew 2.2%, adding 130,707 new residents to its ranks for a total population of 6,147,132 (1998 estimate). Compared to other sections of the U.S., Massachusetts and the rest of the Northeast region showed some growth during this time period, but were far from keeping pace with other regions.

**Table III.1. Age Groups (by percent of total population)**

| Range (years) | Year |      |      |      |      |
|---------------|------|------|------|------|------|
|               | 1970 | 1980 | 1990 | 2000 | 2010 |
| 0-14          | 28%  | 20%  | 19%  | 19%  | 16%  |
| 15-64         | 60%  | 66%  | 64%  | 64%  | 67%  |
| 65+           | 12%  | 14%  | 17%  | 17%  | 17%  |

Source: Regional Economic Models, Inc., 1999

Changes in population that have taken place in the Berkshire region since 1970 have left their mark on the region. 1990 census data show the median age of Berkshire citizens as 35.9, the state 33.6, and the nation 32.9. As a result, the region has a population older than both the state and national average: 6.8% older than the state and 9% older than the nation. From 1970 to 1998 the population of Berkshire citizens 65 and over has been estimated as gaining in its share of overall population: from 12% of the total to 17%. During that time the population under 14 decreased from 28% to 19%. It is estimated that the youth cohort (under 14) will continue to shrink, and workforce age cohort (15 to 64) will continue its trend and gain in share by 2010. The 65+ cohort is expected to remain steady out to 2010, and then begin to climb again. As

resident “baby boomers” age, the average age of Berkshire citizens will likely follow an “aging” trend.

At the turn of the last century (1900) the largest city in the region was North Adams, edging out Pittsfield by 2,434 for a total population of 24,200. Over this century the ebb and flow of population between urban centers and rural areas nationwide have altered the landscapes of many regions and affected the lives of generations as city life with its urban industrialization, and rural lifestyles have alternately offered attractive possibilities to the ever-mobile American.

**Population Position in Relation to the State:** From 1900 to 1990 the Berkshire regional population became an ever-smaller portion of the overall Massachusetts population, dropping from 3.4% to 2.3% by 1990, as the state became more urban-centered. From 1970 to 1990 the state’s population grew about 5.7 % while the Berkshires decreased 6.7%. This loss of population contributed to the region’s continuing loss of share. According to 1998 estimates, the Berkshire region now comprises 2.2% of Massachusetts, continuing this trend.

By 1970 Pittsfield had emerged as the Regional Center with a population of 57,020, 38% of the total regional population. It is now estimated to be somewhat less than 35% of the regional total. Both cities, Pittsfield and North Adams, accounted for 51% of the region’s total population. It is estimated (1998) that the cities have continued to lose in share of population and now comprise 46% of the regional total. While Pittsfield and the region’s two Community Centers of North Adams and Great Barrington attempt to maintain their populations, other towns in the region have continued a growth trajectory which has created concerns arising from costs associated with that growth: the necessity to add or upgrade infrastructure and to provide additional services.

**Population Projections:** The Berkshire Regional Planning Commission has utilized a economic/demographic simulation model developed by Regional Economic Models, Inc. of Amherst, Mass. for purposes of population forecasting. The model uses past and projected demographic and economic data for both the region and the U.S. It considers the relationship between the region’s population and economy and compares that relationship with national demographic and economic trends.

The region has been steadily losing population since 1970 (149,402, its historic high), through 1990 (139,352.) This represents about a 6.7% percent loss (10,050.) The 1998 population was estimated at 133,038, an additional 4.5% decline from 1990 (6,314) and an almost 11% loss (16,364) since 1970. According to BRPC projections, the population has stabilized and will show a turnaround by 2010 and continue in an upward trend. This projected rebound is due to anticipated increases of in-migration and births after 2010. It should be noted that Pittsfield, Adams, and North Adams are projected to continue to decline slowly even after 2010.

**Declining Births:** Since 1970 the number of births has been declining as well, from 2,370 to 1990’s 1815 births. The birth rate has continued to decline, and the U.S. Census estimates 1500 births (1998). The drop in rate mirrors state and national trends.

The following table indicates the U.S. Census counts for each town from 1900 to 1990, estimates of population as of 1998 and population projections to the year 2020.

**Table III.2. Population**

| Community        | Year          |                |                |                |                |                |                   |                   |                   |                   | Population<br>Peak to Date<br>Census | Total          |
|------------------|---------------|----------------|----------------|----------------|----------------|----------------|-------------------|-------------------|-------------------|-------------------|--------------------------------------|----------------|
|                  | 1900          | 1950           | 1960           | 1970           | 1980           | 1990           | 1998 <sup>1</sup> | 2000 <sup>2</sup> | 2010 <sup>2</sup> | 2020 <sup>2</sup> | Year                                 |                |
| Adams            | 11,134        | 12,034         | 12,391         | 11,772         | 10,381         | 9,445          | 8,768             | 8,170             | 7,350             | 8,770             | 1910                                 | 13,026         |
| Alford           | 272           | 212            | 256            | 302            | 394            | 418            | 407               | 460               | 520               | 600               | 1790                                 | 577            |
| Becket           | 994           | 755            | 770            | 929            | 1,339          | 1,481          | 1,501             | 1,660             | 1,930             | 2,270             | 1860                                 | 1,578          |
| Cheshire         | 1,221         | 2,022          | 2,472          | 3,006          | 3,124          | 3,479          | 3,421             | 3,650             | 4,000             | 4,510             | 1990                                 | 3,479          |
| Clarksburg       | 943           | 1,630          | 1,741          | 1,987          | 1,871          | 1,745          | 1,674             | 1,870             | 1,690             | 1,770             | 1970                                 | 1,987          |
| Dalton           | 3,014         | 4,772          | 6,436          | 7,505          | 6,797          | 7,155          | 6,854             | 7,040             | 7,290             | 7,820             | 1970                                 | 7,505          |
| Egremont         | 758           | 731            | 895            | 1,138          | 1,311          | 1,229          | 1,226             | 1,300             | 1,420             | 1,610             | 1980                                 | 1,311          |
| Florida          | 390           | 479            | 569            | 672            | 730            | 742            | 729               | 770               | 840               | 940               | 1870                                 | 1,322          |
| Great Barrington | 5,854         | 6,712          | 6,624          | 7,537          | 7,405          | 7,725          | 7,592             | 7,750             | 8,160             | 8,910             | 1990                                 | 7,725          |
| Hancock          | 451           | 445            | 455            | 675            | 643            | 628            | 575               | 650               | 710               | 790               | 1790                                 | 1,211          |
| Hinsdale         | 1,485         | 1,560          | 1,414          | 1,588          | 1,707          | 1,959          | 1,855             | 2,050             | 2,250             | 2,540             | 1990                                 | 1,959          |
| Lanesborough     | 780           | 2,069          | 2,933          | 2,972          | 3,131          | 3,032          | 3,035             | 2,970             | 3,600             | 3,260             | 1980                                 | 3,131          |
| Lee              | 3,596         | 4,820          | 5,271          | 6,426          | 6,247          | 5,849          | 5,657             | 5,790             | 6,030             | 6,510             | 1970                                 | 6,426          |
| Lenox            | 2,942         | 3,627          | 4,253          | 5,804          | 6,523          | 5,069          | 5,180             | 5,090             | 5,360             | 5,860             | 1980                                 | 6,523          |
| Monterey         | 455           | 367            | 480            | 600            | 818            | 805            | 801               | 890               | 1,010             | 1,180             | 1980                                 | 818            |
| Mt. Washington   | 122           | 34             | 34             | 52             | 93             | 135            | 130               | 160               | 200               | 240               | 1810                                 | 474            |
| New Ashford      | 107           | 118            | 165            | 183            | 159            | 192            | 190               | 190               | 200               | 220               | 1810                                 | 411            |
| N. Marlborough   | 1,282         | 989            | 1,083          | 1,031          | 1,160          | 1,240          | 1,253             | 1,250             | 1,330             | 1,460             | 1880                                 | 1,876          |
| North Adams      | 24,200        | 21,567         | 19,905         | 19,195         | 18,063         | 16,797         | 15,496            | 15,230            | 14,500            | 14,290            | 1900                                 | 24,200         |
| Otis             | 476           | 359            | 473            | 820            | 963            | 1,073          | 1,060             | 1,220             | 1,420             | 1,680             | 1850                                 | 1,224          |
| Peru             | 253           | 143            | 197            | 256            | 633            | 779            | 757               | 950               | 1,160             | 1,420             | 1810                                 | 912            |
| Pittsfield       | 21,766        | 53,348         | 57,879         | 57,020         | 51,974         | 48,622         | 45,513            | 43,870            | 41,510            | 40,620            | 1960                                 | 57,879         |
| Richmond         | 679           | 737            | 890            | 1,461          | 1,659          | 1,677          | 1,628             | 1,860             | 2,120             | 2,480             | 1990                                 | 1,677          |
| Sandisfield      | 661           | 437            | 536            | 547            | 720            | 667            | 654               | 700               | 760               | 850               | 1800                                 | 1,857          |
| Savoy            | 506           | 291            | 277            | 322            | 644            | 634            | 693               | 740               | 880               | 1,060             | 1850                                 | 955            |
| Sheffield        | 1,804         | 2,150          | 2,138          | 2,374          | 2,743          | 2,910          | 2,956             | 3,060             | 3,350             | 3,790             | 1990                                 | 2,910          |
| Stockbridge      | 2,081         | 2,311          | 2,161          | 2,312          | 2,328          | 2,408          | 2,297             | 2,390             | 2,500             | 2,710             | 1990                                 | 2,408          |
| Tyringham        | 386           | 235            | 197            | 234            | 344            | 369            | 363               | 410               | 480               | 560               | 1850                                 | 821            |
| Washington       | 377           | 281            | 290            | 406            | 587            | 615            | 621               | 700               | 820               | 970               | 1840                                 | 991            |
| W. Stockbridge   | 1,158         | 1,165          | 1,244          | 1,354          | 1,280          | 1,483          | 1,445             | 1,490             | 1,570             | 1,720             | 1870                                 | 1,924          |
| Williamstown     | 5,013         | 6,194          | 7,322          | 8,454          | 8,741          | 8,220          | 7,948             | 8,210             | 8,610             | 9,370             | 1980                                 | 8,741          |
| Windsor          | 507           | 372            | 384            | 468            | 598            | 770            | 759               | 860               | 990               | 1,170             | 1810                                 | 1,108          |
| <b>TOTALS</b>    | <b>95,667</b> | <b>132,966</b> | <b>142,135</b> | <b>149,402</b> | <b>145,110</b> | <b>139,352</b> | <b>133,038</b>    | <b>133,200</b>    | <b>134,020</b>    | <b>139,950</b>    | <b>1970</b>                          | <b>149,402</b> |
| County           |               |                |                |                |                |                |                   |                   |                   |                   |                                      |                |
| North            | 42,293        | 42,313         | 42,370         | 42,585         | 40,589         | 41,254         | -                 | 73,430            | 71,250            | 75,300            | 1970                                 | 42,585         |
| Central          | 38,065        | 74,951         | 83,644         | 88,516         | 84,962         | 77,636         | -                 | 38,600            | 37,040            | 38,710            | 1970                                 | 88,516         |
| South            | 15,309        | 15,702         | 16,121         | 18,301         | 19,559         | 20,462         | -                 | 21,050            | 22,100            | 25,180            | 1990                                 | 20,462         |
| State            | 2,805,346     | 4,690,514      | 5,148,578      | 5,689,170      | 5,737,093      | 6,016,425      | -                 | -                 | -                 | -                 | 1990                                 | 6,016,425      |
| United States    | 75,994,575    | 151,325,798    | 179,323,175    | 203,302,031    | 226,542,199    | 248,718,291    | -                 | -                 | -                 | -                 | 1990                                 | 248,718,291    |

Note: Florida was part of several communities until 1805, Hinsdale was part of Peru until 1804, Monterey was part of Tyringham until 1847 and North Adams was part of Adams until 1878.

Source: Population estimates, U.S. Bureau of the Census; Population projections, Regional Economic Models Inc., BRPC

**Continued Population Decline in the Urban Core:** In 1970, the communities of Pittsfield, North Adams and Adams constituted almost 60% of the region's population. According to population projections for the year 2010, the city of Pittsfield will experience a loss of approximately 15,510 (-27%) people between 1970 and 2010. North Adams and Adams will show similar trends with North Adams losing about 4,695 (-24%) people and Adams approximately 4,372 (-37%) persons. It is expected that by the year 2010, these three communities will have lost a combined 24,577 people and will represent approximately 47% of the region's population, a substantial decrease from 1970.

**Change of Population Distribution in the Region:** Between 1970 and 1990, nine communities experienced a population decline. This represented a decrease of 15,308 people or 10% of the regional total. During this same time period, 23 communities had a population increase, an increase of 5,258 persons, which is 3.5 % of the region's total. Over 85 percent of the population decrease in the region was concentrated in the three largest communities of Pittsfield, North Adams and Adams.

Population projections out to 2020 and beyond suggest continuing decline for Pittsfield, North Adams, and Adams. Population increases will not be concentrated in any one community. Although the larger valley communities outside of Pittsfield, North Adams and Adams are expected to increase the most numerically, the rate of population growth will be greatest in the region's hill towns. These population increases outside of the region's main built-up areas should produce greater demands on those areas' undeveloped land and road systems.

Those communities which experienced a substantial population increase between 1970 to 1990 are a mixture of the smallest and mid-sized communities in the region and include Cheshire, Sheffield, Hinsdale, Richmond, Becket, Egremont, Otis, Monterey, Windsor, Savoy, Washington, Alford, Tyringham, Mt. Washington, and Peru. These communities are projected to continue on a growth trend, ranging from a 15% to almost 50% population increase between 1990 and 2010. Thus, even accounting for an overall population loss, the region has experienced, and is likely to experience, an increased dispersal of population.

**Increased Elderly Population:** Compounding the overall population loss, the percentage of elderly (65+) has been rising at a dramatic rate. In 1970, the region had an elderly population of about 18,000 people which constituted approximately 12% of the total population. In 1990, the number of those over 65 had increased to 23,500, about 17% of the total, significantly higher than the approximately 13% for Massachusetts and the U.S. as a whole. It is estimated that by the year 2020 some 28,700 people, or 21% of the population, are projected to be over 65. This overall aging of the Berkshire population is a continuation of past trends, fueled by a decrease in birth rates, an out migration of young adults, and the aging of the baby boom population.

## HOUSING

### Regional Housing Supply

A discussion and analysis about the quantity, quality, type, usage of the region's housing stock as well as the composition of households is basic to any comprehensive plan. The availability of sound, safe and affordable housing speaks to the "quality of life" and "character" of the region.

### Households

Berkshire County had 54,315 households (one or more persons living in the same dwelling) in 1990. This is an increase of 3.6% since 1980 and a 15.6% increase from the 46,969 households in 1970. Between 1970 and 1990, Berkshire County's population decreased by 6.7%. Between 1980 to 1990, the total population declined 4.0%. All communities in the region, even those that experienced population decline, showed an increase in the number of households between 1970 to 1990.

As the number of households increased, in spite of an overall declining population, the average number of persons per household declined. Between 1970 and 1990, Berkshire County's average household size steadily decreased from 3.09 in 1970 to 2.66 in 1980 to 2.45 persons per household in 1990. This divergent trend between population decline and household growth is consistent with an overall national trend toward smaller but more numerous households. Various factors contribute to the declining household size. These include an increase in the number of single-person households (young adults, unmarried middle-aged, widowed elderly and the increasing population of the very old) and a declining birth rate.

**Table III.3. Persons per Household**

| Area             | 1980 | 1990 |
|------------------|------|------|
| Pittsfield       | 2.65 | 2.41 |
| North Adams      | 2.50 | 2.37 |
| Great Barrington | 2.57 | 2.46 |
| Berkshire County | 2.66 | 2.45 |
| Massachusetts    | 2.82 | 2.58 |

Source: Massachusetts Municipal Profiles, 1995-96, US Census 1990-91.

The proportional share of families, as opposed to non-families (households composed of a group of unrelated persons or one person living alone) decreased in Berkshire County from 1980 - 1990. This is also consistent with national trends. There were 38,174 families in the county in 1980. This number comprised 72.8% of all households. By 1990 the number of families had dropped to 36,976, or 68.1% of all households. Correspondingly, the share of non-families grew from 27.2% of all households in 1980 to 31.9% in 1990. This mirrors the trend for the state as well. The share of non-families is highest for North Adams (38.8%) and lowest for Washington (20.5%).

**Table III.4. Non-Families as Percent of Total Households, 1990**

| Area              | % Non-family |
|-------------------|--------------|
| Pittsfield        | 34.5%        |
| North Adams       | 38.8%        |
| Great Barrington  | 33.4%        |
| Central Berkshire |              |
| Dalton            | 26.0%        |
| Hancock           | 26.8%        |
| Hinsdale          | 26.8%        |
| Lanesborough      | 24.6%        |
| Lenox             | 32.4%        |
| Peru              | 24.2%        |
| Richmond          | 20.9%        |
| Washington        | 20.5%        |
| Berkshire County  | 31.9%        |

Source: Massachusetts Municipal Profiles, 1995-1996

The greatest change in family households is the sharp increase in both the number and the proportionate share of female-headed households from 1980 to 1990. In 1980, there were 5,057 female-headed households in Berkshire County. By 1990 this number had increased 15.6% to 5,847 households. It is also noteworthy that whereas in 1980 female-headed households comprised 13.2% of all families, by 1990 this share had grown to 16.5%.



**Table III.5. Non-Families as Percent of Total Households**

|  | 1980<br>Number | % of HH | 1990<br>Number | % of HH | %<br>change<br>1980 - 90 |
|--|----------------|---------|----------------|---------|--------------------------|
| <u>Berkshire County</u>                                |                |         |                |         |                          |
| Total Households                                       | 52,400         | 100.0%  | 54,315         | 100.0%  | +3.6%                    |
| All Families   | 38,174         | 72.8%   | 36,976         | 68.1%   | -3.1%                    |
| Families w/ children under 18 <sup>1</sup>             | 18,304         | 34.9%   | 16,694         | 30.7%   | -8.8%                    |
| Married couples <sup>2</sup>                           | 31,761         | 60.6%   | 29,496         | 54.3%   | -7.1%                    |
| Female householder, no husband present <sup>3</sup>    | 5,057          | 9.6%    | 5,847          | 10.8%   | +15.6%                   |
| Female Householder, own children under 18 <sup>4</sup> | 2,797          | 5.3%    | 3,293          | 6.1%    | +17.7%                   |
| <u>Pittsfield</u>                                      |                |         |                |         |                          |
| Total Households                                       | 19,436         | 100.0%  | 19,916         | 100.0%  | +2.5%                    |
| All Families   | 14,051         | 72.3%   | 13,281         | 66.7%   | -5.5%                    |
| Families w/ children under 18 <sup>1</sup>             | 6,939          | 35.7%   | 5,939          | 29.8%   | -14.4%                   |
| Married couples <sup>2</sup>                           | 11,272         | 58.0%   | 10,162         | 51.0%   | -9.8%                    |
| Female householder, no husband present <sup>3</sup>    | 2,212          | 11.4%   | 2,530          | 12.7%   | +14.4%                   |
| Female Householder, own children under 18 <sup>4</sup> | 1,313          | 6.8%    | 1,464          | 7.3%    | +11.5%                   |
| <u>North Adams</u>                                     |                |         |                |         |                          |
| Total Households                                       | 6,638          | 100.0%  | 6,626          | 100.0%  | 0                        |
| All Families   | 4,547          | 68.5%   | 4,096          | 61.8%   | -9.9%                    |
| Families w/ children under 18 <sup>1</sup>             | 2,068          | 31.1%   | 1,889          | 28.5%   | -8.7%                    |
| Married couples <sup>2</sup>                           | 3,568          | 53.7%   | 2,983          | 45.0%   | -16.4%                   |
| Female householder, no husband present <sup>3</sup>    | 798            | 12.0%   | 828            | 12.5%   | +3.8%                    |
| Female Householder, own children under 18 <sup>4</sup> | 414            | 6.2%    | 498            | 7.5%    | +20.3%                   |
| <u>Great Barrington</u>                                |                |         |                |         |                          |
| Total Households                                       | 2,727          | 100.0%  | 2,820          | 100.0%  | +3.4%                    |
| All Families   | 1,833          | 67.2%   | 1,897          | 67.3%   | +3.5%                    |
| Families w/ children under 18 <sup>1</sup>             | 833            | 30.6%   | 873            | 31.0%   | +4.8%                    |
| Married couples <sup>2</sup>                           | 1,591          | 58.3%   | 1,497          | 53.1%   | -5.9%                    |
| Female householder, no husband present <sup>3</sup>    | 223            | 8.3%    | 337            | 12.0%   | +51.1%                   |
| Female Householder, own children under 18 <sup>4</sup> | 114            | 4.2%    | 162            | 5.7%    | +20.3%                   |

Source: 1980, 1990 Census of Population and Housing

<sup>1</sup>: All families (both single parents and married couples) with children under the age of 18 years.

<sup>2</sup>: Married couples, with and without children in the home.

<sup>3</sup>: Female householders, no husband present, with and without children in the home.

<sup>4</sup>: Female householders, no husband present, with children under the age of 18 in the home.

As female-headed families have sharply increased, married-couple families and families with children under 18 have declined. Married-couple families comprised 60.6% of all households and 83.2% of all families in 1980. By 1990, married-couple families had declined to 54.3% of all households and 79.8% of all families. Great Barrington experienced the highest percentage increase in female-headed families at 51.0%.

The number of single-parent households, especially female-headed households, is expected to increase. Divorce, out-of-wedlock births and teen pregnancy are main factors contributing to the increase. The socioeconomic implications of an increase in female-headed families are significant as single mothers generally have lower incomes in comparison to households where both parents are present.

A corresponding trend is the significant decrease in the number of children under 18 who live with two parents. Whereas 80.8% of all children in Berkshire County were living with two parents in 1980, only 74.7% were in 1990.

Large declines in household size that have contributed to the past increase in the number of households will probably not continue in the future. Through the use of an econometric model developed by a forecasting firm, Regional Economic Models, REMI, the county's average household size is expected to decline from the 1990 figure of 2.45 to 2.32 in the year 2020. This is a smaller decrease than was experienced in the 20 years prior to 1990. The number of households is expected to increase from 54,315 in 1990 to 57,698 in 2020. The slower decline in the average household size translates into a smaller increase of 6.2% in households during the forecast period than was experienced in the 20-year period prior to 1990. Greater detail about the methodology along with other projections can be found in the BRPC publication, Berkshire County Data Book.

### **Housing Units**

The following data, the 1990 Housing Data Occupancy and the 1990 Housing Data by Unit Type & Value, shows the relative position of each community to each other as well as the county in general.



**Table III.6. 1990 Housing Data - Unit Type & Value**

| Community        | Total Occupied Units | Single Family | Multi - Family | Trailer   | Other   | Median Value | Median Contract Rent |
|------------------|----------------------|---------------|----------------|-----------|---------|--------------|----------------------|
| Adams            | 4,081                | 1,928         | 2,078          | 56        | 19      | \$92,200     | \$259                |
| Alford           | 163                  | 159           | 3              | 1         | 0       | \$228,600    | \$342                |
| Becket           | 514                  | 474           | 18             | 19        | 3       | \$102,300    | \$425                |
| Cheshire         | 1,291                | 923           | 156            | 207       | 5       | \$114,900    | \$355                |
| Clarksburg       | 655                  | 541           | 89             | 21        | 4       | \$91,900     | \$284                |
| Dalton           | 2,627                | 1,837         | 723            | 43        | 24      | \$122,400    | \$373                |
| Egremont         | 515                  | 450           | 49             | 1         | 15      | \$159,000    | \$419                |
| Florida          | 266                  | 213           | 2              | 50        | 1       | \$82,400     | \$275                |
| Great Barrington | 2,820                | 1,749         | 1,013          | 12        | 46      | \$133,600    | \$439                |
| Hancock          | 246                  | 200           | 36             | 7         | 3       | \$125,700    | \$400                |
| Hinsdale         | 717                  | 484           | 133            | 96        | 4       | \$110,600    | \$379                |
| Lanesborough     | 1,150                | 988           | 116            | 42        | 4       | \$113,000    | \$453                |
| Lee              | 2,242                | 1,503         | 666            | 50        | 23      | \$117,300    | \$413                |
| Lenox            | 1,875                | 1,274         | 492            | 60        | 49      | \$158,600    | \$441                |
| Monterey         | 323                  | 278           | 42             | 1         | 2       | \$167,500    | \$442                |
| Mt. Washington   | 59                   | 54            | 3              | 1         | 1       | \$175,000    | \$338                |
| New Ashford      | 71                   | 54            | 9              | 3         | 5       | \$134,400    | \$465                |
| N. Marlborough   | 458                  | 412           | 34             | 9         | 3       | \$134,200    | \$467                |
| North Adams      | 6,626                | 2,527         | 3,779          | 271       | 49      | \$88,900     | \$294                |
| Otis             | 400                  | 348           | 15             | 28        | 9       | \$132,700    | \$438                |
| Peru             | 269                  | 201           | 6              | 62        | 0       | \$99,700     | \$344                |
| Pittsfield       | 19,916               | 10,862        | 8,675          | 198       | 181     | \$111,100    | \$388                |
| Richmond         | 618                  | 588           | 26             | 0         | 4       | \$168,100    | \$458                |
| Sandisfield      | 229                  | 216           | 6              | 3         | 4       | \$115,400    | \$417                |
| Savoy            | 236                  | 192           | 7              | 36        | 1       | \$92,600     | \$390                |
| Sheffield        | 1,158                | 894           | 149            | 44        | 71      | \$139,500    | \$452                |
| Stockbridge      | 908                  | 671           | 220            | 0         | 17      | \$184,000    | \$417                |
| Tyringham        | 143                  | 134           | 6              | 1         | 2       | \$215,300    | \$625                |
| Washington       | 195                  | 187           | 2              | 5         | 1       | \$125,000    | \$388                |
| W. Stockbridge   | 578                  | 481           | 51             | 41        | 5       | \$142,800    | \$453                |
| Williamstown     | 2,689                | 1,746         | 630            | 275       | 38      | \$147,200    | \$392                |
| Windsor          | 277                  | 269           | 7              | 0         | 1       | \$127,800    | \$413                |
| County           | 54,315               | 32,837        | 19,241         | 1,643     | 594     | \$114,900    | \$365                |
| North            | 15,915               | 8,124         | 6,750          | 919       | 122     | n/a          | n/a                  |
| Central          | 30,646               | 18,867        | 10,900         | 582       | 297     | n/a          | n/a                  |
| South            | 7,754                | 5,846         | 1,591          | 142       | 175     | n/a          | n/a                  |
| MSA              | 31,344               | 19,130        | 11,207         | 696       | 311     | n/a          | n/a                  |
| State            | 2,247,110            | 1,207,328     | 994,506        | 21,248    | 24,028  | \$162,800    | \$506                |
| United States    | 91,947,410           | 55,523,979    | 29,522,017     | 6,063,370 | 838,044 | \$79,100     | \$374                |

Source: US Bureau of Census, 1990

**Table III.7. 1990 Housing Data - Occupancy**

| Community        | Total Units | Owner Occupied | Renter Occupied | Seasonal  | Percent Seasonal | Other Vacant | Percent Vacant |
|------------------|-------------|----------------|-----------------|-----------|------------------|--------------|----------------|
| Adams            | 4,356       | 2,446          | 1,635           | 18        | 0                | 257          | 6              |
| Alford           | 277         | 146            | 17              | 86        | 31               | 28           | 10             |
| Becket           | 1,499       | 447            | 67              | 857       | 57               | 128          | 9              |
| Cheshire         | 1,358       | 1,102          | 189             | 28        | 2                | 39           | 3              |
| Clarksburg       | 680         | 562            | 93              | 5         | 1                | 20           | 3              |
| Dalton           | 2,733       | 1,944          | 683             | 13        | 1                | 93           | 3              |
| Egremont         | 801         | 395            | 120             | 244       | 31               | 42           | 5              |
| Florida          | 324         | 241            | 25              | 38        | 12               | 20           | 6              |
| Great Barrington | 3,168       | 1,713          | 1,107           | 170       | 5                | 178          | 6              |
| Hancock          | 382         | 184            | 62              | 117       | 31               | 19           | 5              |
| Hinsdale         | 977         | 573            | 144             | 216       | 22               | 44           | 5              |
| Lanesborough     | 1,292       | 985            | 165             | 81        | 6                | 61           | 5              |
| Lee              | 2,675       | 1,554          | 688             | 274       | 10               | 159          | 6              |
| Lenox            | 2,410       | 1,379          | 496             | 395       | 16               | 140          | 6              |
| Monterey         | 753         | 214            | 109             | 393       | 52               | 37           | 5              |
| Mt. Washington   | 139         | 51             | 8               | 74        | 53               | 6            | 4              |
| New Ashford      | 83          | 47             | 24              | 6         | 7                | 6            | 7              |
| N. Marlborough   | 819         | 351            | 107             | 284       | 35               | 77           | 9              |
| North Adams      | 7,230       | 3,354          | 3,272           | 19        | 0                | 585          | 8              |
| Otis             | 1,424       | 315            | 85              | 961       | 68               | 63           | 4              |
| Peru             | 359         | 243            | 26              | 74        | 21               | 16           | 5              |
| Pittsfield       | 21,272      | 11,862         | 8,054           | 200       | 1                | 1,156        | 5              |
| Richmond         | 785         | 537            | 81              | 133       | 17               | 34           | 4              |
| Sandisfield      | 603         | 191            | 38              | 355       | 59               | 19           | 3              |
| Savoy            | 314         | 213            | 23              | 56        | 18               | 22           | 7              |
| Sheffield        | 1,460       | 839            | 319             | 205       | 14               | 97           | 7              |
| Stockbridge      | 1,551       | 585            | 323             | 520       | 34               | 123          | 8              |
| Tyringham        | 258         | 125            | 18              | 108       | 42               | 7            | 3              |
| Washington       | 227         | 174            | 21              | 19        | 8                | 13           | 6              |
| W. Stockbridge   | 722         | 468            | 110             | 119       | 17               | 25           | 4              |
| Williamstown     | 2,979       | 1,920          | 769             | 138       | 5                | 152          | 5              |
| Windsor          | 414         | 253            | 24              | 118       | 29               | 19           | 5              |
| County           | 64,324      | 35,413         | 18,902          | 6,324     | 10               | 3,685        | 6              |
| North            | 17,324      | 9,885          | 6,030           | 308       | 2                | 1,101        | 6              |
| Central          | 35,025      | 20,135         | 10,511          | 2,497     | 7                | 1,882        | 5              |
| South            | 11,975      | 5,393          | 2,361           | 3,519     | 29               | 702          | 6              |
| MSA              | 35,053      | 20,521         | 10,823          | 1,860     | 5                | 1,849        | 5              |
| State            | 2,472,711   | 1,331,493      | 915,617         | 90,367    | 4                | 135,234      | 6              |
| United States    | 102,263,678 | 59,024,811     | 32,922,599      | 3,081,923 | 3                | 7,234,345    | 7              |

Source: U.S. Bureau of the Census, 1990

The region experienced an increase in the number of housing units from 1970 to 1990. In this time period, the number of housing units increased 25%, from 51,321 to 64,324. This increase was even larger than the number of housing units occupied by households. The difference between growth in the total number of units versus occupied housing units could be explained by the large number of seasonal or second homes, especially in the southern part of the County.

North Adams, at 46.6%, has the smallest portion of its housing space being owner-occupied, followed by Hancock and Pittsfield. Correspondingly, North Adams has the highest proportion of renter occupied at 45.3%, followed by Pittsfield at 37.9% and Hinsdale at 37.7%. Richmond has the highest medium home values with North Adams the lowest. The percentage of owner-occupied versus renter-occupied housing has remained rather stable in Berkshire County per *Massachusetts Municipal Profiles 1995-96*. As of 1990, monthly owner costs as a percentage of household income was 21.0% compared to 26.2% for renters.

Approximately 10% of the housing stock in the region is of a seasonal nature, compared to 4% statewide. The towns with the highest number of seasonal housing in the county are Becket (57%), Otis (68%), and Sandisfield (59%), representing approximately 40% of the total seasonal housing in the region. While much of the seasonal home growth has been contained to a minority of towns, vacation housing continues to play a significant role in the quality of life in neighboring communities and the region as a whole.

One of the greatest obstacles to a comprehensive regional housing assessment is a lack of current comprehensive housing data. For the most part, useful housing data is collected every ten years during the Census. There is a lack of current housing data in the Berkshire Region. This hinders a comprehensive housing assessment. Building permit data, while providing an incomplete picture, does provide some overall trend indication as to the growth in the region's housing stock. According to building permit data, in general, the number of new units built per year in the 1990's is less than the average in the preceding 20 years.

**Table III.8. Building Permits, 1991 and 1996**

|                  | New Residential Building Permits (Single family) |        | New Non-Residential Building Permits |       |
|------------------|--|--------|--------------------------------------|-------|
|                  | 1996   | 1991   | 1994                                 | 1989  |
| Berkshire County | 276  | 286    | 237                                  | 323   |
| Massachusetts    | 15,490   | 11,703 | 5,616                                | 6,687 |

Source: Massachusetts Alliance for Economic Development, US Bureau of Census, 1996

An increase in the number of housing units and households represents a growing demand on the county's land and transportation system. However, if the growing number of housing units were to be located in already developed areas, consistent with the theme of the *Regional Plan*, this demand would be somewhat less severe.

BRPC's community household forecasts show that, like population, households will continue to disperse from the three largest communities to the region's mid-sized and smaller communities. In fact, while Pittsfield, North Adams, and Adams are expected to show a 13% decline (4,100 households) in the number of households between 1990 and 2020, the remaining 29

communities are projected to grow by 30% (7,039 households.) Demand for more land for housing and more highway capacity should increase in the more rural areas of the region. The three main population centers, with their land use and highway infrastructure already in place, are expected to have fewer demands for housing.

Seasonal housing is becoming more prevalent in the region as more people choose the Berkshires as a seasonal recreation and vacation spot. The number of seasonal units is expected to increase to the year 2020 especially in the southern part of the county. The presence of significant numbers of seasonal homes affects the physical and social character of towns in the County. The demand for seasonal homes generally increases housing prices in the community and in adjacent communities. This can affect housing affordability.

Second homes are a mixed blessing, however. Second homes can provide significant property tax revenues to towns. This increase in tax revenues can be achieved with relatively low demands on town services, especially because seasonal homeownership typically does not result in increased educational costs. Planning issues, such as increased costs of land in communities with a large number of second homes cannot be ignored.

The following approaches and policies will contribute to the promotion of housing that blend with the character of the region, with attention to the supply that are affordable, safe, and convenient.

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#### **APPROACHES and POLICIES:**

- Create the zoning framework that will allow and encourage proposals for clustered housing, accessory residences, mixed-use developments and neo-traditional housing development.
- Encourage new residential development within existing settled areas, and support opportunities for infill housing and housing in mixed-use developments, especially in village and urban areas.
- Encourage new residential development to be compatible with existing community character.
- Support new residential development that has a minimal impact on natural resources, open space, scenic vistas, and important agricultural lands.
- Encourage innovative housing design that minimizes long-term costs and energy consumption.
- In the review of seasonal housing proposals, use the same considerations as those used in the review of year-round housing proposals.
- Develop a comprehensive region-wide housing needs analysis and housing plan.

## **Affordable Housing**

The year round population of the Berkshire region has declined in recent years. However, the number of residential units continues to grow in response to factors such as a demand for seasonal and second homes and the region's burgeoning popularity as a retirement center. Yet, there exists a shortage of affordable housing in the region. Housing, land costs, and rental rates have increased steadily over the years, making it difficult for young families to find "starter" homes, and less privileged families to call the Berkshires home. Programs to counter and compensate for market pressures must be provided to encourage and retain a diverse population in the region's communities. It is important to meet affordable housing needs as well as provide a balance of rental and home ownership options so local residents and families can remain in the region.

The economic and social health of communities, and the region as a whole, is dependent on the ability to provide a diverse housing stock with a wide range of costs. Yet, as the cost of housing increases, due in part to nonresident demand for second homes, the cost of land will increase proportionally and it will become harder for the private market to meet the housing and rental demands of the residents. It is important that special planning efforts be employed to stimulate the development and maintenance of affordable housing within the region

Since 1982, the Massachusetts Executive Order 215 has mandated that each town and city within the state offer 10% of their housing stock as affordable housing. Within Berkshire County, the larger communities such as Pittsfield and North Adams have met this mandate while most other communities have not.

Even though Pittsfield has met the Massachusetts mandate, the city faces difficult housing challenges. As reported in Pittsfield Consolidated Plan for the five-year period beginning FY 96, Pittsfield's median family income was \$38,005. There were 2,906 (14.9% of all households) extremely low-income households (with income under \$11,402 a year) and 2,306 (11.5%) low-income households (under \$19,003 a year). An analysis of Pittsfield's Fair Market Rents (FMR's) as determined by HUD for rental assistance purposes within this market, indicates that if a family's income is equal to or less than 50 percent of the city's median family income of \$38,005, rents at FMR are not affordable. Households are considered "cost-burdened" if they pay more than 30 percent of their income for housing. There are many cost-burdened households in Pittsfield. Table III.9, Housing Affordability and Income Levels, 1990, shows the percentage of owners and renters that pay greater than 30% of their income on home costs or rent. Although this information is somewhat outdated, the consistently high percentages reported at the time demonstrate that housing affordability is a regional issue. The city's 1994 Comprehensive Housing Affordability Study reports that an average of 64% of the extremely low-income renter households pay more than 30% of their income for housing, as do 73% of low-income renter households.

In 1990, census figures indicated that 13.6% of households in North Adams, and 10.9 % of households in Adams, were below the poverty level. Residents in these communities also face housing affordability issues.

**Table III.9. Housing Affordability & Income Levels, 1990**

| Community        | % Owners <sup>1</sup> | % Renters <sup>2</sup> | % Low/Mod Income <sup>3</sup> |
|------------------|-----------------------|------------------------|-------------------------------|
| Adams            | 15.3                  | 38.8                   | 50.1                          |
| Alford           | 28.4                  | 25.0                   | 29.8                          |
| Becket           | 30.5                  | 45.8                   | 35.3                          |
| Cheshire         | 22.4                  | 23.2                   | 27.4                          |
| Clarksburg       | 16.0                  | 43.4                   | 37.3                          |
| Dalton           | 20.4                  | 26.3                   | 29.1                          |
| Egremont         | 23.1                  | 39.3                   | 38.3                          |
| Florida          | 17.7                  | 44.4                   | 38.1                          |
| Great Barrington | 25.4                  | 46.5                   | 41.4                          |
| Hancock          | 14.5                  | 57.7                   | 34.7                          |
| Hinsdale         | 26.2                  | 29.1                   | 29.1                          |
| Lanesborough     | 21.2                  | 39.9                   | 24.1                          |
| Lee              | 21.1                  | 29.7                   | 32.2                          |
| Lenox            | 25.4                  | 46.5                   | 31.0                          |
| Monterey         | 23.5                  | 50.8                   | 43.9                          |
| Mount Washington | 21.9                  | 0.0                    | 17.0                          |
| New Ashford      | 10.7                  | 35.7                   | 23.6                          |
| New Marlborough  | 30.8                  | 29.9                   | 39.8                          |
| North Adams      | 16.8                  | 40.6                   | 54.1                          |
| Otis             | 17.9                  | 52.5                   | 38.3                          |
| Peru             | 29.7                  | 55.0                   | 32.7                          |
| Pittsfield       | 17.3                  | 41.1                   | 37.9                          |
| Richmond         | 21.4                  | 39.6                   | 14.3                          |
| Sandisfield      | 25.5                  | 35.7                   | 34.5                          |
| Savoy            | 18.9                  | 44.4                   | 34.8                          |
| Sheffield        | 32.8                  | 44.4                   | 38.7                          |
| Stockbridge      | 23.6                  | 33.7                   | 31.5                          |
| Tyringham        | 21.7                  | 0.0                    | 30.1                          |
| Washington       | 19.5                  | 45.5                   | 24.4                          |
| West Stockbridge | 32.3                  | 39.8                   | 40.3                          |
| Williamstown     | 20.2                  | 40.1                   | 38.9                          |
| Windsor          | 21.2                  | 0.0                    | 22.5                          |
| County           | 20.0                  | 40.0                   | n/a                           |
| North            | 17.7                  | 39.6                   | n/a                           |
| Central          | 19.3                  | 39.6                   | n/a                           |
| South            | 26.6                  | 42.8                   | n/a                           |
| MSA              | 19.3                  | 39.1                   | n/a                           |
| State            | 23.6                  | 40.5                   | n/a                           |
| United States    | 19.5                  | 41.2                   | n/a                           |

<sup>1</sup> Percent of Owners paying greater than 30% of income on home costs or rent

<sup>2</sup> Percent of Renters paying greater than 30% of income on home costs or rent

<sup>3</sup> Percent of Households with Low/Moderate Income

Sources: U.S. Bureau of the Census; Mass. Dept. of Housing & Community Dev.

In Pittsfield, social workers have indicated that the two current and future highest priority housing-related needs are rent subsidies for extremely low and low-income renters, and housing rehabilitation for both rental units and owner-occupied housing. Other needs identified by citizen input include lead paint removal and more affordable rental housing for the working poor.

The City of Pittsfield estimates that 25 percent (5,318) of Pittsfield's 21,272 year-round housing units are substandard, defined as violating one or more of the HUD Section 8 Housing Quality Standards. Of these, 98 percent (5,212) are suitable for rehabilitation.

In addition to addressing needs of families with low income, inadequate housing and excessive housing costs can have other far-reaching effects. Unavailability of affordable housing can lead to scattered growth and development patterns as people, particularly young families, are forced to search for housing in more remote areas where property values are frequently lower. This can necessitate a long commute to work and inefficient use of the transportation system. Employers are also affected, as they are less able to attract employees. Several of the region's important cultural attractions have reported difficulties in securing needed employees due to housing shortages. A community's sense of social cohesiveness is lost when native residents and young working families are forced out of town due to a lack of affordable housing opportunities.

The following approaches and policies will contribute to the promotion of housing that blends with the character of the region, with attention to the supply that is affordable, safe, and convenient.

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**APPROACHES and POLICIES:**

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- Support the provision of affordable housing throughout the region, particularly in regional and town centers served by public transit.
  - Develop a comprehensive region-wide housing needs analysis and housing plan.
  - Support the provision of affordable housing throughout the region, as opposed to strictly within a few towns or cities.
  - Encourage individual towns to work with the Housing Authorities in their area and other non-profit housing organizations to provide choices for low-income families regarding housing.
  - Support the preservation of affordable housing and the strategies that would guarantee long-term affordability.
  - Support the maintenance of existing housing stock for continued residential use rather than conversion to other uses.
  - Encourage municipalities to develop housing plans that include an identification of any affordable housing issues in their community, an assessment of resources available to address the problem, widespread public involvement, and a plan of action.
  - Encourage the support of organizations and programs that seek to rehabilitate existing substandard housing units.
  - Encourage affordable housing that minimizes long-term living costs through good design, construction, and energy efficiency.
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## **COMMUNITY RESOURCES**

### **Public Water Supply**

In the Berkshires, most densely settled areas are served by a public water supply system. Half, or sixteen, of the communities in the region supply municipal water to all or a portion of their community. There are currently five private water companies supplying small neighborhoods or portions of towns. Public water allows a safe and reliable water supply source and encourages growth in those parts of town served by the system.

A public water supply in the State of Massachusetts is defined as a water supply system with 15 or more service connections or regularly serving an average of at least 25 people daily at least 60 days each year. These public water supplies may be owned and operated by the municipality or privately owned. Municipal systems are managed by the municipality or by a fire or water district that serves the community.

Public water systems are defined as Community Water Systems (CWS) or Non-Community Water Systems (NCWS). A Community Water System is a public water system that serves at least 15 service connections used by year-round residents or serves 25 year-round residents. Non-community water systems are either a Transient Non-Community System (TNC) or Non-Transient Non-Community (NTNC). Transient Non-Community Systems are those systems that typically serve travelers and other transients and serve at least 25 people for at least 60 days per year, typically not the same 25 people per day. Non-Transient Non-Community Systems (NTNC) serve at least 25 people each day at least 6 months a year but not year round (e.g. a workplace). Water system definitions are important because different levels of water treatment, water supply protection and water quality monitoring are required for the different systems. In 1986, amendments to the Federal Safe Drinking Water Act mandated extensive monitoring and treatment of surface-water supplies. The stringency of the requirements has moved many small communities to abandon their reservoirs and instead rely on public wells. These improvements, while costly, will help ensure continued supplies of clean water.

The City of Pittsfield is the largest water supplier in the region. Drawing from four reservoirs in the surrounding communities, Pittsfield experiences a demand of approximately 9.5 million gallons per day. Water is pumped from the reservoirs, undergoes treatment, and is delivered through an extensive network of pipes to most of the homes and businesses in Pittsfield.

Water supply service and water main extension policies can affect the location, type, and density of new development. Communities with water service, and the capacity to expand service, with clearly defined extension policies can attract certain types of development. In Pittsfield, for instance, the developer assumes water main extension costs and the lines become part of the municipal water distribution system. Residents who later choose to connect to the system only need to pay a hookup fee.

**Table III.10. Municipal Water Supplies in the Berkshires**

| Town                | Source   | % of Population Served | Base Water Use 1991-1995 MGD | Projected Water Use Year 2005 MGD | Projected Water Use Year 2010 MGD |
|---------------------|----------|------------------------|------------------------------|-----------------------------------|-----------------------------------|
| Adams FD            | GW and S | 90                     | 1.7                          | 1.7                               | 1.7                               |
| Cheshire            |          |                        |                              |                                   |                                   |
| Cheshire WD         | GW and S | 30                     | 0.17                         | 0.17                              | 0.17                              |
| Hutchinson W Co     | GW       | 3.5                    | 0.025                        | 0.025                             | 0.025                             |
| Pine Valley M.H.    | GW       | 1.5                    | 0.01                         | 0.01                              | 0.01                              |
| Clarksburg          |          |                        |                              |                                   |                                   |
| Briggsville WA      | GW       | 7                      | 0.0065                       | 0.0065                            | 0.0065                            |
| Dalton FD           | GW and S | 94                     | 1.82                         | 1.91                              | 1.96                              |
| S. Egremont W Co.   | S        | 24                     | 0.12                         | 0.12                              | 0.12                              |
| Great Barrington    |          |                        |                              |                                   |                                   |
| G. Barrington FD    | GW       | 52                     | 1.01                         | 1.02                              | 1.02                              |
| Housatonic WW       | S        | 35                     | 0.39                         | 0.39                              | 0.4                               |
| Hinsdale DPW        | S        | 61                     | 0.25                         | 0.26                              | 0.27                              |
| Lanesborough F&WD   | GW       | 74                     | 0.27                         | 0.27                              | 0.27                              |
| Lee WD              | S        | 90                     | 0.99                         | 1.15                              | 1.19                              |
| Lenox WD            | S        | 88                     | 0.72                         | 0.73                              | 0.75                              |
| North Adams FD      | S        | 95                     |                              |                                   |                                   |
| Pittsfield DPW      | S        | 100                    | 9.87                         | 9.41                              | 9.29                              |
| Sheffield W Co.     | GW and S | 61                     | 0.13                         | 0.14                              | 0.15                              |
| Stockbridge WD      | S        | 75                     | 0.35                         | 0.36                              | 0.37                              |
| West Stockbridge WD | GW       | 78                     | 0.04                         | 0.04                              | 0.04                              |
| Williamstown WD     | GW       | 83                     | .9                           | .95                               | 1.0                               |

MGD: million gallons per day; GW: groundwater; SW: surface water; FD: fire district; WD: water department; W Co; water company; WW: water works; DPW: department of public works; Source: BRPC and Local Water Departments, 1999

The Massachusetts Geographic Information Systems (GIS) data for public water suppliers shows a total of 175 separate supplies with a total of 310 sources throughout the region. Of these sources, 128 are Community Water Supplies with 81 originating as ground water and 40 as surface water. The remaining 182 water supplies are Non-Community Water Supplies with 106 being Transient Non-Community and 76 existing as Non-Transient Non-Community supplies. Within each town there are also non-municipal suppliers who maintain Non-Community Water Systems. These Non-Community Systems generally serve restaurants, campgrounds, motels, condominiums, and schools. Because they serve fewer people, they are

permitted to withdraw less than municipal suppliers. A listing of numbers of water suppliers in the region is found in the Appendices.

Fees for both municipal and private supplies are based on amount of water used (if water usage is metered) or are assessed at a flat rate. Rates vary from town to town.

The 1986 Massachusetts Water Management Act (MGL Ch. 21G) and its regulations (310 CMR 36.00) requires comprehensive management of the State's surface and ground water resources in order to ensure an adequate supply of water for all citizens now and in the future. The Act authorizes the Massachusetts Department of Environmental Protection to regulate, permit and monitor significant water withdrawals (over 100,000 gallons per day) from Massachusetts ground and surface water supplies and gives DEP greater authority than it previously had to manage water supply emergencies.

Protection of reservoirs and the land surrounding them is of great importance. Direct State of Massachusetts protection of drinking water supplies is limited to regulations of general application such as permits for large discharges to groundwater, registration of major new groundwater withdrawals under the Water Management Act, and a number of regulations protecting public drinking water wells including landfill ban, wellhead protection, and septic system regulations. Title 5, the only state regulation with protection provisions for reservoirs, mandates that new on-site sewage disposal systems be sited at least 400 feet from reservoirs.

Six communities in the region have established groundwater protection zoning districts. These districts usually encompass the "Zone II", the principal area where rain and surface water recharge the aquifer. The actual Zone II recharge area can only be determined through an engineering study which is fairly costly to conduct. An "interim wellhead protection district" is often assumed for regulatory purposes, constituting a circular area around the wellhead with a half-mile radius of wells pumping 100,000 gallons per day. Title 5, the state sanitary code, bans septic systems in the Zone II and requires one acre of land per four-bedroom house in a Zone II area.

Groundwater protection zoning bylaws usually ban outright certain activities that are likely to pollute aquifers such as underground storage tanks, salt storage, and the use of solvents. The Massachusetts Appeals Court recently upheld a refusal to permit a gas station in a secondary recharge area of a public well on the grounds that protection of groundwater is a valid public interest.



Protection of drinking water supplies is a local task, but requires a more regional approach where the source, aquifer or watershed occurs in a

community different than the service area or in more than one community. Decisions regarding upgrades to existing systems or extensions of water mains affect the pattern of future development. Poor planning of development, as well as existing land use practices, also have the ability to negatively impact water supplies. Development within wellhead areas, heavy use

of fertilizers, failing septic systems, and applications of road salts are just a sampling of the threats to a clean water supply on which we all depend.

The following approaches and policies contribute to the protection of safe municipal water supplies.

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**APPROACHES and POLICIES:**

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- Extend municipal water mains to those areas where future development is being encouraged, as identified in municipal master plans or to areas where extension is required for public health purposes.
  - Discourage activities and land uses which may degrade the watersheds of public water supply sources.
  - Minimize erosion and runoff to protect public water supplies.
  - Limit land uses within wellhead protection areas to those uses that pose no threat of contamination to public water supplies.
  - Support efforts to secure open space in watersheds around public drinking water reservoirs, and in aquifer recharge areas for public wells.
-

## Private On-Site Water Supply

In communities with no public water supply, water for individual users is obtained from wells or springs. Individual wells are located throughout the region, in densely populated areas as well as in rural locations, and are susceptible to the same pollutants as public and municipal water supplies. Drilled and dug wells are susceptible to contamination from various sources, especially on-site septic systems. Regulations for private wells require a 50-foot setback from the septic tank and a 100-foot setback from the leaching field.

Over the years, the application of road salts has contaminated a number of wells throughout the region, most recently along Route 8 in Otis which is now designated a low-salt area. If the Massachusetts Highway Department determines they were responsible for the contamination, they will prepare a remediation plan.

Private wells are critical to many home and business owners throughout the region. Contamination can result in health risks and costly remediation. As with public groundwater supplies, pollution prevention is the best strategy. Education is the single most important factor in keeping these private wells safe and clean.

The following approaches and policies will contribute to the protection of private drinking water supplies in the region.

### **APPROACHES and POLICIES:**

- Ensure wells are drilled using the best available technologies and drilling techniques, and that proper isolation distances are maintained.
- Encourage homeowners to understand the importance of limiting pesticide and fertilizer use to prevent possible well contamination.
- Work with local highway departments to implement alternative technologies to limit salt applications to roads in winter.
- Discourage new development that could have the potential to impact existing wells.

## **Wastewater Treatment**

Municipal sewer service in the region is important to the health and safety of the population and the environment. Sewers protect ground and surface waters from harmful pathogens and ensure that wastewater is cleansed before being discharged back to the environment. Sewers also allow for dense development and high concentrations of inhabitants in village centers and in cities that would not be possible without the use of a centralized sewer system. Economic growth and development, to some degree, is also dependent on the existence and proximity of sewer infrastructure as some businesses and industries generate large volumes of wastewater. Due to the high cost of installing sewers, existing sewer lines often determine the location, size, and/or type of potential business and industry.

There have been numerous improvements to the infrastructure and treatment facilities over time as technologies have advanced. Replacement of aging lines is common, as are upgrades to treatment facilities. Increasingly, municipalities are becoming aware of the importance of maintaining good infrastructure to safeguard water quality. Many have initiated Inflow and Infiltration (I&I) studies to detect leaking and damaged lines and have installed leak detection systems. Combined sewer overflow (CSO), once a problem in many communities, has been, or is being corrected.

There are eight publicly owned wastewater treatment plants in the Berkshire region and one privately owned facility, the Hoosac Water Quality District plant in Williamstown. Combined, these plants serve approximately 70% of the housing units within the region. Of the nine wastewater treatment plants in the region, seven utilize extended aeration systems, while the West Stockbridge facility utilizes rotating biological contactors to cleanse wastewater. The Otis plant, the smallest facility in the Berkshires, utilizes a trickling filter system. Upgrades to facilities continue throughout the region. Homes and businesses not served by municipal sewer service rely on on-site sewage disposal systems.

Much of the land in the Berkshires is unsuitable for on-site septic systems due to the nature and composition of the soils. As a result, the region is experiencing a number of failed septic systems that have the potential to contaminate the environment. To upgrade these systems is costly. Some communities, such as Hinsdale, have chosen to extend sewer service to critical areas where failing systems are a problem. This is a special concern to lake communities where a high density of homes around lakes is common. Stockbridge is also currently considering extending sewer service to selected parts of town.

Of the 9 communities that had sewer service in 1959, only 4 had treatment facilities. The other five communities had systems that collected the wastewater and dumped it untreated into a nearby river. Today, wastewater treatment is highly regulated by state and federal agencies.

In Massachusetts, wastewater treatment facilities are licensed and regulated through the DEP and by the United States Environmental Protection Agency through the National Pollution Discharge Elimination System (NPDES) permitting process. To ensure adequate removal of solids and destruction of harmful pathogens, wastewater must be treated before it is discharged to ground or surface waters. There are three categories of wastewater to be treated: municipal sewage, domestic septage, and industrial wastewater.

Most municipal systems in the Berkshires are operating under capacity, with average monthly flows ranging from 2% to 92% of design capacity. The Hoosac Water Quality District (HWQD)

in Williamstown is at 100% of design capacity. During large storms, because the sanitary and stormwater systems are combined, sewage and stormwater are often discharged into the Hoosic River untreated. Each wastewater treatment facility is required as a condition of its discharge permit to begin plans for expansion when influent loading rates reach 80% of the facility's design capacity for 90 days.

**Table III.11. Wastewater Treatment in the Berkshire Region**

| Facility Name and Location                                | Facility Type | Facility Design Capacity (MGD) | Average Daily Flow, 1999 (MGD) | Percent of Housing Units served | Effluent Disposal Location | Sludge Disposal Technique |
|---|---------------|--------------------------------|--------------------------------|---------------------------------|----------------------------|---------------------------|
| Adams   | EA            | 5.1                            | 2.0                            | 98%                             | Hoosic R.                  | Incineration              |
| Gt. Barrington  | EA            | 3.65                           | 2.3                            | 71%                             | Housatonic R.              | Incineration              |
| Lee   | EA            | 1.00                           | .92                            | 85%                             | Housatonic R.              | Landfill                  |
| Lenox   | EA            | 1.8                            | .60                            | 74%                             | Housatonic R.              | Landfill                  |
| Otis  | TF            | .03                            | .015                           | 5%                              | Ground discharge           | Compost                   |
| Pittsfield  | EA            | 17.0                           | 13.5                           | 96%                             | Housatonic R.              | Landfill                  |
| Stockbridge   | EA            | .32                            | .21                            | 44%                             | Housatonic R.              | Landfill                  |
| W. Stockbridge  | RBC           | .07                            | .015                           | 15%                             | Williams R.                | Landfill                  |
| Hoosic Water Quality District (Williamstown and N. Adams) | EA            | 5.37                           | 5.37                           | 91%                             | Hoosic R.                  | Incineration              |

Source: BRPC and Local Sewer Departments, 1999

MGD: Million Gallons per Day; EA: Extended Aeration; TF: Trickling Filter; RBC: Rotating Biological Contactors

Many communities with public sewers rely on aging sewer lines. Due to the high cost of maintaining and upgrading infrastructure, lines are generally upgraded only on an as needed basis, often after a break or leak. Several communities have initiated Inflow and Infiltration (I & I) testing to isolate problem areas and initiate the process of repairing damaged pipes throughout the region. Many towns have initiated their own I & I studies to identify CSO's and illegal hookups of sump pumps and roof drains.

In several communities, sewer lines are connected to storm drains resulting in unnecessary burdening of the treatment facility. During heavy storms a portion of the sewer/storm water mixture is discharged directly into the nearest river to prevent overloading of the facility. This combined sewer overflow (CSO) presents problems throughout the region but especially in Williamstown and North Adams, resulting in overtaxing of the treatment facility.

The byproducts of wastewater treatment are sludge (the dewatered solids) and the treated water. Both must be disposed of according to standards set by the State. Sludge may be land

applied, landfilled, or incinerated. Most facilities in the region send their dewatered sludge to the 5-acre sludge landfill in Pittsfield. No sludge is incinerated in the region, but the Hoosic Water Quality District ships sludge out of state to be incinerated. Stockbridge maintains its own sludge landfill, expected to close in the next several years. The Town of Otis plans to compost their sludge. Treated wastewater can be disposed of through spray irrigation on a specially designated area or it may be discharged directly into the waterways. All of the wastewater treatment facilities discharge directly into the Housatonic River, the Hoosic River, or the West Branch of the Farmington River.

The availability of wastewater treatment infrastructure plays a major role in the development of most communities. Many municipalities encourage growth in parts of town where public sewer service exists. However, communities run the risk of exceeding the capacity of their sewage treatment systems if development is not controlled through planning. At times, investment in or expansion of wastewater infrastructure may be incompatible with existing community growth plans. The placement of sewers may be necessary to remediate existing water quality problems, but their installation may lead to inappropriate development and, as an unforeseen result, a worsening of water quality problems

Clearly, the availability of sewer infrastructure is a major determinant in the comprehensive planning process. Sewer service and wastewater treatment, although often expensive items for towns, provide protection from disease and protection of the environment. Access to a municipal sewer system often encourages growth. Decisions to extend a sewer main to an area not well suited for additional development can create problems.

The following approaches and policies will contribute to the protection of the natural environment and address issues related to municipal sewer service.

#### **APPROACHES and POLICIES:**

- Plan development to efficiently manage wastewater in order to protect surface and ground water quality.
  - Support proposals to upgrade and improve existing wastewater treatment facilities, as well as the collection infrastructure.
  - Promote environmentally sound wastewater treatment systems.
  - Extend sewer service only to areas where development is being encouraged.
  - Encourage community treatment facilities in villages and clustered/dense housing developments.
  - Educate homeowners on the importance of conserving water and reducing use of hazardous materials in order to lengthen the life and improve the efficiency of wastewater treatment facilities.
-

## Privately Owned On-Site Wastewater Treatment

Although much of the region is poorly suited for on-site sewage disposal because of soil or slope constraints, many residences are served by private on-site septic systems. Serving mainly rural and outlying areas of the region, on-site disposal systems serve approximately 30% of the total housing units. Proper design, construction, and maintenance is important to keep these systems functioning properly. Initial siting of systems is equally important, especially in areas of poor soil and where sensitive resource areas exist, as septic systems can potentially contribute to ground and surface water pollution.

Title 5 of the Massachusetts Environmental Code regulates on-site sewage disposal. Revised in 1995, the regulations set minimum requirements for siting, construction, inspection, upgrade, and expansion of on-site systems. Local health boards may adopt more strict requirements than required by Title 5 where safe conditions require it. Local boards may also waive requirements. Setbacks for the construction of new systems are 50 feet from wetland resource areas, 100 feet from wells, and 400 feet from reservoirs. The regulations also mandate that all new and upgraded systems be sited upon four feet of naturally occurring pervious material. This is important, as it does not permit systems to be built on fill installed over ledge, as is common in other states. Title 5 mandates that systems be inspected prior to a change in use or transfer of a property.

Changes to Title 5 also approved the use of innovative and alternative (I/A) technologies for regular, provisional and remedial use as well as for piloting purposes. Traditional systems allow pollutants such as nitrogen and phosphorus to pass through the leaching facility, potentially degrading ground and surface water supplies. Alternative systems, unlike traditional systems, can achieve minimal standards for secondary treatment, ensuring a cleaner effluent into the soil by making use of bacterial processes that reduce nitrogen in wastewater. An example of a popular innovative and alternative system is the composting toilet.

While each alternative technology approved under the Title 5 regulations has its own unique method for sewage treatment, all seek to reduce the amount of pollutants and pathogens discharged into the environment. Use of an alternative system in a nitrogen sensitive area, such as a wellhead protection area, or in a location where drinking water supply and on-site disposal are serving both the facility and residence, might improve overall environmental benefits

The following approaches and policies will contribute to the protection of the natural environment by reducing potential impacts from on-site septic systems.

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### **APPROACHES and POLICIES:**

- Encourage homeowners and businesses with on-site subsurface disposal systems to properly maintain their systems.
  - Support programs such as Community Septic Management that enable municipalities to offer low interest loans for septic upgrades and track septic information in the community.
  - Support loan and grant programs that assist homeowners with the replacement of failed systems.
  - Encourage the use and development of alternative systems to achieve additional protection of ground and surface water.
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## Education

As home to the first free public school system in the nation, Massachusetts has a long, established commitment to the provision of education. Dating from 1647, the Bay Colony required that upon the settlement of 50 or more families in an area in the area, a schoolmaster had to be appointed.

Each community in Berkshire County provides the opportunity for public elementary and secondary education, though not all have school buildings in their community. There are single town school districts, school unions of several towns, and regional school districts overseeing the education of the region's children. Municipalities or districts that have become part of the School Choice program also can accept (on a space available basis) students from outside the district who choose to attend. Elected or appointed school boards govern all public school districts and unions.

Four communities maintain Kindergarten through 12<sup>th</sup> grade educational programs housed in their communities: Lee, Lenox, Pittsfield, and North Adams. In addition to a typical high school program, Pittsfield offers opportunities for vocational or technical programs at Taconic High School for students in grades 10-12, and an "alternative" educational setting for selected students in grades 7-12. Lee and Lenox join with Berkshire Hills and Southern Berkshire Regional School Districts to offer vocation/technical opportunities for high school age students through the Southern Berkshire Educational Collaborative.

Most communities in the region provide some portion of a Kindergarten through 12<sup>th</sup> grade education and send their students to neighboring communities to complete their education. The communities of Alford, Mount Washington, New Ashford, and Tyringham send their students to neighboring communities for their entire Kindergarten through 12<sup>th</sup> grade education, through participation in a school union or regional district agreement. The following unions and regional districts form the core of educational providers in the Berkshire region:

**Table III.12. Regional and Local School Districts**

| School Unions or Regional Districts | Grade Level          |
|-------------------------------------|----------------------|
| Northern Berkshire School Union 43  | Elementary           |
| Farmington River Regional           | Elementary           |
| Lee/Tyringham                       | K-12                 |
| Mount Greylock School Union 69      | Elementary           |
| Adams-Cheshire Regional             | Middle & High School |
| Central Berkshire Regional          | K-12                 |
| Berkshire Hills Regional            | K-12                 |
| Mount Greylock Regional             | 9-12                 |
| Southern Berkshire Regional         | K-12                 |
| Northern Berkshire Regional         | 9-12                 |

Source: Massachusetts Department of Education, 1997

In addition to public schools the region is home to twenty-two private day and/or boarding schools, including Christian School programs, parochial schools, and one Jewish-affiliated school. Several private schools offer special needs or alternative programs.

## Higher Education

Four post-secondary schools are located in the region. Berkshire Community College in Pittsfield offers a wide range of courses leading to an Associates degree. Massachusetts College of Liberal Arts (formerly North Adams State College), also public, offers programs leading to a Bachelor's degree. Two private colleges are situated in the region: Simon's Rock College of Bard in Great Barrington (offering a two-year program geared to younger college-ready students), and Williams College in Williamstown (Bachelor's; Master's degrees).

In addition, the region's residents also have access to a number of educational institutions within commuting distance in the Amherst and Springfield areas, including the University of Massachusetts at Amherst and Holyoke Community College. Several colleges are located in southern Vermont, the Albany-Troy-Schenectady area to the west in New York, and in Hartford, Connecticut. Within a sixty mile radius of the County are 24 four year and 14 two year colleges, many of which are private and highly competitive institutions.

The region's cultural institutions also play a significant role in serving the learning and educational needs of its citizens, and contribute favorably to the area's quality of life. Tanglewood is host to the Boston Symphony Orchestra and its summer music institutes and offers numerous musical programs. Museums, such as the Norman Rockwell Museum in Stockbridge, the Berkshire Museum in Pittsfield and Massachusetts Museum of Contemporary Art (MassMOCA) in North Adams offer lectures, workshops and training in the arts. Additionally, the Berkshire Athenaeum and other libraries within the County play an important role in serving the public through their book, music, and other collections, and Internet connections.



## EDUCATIONAL FACILITIES

Since the early 1990's, the Commonwealth has embarked on a statewide effort to reform and improve education, including the physical facilities and curriculum, as well as the educational performance of Massachusetts students. Since 1948, the Commonwealth of Massachusetts has had a funding program to assist communities with their school facility needs with state reimbursement of costs. Eligibility for reimbursement requires a comprehensive planning process involving community input throughout the planning and design phases. Throughout the region, communities are assessing their educational programs and facility needs, and finding it difficult to comply with requirements within fiscal constraints.

The desire to retain community character, often symbolized by older public buildings such as schools, town halls, and libraries—while meeting modern needs for more space, handicapped accessibility, and necessary renovation or upgrades—presents a difficult situation for citizens and voters. While cost-savings may be an attractive incentive to consolidate schools or consider regionalization, many parents and other citizens lament the abandonment of the local or “neighborhood” school. Their reasons are many and varied: loss of community character and tradition; loss of direct control and financial control of their children’s education; concerns about the impersonal effects of larger schools and increased time spent in transport. These concerns are balanced by concern over increasing mandates, both financial and program or curricular, from the Commonwealth of Massachusetts to improve and add to educational opportunities available to all schoolchildren in every town – regardless of a community’s ability to pay. Smaller communities statewide are finding it difficult to meet the needs of all citizens as increasingly the cost of education has become less a matter of “local control,” than a state priority.

The entire community needs to be actively involved in the planning and decision-making on school building projects: teachers, parents, students, and other community groups can bring creativity to the planning process, and provide options and impetus for savings and maximum use of the school facility by the entire community. While often contentious, community decision-making about school facilities and programs serves to re-establish schools in the civic life and center of the community.

Meeting the space needs of a sizable school-age contingent (“baby boom echo”) and modernizing older schools to reflect changes in technology and teaching with new emphasis on “lifetime” learning have placed a substantial burden on communities struggling to control and stabilize the property tax rate. Communities in the region must engage in serious discussion about alternatives to enhance provision of educational opportunity for all children throughout the region and investigate options for meeting and sharing the costs. As the state continues to press for improvements in educational facilities available to children and improved performance from them, citizens and taxpayers regionally must play a role in finding and funding solutions. The results of the MCAS (Massachusetts Comprehensive Assessment System) tests and their ripple effect on communities are expected to be significant. Communities whose children do especially well are likely to face additional demands over time from population growth. Communities whose children do poorly may experience population loss and tax base erosion as they struggle to meet remediation requirements and escalating costs.

The following approaches and policies will contribute to the goal of providing adequate educational opportunities and facilities to meet community and regional needs.

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**APPROACHES and POLICIES:**

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- Support school districts in their efforts to secure greater assistance from the Commonwealth of Massachusetts in order to provide quality education in state of the art educational facilities.
  - Support programs that aim to increase vocational training to employees of area businesses.
  - Support efforts of libraries to provide materials and facilities for independent, life-long learning.
  - Encourage local and regional school districts to renovate traditional school buildings, where appropriate, to accommodate the needs of the pupils instead of consuming new land for new school buildings.
  - Promote the use of school buildings as “community centers.”
  - Promote community interest in adaptive re-use of school and other public buildings to retain community character.
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## OTHER COMMUNITY SERVICES

### Solid Waste Management

Massachusetts generates about 6.5 million tons of household and commercial waste per year, generally referred to as “municipal solid waste” (MSW). MSW generated in the state consists of durable and non-durable goods, containers, packaging, food waste, yard waste, and other organic material from homes (residential waste) and similar wastes from businesses and institutions (commercial waste). Approximately half of the municipal solid waste is institutional and business generated; the remainder is residential. Thirty-six percent is paper materials and 20 percent is yard waste. This is in addition to about 3.4 million tons of industrial wastes, much of which must be treated as hazardous waste.

In 1990, Massachusetts issued the Solid Waste Master Plan which established a hierarchy of goals. These goals are reduction of waste materials, recycling and composting an increasing percentage of the waste stream, incineration of the portion which cannot be recycled, and landfilling as a last resort. Progress is continuing toward achieving the goal of recycling 46% of municipal solid waste by the year 2000; at the end of 1996, the recycling rate was 33%. Reaching the goal will require a major effort from both the public and private sector.

Practically speaking, this Solid Waste Master Plan has resulted in a withdrawal of state support for new landfills and new resource recovery facilities. Massachusetts currently has eight resource recovery facilities, now disposing of about half of all municipal solid waste.

The Massachusetts Department of Environmental Protection has been working with municipalities across Massachusetts for several years to close their unlined landfills that represented a significant threat or a potential threat to public health, safety or the environment. The following table represents progress in Massachusetts landfill closures since 1990.

**Table III.13. Massachusetts Landfill Closures Between 1990 and 1997**

| Landfill Status                             | Number of Landfills |
|---|---------------------|
| Landfills Operating during 1990             | 185                 |
| Landfills that Ceased Operations since 1990 | 113                 |
| Landfills Operating during 1997             | 73                  |
| Landfills Projected to Operate during 2000  | 11                  |

Source: MA Solid Waste Plan, 1997

Waste disposal bans have been phased in for many materials formerly landfilled, such as tires, appliances, and paper. This has given a major push to recycling. Many recycling centers, composting facilities, and transfer stations have been established in response.

Solid waste disposal in the Berkshires is handled in two ways, the most popular of which is the use of transfer stations. Twenty-nine of the region's communities use this form of waste disposal. There are currently no landfills operating in the Berkshire region, with the exception of several sludge landfills that accept only wastewater sludge. In addition, no regionwide solid waste management plan or strategy is in place.

At a transfer station, recyclable materials such as aluminum cans, glass, and paper are separated, while other waste is hauled away to large commercial landfills outside of the region or to the Energy Answers Resource Recovery facility in Pittsfield. This facility, serving Pittsfield and North Adams, also accepts waste from subscriber haulers (such as the Master Garbologist) throughout the region. The facility incinerates the solid waste and produces steam for the Crane Paper Company. The steam produced helps to reduce the energy related operating expenses at the paper mill. The Energy Answers facility, formerly known as Vicon, accepts slightly more than 50% of the municipal and commercial solid waste produced in the region. The remainder of the municipal and commercial solid waste stream is hauled to Springfield or New York State.

Many communities in the region dictate their own solid waste disposal planning, while others belong to a solid waste management district. The Northern Berkshire and Southern Berkshire Solid Waste Management Districts assist many of the smaller communities with solid waste management and recycling issues.

Pittsfield is the only community that provides residential waste pickup. All other communities have provisions at the transfer station for residential solid waste disposal. Transfer station annual fees pay for hauling costs. Many residents use “subscriber” haulers, private contractors contracted for disposal services.

## **Recycling**

Between 1990 and 1997, recycling diverted more than 5.2 million tons of material generated in Massachusetts from combustion facilities and landfills, returning the material to a beneficial use. In 1995, the recycling industry in Massachusetts employed nearly 12,000 people who use at least 20 different recycled materials to create numerous products. In turn, these manufacturers have created additional 50,000 jobs and contribute \$600 million to the Massachusetts economy annually.

In 1996, the Massachusetts recycling rate was 33%. Massachusetts has set a goal of 46% recycling of municipal solid waste. In the Berkshires, some communities have achieved that goal while others have a long way to go. Williamstown, in 1997, achieved a 60% recycling rate while Pittsfield only attained a 6% recycling rate. Regionwide, the average is 28%.

Recycling and composting reduces reliance on landfills and waste combustion facilities. Recycling minimizes the potential impacts such as degradation of groundwater and air resources, and on a local level, from odor and truck traffic. Additionally, recycling is a cost-effective waste management tool because of the avoided disposal costs from the diversion of materials. Also, the cost benefits increase as more materials are diverted from disposal to recycling, since each collection vehicle can collect more material per mile traveled.

District or town sponsored recycling programs are available in all towns and cities in the region. All communities rely on transfer stations, while only Pittsfield provides municipal curbside pickup. All of the recyclable material generated in the Berkshires is sent to the Springfield MRF (Materials Recovery Facility.)

Massachusetts has passed a new, first-in-the-nation approach to the cost-effective reuse and recycling of discarded electronic products such as television screens and computer monitors that will soon become obsolete with the introduction of new display technologies. This great

electronic "clean-out" poses a major solid waste challenge for Massachusetts in the next few years. In anticipation of this challenge, the Commonwealth is proposing a new strategy that will divert these products from landfills and incinerators and toward increased reuse and recycling while removing barriers created by outdated and costly federal regulations.

The following approaches and policies will contribute to the goal of increased solid waste recycling in the Berkshires.

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**APPROACHES and POLICIES:**

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- Encourage the reduction and reuse of solid waste in the region, to the maximum extent feasible.
  - Support recycling, composting, waste reduction and waste management programs such as the Business Recycling Cooperative in Pittsfield.
  - Assist towns in the region to cooperate with each other on issues of solid waste management.
  - Encourage towns, as feasible, to join local or regional solid waste management districts.
  - Support programs that develop and disseminate educational materials that promote public awareness about recycling and waste management.
  - Encourage the development of a region wide solid waste management plan.
  - Encourage commercial organic waste collection programs involving area restaurants, farmers, and supermarkets.
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## **Communication and Information Services**

Telephones, newspapers, radio and the Internet are important to the region's residents for gathering and disseminating information. Digital information infrastructure will become increasingly important for economic development and growth. The development and maintenance of an up-to-date communication infrastructure is a means to achieving a number of valuable economic and social ends for the Berkshire region.

### **Berkshire Connect**

The Berkshires is home to a growing number of new media, arts and entertainment, and resort companies that depend on advanced communications and information services to sustain and grow their businesses. In 1997, The Berkshire Regional Planning Commission, in collaboration with the Massachusetts Technology Collaborative (MTC), was asked by the Berkshire Legislative Delegation to develop an action plan for enhancing regional telecommunications infrastructure. A task force of local business, education and community leaders was assembled to assess advanced telecommunications infrastructure in the region. With funds provided by MTC, the task force established the Berkshire Connect project to examine and assess the current communications challenges in the region, and to propose a strategy for enhancing the telecommunications and information infrastructure. Berkshire Connect identified that the region's telecommunications infrastructure was ill equipped to handle the burgeoning demand for high-speed data communications resulting from the advent of the internet. Drawing on support from a team of technical experts and economic development strategists from the MTC, Berkshire Connect coordinated the development of an advanced communication infrastructure. The Berkshires, with its distinctive assets and emerging knowledge based industry cluster, will be poised to realize the economic and social benefits of participation in this wealth-generating sector. The ultimate goal is to enhance the Berkshire's information infrastructure to:

- Increase its attractiveness as a place to live, work, and play.
- Support the development of new business and enhance the competitiveness of existing ones.
- Provide greater access to education, health, and other public information services.

### **Telephone and Wireless Communication**

One major local exchange carrier (Bell Atlantic), a handful of inter-exchange carriers (ATT, MCI, Sprint, and Quest) and one independent phone company (Richmond Telephone) currently serve the Berkshires. The region is fully served by digital switches, fiber optics and by local, ISDN, frame relay, and T1 and T3 lines.

Cellular service in the region is provided by Cellular One and Bell Atlantic Mobile, with approximately 12 cellular communications towers distributed throughout the region. Cellular service is of good quality, even in the more mountainous areas. Next-generation wireless service has been available for a number of years, with most users subscribing to digital rather than analog service.

Cellular service is important to the region. Also important is the impact telecommunications towers can have on scenic resources such as ridge tops.

The 1996 Federal Telecommunications Act preserved the rights of communities through its zoning powers to regulate telecommunications towers. However, communities cannot “zone out” these towers but may pass bylaws that govern siting, setbacks, height, and liability. Seventeen Berkshire communities have passed bylaws regulating the siting of cellular towers, with additional towns exploring the idea.

## **Television**

There are no local broadcast television stations in the Berkshire region. Most households can receive one or more stations out of the Albany, New York area. Currently, four companies offer cable television services to 16 Berkshire communities. In addition, a number of companies offer satellite television service to all communities, regardless of cable television availability. The use of television satellite dishes has grown over the years, particularly in areas unserved by cable television.

Regional cable TV providers are also a potential source for telecommunications and data services throughout the region. Currently, the transmission is almost exclusively one-way, from the cable TV company toward homes. Upgrades to infrastructure which allow “upstream” transmission of data will allow users enhanced data exchange, most notably on the Internet using a cable modem. Currently, only Adelphia Cable Company in North Adams offers cable modem service. Other cable companies in the region are planning cable modem service in the future.

## **Newspapers**

Eight newspapers serve the region: four weeklies, two monthlies, and two daily newspapers. The Berkshire Eagle, the largest daily newspaper, has a circulation of approximately 23,500 throughout the region. The Transcript is a daily newspaper from North Adams serving northern Berkshire. Weekly newspapers include the North and South Advocate, the Berkshire Record, and the Pittsfield Gazette. The Berkshire Trade and Commerce and the Golden Ages are monthly newspapers. In addition, major newspapers from Springfield, Albany, Boston, and New York City are available at most newsstands.

## **Radio**

There are ten local radio stations in the Berkshire region, nine FM and one AM. They are WAMC (public radio) and WSBS (860 AM) in Great Barrington; WBSL (91.7 FM) at the Berkshire School in Sheffield; WBEC (1420 AM, 105.5 FM), WBRK (1340 AM and 101.7 FM), WTBR (89.7 FM) at Taconic High School and WUHN (1110 AM) and WUPE (96 FM) in Pittsfield; WNAW (1230 AM), WMNB (100 FM), and WJJW (91 FM) in North Adams; and WCFM (91.9 FM) at Williams College. In addition, stations from other parts of Massachusetts as well as Connecticut, New York and Vermont can be received.

The following approaches and policies will contribute towards providing adequate communications facilities and services to meet community and regional needs.

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**APPROACHES and POLICIES:**

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- Continue to promote the mission of the Berkshire Connect project.
  - Encourage the use of existing towers for broadcast, satellite transmission, and other wireless communications; encourage new equipment locations on or closely associated with existing buildings over the development of new towers.
  - Encourage the development of an enhanced telecommunications infrastructure in coordination with existing land-use policies.
  - Support increased access to public information and information about local events in user-friendly electronic formats.
  - Encourage the expansion of transmission and receiving equipment at existing stations.
-

## Recreation

The Berkshires provide a wide range of recreational opportunities for all seasons. From cultural events, such as productions at Jacob's Pillow Dance Company or the Williamstown theaters, to leisurely drives through the Housatonic River Valley or on the Jacob's Ladder Trail, to hiking at Bartholomew's Cobble and Mount Greylock, the Berkshire region offers diverse and exciting passive and active recreational opportunities for everyone.

Recreational opportunities in the region are important both economically and for their contribution to the quality of life for residents and tourist alike. The municipalities, state agencies, non-profit organizations, and private concerns all contribute to the wealth of recreational facilities in the region. Land use estimates from 1997 show that there are approximately five thousand acres dedicated to recreational purposes. These areas include golf courses, ski areas, and ball fields. Continued public support and cooperation among the owners and users will ensure that quality recreational facilities and lands remain available to residents and visitors alike.



The State Department of Environmental Management owns and maintains numerous state forests and parks throughout the region, including the Greylock Reservation, Beartown State Forest, and October Mountain State Forest, the largest state forest in Massachusetts. The state lands, well distributed throughout the region, are among the most popular recreational destinations in the region, offering four-season recreation such as hiking, camping, cross-country skiing, snowmobiling, swimming and boating. The state forests and parks also contribute significantly to the pattern of open space in the region.

The region is home to 6 ski areas (Bousquet, Butternut, Brodie Mt, Catamount, Jiminy Peak, and Otis Ridge) that are very visible and popular recreational attractions. To expand as year-round attractions, these resort areas have begun offering off-season recreational opportunities such as water parks, paint ball, and mountain biking.

Cities and towns throughout the region maintain recreation parks that have become very important to the residents for their value as recreation and open space. Springside Park in Pittsfield, Cascade Park in North Adams, and Memorial Fields in Great Barrington are a few examples of these important community facilities. These parks are well used for community events, picnics, team and individual sports.

The most recent Statewide Comprehensive Open Space and Recreation Plan (SCORP), 1988, has identified the Berkshire region as the only region in the state where supply exceeds demand for all recreational activities examined. The two activities with the smallest surplus are swimming and tennis. All other activities had surplus figures in excess of 50 percent. Nonetheless, the residents of the Berkshires expressed high levels of dissatisfaction for fishing and camping and five activities had travel times greater than the statewide average: field-based

activities, camping, swimming, golf, and tennis. Strategically located regional, municipal, and neighborhood facilities which provide for a variety of field games and sports could be of particular value in the region.

The biggest identified concern in the region appears to be with water-based activities. The problems appear to relate to accessibility and satisfaction with the current quality of opportunities, rather than lack of opportunities. The region's ability to meet increased demand for these pursuits may be strained due to a limited supply of accessible lake, pond, and river shoreline. Conflicts among water-based recreationists are expected to increase as more people compete for finite resources. Adequate management of outdoor recreational vehicles and lack of facilities geared to the elderly was also identified as an important from surveys. Recreational facilities for the elderly appear to be a valid concern as there is expected to be an increase in the number of elderly residents.

The development and expansion of handicapped access at recreational facilities was also identified as a high priority issue in the SCORP. The Department of Environmental Management operates a trail system at the Pittsfield State Forest designed for the physically challenged. In addition to a blacktop trail with interpretive signs, a picnic area with grills and tables to accommodate wheelchairs. The DEM is hoping to introduce a "sit and ski" program in the future for winter recreation for the physically challenged. More could be done region-wide toward providing recreation opportunities for those with special needs.

Residents of the region have indicated preferences for walking and biking, but are dismayed at the lack of safe and accessible trail systems, a sentiment heard nationwide. As part of a larger effort to provide trails and corridors, the DEM has unveiled plans for the Ashuwillticook Rail Trail which will follow an abandoned railroad bed from the Berkshire Mall to Park Street in Adams. Seizing on a possible linkage to the Ashuwillticook Trail, the Berkshire Bike Path Council has been exploring plans to connect a trail which would eventually link up with the state of Connecticut and is currently gathering support for this idea. DEM has also been convening public meetings to gather input on other potential links to trail systems and corridors.



The region appears to have an excess supply of recreational resources relative to the region's population. However, this excess supply may be offset by the heavy influx of tourists during the year. Efforts to acquire, protect, and develop important recreation and conservation areas within the region must be continued especially as these areas become converted to development or land becomes more costly. While the region has an abundance of conservation and forest areas, a need has been voiced for better quality indoor and outdoor facilities.

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**APPROACHES and POLICIES:**

- Encourage the development of comprehensive Open Space and Recreation Plans to identify, acquire, and manage recreation facilities to meet projected community needs.
  - Improve water-based recreation opportunities within the region, particularly for swimming and fishing.
  - Develop strategically located, field-based recreational facilities that serve as regional sites.
  - Support programs that place high priorities on the acquisition and protection of recreation and conservation resources.
  - Encourage development of sidewalks, separate paved pathways or paved shoulders for bicycle and pedestrian travel in all major road improvement projects where feasible.
  - Provide varied and accessible opportunities for outdoor recreation for all age groups and physical abilities, particularly the young and elderly.
  - Encourage multiple use recreation facilities and public access to recreation lands and water.
-

## ENERGY

The type, quantity, and cost of energy used have both environmental and economic implications for the Berkshire region. Fuels are used for everything from heating homes and powering automobiles and generating electricity upon which the region depends. Each of the energy sources used in the region presents certain concerns as well as opportunities. Many of these energy related issues were addressed in the Berkshire Regional Planning Commission's *Berkshire County Energy Plan* of 1982. Although much of the material contained in the *Energy Plan* is outdated, the basic concepts such as energy conservation, financing, and renewable sources are still relevant today.

Regional and local efforts can play a role in energy development, energy conservation, and land use decisions as they affect energy use. Reducing the dependency on imported energy supplies while reducing overall energy demand is important to the environmental and economic health of the Berkshires

### Energy Sources and Consumption

The energy issues facing the Berkshire region certainly transcend its borders. Massachusetts, as well as the Berkshire region, is dependent on fuels imported from foreign countries for up to 80% of its energy needs. Energy source issues are society-wide problems requiring, in some fashion, a national or even international response. They require the collective efforts of energy suppliers and consumers, of businesses and individuals, and of government and the private market place. These problems are further magnified in the Berkshires, the coldest part of the state, averaging 7,700 degree days per year. The potential high cost of many fuels could be a serious problem to the area's economy. The following table represents statewide energy consumption in 1996.

**Table III.14. Primary Energy Consumed in Massachusetts by Source, 1996**

| Energy Source | Trillion BTU's Produced | Percentage of Total |
|---------------|-------------------------|---------------------|
| Petroleum     | 691                     | 45.0%               |
| Coal          | 113                     | 7.3%                |
| Nuclear       | 57                      | 3.7%                |
| Natural Gas   | 367                     | 24.0%               |
| Bio-fuels     | 81                      | 5.2%                |
| Hydro         | 17                      | 1.1%                |
| Other         | 207                     | 13.5%               |
| Total         | 1,533                   | 100%                |

BTU's: British Thermal Units

Source: US Department of Energy, 1996

According to conclusions contained in a 1982 Berkshire County Energy Plan, in 1980 70% of residential energy use went to home heating, and half of the total source was derived from oil. Calculations showed that the residential energy use in the region amounted to over \$62 million, or \$1,180 per household.

Today, the transportation sector consumes nearly one quarter of all energy consumed in the state. This remains important as the Berkshires continue to rely heavily on single occupancy automobiles most of the transportation needs of the residents.

**Table III.15. Energy Consumed Statewide by Economic Sector, 1990**

| Sector         | Trillion BTU's Consumed | % of Total |
|----------------|-------------------------|------------|
| Transportation | 423                     | 27%        |
| Residential    | 313                     | 21%        |
| Industrial     | 371                     | 25%        |
| Commercial     | 426                     | 27%        |
| Total          | 1,533                   | 100%       |

Source: US Department of Energy, 1990

According to the 1982 Energy Plan, the Berkshire region's primary energy sources are petroleum-based products such as oil and gas, hydropower generated at Northfield Mountain facility, and wood. The region's greatest energy uses are from petroleum products and electricity.

### **Massachusetts Energy Plan**

In 1993, the State of Massachusetts prepared a Statewide Energy Plan. Two primary goals framed the focus areas and key actions in the Plan: economic development and environmental compatibility. These goals are integrated with state policy on economic development, the environment, transportation and education. The Plan is intended to serve as a blueprint for state government action and act as a guide for the energy community and customers.

As this Plan is realized, Massachusetts will likely reduce energy costs and environmental pollution, improve energy efficiency and diversity, create new jobs and save existing ones, increase economic growth and increase the personal income of state residents. Successful implementation of this Plan should benefit the Berkshires.

### **Energy Conservation**

One of the major tenets of this *Regional Plan* is the promotion of growth in existing developed areas. This development pattern can benefit the environment, open space protection efforts, community character, fiscal integrity, and can benefit energy conservation as well. Locating jobs and facilities in existing growth centers can improve use of mass transit and car pools, reduce the need for new highways and reduce the need for additional energy reserves.

A large component of energy consumption is for residential use for home heating needs, as well as heating hot water and running lights and appliances. The energy efficiency of most homes in the region can be improved through simple steps such as increasing insulation, maximizing efficiency of water heaters, and increasing awareness of energy need and use. New technologies for energy conservation abound and are widely available to the average homeowner at modest prices. Local organizations such as the Center for Environmental

Technology in Pittsfield carry out research and development and offer various educational programs on topics such as energy conservation, solid waste management, and sustainable development.

Energy conservation can reduce financial impacts of higher energy costs and benefit the region in the following ways:

- Retain money in the local economy and thereby strengthen it.
- Create jobs related to the installation of conservation measures.
- Lessen the burden of energy costs on those who can least afford it, by reducing the overall stabilization or reduction in energy costs.
- Minimize the needs to make major lifestyle changes in order to accommodate rising energy costs.
- Reduce the environmental impacts resulting from the development and consumption of energy resources.

### **Electric Industry Restructuring in Massachusetts**

The Massachusetts Legislature in 1997 overwhelmingly passed restructuring legislation that opened the state's electricity market to competition. This restructuring gave customers a choice of energy supplier and lowered customers' bills by 10 percent initially. Acting Gov. Paul Cellucci signed the bill into law in November of 1997.

The restructuring of the electric industry has mandated that licensed energy suppliers in Massachusetts provide a percentage of their fuel mix from renewable energy sources. Recently, proposals have been advanced that seek to site as many as ten wind turbines on the ridgeline between Hancock and New Ashford. Citizens in these communities are divided about the proposal, largely because of aesthetic concerns. The region will surely be confronted with this issue for some time.

### **Energy and Transportation**

Transportation consumes much of the region's current energy demand. In 1995, transportation in Berkshire County consumed an estimated 65 million gallons of fuel yearly. This estimate was based on an average of 17.4 MPG per vehicle. The total cost of this energy was \$84,000,000. Projections show motor vehicle efficiencies are expected to be considerably improved by the year 2020 to an estimated 25-MPG per vehicle. This should result in a 23% reduction of fuel consumed. Highway improvements that reduce congestion by minimizing stop-and-go driving, reducing travel times, and achieving more efficient operating speeds are a first step in reducing travel times and realizing an energy reduction. Changes in daily habits (ride sharing, mass transit, combining trips, walking, and using alternate forms of transportation), can result in reductions in energy consumption as well.

Transportation solutions to minimize energy consumption are both long-term and short-term. Long-term solutions include alternative fuels, changes in land use, and new vehicle technology. Short-term solutions include rationing, tax incentives, and fuel efficiency standards.

Energy improvements realized by enhanced motor vehicle efficiencies, highway improvements, and personal behavior changes would be minimized, however, if travel times and distances increased as has been occurring in the Berkshires.

Various transportation related energy conservation measures have been evaluated to determine their effectiveness for the Berkshire region, so that they can be compared and priorities determined. (The total effectiveness of several measures is generally less than the sum of the parts, since one measure may reduce or preempt the effectiveness of some other measure.

Improved vehicle efficiency can result in significant energy savings. This conservation can be attained through an evolutionary process as old cars are replaced with more fuel-efficient vehicles. As the cost of gasoline is still relatively low, it appears unlikely that sufficient incentives exist to result in any significant implementation of other conservation measures.

The following approaches and policies will help reduce the dependency on imported fuels and encourage energy conservation efforts.

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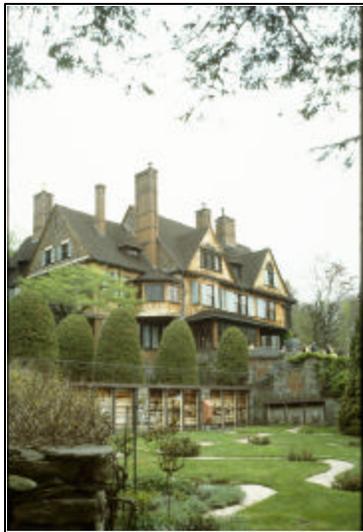
#### **APPROACHES and POLICIES:**

- Ensure that energy conservation measures are employed during the siting, design, and construction or reconstruction of buildings, to the maximum extent possible. Buildings and homes that incorporate renewable energy systems (e.g. solar, wind) are encouraged.
  - Encourage the use of clean burning fuels so long as such proposals are economically feasible and environmentally appropriate.
  - Encourage efforts to include energy efficiency and conservation in the plans and day-to-day operations of municipalities. Energy efficiency should be considered when designing new municipal buildings and purchasing equipment.
  - Support energy conservation in the transportation sector such as energy efficient vehicles, ridesharing, and investments in bicycle trails and public transit.
  - Support the redevelopment of an efficient rail system for the movement of people and goods.
  - Support programs that offer assistance in planning and financing energy conservation projects and encourage lending institutions to fund low-interest loans for energy conservation improvements and for the development of renewable energy resources.
  - Continue support of wind energy research and development in the region, provided that facilities be sited appropriately so as to not significantly distract from aesthetic, wilderness, recreational, or ecological values.
  - Support the development of an up-to-date energy conservation plan for the region.
  - Encourage and support educational programs that focus on residential and business energy conservation strategies.
-

## Cultural and Historic Resources

The Berkshire region is rich in culture and history. Nationally recognized as “America’s Premier Cultural Resort”, the region is home to many artisans and craftspeople that have chosen the area to create and display their works, helping to attract a diverse and appreciative audience in all seasons. The presence of a strong arts community, together with the rich history of the area, has helped to enhance the region’s appeal as a dynamic place to live, visit, and do business. The cultural and historic resources of the Berkshire’s play a major role in the heritage tourism industry in the region

Visitors to the region need many days to fully explore and enjoy the wealth of resources the Berkshire’s have to offer. Museums such as the new Massachusetts Museum of Contemporary Art, the Clarke Art Institute, the Norman Rockwell Museum and Chesterwood offer unique opportunities to view world-class artwork. Performing arts abound in the region with the Boston Symphony Orchestra at Tanglewood, Berkshire and Williamstown Theatre Festivals, Barrington Stage Company, Shakespeare and Company, Berkshire Opera Company, and Jacob’s Pillow Dance Festival.



In addition to hosting a wealth of performing arts, the region is steeped in history and fine architecture. The region’s proximity to New York City and Boston made the Berkshire the ideal getaway for the wealthy. Between 1880 and 1920, 75 mansions, so-called Berkshire Cottages, were built, mostly in Lee, Lenox, and Stockbridge. Historic properties such as Naumkeag, Mission House, the John Ashley house, and the Hancock Shaker Village offer a rare glimpse into the rich history and architecture of the region. Many historic preservation groups have been active in designating areas of towns or specific properties as Historic Resources on the National Register of Historic Places.

An effort is underway in the Berkshires, led by the Berkshire Natural Resources Council (BNRC), to preserve the landscape that surrounds many of the region’s fine historic places. If the Berkshires grow without respect for historic locales, it could lose the essence of what makes the region so special.

Numerous organizations, historic trusts, and non-profit entities play a crucial role in the promotion and maintenance of the region’s cultural and historic resources. Their continued support is essential as the Berkshire region moves forward as a major destination for lovers of fine music, art, theatre, architecture and history.

The following approaches and policies will contribute to the protection and preservation of historic and cultural features that are important components of the Berkshires heritage.

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**APPROACHES and POLICIES:**

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- Encourage the continued support of organizations serving to promote the region as a premier cultural resort.
  - Strengthen the role of arts and culture in public education.
  - Protect places of outstanding historic importance from development that impairs their character and quality.
  - Encourage rehabilitation of significant historic sites and structures.
  - Encourage development that preserves the historic and architectural character of village, town, and community centers.
  - Support local, regional, and state historic preservation trusts such as Trustees of the Reservation.
  - Encourage the use of design guidelines that respect the historic character of buildings and areas.
  - Support efforts to protect the lands and scenic vistas around historic sites in the Berkshires.
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## **IV ECONOMIC DEVELOPMENT AND FISCAL RESPONSIBILITY**

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The Berkshire region has a unique economy. A number of factors – location, transportation and telecommunication limitations, population characteristics and continuing out-migration, a strong tourism influence on the service sector – add to the distinctive qualities and challenges of this region. The new millennium offers the opportunity for new ventures in business and industry, and for employers and employees to construct the “new economy” in this region. The key economic challenge ahead is to complete the regional economy’s transition from one based primarily on manufacturing to one which is more diverse.

Understanding regional economic issues and their effects, and local fiscal issues, can aid communities in public decision-making. Countywide, local governments face increasing difficulty finding new and maintaining stable revenue sources to pay for local services, particularly education. The need for regional coordination and cooperation, and growing recognition of the interdependency of public and private resources in maintaining the quality of life and services available to all citizens countywide has never been greater. The Berkshire region's response to current needs and future conditions will determine its economic future and community fiscal stability.

Benjamin Franklin once commented on the necessity of “hanging together” so that each does not “hang separately.” Economic data and the fiscal strain being experienced by Berkshire communities suggest that the time is at hand to develop partnerships which can draw on the talents and commitment of all citizens, leaders, and communities in the Berkshires. Working together, public and private interests can ensure economic opportunity for all citizens throughout the region while successfully preserving the Berkshires’ quality of life.

The goals to create that economy are:

- Create and sustain an atmosphere of partnership between the public and private sectors which recognizes their joint roles in investing resources to stimulate continuous, diverse, and environmentally responsible economic development.
- Provide access and opportunity for job training and retraining, and encourage the retention and creation of good jobs both to stem the population loss of people with roots in the Berkshires and attract new and younger people to the regional workforce.
- Encourage a variety of economic development strategies suited to the varied needs of communities throughout the region in order to maintain the fiscal integrity of all the region's cities and towns.
- Promote local fiscal stability and regional growth planning as a means of attracting private sector investment, balanced with public provision of services and financing of infrastructure and other community capital improvements.

## ECONOMIC OVERVIEW AND INDICATORS

Economic development is crucial to the Berkshire region as the region's industries and economy seek to continuously innovate and upgrade to compete in the fast-moving current of the global economy. As industries move, merge, or metamorphose in response to marketplace conditions, the Berkshire region has to adapt as well, enabling job losses to be offset by new job creation. The region's economic goal is a diverse economy with a mix of old and new industries able to withstand business cycles, recessionary shocks and their resulting employment consequences. The goal of the regional economy is to provide opportunities for all citizens to attain a high and rising standard of living through employment in well-paying and satisfying work.

A region's economic success is linked to its ability to provide those so-called "good jobs" and gain prosperity through its economic base industries. These are the industries that sell goods and services to other regions, bringing outside money into the region. Also critically important to the regional economy are other industries which replace goods and services which might be "imported" from outside the region. These industries prevent money from leaving the region. What drives the regional economy is its Gross Regional Product (GRP), especially its economic base industries.

Even in good economic times, the economy of the Berkshires is overshadowed by the diverse and strong-performing eastern metro Massachusetts economy. In the 1980's, for instance, employment in the Berkshires climbed at only half the statewide rate — and tumbled at twice the state's rate of decline in the last recession. This provides a sobering view of how vulnerable the Berkshire economy is.

**Gross Regional Product** is the total or net dollar value of all of a region's economic interactions.

The Berkshires' economic future rests on knowing what its good, high-paying jobs currently are and knowing the industries that serve as the foundations of economic prosperity. That knowledge will ensure the region's future competitiveness and help restore a critical mass of diverse employment opportunities. It will also lay the groundwork for revitalization of under-utilized industrial or commercial sites.

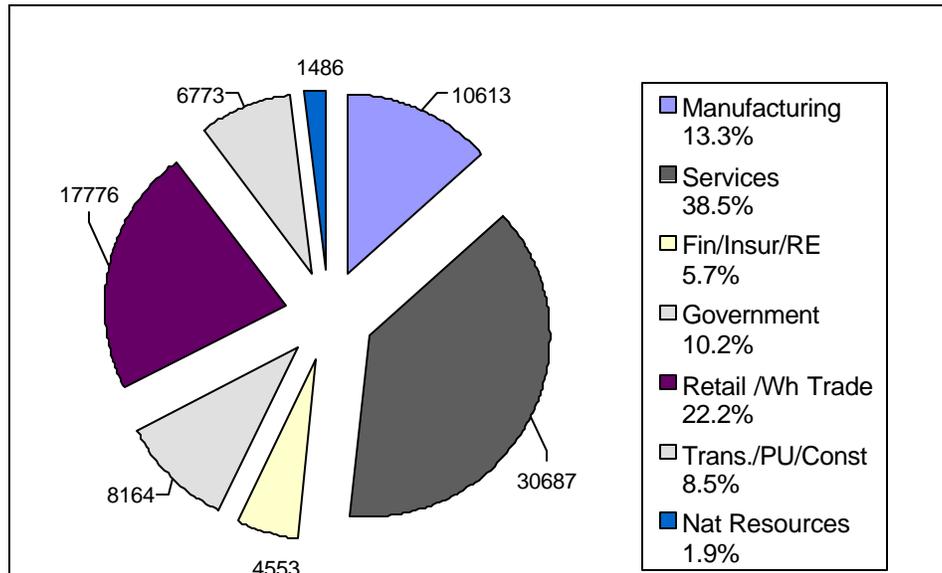
### Employment and Changes

The economy of the Berkshire region has undergone significant change over the past thirty years. The relatively small size of the regional economy and its extreme dependence on a handful of manufacturing businesses represented a serious blindspot for the Berkshire region as the 1980's unfolded. While manufacturing claimed 30% of Massachusetts' total employment at that time, in the Berkshires, the proportion was 40%. The early 1990's saw the effects of a nationwide recession and defense "downsizing," shifts in employment taking place among industry sectors, and technology driving productivity. These changes seriously disrupted the Berkshire economy. The loss of roughly half of the region's employment in high-paying manufacturing jobs weakened the overall business / industry atmosphere. The Berkshires, with its small and self-contained economy, had insufficient diversity to offset manufacturing losses. In particular, this region lacked a comparable number of information and biotechnology firms which generated a substantial share of the growth elsewhere in Massachusetts.

**Employment data** represent the number of full and part time jobs on an industry-by-industry basis, not the number of persons employed.

**Total Employment:** In 1997 total employment in the Berkshires was 80,052 jobs. Services with 30,687 jobs (38.5% of the total,) and retail trade (combined with wholesale trade) with 17,776 jobs (22%) comprised the largest categories of employment in the Berkshires. Manufacturing employment ranked third in the share of total employment with 10,613 jobs.

**Figure IV.1. Berkshire Employment, 1997 (Jobs)**



“Natural Resources” above combines the mining sector, agricultural services (which includes forestry and fishing), and farming.  
 Source: BRPC, REMI, 1999

The services sector encompasses a wide range of activities. Table VI.1 shows the breakdown of services employment from 1970 and 1997 and estimated for 2025, as its percentage of total Berkshire employment—reflecting the trend nationwide—substantially expands.

**Table IV.1. Berkshire Employment in Services: 1970, 1997, and 2025**

| Services         | Percent of Total Berkshire Employment |             |             |
|------------------|---------------------------------------|-------------|-------------|
|                  | 1970                                  | 1997        | 2025        |
| Healthcare       | 8.3                                   | 13.2        | 18.1        |
| Social Services  | 2.5                                   | 5.9         | 7.2         |
| Hotel & Recreat. | 3.3                                   | 5.8         | 7           |
| Educational      | 3.6                                   | 5.7         | 6.8         |
| Profess & Mgr.   | 1.7                                   | 2.9         | 3.8         |
| Business         | 1.5                                   | 2.7         | 3.3         |
| Personal         | 1.8                                   | 2.3         | 2.3         |
| <b>Total</b>     | <b>22.7</b>                           | <b>38.5</b> | <b>48.5</b> |

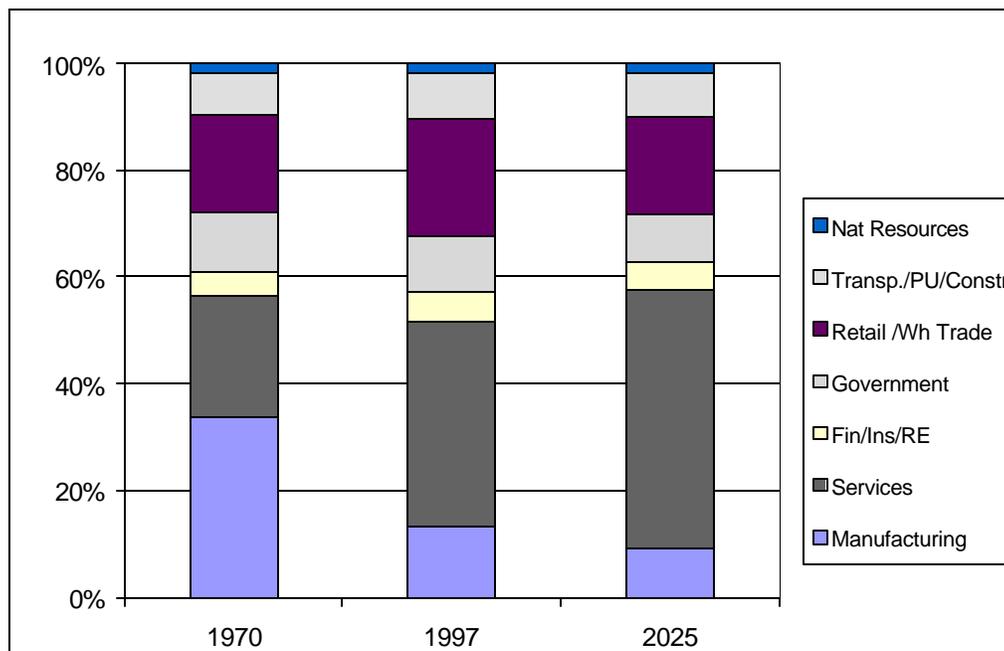
Source: BRPC, REMI, 1999

Tourist-related services in combination with associated retail activity is often seen as a major driver in the regional economy because of its visibility and need for seasonal employees. The true economic impact is difficult to gauge, however, because of uncertainty about the actual number of visitors and their level of expenditures, and how much “new” income is being generated. However, available data indicate that about 6% of export jobs (those linked to attracting outside money into the region), but only 2% of Gross Regional Product can be attributed to tourism. The jobs to value ratio is low compared to employment in other sectors. This accounts for tourism’s relatively small regional economic impact, in part due to the relatively low wages of many hospitality, recreational services, or retail jobs.

From 1970 to 1997 the number of jobs in the Berkshires grew twenty-one percent, 66,122 to 80,052. Employment in all sectors except manufacturing increased since 1970. Between 1970 to 1997 manufacturing employment was cut in half (from 22,329 to 10,613) due in large part to the shutdown of Sprague and downsizing and mergers involving General Electric (Transformer and Defense Systems Divisions, etc.) from the mid 1980’s through the early 1990’s.

Figure IV.2 pictures employment by sector in 1970, 1997, and estimates for 2025 allowing for comparison. (Several sectors employing small numbers were combined.)

**Figure IV.2. Employment By Sector: 1970, 1997, and 2025**



Source: BRPC, REMI, 1999

**Future Employment:** Employment is expected to continue to grow to 99,395 jobs by the year 2025 – a 24% increase over 1997. The services sector is expected to continue to climb in employment to almost 50% of total employment by 2025. The growth trend in services (which doubled employment between 1970 and 1997) is forecast to continue – but at a lesser pace – a 57% increase over its current level by the year 2025. Healthcare currently makes up the

majority of services, led by Berkshire Health Systems, the largest employer in the region with close to 2000 employees. Employment in healthcare is expected to continue to be strong, partially as a result of the region's aging population. By 2025 half of all services jobs (and fully one quarter of all jobs) will be in healthcare or social services occupations.

**Table IV.2 Berkshire Employment**

|                   | 1970         |            | 1997         |            | 2025         |            |
|-------------------|--------------|------------|--------------|------------|--------------|------------|
|                   | #            | % Total    | #            | % Total    | #            | % Total    |
| Manufacturing     | 22,329       | 33.8       | 10,613       | 13.3       | 9,154        | 9.2        |
| Services          | 15,080       | 22.7       | 30,687       | 38.5       | 48,081       | 48.5       |
| Fin/Ins/RE        | 2,901        | 4.4        | 4,553        | 5.7        | 5,171        | 5.2        |
| Government        | 7,448        | 11.3       | 8,164        | 10.2       | 8,814        | 8.9        |
| Retail /Wh Trade  | 11,953       | 18.1       | 17,776       | 22.2       | 18,257       | 18.3       |
| Transp./PU/Constr | 5,307        | 8.0        | 6,773        | 8.5        | 8,231        | 8.2        |
| Nat Resources     | <u>1,104</u> | <u>1.7</u> | <u>1,486</u> | <u>1.9</u> | <u>1,687</u> | <u>1.7</u> |
| Total             | 66,122       | 100        | 80,052       | 100        | 99,395       | 100        |

Source: BRPC, REMI 1999

By 2025 employment in retail and wholesale trade is expected to drop from 22% of total employment to 18%. Job growth within the other major sectors of the regional economy is slated to continue and remain roughly the same proportionally out to 2025 with changes in the retail trade sector (1,200 fewer jobs in businesses offset by an expansion in restaurant jobs) over 1997. Changes from manufacturing to increasing numbers of service jobs, and changes within the sectors can be expected to affect overall wages and income in the region.

The combination of manufacturing and services has long dominated employment in the region. These sectors will continue to dominate, providing more than half the jobs available as indicated. Manufacturing's loss of job share has been, and will continue to be, offset by the expansion of services. The effects on wage levels, which are similar to national trends, will be a larger number of jobs in lower wage occupations.

Manufacturing, even with fewer jobs, will continue to be the dominant power behind the regional economy. With less than 10% of all employment in 2025, the value of manufacturing sector output will account for almost 30% of total Gross Regional Product (GRP). In contrast, in 2025 approximately 50% of total employment will be workers in a variety of service jobs, yet, the value of their productivity will amount to only 25% of the region's total GRP. Table VI.3 shows the changing relationship over time between employment numbers (jobs) and value in GRP terms.

**Table IV.3. Manufacturing & Services**

| Jobs, Productivity & Value (GRP In 1992\$) |            |      |             |      |             |      |
|--|------------|------|-------------|------|-------------|------|
|  | 1970       |      | 1997        |      | 2025        |      |
|  | % of Total |      | % of Total: |      | % of Total: |      |
|  | Employment | GRP  | Employment  | GRP  | Employment  | GRP  |
| Manufacturing                              | 33.8       | 34.0 | 13.3        | 24.7 | 9.2         | 28.2 |
| Services                                   | 22.7       | 15.8 | 38.5        | 25.8 | 48.5        | 26.8 |

Source: BRPC, REMI

In addition to the effect on income and GRP, change in the distribution of jobs by sector could have land use implications as well. Overall structural changes in the economy, fewer traditional manufacturing jobs, expanding ecommerce activities, and changing technologies may well affect where jobs are located in the future. Workers “telecommuting” may mean increased population dispersion to outlying rural areas, as workers become less tied to their offices. Increased small shop “e-commerce” activities could revitalize downtowns throughout the region. As more healthcare services are provided to the “baby boom” elderly in their homes, housing turnover and availability will be affected as well—with possible land use implications. Development resulting from expanded tourist activities may also have unintended land use consequences.

### Employment

Employment in the region is at a record high, with the number of full and part-time jobs at 80,052, according to 1997 information. Total employment or jobs have continued a growth trend, largely due to increasing numbers of part-time jobs associated with the growth of the services sector and a greater percentage of women entering and staying in the workforce. The loss of manufacturing employment and the accompanying loss of its high wages, have also spurred employment growth as households and wage-earners added part-time employment to maintain income levels, and the dual income family became more common. Nevertheless, the Berkshire region’s share of jobs (percent of total employment) has been steadily declining since the 1970’s, as other regions across the state and nation have had a higher rate of job growth.

The 1990 Census data indicate that twenty-eight percent (28%) of the number of jobs available in the region constituted part-time work of less than thirty-five hours per week. Approximately the same percent of jobs occupied more than forty hours weekly, which suggests that total employment is about fifteen percent greater than the number of people in the work force.

Employment numbers as the basis for interpreting the economic health of a region can be misleading. Rising numbers of jobs may indicate both positive and negative factors. In a region with a significant amount of seasonal employment activity (where tourism functions as a base industry, where self-employed workers and small firms confound accurate employment numbers), the relation between the number of workers employed and the number of jobs filled may not be straightforward. In this instance an increased number of jobs might mean a weaker economy if these are lower paying jobs. Higher employment numbers may also mean that workers are working more jobs just to keep pace with former higher wages.

Presently, rapidly rising employment in the U.S. has been characteristic of regions with growing numbers of workers employed in services sector jobs, particularly jobs with a “hands on” component – in healthcare or social services including childcare, or personal and hospitality services. This is true for the Berkshires.

## Employment & Unemployment

**Employment:** The number of people in the workforce has in recent years held relatively steady at approximately 65,000 workers. Approximately 63% of the total regional labor force is employed in the Pittsfield MSA (roughly the central Berkshires), 21% in the northern Berkshires (North Adams LMA), and 16% in southern Berkshire (or Great Barrington LMA).

### 1999 Annual Average Unemployment Rate:

|             |      |
|-------------|------|
| Berkshires: | 3.8% |
| MA:         | 3.2% |
| U.S.:       | 4.3% |

Source: MA DET

**Unemployment:** Considerable variation occurs regarding unemployment rates within the region, with higher unemployment rates typically posted in the northern part of the region and lower in the south. Workforce and labor market issues play a role in unemployment rates in the larger communities of North Adams and Adams in sharp contrast to factors and characteristics of the smaller labor force in southern Berkshire. The recession which occurred in the late 1980’s and early 1990’s led to staggering rates of unemployment in a number of northern Berkshire communities. Residents of Savoy, for instance, experienced several years of severe unemployment – 18 to 21% in the first years of this decade. Several of the hilltowns continue to have unemployment rates above the regional average.

The northern Berkshire region, with its unemployment rate lower than the 1999 Pittsfield MSA, may be beginning to show hints of economic resurgence riding its emerging “Silicon Village” reputation and the e-commerce businesses and enterprises spinning off or serving Mass MOCA.

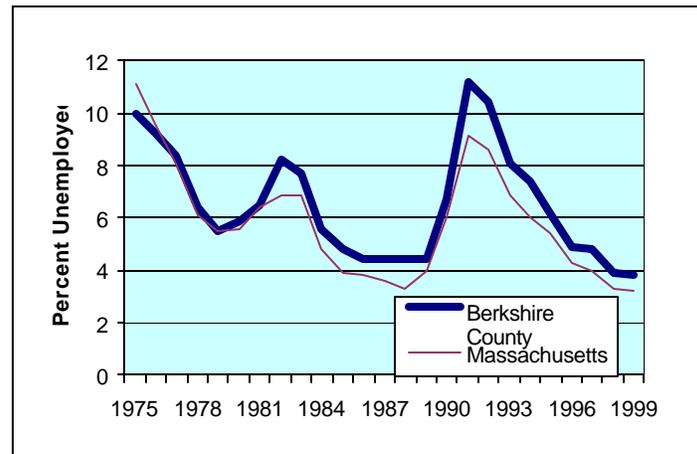
### 1999 Unemployment Rates:

|   |      |
|---|------|
| No. Adams Labor Market Area (LMA):        | 3.5% |
| Pittsfield Metro. Statistical Area (MSA): | 4.2% |
| Great Barrington LMA:                     | 2.5% |

Source: MA DET

The accompanying chart compares unemployment rates in the Berkshire region and Massachusetts from 1975 through 1999. Since the early 1980’s, unemployment in the region has consistently exceeded the state average, and in times of overall economic downturn been strikingly higher:

**Figure IV.3. Unemployment Rates: Berkshire County and Massachusetts**



Source: U.S. Census ("USA Counties, 1998"); MA Dept of Employment & Training (DET)

Continuing loss of population (out-migration) is believed to account for some improvement in the unemployment rate over the course of this decade as workers unable to find new or suitable employment in the region moved away.

### Earnings and Income

Earnings of persons employed in the Berkshires increased from \$1.6 billion in 1987 to \$2.2 billion in 1997. This is an average annual growth rate of 3.2%. This is only two-thirds of the statewide rate as, during this same period, Massachusetts workers statewide averaged an annual growth rate in earnings of 4.8%.

Manufacturing sector employment is particularly important given the higher wages provided by this sector. Employing about 13% of the total regional workforce, manufacturing accounted for about 25% of the Berkshires' economic output in 1997. Manufacturing also provides higher-paying jobs to larger numbers to workers without a college degree (men and women), as well as higher wages to the most highly educated workers. Other sectors of the economy offer far less attractive wages and opportunities for those workers with only a high-school education.

The Berkshire region, like Massachusetts, is expected to grow in employment, although at a lower rate. Differences in the sectors where job growth will occur between the Berkshire region and Massachusetts will be significant as well, especially in the effect on income and GRP. According to 1997 data, the services sector was the largest in terms of worker earnings, in both the Berkshires and in Massachusetts. For this sector, the Berkshire and the state shares of total worker earnings were comparable at 33% and 36% respectively. Non-durable goods manufacturing in the Berkshires (13%) was ranked second and retail trade (12%) third. In contrast, across Massachusetts durable goods manufacturing (12%) and FIRE (Finance, Insurance, Real Estate at 10%) provided the second and third largest source of workers' earnings by industry.

The importance of these differences comes from the average wages paid by these sectors and differences in wages within the sectors. On the whole, occupational wages are lower in the Berkshires than the State of Massachusetts overall. Manufacturing wages on average are higher than services and other sectors. Average services sector wages are less than half the manufacturing rate, according to 1997 data.

**Table VI.4. Wage Rate, Berkshire County, 1997**

|                    |              | Wage Rate |
|--------------------|--------------|-----------|
| Manufacturing      |              |           |
|                    | Durables     | \$42,848  |
|                    | Non-Durables | \$37,908  |
| Mining             |              | \$29,688  |
| Construction       |              | \$16,670  |
| Trans./PU          |              | \$22,875  |
| Fin/Ins/RE         |              | \$20,211  |
| Retail Trade       |              | \$13,971  |
| Wholesale Trade    |              | \$56,178  |
| Services           |              | \$18,470  |
| Agri/For/Fish Serv |              | \$9,820   |

Source: BRPC, REMI, 1999

More important for the regional economy and workers in earnings is what happens sector by sectors. Durable goods manufacturing (#2 in Massachusetts) provides higher wages/earnings than non-durable goods manufacturing (#2 in Berkshires), and manufacturing in general provides higher earnings per job than services. Maintaining a good base of manufacturing (especially durable goods manufacturing) employment ensures good income for the region's workforce and a strong boost to its GRP. Providing (or protecting) industrial / commercial land use zones where manufacturing activities can provide employment for workers in the region is critically important.

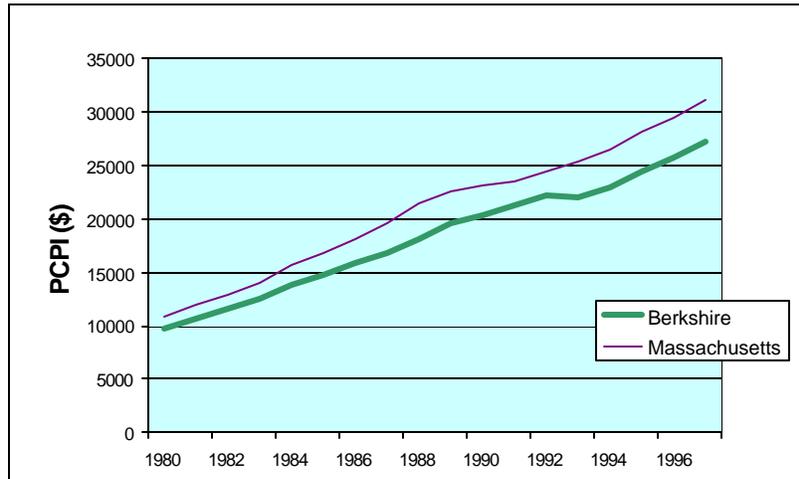
Regional demographics will also play a part in job growth and changes. For the Berkshires this means an increasing number of workers in healthcare and other services as the population ages.

Median household income in the Berkshires has recently grown at a higher rate than Massachusetts, and by 1995 was at 90% of the State level.

| <b>Median Household Income:</b> |          |          |
|---------------------------------|----------|----------|
|                                 | 1990     | 1995     |
| Berkshires:                     | \$30,470 | \$34,407 |
| MA:                             | \$36,952 | \$38,574 |
| Source: U.S. Census             |          |          |

Per capita personal income roughly paralleled the growth rate statewide from 1980 to 1997 as the accompanying figure shows.

**Figure IV.4. Per Capita Personal Income: Berkshire County and Massachusetts**



Source: U.S. Census

### **Workforce Characteristics**

The 1990 U.S. Census recorded Berkshire County's population at 139,352, continuing a decline begun in the 1970's which is expected to begin a slow turnaround over the next decade. Current U.S. Census (1998) estimates put the regional population at 133,038. From 1990 to 1998 Massachusetts grew 2.2 %. Only three counties in the state lost population, and Berkshire County suffered the highest proportional loss with 4.5% of the region's population leaving. The Berkshire region has not kept pace with other regions' population growth partly because of a lagging economy.

**Age:** Changes in population that have taken place in the Berkshire region have left their mark on the region. 1990 Census data shows the median age of Berkshire citizens as 35.9, notably older than the state median at 33.6, and the nation at 32.9. Mirroring the region's population, the workforce is also older than the state and nation: 36.5 years of age.

Despite the value that seniority and work experience represent, older workers are not the age pool of workers targeted for education and training investment. Older workers present higher retraining costs. While their job experience represents a valuable asset, it may not overcome the disadvantage that comes with the expectation of higher earnings and benefits. This makes the older worker less of a "bargain" and potentially less attractive to "new economy" businesses. Coupled with their higher wage expectations, their potential reemployment can mean higher costs to business, making the Berkshire region far less competitive economically.

**Education and Training:** The shift away from manufacturing toward services has significantly affected the Berkshire labor market. In particular, these changes have led to a mismatch between the skills sought by expanding non-durable goods manufacturing and service sectors of the economy and those possessed by workers laid off from jobs in the durable goods manufacturing sector. The so-called "new economy" is expected to become increasingly technology-driven, requiring workers with higher levels of education and skills. The need for high-tech skilled labor is already evident regionally and is expected to grow. Manufacturing

activities which once relied on large numbers of “blue collar” workers are expected to rely on highly skilled workers accentuating the importance of training and re-training for workers.

The Table below summarizes current educational attainment in the Berkshires in comparison to overall Massachusetts and U.S. levels:

**Table IV.5. Level of Education: 1990**

| Percent of Population, Age 25 or over |                  |                   |
|---------------------------------------|------------------|-------------------|
|                                       | H .S.<br>Diploma | College<br>Degree |
| Berkshire County                      | 78%              | 21%               |
| Massachusetts                         | 80%              | 27%               |
| U.S.                                  | 75%              | 20%               |

Source: U.S. Census, 1990

By 1990, the number of Berkshire citizens with some years of college or a college degree had increased substantially as a portion of the regional population. The number who have attended from 1 to 3 years of college increased from 14% to 22%, and those who have 4 years of college or more rose from 16% to 21% of the population 25 years or older. This trend towards more educational attainment at the college level bodes well for individual citizen welfare and the Berkshires’ economic future. In the current so-called “knowledge-based” economy, the need for skilled and educated workers is expanding. Since higher income and earning potential is closely connected to higher degrees of education or technical skill, the necessity to improve the region’s educational performance is paramount.

Overall educational gains made in recent decades represent positive movement for the region, but the gap between the regional and state average college attendance, 21% compared to 27% percent statewide, raises concerns. Industries looking for areas in which to expand or site a business frequently identify educational levels as a primary factor. While Massachusetts distinguishes itself from the rest of the nation, the Berkshires do not.

### **Problems and Opportunities in Improving Business Development Climate**

Since the Commonwealth issued its 1993 report, “Choosing to Compete,” on the relative economic competitiveness of its regions, the Berkshire region has made substantial efforts to address economic issues and improve regional competitiveness. Investment and capital needs to seed new business endeavors have benefited from the formation of Berkshire Capital Investors and actions of the region’s banking community. A number of significant new initiatives (coordinated marketing; workforce development, etc.) have been championed by the Berkshire Council for Growth. An attitude of cooperation between public and private interests has emerged to address the region’s weaknesses and barriers to economic competitiveness.

Continuing this movement toward greater cooperation will be vital in meeting the goal of economic viability for the region's citizens, communities, and industries – and fostering the momentum necessary to succeed in implementing initiatives undertaken or expanded since the early 1990's.

### **Workforce Issues**

In the Berkshire region population loss extending into this decade and the aging workforce has had a number of economic effects, which contribute to the dampening of economic growth and opportunity. Currently, the labor market is very tight, unemployment regionally is low, and business and industry are struggling to fill slots which would spur further expansion. Without the ability to add suitably skilled employees, business expansion is held back both for the growing services sector and for high-skill and technical areas.

**Workforce Development:** In its Workforce Development Blueprint, the Berkshire County Regional Employment Board has identified the training and education issues related to workforce needs in the region. It has identified the necessity to link business, labor, education, and the public sector in creating a workforce responsive to new needs in the changing regional economy. In addition to industry-specific training needs related to the applied technology sector (which has historically been manufacturing and defense-related enterprises), new needs resulting from the information-based and growing services economy have been identified as crucial in upgrading workforce skills leading to employment opportunities. In addition to industry-specific training needs, the need for skills in five key areas were commonly identified by diverse industries. These areas are: Teambuilding & Critical Thinking; Basic Quantitative Skills; Customer Service; Computer Literacy; and Communication.

**Technology Center of Excellence:** A new technology education program introduced by the Applied Technology Council in February 1999, TECHPATH, highlights the joint effort to coordinate and develop workforce skills by linking high schools, Berkshire Community College, and Berkshire County Regional Employment Board training programs to support continuing workforce development. The main thrust of the Council's initiatives is to provide local employers with a stream of talented, technology-focused graduates to meet a critical need regionally for technically-skilled workers for local business and industry expansion in the next five years. Regional businesses indicating a need to add substantial numbers to their workforce include Interprint, Inc.; Data Flute CNC; General Dynamics Defense Systems; Hi-Tech Mold & Tool; Marland Mold; member companies of the Berkshire Plastics Network; and Crane & Company. In addition, the Council hopes to establish the Berkshires as a "Technology Center of Excellence."

To improve regional competitiveness, the Berkshires must continue to address factors which act as barriers. The region will benefit from continuing efforts to expand and diversify its industry and business endeavors to achieve a critical mass of jobs, so job losses regionally will not become population loss, as workers and families leave to find comparable work opportunity elsewhere. Expanded employment opportunities should offer enticements to the young, educated population cohort currently in short supply. The addition of those workers (and their families) to the region will balance an aging workforce and ease the loss of workers heading into retirement. Their presence in the region will offer new ideas and the possibility of innovation, a catalyst for ongoing economic development.

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**APPROACHES and POLICIES:**

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- Recruit qualified businesses and individuals to the region, and retain and strengthen existing businesses.
  - Expand recruitment efforts to attract skilled, younger workers and families to the region. Stimulate the growth of a “trainable” workforce to meet the needs of existing and new companies.
  - Foster development of the workforce through expanded opportunities for education and job training. Foster technology partnerships which link Berkshire companies and public and private university and research laboratory resources for improved technical “know-how” and industrial modernization.
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**Community and Infrastructure Investment**

The Berkshire region faces the challenge of reinvigorating a lagging economy in balance with land use goals and community values. The challenge for the Berkshire region will be to maintain those features that define the communities and regional “quality of life,” and market the region competitively without compromising those features. Whatever else a region offers in terms of location, wage scale, tax incentives, utility rates, capital, etc., growing attention is being given to community quality of life and its “tiebreaker” role in business and workforce attraction and retention.

**Reinvestment in Regional and Community Centers:** The importance of thriving cities and the interdependence of central city locations and their surrounding areas have been increasingly recognized as critical to economic development, affecting income, population, and community character. The prosperity of the entire region is linked to future investment and economic activity in the regional center of Pittsfield, and the northern and southern economic community centers of North Adams and Great Barrington.

For the regional economy to flourish without diminishing regional open space, it is essential that these economic centers thrive with a resurgence of business, cultural, and social activities and exchanges.

**Development Costs in Commercial and Industrial Park Siting:** Allowing economic activity more suited to an urbanized area with existing infrastructure and transportation networks to be sited elsewhere necessitates cost-ineffective redundancy of services already in place. Commercial and industrial parks sited too far from transportation access, with limitations on water and sewer infrastructure availability and site expansion possibilities offer locations only marginally attractive to business and industry. Brownfields redevelopment, renovation of existing mills and abandoned commercial or industrial buildings, and downtown revitalization efforts remain regional priorities to attract outside investment to this region.

**Brownfields:** The nearly finalized settlement between the Environmental Protection Agency and General Electric over PCB contamination and clean-up has brought renewed vigor to regional efforts to market these valuable commercial/industrial parcels (“brownfields”) and bring them back into use. The Pittsfield Economic Development Authority (PEDA) has been designated to oversee details of the final clean-up agreement with responsibility for implementing the cleanup and redevelopment of the initial 45-acre site and restoration or demolition of its 1.5 million square feet of office and manufacturing space. Reclamation of this

site, which offers existing infrastructure and road and rail connections, is considered a key to the revival of economic activity in the region. Both the size of the site and its ability to support heavy machinery for use in large industrial manufacturing are important factors in its potential role.

**Land and Buildings:** Berkshire Economic Development Sites Strategy Project: BRPC identified top industrial, research and development, technology-based business, and corporate office sites market ready and available for immediate economic development. Information was compiled on factors relating to site development, including parcel size, zoning category and conditions, infrastructure availability, highway access, and ownership. Project recommendations included the creation of a comprehensive data bank of sites and a Website intended as a marketing tool geared to businesses and relocation consultants.

## Infrastructure

**Transportation Improvements:** North-Central Highway Access: A federally-funded “Major Investment Study” is currently underway assessing highway access issues noted in business and industry location decisions. The study will determine and assess the impacts of local traffic congestion points, regional residential, business, and tourist usage patterns and develop multi-modal problem-solving strategies to meet identified needs. Recommendations are expected by May, 2000.

**Airport Improvements:** Pittsfield Airport Expansion: The Airport Commission is currently updating its Master Plan. Probable recommendations will include improved runway capacity and the addition of a regular commuter carrier operation. These efforts are expected to offer additional options and result in increased services to businesses and individuals needing improved air transport.

**Telecommunications Improvements:** The Berkshire Connect initiative has been cited by FCC Commissioner William Kennard as a national model for efforts to improve telecommunications access to rural or under-served areas. A partnership agreement was recently signed with Global Crossing/Equal Access Networks for high-speed, affordable Internet access throughout the Berkshire region.

### **APPROACHES and POLICIES:**

- Promote the revitalization of downtowns and under-utilized industrial and commercial sites.
- Support economic opportunity for distressed areas of northern Berkshire to promote business creation and community revitalization.
- Develop flexible and proactive strategic planning for ongoing development and maintenance of regional core downtowns: Pittsfield, North Adams, and Great Barrington.
- Focus on identifying and addressing infrastructure needs critical to business and industry: roads, rail, telecommunications, water and sewer projects, schools and town / community / regional center improvements.
- Maintain an adequate inventory of sites and buildings available for economic development purposes.

## Regional Coordination and Marketing

Economic development activities in the past have been hampered by the large number of private and public interests and groups (about 50 separate organizations) involved in economic development activities and promotion of the region. The often-overlapping efforts have presented a confusing picture of the region's business climate, the availability and skills of the workforce, the location of appropriate commercial / industrial sites, and failed to present a cohesive picture of the region's economic vision and goals.

With the Berkshire region's sensitivity to economic upswings and downturns, strategic planning can help the region manage impacts. To do that will require the cooperation and coordination of Berkshire business and industry leaders in partnership with public sector groups with a shared commitment to planning for economic growth and development. Regional cooperation can also provide the means to enable the Berkshire economy to do more than just "hold its own" -- to thrive on its own terms through community choices -- environmentally sensitive and economically strong.

**Berkshire Council for Growth:** Since early 1998, the Berkshire Council for Growth (formerly the Berkshire Jobs Task Force) has played a central role in overseeing a coalition of regional groups involved in economic development efforts. Under this organization's "umbrella," member organizations contribute and coordinate their areas of expertise in a concerted attempt to meet regional economic needs. These efforts have included marketing the region with the goal of attracting new industry and business activity, and attracting and retaining the young cohort of workers and families who have disappeared from the region.

The marketing initiative resulted in the development of a Website ("Berkshiregrowth.com.") This site advertises available employment opportunities in the region to improve the flow of information about the Berkshire region and increase the pool of applicants. The coordinated marketing effort should be of significant benefit to regional employers in reducing time and costs associated with recruitment and turnover and addressing the needs of dual income households in finding employment for both wage-earners.

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### **APPROACHES and POLICIES:**

- Support regionwide coordination of efforts to create and implement economic development strategies.
  - Develop capacity for improved regional data collection and analysis to support informed local and regional decision-making.
  - Provide timely forums for regionwide, multi-interest discussions on common challenges and goals in living and working in the Berkshires.
  - Foster developing networks and alliances among employment groups, business, industry, and education leaders and other community/regional citizens ("opinion leaders") for a shared vision and common goals.
  - Identify components of "Quality of Life" marketable as regional assets.
  - Promote access to capital and markets for "homegrown" or other new businesses.
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## REGIONAL COMMUNITIES AND FISCAL RESPONSIBILITY

Continuing population decline and the shift of population away from established urban centers in the region have raised concerns about land use and community fiscal integrity. From 1900 to 1990 the Berkshire regional population became an ever-smaller portion of the overall Massachusetts population, dropping from 3.4% to 2.3%. Despite population decline in this region growth has taken place in several “urban ring” and smaller communities across the region, not unlike population dispersal taking place across the state and nation.

At the turn of the last century (1900) the largest city in the region was North Adams, edging out Pittsfield by 2,434 for a total population of 24,200. The population of both cities comprised 48% of the total population in the region. By 1950 Pittsfield had emerged as the regional center with a population of 53,348, 40% of the total regional population. Pittsfield and North Adams (21,567) together accounted for 56% of the region’s total population. Together they are now estimated to be somewhat less than 46% of the regional total. While Pittsfield and the region’s two largest centers of North Adams and Great Barrington attempt to maintain their populations, many towns in the region have continued a growth trajectory which has created concerns arising from costs associated with that growth: the necessity to add or upgrade infrastructure and improve services.

As population shifts outward from the more concentrated regional and community centers, outlying communities find it costly but necessary to build and improve roadways, to provide additional community public services such as water and sewer, to expand school, town hall, and other community buildings and programs often mandated by the state. With little fiscal capacity beyond residential property taxation, communities experiencing new levels of population and household growth struggle to find additional sources of revenue to offset costs and keep taxes down. Attempts to draw commercial and/or industrial enterprises to town will proliferate, as one after another, communities seek a burst of new revenue. While highly understandable, these quests for the “golden egg” often contribute to further destruction of the “golden goose”: core regional centers continue a downward spiral as further population decline takes place, and increasingly, population that “heads for the hills” demands new or greater services.

Adding to the problem is the speculative nature of establishing commercial and/or industrial parks in less urban locations with inadequate examination of feasibility and accessibility issues. Before communities sink public funds into development of a site and the “promise” of commercial taxes, they must consider long-term costs and benefits and other demands that exist for those funds. Site availability will not in itself ensure a market, and may prove costly in draining funds from a community’s coffers or scattering commercial activity in a way that demands road-building, disrupts scenic landscapes, and competes with more urban areas seeking to rejuvenate their commercial/industrial zones.

In areas with strong rural characteristics, limited access to job and educational opportunities, and populations with deep regional roots, traditional cycles of poverty and low educational attainment can present special challenges not only to the economic well-being of individuals and families, but also to their respective communities and regions. Large gaps between those (individuals, families, and communities) with wealth and those without add to the tensions and difficulties of community and regional decision-making about the use of resources. Discussions and decisions about the use and purposes of public funds, about the necessity to upgrade or introduce additional public services and the rise or fall of the tax rate are difficult enough without the absence of common understanding of fiscal impacts. Both short and long term fiscal impacts of major community decisions fall disproportionately on various citizens in a community.

Those with the fewest resources often face a greater need for public services but at a higher personal price as taxes climb. The effects of major community decisions can impact regional economic goals as well -- especially the failure to make timely investments in infrastructure which supports business endeavors.

The fiscal challenges facing the smaller communities and villages of the region to find adequate and stable tax resources to support the provision of public services, particularly new demands for a higher level of expenditure for education, suggest that careful attention must be paid to cost-effective operations and capital planning. Regionally, efforts to share management expertise, cost-saving techniques, and service provision could be considered in light of restrictions on and citizen reluctance to pay rising taxes.

A key component of economic development (a region's ability to attract business, industry, and potential employees) is the level, quality, and cost of a region's public services: Are the schools good? Does the region look out for the needs of diverse groups of citizens? Are the roads in good repair? What is the tax rate? The answers to these and similar questions play a significant role in the success of economic development strategies. Fiscally responsible management and provision of public services, appropriate land use policies, and thriving regional and community centers successfully attract and retain population and economic opportunity.

It is imperative that more information and analysis of local fiscal issues and community needs be developed, so that regional communities can understand the fiscal impacts of land use, growth and economic development and make choices for the future. That remains as a future goal.

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**APPROACHES and POLICIES:**

- Promote opportunities for strategic alliances among towns and municipalities to enhance common goal setting and problem-solving capacities.
  - Develop a better understanding of the fiscal impacts of growth and change to both growing communities as well as declining communities. Better document those impacts in a useful manner for community leaders and policy makers.
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# V EFFICIENT LAND USE DEVELOPMENT AND MANAGEMENT

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To respond to growth related challenges and opportunities that face the Berkshires, it is important to think about the many factors that will shape the future of land uses in the region—transportation issues, environmental concerns, socio-economic problems. Through informed, thoughtful decision-making, communities can make choices so that they can move into the future maintaining what they treasure from the past and responding to current and future needs. Growth and change can be accommodated in a land-efficient, cost-efficient, and resource-efficient way while maintaining the wonderful attributes of the region.

Yet, if communities fail to conduct proactive planning, a likely future land use pattern may be a continuation of the recent past. Sprawl is likely to continue to manifest itself throughout the region, threatening to turn the region into an indistinct suburbanized place. Frontage along rural, scenic roads will likely increasingly be developed. Vistas across open fields will likely be fewer and shorter. Commercial strips will likely expand along highway corridors creating eyesores as well as traffic problems.

A basic foundation of the *Regional Plan for the Berkshires* is to promote and maintain a settlement pattern of compact villages and downtown areas, separated by less densely settled areas and rural countryside. Concentrating development and new growth in appropriate locations will strengthen existing centers, protect natural resources, maintain an efficient transportation network, provide better quality services and facilities, and help each community protect its values and maintain its distinct identity. The challenge is to accommodate growth that respects the historical settlement patterns as well as the natural environment of the region.

The goals behind the promotion of this settlement pattern are to:

- Encourage balanced growth and development consistent with the capacity of the natural environment in order to maintain the Berkshires economic health and strong sense of community.
- Encourage the preservation of rural, village, town, community and regional centers as vibrant centers for living, working and shopping.
- Maintain and revitalize existing urban areas and industrial centers.
- Preserve and support agricultural uses in order to maintain traditional occupations, economic diversity, and scenic resources, associated with agricultural views.
- Develop and sustain a balanced and diverse transportation system which provides for the safe, economical, and efficient movement of goods and people, and is compatible with the Berkshires social patterns, land use, economy and environment.

## LAND USE

### Settlement Pattern in the Berkshires

The physical landscape of the Berkshires has played a dominant role in the region's settlement pattern. Settlement first occurred in the Housatonic and Hoosic River valleys where the land is gentle, the soils productive, and where there is good access for river transportation. Towns and villages evolved in these river valleys and were soon connected with roadways along the rivers. This pattern, a natural response to the topography, encouraged a road system that radiated outward from the core villages and into the uplands to the east and west. The result was a land use pattern of small villages in the uplands and larger towns and cities in the river valleys, very much influenced by the topography and constraints of the Berkshire landscape.

The current land use pattern is characterized by extensive forestlands, agricultural lands (predominantly in the river valleys), rural residential development along roadways, small villages, a regional center, and several town centers. The Massachusetts Turnpike is an important factor that has influenced access into and out of the region. The region's cultural heritage in the arts and its proximity to metropolitan areas of the Northeast have been strong magnets for visitors and second home owners, especially in the southern part of the region.

### Trends and Concerns

Due primarily to its topography, the Berkshire region is still a relatively undeveloped area with 92% (approximately 557,000 acres) of all land either not developed or used for recreational/open space and agricultural purposes according to BRPC's estimate of land use for 1997. The following table shows current land use in the Berkshire region. The information was gathered by BRPC and is considered estimates.

According to these estimates, developed land accounts for approximately 49,500 acres, or 8% of the region total. Approximately 83% of the developed land is used for residential purposes. Approximately 84% of land in residential use contains single-family homes. Despite the region's declining population, from 1985 to 1997 there was a 14% increase in land used for residential purposes—almost six thousand additional acres.

A map of land use within the region can be found at the end of this Section.

***Land Use Data Concerns:***

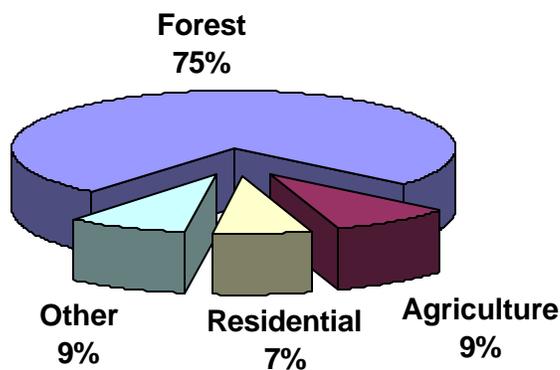
The 1985 land use data was generated using a different methodology than was used for the 1997 land use data update. While these numbers should not be directly compared, BRPC is comfortable that data comparison is representative of broad land use trends. Please be aware of this throughout the Plan.

**Table V.1. Berkshire County Land Use Change, 1985 to 1997 (estimated)**

| Land Use Category     | 1985 Acres     | 1997 Acres     | Change in Acres 1985-1997 | %Change 1985-1997 |
|-----------------------|----------------|----------------|---------------------------|-------------------|
| Cropland              | 38,521         | 36,925         | -1,596                    | -4.1%             |
| Pasture               | 20,198         | 18,941         | -1,257                    | -6.2%             |
| Forest                | 459,434        | 453,469        | -5,965                    | -1.3%             |
| Wetlands              | 14,910         | 14,888         | -22                       | -0.1%             |
| Mining/Waste Disposal | 2,255          | 2,542          | 287                       | 12.7%             |
| Open Land             | 13,668         | 15,268         | 1,601                     | 11.7%             |
| Recreation            | 5,233          | 5,566          | 333                       | 6.3%              |
| Residential           | 35,180         | 41,094         | 5,914                     | 16.8%             |
| Commercial            | 2,591          | 3,035          | 444                       | 17.1%             |
| Industrial            | 1,459          | 1,537          | 78                        | 5.3%              |
| Transportation        | 1,346          | 1,314          | -32                       | -2.3%             |
| Water                 | 10,641         | 10,859         | 281                       | 2.6%              |
| <b>County Total</b>   | <b>605,437</b> | <b>605,437</b> |                           |                   |

Source: UMass MacConnell classification 1985, 1997 BRPC update

**Figure V. 1. Land Use Estimates in the Berkshire Region, 1997**



Several major national trends have influenced land use decisions over the past several decades. The widespread use of the automobile and the construction of a suitable road network have enabled people to move away from the major population centers to suburban and rural areas. This expansion accelerated rapidly after World War II. At the regional level, the result of these trends was the movement of people and shopping facilities from the city cores to outlying areas.

Another trend widely evident in the Berkshires is the move from the cities to the rural communities. Many people prefer to live in rural communities even if it means a longer commute to work. This movement from the cities to areas removed from both the major employers and the commercial centers in the region has perpetuated the use of the automobile, increased the costs of moving goods and people, compromised large tracts of open space, and contributed to locale problems with communities striving to maintain fiscal stability.

**Sprawl:** Unplanned growth results in a decentralized and incoherent pattern of development on the landscape. This type of low-intensity land use pattern, often referred to as “sprawl”, results in the abandonment and de-population of traditional urban centers and consumes open land in growing suburbs and rural communities. Sprawl and a consumptive pattern of land development remain a significant problem for the Berkshires. Frontage lot, subdivision, and commercial strip development along major roads has blurred the boundaries between village and town centers and outlying rural areas. In short, sprawling contemporary development patterns continue to slowly but steadily threaten the very quality of life which makes the Berkshires a desirable place to live and visit.

Sprawl is not unique to the Berkshires. Between 1950 and 1990, the population of Massachusetts grew by only 28% while the amount of land developed grew by 188%. A similar trend has occurred in the Berkshires. According to land use estimates conducted by UMASS Amherst, in 1952 there were approximately 16,000 acres in developed land. By 1997 there were an estimated 48,400 acres in developed use—an increase of 200% from 1952. Land development far outpaced population increase and has continued to despite recent population decline. From 1950 to 1970 the region’s population grew 12% to its peak at 149,402. The past 30 years (1970-2000) has seen population decline to its 1950 levels. Yet, land development continued in a strikingly upward trajectory.

The impacts of this unplanned growth include fragmentation of critical wildlife habitat, increases in air pollution from traffic, degraded water quality due to runoff from parking lots and impervious surfaces, and a reduction in recharge to our rivers, streams, and aquifers. This type of growth is inconsistent with the pedestrian-friendly and visually attractive nature of Berkshire communities. Unlike sprawl development, the pattern of development typical of Berkshire villages and centers is characterized by dense settlement, narrower streets, public parks, and various mixed-uses.

While sprawl is a direct threat to the quality of the water and air, the beauty of the landscape, and the character of the region’s communities, it also jeopardizes the economic well-being of the region. Sprawl squanders resources that are needed to support economic development. Sprawl can increase the cost of infrastructure and community services. Resource-based industries such as farming and forestry, as well as tourism and recreation, can suffer as large tracts of land are consumed by cookie-cutter type subdivisions, strip malls, and large parking lots that dot the landscape.

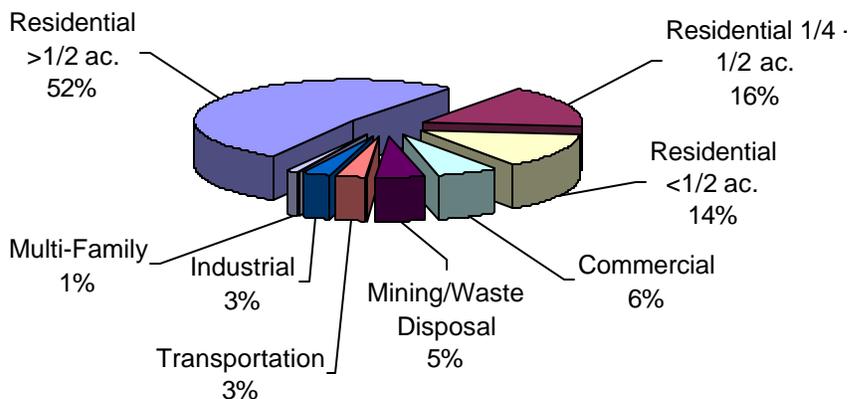
Most communities desire economic development, but are concerned that the fiscal, environmental, and social costs of sprawl will outweigh the benefits of growth and change. With careful planning, however, growth can be accommodated without sacrificing the character of the Berkshires and the quality of life residents cherish. The Commonwealth of Massachusetts, realizing the devastating effects of sprawl and unplanned growth, has begun a new initiative to empower communities to develop growth-planning strategies through incentives, technical assistance, and outreach. The Executive Office of Environmental Affairs (EOEA) *Community Preservation Initiative* aims to provide funds to local governments and regional planning

agencies to develop growth plans that balance environmental protection with economic development.

**Conversion of Land to Single Family Residential Land Use:** The conversion of undeveloped land to single-family residential use has been swift since 1972, despite the fact that the population has very significantly decreased. Between 1971 and 1985 approximately 4,600 acres were converted to residential use. Between 1985 to 1997 it is estimated that an additional 5,900 were converted to residential use. Of the estimated 41,000 acres in residential use in the Berkshires in 1997 approximately 10,500 (about one quarter) were converted to that use since 1971. Most of the land was converted to low-density single family residential, typically on lots of two acres or more. Because of concerns about water quality and loss of rural character, many towns have increased their minimal lot sizes in recent years. This has resulted in increasing land consumption per dwelling unit, magnifying the affects of sprawl.

**Continual and Steady Decline in Agricultural Land Use:** There has been a steady decline in land in agricultural land use in the region. Between 1971, when there were approximately 59,800 acres in agricultural land use, and 1985, when there were approximately 58,700 acres, there has been an approximately 1,100 acre decrease. It appears that this decrease has continued to 1997 when it is estimated there were 55,900 acres in agricultural use. This is a 2,800-acre decrease. Agricultural land use is an important defining characteristic of the Berkshires landscape. The juxtaposition of farm fields amongst the hills and forests contributes to the unique character of the Berkshires. This continued decline in agricultural land use will continue to erode the uniqueness of the Berkshires. The following figure depicts developed land in the Berkshires, and are BRPC Estimates.

**Figure V. 2. Developed Land in the Berkshires, 1997 (52,546 Acres)**



**Patterns of Conversion of Land to Commercial Use:** Countywide there is an estimated 3,000 acres in commercial land use. This has increased approximately 400 acres since 1985 when there was 2,600 acres and 700 acres since 1971 when there was about 2,300 acres.

Prior to 1987, there was an estimated 5.7 million sq. ft. of retail space in the region's core communities of Williamstown, North Adams, Adams, Cheshire, Lanesborough, Pittsfield, Lenox, Lee, Stockbridge, Great Barrington and Sheffield. Between 1987 and 1997 approximately 1.7 million sq. ft. of retail space was built in the region. This represents more than a 25% increase in total retail space in these corridor communities. This occurred during a time period when the region's population decreased significantly, an estimated 5%. A retail build-out analysis (a build-out analysis projects the total amount of new development based on existing land use and environmental and regulatory constraints) estimated that as much as 3.7 million sq. ft. of additional retail space could be built along the region's major highway corridors.

**Decline of Traditional Commercial Uses or Downtowns:** Commercial development away from urban centers has left downtown areas struggling to compete. In every case of new commercial development from 1987 to 1997 cited above, other than the North Adams K-Mart expansion, these projects have been located outside of a community's Central Business District. The continuation of "commercial sprawl" could pose significant economic problems for the region's downtowns. It is likely that large corporate retailers will continue to build new retail complexes in outlying areas that essentially replace historic town and city centers and older strip centers. This succession has already occurred in Pittsfield and other communities. Continuation of this trend may leave communities with a considerable inventory of blighted vacant retail space that becomes a liability for the community.

**Shifting Retail:** Given the sophisticated market analysis that goes into corporate retail development of large-scale development projects, many new large scale projects are likely to be quite successful at the expense of smaller, locally owned retailers. The region is likely to continue to experience the loss of the local "mom and pop" stores that not only support neighborhood proprietors and retain dollars in the region but also provide the local "flavor" that is essential to the Berkshires.

**Reduction of Land Available for Industrial Use:** The amount of land utilized for industrial, light manufacturing and the similar uses has decreased recently, as many communities have allowed commercial and retail uses in these areas. Graphic examples of this reduction are the conversion of previous industrial zoned lands such as the Wal-Mart site in Coltsville, and North Adams on Route 8; the Stop & Shop on Dan Fox Drive, and in North Adams, as well as the Lanesborough Mall. Most of the above sites had adequate access off an existing highway, sewer and water availability, and manageable site conditions for the use intended. Currently there exists very little readily developable land of reasonable size for manufacturing/light industrial with good access and sewer and water service.

**Sprawl's Effect on Traffic:** A 1997 Congestion Management Report produced by BRPC reveals that already the most congested highways in the region include the Route 2 corridor in Williamstown and North Adams and the Route 7/20 corridor in Pittsfield and Lenox. Future potential problem areas have been identified as Route 8 in Cheshire and Lanesborough, and Route 7 in Great Barrington and Sheffield. According to the retail build-out analysis, substantial new retail development could be built along these corridors which would likely cause additional impacts. Unless new roadways are constructed to divert through traffic, in most instances two or more additional lanes and numerous additional traffic signals will be required in order to

maintain comparable pre-development traffic flow expectations. Residential sprawl is often less noticeable but also cumulatively slows traffic and makes driving more difficult and less safe.

**Loss of Rural Character and Diminished Quality of Life:** Residents and visitors alike have expressed concern about the loss of community character in the Berkshires. Frontage lot development, subdivisions and commercial strip development along major roads have blurred the distinctions between village and town centers and outlying rural areas. Existing zoning and subdivision regulations, which require wide roadways, large lot sizes and setbacks and excessive amounts of parking have encouraged a sprawling suburban development pattern for the Berkshires. Such a pattern strongly promotes and favors the use of the automobile and lessens the likelihood of pedestrian oriented activities such as biking and walking.

**Harmful Effects of Commercial and Residential Sprawl on Tourism:** Though it is difficult to document and quantify, one can surmise that sprawl is already negatively impacting the region's tourist industry, since this type of development often degrades rural landscapes and creates more pronounced traffic congestion. Sprawl, over the long term, has the potential to make the region a less attractive tourist destination.

**Dispersion Affects both Urban and Rural Areas:** The region's cities are losing population and are expected to continue to do so. The existing tax imbalance will be exacerbated by the continuous desire for often expanding services to respond to changing demographics applied against a shrinking tax base. As the cities lose population, the hilltowns are expected to continue to grow at population rates that will noticeably alter their landscape and fiscal posture.

**Potential for Continued Dispersion:** Recent trends are the best indicator of the effects development pressures are having on the land and the level of land conversion occurring. These trends, combined with the amount of potential developable land, help forecast likely future patterns. The amount of growth that can be accommodated will depend in a large part on natural resource constraints, and preferences of the marketplace.

In 1999 and 2000 as part of the Massachusetts Executive Office of Environmental Affairs' Community Preservation Initiative, BRPC conducted full build-out analyses for the region's communities. These build-out analyses determined how much land could be developed given existing land use, environmental constraints, protected open space, and current zoning. In addition, these analyses estimated the number of new homes that could be built. The region still has an enormous amount of potentially developable land. As of the printing of this report, for the 18 communities complete, the region has 120, 945 acres having the potential to be developed. If this land was developed to its fullest capacity, an unlikely scenario in the foreseeable future, the potential exists for over 90,000 new dwelling units.

### **Cause for Concern**

In the last three decades, the Berkshires experienced growth and development without adequate controls. Development was and still is occurring in an increasingly low-density "sprawl", which has and is still resulting in the permanent loss of farmlands, open space, scenic areas, and historic resources, the very qualities which give the Berkshires its distinctive character. The high costs of low-density sprawl development is over-stressing public infrastructure and local fiscal capacity. It is affecting natural resources such as aquifers and waterways, increasing traffic congestion and changing community character. In short,

contemporary development patterns threaten the very quality of life that makes the Berkshires a desirable place to live, work and play. Local Master Plans that facilitate effective growth management can be adopted to identify suitable areas for growth and appropriate locations for upgrading or investing in new infrastructure.

## Regional Land Use

It is clear that different types of communities in the Berkshire's vary considerably in their growth dynamics. Land uses vary in composition among and within municipalities. Yet, there is a great deal of commonality in the spatial patterns of land use and development across communities of the region. As such, an analysis of growth and land use issues in the region requires building a typology, or characterization, of towns to better understand these dynamics, identify growth issues common to communities, and suggest strategies for dealing with the growth issues.

The format of local zoning and subdivision regulations in the region is fairly consistent due in large part to past BRPC technical assistance activities, particularly as a result of assisting in the updating of zoning following the new Zoning Act. The state-published guide for subdivision regulations has also brought about significant uniformity in the format. Moreover, topography contributes to the consistency of much of the zoning throughout the region. Nearly all Berkshire communities exist under natural constraints of steep, very hilly terrain with poor drainage. These constraints are reflected in the larger lot size requirements of many of the small "hill" towns. Conversely, many of the "valley" towns along the Housatonic River provide more services and allow higher densities.

On the other hand, land use regulations such as cluster development and planned unit development are little used in the region due to their complexity and because development is infrequent and often small-scale. Only six communities allow cluster development. Also, site plan review requirements are utilized by less than half of the area communities. Many communities have become more interested in these techniques in the past several years, and widespread use may become more common in the future.

Given the rural nature of the municipalities in the region, the status of zoning reflects current land use and community needs. In cities like North Adams and Pittsfield, intensive land uses resulting from business and industry have led to complex zoning bylaws and multiple zoning districts. A lack of development pressures in rural towns such as Mt. Washington and Windsor has led to minimal land use controls and few zoning districts. In the case of Hancock, there exists no zoning control at all.

As most land use decisions are made at the local level, it is important that communities in the Berkshires use their master plans and land use regulations to ensure that future development takes place in a manner consistent with both municipal and regional goals. Local governments should ensure that existing land use regulations are used effectively, or develop and implement appropriate innovative techniques. Appropriate methods of regulating



land use depend on local problems and opportunities. The growth management strategies and techniques found in the toolbox at the end of this plan should be considered in addressing the various growth management issues of communities in the Berkshires.

### **Typologies: Patterns of Place**

Different types of communities face different issues in dealing with growth and change, and have different resources for dealing with related issues. Whether a town is rural, suburban, or metropolitan is largely beyond the control of any one person or group. Their histories have determined the level of their resource development, and their spatial locations often determine the nature of specific issues they will face. Yet, while there is a great deal of commonality in the patterns, there are fundamental differences in scale, as well as population density, utility infrastructure, economy and commuting behavior.

With this in mind the *Regional Plan for the Berkshires* envisions that new growth and development be concentrated close to the established centers in order to maintain the region's characteristic pattern of settlement—concentrated development separated by rural countryside. Growth and development should vary in both intensity and scale that is appropriate to its location, with respect to existing settlement patterns, natural resources, availability of existing and planned public infrastructure, and land use policies established in existing town plans. This concentration of development, combined with careful open space and transportation planning, is intended to promote a land use pattern that will enable the region and its communities to provide residents with an exceptional quality of life.

To support the vision of concentrated development, the plan has characterized the region's existing densely settled areas (i.e. downtowns and centers) into five general categories, or types. These "typologies" are Rural Settlements, Village Centers, Town Centers, Community Centers and a Regional Center. The use of typology is an appropriate concept for developing a planning strategy that is authentic to the region and can be an effective tool for managing growth as it recognizes differences between communities. The characterization of the region's communities is not meant to be prescriptive. It is designed to help communities as they plan for the future.

Different levels and types of development and land utilization are envisioned for the five types of centers, as are differences in the scale of economic activity and attraction. The promotion of this settlement pattern will reduce the pressure to develop farmland, forests, and other areas of critical planning concern; minimize sprawl and the effects of such a development pattern; and ensure that existing settlements, village, town, community, and regional centers remain vital and vibrant areas providing a mix of land uses and providing for a variety of human needs, including housing, employment, and basic services. Municipalities should review the following information and determine how this acknowledgement may assist future planning efforts.

## Regional Center

The City of Pittsfield is the Regional Center of the Berkshires, providing a range of commercial, industrial, and educational amenities. Located in the geographical heart of the Berkshires, Pittsfield is the largest employment center, as well as the governmental center of the region.

Pittsfield has a population of approximately 45,500 people, which represents about one-third of the region's total population. The City is fully served by municipal water supply and wastewater treatment facilities and contains a full range of services supporting development, including transportation, solid waste, power and communications. It hosts the major hospital in the region as well as is home to Berkshire Community College. The future of the City of Pittsfield will play a dominant role in the future of the Berkshires.



Pittsfield displays land use patterns consistent with regional centers. It has a well defined downtown, as well as sizable commercial and industrial facilities within the city proper. Residential patterns in the city are a variety of mixed use/high to medium density and low density residential, with density decreasing with distance from the core area. The city also has large undeveloped natural areas where little change is occurring, reinforcing the idea that community type and settlement patterns are based largely on geography rather than political boundaries.

Notwithstanding land use considerations, fiscal stability is also a major concern. The continued future of Pittsfield as a dominant and vibrant regional influence is uncertain. As previously mentioned, Pittsfield has lost some 10,800 residents since 1970, and is expected to lose additional population until the year 2010. Many of the policies and resulting action strategies stated in this plan are oriented to the re-vitalization and redevelopment of Pittsfield.

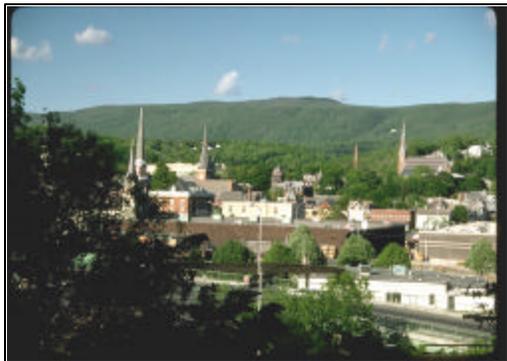
As the regional service center, Pittsfield will continue to provide for the region's permanent population. This plan recognizes and supports Pittsfield as the center of the region's primary residential, commercial, and industrial growth. As such, the plan recommends specifically that efforts be undertaken to promote revitalization of the downtown area, maintain and enhance existing residential neighborhoods, redevelop brownfield sites, and rehabilitate existing housing stock.

### **APPROACHES and POLICIES:**

- Direct new growth in the form of jobs, housing, commerce, utilities, industry, community facilities, recreational facilities, and cultural facilities to the Regional Center.
- Promote the economic and community vitality of the Central Business District in Pittsfield. Support revitalization efforts that strengthen and improve viability of the downtown area.
- Use and maintain historic structures whenever possible.

- Target federal, state and private funding to support public transit, bridge and highway repair, and other transportation needs, water and sewer, community development, housing, recreation and other identified Regional Center needs.
  - Encourage the rehabilitation of existing housing and commercial/industrial buildings and environs around them.
  - Promote the attractiveness of the Regional Center through quality building and landscape design and by maintaining public open spaces for scenic and recreational pleasure.
-

## Community Center



The Berkshire region contains two Community Centers: Great Barrington and North Adams. Differing from the regional center mainly in scale of population, commercial and industrial development patterns, and overall economic opportunities, the Community Center typically serves a sub-regional geographical area usually up to 15 miles from its core.

In addition to providing personal and professional services, Community Centers provide for the sale of a broad range of goods (food, clothing, furniture, appliances, sporting goods, etc.) at the retail level.

Community Centers are usually large enough to accommodate an institution of higher learning, a hospital, a library, and cultural amenities such as theaters and museums. A diverse variety of housing can be found. These centers have an industrial and manufacturing capability and employment base. A Community Center normally supports a variety of restaurants and professional offices and a downtown central business district that is quite definable, with publicly owned off street parking facilities. They are located on major state highways and served by public transportation. Major sized supermarkets are within close proximity and they serve a much wider geographical area when compared to a combination of both village and town centers. Municipal water supply and wastewater treatment facilities typically serve the majority of businesses and homes in the community. Parks are found within proximity to the downtown area.



The Community Centers provide some of the best living environments in the region and should be treated as focal points of development and activity within the Berkshires. To accomplish this, the plan recommends the maintenance of attractive and functional downtown areas, maintenance of traditional housing stock, maintenance of high quality water and sewer facilities, and continued initiatives to enhance culture and the arts.

### **APPROACHES and POLICIES:**

- Encourage the designation of growth centers and discourage new roadside strip commercial development outside of this growth center.
- Target federal, state, or private funding to support infrastructure improvements, bridge and highway repair, installation of sidewalks and lighting, housing and recreation.
- Support initiatives to enhance culture and the arts in community centers.
- Support efforts to enhance the diversity of housing stock within community centers.

## Town Center

A Town Center usually serves a wider geographical area than a Village Center. The Town Center is larger and more concentrated than a Village Center with many more and different types of housing. The housing is predominantly single-family in nature, but there are noticeable apartments over stores, with some apartment buildings and condominiums. The overall density is noticeably higher than the Village Center and public transportation is available. They have both public water and sewage and are normally located along a major state road or at the confluence of two state roads. A public park, perhaps including some active recreational facilities, is present as well as a defined provision for off street parking.



Town Centers serve communities which have most, if not all, of the attributes of Village and Rural Centers and the following additional characteristics; retail stores, business offices, banking facilities, auto repair facilities, large variety food markets, provision for off-street parking, noticeable sidewalk activity, restaurants, and aspects of an employment center.

For communities that identify themselves as having characteristics of Town Centers, the plan recommends adoption and enforcement of strict standards for architectural design, landscaping, and signage, provision of adequate parking, provision and maintenance of borders to create well-defined centers, and provision of a range of activities and services to serve the needs of those living in the town center.

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### **APPROACHES and POLICIES:**

- Target federal, state, or private funding to support infrastructure improvements, bridge and highway repair, installation of sidewalks and lighting, housing and recreation.
  - Encourage the construction or expansion of utilities when needed to protect health and groundwater resources, and allow full use of land within growth boundaries of the Town Center, to the extent feasible.
  - Support improvements to mass transit and alternative forms of transportation.
  - Support the use of design guidelines for protecting and enhancing the unique character of Town Centers.
-

## Village Center

The Village Centers within the Berkshires are important planning areas because they serve as a key element for structuring new growth and development outside of the community and town centers. Village Centers provide for concentration of a mix of residential and commercial services. Village Centers offer limited goods and services for local residents, present opportunities for local businesses and employment, and provide a rural town with a sense of place. Many of the Village Centers are important historically and contribute to the aesthetic appeal of the entire region.

Characteristics of Village Centers include a mix of commercial and moderately dense residential development, community facilities (church, school, post office, town hall, etc.) and perhaps some industrial development. Infrastructure improvements vary from village to village based on the size of the community. Some Village Centers have invested in wastewater treatment facilities, water systems, sidewalks, lighting and recreational lands.

Village Centers are points for people to connect with other people and services, and for customers to connect with merchandise. This requires providing safe and convenient ways for various modes of transportation to link in the villages or at the village edges. Automobiles and trucks are essential in the villages and must be effectively accommodated, but they must not dominate the human and economic functions for which the village exists.

Municipalities should consider existing villages and surrounding areas as suitable locations for new growth. Development in and around Village Centers reinforces historical settlement patterns, is economically efficient, and reduces the amount of less desirable growth scattered through the countryside. Maintenance and improvement of infrastructure that serves Village Centers is important so that growth can be accommodated with minimal environmental or financial costs to the community. Planning for these areas should encourage a variety of residential and commercial/industrial uses, but at a smaller scale than in Town and Community Centers. Residential development in Village Centers should be permitted at higher densities depending on adequate infrastructure and soil conditions.



For communities that identify themselves as having characteristics of a Village Center, this plan recommends adoption of local land use regulations designed to preserve community character and maintenance of small commercial uses which are designed to serve local needs.

### **APPROACHES and POLICIES:**

- Establish and maintain village boundaries in order to prevent rural sprawl and preserve historic settlement patterns.
- Direct residential and commercial development, recreational facilities, and cultural activities to villages to keep these centers culturally, socially, and economically viable.

- Protect the character of villages through appropriate design and scale of commercial, industrial, residential, and transportation infrastructure.
  - Encourage revitalization efforts in villages which strengthen and improve the viability of villages. Use existing historic structures in the villages whenever possible.
  - Encourage the construction or expansion of utilities when needed to protect health and ground water resources, and to allow full use of lands within villages.
-

## Rural Settlements

Within the Berkshire region, there are settled areas that cannot be described as any of the aforementioned types due to factors in scale and degree to which new growth has impacted the area. Typically the “town center” of communities with less than 1000 residents, these Rural Settlements generally consist of a small cluster of homes in the core of the town and usually a church, post office, general store, and perhaps a school or some other public building such as the town hall. These Rural Settlements are steeped in history and have usually seen little new development. Settlements typically have no municipal water or sewer service. Most buildings are located on two or fewer roads, with access generally along a main state road. Rural residential housing exists in other areas of the town. The principal land use in the core of settlement areas is residential, with the homes historically clustered together on small lots.



Many of the communities in the region display a land use pattern typical of Rural Settlements. For communities that identify their center as having a settlement pattern typical of Rural Settlements, the plan recommends encouraging a mix of compatible uses including recreation, housing, home businesses; protection of community character through appropriate zoning, site planning, and building design; and efforts to revitalize the rural settlement area to strengthen and improve viability of these areas.

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### **Approaches and Policies:**

- Encourage a mix of uses within rural settlements including housing, home businesses and recreation, provided that these uses are compatible with one another.
  - Support efforts to protect the character of rural settlements through appropriate zoning, site planning and building design.
  - Encourage revitalization efforts in rural settlements which strengthen and improve the viability of these areas. Use existing historic structures in the rural settlements whenever possible.
-

## **TRANSPORTATION**

Transportation and land use strongly affect each other. In addition, transportation is interrelated with all of the other subjects covered in this *Regional Plan*, such as the environment and community quality of life. New roads can make formerly remote areas accessible and influence market factors to promote development. National studies consistently show that transportation access is one of the most critical factors for companies considering new manufacturing plant locations. Local zoning controls and community character significantly influence demands for transportation. Overall, coordinating transportation and land use is essential to achieving regional and local goals.

A comprehensive, multi-modal Transportation Plan for Berkshire County was prepared in 1997 and is in the process of being updated. Its purpose is to ensure that various transportation projects are consistent with the area's overall development policies and that they are coordinated with one another to provide an effective transportation system which makes efficient use of available funds. The transportation plan considers both long range, large-scale projects as well as short range, low cost projects. An interim update is being prepared, and a major update will be undertaken to reflect the results of the North-Central Berkshire Access Study, which is being done under direction by MassHighway. The following brief summary focuses on transportation issues and policies. The complete Regional Transportation Plan contains more detail, data, and analysis.

### **Transportation Goals and Objectives**

Over the years, transportation goals and objectives for the region have evolved through a number of efforts by the BRPC. There is generally widespread support and agreement for these goals and objectives, which are summarized below.

The overall goal of transportation in the region is to provide for the safe, economical, efficient, and convenient movement of people and goods over a balanced multi-modal transportation system compatible with the socioeconomic and environmental characteristics of the region. This goal is reflected in each of the approaches and policies that are contained in this section.

The objectives for achieving this goal are to minimize traffic congestion; improve public safety; improve mobility within the region; improve access to areas outside the region; provide transportation improvements to meet commercial and industrial needs; provide transportation improvements to accommodate recreational traffic and to preserve scenic routes while minimizing conflicts between the dual function of roads to provide both mobility and access to property; all as part of an ongoing transportation planning process.

## **Existing Transportation System**

### ***Roads & Streets***

The highway system in Berkshire County consists of almost 2,000 miles of roads and streets, 400 bridges, and 100 traffic signals. Some 10% of the highways are classified as arterials which carry more than half of all vehicular traffic. It is estimated that the highway system serves about 600,000 vehicle trips per day which travel about 3,000,000 vehicle-miles per day. The vehicle-miles of travel consist of about 85% autos, 15% trucks, and less than 1% buses. The highway system serves about 800,000 passengers per day.

### ***Buses***

Transit is an important public service, particularly for those without access to an automobile - the poor, young, elderly and handicapped. While transit was at one time an extensive component of the Berkshire County transportation system, the post World War II boom in the use of the personal automobile led to its near extinction by the 1970's. Since then transit has been revitalized with the investment of public operating and capital acquisition subsidies. The Berkshire Regional Transit Authority currently operates sixteen buses on eighteen routes in twelve communities.

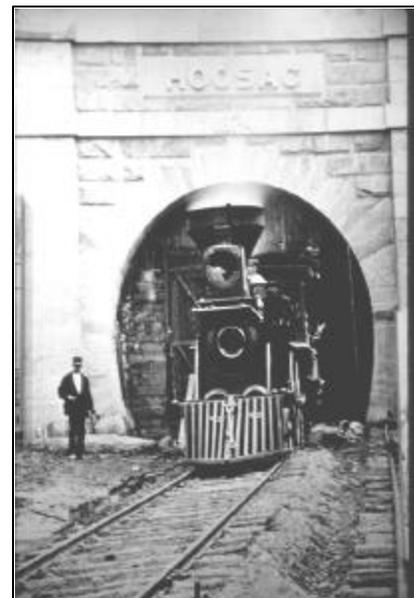
With a basic fixed route system established in the Berkshire Regional Transit Authority (BRTA) area, remaining transit problems in the region are related to funding limitations and services for the elderly and disabled. Funding limitations heavily impact the frequency of transit service and areas which can be served. Paratransit is a component of the transportation system which includes local taxicabs and vans for those with special needs. There are a number of problems with these special paratransit services such as the sufficient availability of these services to meet the demand; restrictions as to type of trips provided and client eligibility; inefficiencies resulting from the lack of coordination of services and funds; and competition of publicly-subsidized services with private carriers.

### ***Rail Freight***

The maintenance of rail service in Berkshire County is of importance primarily for freight. While the main east-west lines have been rehabilitated, the secondary feeder lines are in poor condition with about 10 MPH speed limits. Not only is speed affected, but derailments are of safety concern in those communities traversed by the railroad. In addition, some bridge height clearances are below standards. These conditions create transportation problems for those industries in the region which must ship by rail.

### ***Passenger Rail***

Inter-city rail passenger service is currently being provided daily by AMTRAK on its "Lakeshore Limited" route from Boston to Chicago through Pittsfield. Unfortunately, while the service could be useful for trips to Boston for shopping or business, the schedule is such that one cannot travel to



Boston and spend the day there and return, but must remain overnight. The trains are also at times behind schedule by an hour or more.

### ***Airports***

There are three airports in the region. These are the two publicly operated municipal airports in the cities of North Adams and Pittsfield, and one privately owned airport in Great Barrington. These airports serve general aviation and private businesses. At one time there was regularly scheduled passenger service to New York City out of the Pittsfield Airport.

## **Transportation Demand**

The social and economic characteristics of a region set the basic present and future conditions for transportation demand. Analysis of alternative growth scenarios for the region indicates that the most likely future regional growth pattern could generally be characterized as “slow growth.” The growth of the Berkshires is within the limits of a relatively small and slowly growing economy. Recent trends in development patterns in the region have been that development continues to spread away from the traditional population and employment centers of the region. Land use controls to reduce that dispersal are generally not in place. Dispersal and decentralization are likely to continue without major changes in land use control efforts.

However, despite an anticipated slow-growth future for the region, transportation demands are expected to be higher due to projected long-term increases in the driving age population, growth in the number of households, employment growth, and continuing population and employment dispersal.

## **Transportation Problems**

### ***Specific Problem Areas***

The Berkshire County Regional Transportation Plan (1997) and the Berkshire County Congestion Management System Report (1997) have identified the following specific transportation problem areas throughout the region.

### ***Central Berkshire***

Solutions to the major transportation problems in the central Berkshire area, where the bulk of the region's population resides, have focused on long-range construction around Pittsfield. This issue has been unresolved for many years, hindering many other planning decisions which such a project would affect. Numerous studies of the issue have been completed and currently the Massachusetts Highway Department is funding an extensive major investment study that includes this issue (the North-Central Berkshire Access Study). Getting through Pittsfield is consistently cited as the most serious traffic impediment in the region.

### ***Downtown Pittsfield***

Revitalization efforts in Pittsfield's central business district give downtown transportation concerns a special significance. New development and urban renewal necessitate various transportation improvements to alleviate concerns regarding traffic access and circulation,

parking and pedestrians. Even without new development, the downtown area is faced with a struggle to maintain its attractiveness relative to competing suburban shopping areas and to promote itself as an arts and cultural destination.

Traffic congestion, which hinders access and circulation in the downtown area, is due to inadequate peak hour capacity, an outdated highway network which includes offset intersections and few alternative routes, and conflicting uses of the existing network (curb parking, deliveries, double parking, pedestrian crossings and left turns at intersections).

A transportation systems management improvement approach is also included in the Massachusetts Highway Department funded North-Central Berkshire Access Study. It would reduce conflicts, improve capacity, and generally facilitate the overall flow of traffic in the downtown area. Sample elements to be considered in the study are improved signalization, designated one-way streets, intersection improvements, and regulatory changes to separate conflicting uses and provide for more effective traffic movements.

Adequate parking is one of the most important considerations in the relative attractiveness of the downtown compared to suburban locations. Various policies must be established by a municipality which consider such things as employee vs. shopper parking, free vs. fee parking, and curb vs. off-street parking. The existing parking problem in downtown Pittsfield appears to be related to uncoordinated management of the available supply as well as the location of the supply relative to the demand.

The pedestrian environment is also very important to the attractiveness of downtown as an arts and cultural destination and as a retail shopping area. Conflicts with vehicular traffic, long walking distances, steep grades, and inclement weather are all factors which have driven shoppers toward suburban shopping areas. If the vitality of the central business district is to be maintained and improved, the pedestrian environment must be enhanced to compete with the suburbs. Reduced traffic, enforcement of pedestrian crossing laws, covered walkways, and benches are amenities that could enhance the pedestrian environment of downtown Pittsfield.

### ***Route 8 In Northern Berkshire Region***

The Route 8 Corridor from North Adams to Pittsfield has long been identified as a major priority to improve access between the two population centers as well as from northern Berkshire to the Massachusetts Turnpike. Problems in this corridor relate primarily to traffic flow and safety. Passing slow-moving traffic is difficult, continually increasing roadside development results in additional vehicular conflicts at driveway entrances, conflicts with on-street parking, pedestrians and residences occur in Cheshire and Adams, and close-to-the-road obstacles such as poles, trees, and buildings present other hazardous driving conditions. Downtown Adams is the most notable problem area along this corridor.

### ***Route 7/20***

Route 7 and 20 provides the main access between Pittsfield and communities to the south. In addition, improved access from the Turnpike (part of the interstate system) is seen as an important transportation issue for not only the region's central city, but also for the northern Berkshires. Portions of the Route 7/20 corridor have considerable roadside development, long steep grades, poor sight distance and increasing numbers of traffic signals. The most notable

difficulties in reaching the Mass. Turnpike from Pittsfield are found in the Town of Lee and the northern part of Lenox.

### ***Southern Berkshire Region***

The larger towns in the southern Berkshire region also experience transportation problems related to impacts from summer traffic in their communities. Great Barrington is the subregional center of southern Berkshire where traffic on Main Street creates conflicts with pedestrians and on-street parking needs, particularly during the summer weekends. The most severe traffic delays, however, occur in the center of Stockbridge on weekends during the summer tourist season.

### **Overall Problems and Approaches**

There are, at any one time, a number of deficiencies or inadequacies of varying degrees in any transportation system. It is the public's responsibility and in its best interests to work toward resolving these deficiencies in order to achieve a safer, more efficient and convenient transportation system. The numerous existing problems and issues are grouped in the following way to assist in understanding the larger picture:

- Problems for Traffic
- Problems from Traffic
- Economic Issues Relating to Transportation
- Problems from Potential Solutions
- Non-structural Transportation Issues

### ***Problems for Traffic***

Most of the transportation network within the Berkshires was originally developed in the days of the horse and buggy, and there have been relatively few changes since the mid twentieth century. Transportation, however, has changed a great deal over this time period. The changes include a significant increase in the number of cars available within households, and many times more miles driven in the course of an average day.

The lack of improvements to the overall transportation system and increase in traffic result in congestion bottlenecks in several parts of the county, and increased frustration with the transportation system. Congestion bottlenecks are areas where the number of vehicles trying to get through exceeds the capacity of the road network. This is most noticeable in downtowns, such as Lee, Pittsfield, and Adams. Car and truck drivers experience delays due to the limits of road capacity, pedestrians, parked cars, sharp corners and areas without passing opportunities. People in the communities are equally impacted, though that is addressed in the next area of problems.

More broadly, the increase in traffic and changes in land use have led to an increase in the number of traffic lights. These can slow traffic and reduce capacity on through roads in the process of allowing access for people approaching from side roads. Roadways that were built many years ago with the primary purpose of carrying through traffic are now expected to serve as neighborhood collector roads, and provide access to development that has occurred along them.

The topography that makes the Berkshires beautiful also makes transportation difficult. Hills slow traffic, and cause difficulty for trucks. Laurel Street in Lee is an example of current transportation problems in that the truck traffic heading north from the Mass Turnpike has several sharp turns and then a long hill. This is frustrating for them and also for drivers who cannot pass them. It is also difficult to keep hills from becoming dangerously icy in the winter, for example on the Mall Road between Routes 7 and 8 in Lanesborough.



The overall impact of congestion bottlenecks, limited roadway capacity, increasing traffic lights and driveways, and topographic constraints is that access through and within the region is relatively difficult for motorists, particularly trucks.

The following approaches and policies address transportation issues relating to problems for traffic.

#### **Approaches and Policies**

- Encourage and support energy efficient modes of transportation such as public transit, ridesharing, vanpools, and biking and walking. These modes also tend to reduce traffic volumes.
- Provide adequate parking for commercial and industrial development that includes provisions for safe movement through the property as well as into and out of the property. To the extent possible, adjacent industrial and commercial institutions should make use of common parking and access drives.
- Develop a program of corridor preservation along major arterial corridors including access management, advance acquisition of necessary rights-of-way and development rights along roadsides.
- Support efforts to enhance passenger and freight rail service into and out of the region.
- Invest in existing transportation corridors, to the maximum extent feasible, to accommodate improved transportation services, infrastructure, and utilities (rather than developing new corridors).
- Enhance public transit services especially to meet the special needs of transportation-disadvantaged people.

### ***Problems from Traffic***

The residents and visitors to many downtowns experience a variety of negative impacts due to traffic in their communities. Many Berkshire communities have main streets which are also state highways carrying major amounts of through traffic. Through traffic increases traffic volumes and can create conflicts for local drivers, pedestrians and bicyclists, whether pulling a car out of a driveway or trying to walk across a street.

Traffic causes problems in a variety of ways in addition to those noted above. Traffic can make walking or bicycling for short trips less feasible, unsafe and less pleasant. It also can be noisy. Vibrations, especially from large trucks, can damage historic buildings. Both gas and diesel engines emit air pollution. When traffic is perceived as a problem on main routes, knowledgeable drivers of cars and trucks figure out side routes through residential neighborhoods and on local rural roads not designed for that use. In that traffic volumes are expected to continue to increase, increases in the impacts from that increase should be anticipated.

The following approaches and policies address transportation issues relating to problems from traffic.

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#### **Approaches and Policies:**

- Encourage improvements such as bike lanes and sidewalks to existing infrastructure, especially in construction and redevelopment projects, to encourage the use of alternative modes of transportation.
  - Support local and regional efforts to designate scenic byways or otherwise protect travel corridors that exhibit special scenic, historic, cultural and natural qualities.
-

### ***Economic Issues Relating to Traffic***

The transportation network impacts the economy of the Berkshires in two main ways. First, existing businesses may be negatively effected by routine daily traffic delays. Secondly, economic development prospects may be discouraged from locating in the area by the limitations of the available transportation system. Manufacturers may be discouraged by the effort and additional costs involved in accessing the interstate highway system, especially for trucks. A related matter is that the existing transportation system may be a factor limiting tourism development in the northern and central Berkshires than in the southern part of the region.

The regional business community has also indicated that the lack of scheduled airline service and length of runways at the airports in the region, primarily Pittsfield Municipal Airport, are constraints to economic development. Pittsfield Airport is in the process of updating its master plan. That plan may lead to improvements that help overcome these shortcomings.

The following approaches and policies address economic issues relating to transportation.

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#### **Approaches and Policies:**

- Invest in existing transportation corridors, to the maximum extent feasible, to accommodate improved transportation services, infrastructure, and utilities (rather than developing new corridors).
  - Encourage the maintenance and improvement of existing airfields.
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### ***Problems from Potential Solutions***

Solutions to transportation problems may cause significant new problems if they are not carefully considered and reviewed with the public. New roads and road widening consume land, can take houses and businesses, and have environmental impacts. They can also negatively affect the character of a community. For example, a new or widened highway can act as a barrier within a town or attract unwanted development or land uses. Diverting through traffic from existing routes can have negative effects on some existing businesses that depend upon attracting customers from the traffic passing by.

The following approaches and policies problems relating to potential transportation solutions.

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#### **Approaches and Policies:**

- Consider the additional growth and development that can result from transportation infrastructure improvements and their effects on land use in all transportation system improvements.
  - Minimize the negative impacts on residential areas and loss of parks and recreation areas, agricultural land, wildlife habitat and other important natural resources through good design when considering improvements and additions to the transportation system.
  - Support local and regional efforts to designate scenic byways or otherwise protect travel corridors that exhibit special scenic, historic, cultural and natural qualities.
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### ***Non-structural Transportation Issues***

It is a significant problem that funding for transportation in the Berkshires goes up and down unpredictably and is generally inadequate. Reliable, adequate funding is necessary to fix problems and make improvements. Adequate and timely maintenance is essential to an efficient, safe transportation system. Continued deterioration of these important resources through deferred maintenance could lead ultimately to economic decline because of the increasing hidden costs of an inefficient transportation system. There is a lesson to be learned from the unfortunate experience of the railroads which chose to defer needed maintenance when revenues got tight resulting in decreased service which further decreased revenues, resulting ultimately in bankruptcy. Restoring those rail lines then became a very difficult and expensive undertaking.

Again, because transportation and land use are so intertwined, land use changes can be a problem for transportation. For example, strip development interferes with the safe, efficient movement of traffic on arterial roads. Unlimited development along major corridors makes it difficult and expensive to use that space for additions such as an additional lane or wider shoulders, sidewalks, or utility lines. A hodge-podge of regulations and policies at various levels of government are another significant non-structural transportation problem.

The following approaches and policies address concerns relating to non-structural transportation solutions.

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#### **Approaches and Policies:**

- Establish an adequate and reliable source of funding for the maintenance of transportation infrastructure.
  - Improve coordination between adjacent communities and between adjacent communities and Massachusetts Highway Department during the development of comprehensive municipal plans. Consider planning objectives of Massachusetts Highway Department during the development of those plans.
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# VI IMPLEMENTATION

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## COORDINATION

Turning the *Regional Plan* vision into reality is a major objective of the Berkshire Regional Planning Commission and will be a long-term undertaking for the region. All 30 towns and the 2 cities in the region have a stake in shaping the region's future. They also have a significant role in securing the Plan's vision by making choices about what items to follow through on. Active involvement by local planning boards working with other boards and citizens, regional, state, and private interests (particularly developers and homebuilders) are key elements in building community consensus to achieve a desired future.

Implementation techniques are numerous and varied and depend on many factors. Those outlined in this Plan are meant to be a starting point for communities. Each community will use items contained in the Plan that are appropriate to their community needs and goals. The *Regional Plan for the Berkshires* will not succeed without full involvement of each of the 32 towns and cities in the region.

The Plan's success will depend on BRPC's continued involvement with member communities, state and federal agencies, and other organizations in dealing with issues and working on regional projects. The true success of the Plan will be in the ideas, the strength of the technical assistance, and the forum BRPC provides to the communities of the Berkshire region on regional and local issues. BRPC remains committed to facilitating coordinated planning activities among municipalities in the region. BRPC will continue to promote communication on matters of regional importance and will act as a forum for discussion and debate. These activities may prove to be the most valuable aspect of this *Regional Plan* effort.

**BRPC Regional Plan Work Program:** The *Regional Plan* is a Policy Plan. As such it contains broadly designed items to address a wide range of issues and to fit a diverse set of circumstances. In and of itself, it does not propose actions to be accomplished within a specified time frame. An "action" component would direct attention and resources to important items contained in the Plan. An "action" component would increase the likelihood that progress is made towards achieving those items.

BRPC has no authority to develop an "action plan" for the region's communities. It can, however, better direct its own resources. A BRPC Regional Plan Work Program will be prepared. This BRPC Regional Plan Work Program will outline key initiatives the agency intends to complete during the upcoming year as they relate to items contained in the *Regional Plan*. The Work Program would become a yearly attachment to the *Regional Plan*. Staff resources would be directed to these items, grants would be sought, and, if necessary, BRPC funds would support these items. Progress towards these work items would be evaluated at the end of the year.

BRPC will continue to work closely with municipalities on planning matters and will use this Plan as the framework for the promotion of the regional plan policies. Considerable emphasis, therefore, will continue to be placed on the existing planning programs that Berkshire municipalities have come to depend on. These include:

**Municipal Planning:** BRPC will continue to offer assistance to communities as they prepare or update local comprehensive plans, such as Master or Open Space and Recreation Plans. BRPC will also review local plans for completeness and compatibility with this *Regional Plan*.

**Bylaws:** BRPC will continue to provide technical assistance to communities to assist them in implementing new, or identifying appropriate revisions to local bylaws, such as zoning bylaws. Many of the strategies available for implementation of concepts contained in this Plan involve the adoption of local zoning regulations or other local regulations.

**Technical Assistance:** BRPC will continue to offer technical assistance to communities under its Local Technical Assistance program on matters such as zoning, telecommunications, and plan preparation. BRPC will continue to offer data and information to municipal officials needed to make informed decisions.

**Grant Assistance:** BRPC is available to offer assistance to communities in the preparation and administration of grant applications to support a wide range of planning initiatives, including land use, environment, transportation and economic development planning.

**Information:** In 1999, BRPC was designated a regional service center for the Massachusetts Geographic Information Systems (GIS) program. BRPC will continue to offer mapping services to communities. A wide range of geographic analyses will be available through the Service Center. BRPC will continue to aid communities in preparing maps to support local planning efforts including Master Plans and Open Space and Recreation Plans. BRPC is also an official U.S. Census data repository, and can provide a broad range of data for use by communities. Additionally, the BRPC website, [Berkshireplanning.org](http://Berkshireplanning.org), is a valuable source of information on regional data and current projects.

**Education and Training:** One of the most successful ways BRPC can work for implementation of this Plan is through continuation and expansion of its information and training programs. *Common Ground*, the BRPC newsletter, will continue to be a source of information on specific activities and planning actions, as well as announce grant opportunities. BRPC will also continue education efforts for local planning and zoning officials by sponsoring and supporting workshops developed by the statewide Citizen Planners Training Collaborative.

**Regional Studies:** BRPC will continue to pursue opportunities to carry out planning studies dealing with regional issues and resources. These studies are necessary to gather current information, analyze alternatives, and recommend a course of action on issues that are important to the region. Examples of recent studies BRPC has been involved with include: Pittsfield Parking Study, Hoosic Watershed Assessment, North-Central Access Study, Lee and Lenox Master and Open Space Plans, and Alternative Septic Manual. BRPC will continue to identify other issues of regional importance, and assemble appropriate persons and expertise to address them.

Massachusetts, unlike other states, does not have a strong statewide planning framework. Yet, planning initiatives such as Executive Order 385, Executive Order 418, and the Community Preservation Initiative are examples of recent programs that have the potential to lead to stronger planning coordination. This *Regional Plan* expresses policies and approaches that are consistent with these initiatives and broader state goals. It will be important that communities continue to work in partnership with state government agencies to maximize the benefits available to them through various state and regional initiatives.

Dealing with change is a local, regional, and state challenge. Putting the *Regional Plan* ideas and concepts into action will require a high level of cooperation between and commitment by communities across the Berkshires. Ultimately, the Plan will succeed if the responsibility of implementation is accepted as a partnership among the various levels of government, particularly between local communities and the State.

## WHERE DOES MY COMMUNITY BEGIN?

“*Think Regionally, Act Locally*”... Given the home rule form of government in Massachusetts, the *Regional Plan* will be implemented locally, in a piecemeal fashion, and incrementally over time. So where does a community begin? Local action to implement ideas and concepts contained in the *Regional Plan for the Berkshires* is needed now. Communities, through leadership provided by their local planning boards, could undertake the following steps:

### STEP ONE:

#### Diagnose the most pressing symptom of change facing the community

- Is new development a problem? If so, is it all development or just certain kinds?
- Is the problem spread throughout town or just in certain areas?
- What are the negative results of change that worry the community?
- Is there a time dimension to the problem?
- Are negative consequences already happening, or are they foreseen to happen if action is not taken soon?

Use the answers to the questions above to:

- Define the specific change-related problems that confront your community
- Identify the problems that a majority of citizens agree are problems
- Order the problems in terms of which ones require immediate action, and which ones can take a little more time to address

### STEP TWO:

#### Select a tool or strategy from the toolbox that accomplishes what is needed to address the key features of the most pressing issue

Before selecting an implementation tool or strategy from the “toolbox”, have a good sense of the issues, the resources that are available, and the desired long-range goals. Communities may find some surprises even with the best background data and carefully defined goals. Other community experiences have shown that trying to mount a quick response that is too broad in scope or that does not have a broad enough base of local support can be ineffective. Unforeseen consequences of hasty decision-making may create more problems than are solved.

Experiences from other community’s have shown that planning strategies can be adopted and succeed if:

- A majority of the residents agree that the problem identified is truly a threat; and
- The proposed resolution clearly focuses upon the identified problem

In order for implementation efforts to be successful, it is important to understand some assumptions regarding community decision-making. A broad-based local understanding of, and support for, municipal planning efforts is absolutely essential to:

- Adopt goals for the community’s future
- Set realistic objectives

- Achieve passage of necessary bylaws and budgets
- Implement policies over time
- Administer and enforce resulting local regulations

A broadly representative core group of local citizens and officials can spearhead the local planning and management effort, combining information, advice, and resources from outside their own understanding of their community and their own ability to garner local participation and support.

Examples of actions, bylaws, and regulations from other communities can be very useful when they are adapted to the local situation. There are many sources of information and assistance available to local municipalities; the key is to understand when and how to tap them during the course of an on-going effort.

The residents of the Berkshires have an important role to play in guiding the future of communities as well as the region. The challenge is to ensure that as each community changes it preserves and maintains what is important, as well as adjusts and develops in order to meet the needs of current and future residents.

Selected strategies addressing community change are found in the next section, **Implementation Toolbox**.

## IMPLEMENTATION TOOLBOX

Over the last few decades, growth and change issues have been at the center of attention in cities and towns throughout Massachusetts and New England. This growth has been credited with bringing about unprecedented prosperity and job gains. It has also contributed to a new and complex set of problems for communities involving a growing shortage of affordable housing; a low density and consumptive development pattern; loss of open space and prime farmland; and pollution that threatens the environment and public health. On the other hand, many communities have declined. This change has contributed to a set of problems as well, including a declining tax base and corresponding loss of tax revenue; aging and inadequately maintained infrastructure; and a growing population with increased needs.

These challenges are faced by communities of all sizes and types, in eastern Massachusetts as well as in the Berkshires. Unfortunately, many communities have found themselves ill prepared to handle these complex issues. Indeed, many communities have responded to these pressures inappropriately if not at all.

The purpose of the toolbox is to provide communities and those who plan with a comprehensive menu of strategies to address growth goals and challenges. The Plan provides tools and techniques needed to guide local goals as well as the overall regional vision toward reality. Like the Plan itself, the toolbox will be modified and expanded over time. BRPC's resources and work plans will be developed in response to the changing needs, priorities, and resources of Berkshire communities. The toolbox that follows presents a summary of pragmatic tools and techniques that are capable of responding to contemporary growth and change issues. While there are many tools and techniques available to cities and towns for guiding growth and strengthening communities, they will be of little value if they go unused. To that end, the most important ingredient for success is the will and commitment to shape growth and change in a positive manner.

Some of the Guiding Principles articulated in the Plan can be realized by continuing to pursue current policies and directions. Other principles most likely will only be attained with new policies, investments, education or other strategies. By moving forward on the collective vision, the region can confidently face the future with the knowledge and ability necessary to achieve a better Berkshires.

In the Berkshires, and throughout Massachusetts, much of the implementation power rests with local governments. Many of the strategies involve the adoption of local zoning regulations or other locally initiated programs. Consequently, municipal Planning Boards will be the key players in implementing those ideas contained in the *Regional Plan for the Berkshires*. Other key participants will include chief elected officials, conservation commissions, community development officials, and the private development community.

All strategies should be components of a larger comprehensive plan. Types of plans include Land Use Plans, Master Plans, Open Space and Recreation Plans, Capital Improvement Plans, Housing Plans, and Economic Development Plans. Planning Boards or Planning Departments generally provide direction to those type of planning efforts.

While this list of tools demonstrates the many different ideas already in use in the Berkshire region, they are by no means the only methods available. Since Berkshire communities operate

under “Home Rule” government, communities have a great deal of latitude to develop new bylaws and ordinances not included here. BRPC can assist communities in developing them.

BRPC will continue to develop tools that are appropriate for the communities within the Berkshire region. In filling the toolbox, BRPC envisions three levels of tools: simple handouts that describe tools and their uses; more detailed descriptions with implementation procedures; and detailed tools with model language, detailed implementation procedures, and cost implications. These tools will all be combined into a separate publication that will be made available over the next few years. Many of these tools are already available to communities on request. BRPC will work with communities to tailor tools to fit their specific needs.

## **TOOLBOX OF TOOLS AND TECHNIQUES**

### **Accessory Apartment Bylaw**

An accessory apartment is a separate dwelling that is substantially contained within the structure of a single-family dwelling, but functions as a separate unit. Accessory apartments, enabled through an accessory apartment zoning bylaw, provide an opportunity to increase density with minimal changes in the area's visual character, increase a community's stock of affordable housing, and enrich neighborhoods with a more diverse population.

### **Adaptive Reuse of Buildings**

Adaptive reuse refers to the development of a new use for an older building or building originally designed for a special or specific purpose such as gas stations, train stations, school buildings, or other municipal buildings. Adaptive reuse of buildings is particularly useful as a technique for preserving older buildings of historic or architectural significance, which provides visible evidence of our history and can help maintain the character of neighborhoods.

### **Business Improvement District (“BID’s”)**

Business Improvement Districts (or Downtown Improvement Districts) are voluntary associations of businesses which utilize a special assessment or commercial tax to fund additional services for their district (marketing, cleaning, security) serving to revitalize a commercial area.

### **Commercial Corridor Standards**

Commercial corridor standards promote quality commercial growth and provide for a superior environment along major transportation corridors through the use of performance standards for commercial development and landscaping. These standards may be in the form of minimizing curb cuts, providing screening for storage and utility areas, or architectural design standards. The application of performance standards will promote an attractive and viable commercial district and expand the commercial tax base, while protecting community character.

### **Community Development Organizations**

Communities can establish local community development organizations to focus on economic development and/or business retention activities. These committees, involving public sector and private enterprises, can perform a range of functions such as providing a “contact” group for new businesses and acting as an advocacy group; focusing on industrial recruitment or retention, small business expansion and local ownership issues; pursuing new enterprise development; or engaging in downtown commercial or village business revitalization. These organizations operate in scale with a community's goals with respect to development or economic growth, whether the interest is in maintaining, or expanding commercial, industrial, or overall business activity.

### **Community Supported Agriculture (CSA)**

A community supported agriculture program allows families and individuals to become stewards of farms and consumers of farm products by buying shares in a CSA program. As “shareholders” they support local agricultural enterprises by guaranteeing buyers for farm products -- matching markets and consumers -- and supplying a steady revenue stream supporting local agriculture. Communities concerned with preserving their local farms whether for open space reasons or the desire to enable farming to continue to be part of a regionally diverse economy can support farming by encouraging participation in this program.

### **Conservation Subdivision Design (Cluster Zoning) Bylaw**

A conservation subdivision design bylaw allows clustering of single-family homes in return for protection of significant areas of open space. This type of subdivision, enabled through a residential zoning bylaw, or special permit and site plan review process, promotes more efficient use of land, and allows for greater flexibility and creativity in the design of residential subdivisions, while maintaining the traditional New England rural character and land use pattern in which small villages contrast with open space and farmlands.

### **Design Review**

Design review is a way to assure new construction and additions to buildings are in keeping with desired community character. Design review, usually performed by a design review board, is important in existing built-up areas such as a downtown where building construction and design are vitally important for compatibility with existing resources. Design review boards are advisory, and typically consider elements such as rooflines, windows, doors, scale, signage, and landscaping in review of projects.

### **Developer's Handbook; Builder's Handbook**

Developer handbooks provide a concise summary of the procedures, expected permitting timetable, and standards that must be met for permits and approvals for development or construction activity. By making this information available in one publication, communities can facilitate the permitting process, limit the amount of questions, and be assured that the applicant is aware of the process.

### **Earth Removal Bylaw**

Earth removal regulations, enabled through an earth removal bylaw, control the mining and removal of earth products such as sand and gravel, peat, and topsoil. While many earth removal bylaws only regulate the nuisance aspects of the work (hours of operation and safety fencing of sites), communities can include environmental concerns such as drainage, erosion prevention, site restoration, and separation from groundwater.

### **Erosion Control Bylaw**

An erosion control bylaw is a mechanism to regulate land-disturbing activities that have the potential to cause erosion and sedimentation of waterbodies or other natural resources. Through local regulations, an erosion control bylaw allows communities to enact local protection against otherwise unregulated land disturbing activities.

### **Farmland Protection**

While agriculture regionally as well as statewide is on the decline, there are numerous strategies that can be employed to keep the remaining Berkshire farmers farming, or at least keep their land protected if they should choose to abandon the occupation. These strategies include: Chapter 61-A tax abatement program, state APR (agricultural preservation restriction) program, and agricultural preservation zoning. Farmland protection strategies have many benefits, including locally grown food, employment, and protection of pastoral scenery.

### **Greenways Creation**

Greenways are corridors of land and water that link together natural, cultural, and recreational resources. Comprised of both public and private lands, greenways create linkages, some as simple as connecting two neighborhood parks, others as complex as a multi-use urban recreational path that extends into the countryside through an intricate network of trails, old railroad grades, and local roads. While greenways vary in size and complexity, they all share a

common theme: to protect the resources that help create the unique character of a place and to integrate these special features into the landscape. In particular, greenways preserve environmentally sensitive areas and help protect endangered species and their habitat.

### **Hazardous Waste Collection**

Many are generally unaware of the potential dangers of carelessly storing and disposing of common household substances (drain cleaners, disinfectants, pesticides, used motor oil, etc.). These, and other, products become hazardous when they are no longer needed. Proper disposal is important to prevent contamination of drinking water supplies and pollution of the environment. If your community doesn't hold household hazardous waste collection days, encourage community officials to organize one.

### **Home-Based Business Bylaws (Cottage Industries; Home Occupations)**

Home based business, also called cottage industry or home occupation, bylaws allow "work at home" provisions in a residential zone. These bylaws establish community standards to maintain "good neighbor" relationships by specifying the number of non-resident employees, hours of operation, parking and signage, etc. Communities which provide for this scale of business activity help small businesses grow and remain in the community, provide employment opportunities for residents with caregiver responsibilities, and allow entrepreneurial activities "incubation" space.

### **Inclusionary Zoning**

Inclusionary zoning bylaws are designed to promote private market development of affordable housing by offering density bonuses in return for a percentage set aside of affordable units. Inclusionary zoning encourages greater diversity of housing opportunities in order to meet the needs of a changing population with respect to age, household size, and income.

### **Infill Development**

Infill, or odd lot, development refers to the development of new housing or other buildings on scattered vacant sites in a built-up area.

### **Infrastructure and Development Needs**

Communities should assess future infrastructure needs, often considered critical to economic development. This includes water, sewer and other utility connections, access to transportation networks, and telecommunications access. Zones or sites intended for industrial or commercial development should be assessed for development readiness according to industry standards with adequate infrastructure, pre-permitting in place, and performance standards clearly outlined.

### **Local Comprehensive Plan/Master Plan**

A comprehensive plan is the first step in outlining the direction in which a community wishes to go, and provides a yardstick by which to evaluate the range of options that are available. The Massachusetts Planning Law, M.G.L. Chapter 40B, requires local planning boards to operate under a local comprehensive plan, or master plan. Although many Berkshire communities do not have such a plan, there are many reasons to adopt one.

### **Local Historic Districts**

Local historic districts can be created to preserve significant historic structures and to encourage the builders of new structures to choose architectural designs that compliment the historic setting. A local historic district usually requires the review by a historic district commission for any alteration to buildings and structures visible from the public way.

### **Multi-Family Residential Zoning**

Multi-family residential zoning is one mechanism used to help a community meet needs and provide affordable housing for all residents. It allows for increased residential density on appropriate land parcels, and promotes diversity and choice in the residential housing market.

### **Open Space Preservation**

Methods of protecting open space include: outright purchase of land at full or “bargain-sale” prices; establishment of permanent Conservation Restrictions through gift or purchase; exercise of the first-right-of-refusal under the Chapter 61 laws; the use of town and private funds to leverage state assistance; limited development purchases; and others. An effective open space preservation program requires a combination of methods merging long-range planning with an opportunistic action approach. Open space is valued for its scenic and environmental benefits.

### **Open Space and Recreation Plan**

With a state approved Open Space and Recreation Plan, a community can identify and examine the many factors that affect open space and recreation needs. By articulating community goals and objectives in an Open Space Plan, a community can contrast existing conditions with residents’ needs and desires for the various benefits of open space: economic, recreational, and aesthetic. The Plan ultimately outlines a five-year action plan through which to achieve the objectives.

### **Parking Standards**

Parking standards mitigate the impact of parking on the landscape and streetscape by providing standards for location, landscaping, size of spaces, shared parking, bicycle parking, and a maximum number of allowable spaces. Large expanses of parking inhibit pedestrian activity by extending the distances between uses and creating visually unappealing space. Parking standards work to protect the character and visual qualities of an area while promoting highway safety and efficient traffic flow.

### **Planned Unit Development (PUD)**

A planned unit development is a fully planned community which combines housing, commercial, light manufacturing, and open space uses all in the same zone, while maintaining the overall density comparable to conventional development. It offers flexibility to both the community and to the developer by overlaying on the existing zoning a zoning district that is flexible in terms of dimensions, use and design.

### **Inter-town Agreements for Regional Services**

Municipalities can join together forming “regional service districts” for the purpose of joint ventures in providing community services (health, fire protection, education, financial management, etc.). Inter-town agreements may offer regional communities an improved level or availability of services, or more options than a single community can offer on its own. Funds are available through the Massachusetts Department of Housing and Community Development (DHCD) “Peer to Peer Program” to enable communities to explore what benefits joint services might provide.

### **Scenic Mountains Act**

Scenic Mountains Act enables towns and cities in the Berkshires to designate “scenic mountain” regions and adopt regulations for those regions to “protect watershed resources and preserve the scenic qualities of the environment.” The local conservation commission must review

development in the delineated scenic mountains regions, and conditions can then be placed on the proposed activity to protect the watershed resources and scenic qualities of the area.

### **Scenic Road Bylaw**

Scenic road bylaws are one method for maintaining the rural character of scenic roads. Under the State Scenic Road Act, any community can designate a road as “scenic”, after which any repair, maintenance, reconstruction, or paving work done shall not involve or include the cutting of trees or destruction of stone walls, except with consent of the planning board. Designating a road as scenic does not affect eligibility for state aid.

### **Septic Management Program**

To help defray costs and improve environmental quality, municipalities can employ a community wide septic management program to assist homeowners with the financing for necessary repairs. Under the current Title 5 regulations, homeowners continue to face significant costs to repair or replace failing septic systems. This type of program can also identify and monitor problematic systems and help target education or other resources necessary for proper septic system functioning.

### **Sign Bylaws**

Sign regulations, enabled under a local sign bylaw, allow a community to control the location and design of signs. With a sign bylaw, a community can encourage signs which, by their location and design, are harmonious to the buildings and sites they occupy, and which eliminate excessive or confusing sign display.

### **Site Plan Review**

Site plan review is a zoning bylaw requiring the submission of a site plan for commercial, industrial, and often residential development that could dramatically alter the character of a community. The purpose of site plan review is to ensure that new development is designed in a manner that reasonably protects visual and environmental qualities and property values, and to assure review of plans that may impact traffic, drainage, public services, environmental quality, and community character. Without site plan review, communities are often limited to health and safety concerns in review of a proposed project.

### **Stormwater BMP's**

Stormwater best management practices (BMP's) are methods used to control stormwater runoff and limit flooding and erosion. BMP's are varied, and include such things as street sweeping, operation and maintenance plans, detention basins, and water quality swales. BMP's, both structural and nonstructural, are very effective at limiting polluted runoff, a major cause of water quality degradation in the Berkshires

### **Streetscape Improvements**

Investments in streetscape improvements such as sidewalks, lighting, and seating create an overall sense of organization, a pleasing visual image, a sense of vitality, and a convenient setting for human activity. A community's physical setting and the relationship between the elements of its built environment often determine the quality and vibrancy of a place. Streetscape improvements can help a developed area become a more successful place for people and a more attractive focus for investments in new development and renovation.

### **TIF District**

Tax Increment Financing (“TIF”) Districts provide cities a tool, via a property tax rebate mechanism, to encourage new business activity, broadening of the tax base, and employment opportunities in areas which suffer from blight or neglect and chronic unemployment.

### **Transportation Systems Management (TSM) Strategies**

TSM strategies are programs of relatively inexpensive actions to increase the efficiency of the existing transportation system, and usually combine physical improvements with other forms of transportation management. Examples of physical improvements include traffic light timing, intersection improvements, and more efficient systems for clearing breakdowns or rerouting traffic around accidents. TSM strategies often replace the need for expensive infrastructure investments such as new roads.

### **Water Supply Protection Zoning**

Water supply protection zones are areas established around existing public drinking water resources to protect the quality of drinking water supplies, including aquifer recharge areas and reservoir watersheds, from hazardous land uses. Water supply protection zones must be based upon well-defined and mapped aquifer recharge or watershed areas.

### **Wetlands Protection Bylaw**

A wetlands bylaw allows a municipality the authority to regulate activities in or near wetlands or water bodies by imposing stronger protective measures than the State Wetlands Protection Act. There are legitimate reasons for increasing protection: the Wetlands Protection Act is limited to protecting only eight wetland values and covers vegetated wetlands and floodplains only if they border bodies of water. Communities may wish to regulate work over a broader geographic area including wetlands not linked to water bodies and also including adjacent upland areas, work on which may affect wetlands and floodplains.



# VII APPENDICES

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## Acronyms

The following is a list of acronyms that have been used throughout this document.

ACEC – Area of Critical Environmental Concern  
APR – Agricultural Preservation Restriction  
BID – Business Improvement District  
BMP – Best Management Practice  
BNRC – Berkshire Natural Resource Council  
BRPC – Berkshire Regional Planning Commission  
BRTA – Berkshire Regional Transit Authority  
BVB – Berkshire Visitor’s Bureau  
CPTC – Citizen Planner Training Collaborative  
CR – Conservation Restriction  
CSA – Community Supported Agriculture  
CSO – Combined Sewer Overflow  
DEM – Department of Environmental Management  
DEP – Department of Environmental Protection  
DHCD – Department of Housing and Community Development  
DPW – Department of Public Works  
EOEA – Executive Office of Environmental Affairs  
EPA – Environmental Protection Agency  
GIS – Geographic Information Systems  
HUD – Housing and Urban Development  
MassMOCA – Massachusetts Museum of Contemporary Art  
MEPA – Massachusetts Environmental Policy Act  
MGL – Massachusetts General Law  
MHD – Massachusetts Highway Department  
MIS – Major Investment Study  
MPO – Metropolitan Planning Organization  
NHESP – Natural Heritage and Endangered Species Program  
NPDES – National Pollution Discharge Elimination System  
OSRP – Open Space and Recreation Plan  
PCB – Polychlorinated Biphenyl  
PUD – Planned Unit Development  
RPA – Regional Planning Agency  
TIF – Tax Increment Financing  
TOR – Trustees of Reservations  
TSM – Transportation Systems Management  
WPA – Wetlands Protection Act  
WWTP – Waste Water Treatment Plant

## Inventory of Lakes

The larger lakes and ponds in the region (over 50 acres) are identified in the following table. Many more do not appear in the table.

**Table VII.1. Selected List of Larger Lakes and Ponds in Berkshire region (Over 50 acres)**

| Lake/Pond Name                        | Town                        | Acreage<br>(surface area) |
|---------------------------------------|-----------------------------|---------------------------|
| Buckley-Dunton Pond                   | Becket                      | 195                       |
| Greenwater pond                       | Becket                      | 88                        |
| Palmer Brook Pond                     | Becket                      | 134                       |
| Robin Hood Lake                       | Becket                      | 70                        |
| Rudd Pond                             | Becket                      | 80                        |
| Shaw Pond                             | Becket/Otis                 | 100                       |
| Yokum Pond                            | Becket                      | 109                       |
| Center Pond                           | Becket                      | 125                       |
| Cheshire Lake                         | Cheshire/Lanesborough       | 418                       |
| Clarksburg Reservoir                  | Clarksburg                  | 49                        |
| Prospect Lake                         | Egremont                    | 57                        |
| Long Pond                             | Great Barrington            | 113                       |
| Ashmere Lake                          | Hinsdale                    | 217                       |
| Cleveland Reservoir                   | Hinsdale                    | 145                       |
| Plunkett Reservoir                    | Hinsdale                    | 73                        |
| Windsor Reservoir                     | Hinsdale                    | 62                        |
| Pontoosuc Lake                        | Lanesborough/Pittsfield     | 480                       |
| Laurel Lake                           | Lee/Lenox                   | 170                       |
| Lower Goose Pond                      | Lee                         | 225                       |
| Woods Pond                            | Lenox/Lee                   | 104                       |
| Lake Buel                             | Monterey/New<br>Marlborough | 196                       |
| Lake Garfield                         | Monterey                    | 272                       |
| Plantain Pond                         | Mount Washington            | 61                        |
| East Indies Pond                      | New Marlborough             | 69                        |
| One-thousand Acre Swamp               | New Marlborough             | 155                       |
| Windemere Lake                        | New Marlborough             | 100                       |
| Big Pond                              | Otis                        | 331                       |
| Otis Reservoir                        | Otis/Tolland/Blandford      | 693                       |
| Parish of Benton Pond                 | Otis                        | 63                        |
| Onota Lake                            | Pittsfield                  | 617                       |
| Pontoosic Lake                        | See Lanesborough            | 480                       |
| Richmond Pond                         | Pittsfield/ Richmond        | 226                       |
| Lower Spectacle Pond                  | Sandisfield                 | 62                        |
| Upper Spectacle Pond                  | Sandisfield                 | 55                        |
| West Lake                             | Sandisfield                 | 60                        |
| Three Mile Pond                       | Sheffield                   | 168                       |
| Old Mill Pond                         | Sheffield                   | 107                       |
| Lake Mahkeenac or<br>Stockbridge Bowl | Stockbridge                 | 372                       |
| Lower Goose Pond                      | Tyringham                   | See Lee                   |
| Ashley Lake                           | Washington                  | 110                       |
| Washington Mountain Lake              | Washington                  | 103                       |

Source: MA DEP

**Table VII.2. Public Water Supplies in the Berkshire Region**

| Town                | Public<br>Community<br>Water Systems | Non-Transient<br>Non-<br>Community<br>Water Systems | Transient Non-<br>Community<br>Water Systems | Total      |
|---------------------|--------------------------------------|---|--|------------|
| Adams               | 10                                   | 0   | 0  | 10         |
| Becket              | 2                                    | 20  | 10   | 32         |
| Cheshire            | 7                                    | 0   | 0  | 7          |
| Clarksburg          | 3                                    | 1   | 1  | 5          |
| Dalton              | 3                                    | 0   | 0  | 3          |
| Egremont            | 1                                    | 1   | 2  | 4          |
| Florida             | 0                                    | 5   | 3  | 8          |
| Great Barrington    | 4                                    | 9   | 8  | 21         |
| Hancock             | 11                                   | 2   | 2  | 15         |
| Hinsdale            | 9                                    | 0   | 1  | 10         |
| Lanesborough        | 3                                    | 1   | 3  | 7          |
| Lee                 | 5                                    | 2   | 6  | 13         |
| Lenox               | 9                                    | 0   | 2  | 11         |
| Monterey            | 7                                    | 6   | 5  | 18         |
| Mt. Washington      | 0                                    | 0   | 4  | 4          |
| New Ashford         | 0                                    | 1   | 9  | 10         |
| New<br>Marlborough  | 5                                    | 5   | 1  | 11         |
| North Adams         | 4                                    | 1   | 2  | 7          |
| Otis                | 0                                    | 5   | 14   | 19         |
| Peru                | 0                                    | 1   | 1  | 2          |
| Pittsfield          | 8                                    | 2   | 5  | 15         |
| Richmond            | 2                                    | 3   | 1  | 6          |
| Sandisfield         | 1                                    | 1   | 4  | 6          |
| Savoy               | 0                                    | 1   | 1  | 2          |
| Sheffield           | 8                                    | 2   | 3  | 13         |
| Stockbridge         | 5                                    | 2   | 3  | 10         |
| Washington          | 3                                    | 0   | 5  | 8          |
| West<br>Stockbridge | 6                                    | 0   | 2  | 8          |
| Williamstown        | 11                                   | 5   | 8  | 24         |
| Windsor             | 1                                    | 0   | 0  | 1          |
| <b>TOTAL</b>        | <b>128</b>                           | <b>76</b>   | <b>106</b>                                   | <b>310</b> |

Source: MASS GIS, 1995



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