

**COMMUNITY DEVELOPMENT PLAN
THE TOWN OF ANDOVER**

**EXECUTIVE SUMMARY
“PUTTING IT ALL TOGETHER”**

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TOWN OF ANDOVER, MASSACHUSETTS

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TOWN OF ANDOVER

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TABLE OF CONTENTS

I. Plan Overview and Vision Statement 3

II. Key Points and Recommendations 6

III. Build Out and Infrastructure Capacity..... 12

IV. Summary of Actions 18

V. Barriers to Implementation..... 24

VI. Map Development..... 26

VII. Implementation 28

[Appendix I: Andover Economic Development Element](#)

[Appendix II: Andover Housing Element](#)

I. PLAN OVERVIEW AND VISION STATEMENT

The Challenge Ahead

The Town of Andover is faced with planning challenges that will impact housing, economic development, open space, and transportation infrastructure and programs.

- Housing has become less affordable for those who want to live and work in this community. The town's affordable housing goals must be closely knit together with the goals for economic development and overall land use.
- Andover's local economy is strong and provides employment for many people in the region. However, the Town needs to improve its economic development programs to remain competitive and maintain a stable tax base.
- With ever more limited funds, preservation of open space must focus on areas identified as critical to the town's long-term benefit. The key parcels will be those providing multiple benefits for environmental protection, connectivity, and physical buffers.
- Residential, commercial, and industrial development at the local and regional levels has increased traffic, especially near the industrial parks and access points. Continued improvements for vehicular traffic must be matched with better traffic management and better opportunities for alternative transit.

These challenges require the commitment of both funds and people to act on these recommendations.

Meeting the Challenges

The Town and its consultant developed the Community Development Plan with the community, stakeholders, and local groups including the Vision 21 Committee, the Andover Housing Partnership Committee, and the Economic Development Working Group. The planning process involved the Vision 21 Committee drafting a vision, the Andover Housing Partnership Committee assessing and analyzing the local housing conditions, and the Economic Development Working Group assessing and analyzing the economic conditions and developing strategies for plan implementation.

Two other documents were written as part of this planning process: the Housing Element and the Economic Development Element. Both of these documents provide a detailed review of existing conditions, analysis, and recommendations to keep some housing affordable and to sustain the economy in Andover. They are included as appendices.

As required by the Executive Order 418 program under which this planning effort was funded (see below), this document **“puts it all together”** as a summary of **recommendations and actions**. It provides an overview of each element: economic development, housing, open space, and transportation. The Plan also identifies measures needed to create and **implement a viable and working plan**.

Planning Context

The Massachusetts Executive Office of Environmental Affairs provided the Town of Andover a grant as part of Executive Order 418 to develop this Plan. EO 418 effectively provides many communities with funds to establish community development plans, which include five elements: housing, economic development, open space, transportation, and visioning. The Town also contributed funds for this Plan. The Open Space and Transportation sections of this document were not part of the planning effort and were sourced from existing documents – the *Open Space and Recreation Plan: Town of Andover, 2001 Update* and the *Merrimack Valley Metropolitan Planning Organization 2000 Regional Transportation Plan: Final Report, January 2001*, respectively.

Vision Statement

This Vision is the result of 2 ½ years of work by the Vision 21 Committee and incorporates extensive input received from town residents and stakeholders via public forums, focus groups and surveys. Efforts have been made to reconcile differences in priorities and this Vision represents a consensus of many points of view. As such, it should prove to be a meaningful tool and provide a framework for decision-making by town officials and citizens, and in Andover’s formal planning process in the years ahead. It is included as a vital, overarching part of this Community Development Plan. Where any elements of this CDP differ from this Vision, the implementation stage must of necessity involve balance and compromise, weighing the various inputs according to their proportionate value.

As citizens of Andover, we are grateful to those in the past who nurtured the attractive, well managed, and vibrant Town that we enjoy today. At the same time, we are mindful of our current stewardship and of the fragile nature of much that we cherish. We have confidence that the most promising approach to the future is to acknowledge and act upon the values that we share. This is our Vision and our hopes and commitments for the Andover of the future.

Quality Education *We will offer a rich and challenging public education that builds a foundation of essential skills and knowledge that supports a broad range of academic and vocational options, that enables successful participation in our society and culture, and that sustains curiosity and learning in a world of new and ever changing opportunities.*

We will cultivate the public library as a resource for lifelong learning and enrichment and to facilitate the flow of information throughout the community.

We will find ways to protect the quality of these institutions through fluctuating economic cycles.

Open Space and Recreation *We will continue to acquire and protect open space as a crucial natural resource that helps to maintain the character of the town, offers access to both active and passive recreation, and provides an important natural system for water recharge, flood control, and wildlife habitat.*

Vibrant Downtown *We will maintain our downtown as an attractive and vibrant center with a mix of commercial and public activities, historical elements, and parks. We will use permits, zoning guidelines, and planning approvals to attract and keep pedestrian-friendly street-level enterprises.*

Small-Town Character *Even as the Town continues to grow, we will actively seek to identify and preserve those elements—town layout and scale, central focus, community-wide activities, respect for historical structures, and residential mix that give Andover its small-town character.*

<i>Citizen Participation</i>	<i>We will govern ourselves in a manner that encourages participation by all, that consistently provides adequate information for making informed choices, and that acts to preserve our investment and the interests of the community as a whole. We will acknowledge the needs of others and consider compromises that are in the best interest of the town and region.</i>
<i>Historical Heritage</i>	<i>We will maintain strong, efficient, and consistent zoning that protects historic buildings and places, and we will support the institutions that protect and promote Andover's historical heritage.</i>
<i>Cultural Diversity</i>	<i>We will be respectful of Andover's many races, ethnicities, religious beliefs, and lifestyles. We will facilitate public events that celebrate diversity and provide opportunities for sharing cultural traditions. As a community, we will not tolerate acts of hatred or persecution.</i>
<i>Financial Stability</i>	<i>We will follow prudent financial practices that balance consistent high-quality services, private vs. public responsibility, stable tax rates, and responsible levels of debt. We will set aggressive goals but live within our means.</i> <i>In making financial decisions, we will include an understanding of long-term costs and consequences, particularly to the environmental integrity of the town. We will consider regional partnerships that offer more effective and economical options, and we will manage the impact of our decisions on property values relative to similar communities.</i>
<i>Healthy and Safe Environment</i>	<i>We will protect public health and safety through careful monitoring and enforcement of environmental, health, and safety regulations and by continuing to provide effective and responsive fire and police protection and beneficial public health services.</i>
<i>Management of Natural Resources</i>	<i>We will use our natural resources, particularly water, in a manner that acknowledges our responsibility to future generations and to other communities that share those resources. We will monitor air quality and take measures to mitigate negative effects of emissions from vehicles, regional incinerators, and industrial facilities.</i>
<i>Town Services</i>	<i>We will provide effective and efficient services that build and maintain town infrastructure, handle Town business, and assist citizens. We will use technology to facilitate interdepartmental communication and efficiency, and to provide public access to Town information.</i>
<i>Human Services</i>	<i>Through our Department of Community Services, other town programs, and religious institutions, we will sponsor services and programs, facilities, outreach, and recognition to veterans, seniors, youth, and the disabled or disadvantaged among us. We will foster connections among all citizens to help us to appreciate, learn from, and support one another.</i>
<i>Transportation</i>	<i>We will monitor changing commuting patterns and side effects on air and water quality, noise, and traffic. We will work within the region to strengthen opportunities for regional transit, rail travel, commuter buses, and improved connections with mass transit hubs. We will seek solutions to local needs for downtown and commuter parking, for safe and efficient traffic flow, and for shuttle service to local facilities and services.</i>

II. KEY POINTS AND RECOMMENDATIONS

A. *Economic Development*

Andover has a strong local economy that was created through properly designed land uses, strong planning, and good positioning. Andover has first-rate employers and a diverse and large source of employees from the region. It has a cluster of biotech firms as well as an assortment of other businesses that support the local and regional economy. The established businesses create opportunities for many people that want to work in the area. However, the local economy is facing a new era of economic development issues:

- Andover is not insular and is susceptible to changes in the national and global economies.
- The land in Andover that is zoned for industrial and commercial uses must be adaptable to incoming industries as well as protective to Andover residents.
- Commercial and industrial development increases the traffic congestion to unacceptable levels.
- Raising commercial and industrial taxes to support local services creates a divide between private industry and town government.

In order to be competitive in this changing economy, it is recommended that the Town proceed with the following economic strategies:

- Create a new management and marketing organization or committee that focuses on local business interests while utilizing the marketing skills of regional organizations.
- Consider adopting zoning bylaw amendments that allow development and redevelopment of existing parcels in conformance with town standards enabling new types of growth to occur.
- Improve infrastructure and programs that create access to industrial land and reduce congestion on local roads.
- Seek partnerships with Andover's business community for projects that enhance the resources of the Town.
- Encourage a diverse mix of high quality, clean, low impact industries.

B. *Housing*

Within the positive economic setting, lies a difficult market for people that want to live in Andover. The enhanced economy over time has provided a tax base that created first-rate town services, including a high-quality school system. The result is increased demand for land and housing. At this time, exceedingly high costs of owning or renting a home makes it difficult for first time homebuyers or and low and moderate income households to rent a housing unit or buy their first home in Andover.

The need for reasonably affordable and different types of housing has become more apparent in Andover and the region. While Andover approaches its 'build-out' of residential development, there are several issues to consider:

- Growth is actually slowing, so even greater care is suggested in how the final pieces of Andover are developed, preserved, or improved.
- Affordable housing projects proposed under the provisions of Chapter 40B are continuing to influence the community.
- Housing costs for both renters and homeowners have risen dramatically over the past ten years.
- Rents and mortgages for the median priced home have become unaffordable for an even larger percentage of the population.
- There is less land available for development of new housing due to environmental and regulatory restrictions and desires for open space preservation.

Unless measures are taken to protect and increase the supply of low and moderate-income housing, many of Andover's residents will have fewer choices. Those who can pay more, steadily outbid those of lesser means, resulting in displacement at the moderate and lower end of the income spectrum. There is real danger that people who were raised here and who work here will no longer be able to afford to live here unless the supply of affordable housing for working families is preserved. The people being squeezed out of the housing market are workers in the schools and town services, blue-collar workers and the elderly, who have all traditionally been a part of the community's socio-economic fabric. Businesses, city government, and the public schools report that selected candidates do not take jobs, or do not stay, because they cannot find housing in the community.

The antidote to this trend is coordinated expansion of opportunities for different market segments simultaneously, gradually reducing pressure and opening new options. Each of the following recommendations will help to meet certain housing demands and form the basis for the housing strategy.

- Create a profile for future Chapter 40B projects, keep housing units in perpetuity, provide outreach to seniors, encourage elderly housing, establish a housing trust fund, support the Andover Housing Partnership Committee, and seek funding for housing programs.
- Encourage regulations that:
 - Reuse old, industrial buildings for residential uses;
 - Provide improved guidelines for housing conversions,
 - Maintain a mix of housing stock,
 - Preserve neighborhoods;
 - Promote new development to be moderate in scale; and
 - Reduce mansionization.
- Identify and prioritize areas for affordable housing for low and moderate-income households.

C. Open Space

The value of land in Andover has become so high, almost every parcel now in private hands is vulnerable to development within the next few decades. Permanently protected open space, including land owned by the Town of Andover, local Land Trusts, and other private or non-profit entities, accounts for 22.4% of Andover's land designated as open space. Unprotected land, accounting for 10.2% of land designated as open space, is under the care and control of the Indian Ridge Country Club, private and public schools, and the gun club. The combination of open space land in Andover provides important natural systems for wildlife habitat, water recharge and flood control, and access to both active and passive recreation.

The need to protect critical open space areas is necessary to protect Andover's small town character, provide recreational opportunities, and continue wise management of natural resources. While Andover approaches its build-out of land, there are several issues to consider:

- Increasing protection of its water supply.
- Enforcing regulatory controls to protect fragile resources.
- Improving management and maintenance of existing open space.
- Trying to involve neighboring communities in protecting critical resources.
- Finding funding for purchasing open space.

As Andover develops, it is vital to its total well-being that the natural systems, upon which all its citizens depend, are not needlessly abused. This means protecting both local and regional water supplies, guiding development away from sensitive areas like wetlands, floodplains and areas of poor soil capability, preventing degradation because of pollution and erosion, and preserving outstanding natural features, particularly water bodies, endangered habitats, and sites of historical or archaeological significance.

To meet increasing demand, Andover needs to expand the opportunities for both active and passive outdoor recreation and enjoyment. While trying to provide recreational opportunities for all residents, the town needs to seek a balance between the increasing demand for playing fields and the many other purposes served by undeveloped natural areas.

When public budgets are tight, funds for care and maintenance are among the first items to be eliminated. Management strategies must be devised to close the gap. Otherwise, increasing urbanization spells deterioration of existing facilities and open space because of overuse, vandalism, litter, and other abuses.

The tendency to concentrate effort and attention on purely local concerns needs to be balanced. What we do in Andover may affect not only our immediate neighbors in the Merrimack Valley, but potential open space users from the more densely populated metropolitan Boston area. The town needs to keep informed about regional problems and plans, and to work cooperatively with regional and state agencies.

Being balanced means trying to achieve spatial balance of open space and recreational opportunities throughout the town and ensuring that all age and social groups are served. It

also means that open space acquisition should shape and provide a context for future development in Andover.

The following is an overview of recommendations made in the 2001 Open Space and Recreation Plan:

- Acquire undeveloped portions of watershed or protect it through regulations. Conservation restrictions or easements and land acquisition should be pursued for watershed properties.
- Encourage developers to design subdivisions that protect critical areas and provide open space parcels and connections to conservation land.
- Establish alternative linkages and trails.
- Develop a management plan for town-owned conservation properties, and budget annually for maintenance of conservation areas.
- Encourage volunteer efforts to promote proper use and maintenance whenever possible.
- Town staff shall continue to work with staff from the Merrimack Valley Planning Commission on computer mapping opportunities for land use analysis, informational pamphlets, trail guides, and open space and recreation maps.
- The town should continue its efforts towards providing safe bike paths or routes that will serve both commuters and recreational users and develop connecting links to nearby communities.
- Seek funding mechanisms to assist in continued acquisition of prioritized undeveloped land (e.g. the Community Preservation Act and/or other state funds).

D. Transportation

Transportation systems are the bloodlines that support the life of a community, its economy, and its residents. Andover's transportation system supports businesses and residences throughout the town, connects Andover to neighboring towns, and the regional interstate and other state roads. Its infrastructure (roads, highways, sidewalks, bridges, and supporting facilities such as parking lots and bike racks) contributes to the functionality of the transportation system.

Although Andover has excellent access and road system, there are several issues that need attention. Over time, commercial, industrial, and residential development has resulted in an increase in the number vehicles and the frequency of uses, and has spread into previously unused areas. The following issues need to be addressed in order for Andover to continue to retain and attract business as well as maintain its character and protect its natural resources:

- There is severe congestion near access to industrial parks on Interstate 93 and many local and state roads including Routes 133 and 28, Clark Road, River Road, and Dascomb Road.

- There is a lack of parking at both commuter rail stations in Andover, which severely limits the use of the commuter rail option.
- While the State of Massachusetts grapples with many large transportation projects and plans throughout the state, including suppression of the central artery in Boston, MassHighway has identified the Merrimack Valley as the last to be studied to improve its transportation management.
- The demand for transportation services is changing due to the demographic shift to an aging population.
- Development in the service sector has created demand on the local road system faster than it can be accommodated.

The following are an overview of goals and recommendations made in the 2000 Regional Transportation Plan:

- Promote the development of a regional transportation system that maximizes the interconnective use of all modes of goods and person transportation in the Valley.
- Develop programs and services that increase transit and paratransit usage in the Valley.
 - A. Support development of high-speed transit systems that will link the Valley with other areas of the Commonwealth, New England, and the nation.
 - B. Support development of Merrimack Valley Regional Transportation Authority's flexible design service along with expansion of days and hours of service.
- Maximize the efficiency and integrity of existing highway and transit systems.
 - A. Promote Pavement Management in the Valley.
 - B. Repair or replace the region's bridges.
 - C. Preserve the integrity of the region's Interstate and National Highway System roadways.
 - D. Investigate possible guaranteed sources of capital funding for public and private transit needs.
- Improve the quality of the environment in the Merrimack Valley by promoting projects and programs that help the region to meet all federal air and water quality standards.
- Undertake efforts to eliminate safety problems that exist on the region's transportation system.
- Promote zoning and land use regulations that are consistent with the region's transportation goals.
- Undertake efforts to eliminate congestion on the region's transportation system.

The Regional Plan also provides recommendations that support the increased use of bicycles:

- Increase the use of bicycles by providing a range of facilities for different types of cyclists.

- Communities must comprehensively evaluate the type of bicycle facility based on local conditions, demand, costs, and feasibility.
- Communities must carefully consider their bicycle parking area and choose the most appropriate type.
- Education should come from the local and regional agencies that can implement an effective bicycle plan such as local police and health organizations.
- Inactive railways should be developed for bicycle and pedestrian uses.

The following recommendations for improving the transportation and industrial parks at specific areas are also provided on the Andover Transportation Map.

1. Improve access and management of the River Road area to create more efficient traffic flows and allow existing industrial land to be effectively developed.
2. Improve access and management of the Dascomb Road area to create more efficient traffic flows. This road should be considered as a Transportation Management Area like River Road. Since this land borders industrial-zoned land in Tewksbury, both towns should discuss options for transportation improvements.
3. New access from I-93 to Burt Road/Lowell Junction will allow new industrial land to be developed.

III. BUILD OUT AND INFRASTRUCTURE CAPACITY

A. Overview

The development of land to the point at which no more land is available for development under current regulations and the resulting density of residential, commercial, and industrial land uses determine the “build out” of a community. Residential growth is measured in the number of new housing units while commercial and industrial growth is measured in square footage of new floor area that can be built. Andover, which has had significant population growth and land development over the past 40 years, is approaching build out. According to three build out analyses conducted in 1992, 1998, and 2001, Andover will be built out sometime between 2010 and 2020 using existing zoning regulations and growth trends (see Table 1). This table lists the potential new development numbers for the various land uses according to these analyses.

Table 1. Build Out Scenario

Land Use	1992 Master Plan	1998 CRG Analysis ¹	2001 MVPC Analysis ²
Residential – All Dwelling Units	1,672	1,745	3,590
Commercial Floor area (sq. ft.)	62,515	92,304	239,084
Industrial Floor Area (sq. ft.)	4,750,000	4,350,000	13,764,746
Roads (miles)	-	--	63
Water Use (mgd)	-	--	2.08
Projected Population (not increase)	34,700	37,140	41,300

¹Commonwealth Research Group analysis, 1998

²Merrimack Valley Planning Commission Build Out Statistics, 2001

Note: All three were done using current zoning.

The Merrimack Valley Planning Commission more than doubled the numbers of the previous scenarios conducted in 1992 and 1998 as shown in this table. Furthermore, the 2001 build out analysis determined that there would be an increase of 63 miles of roads. **Note: The Town of Andover will conduct another build out analysis in 2005, and every few years thereafter, using the Town’s geographic information system to reassess the impacts on the Town.**

Regardless of the absolute numbers, the general impacts of build out affect the “carrying capacity” of Andover, including its transportation infrastructure, sewer, water supply, and natural systems. Carrying capacity refers to the number of individuals who can be supported in a given area within natural resource limits, and without degrading the natural, social, cultural, and economic environment for present and future generations. The carrying capacity for any given area is not fixed. It can be altered by improved technology, but mostly it is changed for the worse by pressures, which accompany a population increase. As the environment is degraded, carrying capacity actually shrinks, leaving the environment no longer able to support even the number of people who could formerly have lived in the area

on a sustainable basis. No population can live beyond the environment's carrying capacity for very long.¹

An absolute number does not determine the carrying capacity of an area. The community's acceptance and management of growth, reliance on technology, and consumption of goods and services are the elements that determine carrying capacity.

B. Build Out Impacts

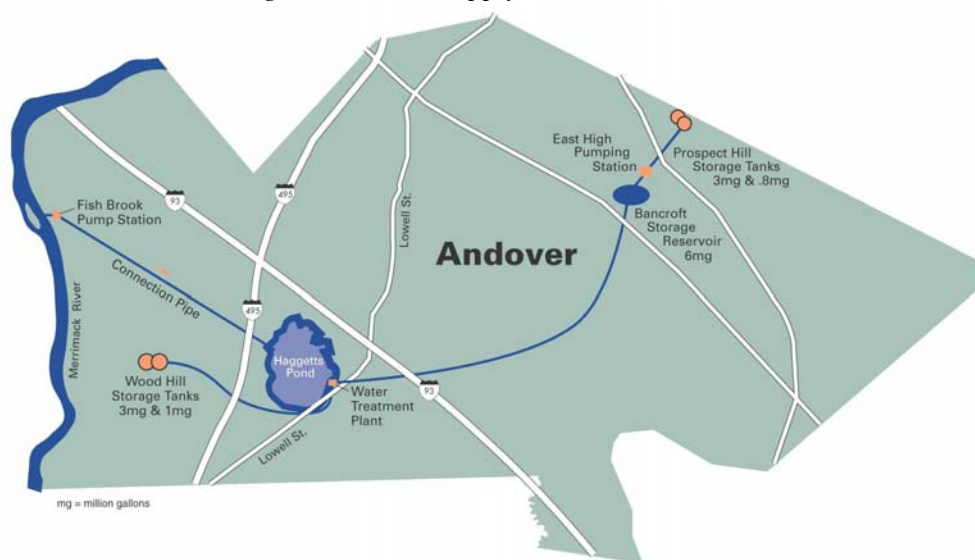
Transportation Infrastructure

The projected growth in Andover will certainly impact the local transportation system. This growth increases road maintenance and repair costs, and overburdens the transportation infrastructure. The most significant impacts are typically a result of commercial and industrial growth. This occurs as congestion on the access roads to industrial parks and increased vehicular trips throughout neighborhoods, especially in the morning and evening commuter hours. Local, regional, and state transportation agencies have prioritized critical congestion areas, and have long-term plans for improving the transportation infrastructure that supports Andover. Although the build out projects new residential, industrial, and commercial development, there is generally a lag time between the need for improvements such as new roads and mitigation programs such as transportation management associations.

Water Supply

With the exception of a few houses using private wells, residents, businesses, and industry are served by the town's municipal drinking water system drawn from a combination of three surface water supplies. Locations of the three sources are depicted in the figure below as the Merrimack River, Fish Brook, and Haggetts Pond.

Figure 1. Water Supply Sources in Andover



¹ Source: Trauger, David L. "Human Population Growth and Environmental Carrying Capacity," Virginia Polytechnic Institute and State University, Falls Church, Virginia, Fall 2001. Internet site: www.in-iwla.org/waltonian.

During the late 1950s and early 1960s, a time of population growth in Andover, Haggetts Pond lacked sufficient capacity to meet the growing water demands of the population during peak times of the year. To solve the problem, the town built a dam at the mouth of the Fish Brook to create a holding pond in order to separate the Fish Brook water from the Merrimack River water. A pipe was installed connecting the holding pond to Haggetts Pond, approximately one mile upstream, and a pumping and chlorination station was constructed to chlorinate water and transport the water from Fish Brook to Haggetts Pond. Water was pumped at certain times of the year to raise the water level of the pond, and thus increase the town water supply. During the 1970s, again increasing population further depleted the water supply during peak times, and so it became necessary to supplement Haggetts Pond further by pumping water from the Merrimack River to the reservoir.

Haggetts Pond is a 220-acre glaciated natural pond is the largest body of water in Andover. The Haggetts Pond reservoir is defined as a Class A surface water source by the Massachusetts Surface Water Quality Standards, 314 CMR 4.00. The Merrimack River is a major river that borders the Town of Andover on the northeast, and is drainage for a 5000 square mile watershed. Water is drawn from the Merrimack River at the Fish Brook Station and pumped into Haggetts Pond. Fish Brook is a 5.25-mile long stream, which arises in wetlands near Haggetts Pond and from the ponds in Indian Ridge Country Club. Fish Brook flows from the country club headwaters through a heavily developed residential area, and through large wetlands where the stream then passes under Interstate 93 and Interstate 495. Fish Brook continues to flow roughly parallel to Route 93 before turning west and flowing into another large wetland area. It finally passes a small residential area and shortly thereafter empties into a holding pond built at the Merrimack River.

Protection of local water supply sources is vitally important to the community given that all of the drinking water comes from local sources. The ability of the community to retain the current level of self-sufficiency in water supply partially depends on how they collectively manage existing and future development within the watershed. The municipal water supply in Andover serves approximately 99% of the resident population in town solely on surface water supplies, 30% of the population in North Reading, and services a considerable commercial and industrial base located within both communities. The town of Andover does not have adequate emergency sources of water, and in all probability could not rely on neighboring communities to supplement demands.

In 2003, the combined average water withdrawal for the community was 6.40 million gallons per day (MGD) obtained solely from surface water. The water system is registered and permitted by DEP Water Management Program to withdraw a volume of 7.27 MGD on an annual average daily basis. Therefore, in 2003 the system realized 88% of its permitted withdrawal.

Peak demand for water supply was reached in 1999; a year with extended heat waves. Over the last five years, average day demand (ADD) for Andover has fluctuated between 5.00 MGD and 5.97 MGD, while the maximum day fluctuated between 10.43 MGD and 13.89 MGD (see Table 2).

Table 2. 2003 Municipal Water Supply Statistics

Water Obtained From Surface Water	100%
Water Obtained From Groundwater	0%
Individual Source Statistics	
Haggetts Pond Withdrawal	2,167 mg/yr
Merrimack River Withdrawal	1,181 mg/yr
Fish Brook Withdrawal	<i>Represented by the Merrimack River data</i>
Andover Population	31,750
Average Day Surface Water Withdrawal	5.94 mgd
Treatment Plant Process Water ¹	248 mg/yr
Average Day Water Demand (Treated)	5.26 mgd
Maximum Day Water Demand (Treated)	12.86 mgd

1. Plant process water accounts for the difference between the average day surface water withdrawal and the average day water demand (treated).

Sources: Andover Surface Water Supply Protection Plan and the Andover Department of Public Works.

Water usage for the community is disaggregated into main categories annually for DEP statistical reporting. While the Andover system has increased its total water use over the years, percentage values for each category of use have remained relatively the same and represent a fairly consistent pattern as depicted in the table below.

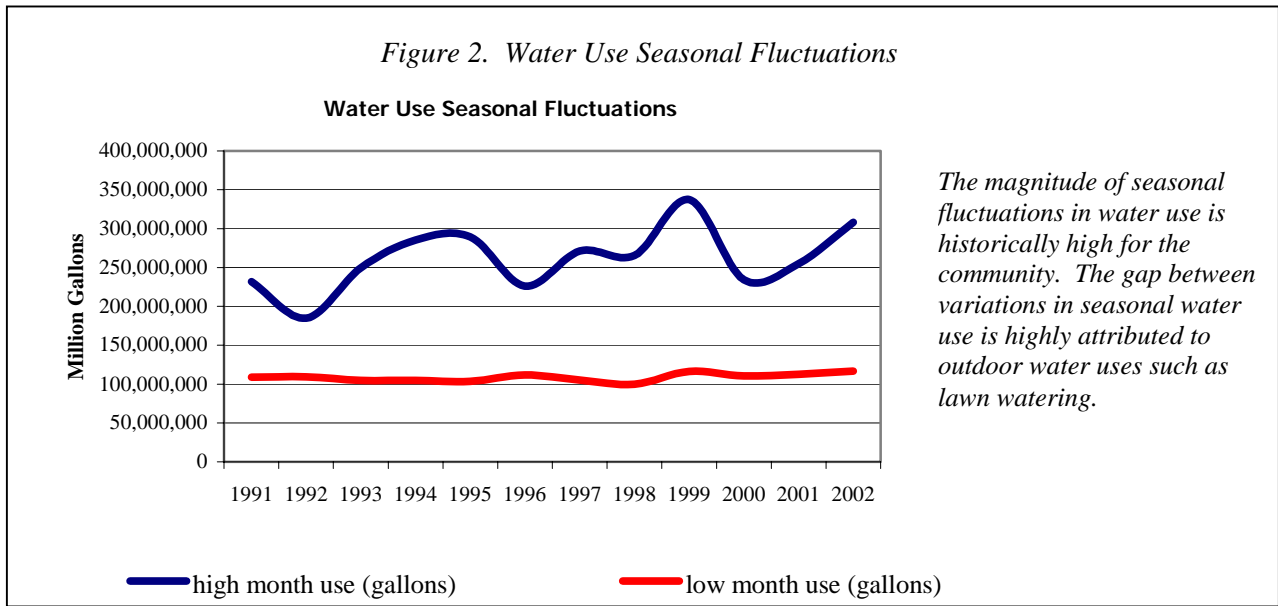
Table 3. Typical Water Use Pattern in Andover

Sector	Percent (%)
Residential	45.4
Industrial	17.3
Commercial	19.1
Other	18.2
Total	100.0

Sources: Andover Surface Water Supply Protection Plan and the Andover Department of Public Works.

Many households of the Andover community maintain higher-than-average indoor and outdoor water use. Higher use may be attributed to the affluence of the community, where affluent customers generally consume more goods and services than nonaffluent customers. The magnitude of seasonal fluctuations in water use is also historically high in Andover and can be seen in the figure below. Though it is not well documented, the gap that exists between variations in seasonal water use is highly attributed to outdoor water uses such as lawn watering. In the summer months, particularly during extended hot and dry weather, the water system experiences peak demands 1.5 to 3.0 times higher than average demand on a winter day. Generally, the water system has the capacity to meet peak demands, but when peak use is particularly high or lasts for a sustained period of time, a water use restriction bylaw triggers to limit customer use.

Figure 2. Water Use Seasonal Fluctuations



Sources: Andover Surface Water Supply Protection Plan and the Andover Department of Public Works.

Future water supply needs are based upon population projections and anticipated future industrial, and commercial growth within the system. Consideration is also made for the sale of water to neighboring community North Reading. Projected water consumption for North Reading is based upon historical use and the existing inter-municipal agreement rather than population projections. Projected Andover water consumption by North Reading is based on 1.568 MGD (see Table 4).

Historic growth in Andover has slowed to less than 1% per year over the last decade, indicative of the fact that the Town is approaching the build out population.

The 1992 Andover Master Plan states that, based on zoning requirements and land use, the full build out population for Andover is represented by a population level of 34,700. It is estimated that build out could be reached by the year 2020, which is later than projected by the 1992 Master Plan. It is important to note that as populations increase, potable water demands increase, and more water is withdrawn from the watershed.

Table 4. Andover Build Out Statistics

Andover Population	34,700
Average Daily Water Consumption	
Residential	2.410 MGD
Industrial/Agricultural	1.300 MGD
Commercial	1.500 MGD
Municipal	0.590 MGD
North Reading	1.568 MGD
Total, System Wide	7.368 MGD

Using a ratio of 2.3 for peak Maximum Daily Demand (MDD) to Average Daily Demand (ADD) based on historical records, results in a maximum projected consumer demand of 17 mgd by the year 2025, and a maximum daily surface withdrawal of 18 mgd (The difference is accounted for in the water treatment plant processing).

The projected ADD of 7.368 MGD projected for the year 2025 is possible with Andover's existing pumping capacity, however, the Department of Environmental Protection (DEP) must grant a permit for the actual water supply withdrawal. Presently, Andover is only allowed by permit to withdraw a maximum of 7.27 MGD on average, which is less than the projected 7.368 MGD. Therefore, Andover would need an increase in the permitted surface water withdrawal from DEP to meet the projection. Recently, DEP has become more stringent on that very issue, and as other communities reach a build out scenario, it is unlikely that DEP will ease its position. The maximum consumer demand of 17 MGD is also achievable with Andover's current system, assuming it is a MDD and not routine. However, it pushes the limit of Andover's pumping capacity. Again, the average day demand must still remain below the permit level. In any case, it is dangerous to force a water supply system to its maximum limits.

Sewer System

The town has both a municipal sewerage system (currently under expansion) and on-site private systems. Sewerage in the municipal systems is pumped to a facility in North Andover, which also collects sewer from Lawrence, Methuen, and North Andover. The private on-site systems are regulated by local and state codes, and are expected to meet demand from new developments.

Environmentally Sensitive Areas

As the town approaches build out, marginally developable land is developed. This typically includes lands bordering wetlands, steep sloped land, and large granite outcrops, and results in excessive runoff, erosion, unstable soils, flooding, and ultimately the quality of the water supply. Therefore, future land development increases the need to protect water supplies and sensitive environmental areas as well as the need to apply more stringent regulations.

IV. SUMMARY OF ACTIONS

A. *Economic Development*

The Town of Andover developed a set of directives for the economic development strategy. The emphasis is to adopt a modern progressive economic development policy that includes a proactive strategy for business attraction and retention. Key goals include:

- Raise awareness and show appreciation of the major contribution of commercial and industrial property to the Town's tax base.
- Provide a full range of jobs for local residents, from service and trades to high tech and research and development.
- Create a well-balanced community in terms of land uses, jobs, and housing.
- Establish a community identity for high value, clean, low impact businesses that support an expanding job market.
- Attract service and retail uses, which can capture a large market area, thereby improving the value of these uses to local residents.
- Allow services and retail uses to fill gaps in local needs for goods and services.
- Improve the quality of life for residents by providing local employment opportunities.

Recommendations were developed to help reach these goals, focus efforts, and direct the Town's resources. The following list is a summary of the key recommendations.

1. **Management, Retention, Promotion and Marketing**

Development Coordinator

The Town should create a community economic development coordinator position that provides a "one stop" source of guidance and implements a strategy for attracting and retaining business as well as working with an Economic Development Council.

Economic Development Council

The Town should establish a local economic development council that is comprised of business representatives and residents that would work with town officials and professional staff.

Market Andover

The Town should promote and market Andover as well as develop a targeted market campaign for desirable and diverse industries.

The Town should work with local economic development organizations, such as the Merrimack Valley Chamber of Commerce and the Andover Chamber of Commerce, to provide marketing services for attracting and retaining businesses.

Economic Development Website

The Town should dedicate a website that promotes and highlights Andover's commercial resources as well as the availability of developable land.

2. Rezoning

Mixed-use District

The Town should identify new retail and service uses in the Mixed-use district.

Industrial Park Concierge Services District

The Town should create a new option within industrial zones or create a separate district to allow limited services associated with the industrial park users.

Commercial or General Business Districts

The Town should study and identify new locations for rezoning for retail, office and/or service uses.

3. Housing

Proximity to Affordable Housing

The Town should establish a profile for affordable housing close to transportation access and job centers.

Jobs - Housing Balance

The Town should balance the expansion of local jobs with an increase in the number of accessible and affordable housing units.

4. Infrastructure

New I-93 Highway Access

The Town should identify the best local option for new access to I-93 to better serve existing industrial uses and mitigate effects on residential areas.

Improve Local Road System

The Town should develop a local road CIP for industrial and commercial areas.

Local and Regional Intermodal Transit

The Town should monitor and establish options to reduce vehicles on local streets.

Infrastructure Management Program

The Town should educate business park owners and tenants about proper management of their utility systems.

5. Previous Economic Development Strategies

Andover Master Plan Recommendations

The Town should continue with the recommendations of the Andover Master Plan (1992).

Merrimack Valley Planning Commission Recommendations

The Town should continue with the recommendations of the *Economic Development Strategy for the Merrimack Valley* (2001).

B. Housing

The housing strategy is based on an analysis of census data, existing housing issues, and the housing goals in the 1992 Andover Master Plan.

- Adopt policies and take actions to ensure that the housing supply meets the needs of Andover's residents.
- Increase the supply of permanently affordable rental and owner-occupied housing units in Andover.
- Develop housing options to retain existing residents who may be priced out of the community.
- Seek local, state, and federal funding sources to improve housing opportunities.
- Facilitate building multifamily housing in or near the downtown in a variety of ways including infill housing and mixed-use development.
- Encourage housing rehabilitation through tax incentives, subsidy programs, and regulatory simplification, modification, and compliance.
- Cooperate with regional efforts to promote development of affordable housing.
- Maintain a housing stock that varies in style, affordability, and function.

Recommendations were developed to help reach these goals, focus efforts, and direct the Town's resources. The following list is a summary of the key recommendations.

1. Programs

Chapter 40B Profile

The Town should establish a housing profile for future Chapter 40B developments.

Perpetuity of Affordable Housing

The Town should seek ways to prevent the loss of affordable housing units before they expire and create incentives for establishing affordable units that remain in perpetuity.

Support for Funding and Programs

The Town should seek funding that supports housing goals and programs.

Outreach to Seniors

The Town should educate and support seniors about their housing needs.

Elderly Housing

The Town should encourage elderly housing that is affordable to a wide range of incomes through alternative residential programs.

Housing Trust Fund

The Town should support development of a housing trust fund to create lower cost and affordable housing.

Support of Andover Housing Partnership Committee

The Town should support the work of the Committee.

2. Regulatory

Adaptive Reuse

The Town should encourage reuse of older commercial and industrial buildings for residential uses.

Zoning Incentives

The Town should create zoning incentives that encourage development of housing units for low, moderate, and middle-income households.

Housing Conversions

The Town should provide more specific guidelines in the Zoning By-law for the conversion of existing homes to multi-family housing in the town center.

Mansionization Reduction

The Town should reduce the loss of affordable rental and owner-occupied units that are demolished and replaced by larger houses.

3. Developable Areas

Inventory of Developable Areas

The Town should create a database of potential areas for affordable housing developments and prioritize them based on demand of unit types and sizes and availability of land.

Potential Affordable Housing Areas

The Town should address the use of a variety of public and private areas including school property, rezoned industrial areas, infill lots, and other sites to support affordable housing.

C. Open Space

The Town of Andover developed the following goals in the 2001 Open Space and Recreation Plan.

- Preserve Andover's ecological balance.
- Encourage open space enjoyment and utilization.
- Protect Andover's existing and future water supply and fragile resources.
- Enforce regulatory controls.
- Improve management and maintenance of existing open space.

Recommendations were developed to help reach these goals, focus efforts, and direct the Town's resources. The following list is a summary of the key recommendations.

1. Ecological Balance

Protection

Identify, protect, and maintain by available means outstanding natural features, endangered habitats, archaeologically important sites, and green and open spaces.

Regulations

Define more specifically the means of protection of open spaces and natural features in the town's zoning and subdivision regulations. Review those regulations with the objectives of increasing environmental protection and decreasing the adverse environmental impacts of development.

Unnatural Materials

Minimize the use of pesticides and herbicides.

2. Open Space Enjoyment and Utilization

Links

Attempt to link open space areas by means of trails. Continue to try to establish a town-wide trail network, including paths connecting the different areas of the downtown.

Programs

Support and encourage more recreational programs such as the sport of "orienteeing" and organized youth activities that are compatible with undeveloped open space resources.

3. River Corridors and Water Supply

Acquire Land

The Town should protect town water supplies by acquiring all of the remaining undeveloped Fish Brook and Haggetts Pond lowlands. Also, acquire or protect by easement wherever possible the bank of the major rivers, streams, and ponds of the town. The Town should establish and maintain trails along rivers where possible.

4. Regional Opportunities

Awareness

Make Andover's representative on the Merrimack Valley Planning Commission aware of Andover's open space and recreation assets as well as its goals and objectives. Make Andover aware of regional open space recreation goals through its participation on or involvement in other regional environmental groups. Communicate Andover's open space assets regionally as well as locally.

5. Scarce Resources

Equal Allocation

Continue to facilitate the sharing of open space and recreation areas among the different agencies of the town.

Maintain and improve working relationships of town agencies with other holders and managers of open space and active recreation facilities. Included are AVIS, Trustees of Reservations, State Department of Environmental Management, Phillips Academy, YMCA, the regional vocational school, local schools, and country clubs.

6. Management of Existing Areas

Signage

Provide proper signs to identify conservation and recreation areas and to control uses.

Funding

Establish a maintenance fund for limited care of reservations. Support appropriate maintenance funding for Community Services facilities. Continue efforts to develop better management strategies using volunteers wherever possible.

Awareness

Try to make users of the town's open space aware of their responsibility for its proper management.

D. Transportation

The Merrimack Valley Planning Commission developed the following goals and objectives as part of the *2000 Regional Transportation Plan*:

- Promote the development of a regional transportation system that maximizes the interconnective use of all modes of transportation in the Merrimack Valley.
- Develop programs and services that increase transit and paratransit usage in the Merrimack Valley.
- Maximize the efficiency and integrity of existing highway and transit systems.
- Improve the quality of the environment in the Merrimack Valley by promoting projects and programs that help the region to meet all federal air and water quality standards.
- Reduce safety problems that exist on the region's transportation system.
- Promote zoning and land use regulations that are consistent with the region's transportation goals.
- Reduce congestion on the region's transportation system.

Recommendations were developed to help reach these goals and objectives and to mitigate projected economic and residential growth as identified in this study:

- Improve access and management of the River Road area.
- Improve access and management of the Dascomb Road area.
- Provide new access to and from I-93 to Burt Road/Lowell Junction.

V. BARRIERS TO IMPLEMENTATION

A. Overview

Implementation of the recommendations within this plan is subject to barriers that may reduce their effectiveness. A barrier is an obstacle that prevents the coming-into-force of a particular recommendation or action, or causes delays in its implementation. Barriers can be rigid or flexible, the latter being able to be overcome given sufficient time or resources. Land use recommendations tend to face more rigid barriers than, say, management or information measures.

A barrier arises when one of the goals of a strategy restricts the ability of a recommendation to achieve other goals. For example, protection of environmentally sensitive areas may preclude development on a particular site. Another example is conflicting legislation, which may cause delays and excess costs in the implementation of a recommendation.

Barriers can be classified into three categories:

1. **Legal and institutional:** lack of legal powers to implement a particular recommendation; and legal responsibilities that are split between agencies, limiting the Town's ability to implement the action;
2. **Financial:** budget and funding restrictions limiting the overall expenditure on the strategy, financial restrictions on specific measures, and limitations on the flexibility with which revenues can be used to finance the full range of recommendations;
3. **Political and cultural:** lack of political or public acceptance of a recommendation, restrictions or conditions imposed by neighborhood groups, and cultural attributes, such as attitudes to enforcement, which influence the effectiveness of a strategy.

B. Barriers and Opportunities

The following section identifies potential barriers and opportunities to implementing the recommendations within this Plan.

Lack of Organization to Implement this Plan

To effectively administer this plan, the Board of Selectmen and the Town Manager must provide support to the specific departments that will implement the plan recommendations. Also, they must provide clear direction and identify support staff and funding (if available).

Lack of Enforcement for Zoning Regulations

A major barrier to many new and workable solutions to improve land use practices through zoning changes is that they get mixed with a system that may not enforce regulations. Town administrators and senior staff will have to make concerted efforts to enforce all zoning regulations.

Updating Zoning Regulations at Town Meeting

Another major barrier to many new and sometimes innovative zoning changes is opposition to perceived negative effects of some zoning changes, which require a two-thirds vote at local Town Meetings. This appears frequently when a zoning change involves affordable housing or increased density. Educational efforts need to be increased in situations where opposition is apparent.

Addressing Changes in Local and State Economy

Although changes in the state economy cannot be directly controlled, the Town can improve effectiveness of the plan by ensuring that it is flexible by re-evaluating the goals, recommendations, and priorities on an annual basis. For example, if the economy slows down and demand drops for industrial space, focus efforts and attention on supporting housing goals.

Resistance to Development from Local Neighborhoods

Residents need to be informed and involved in the process well in advance of any plans to alter their neighborhood. This should be done through education, outreach, and forums. Public meetings should be informative, timely, and should show examples and success from local and regional projects. Furthermore, the public will not object to the project if they perceive a project as a benefit to them or their friends and family.

Timeliness of Local Regulatory Changes to Meet Project and Town Meeting Deadlines

Many recommendations are not implemented because they miss key dates that allow passage or adoptions of regulations such as changes in the zoning ordinance. A key component for implementing a plan is to establish a schedule for achieving its vision. The schedule should outline milestones, set key and achievable target dates, provide advance notices to all interested parties, and ensure it accommodates town warrant and meeting dates.

Lack of Funds to Support Programs

One way to stop a project dead in its tracks is to eliminate funding. Therefore, it is extremely important to prioritize funding and make it an action item in order to adequately implement a recommendation. Otherwise, without funding, a project will not proceed even though all plans, meetings, approvals, and decision have been set. Methods to help ensure funding is available for various types of projects include:

- Pass the Community Preservation Act
- Dedicate a staff member to get grants and other funds, some of which can be used to support staff.

VI. MAP DEVELOPMENT

Maps based on the use of a geographic information system (GIS) were developed for two reasons:

- 1) To determine the most suitable locations for affordable housing, economic development, protecting resources, and for transportation improvements, and
- 2) To understand how all these resources and developments relate to each other. The composite of the four elements resulted in an action plan map as described below along with the other maps.

The rationale used to develop the maps is described below, and the maps follow.

A. Action Plan

The Action Plan depicts opportunities for economic development, housing, transportation, and open space. It provides a synoptic view of proposed actions so that the combination of all elements can be seen at one time. The “layering” of elements helped determine actions that can both complement as well as conflict with each other. For the most part, restrictions were found where development was planned on or near environmental resources. For example, access was recommended near Lowell Junction Road to allow the development of the industrial-zoned land in the area. Some of this land, however, is constrained by wetlands. An example of a complementary action occurred where transportation improvements designated for the northern industrial land would be beneficial to the residential uses in this area.

B. Economic Development Suitability

Future economic development in Andover is targeted primarily in three industrial districts along I-93, the downtown, and the mixed-use district adjacent to the downtown. The following potential economic improvement areas are numbered on the map.

1. Improved access and management of the River Road area will allow existing industrial land to be developed.
2. The mixed-use district will be a focus area for new retail and service uses within properly designed projects.
3. Downtown revitalization and improvements would create additional commerce, especially in the areas not along Main Street.
4. Improved access will allow industrial land to be developed with new uses. Since this land borders industrial-zoned land in Tewksbury, both towns should discuss options for mutual development of the area.
5. New access from I-93 will allow existing industrial land to be developed.

Although River Road and Dascomb Road need new access, a feasibility study should be conducted to determine which area would provide the most economic benefit to Andover and the least amount of conflict with the environment and neighborhoods.

C. Housing Suitability

The housing suitability map identifies potential locations for affordable housing in Andover. Maps for zoning, developable areas, and environmental resources were utilized to help determine these locations. Other areas were considered for housing, but they were either more suitable as industrial uses or conflicted with the protection of environmental resources.

The following areas and corresponding numbers are on the map.

1. Retain and expand existing affordable housing sites in the northern industrial area.
2. Rezone the small industrial area north of Haverhill Street to residential to allow dense residential uses with clustered developments.
3. Rezone the parcel between Lowell Street and Fry Circle as SRA residential with an open space component.
4. Redevelop the area near the Downtown for mixed uses. Allow housing conversions for this area.
5. The area at South Main Street (Route 28) and Route 125 has potential for apartment housing opportunities.
6. The area near Route 133 and Interstate 93 has potential for housing.
7. Promote family and/or senior residential and open space conservation for this area.

D. Preservation Strategy and Land Use Suitability Maps

The preservation strategy map displays the natural resource areas and those needing the highest environmental protection. The water supply watershed is the key area that needs protection and includes Fish Brook and Haggetts Pond. The land use suitability map displays future land uses based on the build out of land using current regulatory requirements.

E. Transportation

This map shows the basic transportation infrastructure in Andover. Specific recommendations were based on the impacts and opportunities of potential residential, commercial, and industrial developments as well as protected natural resources. Recommendations call for new access and management areas, more efficient traffic flows, less congestion, and the application of a transportation management area. The following areas are depicted on the map.

1. Improved access and management of the River Road area will create more efficient traffic flows.
2. Improved access and management of the Dascomb Road area will create more efficient traffic flows. This road should be considered a Transportation Management Area like River Road.
3. New access from I-93 will allow industrial-zoned land to be developed.

Many acres of land in the southern part of Andover along I-93 and adjacent land in Tewksbury is zoned industrial. These similar land uses could possibly complement and share each community's transportation improvements. Both towns could possibly arrange cooperative agreements and transportation improvements that would be mutually beneficial to the expansion of these industrial areas.

VII. IMPLEMENTATION

A. Actions, Responsibilities, and Time Frame

The strategies outline a series of actions that, by degrees; allow, support, and encourage development in different forms. Each of these actions requires different demands on the town to ensure they are implemented properly. The community will set the level of the commitment and determine what the town will be able to accomplish. The following list includes the proposed actions and actors that will be involved in each of the steps.

Economic Development

Program Action	Specific Actions	Responsible Entity (ies)	Time Frame
A. Local Initiatives			
Committee creation	Initiate a local economic development committee with charge to: <ul style="list-style-type: none"> • Review current economic development potential. • Determine options for local initiatives. • Recommend a plan of action. 	Board of Selectmen	Immediate
Committee support	Establish a fiscal and management support structure to meet local economic development goals.	Board of Selectmen	1-2 years
Staffing	If determined by a recommendation from the economic development committee, the Selectmen and Town Meeting should create a new position within town government to focus on economic development.	Board of Selectmen, Town Meeting	2-3 years
Town web site	Further develop the town website with links to other agencies.	Town Manager	6 months
Housing programs	Coordinate the increase in the number of affordable housing units within Andover and the region in accordance with the expansion of local jobs.	AHPC, Board of Selectmen, Town Meeting	Long term
B. Zoning Changes			
Mixed Use district - alterations	Improve opportunities within the Mixed Use District for new development.	Planning Board, Town Meeting	2 + years
Industrial Park Concierge Services district – new	Create new opportunities within the existing industrial zones or create a separate district to allow limited services associated with the industrial park users, where they are: <ul style="list-style-type: none"> • Shown to be supportable by and associated with all users of the park or industrial area, • Centralized and limited in scope as a type of “neighborhood business” area. 	Planning Board, Town Meeting	2 + years
C. Business Partnerships			
Round-table meetings	Invite local business owners and town officials to twice yearly round table meetings to discuss current issues.	Board of Selectmen	Underway

	Form agendas to review current issues and long-term planning goals.		
Awards and Recognitions	Initiate an awards or recognition program to highlights local businesses that have contributed to the public interest and quality of life by acknowledging such actions as: <ul style="list-style-type: none"> • Contributions by local businesses to local civic activities, • Expansions of local job opportunities, • Key accomplishments of local businesses in their respective specialties. 	Local and regional chambers of commerce, local business owners associations, elected town officials	Immediate
Local Educational Programs	Target personnel from local businesses to assist in local workforce education in areas such as: <ul style="list-style-type: none"> • Speaker bureau, • Night school programs, • Employment searches. 		2+ years
D. Agency Partnerships			
Committee creation	Initiate a local economic development committee with charge to: <ul style="list-style-type: none"> • Review current economic development potential. • Determine options for local initiatives. • Recommend a plan of action. 	Board of Selectmen	Immediate
Promotion	Develop a targeted marketing campaign for new businesses of specific type and size.	Local economic development committee	2 + years
E. Infrastructure			
New I-93 Highway access	Initiate planning to determine best local option. Coordinate planning with MHD and MVRPA. Negotiate with FHA. <ul style="list-style-type: none"> • Coordinate with existing development potential. 	Board of Selectmen, Public Works, Planning Division	Underway
Improve local road system	Collect development impact fees for future road improvements during the approval process. Proceed with reconstruction and new construction of road system.	Board of Selectmen, Planning Board, Public Works, Town Meeting	Long-term
Local/regional intermodal transit	Establish one or more options to reduce privately-owned, single-occupancy vehicles: <ul style="list-style-type: none"> • Inter-town trolley or bus service, • Shared riding for commuters, • New train and bus service. 	Board of Selectmen, TMA's, MVRTA	Long-term
Infrastructure management program	Through local permitting process, provide educational materials and highlight proper management of privately owned utility systems within the business parks.	Planning Board, Zoning Board, Public Works, Board of Health	Immediate

Housing

Program Action	Specific Actions	Responsible Entity (ies)	Time Frame
A. Programs			
Chapter 40B Profile	Identify available sites for Chapter 40B Housing. Identify Andover's needs (number of units, bedrooms, etc.) and site criteria.	AHPC	Underway
Perpetuity of Affordable Housing	Identify legal, financial, and regulatory methods to keep affordable housing in perpetuity. Identify existing affordable housing units that are at risk of being converted to market rate housing in the near future. Establish agreements with local, state, and federal agencies and with developers to retain and make new units affordable in perpetuity.	AHPC Andover Housing Authority Planning Division	Underway
Support for Funding and Programs	Identify all local, state, federal, and private funding sources.	AHPC Board of Selectmen	Immediate
Outreach to Seniors	Utilize senior center for outreach programs.	Division of Elder Services, AHPC	1 year
Housing Trust Fund	Identify appropriate housing agencies and funding sources to establish trust fund. Determine appropriate properties or options for applying a housing trust fund.	Planning Division, AHPC	2-3 years
Support of Andover Housing Partnership Committee	Ensure that town agencies support the continued work of the AHPC.	Board of Selectmen, Planning Board, Town	Contin- uous
B. Regulatory			
Adaptive Reuse	Identify potential properties that could be converted to either affordable or mixed use with affordable component.	Planning Division, AHPC	1 year
Zoning Incentives	Identify existing zoning incentives to create affordable housing. Adopt additional incentives as needed to reduce housing costs, reduce barriers to housing market, and streamline permitting process.	Planning Board, AHPC, Board of Selectmen	2 years
Housing Conversions	Change zoning to encourage conversions to and expand multi-family units.	Planning Board, AHPC	1 year
Mansionization Reduction	Identify and adopt changes in zoning to reduce mansionization of properties. Identify methods to strengthen bylaw language that reduces mansionization.	Planning Division, Zoning Board, AHPC	Long-term
C. Developable Areas			
Inventory of Developable Areas	Create database of potential areas for housing developments.	AHPC	6 months
Potential Areas	Prioritize areas based on availability of land and funds, and demand.	Planning Division, AHPC	2 year

Open Space

These actions were summarized from the *2001 Open Space and Recreation Plan* (Section 9).

Program Action	Specific Actions	Responsible Entity (ies)	Time Frame
A. Ecological Balance			
Protection	Identify, protect and maintain by available means outstanding natural features, endangered habitats, archaeologically important sites and green and open spaces at critical locations, such as traffic islands at intersections.	Open Space Committee, Conservation Division, Planning Division	5 years
Regulations	Define more specifically the means of protection of open spaces and natural features in the town's zoning and subdivision regulations. Review those regulations with the objectives of increasing environmental protection and decreasing the adverse environmental impacts of development.	Open Space Committee, Conservation Division, Planning Division	1-5 years
Unnatural materials	Minimize the use of pesticides and herbicides. Use permeable alternatives to traditional pavement where feasible.	Health Division and Conservation Division	1-5 years
B. Open Space Enjoyment and Utilization			
Links	Attempt to link open space areas by means of trails. Continue to try to establish a town-wide trail network, including paths connecting the different areas of downtown.	Open Space Committee, Conservation Division, Planning Division	1-5 years
Programs	Support and encourage more recreational programs such as the sport of "orienteering" and organized youth activities that are compatible with undeveloped open space resources.	Department of Community Services and Local Non-profits	1-5 years
C. River Corridors and Water Supply			
Acquire Land	The Town should protect town water supplies by acquiring all of the remaining undeveloped Fish Brook and Haggetts Pond lowlands. Acquire or protect by easement wherever possible the bank of the major rivers, streams and ponds of the town. Establish and maintain trails along rivers where possible.	Open Space Committee, Conservation Division, Planning Division	1-10 years
	Pass the Community Preservation Act to help fund acquisitions of land.	Board of Selectmen	
D. Regional Opportunities			
Awareness	Make Andover's representative on the Merrimack Valley Planning Commission aware of Andover's open space and recreation assets as well as its goals and objectives. Make Andover aware of regional open space recreation goals through its	Open Space Committee, Conservation Division, Planning Division	1-2 years

	participation on or involvement in other regional environmental groups. Communicate Andover's open space assets regionally as well as locally.		
E. Scarce Resources			
Equal Allocation	Continue to facilitate the sharing of open space and recreation areas among the different agencies of the town.	Open Space Committee, Department of Community Services	1-2 years
	Maintain and improve working relationships of town agencies with other holders and managers of open space and active recreation facilities. Included are AVIS, Trustees of Reservations, State Department of Environmental Management, Phillips Academy, YMCA, the regional vocational school, and local schools.	Open Space Committee, Conservation Division, Planning Division	1-2 years
F. Management of Existing Areas			
Signage	Provide proper signs to identify conservation and recreation areas and to control uses.	Open Space Committee, Conservation	1-5 years
Funding	Establish a maintenance fund for limited care of reservations. Support appropriate maintenance funding for Community Services facilities. Continue efforts to develop better management strategies using volunteers wherever possible.	Open Space Committee, Conservation Division	1-5 years
Awareness	Try to make users of the town's open space aware of their responsibility for its proper management.	Open Space Committee, Conservation Division, Department of Community Services	1-2 years

Transportation

Program Action	Specific Actions	Responsible Entity (ies)	Time Frame
Improve Access			
	Continue focus and support of the River Road TMA.	Board of Selectmen, Planning Division, MVTMA	Ongoing
	Determine feasibility of using a TMA for the Dascomb Road area. Determine feasibility of new access road to the industrial zoned area along Dascomb Road. Work with Town of Tewksbury to determine mutual needs, uses, and access points.	Board of Selectmen, Planning Division	2-3 years
	Determine feasibility of a new access road to the industrial district near Burt Road	Planning Board, MHD	1-3 years

B. Relationship of the Core Elements

Recommendations within the core elements (economic development, housing, open space and transportation) can affect each other in various ways. For example, some may compete for the same funding while others support similar goals. This section provides an overview of the relationships between each of the core elements and how they affect each other. Although there are many recommendations that relate to each element and support the vision and goals of this plan, this section identifies key relationships and ways the elements affect each other.

Economic Development

The strategy for economic development, which provides a range of recommendations for strengthening the local economy and creating business programs and partnerships, supports some of the goals for the transportation and housing elements. Concierge services at industrial parks will help reduce the number of vehicles that travel on local roads to local services. Increase the number of affordable housing units should help employers meet their employment needs.

Economic and housing strategies direct development of land in the most suitable locations. Commercial and industrial uses are targeted at large, developable properties that can provide access to transportation routes or can be improved with transportation management action. Housing locations are generally targeted at sites where units already exist or where there is appropriate infrastructure and services.

Housing

The recommendation for mixed-use developments supports several goals that aim to increase the use of existing infrastructure, provide housing for those that need and utilize local services such as mass transit, and to reuse older commercial and industrial buildings for both residential and commercial uses.

The housing recommendations also support development of housing units for people with a range of household incomes, which will help employers meet their employment needs. Housing that is centralized in the community helps reduce local vehicle traffic as well as the number of vehicle trips in the less developed parts of Andover. Development of housing on town-owned land, for municipal employees that would normally live outside of Andover, would help reduce traffic and improve the local economy.

Open Space

Recommendations from the open space plan should improve the quality of life for those that live in Andover and the region, especially for people that use its parks, playgrounds, rivers, and other natural and recreational resources. Open space recommendations, which include acquisition, preservation, dedication, and other types of contribution to the protection of land, or programs that preserve and enhance Andover's resources, need to be implemented to ensure that the community has the ability to provide open space for its residents. However, there needs to be a balance between protected land and other types of development. As land becomes permanently protected and is removed from the pool of developable land, the cost for the remaining land will increase. Critical areas are identified as those in the watersheds, along rivers, and adjacent to existing protected open space. The Town should protect

environmentally sensitive and other critical areas and, at the same time, the Town should focus on encouraging the use of appropriate areas for building housing, commercial, and industrial development.

Transportation

Transportation improvements such as the proposed local capital improvement program (CIP) and transit options, as included in the *2000 Regional Transportation Plan*, should help workers meet their travels needs as well as make it more convenient for them to live and work in the same community. Recommendations to improve access and alleviate congestion on existing roadways would help retain and expand the growth and number of businesses in the industrial parks. It would also help mitigate traffic impacts in the residential areas near these access points. Potential new roads may affect the natural resources, especially if they are in the water supply watershed district. As with the other elements, transportation improvements will need to be prioritized and their impacts balanced to meet the needs of the community and the goals of the plan.

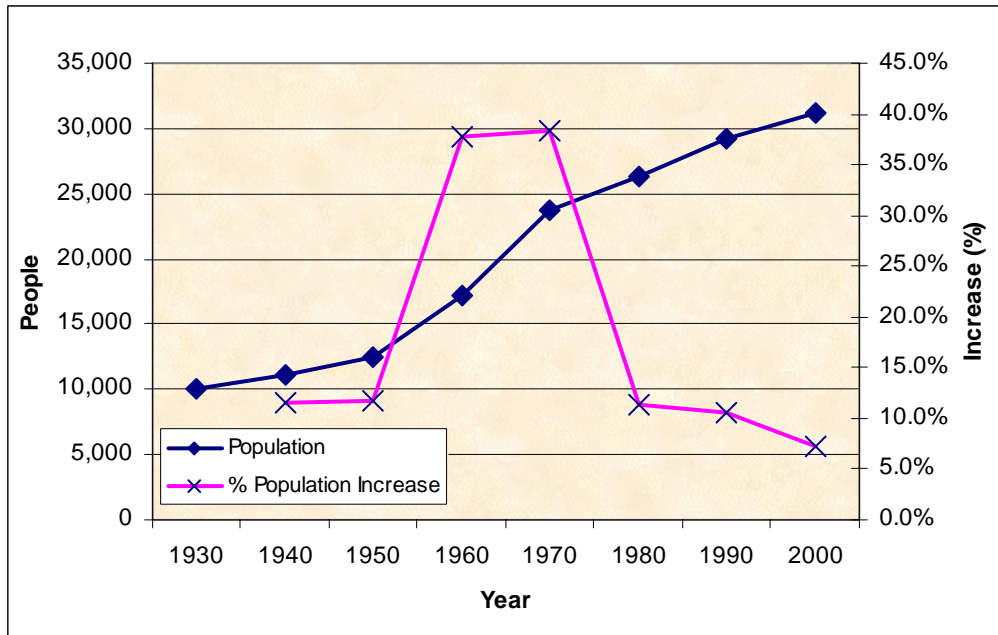
C. Population Projections and Land Use Needs Update

The Andover Master Plan (1992) provided an analysis of population projections and land use needs. This section updates this analysis relative to the economic development and housing elements that were studied as part of the Community Development Plan. Topics such as parking and zoning are not discussed as part of this update. The growth of the community, as measured by its increase in population, will affect the uses of the land and may alter development patterns. Population increases do not necessarily result in the direct development of industrial areas since most local employers do not hire only Andover residents.

Andover's location near the Boston metropolitan area and the excellent transportation access offered by Interstates 495 and 93 make it an attractive community for home seekers, as well as those that want to work in the area. Since the time these two interstates were constructed in the 1950s and 1960s, the region saw significant investments in both housing construction and business creation. The attraction for accessible, large, and developable lots brought a substantial number of people and jobs to the area. In fact, the population of Andover increased approximately 32% over the past 30 years, or about 1% on an annual basis, to 31,247 people (see Figure 3). The rate of the population increase, however, slowed from almost 40% between 1960 and 1970 to about 7% between 1990 and 2000.

The 1992 Andover Master Plan (1992) estimated that the population would increase from 32,448 to 35,254 for 2000 and 2010, respectively. This was based on a 10% growth over 10 years. However, the 1992 Master Plan projected a population of 32,448 in 2000, which is approximately 1,200 more than the number the US Census determined. This reminds us that they are projections only and many factors influence population growth.

Figure 3. Population in Andover over the Past 70 Years



Sources: US Census 2000, Massachusetts MISER Population Projections, 1999

According to the 1992 Master Plan, approximately 1,672 housing units could be built to reach build out of Andover based on the prevailing zoning regulations (see Table 5). Between 1990 and 2000, approximately 700 units were built according to US Census data.

Table 5. Build Out Scenario

Land Use	1992 Master Plan	1998 CRG Analysis ¹	2001 MVPC Analysis ²
Residential – All Dwelling Units	1,672	1,745	3,590
Commercial Floor area (sq. ft.)	62,515	92,304	239,084
Industrial Floor Area (sq. ft.)	4,750,000	4,350,000	13,764,746
Roads (miles)	-	--	63
Water Use (mgd)	-	--	2.08
Projected Population (not increase)	34,700	37,140	41,300

¹Commonwealth Research Group analysis, 1998

²Merrimack Valley Planning Commission Build Out Statistics, 2001

Note: All three analyses were calculated using current zoning.

Note: The Town of Andover will conduct another build out analysis in 2005, and every few years thereafter, using the Town’s geographic information system to reassess the impacts on the Town.

D. A Framework for Decisions

In order to move forward, to make the vision a reality, and to make the four components of economic development, housing, open space protection and transportation work together, each and every recommendation that is implemented must be considered thoroughly and the outcome weighed carefully.

Each outcome affects Andover over time and each decision must be based on good and adequate information. As each action is considered, review the following:

- Understand the proposal. Read it carefully and critically. Look for oversights. Make certain that the details are fully specified. If not, ask questions.
- Review the Andover Vision. Determine whether the action is consistent with the Town's shared values.
- Review the status quo.
- Consider the impact on the community at large. Obtain answers to the following questions:
 - ♦ What are the benefits of this action now and over the next twenty years? What are the actual costs over the same timeframe?
 - ♦ What are the alternatives to this action?
 - ♦ Are the effects of this action reversible?
 - ♦ Does everyone share the benefits and costs? If not, who gains and who loses? Does this imbalance change over time?
 - ♦ Why take this action now? Will the current circumstances that support the action change over time?
 - ♦ Is the magnitude and scope of the action appropriate? Will it either fall short or exceed the need?
 - ♦ Will this action have negative implications for other values and goals?

As Andover evolves, the Town must increase its efforts to forge connections throughout the community. Ultimately, Andover's success depends on the shared resolve of its citizens, not only on public actions and votes at Town Meeting, but on individual choices and personal lifestyle. It is important to continually strive to make Andover an even better place to live.

