



Open Space and Recreation Plan

Town of Andover



2009 Update

Prepared for the:
Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs
Division of Conservation Services
100 Cambridge Street, Suite 900
Boston, MA 02114

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Town of Andover, Massachusetts Open Space and Recreation Plan

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SECTION 1 - PLAN SUMMARY

The 2009 Plan builds on the work of Andover’s previous plans done in 1970, 1976, 1983, 1989, 1998 and the most recent 2001 plan. The plan incorporates the Open Space and Recreation Plan requirements of the Massachusetts Division of Conservation Services for 2009 found in the “Open Space Planner’s Workbook” including the following details:

- an overview of Andover from a regional perspective
- a history of the community, an analysis of demographic changes and growth, including development patterns
- an inventory of conservation and recreation lands, both public and private
- conservation and recreation goals and objectives, including goals met since the 2001 Plan
- an analysis of conservation and recreation goals and objectives
- a five-year plan outlining recommendations from the analysis

A few sections and maps have been added to the report and sections have been reorganized to comply with the new state format. The committee has updated statistics based on the Federal Census of 2000.

The goals focus on protecting the land along the Merrimack and Shawsheen rivers for active and passive recreation opportunities, permanent protection of land for open space when parcels become available, protecting greenway corridors for wildlife and trails among neighborhoods and lands about to be developed, providing recreational opportunities for all residents and improving accessibility for all.

SECTION 2 – INTRODUCTION

A. Statement of Purpose

The purpose of this plan is stated very succinctly in Andover’s 1989 Conservation and Recreation Plan: to provide a “balanced and integrated effort to protect invaluable natural resources while providing active and passive recreational opportunities for all townspeople.”

Since Andover’s first open space report was prepared in 1970 and subsequent plans in 1976, 1983, 1986, 1989, 1998 (draft plan) and 2001, the town has experienced enormous development pressure from residential and industrial sources making the need for a new plan crucial as the demands for open space preservation and recreational opportunities have grown. This plan builds on the earlier reports and, in particular, the 2001 Open Space and Recreation Plan, and it will bring information up to date. This is the eighth plan.

In addition, with the proposed new interchange on Route 93 north of Exit 41 in the future, there is an excellent opportunity to “unlock” major parcels of land in Andover on the southeast and southwest sides of the highway, especially along the Shawsheen River, for open space and recreational uses in addition to commercial development. These parcels have been land locked to date. The Conservation Commission, in addition to the Andover Village Improvement Society (AVIS), a private land trust controlling more than 1100 acres, are active participants in the planning process of the new interchange and “at the table” as the interchange is being designed. Form Based Zoning is about to be written, while state grants and Smart Growth rules are being studied.

B. Planning Process and Public Participation in the 2009 Open Space Plan

A core committee consisted of representatives of the Andover Conservation Commission, Conservation Department, Planning Department with experts from the Open Space Task Force, Preservation Commission, Andover Trails Committee, Bay Circuit Trail Committee, Bike Trails Committee, the Disability Commission, the League of Women Voters of Andover/North Andover and Route I-93 Task Force with the support of professionals in the Conservation Department, Planning Department, Water and Sewer Department, Engineering Department, Public Works Department, Youth Services, Department of Community Services, Andover Council on Aging, the Assessors Department and others. Experts also included downtown business owners, developers, and representatives of civic committees, recreational experts and environmentalists.

The committee consulted closely with AVIS whose private holdings cover 30 reservations, all open to the public for passive recreation.

The purpose was to update the 2001 plan. This process was necessary to be eligible for state funding and foundation grants targeting the acquisition and protection of natural resources and recreation sites.

In addition, the plan will become part of the Andover Master Plan to guide officials in prioritizing town spending and gauging citizens’ needs in the area of open space and recreation.

April 23, 2009 Forum and Community Outreach Survey

The Conservation Commission and the League of Women Voters of Andover/North Andover held a public forum for all townspeople to solicit input on open space and recreational needs and goals on April 23, 2009, at Memorial Hall Library. . The main purpose of the forum was to elicit what townspeople like about the current open space and recreational opportunities, and to elicit plans looking forward. This is in light of the major changes to the town since the 2001 Plan, both in build-out, diminishment of open space and recreational needs as the population has grown. The results of the forum are analyzed in depth in Section 7.

The 2009 Open Space and Recreation Plan Surveys – on green sheets – were distributed the evening of the forum and available widely around town for several weeks to garner written commentary. These are discussed in detail in Section 7.

Participants in the 2009 Plan update include the following core committee and others who were consulted:

Robert J. Douglas, Chair, Open Space Task Force; Director, Conservation Commission
Linda L. Cleary, Agent, Conservation Commission
Alexandra Driscoll, Conservation Commission
Alan F. French, Conservation Commission, Bay Circuit Alliance
Amy L. Janovsky, Environmental Management Consultant,
League of Women Voters of Andover/North Andover
Howard M. Kassler, Vice Chair, Conservation Commission
Paul T. Materazzo, Director, Planning Department
Gail L. Ralston, Conservation Commission
Charlene A. Alabiso, Administrative Assistant, Community Development and Planning

Consultants:

Anne L. Berthold, Assessor's Office
David A. Billard, Chief Assessor
Malinda S. Blustain, Director, Robert S. Peabody Museum of Archeology
Thomas G. Carbone, Director, Public Health
Lawrence J. Casey, member, Andover Bikeway Working Group
Thomas E. Cone, III, Ornithologist; Biology Teacher, Phillips Academy
Justin J. Coppola, Sr., Andover Disability Commission
Don E. Dager, Field Lister, Assessor's Office
Robert H. Decelle, Jr., Special Projects Manager, Conservation Commission
Laura J. DeGroot, Andover GPS Coordinator
Diane R. Derby, Vice Chair, Ballardvale Historic District Commission
Dennis A. DiZoglio, Executive Director, Merrimack Valley Planning Commission
Mary L. Donohue, Director, Department of Community Services
Dennis F. Fogue, member, School Committee
Karen M. Herman, Andover Preservation Commission
Christian C. Huntress, Chair, Andover I-93 Interchange Task Force

Jane F. Melia, Clerk, Assessor’s Office
 Susan E. Moore, Senior Assessor
 Nancy S. Mulvey, Co-Chair, Andover Council on Aging
 Kerry P. O’Kelly, member, Andover I-93 Interchange Task Force
 John A. “Jack” Petkus, Director, Public Works
 Joseph R. Piantidosi, Director, Plant and Facilities
 Albert R. Retelle, Ornithologist
 Lisa L. Schwarz, Senior Planner
 Frederick E. Snell, President, Andover Village Improvement Society (AVIS)
 Susan G. Stott, Open Space Task Force
 Pamela J. Thornton, Master Gardener
 Stefani M. Traina Goldshein, President,
 League of Women Voters of Andover/North Andover
 Katherine D. Urquhart, Director, Andover Senior Center
 Todd Wacome, Fieldstone Meadows Development Corporation

Research:

The 2008 Andover Citizens Survey: Preliminary Report, submitted by Russell K. Mayer Ph.D., director of The Center for Public Opinion Research at Merrimack College with Brittny DeMatteo, Jennifer Rando, Michael Salvucci, Jenna Ware and Molly Warren. November 19, 2008.

The survey consisted of 1200 randomly selected residents with 672 returned, a high rate of 56%, Error rate is 5% plus or minus.

<i>Community characteristics:</i>		Total excellent/good
Recreational opportunities	17% excellent, 54% good	71%
Open space/conservation lands	37% excellent , 51% good	88%
 <i>Importance in moving to/staying in Andover:</i>		
Open space/land conservation	20% excellent, 42% good	62%
Recreational opportunities	16% excellent, 39% good	55%
 <i>Town Services:</i>		
Land acquisition/wetland protection	27% excellent, 55% good	82%
Recreation/program classes	30% excellent, 57% good	87%

SECTION 3 - COMMUNITY SETTING

Section 3A - REGIONAL CONTEXT

The Town of Andover, established in 1646, is located in Essex County in Northeastern Massachusetts. It is bordered by Tewksbury, Dracut, and the Merrimack River to the west; Lawrence and Methuen to the north; North Andover to the east; and North Reading and Wilmington to the south. Interstates 495 and 93 bisect the town, as do Routes 133 and 28. Boston is 23 miles to the south; Route 128 and the high technology beltway are 10 miles to the south. The coastal beaches are 20-30 miles to the east. The New Hampshire border is 10 miles to the north. (*See Figure 3-1, Regional Context Map*)

Andover's primary commonality with its neighboring communities is the Merrimack River, which was the major force in its historical development and which is a continuing force in natural resource and environmental policy issues. Secondary is Andover's relationship with the Boston Metropolitan area. Andover benefits from the cultural and social amenities of the central city. In March 2009 the town's population was 32, 164, the fourth most populated town in the Merrimack Valley region.

The town spans three watersheds: the Merrimack River watershed; the Shawsheen River watershed, with the Shawsheen's numerous tributaries, including the Skug River; and the Ipswich River watershed, which the southeast corner of the town drains into.

Open space and recreation resources shared with neighboring communities may be divided into three types: (a) resources that cross municipal boundaries; (b) resources located within Andover but open to and used by neighboring communities; and (c) resources located outside Andover but open to and used by Andover citizens. (*See Table 3-1 next page*)

As open space and outdoor recreation resources become more scarce, and the communities approach build-out capacity, Andover needs to work more effectively with neighboring towns on issues of mutual interest. Several of the most important open space and recreation facilities are shared with adjacent towns, i.e. Harold Parker State Forest, Charles Ward Reservation, the Merrimack River, the Shawsheen River and the Bay Circuit trail, discussed later in this chapter.

By working with neighbors, the town will build a better region. All are impacted by each other's development, as well as the supply and limitations in open space and outdoor recreation facilities. Just as Andover shares air and water with adjacent communities, the town is also interconnected in open space and recreational demands. Greater emphasis needs to be placed on regionalism and Andover alone cannot make that happen.

Table 3-1
SHARED OPEN SPACE AND RECREATION RESOURCES

- (a) Multi-town resources:
 - 1. Regional Trails and Greenways:
 - a. Shawsheen River Greenway
 - b. Andover Bicycle Routes connecting to North Andover, North Reading, Wilmington and Lawrence
 - c. Merrimack River Trail
 - d. Bay Circuit Trail
 - 2. Public Parks and Private Reservations
 - a. Harold Parker State Forest
 - b. Ward Reservation
 - c. Greater Den Rock Park
 - d. Shawsheen River
 - e. Merrimack River
- (b) Andover resources available to other communities:
 - 1. Phillips Academy Bird Sanctuary
 - 2. Recreation Park
 - 3. YMCA
 - 4. Andover Village Improvement Society reservations
 - 5. Andover Conservation Commission lands
 - 6. Active Recreation Facilities (school properties; playfields, etc.)
 - 7. Fosters Pond connecting to AVIS's Goldsmith Reservation
- (c) Examples of Regional Resources Available for Andover Use:
 - 1. Lawrence Community Boating Program
 - 2. Golf courses in nearby communities
 - 3. Lowell Community Boating Program
 - 4. Other State Parks and Forests, such as: Boxford; Lynn Woods; Fells Reservation
 - 5. Active recreation facilities available to general public

Regional Projects of Special Consideration

1. The Bay Circuit Program

Andover shares with more than fifty other communities' designation as a "Bay Circuit Community," a corridor roughly occupying the space between Interstate 495 and Route 128. The Bay Circuit is both a system of open space and a recreational trail network, linking communities surrounding metropolitan Boston. (See *Figure 3-2, Andover's Bay Circuit Trail*).

The primary objective of the Bay Circuit program, established by the Massachusetts Department of Environmental Management in 1984, is:

“To establish a system of privately and publicly owned open spaces, including parks, forests, reservoirs and wildlife preserves, scenic and historic sites and other properties and reservations surrounding Metropolitan Boston; connected by designated roads, trails, waterways, stopping stations and paths of various kinds, highlighted by appropriate markers, signs and educational notations.”

The Bay Circuit program has evolved into a public/private partnership with local volunteers working in cooperation with private conservation organizations, federal, municipal, and state agencies. Andover's 1986 Conservation and Recreation Plan, supported by Massachusetts Bay Circuit Funding, and the updated 1989 Plan, specifically addressed Andover's Bay Circuit planning and outlined a strategy for linking Andover's open space resources with both its immediate Merrimack Valley neighbors and the wider Bay Circuit community.

Andover's Bay Circuit Corridor

Andover's primary regional open space strategy was embodied in Section VI of the 1986 and 1989 Conservation and Recreation Plans. In 1992 Andover dedicated its section of Bay Circuit Trail, approximately 16 miles running from Harold Parker State Forest in North Andover to Andover's border with Tewksbury on the Merrimack River. Andover's Bay Circuit Trail route links seven Andover Village Improvement Society (AVIS) reservations, numerous town Conservation Commission properties, two state forests, and private lands belonging to Phillips Academy and the West Parish Cemetery. The Bay Circuit Trail connects to and shares a Merrimack River section with another long distance recreational trail, the Merrimack River Trail, which runs from Plum Island, Newburyport, to the New Hampshire/Massachusetts line in Tyngsboro. Even before the Bay Circuit initiative Andover had moved strongly to protect open space as evidenced by more than 5,000 acres of open space that have been protected through acquisition or easement by private and public agencies.

There are five Bay Circuit corridors in Andover that can be described as follows
(See Figure 3-3, *Andover's Bay Circuit Corridors*):

1. **Merrimack River Corridor**

The Merrimack connects Andover to Tewksbury, Lowell, and the Concord River towns to the west as well as to North Andover, Boxford, Rowley, and Newbury to the east.

2. **Shawsheen River - Middlesex Canal Corridor**

The Shawsheen connects Andover to Tewksbury, Billerica, and Bedford to the southwest as well as to Lawrence, North Andover, and the Merrimack River on

the northeast. It also intersects the old Middlesex Canal in Billerica, making connections to Wilmington and to the Concord River in Billerica.

3. Skug River - Martin's Brook - Ipswich River Corridor

The Skug River arises in North Andover and Andover, crosses Harold Parker State Forest, and flows into North Reading to Martin's Pond. The outlet of Martin's Pond – Martin's Brook - loops into Wilmington, then comes back to North Reading and enters the Ipswich River, making connections with the Ipswich River towns.

4. Fish Brook/Haggetts Pond - Tewksbury State Hospital – Central Andover Corridor

The extensive open space in Andover's watershed is linked to the Tewksbury State Hospital grounds and thence to the Shawsheen River in Tewksbury by an abandoned railroad bed. To the east, the watershed is linked to the Shawsheen River near Central Street in Andover by Conservation, AVIS, Andover High School, and cemetery lands. A short distance up Central and Phillips Street, the Phillips Academy Campus extends this corridor across to the Ward Reservation on the North Andover border.

5. Southeastern Andover Corridor

A series of existing open space parcels stretches across the southeastern end of town from North Andover to the Shawsheen River in Ballardvale. These parcels include:

- a. Ward Reservation and Harold Parker State Forest, which straddle the boundary with North Andover. Sharpner's Pond Road in North Andover links Harold Parker to Boxford State Forest.
- b. AVIS's Skug and Hammond reservations, and the Conservation Commission-protected Mary French Reservation along the Skug River north of Harold Parker State Forest;
- c. AVIS's Peggy Keck Reservation, and Goldsmith Reservation between Harold Parker State Forest and Foster's Pond;
- d. AVIS's Wilkinson Reservation and Wilmington's Town Forest and Camp Forty Acres west of Foster's Pond
- e. Recently acquired Conservation lands along Foster's Pond and the Shawsheen River.

The current status of the Bay Circuit Implementation (See Figure 3-2, *Andover's Bay Circuit Trails*)

1. Merrimack River Corridor:

Status: Public access to the riverbank in Andover is now assured via the Merrimack River and Bay Circuit Trails. Regional links are in place east and west. Several key

property owners along the river have continued to work with the town to allow public access through existing and proposed easements.

The Act Relative to Public Access for Recreational Trails signed into law in February 2009 amends the existing statute to clarify definitions that should help public utilities and railroads make their land permanently accessible for trails in Andover and across the Commonwealth.

The April 2009 Andover Town Meeting passed a proposal crafted by the town, Phillips Academy and the Greater Lawrence Technical High School to improve public access to the town's property on the Merrimack River via the Heffron Right of Way and to pave the way for improved recreational opportunities for the region.

2. Shawsheen River - Middlesex Canal Corridor:

Status: Through cooperative efforts by commercial developers, Andover Planning and Conservation Departments, and Trails Committee volunteers, major sections in the town center are connected with trails, and a major four-town regional effort to create a Shawsheen River Greenway is currently in place. In Andover this is called "The Shawsheen Renaissance" project. This greenway would not only protect more of the Shawsheen River frontage but also provide bike and pedestrian connections throughout the entire length of the river from Tewksbury to Lawrence. It would also protect and enhance Den Rock Park, a major regional open space and recreational resource.

The proposed development of the Lowell Junction area with 700 acres of land in Andover, Wilmington and Tewksbury in conjunction with a proposed new Route 93 interchange will allow for extended protection of the Shawsheen River for a Riverwalk and for development of many passive and active recreational opportunities.

3. Skug River - Martin's Brook - Ipswich River Corridor:

Status: In 2001 the last gap in Andover's 16-mile section of the Bay Circuit Trail was opened in the Mary French Reservation. A 1000-foot boardwalk across the town-owned wetlands linked Conservation Commission land to the west with AVIS's Hammond Reservation. The project was supported financially by DEM Recreational Trails grants and constructed by volunteers from Andover High School and the Andover Trails Committee. A portion of the boardwalk and viewing platform with bench is accessible to people with disabilities.

4. Fish Brook/Haggetts Pond - Tewksbury State Hospital - Central Andover Corridor:

Status: As a continuous effort, sections of the route have been protected through cooperative action by Andover and the Massachusetts Department of Environmental Management. Selection of this corridor for inclusion in the Bay Circuit Trail system has

resulted in increased attention to the entire route between Haggetts Pond and Billerica, which now assigns this area a top regional priority. Several state agencies, the Town of Tewksbury, and the Bay Circuit Alliance are actively pursuing inclusion of portions of the State Hospital land in open space and trail planning.

In 2007 a large portion of the Tewksbury State Hospital was placed under a conservation restriction that permanently protects 450 acres of open space and secures a major route for the Bay Circuit Trail.

5. Southeastern Andover Corridor:

Status: Several key properties have been protected, and the southeastern corridor now forms the backbone for Andover's cross-town Bay Circuit Trail. North Andover's Bay Circuit Trail connection utilizes sections of the corridor in the Harold Parker and Boxford State Forests.

North Andover's 2009 Town Meeting will consider a proposal to increase the scope and comprehensiveness of existing conservation restrictions on Boston Hill. If approved, this action will greatly improve public access to trails connecting to Andover's trail system through the Ward Reservation (Trustees of Reservations) and protect a significant viewscape from intensive development.

Regional Projects of Special Consideration

1. Den Rock Area

Den Rock Park (80 acres) is located at the corner of three towns - Andover, Lawrence, and North Andover. In 1999, 58 acres in Andover, abutting the park, were conveyed to the Merrimack River Watershed Council (MRWC) as open space. The open space is subject to restrictions and easements intended to ensure preservation of the land in an open and natural condition, and to ensure access to the pedestrian public for recreational purposes. The Den Rock area includes highly diverse wildlife habitats, including .5 miles of the Shawsheen River, its broad flood plain and associated wetlands and uplands plus a regionally significant rock climbing and bouldering site, and more than five miles of hiking trails.

In 1997 a three-town working group proposed an environmental center as a part of the management plan for the Den Rock area. The environmental center did not materialize but access and parking facilities at the entrance on Route 114 were greatly improved. The park also received major cleanup attention, and the residential development off Sterling Street included pedestrian access from the west and connections to the Den Rock Park trail system.

2. Shawsheen River Greenway

The Shawsheen River as it flows through Andover, then through North Andover and into Lawrence, where it meets with the Merrimack River, is being rediscovered as a great asset to the region. Vital in the history of the economic development of our town, it is again being looked to for its potential to enhance the quality of life for the region. The concept of the Shawsheen River Greenway is being supported by the three towns and includes both river protection and the development of hiking trails and bike paths.

The proposed Shawsheen River Greenway in Andover includes the development of a multi-use trail close to the river, which will connect the Ballardvale train station with our downtown and extend to Brickstone Square in Shawsheen Village, called the **Shawsheen Renaissance Project**. It will connect with key community features including the high school, post office, train stations and bus stops, and several town parks and conservation areas. Virtually most of the route could be on currently protected lands.

The proposed development of the Lowell Junction area with a total of 700 acres of land in Andover, Wilmington and Tewksbury in conjunction with the construction of a proposed new Route 93 interchange between Exits 41 and 42 will allow for expanded protection of the Shawsheen River, its floodplains, and uplands, in addition to an extensive Riverwalk trail system and many recreational possibilities.

3. Harold Parker State Forest

Access to Harold Parker State Forest is via routes 114/125, Salem Street and Jenkins Road. The Forest totals 3400 acres, extending into the towns of Middleton, North Andover, and North Reading. It has a system of dirt roads built many years ago by the Civilian Conservation Corps (CCC) and a small wooden headquarters building. The forest, heavily wooded, is characterized by rough terrain, many outcrops of bedrock, numerous wetlands, and streams. It includes two natural ponds, (Bear and Berry) and nine man-made ponds. The Skug River flows through parts of the forest in Andover and there is stonework of an old mill site on the river. Nearby, and also within the forest, is an old soapstone quarry. Occasionally the Department of Environmental Management allows the selective cutting of wood under contract.

Since it is so readily accessible and so attractive a "wilderness" area, the forest is heavily used for outdoor recreation, such as hiking, skiing, horseback riding, hunting (east of Jenkins Road, with license), camping (in camp area only), fishing (with license), and more; however, no motorized recreation of any kind is allowed and no person shall consume or possess alcoholic beverages on forest property.

Harold Parker State Forest also is home to a portion of the Bay Circuit Trail – 3.8 miles.

A new day-use area was completed at Berry Pond consisting of an enclosed building housing rest room, changing areas, and a warming room with fireplace for winter use. There are picnic facilities, a small swimming beach, and an open pavilion for bad weather or group use. All are accessible for people with disabilities.

4. The Trustees of Reservations – Charles Ward Reservation

This property belongs to the Trustees of Reservations and has access via Route 125 and Prospect Road. The area includes an excellent parking lot for approximately a dozen vehicles, where a panel board with trail maps and pamphlets is available.

The Reservation is actually 695 total in Andover and North Andover. It includes the entire crest of 420-foot Holt Hill, which commands a view all the way to the Boston skyline and extends to the top of Boston Hill to the rear of the former downhill ski area off Route 114 and Shrub Hill. It includes both open fields and woods and an excellent example of a quaking bog, on which a boardwalk for nature study has been constructed. In addition to the Bay Circuit trail section, there are numerous other trails for hiking, nature study, skiing, and horseback riding. Recreational vehicles are excluded. The Reservation is held under permanent trusteeship for public use for passive recreation activities only.

Regional Planning with Wilmington and Tewksbury:

THE PROPOSED ROUTE 93 INTERCHANGE AND DEVELOPMENT OF THE LOWELL JUNCTION AREA

The most important planning issue in 2009, and in the years looking forward, is the proposed development of the Lowell Junction area, a 700 acre parcel of land in the three towns, Andover, Tewksbury and Wilmington, which will be “unlocked” by a new Route 93 interchange between Exits 41 and 42. Although the planning has been underway for at least a decade now, there have been open tri-town monthly meetings among Selectmen and Planning Board members and the public for three years. These meetings involve reports on the design of the interchange, wetlands mapping, Natural Heritage mapping, protection of the banks of the Shawsheen River and inland parcels for open space and for recreational opportunities, economic development in the three towns, transportation considerations and Smart Growth plans with the structure of Form-Based Zoning, still to be written.

In addition to the proposed interchange, the project has recently been enlarged to include a proposed fourth lane each way from Route 125 to Route 495. Wetlands delineation is expected before the towns’ Conservation Commissions in late spring 2009 and evaluations of the three alternative designs should be determined by July 2009. The Environmental Impact Statement is

expected in January 2010 and the 25% design of the interchange is due by February 2012. Building is expected to start December 2012 through June 2016. The cost is expected to be \$150m.

The three towns' Boards of Selectmen and their Town Meetings have supported the designation of Priority Development Sites in the Lowell Junction Area and, specifically in Andover for the 70 acres on the west side of Route 93. The three towns are receiving state planning grants to write Form-Based Zoning codes for development of the area. There is a possibility of 2,800,000 square feet of office/retail/development space in this 700 acres tri-town region.

There is also a superb opportunity to plan for regional parks, trails among the three towns, a Riverwalk, wildlife corridors, passive and active recreation with access for people with disabilities, both along the Shawsheen River and inland. The Boards of Selectmen, Planning Boards, town task forces, civic, sports and environmental groups are already involved in planning for the open space parcels that will be decided upon as the Form-Based Zoning is written for the entire 700 acre Lowell Junction site in the three towns.

Other joint Town of Andover-Merrimack Valley Planning Commission projects:

1. MVPC has submitted a Recreational Trails proposal to the Massachusetts Department of Recreation and Conservation for the mapping and strategic planning of the riverway from Lowell to the ocean, which includes the town of Andover. The project will be conducted in partnership with Essex National Heritage Commission and Northern Middlesex Council of Governments.
2. Andover participates in the MVPC Pictometry program, which uses aerial flyovers to map the area for planning, public safety, economic development and transportation management. In 2008, with the assistance of MVPC, Andover completed an update of GeoPAL dataset and new structures were identified.
3. MVPC offered a *Transfer of Development Rights Workshop* to Andover leaders and other officials of the region in 2007. This is important to the three Lowell Junction region towns as they plan for development of the parcels being accessed by the proposed new Route 93 interchange. Two Smart Growth goals could be accomplished: protection of sensitive areas and clustering of development potential.
4. MVPC has updated the build-out map, collected traffic data in the Shawsheen Renaissance environs, worked to support economic development in the Merrimack Valley area and assisted in the traffic planning to relieve congestion in the Ballardvale section of Andover.
5. The Commission is currently assisting the public works departments of the communities of the Merrimack Valley, including Andover, to implement Phase II of the federally mandated stormwater management plans and the startup of the Massachusetts stormwater regulations.

6. I-93 Corridor Transit Investment Study:

This regional study with MVPC's participation, has recommended that *Bus on Shoulder* be considered to help alleviate traffic congestion on Route 93 including the section in Andover.

Section 3B – HISTORY OF THE COMMUNITY

HISTORIC DISTRICTS

Andover has seven Historic Districts and 51 structures outside of these districts that are listed in the National Register of Historic Places. Nominations for the Register were drawn from the *Andover Historic Building Survey* begun in 1975. The Andover Preservation Commission continues to evaluate buildings for possible inclusion in the National Register of Historic Places.

The seven Historic Districts and the structures in the Register are described in detail in Andover's National Register Multiple Resource Area Nomination approved by the Massachusetts Historic Commission and the National Park Service in 1982. These are also described in detail in *A Preservation Plan for the Town of Andover*, by Wendy Frontiero (1980). The seven districts include:

1. Academy Hill - including Phillips Academy, Abbot Academy, and the Andover Theological Seminary;
2. Andover Village Industrial District - a complex of factories and associated residences clustered around two waterfalls on the Shawsheen;
3. Ballardvale - the first of Andover's planned mill communities, on the upper Shawsheen;
4. Central Street - the Asocial and religious core of Andover" including fine residences and three churches;
5. Main Street/Locke Street - a harmonious mixture of fine residences representing a number of architectural styles just south of the town's central business district;
6. West Parish Center - a residential neighborhood clustered around West Parish Church;
7. Shawsheen Village - a planned community built around the American Woolen Company mills in the 1920's which included housing, post office, drug store, school, restaurant, creamery, railroad station, garages, laundry, and recreational facilities.

The seven Historic Districts contain several areas of open space including four cemeteries, several stretches of Shawsheen River frontage, and the open spaces of the Phillips Academy campus.

The Andover Preservation Commission supports local preservation efforts at the local level, through: a) award ceremonies acknowledging preservation projects; b) nominating outstanding projects for state preservation awards (five have been received since 1991); c) providing support and guidance to applications for state grant money to fund preservation projects; d) cosponsoring

the historic building marker program with the Andover Historical Society; e) working closely with other town boards on design review; and e) assisting with the development of local historic districts. The Commission is also instrumental in negotiating and overseeing preservation restrictions, which are currently held on ten properties.

Although inclusion in the National Register does provide some tax incentives for renovation, there is much more that can be done locally to protect historic property. One method used to encourage the preservation of historic structures is a Demolition Delay Bylaw, which was supported by Andover Town Meeting voters in 1991 and amended in 2003 to allow a one-year delay. The Preservation Commission reviews the removal or demolition of any historically significant building or structure, or those located in or within 100 feet from, a National Register District. If the structure is determined to be “preferably preserved”, the Commission works with the applicant on alternatives to demolition.

A second technique that gives more “local control” over the maintenance and improvement of structures in historic areas is the adoption of a local historic district under the Historic Districts Act (M.G.L. Ch. 40C). In 1995, Town Meeting voters approved Andover’s first local historic district in Ballardvale; local regulations for the district were adopted in 1996 and are currently being enforced by the Ballardvale Historic District Commission. The successful adoption of the Ballardvale Historic District has spurred residents’ interest in designating a local district for the Shawsheen Village area. Unfortunately, the Town has not supported designating local historic districts near the downtown, such as the Central Street area, which was voted down as a local Historic District in 1976 and Shawsheen Village in 2000.

Dimensional Special Permit/Historic Preservation (Article VIII, 7.9)

The Dimensional Special Permit/Historic Preservation zoning bylaw allows for special subdivision of a property to accommodate relocation and/or rehabilitation of a historically significant building. Since the bylaw was established in 2003, it has ensured the survival of threatened buildings, including the oldest house in Andover. Another benefit of this bylaw is the requirement of a permanent preservation restriction on the approved project. Six historic buildings now have preservation restrictions and two new projects have pending restriction approval.

Architectural Review

The Preservation Commission reviews proposed exterior changes to historically significant buildings in Andover. Review is triggered when a building permit is sought for a property that has been researched and listed on the Massachusetts Historical Commission historic building inventory. In a collaborative process, Commissioners discuss the proposed changes with the property owners and make recommendations that encourage preservation of the building’s defining features and historic integrity.

Historic Preservation Website: <http://www.mhl.org/historicpreservation/>

The website was developed in collaboration with the Preservation Commission, Memorial Hall Library and the Andover Historical Society as an historic preservation online resource. The first phase of the project to digitize existing historic building survey records and related research information was completed in 2008. Phase Two of the project will continue to update the historic building survey.

ARCHEOLOGY

Eric S. Johnson¹ of the Massachusetts Historical Commission considered six factors most likely to have attracted prehistoric settlements in Andover, including:

1. The Merrimack and Shawsheen Rivers, where migratory fish (salmon, shad, eels) provided a very productive and labor-efficient food source. The rivers also would have provided transportation routes, non-migratory fish, birds, game, and water and shore plants;
2. Lakes and open swamps where migratory fowl, small game, and useful plants would be found;
3. Areas with a diversity of soil types which would support a diversity of plant and animal species;
4. After 1200 A.D., areas with arable land to grow corn, beans, and squash;
5. Areas with useful stone deposits;
6. Areas with soils suitable to build on.

Johnson mapped the distribution of the six natural resources in Andover, combined the maps, and produced a map of sensitivity, which is included in the 1982 report entitled, "Prehistoric Archaeological Resources of Andover, MA - A Preliminary Study of Sensitivity". Areas of greater sensitivity are those more likely to contain prehistoric remains.

Records of known archaeological sites in Andover are kept at the Andover Historical Society, the Peabody Museum of Archaeology, and at the Massachusetts Historical Commission. The sites tend to cluster along the town's water bodies. Perhaps the most important is a campsite on the Merrimack River at I-93, with remains spanning the past 7000 years. Before the site was developed as an industrial park in the late 1970's, the site was extensively studied and described in *The Camp at the Bend in the River, Prehistory at Shattuck Farm Site*, by Barbara Luedtke, published by the MA Historical Commission, December 1985. Several dozen other sites have been explored, including hunting and fishing camps and villages, food gathering-processing stations, burial grounds, an eighteenth century black servant's homestead, an nineteenth century pottery factory, and a soapstone quarry and stone dressing factory, and ditches dug to mark

¹See "Prehistoric Archaeological Resources of Andover, MA - A Preliminary Study of Sensitivity", October 11, 1982, by Eric S. Johnson, MA Historical Commission.

property boundaries. A new archaeological evaluation of the Shattuck Farm site occurred in 1996 by the state and the University of Massachusetts at Amherst. One recommendation of the evaluation is the preservation of stonewalls as pedestrian pathways.

There are undoubtedly many more sites that remain as yet undiscovered, and it is important to conduct impact assessments, including review of archeological site files for the area, at the Massachusetts Historical Commission, whenever ground disturbances are planned.

A number of Indian fishing campsites have been found in the vicinity of Foster's Pond, the Shawsheen, and the brook connecting the two. Eugene Winter of the Robert S. Peabody Museum of Archeology speculated that Indians may once have traveled from the Shawsheen to Foster's Pond, overland to Martin's Pond, and down Martin's Brook to the Ipswich River, pulling canoes on ropes where the brooks were too shallow for paddling. These waterways still exist and would make an interesting addition to the Bay Circuit trail ways.

Two bridges are listed on the National Register of Historic Places:

Lower Shawsheen Railroad Bridge off Lupine Rd, near Central Street (the Hartwell Abbot Bridge), and

Upper Shawsheen Railroad Bridge between Lowell Junction and Ballardvale.

See the list in the *Appendix A* of all the structures within the historic districts that are listed on the National Register unless they are infill. A full list of buildings for each district is also at the Andover Historical Society, Memorial Hall Library website or town offices. It's about 800+ buildings in total.

Section 3C – POPULATION CHARACTERISTICS

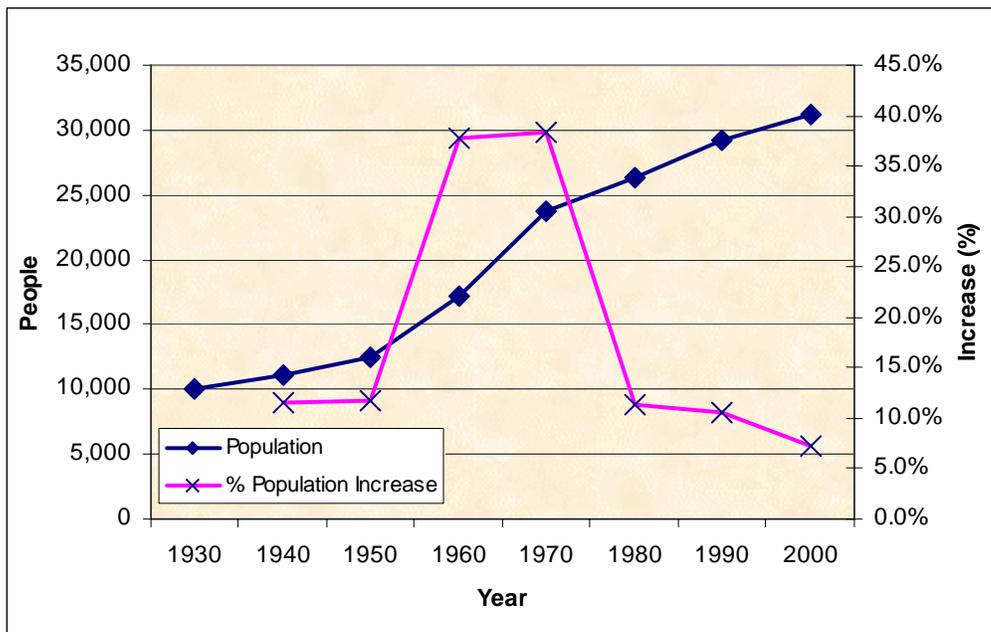
Population Projections

Census data shows ethnic and economic diversity in Andover but no Environmental Justice population pockets exist in town that have been identified as needing additional open space provisions, particularly since the town's parks, ten public schools and numerous private schools mean that recreational resources are well dispersed throughout the community.

As discussed in the 1992 Master Plan, 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 who want to work in the area. Since these two interstates were constructed in the 1950s and 1960s, the region saw significant investments in both housing construction and business creation. The combination of 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. The rate of the population increase, however, slowed from almost 40% between 1960 and 1970 to about 7% between 1990 and 2000.

In 1992, the Andover Master Plan 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 Master Plan projected a population of 32,448 in 2000, which is approximately 1,200 more than the number the 2000 U.S. Census determined. This reminds us that they are projections only and many factors influence population growth.

Table 3-2. Population in Andover over the Past 70 Years



Sources: US Census 2000

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

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 the three build-out analyses conducted in 1992, 1998, and 2001, Andover will be built out sometime between 2020 and 2030 using existing zoning regulations and growth trends (see Table Build-out Scenario below). This table lists the potential new development numbers for the various land uses according to these analyses.

Table 3-3. 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.

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.²

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.

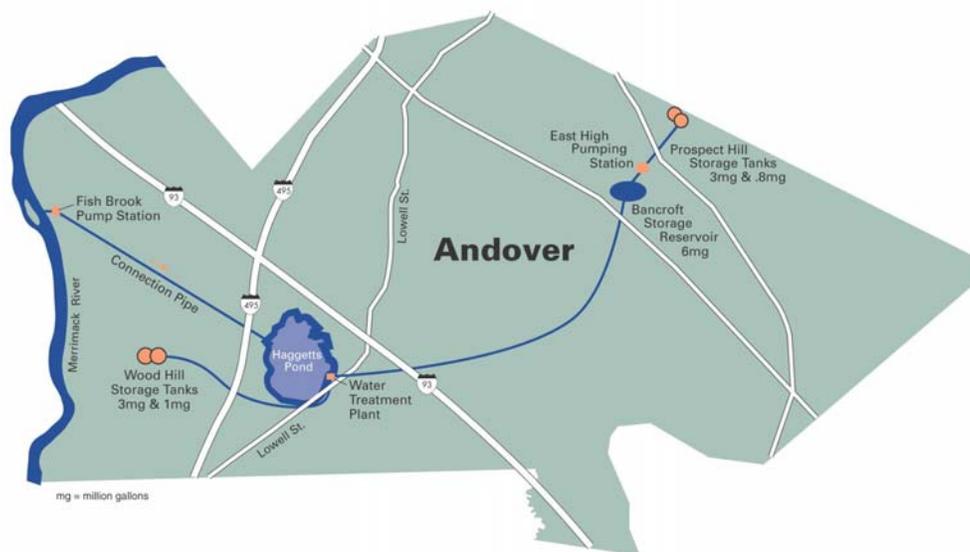
² Source: Trauger, David L. “Human Population Growth and Environmental Carrying Capacity,” Virginia Polytechnic Institute and State University, Falls Church, Virginia, Fall 2001. Internet site: www.in-iwla.org/waltonian.

Build-out and Infrastructure Impacts

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 3-4. Water Supply Sources in Andover



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, 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 2008, the combined average water withdrawal for the community was 6.76 million gallons per day (MGD) obtained solely from surface water. The water system is registered and permitted by Massachusetts Water Management Program to withdraw a volume of 7.27 MGD on an annual average daily basis. Therefore, in 2008 the system realized 93% of its permitted withdrawal.

Table 3-4. 2008 Municipal Water Supply Statistics

Water Obtained From Surface Water	100%
Water Obtained From Groundwater	0%
Individual Source Statistics	
Haggetts Pond Withdrawal	2,469 mg
Merrimack River Withdrawal	1,316 mg
Fish Brook Withdrawal	<i>Represented by the Merrimack River data</i>
Andover Population	31,750
Average Day Surface Water Withdrawal	6.40 mgd
Treatment Plant Process Water ¹	139 mg/yr
Average Day Water Demand (Treated)	6.02 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.

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 5.40 MGD and 6.40 MGD, while the maximum day fluctuated between 10 MGD and 14 MGD.

Water usage for the community is disaggregated into main categories annually for Massachusetts Department of Environmental Protection 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 3-5. Typical Water Use Pattern in Andover

Sector	Percent (%)
Residential	47
Industrial	22
Commercial	17
Irrigation	13
Other	1

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 non-affluent 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.

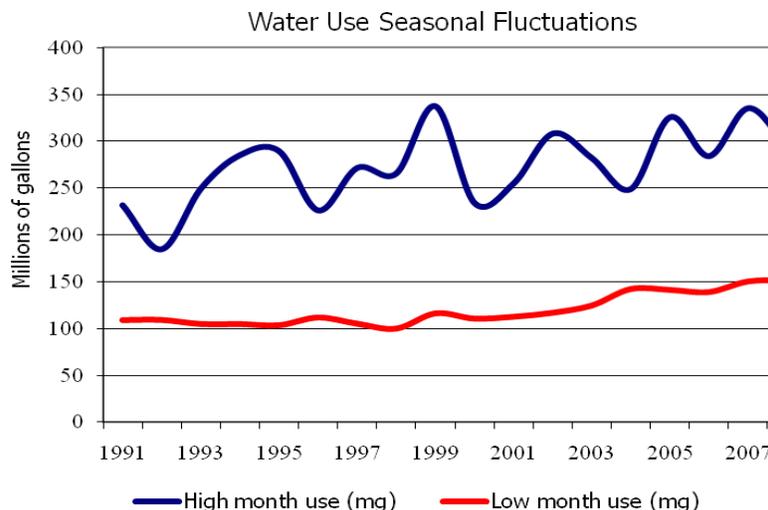


Table 3-6. The magnitude of seasonal fluctuations in water use is historically high for the community. The gap between variations in seasonal water use is highly attributed to outdoor water uses such as lawn watering.

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.

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 3-7. Andover Build-out Statistics

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

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 daily 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 sewerage 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. Development of marginal land typically results in excessive runoff, erosion, unstable soils, flooding, and ultimately degrades 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. Development also drives the need to acquire open space parcels that will help to protect water supplies and sensitive receptors. Andover has a policy of acquiring open space in the vicinity of the Haggetts Pond watershed to help protect our water supply from this type of degradation.

D. GROWTH AND DEVELOPMENT PATTERNS

1. Land Use Patterns

The town’s seven National Historic Districts are fairly representative of how the town developed years ago. The districts follow the industrial centers and mill communities (Andover Village, Ballardvale, and Shawsheen Village), the institutions (Phillips Academy, Abbot Academy and the Andover Theological Seminary), and neighborhoods (Main Street, West Parish and Central Street). Andover’s early land use patterns concentrated near the Shawsheen River and Haggetts Pond. By the 1800s, most of today’s major roadways were developed and industry began to locate along the four falls of the Shawsheen River. It wasn’t until the late nineteenth and early twentieth century’s that the downtown area became the town’s commercial center.

Andover has been described historically as the community of “the Hill, the Mill, and the Till.” The Hill was (and still is) characterized by the presence of Phillips Academy and at one time, Abbot Academy; the Mill represented the textile mills along the Shawsheen River; and the Till described the 75 farms present in town into the mid 1940s.

Significant changes in the town’s landscape and economic base occurred by the middle of the twentieth century. By the 1950s, Andover’s industries were shifting out of textiles to electronics. Between 1945 and 1970, the town’s population doubled, accompanied by a boom in residential

construction and loss of many of the farms to residential and industrial development. Certainly one of the greatest influences on Andover's land use patterns was the opening of Routes 93 and 495, and the accompanying rezoning. Not only did this encourage industrial growth, but the improved transportation access attracted new residents and commercial development as well.

Since the mid-1930's, Andover's growth has been guided by zoning. Andover today -- as in the past -- contains mostly single-family residences, comfortably sited and carefully landscaped with street trees and other plantings. The higher-density residential areas abut commercial centers in Shawsheen Village, the downtown area, and in Ballardvale; the apartment zones are located near commercial centers and Route 125. Medium-density residential zones surround the town's center. Most of the land in west and east Andover is zoned for low-density residential development.

The industrial zones generally follow the Shawsheen River and are near the two interstate highways. Shawsheen River frontage is regularly punctuated by clusters of 19th/early 20th century industrial buildings, which also tend to be picturesquely sited. Modern industrial parks are large but well set back from roads and horizontal in orientation. The small central business district in the middle of town is low and linear. Considering its tremendous population growth of recent years, Andover still contains a remarkable amount of open space -- whether momentarily undeveloped or whether part of the one-fifth of Andover's land area officially conserved in reservations, the watershed, and state forest.

Agricultural Land

Agricultural land in Andover continues to be lost to development at a disheartening pace. Three of the farms listed in the 1983 Open Space and Recreation Plan (Dargoonian, Vartabedian, Asoian-Loosigian), totaling 140 acres are now residential development.

There is now one parcel of land with an Agricultural Preservation Restriction (APR) on it (Town Map #199, parcel #5). The Dargoonian brothers purchased this 32-acre former state forest on Blanchard Street in May 1986. It abuts town Conservation land. The parcel is partly wooded upland and partly swamp. The A.P.R. limits its use to agriculture, farming, and forestry in perpetuity.

The Inventory Section of this report lists properties currently assessed at agricultural land value under the Massachusetts Agricultural Assessment Act (Chapter 61A) and properties in agricultural use without special tax classification.

Forestry Land

Over 90 acres of land are currently assessed at forestry land value under the Massachusetts Forest Classification Law (Chapter 61). See the Inventory for a listing of properties.

Residential Development

Approximately 18,000 acres are zoned for residential use, or 88% of the town. In 1998, the Town of Andover conducted a study that analyzed vacant parcels with development potential. See the *Build-out Analysis* for more of an explanation of the results.

<u>Subdivision</u>	<u>No. of Lots</u>	<u>Acres in Open Space</u>
Cassimere Street	6	
Willoughby Estates	13	7.29
Newport Circle	6	7.00
Manning Way	5	
Hay Bale Parish	4	5.17
Barron Court	6	6.77
Avella Circle	4	
Coderre Way	1	
Murray Hill Estates	5	
Harwich Estates	7	
Cider Hill Way	3	
Charles Circle	3	
Mackenzie Court	3	
Reynolds Street	1	
Sellers Farm Estates	3	
Gregory Circle	6	2.23
Shandel Circle	1	
228 Salem Street	1	
Vraj Circle	4	
Crystal Circle	8	
Monette Circle	4	
Cassimere St. Modification	1	
34 & 36 Oriole Drive	2	
Merrimack Estates	8	
Winterberry Lane	4	

Industrial Development

In the 1950's, two large new industrial zones were created: Lowell Junction, 500 acres, the southernmost portion of Andover bounded by Tewksbury and the Shawsheen River on the west and by Wilmington on the south and east; and the West Andover - River Road industrial area, 867 acres along the Merrimack River and on both sides of Interstate 93. Requirements for these zones are much stricter than the older General Industrial Zone, encouraging low density, ample parking, limited height, and high technology "clean" industrial uses. In addition, a tract of 211 acres was subsequently rezoned for restricted industrial use in 1968 to the west of Route 93. It is occupied principally by a large Raytheon facility. Subsequently, other industrial areas west of Route 93 at the southern edge of town were created by Town Meeting zoning votes totaling 168 acres.

These areas, in addition to the older General Industrial zones, add up to a total of 2,158 acres zoned for industry in Andover, which is 10.5% of the total land area. The industrial zones located in west Andover and the Lowell Junction area will experience additional growth and development. Most of the industrial land not already occupied is being planned for utilization within the next ten years. Major improvements to the roads and highways serving this area have been in the planning stages since the mid-1980s and are now in the final federal and state planning processes. The River Road widening and signalization was completed in 1996. Improvements are under construction for the River Road Bridge over I-93 and the Lowell Junction/Burt Road area.

Opportunities to create pedestrian access to the Merrimack River and connections to the town's bicycle routes are being considered in several development proposals for this area.

Commercial Development

Except for a few small neighborhood convenience stores, Andover's business districts are limited to the relatively small Central Business District and lesser centers in Shawsheen Village and Ballardvale. The existing shopping center known as Shawsheen Plaza occupies land zoned many years ago for General Industrial use. This was rezoned in 1988 to a Mixed Use zone to provide more control over the future development of this area, particularly the existing mill buildings along the Shawsheen River, namely Marland Mills and the former Tyer Rubber building.

Recently, the town has been working with the Trails Committee on improving public access and developing trails along the Shawsheen River, a portion of which flows near the town's commercial districts along North Main Street.

SPECIAL ZONING PROVISIONS

Cluster Development:

The frontage and area requirements for parcels over ten (10) acres may be reduced in Single Residence Districts B and C by Special Permit from the Planning Board, without increasing the number of units allowed by the Zoning District requirements. The resulting extra area (common open space) is required to be conveyed to the town, for a park or open space, to a nonprofit organization for open space, or to a neighborhood association, for open space. This section of the bylaw was enacted in 1962 and has been extensively utilized for the residential development which has since occurred, with results that may be characterized as follows:

1. a net reduction in length of streets to serve residential areas;
2. many short cul-de-sacs, tending to become coherent mini-neighborhoods;
3. a notable increase in the total area of protected open space;
4. buffering of residential areas from one another;
5. protection of natural features, notably wetlands and stream frontage;
6. the clustering together of homes and appurtenant on-site sewage disposal systems, sometimes excessively where soils are limited in disposal capability.

Since 1980, several thousand acres have been designated as future open space from approved cluster subdivisions. Unfortunately, not all of these open space parcels have been conveyed to the town, but continue to be held in private ownership. To address this issue, since 1997 the Planning Department requires that open space parcels within cluster subdivisions be conveyed to the town prior to receiving a clearance certificate for the construction of a single-family home on any of the lots.

Flood Hazard District:

Any development within this overlay district is subject to the requirements of the underlying zoning district in which it lies. Flood carrying capacity of any watercourse must be maintained with regard to the proposed development. A proposed development cannot result in any increase in flood levels within the town during a flood to the Base Flood Elevation. (Base Flood Elevation is the level of flooding having a one percent chance of occurring in any year, and as designated on the (FIA) Federal Insurance Administration Rate Map.) Construction within the overlay district is in general required to be elevated to or above the Base Flood Elevation.

Fish Brook/Haggetts Pond Watershed Protection Overlay District:

This overlay district was adopted by Town Meeting in April 1986 to protect the town's drinking water supply. The district places restrictions on earth removal; storage; manufacture, and use of hazardous substances, including residential heating oil; disturbance of slopes over 15%; siting of septic systems; distribution of vegetation; erosion and sedimentation impact; prohibits use of the

watershed for landfills; road de-icing; chemical storage; development within 50 feet of waterbodies and courses; mining (sand and gravel pits); solid waste disposal; gasoline service stations, repair garages, and body shops; dumping of contaminated snow; disposal of hazardous materials.

North Reading has requested that Andover extend this district to include the Skug River basin and the area south of Foster's Pond, in order to protect drinking water quality in North Reading's downstream wells.

The Board of Health is currently updating the Watershed Protection Overlay District.

Multi-family:

Four areas are zoned for apartment use: one off South Main Street at the North Reading line; one off North Main Street adjacent to the Shawsheen River; one off Morton Street originally built as Veteran's Housing and expanded for elderly housing; one off High Street near the Lawrence line. Administered by the Andover Housing Authority are 216 units of elderly housing in four different locations.

Many other proposals for multi-unit residential zoning have been considered but not adopted by Town Meeting. However, many conversions of pre-existing single family homes to multi-family use have been permitted as well as some reuse of large buildings such as the former Tyer Rubber Company factory (Andover Commons) and the former Sacred Heart School (Balmoral). Since the late 1980s, over 500 multi-family units were constructed under Chapter 40B of the Massachusetts General Laws.³ The net effect of conversions plus new multi-family construction has been that the ratio of multi-family units to single family dwellings has remained remarkably stable at 25% for a period of several decades.

Slope Restrictions:

At the 1997 Annual Town Meeting, the zoning bylaw was amended to restrict development from certain sloped lands by excluding these slopes from the area needed to create a building lot. The intent is to create a larger lot with less impact on the sensitive or marginal land within subdivisions.

Alternative Modes of Transportation:

This zoning requirement is to encourage developers to consider the needs of pedestrians and bicyclists in the design of a project. This was an amendment approved at the 1997 Annual Town Meeting.

³This law encourages the development of low and moderate-income housing.

SECTION 4 - ENVIRONMENTAL INVENTORY AND ANALYSIS

A. Geology, Soils, and Topography

Beneath its mantle of unconsolidated material related to the last advance and retreat of the continental ice sheet some 10,000 years ago; Andover is underlain by hard crystalline rock many millions of years old. The bedrock of the major portion of the town consists of Andover granite. The northerly portion of the town along the Merrimack River is underlain by quartzite, a rock of sedimentary origin that has been hardened by heat and pressure. There are many exposures of these bedrocks throughout the town, but in general the bedrock is masked by the glacial drift deposited either directly by the ice or by debris laden streams issuing from the melting ice, to an average depth of 20 to 30 feet.

The Merrimack River borders the town for five miles along its northerly edge and follows a course that may be unrelated to its pre-glacial location. The Shawsheen River transects the town from southwest to northeast, following a shallow valley underlain by glacio-fluvial material to greater than average depths. The only wells of importance for municipal water supply are located here, and it is presumably the same course followed by the pre-glacial Shawsheen, which, however, may have flowed south instead of north before continental glaciations occurred.

The topography ¹ of the town is gently undulating, punctuated by several prominent hills formed by the movement of the glacier in glacial till (unsorted loose material directly deposited by the ice). These are Prospect Hill (421.5 feet), Pole Hill (210.5 feet), Wood Hill (373.3 feet) and Bald Hill (272.0 feet). (*See Figure 4-1, Andover Topography*)

As the ice sheet stagnated and melted back (retreated), exposing the higher elevations first, the melt waters deposited sediments along the margins of the ice filled valleys (terraces), and at the ends of the ice sheet ("outwash" deposits). Melt water streams flowing in tunnels or channels in the ice left sinuous ridges of sand and gravel known as eskers. A prime example is Indian Ridge. A few have been altered by gravel removal operations (Andover Country Club; Greenwood Road ridge).

The soils of the community ² are directly related to the origin of the materials from which they were formed. The most extensive soils were formed from the glacial "till", poorly drained mixtures of sand, clay, and stones. The better drained soils, predominantly sands, are related to

¹The reader is referred to a map entitled "Topography, Andover, MA", Scale: 1"=100'; prepared for Andover Department of Community Development and Planning in 1982 by Rebecca C. Fee, Design Works of Salem, NH compiled from the USGS Quadrangles for Lawrence, South Groveland, Wilmington & Reading, 1965-66 editions. The reader is also referred to historic U.S.G.S Maps in Section 3 of this report.

² See map entitled "Soils, Andover, Massachusetts"; Scale: 1"=800'; prepared in February, 1981 by Rebecca C. Fee, Design Works of Salem, NH compiled from USGS Quadrangles for Lawrence, South Groveland, Wilmington & Reading, 1965-66 editions, and "Soil Survey of Essex County, Massachusetts (Northern Part)", USDA Soil Conservation Service for Andover Department of Community Development and Planning.

glacial melt water, and tend to occupy valleys, or flat areas related to valleys. The rather extensive, flat area of such well drained soils south of Haggetts Pond was formerly in agricultural use. (See Figure 4-2, *Special Landscape Features - Soils*)

Climate³

The Merrimack River Basin, in which Andover lies, has a variable climate characterized by frequent but short periods of heavy precipitation averaging 41.73 inches at Lowell, a few miles up the river. In the winter, precipitation is sometimes snow and sometimes rain. For Lowell, the average annual snowfall depth in inches is 55.7. Temperatures range from well below freezing during winter months to moderately high during the summer. Average annual temperature (Lowell) is 45 degrees Fahrenheit.

The watershed lies in the path of the "prevailing westerlies," which bring hot dry weather responsible for occasional summer droughts. The basin is also exposed to intense rainfall due to coastal storms of tropical origin that travel up the Atlantic seaboard, and due to protracted storms during all seasons, often called "nor'easters".

B. Landscape Character

There are only two working farms in town, whereas there were more than a dozen four decades ago. Most of the land not permanently locked up as open space, both publicly and privately owned, is marginal for development, mainly due to wetlands. Due to wise decisions made years ago by Town Meeting and AVIS, a great deal of the lovely Shawsheen and Merrimack riverfronts and their tributaries has been permanently protected. AVIS and the Conservation Commission have protected the eskers on Indian Ridge, Wilkinson Reservation and land around Fosters Pond.

The most scenic landscapes are the riverbanks of the Merrimack and Shawsheen rivers and the lovely meadowlands of West Parish Meadow, Gardner Meadow in addition to the craggy geologic features of the Keck Reservation and boulder "erratics" plus kettle holes on the Wilkinson Reservation and manmade ponds in the Harold Parker State Forest. The boardwalk through the Mary French Reservation and the rugged esker of the ancient Indian Ridge Reservation are stunning in their visual variety.

Two bridges are particular areas of scenic interest and are listed on the National Register of Historic Places: Lower Shawsheen Railroad Bridge off Lupine Road near Central Street (the Hartwell Abbot Bridge, locally called the Horn Bridge) and Upper Shawsheen Railroad Bridge between Lowell Junction and Ballardvale.

³A Merrimack Wastewater Management - Key to a Clean River", U.S. Army Corps of Engineers, November 1974.

The historic landscapes include the Phillips Academy campus, established in 1778, Ballardvale, Central Street and the “white” and “brick” Shawsheen dwellings, which were homes for the managers of the American Woolen Company, owned by William M. Wood.

C . Water Resources

Under natural conditions, an estimated 50 percent (about 22 inches) of precipitation seeps into the soil to replenish groundwater resources. There are two aquifer systems in Andover, namely crystalline bedrock and unconsolidated glacial deposits. Groundwater investigations indicate the bedrock does not yield very large quantities of water and are unsuitable as supply wells.

The table below lists surface water resources within the town. The largest body of water is Haggetts Pond, located in the Fish Brook/Haggetts Pond watershed. A few much smaller ponds are located in the Shawsheen River watershed. A medium sized stream called Fish Brook flows northwest through the major wetlands area in town before it empties into a man-made lagoon prior to the Merrimack River, and upstream of the Shawsheen. The Merrimack River is the northwestern boundary of the town until it flows into Lawrence just north of Andover, and the Shawsheen River runs north through Andover and into Lawrence before emptying into the Merrimack River.

Baker’s Meadow Pond	Frye Pond Hussey	Rabbit Pond
Bear Pond	Gravel Pit Pond	Rogers Brook
Brackett Pond	Haggetts Pond	Pinnacle Brook
Collins Pond	Hussey’s Brook	Pomp’s Pond
Field Pond	Hussey’s Pond	Shawsheen River
Fish Brook	Lowell Jct. Pond	Skug River
Foster’s Pond	Merrimack River	

Many of the water bodies of the town are protected by public or semi-public ownership: e.g., most of the Merrimack River frontage is owned by the town or AVIS for conservation purposes; the Town owns most of the frontage around Pomp's and Haggetts Ponds; AVIS owns all of Baker’s Meadow.

The rivers, ponds, streams and abutting lands are used for canoeing, hiking, bird watching, mountain-biking, educational trips by local schools, picnics, and family outings. Several sites along the ponds and rivers are accessible for boats, and a number of trails border the rivers and ponds. Town residents have been involved in annual clean up campaigns (generally as part of Earth Day), and classes have hiked around river trails learning about water quality and land use.

The town's drinking water supply is currently all-surficial; the only existing municipal wells are no longer connected to the distribution system. The drinking water supply is a combination of Haggetts Pond, impounded Fish Brook, and the Merrimack River. Groundwater resources are not of sufficient quality and quantity to warrant municipal development in view of the ample surface supply.

Floodplains are mapped on the National Flood Insurance Program Flood Insurance Rate Map (Community Panel Numbers 250076- 0001B-00011B). One-hundred-year floodplains are found in the Wetlands, as noted in the following section on wildlife, are randomly distributed across some 25% of the town. They are mapped in a series of 183, 1"=100' scale maps prepared by Terrain Investigation, Inc. of Weston, MA in 1978. The Andover Wetlands Maps are periodically amended by more detailed on-site investigations.

The town's public water supply watershed is the subject of several studies:

1. "Source Water Assessment and Protection Report" prepared for the Town of Andover by MADEP, October 2003
2. "The Fish Brook/Haggetts Pond Watershed: Water Supply in Andover", prepared for the Planning Board's Comprehensive Plan by Frances M. Fink, February 1986.
3. "Resource Inventory and Management Recommendations for Existing Watershed Conservation Land," prepared for the Conservation Commission by Land Resource Management Associates, February 1986.

The Skug River is a tributary to public water supply well sites in North Reading, and eventually to the Ipswich River via Martin's Pond and Martin's Brook. A second North Reading well site lies just south of Foster's Pond. North Reading Superintendent of Water, Mark Clark, confirms that the Massachusetts Department of Environmental Protection has approved a Zone II aquifer, a portion of which extends into Andover.

The topography of Andover is such that water drains, or sheds, into three significant river basins. Nearly the entire northwestern part of Andover has drainage movement towards the Merrimack River that flows into Lawrence just north of Andover. The central portion of Andover, containing most of the concentrated residential development, has land area that contributes drainage and flow to the Shawsheen River. The Shawsheen runs north through Andover and into Lawrence before emptying into the Merrimack. Drainage from the eastern portion of Andover flows generally eastward to the Ipswich River. Of particular importance is the drainage, flow, and stage height of the Merrimack River since it supplements the town's drinking water supply through a man-made diversion.

Urbanization alters the landscape, and causes major effects in drainage, manifested by a lowered groundwater table, and changes how stormwater runoff is introduced into receiving bodies of water. Man-made alterations in water management practices, akin to changes in inputs and outputs, dramatically change the characteristics of a watershed. For example, the Fish Brook/Merrimack River water diversion alters a water budget by taking water from one area and replenishing it into Haggetts Pond via a man-made pathway. Both land and water use can alter

natural drainage systems, and alter wildlife habitat through both decreases and increases in the quantity of flows of water, and the pathways water takes to get to its ultimate destination in a watershed.

D. Vegetation

Of the undeveloped open area of the town, much is heavily wooded. Timber resources are not outstanding, although a few limited timber-harvesting projects of white pine have recently been undertaken. The Harold Parker State Forest maintains a limited wood cutting program. A half dozen parcels of land, most of it open spaces protected by AVIS, are currently maintained as meadowland and are mowed regularly including West Parish Meadow.

Probably the best local representation of the native flora is to be found along the Andover side of the Merrimack River from the Route 93 crossing to the Tewksbury border. This strip had been protected from destruction by ownership of the Essex Company, the developers of the Mill Dam in Lawrence, and subsequently by purchase by the town or AVIS for conservation. Almost all the native trees flourish along this strip including all the birches, silver maple, both native pines, hemlock, both hornbeams and American elm. There is a beautiful stand of native hemlock, white birch and beech in Deer Jump, the AVIS Reservation⁴. Mountain laurel is also common along the slopes of the Merrimack Valley.

The most common upland trees to be found throughout the town are white pines and red oaks. Wetlands occupy scattered areas approximating 25 percent of the town's surface, characterized most often as red maple swamps, although there are some open marshes and a few small bogs. The moccasin flower (pink ladyslipper) is common in the town's extensive woodlands.

Education utilizing protected open space:

AVIS is completing a booklet for and with elementary schoolchildren to encourage participation in Environmental Learning for the Future (ELF), an environmental education program, which include the study of forests, swamps, bogs, meadows and streams, and the animals and vegetation therein on several reservations,.

The Moncrieff Cochran Bird Sanctuary on the campus of Phillips Academy protects forest, birds and rhododendrons and is a site for environmental, ornithological and biological educational programs.

Due to budget constraints, the Town of Andover does not at this time have a trained arborist. However Phillips Academy does employ a certified arborist for its extensive 500-acre campus. Phillips Academy has a systematic program of planting specimen disease-free oaks.

⁴ Personal Communication, Albert Retelle.

Tree City USA Status:

For several years Andover has earned the national award as a Tree City USA winner.

E. Fisheries and Wild Life

Much of the resident wildlife includes deer, coyotes, raccoons, fox and rabbits. In addition, beaver, estimated to be about 200 in town, are causing increasing flooding, with the result of the need for DEP emergency permission for “beaver deceivers” to lower the levels in ponds to ameliorate possible flooding of roads and threats to sewerage systems. Trappers are also hired from time to time to take beaver.

Migratory waterfowl are increasingly numerous, especially Canada geese and mallard ducks. Most of these species are regionally increasing, perhaps due to their adaptability to the presence of man. Waterfowl nest in various ponds and along the Shawsheen and Merrimack rivers. Pheasants, mourning doves are numerous around town and wild turkeys abound.

It is important to keep meadows open and mowed on both private and town open space lands to encourage the nesting of birds such as woodcock, which live in open meadowlands.

To encourage nesting of bluebirds along the Shawsheen River in the AVIS Shawsheen Reservation the mowing should take place midsummer. Bluebird boxes in a row in large open areas promote nesting. Woodcock have been seen around Haggetts Pond and a rare goshawk pair in the bird sanctuary at Phillips Academy. Sparrow hawks, or Kestral have been seen in town. Redtail hawks are common, but bobolinks are now quite rare.

Bird watching is a widespread and popular activity. A number of bird walks are scheduled each year by local organizations since the area is rich with avian wildlife, especially during spring migration. More than 145 species of birds including heron and migrating ducks have been observed in Bakers Meadow.

The Massachusetts Department of Fisheries and Wildlife stocks the Shawsheen River with trout. Fishing is allowed in Haggetts Pond, which yields bass and pickerel. Pomp’s Pond, at the Andover Recreation Park, is a breeding place for eels and also contains small bass and finfish.

Hunting

By the vote of Town Meeting, Andover does not permit the discharge of firearms in town so there is no hunting with guns allowed except in Harold Parker Forest, state land. In addition, AVIS does not permit bow hunting.

Vernal Pools

The town has a vigorous program for identifying and certifying vernal pools. At least 29 vernal pools had been certified and placed on the *Priority Habitats and Estimated Habitats* Natural Heritage map of endangered species by October 1, 2008.

Wildlife Corridors

The varied topography and presence of numerous corridors of stream channels of the two major rivers, Shawsheen and Merrimack, and their tributaries and associated wetlands in Andover provide a diversity of habitat that supports numerous species of vegetation. It is important to maintain this diversity of vegetation to maintain both aesthetic and functional values of these species.

There are many wildlife corridors in town too. In West Andover the Boloian Reservation under the care and control of the Conservation Commission and contiguous AVIS land connect to Haggetts Pond, in the care of the Water Department, to create a corridor of approximately 1800 acres.

AVIS's Deer Jump and Spalding reservations plus Conservation Commission lands to the east of Route 93 allow a protected corridor of more than 200 acres in Andover along the Merrimack River. This corridor continues into Lawrence to the east and Tewksbury and Lowell to the west.

Two corridors in the east are the Harold Parker State Forest-Mary French Reservation-Skug River-Hammond reservations corridor, and the Peggy Keck Reservation-Goldsmith Woodlands - Conservation Commission lands-Wilkinson Reservation around Fosters Pond wildlife corridor.

Much of the Shawsheen River corridor and the area around Pomp's Pond is preserved permanently under town and AVIS ownership including the Shawsheen River and Vale reservations and many parcels under the control of the Conservation Commission around the pond.

In the middle of the town, AVIS's Bakers Meadow - West Parish Meadow - Indian Ridge reservations – West Parish Cemetery parcels act as a valuable wildlife corridor connecting to a large Conservation Commission parcel off Lowell Street.

In the area to the north of Route 495 and to the west of Route 93 there is an extensive wildlife corridor encompassing AVIS's Harold Rafton Reservation (226 acres) -Virginia Hammond/Fish Brook, Conservation Commission land (235 acres) and about 50 acres of School Department land.

In the southern part of town there is the potential for town acquisition of privately owned land that will be accessed by the proposed construction of a new exit off Route 93, on both sides of the highway. These are rich parcels with proximity to the Wilmington Town Forest to the south and AVIS's Sanborn Reservation and the Shawsheen River to the west.

Realizing the value of biodiversity and ecosystem protection, it is town policy of the Conservation Commission to seek to purchase abutting parcels for open space protection to allow for wildlife corridors. AVIS has a similar policy.

There are several conclusions:

1. The most important habitats are water-related. Therefore, the town's policy regarding the protection of the rivers, streams, ponds, vernal pools and all their environments is reinforced by consideration for wildlife;
2. A number of areas preserve, relatively undisturbed, habitats for native flora;
3. Those animals that adapt readily to the presence of man are flourishing, like coyote. Those that do not have disappeared or are declining;
4. The town, AVIS and other land trusts, including Trustees of Reservations, have the option of preserving and even enhancing existing habitat; it is important to keep meadows open and mowed so as to encourage birds to nest there.

Massachusetts Natural Heritage Program

On the west side of Route 93 the entire Shawsheen River in Andover is a Priority Habitat for Rare Species and Estimated Habitat for Rare Wildlife: a freshwater mussel and a moth. Also the entire land area on the west side of Route 93 including the river floodplain is Priority Habitat of Rare Species. On the east side of the Lowell Junction area, the site of Proctor & Gamble and Wyeth is Priority Habitat.

The riverbank of the entire Merrimack River in Andover is *Priority Habitat for Rare Species and Estimated Habitat for Rare Wildlife*, in addition to land surrounding Haggetts Pond, which is town land protected by the Andover Water Department, and AVIS's Rafton Reservation.

The Community Preservation Act

The town has passed the Community Preservation Act at Town Meeting in 2007 but it was defeated at the ballot box in 2008.

F. Scenic Resources and Unique Environments

1. Unique and Scenic Landscapes

The entire length of the Merrimack River in Massachusetts is included in the Commonwealth's inventory of scenic rivers. As mentioned in the preceding section on landscape character, the Conservation Commission and AVIS control most of its shoreline in Andover. The beautiful wooded banks of the St. Francis Seminary and National Grid land to its east are notable exceptions. AVIS is working with National Grid to permanently preserve the Deer Jump Trail through National Grid land along the Merrimack now that *An Act Relative for Access to Recreational Trails* has passed and been signed into law in February 2009.

The Conservation Commission also nominated the Shawsheen River, the Skug River, and Fish Brook as scenic rivers, but these were not included in the inventory. However, the town and AVIS have been vigorous in protecting their shores by acquiring open space parcels along them.

There are no areas in Andover listed in the 1982 Massachusetts Scenic Inventory, nor any officially designated scenic roads. Traffic congestion on the town's older roadways has increased with the rapid development of the last three decades; the Department of Public Works would like the authority to straighten and widen older roads to increase safety where necessary. However, it is important to preserve as many of the curves, hills, trees, and stone walls as possible to preserve the visual appeal of the town's roads and to prevent them from becoming speedways. There are few, if any, long stretches of roadway in town that might be qualified as scenic, except for the roads through Harold Parker State Forest. The state and town should work together to designate the Harold Parker roads as scenic. The 1980 Preservation Plan for the Town of Andover recommends Salem Street and Osgood Street as scenic roads because of their older houses, stone walls, mature trees, and open farmland. Since that time, several subdivisions have occurred along both roads, some farmland has been lost, and the Osgood Street/Frontage Road area has experienced some industrial development.

Some of the best views in town have been preserved on the tops of Bald Hill, Wood Hill, Prospect Hill, and Pole Hill. Other hills, which afford a view worth preserving, include the hill between Tucker Road and Gray Road (elev. 257') and the wooded hillside above the mill buildings on Stevens Street (elev. 170'). (See *Figure 4-3, 1986 Conservation and Recreation Plan*, available in the Department of Community Development and Planning Office).

2. Unusual geological features

Most of these sites have been described in the preceding sections on topography and unique features, soils and vegetation, and wildlife. There is an abandoned cranberry bog on private land on Jenkins Road abutting Harold Parker State Forest (Town Map #16, Lot #4A). In addition to the portion of the Indian Ridge esker that has been protected by AVIS, there is an extension of the esker between Shawsheen Street and Lowell Street, along with associated kame and kettle topography. There are also eskers along the south side of Foster's Pond. These and other sites with essentially unaltered glacial land forms should be considered for protection by the Planning Board and Conservation Commission at the preliminary planning stages of development. Already preserved are the glacial formations on Indian Ridge Reservation, the Greene, Keck and Wilkinson reservations and Harold Parker State Forest.

3. Cultural, Historical and Archeological Areas

Cultural Areas

The cultural area is rooted in the integral New England downtown center. Here are several historic churches, the Memorial Hall Library, Old Town Hall, the town offices, shops and The Park.

A second cultural center is the 500-acre campus of Phillips Academy, founded in 1778. George Washington came to the campus in 1789 to visit his nephew and was a friend of Samuel Phillips, the school's founder, who supplied the general with gunpowder for the Revolutionary War army. The campus once housed a seminary, which later became the Newton-Andover Theological Seminary. Graduates include the two Presidents Bush, ambassadors, MacArthur fellows, Rhodes scholars, members of Congress, authors, Supreme Court judges, inventors, scientists and humanitarians.

Historic Areas

Andover has seven Historic Districts and 51 structures outside of these districts that are listed in the National Register of Historic Places. (*See Appendix A*). Nominations for the Register were drawn from the *Andover Historic Building Survey* begun in 1975. The Andover Preservation Commission continues to evaluate buildings for possible inclusion in the National Register of Historic Places.

The seven Historic Districts and the structures in the Register are described in detail in Andover's National Register Multiple Resource Area Nomination approved by the Massachusetts Historic Commission and the National Park Service in 1982. These are also described in detail in *A Preservation Plan for the Town of Andover*, by Wendy Frontiero (1980).

The seven districts include:

1. Academy Hill - including Phillips Academy, Abbot Academy, and the Andover Theological Seminary;
2. Andover Village Industrial District - a complex of factories and associated residences clustered around two waterfalls on the Shawsheen;
3. Ballardvale - the first of Andover's planned mill communities, on the upper Shawsheen;
4. Central Street - the social and religious core of Andover including fine residences and three churches;
5. Main Street/Locke Street - a harmonious mixture of fine residences representing a number of architectural styles just south of the town's central business district;
6. West Parish Center - a residential neighborhood clustered around West Parish Church;
7. Shawsheen Village - a planned community built around the American Woolen Company mills in the 1920's which included housing, post office, drug store, school, restaurant, creamery, railroad station, garages, laundry, and recreational facilities.

The seven Historic Districts contain several areas of open space including four cemeteries, several stretches of Shawsheen River frontage, and the open spaces of the Phillips Academy campus.

Archeology

Eric S. Johnson⁵ of the Massachusetts Historical Commission considered six factors most likely to have attracted prehistoric settlements in Andover, including:

1. The Merrimack and Shawsheen Rivers, where migratory fish (salmon, shad, eels) provided a very productive and labor-efficient food source. The rivers also would have provided transportation routes, non-migratory fish, birds, game, and water and shore plants;
2. Lakes and open swamps where migratory fowl, small game, and useful plants would be found;
3. Areas with a diversity of soil types which would support a diversity of plant and animal species;
4. After 1200 A.D., areas with arable land to grow corn, beans, and squash;
5. Areas with useful stone deposits;
6. Areas with soils suitable to build on.

Johnson mapped the distribution of the six natural resources in Andover, combined the maps, and produced a map of sensitivity, which is included in the 1982 report entitled, *Prehistoric Archaeological Resources of Andover, MA - A Preliminary Study of Sensitivity*. Areas of greater sensitivity are those more likely to contain prehistoric remains.

Records of known archaeological sites in Andover are kept at the Andover Historical Society, the Peabody Museum of Archaeology, and at the Massachusetts Historical Commission. The sites tend to cluster along the town's water bodies. Perhaps the most important is a campsite on the Merrimack River at I-93, with remains spanning the past 7000 years. Before the site was developed as an industrial park in the late 1970's, the site was extensively studied and described in *The Camp at the Bend in the River, Prehistory at Shattuck Farm Site*, by Barbara Luedtke, published by the MA Historical Commission, December 1985. Several dozen other sites have been explored, including hunting and fishing camps and villages, food gathering-processing stations, burial grounds, an eighteenth century black servant's homestead, a nineteenth century pottery factory, and a soapstone quarry and stone dressing factory, and ditches dug to mark property boundaries. A new archaeological evaluation of the Shattuck Farm site occurred in 1996 by the state and the University of Massachusetts at Amherst. One recommendation of the evaluation is the preservation of stonewalls as pedestrian pathways.

There are undoubtedly many more sites that remain as yet undiscovered, and it is important to conduct impact assessments, including review of archeological site files for the area, at the Massachusetts Historical Commission, whenever ground disturbances are planned.

A number of Indian fishing campsites have been found in the vicinity of Foster's Pond, the Shawsheen, and the brook connecting the two. Eugene Winter of the Robert S. Peabody Museum of Archeology speculated that Indians may once have traveled from the Shawsheen to

⁵See "Prehistoric Archaeological Resources of Andover, MA - A Preliminary Study of Sensitivity", October 11, 1982, by Eric S. Johnson, MA Historical Commission.

Foster's Pond, overland to Martin's Pond, and down Martin's Brook to the Ipswich River, pulling canoes on ropes where the brooks were too shallow for paddling. These waterways still exist and would make an interesting addition to the Bay Circuit trail ways.

Two bridges are listed on the National Register of Historic Places:

- Lower Shawsheen Railroad Bridge off Lupine Rd, near Central Street (the Hartwell Abbott Bridge) and
- Upper Shawsheen Railroad Bridge between Lowell Junction and Ballardvale.

See the list in the appendix of all the structures within the historic districts that are listed on the National Register unless they are infill. A full list of buildings for each district is at the Andover Historical Society, library or town offices. It's about 800 buildings in total.

4. Unique Environments

1. On the west side of Route 93 the entire Shawsheen River in Andover is a Priority Habitat for Rare Species and Estimated Habitat for Rare Wildlife: a freshwater mussel and a moth.
2. Also the entire land area on the west side of Route 93 including the river floodplain is Priority Habitat of Rare Species. On the east side of the Lowell Junction area, the site of Proctor & Gamble and Wyeth is Priority Habitat.
3. The riverbank of the entire Merrimack River in Andover is Priority Habitat for Rare Species and Estimated Habitat for Rare Wildlife in addition to land surrounding Haggetts Pond, which is town land protected by the Andover Water Department, and AVIS's Rafton Reservation.

There are no Areas of Critical Environmental Concern in Andover.

G. Environmental Challenges

Andover faces environmental challenges similar to those of other communities in the area, along with a few unique to the town:

- High levels of mercury are showing up in fish throughout the state, and testing shows that fish from our local ponds are affected. DEP estimates that solid waste combustors (incinerators) are the largest source contributor of mercury to our water bodies, with pollution from Midwestern power plants adding to the problem. There are three waste incinerators within a 15-mile radius of Andover.
- Spills from vehicle accidents, along with environmental impacts from highway de-icing salts are a concern since two major transportation corridors (I-93 and I-495) cross through Andover. Many issues associated with roadway pollution are addressed in detail in Andover's Stormwater Management Plan.
- Andover has a significant industrial base, and has several large and small businesses that use hazardous materials, produce hazardous waste products, and/or store large quantities of hazardous materials in storage tanks.

- Andover has two golf courses, as well as many large properties using pesticides and herbicides, posing additional concerns for potential pesticide runoff.
- Residential use and disposal of household hazardous chemicals and other environmentally damaging products widen community challenges.

The Department of Environmental Protection’s list of reportable release sites in Andover is included as *Appendix I – DEP Hazardous Waste Sites*. The list represents the cumulative record of reportable releases in the Town of Andover ranging from very small releases of oil to larger releases requiring extensive remediation. For the most part, Andover’s required hazardous waste remediation efforts are the responsibility of private parties. Also in *Appendix I* are the definitions for the terminology used in the list.

With major highways on two sides, Andover’s extensive forested areas play an important role in enhancing Andover’s livability by offsetting some of the resulting traffic noise and air pollution. Proposed development along Route 93 may remove a portion of this living buffer, but at the same time provides new opportunities for public access to open space along the Shawsheen River.

Of concern to the Town is the Reichhold Chemical Company’s (“Reichhold”) Property on Lowell Junction Road. The Town of Andover at the April 2001 Annual Town Meeting approved moving forward with the purchase of the Reichhold Property for open space and recreational fields. Two of the three parcels of land available from Reichhold have been purchased by the Town as of the publication of this Plan. On the third parcel, Reichhold Chemicals is currently continuing its remediation of the contamination on the parcel, headed by their consultants CH2Mhill, Inc. The Town has engaged its own consultant to review the voluminous clean up record and to make recommendations. The third parcel is not currently subject to a purchase and sale agreement between Reichhold and the Town. Nevertheless, both parties have expressed an interest in consummating the sale when the clean up is completed.

The Town’s Ledge Road landfill stopped accepting waste other than brush in 1973. Since 1992, only the town disposes of brush on the property, along with some street sweeping wastes. The Town’s landfill site is presently going through a formal landfill closure process managed by consulting firm Camp Dresser & McKee. Extensive monitoring has been conducted at the site; leachate from the landfill has been found to contain arsenic, iron and other heavy metals. In 1988, the Town capped the landfill with one foot of clay and five feet of loam fill and subsequently developed a portion of the property as an outdoor athletic facility. During final closure, these fields will be eliminated so that installation of lights and equipment does not penetrate the liner, and so that a greater surface slope can be maintained, to facilitate runoff rather than penetration by rain. Consideration is being given to reuse of the site for a large-scale solar power array.

Downstream of the landfill, arsenic has contaminated open space owned by AVIS, the local land trust. The area is currently posted to prevent public access. The Town intends to fence and prohibit access to this area, swapping the contaminated land for a town-owned recreational parcel contiguous to another AVIS property. The landfill closure is discussed in more detail in The Fish Brook Initiative Final Report, June 2006.

It is an unfortunate side-effect of our demand for electricity that mercury is accumulating in our freshwater fish, and in some marine species as well. State emission standards for mercury have been tightened in recent years, and local waste disposal facility operators have put programs in place to help keep mercury out of the waste stream. Yet mercury continues to accumulate throughout much of Massachusetts, prompting the MA Department of Public Health to issue guidelines for safe consumption of fish. Samples were taken in 121 locations in the Commonwealth; 64% show significant mercury contamination. As *Table 4-1* shows, the mercury levels of fish from all of Andover’s ponds and rivers is too high to allow young fishermen to rush home to enjoy their catch. Only ponds such as those in Harold Parker State Forest, which are annually stocked with trout, provide safe eating for children under 12 and women of childbearing age. The Shawsheen River has some safe varieties, but eating largemouth bass and black crappie must still be avoided by these groups; likewise, in the Merrimack River largemouth bass and white sucker have mercury levels too high for young children and women of childbearing age. The general population can safely consume up to two meals per month of these varieties from the rivers. Largemouth bass, prized by fishermen, are unsafe to eat from any of our local ponds.

Table 4-1

Public Health Fish Consumption Advisory for Andover (Advisory issued by Massachusetts Department of Public Health, July, 2008) For more information call: 617-624-5757 NOTE: This advisory does not apply to fish stocked in lakes and ponds			
Location	Town	Fish Advisory	Hazard
Ballardvale impoundment of Shawsheen River	Andover	P1 and P3 (large mouth bass & black crappie)	Mercury
Fosters Pond	Andover	P1 (all species), P5	Mercury
Haggetts Pond	Andover	P1 (all species), P4, P2 (Largemouth bass)	Mercury
Pomp’s Pond	Andover	P1 (all species), P4, P2 (Largemouth bass)	Mercury
Merrimack River	Andover	P1 and P3 (Largemouth bass, White Sucker)	Mercury

P1 (all species): Children younger than 12 years of age, pregnant women, women of childbearing age who may become pregnant, and nursing mothers should not eat any fish from this water body.

P1 (species): Children younger than 12 years of age, pregnant women, women of childbearing age who may become pregnant, and nursing mothers should not eat any of the fish species (in parenthesis) from this water body.

P2 (species): The general public should not eat any of the fish species (in parenthesis) from this water body.

P3 (species): The general public should limit consumption of affected fish species (in parenthesis) from this water body to two meals per month.

P4 (species): The general public should limit consumption of non-affected fish from this water body to two meals per month.

P5: The general public should limit consumption of all fish from this water body to two meals per month.

P6: No one should consume any fish from this water body.

Source: Massachusetts Department of Public Health

http://www.mass.gov/Eeohhs2/docs/dph/environmental/exposure/fish_consumption_advisory_list.pdf

Town of Andover – Open Space and Recreation Plan

134-12C	1.1	Castle Green CR	21	216	No public access
134-12A	.71	Castle Green CR	21	216	No public access
134-12B	.75	Castle Green CR	21	216	No public access
134-120	.91	Castle Green CR	21	216	No public access
101-51J	2.78	Mill Trust CR	1864	231	No public access
202-1	53.8	Digital Equipment Corp.	2685	82	No public access
18-47	.2	American Heart Former	1912	95	Public Access
196-9	.95	Barron's Country Store	5242	187	No public access
101-51K	2.04	Mill Trust CR	1864	231	No public access
214-2F	1.85	Foxwood CR	3343	96	No public access
70-92	.04	CA Invst Andover Country Club	3813	135	PublicAccess
			2395	191	
88.93	.65	CA Invst Andover Country Club	2395	196	PublicAccess
214-2C	1.16	Foxwood CR	3343	98	No public access
214-2B	1.66	Foxwood CR	3343	98	No public access
74-1	2.32	Ila Cox CR	5290	149	Public access
70-43	3.75	CA Invst Andover Country Club	3813	135	Public Access
			2396	196	
134-66	.93	Castle Green CR	2404	216	No public access
214-2D	1.99	Foxwood CR	3343	98	No public access
134-12E	.95	Castle Green CR	21	216	No public access
134-12F	.87	Castle Green CR	21	216	No public access
142-2E	17.29	Jacobson Public Access CR	1303	299	
			1552	254	
87-4C	32.83	Andover Country Club C.R.	2395	196	Public access-golf
70-96	7.47	CA Invst Trst/And. C.C. CR	3813	135	Public access
			2396	191	
101-51	1.86	Mill Trust CR	1864	231	No public access
69-17A	5.93	Andover Country Club			No file #
69-17B	.58	Andover Country Club CR	3813	135	Public Access
			3198	259	
69-19T	.08	Andover Country Club CR	3813	135	Public Access
			3198	259	
70-98	6.24	CA Invst Trst/And.C.C. CR	3813	135	
			2395	196	
70-67	.07	CA Invst Trst/And.C.C. CR	3813	135	Public Access
			2395	196	
88-106	26.6	Andover Country Club CR	2395	196	Public access-golf
202-6	32.49	Digital Equipment Corp.	2686	82	No public access
101-51H	1.55	Mill Trust CR	1864	231	No public access
142-2A	28.24	Jacobson Public Assess	1303	299	
			1552	254	
142-2F	9.26	Jacobson Public Access CR	1303	299	
			1552	254	
214-2G	2.25	Foxwood CR	3343	98	No public access
214-2E	1.43	Foxwood CR	3343	98	No public access

**3. CONSERVATION RESTRICTION
HELD BY TRUSTEES OF RESERVATIONS**

Arden (William Wood’s land) off Lowell and North Main street) **66.38 acres.** This is not open to the public.

D-1

4. CONSERVATION RESTRICTION HELD BY AVIS

In West Parish Meadow **18.39 acres.**

SRC

D-2

B. PUBLIC AND NONPROFIT PARCELS

OWNED BY THE TOWN OF ANDOVER

This includes land under the control of the Conservation Commission and Water Department,

1. CONTROLLED BY CONSERVATION COMMISSION: 2,257 acres.

See *Appendix B* for complete listing by parcel and acreage.

2. CONTROLLED BY WATER DEPARTMENT Total 134.06 acres

a. Under the control of the Water Department

at Haggetts Pond: 43.81 acres

SRC

C-4

The pond is shallow with a muddy bottom and swimming is prohibited because this is the Town's water supply. Fishing is allowed and rowboat permits are issued. The high lands of this area are suited almost exclusively to passive recreation and then only if carefully restricted and supervised.

0 Lowell St. .50 acres	SRC	C-3
0 Lowell St . 5 acres	SRC	C-3
5 Evergreen Lane 18 acres	SRC	C-3
14R Geneva Rd. .63 acres	SRC	C-3
6 Evergreen Lane 3.10 acres	SRC	C-3
0 Haggetts Pond Rd. .89 acres	SRC	C-3
51R Haggetts Pond Rd. 12.50 acres	SRC	C-3
397 Lowell St. 3.19 acres	SRC	C-3

Other Water Department parcels: 90.25 acres

b. Fish Brook Pumping Station: 2.25 acres	SRC	A-2
c. Top of Wood Hill: 3.5 acres	SRC	B-4
d. Holt Hill Reservoir: 2.7 acres	SRC	F-1
e. 58 Andover St. Abbot Well Site: 11.4 acres	SRB	E-3
f. Bancroft Reservoir: 7 acres	SRB	F-2

g. Ballardvale Wells: 23.1 acres	SRC	E-3
h. 138 Andover St. .25 acre		E-3
i. 0 River Rd, pumping sta. 2.25 acres	SRC	
j. 160 Andover Street 1 acre	SRC	E-3
k. 173 Andover St. 1.38 acre	SRC	E-3
l. 164, 168 Andover St. 1.20 acre	SRC	E-3
m. 0 High Plain Rd. 3 parcels, 34.22 acres	SRC	

OWNED BY OTHER PUBLIC AGENCIES OR LAND TRUSTS

1. HAROLD PARKER STATE FOREST (DEM) SRC G-3, H-3
888.4 acres in Andover portion

Access to Harold Parker State Forest is via routes 114/125, Salem Street and Jenkins Road. The Forest totals 3400 acres, extending into the towns of Middleton, North Andover, and North Reading. It has a system of dirt roads built many years ago by the Civilian Conservation Corps (CCC) and a small wooden headquarters building. The Forest is characterized by rough terrain, many outcrops of bedrock, numerous wetlands, and streams. It includes two natural ponds, (Bear and Berry) and nine man-made ponds. The Skug River flows through parts of the forest in Andover and there is stonework of an old mill site on the river. Nearby, and also within the forest, is an old soapstone quarry.

Almost all of the forest is heavily wooded; some of it is old CCC plantings of red pine. Occasionally the Department of Environmental Management allows the selective cutting of wood under contract.

Since it is so readily accessible and so attractive a "wilderness" area, the forest is heavily used for outdoor recreation, such as hiking, skiing, horseback riding, hunting (east of Jenkins Road, with license), camping (in camp area only), fishing (with license), and more; however, no motorized recreation of any kind is allowed and no person shall consume or possess alcoholic beverages on forest property.

A new day-use area was completed at Berry Pond consisting of an enclosed building housing rest room, changing areas, and a warming room with fireplace for winter use. There are picnic facilities, a small swimming beach, and an open pavilion for bad weather or group use. All are accessible for people with disabilities.

2. CHARLES W. WARD RESERVATION (THE TRUSTEES OF RESERVATIONS)
341 acres in Andover portion SRC F-1, F-2

This property belongs to the Trustees of Reservations and has access via Route 125 and Prospect Road. The area includes an excellent parking lot for approximately a dozen vehicles, where a panel board with trail maps and pamphlets is available.

The Reservation is actually 695 total in Andover and North Andover. It includes the entire crest of 420-foot Holt Hill, which commands a view all the way to the Boston skyline and extends to the top of Boston Hill to the rear of the former downhill ski area off Route 114 and Shrub Hill. It includes both open fields and woods and an excellent example of a quaking bog, on which a boardwalk for nature study has been constructed. There are numerous trails for hiking, nature study, skiing, and horseback riding. Recreational vehicles are excluded. The Reservation is held under permanent trusteeship for public use for passive recreation activities only.

3. ANDOVER VILLAGE IMPROVEMENT SOCIETY (AVIS) 1104 acres

There are 1104 acres including leased lands under AVIS management. All are open to the public for passive recreation. This is an increase of 114 acres since the last Open Space and Recreation Plan in 2001. See *Appendix C* for detailed descriptions of the 30 reservations.

4. PUBLIC AND PRIVATE CEMETERIES: 117.5 acres

Spring Grove (town) Cemetery: 46.5 acres:	SRB	E-3
South Church Cemetery, Central and School streets, 7 acres		E-2
West Parish Cemetery, Lowell Street, 41 acres		D-2
St. Mary’s Church Society Cemetery, Lupine Rd. 18 acres		E-2
Christ Church Cemetery, School Street, 5 acres		

UNPROTECTED OPEN SPACE AND OUTDOOR RECREATIONAL AREAS

<u>DESCRIPTION</u>	<u>ZONING</u>	<u>LOCATION</u>
---------------------------	----------------------	------------------------

A. PRIVATE PARCELS

1. PRIVATELY OWNED INSTITUTIONAL FACILITIES Total acres 936.28

a. Andover Country Club: 121.8 acres Open to members and guests only. Clubhouse, hotel, and 18 hole golf course.	SRB	C-2
b. Indian Ridge Country Club: 155 acres Open to members and guests only. Club house, full golf course, swimming pool, and 4 tennis courts.	SRB	D-4
c. Camp Maude Eaton: 50.0 acres Wooded tenting area abutting Pomp's Pond is owned by the Girl Scouts of America.	SRB	E-3

- d. Phillips Academy: 450 acres SRB E-2,F-2
Includes former Abbot Academy; 90 acres comprise the Moncrieff Cochran Bird Sanctuary. There are numerous athletic fields of a large independent coeducational secondary school. There are two indoor skating rinks with artificial ice, several dozen tennis courts, swimming pool, cage, gymnasium, squash courts, football, baseball, softball, soccer, lacrosse fields and other facilities. Some of the facilities are available on a limited basis to local residents for a guest fee. The Academy is a National Historic Site.
- e. Pike School: 33.9 acres SRB F-3
- f. St. Francis Seminary: 459 River Rd. about 69 acres SRC A-5
At this time, 2009, 10.51 acres have been permitted for an 8-lot subdivision and the adjacent 1960s school facility and surrounding land is the Melmark School, a private school for special needs students. The remaining about 60 acres of open space are owned by the Friars of St. Francis, Franciscan Province in New York.
- g. St. Claire's: 459 River Rd., 6 acres Not open for public use. SRC A-5
- h. Andover Montessori School, 400 South Main St. 7.58 acres F-3
- i. Melmark School, 461 River Rd, 6 acres SRC A-4
- j. Camp Evergreen, Jenkins Road, 9 acres SRC K-3
- k. Challenge Unlimited Lowell Street, 11 acres SRC C-4
- l. Merrimack College, Elm Street, 6 acres E-1
- m. RC Archdiocese of Boston, 80 Corbett Rd. 10 acres C-1

2. AGRICULTURAL LAND UNDER THE MASSACHUSETTS AGRICULTURAL ASSESSMENT ACT (CHAPTER 61A AND B) Total acres 1,351.41

Map/ Value	Owner	Location	LUC- classification	Total Lot Acres
199-05/ 122,652	G & T Realty Trust/ G & T Dargoonian Trs.	0 Blanchard St.	712	40 acres
(All 40 acres are Chapter 61 (truck crop and non-productive agricultural land))				
199-02A/ 336	Dargoonian Brothers Realty Trust / Garabedian + Benjamin Dargoonian	30 Blanchard St.	720	2.92 acres
(All 2.92 acres are Chapter 61A land related to agriculture)				
147-04/ 10,549	Park Family Trust/	138 Chandler	718	58.7acre
(All 58.7 acres are Chapter 61A pastureland)				

146-08/ Sarkisian Realty Trust/ 153 Chandler 0137 12.67acres
632,116

(11 acres are in Chapter 61A)

129-014B/ 2-12 Greenwood Road 208 Greenwood Rd. 712 10.53acres
4,235 Realty Trust / Bellia Trustees, O&M

(All 10.53 acres are in Chapter 61A as truck crops, orchard and field crop.)

134-073/ DSM Realty 73R Lovejoy Rd. 805 28acres
702,920

(All 28 acres are in Chapter 61B as golf/recreation lands – New Indian Ridge Country Club.)

135-021A/ DSM Realty 73 Lovejoy Rd. 805 125acres
4,555,722

(All 125 acres are Chapter 61B as golf/recreation land. New Indian Ridge Country Club)

184-03/ Tisbert, Norman/Tisbert, 1329 South St. 017 20acres
408,397 Jean TE

(19 acres are Chapter 61A lands with 11 as pasture and 8 acres as non-productive agriculture.)

128-028/ Lawrence Rod and Gun 9 Webster St. 807 12.12acres
212,496 Club Uinc

(The 12.12 acres are Chapter 61B as hunting/recreational land.)

There are nine parcels with a land value of \$1,582,523 and building value of \$5,065,900 for a total value of \$6,648,423. The total acres are **1,351.41 acres**

Some parcels are mixed use with several classifications: for example: 0137 means I = single family residential, 3=commercial and 7=Chapter land, that is land that is in special classification for tax purposes MA Chapter 60, 61A or 61B: forest, agriculture or recreational land. Therefore, the part of the land that is in Chapter classification must be offered first to the town should the owner wish to sell for conversion to another use.

3. AGRICULTURAL LANDS WITHOUT SPECIAL TAX CLASS. 11.3 acres

<u>MAP-LOT</u>	<u>OWNER</u>	<u>LOCATION</u>	<u>ACRES</u>
111-17	Loosigian Truck Farm with active farm stand. Classified as residential, commercial	254 Lowell Street	8.3
168-27A	Konjoian Greenhouse operation Classified:residential commercial	271 Chandler Road	2.73

4. FORESTRY LAND UNDER THE MASSACHUSETTS FOREST CLASSIFICATION LAW (CHAPTER 61)

There are no lands currently Chapter 61

5. PRIORITY HABITAT FOR PROTECTION OF RARE SPECIES

88.9 acres of unprotected private lands on the west side of Route 93 in Andover.
Source: Natural Heritage Endangered Species Program Biomap dated October 2008.

All the land in Andover along the Shawsheen River on the west side of Rout 93. This includes both private lands and the Sanborn Reservation owned by AVIS. The designation is both *Priority Habitat of Rare Species and Estimated Habitat of Rare Wildlife*. A rare moth and a rare freshwater mussel have been found at the site. The land is currently is 88.9 acres of unprotected open space with three private owners and the 4.5 acres AVIS Sanborn Reservation permanently protected.

In addition, several hundred acres on the east side of Route 93 are *Priority Habitat for Rare Species* in the moderately developed industrial space at the Lowell Junction area of Andover, an industrially zoned area, the site of Wyeth, and Proctor & Gamble and many other industries. Only small parcels of land are permanently protected, except for Pole Hill Reservation, and these are mainly along the Shawsheen River.

This plus the west side of Route 93 are the designated parcels for further development as a result of the proposed new interchange between exits 41 and 42 – a corridor two miles long and about 3/5 of a mile wide - all *Priority Habitat for Rare Species*. These two large areas need strong protection as open space, rare species habitat and riverfront parcels.

Haggetts Pond environs are the site of both *Priority Habitat for Rare Species* and *Priority Habitat of Rare Species and Estimated Habitat of Rare Wildlife*. The environs are permanently protected as Conservation Commission land and Water Dept. land.

B. PUBLIC AND NONPROFIT PARCELS

OWNED BY TOWN OF ANDOVER

1. CONTROLLED BY SCHOOL DEPARTMENT: SCHOOL SITES (scheduled by both Community Services and School Athletic Department, maintained by the Municipal Maintenance Department) **353 acres** as follows:

- a. Andover High School/ West Middle School: 94.4 acres SRB D-2
Fence-enclosed stadium with bleachers and lights for football, soccer, field hockey and track. Additional sport fields as follows: 3 baseball, 3 softball, practice football, and game/practice soccer and field hockey. Extensive flat grass areas and slopes suitable for winter sledding. Two outdoor basketball courts and 11 tennis courts.

- b. Doherty Middle School (fields formerly known as Andover Playstead): 17 acres SRA E-1
Quarter-mile track around field for football, soccer, and field hockey. Outfields of two softball and one baseball field suitable for layout for soccer and field hockey.

- c. South Elementary: 59 acres SRC F-4
One baseball field, two soccer fields, basketball court, playground equipment.

- d. West Elementary: 32 acres SRB C-2
Two baseball fields (the outside fields form a soccer field), large grass area, two basketball courts, and playground equipment.

- e. Sanborn: 67 acres SRB/SRC D-4
Two baseball fields, two soccer fields, playground equipment, large paved area, grassy fields.

- f. Bancroft: 20 acres SRB F-2
Large grassy areas for practice fields, playground equipment.

- g. Shawsheen: Grass flat area, playground equi., 4 acres SRA D-1

- h. High Plain Elementary School and Wood Hill Middle School: 24.6 acres SRC B-3
Playing fields, heavily wooded sloping land.

- i. Future School Site (Rocky Hill Road): 35 acres SRC G-3
Heavily wooded; part deep peat swamp

2. CONTROLLED BY THE COMMUNITY SERVICES DEPARTMENT

Maintained by Department of Community Services **96.7** acres as follows:

- a. Andover Recreation Park: - Pumps Pond SRB E-3
It is approximately 62 acres off Abbot Street. There are also about 128 acres in this vicinity controlled by other town departments (See other sections and map). Of the 190 acres, 25 are wet (16 in Pomp's Pond alone) and at least 60 are best suited to passive recreation only. Much of the high land is wooded and very steep.
1. Pomp's Pond swimming area including sandy beach, bathhouse and parking for about 50 cars;
 2. Softball field complete with lights;
 3. Clubhouse for summer programs and some equipment;
 4. Multi-purpose open sided shelter 28' X 60';
 5. Restrooms (handicap accessible);
 6. Small storage shed;
 7. Lighted rink providing street hockey, and in-line skating/roller hockey;
 8. Sliding hill;
 9. Playground areas;
 10. Picnic areas with charcoal stoves and picnic table;
 11. Parking area on Recreation Park Road, an old railroad right-of-way;
 12. Four lighted tennis courts.
- b. Ballardvale Playground: SRA E-4
Approx. 1 acre on Andover Street at Clark Road
Storage house, playground equipment, dual-purpose court, small playing field;
- c. Cuba Street Playground: SRA D-2
Approx. 1 acre on Cuba Street off Shawsheen Road Playground equipment, 2 court basketball court
- d. Shawsheen fields and playground: 22.5 acres SRA D-1
Upper Field off Burnham Road: large grass area used as soccer fields;
Lower Field off Balmoral Street: storage garage, paved running track, soccer field, open space areas, playground equipment.
- e. Raytheon area: 2.7 acres off Osgood Street, Undeveloped SRC D-4
- f. Deyermond Field: SRC C-2
Approximately 6.5 acres on Chandler Road at site of former town landfill. Two baseball fields, one lighted, and soccer fields under lease with Andover Little League and Andover Soccer Association. As the landfill is capped, these fields will not be allowed anymore. Thus it is crucial to replace these fields elsewhere in town.

3. CONTROLLED BY OTHER TOWN DEPARTMENTS **34.2 acres** as follows:

- a. Hussey's Pond area: 3.8 acres near Shawsheen Square SRB D-2
- b. The Park: 4 acres at Bartlett and Chestnut streets SRA E-2
It is a pleasant green area and is well landscaped.
- c. William M. Wood Memorial Park: SRA D-1
There are 1.6 acres at the corner of Lowell Street and North Main Street. Under the terms of the deed, this park “to be maintained only as a community park and not to be converted into a playground or to other uses”. Landscaping includes a perennial garden and benches.
- d. Former town Sanitary Landfill: 17.5 acres SRC B, C-2
at Chandler and Ledge Roads
- e. West Andover Fire Station: 6 acres SRB/C B, C-2
At Chandler, Greenwood, and Ledge Roads
- f. Former Giles Property: 6 acres Vicinity of Pomp's Pond SRB E-4
- g. Snow Dump: 3.1 acres on High Street SRA D-1
- h. Ballardvale Green : 1.6 acres Andover and Center Streets SRA E-4
- i. Abbot’s Pond: 0.6 acres Andover St. and Argilla Rd. SRB E-3

OTHER PUBLICLY OWNED FACILITIES

- 1. Greater Lawrence Technical School **55.2 acres** off River Road ID B-1

G.L.T.S. is a coeducational secondary school with a complete sports complex of fields, track, tennis courts and an indoor pool. Facilities are open to Andover residents at scheduled times or when otherwise not in use. The land abuts the Andover Conservation Commission Merrimack River Reservation, which has frontage on the Merrimack River.

C. SUMMARY OF OPEN SPACE AND OUTDOOR RECREATIONAL AREAS

	<u>ACRES</u>	<u>% OF TOWN</u>
A. PROTECTED LAND:		
1. TOWN OF ANDOVER	2,391.06	11.7%
a. Conservation Commission	2257	
b. Water Department	134.06	
2. OTHER PUBLIC AGENCIES OR LAND TRUSTS	2,219	11.2%
a. Harold Parker State Forest	888	
b. Charles W. Ward Reservation	341	
c. AVIS	1,104	
3. PRIVATELY OWNED	533.78	2.6%
a. APR	32	
b. CRs held by Town/Conservation Commission	299.51	

c. CR held by Trustees of Reservations	66.38	
d. CR held by AVIS	18.39	
3 public and private cemeteries	117.5	
<i>SUB-TOTAL: PROTECTED LAND</i>	5,143.84	25.1%

	<u>ACRES</u>	<u>% OF TOWN</u>
B. UNPROTECTED LAND:		
1. TOWN OF ANDOVER	484.2	2.36%
a. School Department	353	
b. Community Services	97	
c. Other Town Departments	34.2	
2. OTHER PUBLICLY OWNED FACILITIES	55	.027%
a. Greater Lawrence Technical School		
3. PRIVATELY OWNED INSTITUTIONAL FACILITIES	936.28	4.57%
4. CHAPTER 61A, 61B LAND (AGRICULTURAL USE and RECREATIONAL USE) –	1,351	6.6%
5. There is currently no chapter 61 forest land.		
6. AGRICULTURAL LAND (NON-61A)	11	.005%
7. PRIORITY HABITAT FOR RARE SPECIES AND ESTIMATED HABITAT FOR RARE SPECIES on the west side of Route 93 – privately owned open space (by three owners) along the extensive floodplain of the Shawsheen River. About 6 acres is protected AVIS land and is not included here.	88.9	.043%
<i>SUB-TOTAL: UNPROTECTED LAND</i>	2,925.11	14.3%
<i>TOTAL LAND AREA IN ANDOVER: 20,480 ACRES</i>	8,068.95	39.39%
<i>OPEN SPACE IN ANDOVER GRAND TOTAL:</i>		

D. COMMENTS ON THE INVENTORY

The preceding Inventory and Summary have grouped the open space and outdoor recreation land in Andover into two major categories: Protected Land and Unprotected Land. According to The Open Space Planners Workbook, “Land is considered protected if it is owned by the Town’s Conservation Commission or Water Department, one of the state’s conservation agencies (thereby covered by Article 97), a non-profit land trust, or if the town received state or federal funds for the purchase or improvement of the property. Private land is considered protected if it has a deed restriction in perpetuity, if an Agricultural Preservation Restriction (APR) has been placed on it, or if DEP has placed a Conservation Restriction (CR) on it as part of the Wetlands Conservancy Program.” Land owned by school department and playgrounds, is not protected; it can be sold with relative ease.

Thus this grouping reveals that approximately 25.1% of Andover’s area, 5,143.84 acres, is protected open space and outdoor recreation land. Of this, 11.7% is owned by the Town. A small fraction, 2.6%, 553.78 acres, is privately owned but under some form of permanent restriction that keeps it open but may not permit public use. Most of the Conservation Commission holdings were acquired for such conservation goals as watershed protection, preservation of wetlands and wildlife habitat, and preservation of forested land, and many were purchased with State self-help funds. The intent of the land is to keep them in their natural state as far as possible. Only passive use is allowed. The Water Department, under the DPW, manages 134 acres, most of which include the town’s surface and subsurface water supply and surrounding wetlands with small areas around town wells and small reservoirs. The Haggetts Pond water supply is almost entirely protected by the Water Dept. or Conservation Commission.

Harold Parker State Forest, the Charles W. Ward Reservation, and AVIS holdings comprise most of the rest of the land in the protected category and together amount to 11.2% of Andover’s land. Harold Parker and the Ward Reservation extend into neighboring communities and therefore have a regional impact. Both have well developed trail systems and other amenities and are open to the public. (See Inventory in this Section 5, part 2-a, b and c for complete descriptions. AVIS properties are entirely in Andover and are scattered throughout the Town; there is scarcely a neighborhood that does not have an AVIS reservation within walking distance. AVIS has no staff; the properties and trails are maintained by wardens for each reservation and by other volunteers. The properties are open to the public and AVIS publishes a map of Andover showing the location of each reservation and the trail systems on the larger properties. AVIS protects 1104 acres permanently. (See *Appendix C* for detailed listing.)

Privately owned protected land consists of one 32-acre Agricultural Preservation Restriction, which provides that the land will always be used for farming, and several permanent Conservation Restrictions that protect the land from building and preserve it in a natural state. Since the land remains in private ownership, public access may not be permitted.

There are some 2,925.11 acres of land, or 14.3% of land in Andover, in the unprotected open space and recreation categories. These are the public lands considered most vulnerable to change in use. Of this, 484.2 acres belong to the town: Schools, Community Services, and other town departments.

(See Section 5, B) Fifty-five acres comprise the Greater Lawrence Technical School. Another 936.28 acres are privately owned: Phillips Academy, the country clubs, Merrimack College, St Francis land, and Camp Maude Eaton account for most of this category.

It is important to note that the public school grounds, including Department of Community Services lands, account for all of the land or facilities under public control available to the public for active recreation: ball fields, tennis courts, tracks, playgrounds, for example. Traditionally, school playgrounds have been neighborhood recreation areas. It is imperative that these “neighborhood parks” as defined by the National Recreation and Parks Administration, should be maintained - whether or not schools are closed, renovated, or change occupants. Each active recreation area that is not maintained or is eliminated reduces the quality of the town’s recreation facilities and causes overuse for practice or league play. The Community Services Department programs activities and schedules league games at all the school grounds, when facilities are not in school use, as well as at Recreation Park and Pomp’s Pond. In the near future the Deyermond Fields will be closed because the landfill will be completely capped. A proposal at 2009 Town Meeting is to construct playing fields at the newly purchased Blanchard Road parcel.

Approximately 2.36% is public active recreation land. The enlargement of a school or transfer to other uses reduce the potential for recreational uses and should be a matter of careful consideration by the town, particularly as it becomes more difficult to find suitable replacement sites.

About 4.57%, or 936.28 acres is privately owned institutional holdings with no or limited public use. Many of these institutional holdings represent valuable open space to the neighborhoods in which they lie and they add immeasurably to the visual quality of the town. Development or changes in use could have a major impact on open space or recreational potential. In all, 1351 acres, or 6.6% are in Chapter 61A and 61B with 11 acres as non-61A land. It is therefore in the town’s interest to evaluate carefully any such properties that may come on the market. Protection should be sought for the 89 acres on the west side of Rt. 93, as *Priority Habitat for Rare Species and Estimated Habitat for Rare Species*.

In summary, 39.39%, 8,068.95 acres, of Andover is currently open space. Of this 25.1% of the Town is considered permanently protected conservation or passive recreation land. It is largely these lands that define the open character of the town and provide areas of natural beauty and visual relief from spreading suburbanization. Earlier planning documents referred to preserving the “open, semi-rural character” of Andover as an important goal of the town and the *2008 Andover Citizens Survey*, conducted by Russell K. Mayer, Ph.D., discussed in Section 2, indicated that citizens continue to regard it as important to them. If the visual quality of Andover’s landscape is to be preserved, these lands must be safeguarded and added to whenever possible.

SECTION 6 – COMMUNITY VISION

A. Description of Process

In September of 2008, the Town Manager appointed a committee to update the 2001 version of Andover’s Open Space and Recreation Plan. That plan, as had others before it, serves as a guide for the acquisition, protection and maintenance of open space in Andover. It also satisfies the State’s requirement for a current open space plan in order to be eligible for state funding for open space needs.

The core committee consisted of directors of key town departments, members of the Conservation Department and other Andover citizens with specific knowledge and experience germane to the task at hand. The Committee met on a weekly basis to review the previous plan within the context of the State’s most recent Open Space and Recreation Plan requirements. Subcommittees were formed to update each section of the plan. Throughout the full committee meetings and subcommittee meetings, the goals and objectives were reflected upon, as needs were analyzed and recommendations formed.

Two major surveys were conducted during this study period. An Andover Citizens Survey was distributed to twelve hundred households. This survey dealt with several town concerns, but also included specific reference to open space issues. The abstract results can be found in *Appendix P – 2008 Citizen Survey Results*.

Additionally, another survey document was formulated that dealt with open space and recreational issues exclusively. This survey was widely circulated at town events such as the Arts and Crafts Fair, Clown Town, and Zero Waste Day. It was also circulated at Town Hall and the Library. The abstracted results can be found in *Appendix Q – League of Women Voters Forum Survey Results*.

Committee members conducted interviews and reviewed the survey with business leaders from the Chamber of Commerce and the Andover Business Center Association. Input was also sought and obtained from the Community Services and Recreation Department, School officials, Andover Fields Committee and the Commission on Disability.

Regional concerns were addressed with the Merrimack Valley Planning Commission and the Tri City Joint Planning Committee. A jointly sponsored forum by the League of Women Voters of Andover/North Andover and the Andover Conservation Commission addressed open space and recreation issues, priorities and goals.

These diverse outreach initiatives helped the Committee to more accurately gauge the sentiment of the townspeople and formulate a series of goals and objectives that reflect both the needs and the desires of Andover’s citizens. (See Section 8)

B. Statement of Open Space and Recreation Goals

Many of the goals and objectives from the town's previous plans are included in this updated plan. The committee again acknowledged the impact development has had on the town's character, natural resources, and open space and recreation opportunities, and found that it was imperative that the goals continue to focus on resource protection, regional planning, open space and recreation programs and facilities, and the sharing of limited resources.

A number of general goals were identified as being critical to the successful implementation of an Open Space and Recreation Plan. These have remained essentially unchanged since the 2001 Plan:

- protect the town's water supply and the integrity of other water bodies
- develop an action plan to accomplish goals
- be realistic with regard to limited funding
- consider regional plans and opportunities
- identify resources the town wants to protect
- provide for agricultural protection (such as agricultural preservation restrictions) whenever possible
- refine the land management plan for the town's more than 2,000 acres under control of the Conservation Commission
- educate the public about the town's open space and recreation opportunities
- seek to replenish the Commission's Land Acquisition Fund to acquire open space as it becomes available
- protect natural resources through zoning regulations
- plan for recreation programs and facilities
- preserve the town character
- plan for pedestrian and bicycle pathways; strengthen the trail system
- protect river corridors

SECTION 7 – ANALYSIS OF NEEDS

A. SUMMARY OF RESOURCE PROTECTION NEEDS

The value of land in Andover has become so high and the rate of development so fast that parcels in private hands are vulnerable to development. The town must act to complete easements, restrictions, and/or acquisition agreements before or as parcels appear on the market to save critical parcels for conservation and recreation use.

The town continues to place emphasis on these policies regarding acquiring lands:

1. Protection of all river frontages;
2. Protection of the Fish Brook/Haggetts Pond watershed;
3. Creation of cross-town and inter-town linkages to expand and enhance the town's existing resources;
4. Protection of fragile resources
5. Adding to already existing reservations
6. Close monitoring of large private parcels, semi-public land, and agricultural land, and negotiations with owners in the event of the need to sell the properties.

1. Merrimack River Frontage

The few remaining gaps in the ribbon of protection along the Merrimack need to be closed. Cleanup of the river to Class B status was accomplished as a result of a huge expenditure of public funds so it is certainly in the public interest to protect that investment by controlling the riverfront to the greatest extent possible. Most of the river frontage is under permanent conservation restriction or is owned by the Conservation Commission or by the Andover Village Improvement Society (AVIS).

Accomplishments since Open Space Plan 2001

- a. Since the 1989 plan, a conservation restriction (CR) allowing public access has been obtained along the river between land owned by the Conservation Commission and the Lawrence line. Except for the Phillips Academy parcel (Map 125, Lot 2), the Conservation Commission now owns or has restrictions on the entire frontage from Lawrence to Route 93 and from the west side of Route 93 to where AVIS land begins. Town Meeting 2009 voted for a tripartite agreement among the Conservation Commission, Phillips Academy and the Greater Lawrence Technical High School to allow public access to the parcel on the Merrimack River via the Heffron Right of Way.
- b. The open space from a number of cluster subdivisions along River Road has been deeded to AVIS. (*See Appendix C – AVIS Land - for list*) These have helped to broaden the rather narrow Deer Jump Reservation along the river and they provide some buffering between the new houses and trail users. Most of this section of River Road has been

developed but a few parcels remain, the back portions of which could enlarge Deer Jump. (See Tax Map 214, Lots 10 and 13).

- c. NGrid owns a large parcel of land running from River Road to the river with extensive river frontage. AVIS leases a strip of land on an annual basis for the purpose of continuing the Deer Jump Trail along the river and for access. AVIS is working with NGrid for a more permanent arrangement to access the part of the Deer Jump Trail on its land now that *An Act Relative for Access to Recreational Trails* was signed into law in February 2009, (See Tax Map 228, Lots 3 and 3A).
- d. The land to the east of the Conservation Commission reservation at the end of the Heffron Right of Way is protected by conservation restrictions to the Lawrence line.

Recommended Options:

The Saint Francis Seminary land along the river, now 69 acres, is a prominent feature of the scenic beauty of Andover's Merrimack River frontage. AVIS has a license to maintain a trail along the river, but it can be terminated at any time. The town or AVIS should make a major effort to acquire this beautiful river frontage, particularly if any change in use is contemplated.

About 10 acres of the land was recently sold for development for a nine-lot subdivision and other acreage sold to the Melmark School. The land along the river is very steep, wooded, and unsuitable for development but is an essential element in the Deer Jump and Bay Circuit trail systems. (Tax Map 231, Lot 5)

2. Shawsheen River Frontage

Whenever and wherever possible, land along both sides of the Shawsheen should be acquired or otherwise protected from development. This is consistent with efforts of the Andover Trails Committee and the North Andover and Lawrence Trails Committees to create a Shawsheen River Greenway, in the Shawsheen Square area called the Shawsheen River Renaissance Project.

The town should continue to pursue the development of a linear park along the Shawsheen as it flows through the center of town. The passive recreational and open space needs of the increasing number of residents, many of them elderly, of multi-family dwellings in the town's center could well be served by such a park. The Conservation Commission and the Board of Health should strictly enforce the Wetlands Protection Act and dumping ordinances to prevent abuse of the river and its shores. Beautification efforts and river-oriented business enterprises at appropriate locations should be encouraged. The town's awareness of this priceless asset should be heightened and better use of it promoted.

Accomplishments since Open Space and Recreation Plan 2001

- a. There are several small river front parcels near Pole Hill in Ballardvale that have been acquired.

- b. There are several other parcels in the Lowell Junction area that have been acquired or protected including the important Reichhold parcels for both active and passive recreation.
- c. The Serio's Grove Reservation, site of the popular Miami Boathouse decades ago, is now protected by the Conservation Commission. Recent publicity has encouraged public use, and promoted a newly-formed, Commission-sponsored supervised camping program.
- d. A portion of the Marland Place/Atria parcel will allow public access to the river with a public Riverwalk as a part of the reconstruction project. The owner has also agreed to a kayak area to the north and is currently discussing a perpetual easement for a trail connection between the riverfront near Castle Heights and Stevens Street along the high, forested ridge that overlooks Atria's facility. This ridge is an extremely important viewscape amenity needing permanent protection.

Recommended Options:

- a. The portion of the industrially zoned Shawsheen River floodplain west of I-93 should be acquired (the east bank of the river). These marshy borders of the meandering river may not be buildable and should remain undisturbed. AVIS owns part of this and the rest is in private hands.

There are extensive wetlands and priority habitats for rare and endangered species on the Andover land on the 90 acres on the west side of Route 93 and priority and provisional habitat areas on large portions of the undeveloped land on the east side of Route 93 in the Lowell Junction area.

The most important open space issue in 2009 in Andover, and in the years looking forward, is the proposed development of the Lowell Junction area, a 700 acre parcel of land on the east side of the Shawsheen River and on both sides of Route 93 in the three towns, Andover, Tewksbury and Wilmington that will be "unlocked" by a new Route 93 interchange between exits 41 and 42.

Although the planning has been underway for at least a decade, there have been open tri-town monthly meetings among selectmen and planning boards members and the public for almost four years. These meetings involve reports on the design of the interchange, wetlands mapping, Natural Heritage mapping, protection of the banks of the Shawsheen River and inland parcels for open space and for recreational opportunities, economic development in the three towns, transportation considerations and Smart Growth with the interface of to-be-written Form-Based Zoning in three Priority Development sites.

In addition to the proposed interchange, the project has recently been enlarged to include a proposed fourth lane each way from Route 125 to Route 495 in the median strip. Wetlands delineation is expected before the towns' Conservation Commissions in late spring and evaluations of the several alternatives for the interchange design should be

determined by July 2009. The Environmental Impact Statement is expected January 2010 and the 25% design of the interchange is due by February 2012. Building is expected to start December 2012 through June 2016. The cost is expected be \$150m.

A critical mitigation for the environmental effect of the Route 93 interchange is provision for a multi-use passage under the I-93 Shawsheen River Bridge.

- b. Potential exists for establishing trails near or along the river on lands already owned by the town, between North Main Street and Haverhill Street and Central Street and Essex Street. AVIS land along Lupine Road has been cleared along the river and an historic marker at the former canoe boat house site is to be installed;
- c. The owners of the Shawsheen Plaza Shopping Center should be encouraged to make use of its Shawsheen frontage for river-oriented business enterprises whenever renovations or reuses are under consideration;
- d. A footbridge across the river from Conservation Commission land on North Main Street would provide access to the playing fields from Main Street. This is included in the 1997 Capital Improvement Program;
- e. The river frontage owned by the Redman Card Factory on Red Spring Road (Map 72, Lots 1 and 2) should be protected by deed restriction or acquisition (or an appropriate, economically productive yet ecologically sensitive use for this property should be found).
- f. There is a proposal to construct a bridge across the Shawsheen River on the foundation that remains on the former Reichhold land in the southeast part of town when playing fields, programs for people with disabilities and open space access is done.
- g. There is need for a suspended trail under Route 93 to connect the town parcels on the east side of the highway with the AVIS land and the banks of the Shawsheen River on the west.

3. The Skug River Frontage

The Skug River is part of the Ipswich River watershed. Several downstream communities rely on the Ipswich River for their municipal water supply and the river is also an outstanding regional recreational resource. There have been severe problems in recent years with low water levels adversely affecting water quantity and quality and preventing recreational uses. However, now the resident beaver population is raising the water level on adjacent lands. Most of the length of the Skug River through Andover is now on conservation land, but, because it is a major tributary to the Ipswich, it is important that the remaining frontage be protected.

Accomplishments Since Open Space and Recreation Plan 2001

In Andover the Skug River is now protected by a 75-acre parcel, which includes the Skug River

Reservation and Hammond Reservation protected by AVIS and the Mary French Reservation, under the control of the Conservation Commission, which is accessible to people with disabilities. There is now an extensive Bay Circuit Trail system through the area to connect with Ward Hill and Harold Parker State Forest and a substantial boardwalk system on the Mary French Reservation.

Recommended Options:

- a. Negotiations should be made for conservation restrictions or easements along the Skug River bank for key parcels south of Harold Parker Road.
- b. If properties are subdivided for future residential development near the Skug River frontage, protected open space should be encouraged along the river, particularly between Salem Street and Harold Parker Road.
- c. There should be negotiations to acquire a large key wetland area of about 100 acres east of Route 125 off Prospect Street that abuts both AVIS and Conservation Commission lands. It is currently in private hands.

4. Fish Brook Lowlands and Valley

Andover needs to increase its protection of its water supply. All lowlands within the watershed of Fish Brook not already owned by AVIS or the town should be acquired to protect this water supply resource, to add to the extensive greenbelt already permanently protected, and to preserve the existing trail along the water line.

Recommended Options:

- a. Undeveloped portions of the sides of the watershed of Fish Brook between I-495 and River Road should be acquired if possible, or protected by zoning. Conservation restrictions or easements and land acquisition should be pursued for properties with extensive frontage on Fish Brook.
- b. The proposed widening of Route 93 up to the interchange with Route 495 will affect a large area of town-owned and AVIS-owned Fish Brook wetlands. The Conservation Commission and AVIS should watch this issue and protect the river and wetlands.

5. Wood Hill – Bald Hill – Haggetts Pond

This area serves the vital needs of the community to maintain the quality of its drinking water and also provides a large area of open space usable for passive recreation. Much of this area is now in town ownership for conservation purposes, but several important parcels remain to be acquired.

Recommended Options:

- a. The agricultural use of appropriate portions of this land should be continued.
- b. As many as possible of the remaining undeveloped private parcels in the Haggetts Pond watershed should be acquired.
- c. The Conservation Commission should have conversations with owners of land with Conservation Restrictions well before their parcels come on the market, with a goal of purchasing for open space and possible playing fields.

6. Hussey’s Pond and Brook Watershed

As noted earlier in this section, the potential exists for better use of the downstream portion of this watershed. All means possible of protecting its integrity and purity upstream should be pursued. This means resisting encroachments and channelization in the Andover Country Club development and preserving the wetlands that feed its base flow.

Recommended Options:

- a. Should any abutting watershed lands in Shawsheen Center area become available, the Conservation Commission should pursue to protect the town's already considerable investment and valuable wetlands on a stream.
- b. The town should pursue the Shawsheen River Greenway/Shawsheen Renaissance Project connections in this watershed, which will provide vital links to several town parks and recreation areas, such as Wood Park, Penguin Park, and the soccer fields on the east side of the river.

7. Open Space Buffer Along Southerly and Westerly Borders

The seminal 1976-77 Open Space and Recreation Report made recommendations for open space protection on Andover's borders with its neighbors. Unfortunately decisions have now pre-empted these opportunities in many areas. However, with the impetus of the Commonwealth's Bay Circuit Program, the town should continue to pursue this desirable objective. See Subsection 10 below on Andover’s Bay Circuit strategy.

8. Easterly Border of Andover

To continue to provide for local and regional recreational and open space needs and to enhance the Bay Circuit, the local community should promote, wherever feasible, extension and enlargement of the belt of open space along its easterly margin. The Ward Reservation (the Trustees of Reservations), the Hammond Reservation (AVIS), and the Harold Parker State Forest are all permanently protected areas. If possible, connections should be established between them where these do not now exist especially regarding the extensive more than 100-acres private parcel that borders the North Andover border to the east.

Recommended Options:

- a. Acquire when possible the Skug River wetlands along the easterly border of Andover south of Tucker Road to Gray Road. These wetlands are not suitable for development and are important to municipal water supply to downstream communities.
- b. An easement for trail use should be negotiated in the upland adjacent to these wetlands. Abutters already have created a trail.
- c. Camp Evergreen should be protected from development if its present use ceases.
- d. The privately owned more than 100-acres parcel, mainly wetlands between Route 125 and the North Andover line should be permanently protected by the town, AVIS, or similar groups or a combination.

9. Trails

The extensive existing community trail network on both public and private land can be substantially improved. Much remains to be done in acquiring by fee, easement or permission, areas that link existing trails together. More trails on existing areas can be established, particularly on recently acquired areas. The most recent “community paths” initiative by the League of Women Voters of Andover/North Andover should be expanded, both as an important neighborhood enhancement and as a natural and important complement to the trail network. Most town trails are in need of marking and better maintenance.

Recommended Options:

- a. The Conservation Commission should continue to work with the Andover Trails Committee and the Community Paths Committee both for planning trails and for coordinating volunteer efforts at establishing and maintaining trails;
- b. Signs should be posted at trail access points and trails should be clearly marked;
- c. More parking areas should be developed with the aid of the Department of Plant and Facilities.
- d. More trail maps should be made and their availability to the public publicized. See the *Andover Trail Guide*, third edition published by AVIS and the Andover Trails Committee in 2003.
- e. A land manager for the extensive Conservation Commission holdings, now more than 2200 acres, is needed to oversee adult volunteers, Scouts, and trained high school students to perform maintenance on the trails and major projects including building camping sites.

10. Regional Resources

Accomplishments Since Open Space and Recreation Plan 2001

a. Andover’s Bay Circuit

Recommended Options:

1. Merrimack River Access. There is now public access to the river and the trail, and a small boat landing or canoe access in Andover is now possible as a result of the Town Meeting 2009 passage of the Heffron Right of Way agreement with the Greater Lawrence Technical School and Phillips Academy.
2. Andover should work with Methuen to protect Pine Island and other riverside properties on the Methuen side. In addition, Andover should work with the Merrimack River Watershed Council to ensure that link with the River Park in Lawrence is completed and safe from encroachment by industrial park construction.
3. Shawsheen River Access: The town should continue to support these regional initiatives and continue efforts to protect and secure public access to remaining Shawsheen River sections in the town center.
4. Regional Planning: Andover must establish closer liaison with North Reading, which is a Bay Circuit Community, perhaps through the Bay Circuit Alliance, with the objective of a coordinated corridor plan to secure state funding for trails and open space acquisition. The town has successfully supported the regional initiative to include substantial portions of Tewksbury State Hospital land and to complete remaining sections in Andover.
5. Alternate trails: The town should establish alternative linkages and spur trails that coordinate with the adopted Bay Circuit Route and to pursue protection of remaining critical properties. These connections would not only bring the trail closer to residents but would also serve as potential alternative main routes since portions of the current route lack permanent protection.

b. Den Rock Area

Andover should continue to actively participate in the management plan for the Den Rock area with North Andover and Lawrence and work with neighboring towns on the development of an environmental education center to be located in this area in the future.

c. Shawsheen River

Andover is cooperating with North Andover and Lawrence in planning for a Shawsheen River Greenway through the three communities. Andover is giving high priority to completing plans for its section of the Greenway, evaluating the feasibility of establishing a bike path in the corridor, as well as a new hiking path along the river's banks, particularly near the center of the community.

11. Regulatory Needs and Education

Accomplishments since Open Space and Recreation Plan 2001

Local Wetlands Bylaws

Town Meeting approved a local Wetlands Protection Bylaw on May 11, 1999. (*See Appendix J – Wetlands By-Law*)

Town Meeting 2009 has passed the Watershed Protection Overlay District Amendment to the Zoning Bylaw to further strengthen protections for the watershed.

Recommended Options:

Zoning Regulations

The town needs to continually review and amend when necessary the zoning bylaw to provide more regulatory controls over the development of more sensitive lands as well as create zoning incentives to encourage the set aside and protection of open space and natural areas. The cluster bylaw should be enforced with regards to the provisions of public access to open space to encourage the open space and greenway links to existing trails and conservation lands.

B. SUMMARY OF COMMUNITY'S NEEDS

1. Andover Recreation Park

This 190 acre-tract is located near the geographic and population center of the town. It contains some of the few lighted softball field and tennis courts in town, and the only public bathing area (Pomp's Pond). Many town program and group outings take place here.

Forty acres, including the ball field, tennis courts, and beach, are under the management of the Department of Community Services (DCS). The Conservation Commission controls the Foster's Island area, the Board of Selectmen controls the worked-out Essex gravel pit. Foster's Island is mostly wetland and is best suited for passive recreation. The remainder of the Essex pit is controlled by the Selectmen and includes one of the town's two standby municipal wells, and a small pond that attracts many species of waterfowl.

Pomp's Pond is an aging and fairly fragile ecosystem. Periodically chemical treatments are applied to the pond to manage nuisance invasive aquatic vegetation and algae (by the firm ACT in 2009) under the direction of the Conservation Commission.

Recommended Options:

- a. Water quality: Protection of the water resources in Recreation Park is important. If the well site located at Recreation Park is not needed and could be taken “off line” this would aid in the development of fields. Pomp's Pond has been protected from more rapid eutrophication by the relative absence of development around it. Fertilizer application should be held to an absolute minimum, as the vegetation can take up fertilizer rapidly. Pesticides should not be used. Playing fields for soccer, softball, and baseball could be developed in the pit, but traffic and parking from organized league play will need to be addressed. Erosion should be checked and prevented throughout the park.
- b. Upper parking lot: If it is determined to be environmentally appropriate, the parking area should be widened and paved, with marked parking spaces (completed spring of 1997). Night lighting and bike racks should be installed to improve security;
- c. Group shelter: The existing group picnic shelter by the ball field should be enclosed and heated for winter use. A kitchen and storage space should be added. Play equipment, picnic tables, and grills should be installed early, and the landscaping improved;
- d. Tennis courts: The tennis court renovations were completed spring 1997. New lights have been installed. The fence should be straightened, and L-shaped gates added. A backboard, water fountain, play equipment, picnic table, and sheltered notice board could be installed. The feasibility of adding paddle tennis courts nearby or elsewhere in the park should be explored;
- e. Softball field: The softball field needs better fencing and dugout areas along each sideline; new lights were installed in 2009.
- f. Play Area: The play equipment, picnic grills and benches on the northeast side of the upper parking lot should be maintained. The hillside should be cleared for sledding. A warming shelter could be provided;
- g. Inline rink: The rink should be improved with the addition of a water fountain, and benches. The perimeter of the court should be paved to reduce the risk of ankle injury. A new court with boards and fence was completed in fall 1997.
- h. Basketball court: A new court should be added to the park.

- i. Pomp’s Pond Bathhouse: The bathhouse could be improved by installing changing stalls. Ventilation should be improved. The shelter could be winterized for use by skaters and cross-country skiers.
- j. Beach area: Where the hillsides above the beach are eroding, they should be stabilized. Access to the play area in the woods above the beach should be improved, and the equipment there should be maintained. The town should consider installing a sliding board, more play equipment, a fitness course, and a picnic shelter;
- k. Boathouse and docks: storage is needed for canoes, kayaks and life jackets.
- l. Soccer and Baseball Fields: These should be developed at this location as the town’s organized sports needs require, as funds allow, and traffic and parking considerations permit. This site should be effectively utilized, to the extent possible, to meet many of the town’s active recreation needs.
- m. Miscellaneous: Landscaping should be added to improve appearances and to stabilize soils, but it should be kept as natural-looking as possible. The entire park area and its equipment and facilities should be maintained with vigilance. The nature trail system should be improved throughout the park.

2. Playfields and Playgrounds

The public school sites provide the opportunity for participation in organized sports such as football, track, soccer, baseball, basketball, softball, field hockey, and lacrosse. It is at these locations that parking can be found, labor and maintenance is available, and sufficient policing to discourage vandalism is most easily provided. At present, many organized sports sponsored by the town or its schools are held on school properties or on the town-owned properties. The increasing demand for active recreation has created a shortage of playing fields. Meeting this demand in a fair and fiscally responsible manner, particularly given the number of the town’s citizens who utilize these playing fields on a regular basis, should be an important goal for the town in the years ahead.

Recommended Options:

- a. The town should continue to refurbish each playing field as needed;
- b. The town should continue to update and maintain playground apparatus at recreational areas. Special emphasis should be placed on providing play equipment for toddlers and preschool-aged children;
- c. The town should build and maintain the following additional fields, as soon as possible, in the following numbers, in order to meet the needs of the thousands of its citizens who pursue these forms of active recreation on a regular basis, and to serve the needs of these citizens and other for the near future: 3 softball fields (regulation size); 3 Little League

baseball fields (60- ft. base paths); 1 baseball field (90-ft. base paths); 4 soccer fields (full, regulation size).

- d. The addition of these playfields to the town’s inventory of playfields would allow the maximum number of children and adults to both play these sports more often and to have adequate instructional time. Currently the only way that the Andover Soccer Association, for instance, is able to allow the participation of all children who wish to play is that field space has been donated by Pike School, Merrimack College, and Phillips Academy. The generosity of these schools and colleges should not be relied upon indefinitely. They themselves have ever increasing need for their fields by their own students, and the fields also occasionally need to be “rested”. The limited number of the town’s soccer fields also prevents the formation of more travel soccer teams, which would travel and compete within Essex County, thereby restricting developmental opportunities for many able players.
- e. Baseball and softball need more fields so that the teams might practice more regularly and adequately, and so that more games might be played.
- f. Suggested locations for the above-named fields are as follows: a) at Andover Recreation Park; b) behind South School; and c) behind Sanborn School and on the former Reichhold site. A warrant article at Town Meeting 2009 to appropriate \$425,000 for establishing new ball fields at Blanchard Street town-owned site was approved. The Deyermund fields on the former dump will not be continued when the dumpsite is capped.
- g. Clustering these playing fields in groups of three or four or more, wherever possible, offers many advantages. First, to some degree parents could bring more than one child to one location. Next, economies of scale and cost create efficiencies in having one parking area for multiple fields. The cost of building the fields is eased by having a several in just two or three single locations. Single fields could be built on other smaller sites where appropriate and convenient.
- h. There are activities where night lighting would increase the availability of the area for night usage. In areas where night lighting has been installed, a marked decrease in vandalism has been noted.
- i. Sections of town with no nearby school site, as well as newly developed areas, should have large parcels of land set aside for active and passive recreation, including regulation-sized playing fields. There will be opportunities for new playing fields when the large parcels of land in the area of Wyeth, Proctor & Gamble and R. J. Kelly and Burt Road are developed as the new interchange is built and landlocked areas become accessible. It is important for the town to negotiate for new playing fields and open space before the parcels are developed in this area and developers seeks mitigation.
- j. The Andover area on the west side of Route 93 includes the oxbows and large floodplain of the meandering Shawsheen River, extensive wetlands and habitat for rare and endangered species plus the electric power lines. Thus it is not certain that the 70 acres in

private hands are largely “developable” as an industrial site. Areas may be appropriate for new playing fields instead, in addition to extensive open space to abut AVIS’s Sanborn Reservation.

3. Indoor Space

The needs of the town for indoor daytime activity space and for equipment storage space have remained unmet for years. There is a growing demand for day care and extended day programs for all ages by single parents and dual-career families. The Council on Aging is presently planning for enclosing the area behind the dining area in the southeast corner of the Senior Center. The construction of a new day care center by Shawsheen Extended Day (SHED) on Phillips Academy property off Phillips Street has helped somewhat in solving community daycare problems. There continues to be great need for indoor space.

Recommended Options:

- a. The Department of Community Services Space should actively pursue space within schools and other town-owned buildings.
- b. The Department of Community Services should work with the School Department and other entities, public and private, to increase the town's day care and extended-day facilities;
- c. In the future, the town should actively consider the possibility of a multi-purpose community services center to house Community Services programs, senior citizen programs, a youth center, and after-school programs. The Center could include as many of the following facilities as the town can afford:
 1. an indoor, Olympic-sized pool with locker rooms and team rooms;
 2. multi-purpose rooms might include dance facilities, art rooms, wood-working rooms, classrooms and supply closets;
 3. a kitchen facility;
 4. a weight room;
 5. bowling lanes;
 6. a small theater with dressing area;
 7. a youth/parent and tot multipurpose area;
 8. a lighted, locked storage area;
 9. administrative offices;
 10. a registration/information counter;
 11. maintenance areas;
 12. computer sites
 13. basketball courts
 14. cafeteria/ballroom

In addition, the best solution to the need for a multi-purpose gymnasium is the new field house at the high school, which should be open to the general public when not being used by school teams for practices or events.

Several sites should be considered for the Community Services Center, including land next the Playstead area at the rear of the Doherty Middle School. The Andover Recreation Park should also be considered as a possible site.

4. New Beach/Swimming Area

There is greatly renewed interest in the Merrimack River. The fish and the fishermen have returned, and boating has become popular. The river is now Class B – water quality safe for swimmers.

Recommended Options:

A study should be undertaken to determine the relative feasibility of constructing a public beach and boating facilities at each of the following areas:

- a. Merrimack frontage currently owned by the Conservation Commission (see section 8.a.) and now accessible to the public
- b. Hussey's Pond near Iceland Road;
- c. The Shawsheen River at Pole Hill;
- d. Foster's Pond.

5. Tennis Courts

The town does not have enough tennis courts to meet the demands of the adult public and students of middle school or high school age. Several actions need to be undertaken at the tennis courts to fulfill the needs of younger children and to guarantee the upkeep of the courts. The courts adjacent to West Middle School became a skate park, which is maintained by Andover Youth Services.

Recommended Option:

- a. Lights at the Andover High School courts could increase the availability of the area.

6. Winter Sports

There are many ways in which the town could improve winter sports opportunities, chiefly through making better use of facilities already owned.

Recommended Options:

- a. Low-lying marshy areas both on school sites and elsewhere on town-owned lands could be improved to provide shallow, safe natural areas for ice. Full consideration should also be given to developing the “bowl” area in front of the Balmoral condos for winter ice-skating. Adding lights for night skating would be desirable.
- b. Construction of multi-purpose slabs at carefully selected locations for ice skating and other uses, should be investigated;
- c. Snowplowing, a skate house, and night lighting to permit ice-skating on at least one of the town's natural ponds should be considered.
- d. Finally, each school site should be carefully examined to determine what winter sports it can reasonably offer, including skating, sledding, ski practice runs, and perhaps toboggan chutes.

7. Boating

Andover has a wealth of natural resources suitable for small craft recreation. However, substantial access and facility improvements are needed to realize this recreational potential.

Recommended Options:

- a. Facilities for organized boating instruction and recreation sailing programs on the Merrimack River already exist through the Greater Lawrence Community Boating program in Lawrence and a similar program in Lowell. The primary unmet need is informal canoe, kayak and rowboat launching sites on Andover’s Merrimack River frontage, off the Heffron Right of Way. Town Meeting 2009 voted for a tripartite agreement to allow access to the 10-acre site for car-topped boats. The Conservation Commission is currently making plans for programs and policies to enhance this recreation resource.
- b. There is renewed interest in canoeing and kayaking. The Shawsheen River is well suited for this sport. The town should increase public awareness of existing canoe/kayak launching sites along the river. This could include making maps readily available and posting signs at each location, plus information on the town’s website. The Route 93 new interchange environs are also excellent for new boating and recreation areas.
- c. Foster's Pond is also an excellent location for canoeing and can be linked to Martin's Pond and the Ipswich River, as well as the Shawsheen. The Conservation Commission controls a peninsular of land on Foster’s Pond to the west of AVIS’s Goldsmith Reservation.
- d. Finally, when opportunities arise, the town should encourage the establishment of appropriate commercial rental and launching facilities where zoning permits.

8. Senior Citizens

The majority of programs are offered in the Senior Center located in the School Administration portion of the Town Offices building. The growing senior population has increased the demand for more space at the Senior Center and an atrium will be constructed on the southeast corner of the school administration building. In addition to indoor space needs, one of the continuing concerns is the provision of outdoor recreational facilities specially suited to the needs of senior citizens. Such facilities should include benches, paved pathways, outdoor tables for card play, etc. Existing parks, particularly those near high-density areas such as The Park, should have sections designed for senior citizen usage including areas for sitting out of direct sunlight. Special senior recreational opportunities, such as morning bird walks or BoomerVenture walking programs are popular. (BoomerVenture is a new initiative to engage Andover's 50+ population in a series of activities and events aimed at stimulating interests inimical to their generation and broadening their involvement not only with each other, but Andover as a whole.) A task force is planning for a community garden near the Senior Center

9. Bicycling

Bicycling for sport, recreation, and commuting to work and school is important to town residents. The town, through volunteer efforts, has recently made some headway in encouraging and developing a town-wide bicycle system linking neighborhoods, schools, recreational sites, and commercial centers. The Andover Bicycle Committee is strongly supportive of these efforts. In 1995, the town was awarded a grant from the Governor's Highway Safety Bureau to purchase bicycle route signs and bicycle crossing signs to establish a cross-town route from River Road to the Harold Parker State Forest. In addition to meeting the goal of providing transportation to the town's commercial centers and recreation sites, the routes also serve as a regional bicycle route to abutting communities.

Despite this initiative, Andover cannot be said to be substantially "bike friendly." Previous volunteer bike committees became inactive. The recent formation of a new volunteer bike committee will reactivate action on these important non-motorized resources. (*See Appendix L*). In bike planning it is important to distinguish among several related but distinct biking activities, each requiring different facilities: off-road cycling for recreation; on-road cycling for recreation; on-road cycling for commuting and local transportation to school and other community locations. It is also important to provide for both local and regional needs.

Accomplished since Open Space Plan 2001

Bicycle racks have been installed in the center of town and should be added to other appropriate destinations.

Recommended Options:

- a. The town should continue to direct its efforts toward providing safe bike paths or routes that will serve both commuters and recreational users, and to develop connecting links to nearby communities. Bike lanes or paths should be planned and constructed in

conjunction with road, highway, or sidewalk improvement. See the Andover Bicycle Committee’s report in *Appendix L*.

b. Sections of the Shawsheen River Greenway should be expanded for bicycling among Andover, Lawrence and North Andover,

c. In 1997, the Town of North Reading applied for a planning grant under the Intermodal Surface Transportation Efficiency Act (ISTEA) to develop a North Suburban Regional Bicycle Transportation Plan, consisting of 18 potential bicycle trails/routes. Review and implement the plan to create a regional network of bicycle routes that link the seven communities of Wilmington, North Reading, Reading, Stoneham, Wakefield, Andover, and Lynnfield.

10. Support Services

In addition to its recreational facilities, the Department of Community Services should have certain support services, including the use of a small truck as needed.

11. Accessibility to People with Disabilities

There is need for more communication among town organizations so that planning for appropriate facilities for people with special needs are considered early on when plans are made.

Accessibility to new Andover’s active recreation facilities in a manner thoroughly consistent with ADA guidelines and regulations is an important part these recommendations. See *Appendix K* for more details including an inventory of facilities and a transition plan for some open space parcels under the jurisdiction of the Community Services Department and the Conservation Commission.

Recommended Options:

a. The proposed new recreation sites on the Shawsheen River in the Lowell Junction/Burt Road area will be designed to be accessible for people with disabilities.

b. The Commission on Disabilities is working with the community garden task force to plan and execute a community garden accessible to people with disabilities.

12. Community Gardening

There is very strong support for community gardens in Andover at this time for economic, nutritional and sustainability reasons. The Conservation Commission has assembled a task force of leaders and experts to investigate setting up several gardens in various neighborhoods. The task force has drawn on the expertise of a local Massachusetts-certified Master Gardener and the task force is planning for gardens on school and Conservation Commission properties that have water.

There is support for a vegetable garden near the flower garden on the Andover Playstead for the Andover Senior Center constituents and accessible to people with disabilities. The task force is also investigating the construction of a demonstration garden at Andover High School tied into environmental education.

13. Neighborhood Parks

Andover should pursue the development of small “pocket” parks in West Andover, southeast Andover, and the downtown area. The parks should include play lots, picnic benches, bicycle racks, and pedestrian amenities such as benches, shade trees, and walkways where the site can feasibly be linked to town-owned land or other nearby recreation opportunities.

The Conservation Commission should draw up plans now for the about-to-be developed southeast part of town, which is currently zoned for industrial uses. Small parks would be desired amenities for the office and manufacturing employees of the area and connections/trails among the sites are essential especially with the Wilmington Town Forest.

CITIZEN SURVEY – 2008

In 2008, a group at Merrimack College headed by Russell K. Mayer Ph.D., developed a survey designed to give residents an opportunity to comment on their priorities and attitudes regarding life in Andover. (*The 2008 Andover Citizens Survey: Preliminary Report*, submitted by Russell K. Mayer Ph.D., director of The Center for Public Opinion Research at Merrimack College, with Brittny De Matteo, Jennifer Rando, Michael Salvucci, Jenna Ware and Molly Warren. November 19, 2008.)

The survey was sent to 1,200 randomly selected residents with 672 returned (56%). The error rate is 5 % plus or minus. The results from sections of the survey that were designed to measure citizen opinions regarding open space and recreation are summarized below:

Table 7-1. 2008 Citizen Survey Results

Survey Topics	Responses ranked “Excellent”	Percentage ranked “Good”	Total ranked either “Excellent” or “Good”
Community Characteristics			
Recreational opportunities	17%	54%	71%
Open space and conservation lands	37%	51%	88%
Importance In Moving To/Staying In Andover			
Open space/land conservation	20%	42%	62%
Recreational opportunities	16%	39%	55%
Town Services			
Land acquisition/wetland protection	27%	55%	82%
Recreation programs/classes	30%	57%	87%

Therefore more than 3/4ths agreed that open space and recreational opportunities in town are important. More than half agreed that these amenities are valuable when moving to or staying in the town and more than 4/5ths are confident that the land acquisition and wetland protection program is proceeding well. There is also widespread approval of the recreation opportunities in town.

PUBLIC FORUM - 2009

Sponsored by the Conservation Commission and the League of Women Voters of Andover/North Andover, April 23, 2009 at Memorial Hall Library, Andover.

After an introduction by Stefani Goldshein, president of the League and a broad overview by Don Cooper, chair of the Conservation Commission, including the merits of acquiring and protecting open space, the participants broke into small groups to consider:

1. What do you like about Andover's open spaces and recreation sites?
2. What would you suggest for improvements and goals for the future?

SUMMARY OF KEY POINTS: Here are the main conclusions and priorities that came out of the forum; more detailed discussion follows:

- **Praise for town policy on open space and recreational decisions, and appreciation for forty years of successful effort to manage land acquisition**
- **Support for establishing a Riverwalk** along the Shawheen River in Andover with links to neighboring towns, including discussion of bike paths, access for people with disabilities, canoe launch sites, camping areas and educational opportunities.
- **Talk to developers early** to ameliorate problems and to discuss parcels to be permanently protected. The interdepartmental review (IDR) process works well.
- **Publicly identify “parcels of interest”** for future purchase and begin conversation with landowners now
- **Create opportunities for dialogue** before open space land is sold for development. Work collaboratively with other land trusts to protect open space, including the sizable Chapter 61 holdings in town, now more than 1,300 acres.
- **Hire a land manager** to oversee the more than 2,000 acres of open space under the control of the Conservation Commission.
- **Improve signage and public outreach to make open space more accessible**
- **Develop community gardens**
- **Find ways to protect more open space and farms**
- **Consider wildlife in acquisition plans**

There was strong and enthusiastic consensus that town visionaries and town policies via Town Meeting appropriations for more than four decades have been extremely wise. For many years voters at Town Meeting have strongly approved bonding articles to be able to purchase and permanently protect land. This has become town policy through both good and bad years.

Andover did not adopt the Community Preservation Act although many participants hope the opportunity to pass it will return. It did pass Town Meeting 2007, but not at the ballot box in 2008. Participants said there is a “good balance” among schools, the Andover Village Improvement Society (AVIS), the Conservation Commission and The Trustees of Reservations, Harold Parker State Forest and other open space parcels.

DETAILED DISCUSSION POINTS FROM PUBLIC FORUM- 2009

A. Protection of the Merrimack and Shawsheen Rivers for active and passive Recreation

There was strong support for establishing a Riverwalk along the Shawheen River its entire length in Andover with links to neighboring Tewksbury, North Andover and Lawrence. This should include bike paths and access for people with disabilities. The groups discussed canoe launch sites, camping areas and educational opportunities. This is especially important as the proposed new Route 93 interchange will allow public access to areas on both sides of the highway that previously have been inaccessible.

The Merrimack River is almost entirely permanently protected in Andover by AVIS and Conservation Commission lands with the exception of the St. Francis and NGrid sections. The town and AVIS (Deer Jump Reservation) host an extensive local and regional trail network, including the Bay Circuit Trail and the Merrimack River Trail, known as the Pentucket trail. These trails utilize temporary permissions from the National Grid and St. Francis Seminary, which need to be made permanent.

The issue of destruction of dams was discussed. The Merrimack and Shawsheen Rivers have a series of historic dams and there are ongoing discussions and will be studies about whether to dismantle any of them.

B. Planning for the future

There was strong feeling that Conservation Committee should be talking to developers before projects are before the boards in order to ameliorate problems and to discuss parcels to be permanently protected. There was also input that the interdepartmental review (IDR) with developers and building-related departments before going before town boards for approvals works well.

Several participants urged the Conservation Commission to keep a list and to publicly identify “parcels of interest” they would like to purchase and to begin conversation with landowners about their land now. They recommended an ongoing dialogue before open space land is sold for development. This includes the sizable Chapter 61 holdings in town, now more than 1,300 acres. This might involve partnering with other groups such as AVIS or Trustees or others to collaborate to purchase unprotected open space.

One participant expressed concern about the lack of town control on open land being turned into 40B developments.

Another asked that the Conservation Commission work more closely with Zoning Board of Appeals and Andover Housing Authority.

C. Land Management issues

Andover needs a land manager to oversee the more than 2000 acres of open space under the control of the Conservation Commission. AVIS has a volunteer committee that is very active maintaining trails and cleanups with a warden system. Conservation Commission has a system of volunteer overseers for its many reservations. There was interest in maintaining and managing the forested properties in particular. There is a high rate of volunteerism in this town.

D. Education

- There is a strong need for more information about the larger Conservation Commission reservations in particular, their features and unique destinations within, and public education about the inventory of all the parcels that the town owns.
- Others discussed homeowners who are appropriating Conservation Commission land as their own, possibly due to lack of information.
- More and better signage is needed. Neighbors need to know about abutting town-owned parcels and not to feel they are walking on private property. Open space needs to be inviting. Fences and signage will help here.
- There were strong advocates for a newsletter, website and cable TV programs and other ways to educate townspeople about wildlife and town preservation issues and the features of the reservations. A model is the AVIS website.
- Others spoke about making the town's color-coded open space and recreation map visible in places where people gather: the library, town clerk's office, planning offices and appropriate public meetings.

E. Community gardens

There is very strong support for community gardens at this time for economic, nutritional and sustainable reasons. The Conservation Commission has set up a community garden task force to initiate and manage several neighborhood community gardens this growing season. The group is investigating school gardens, a garden on the Andover High School land in conjunction with an environmental course, and a garden for senior and people with disabilities where appropriate on a town site as soon as possible. A MA-certified Master Gardener is advising the task force.

In addition, the Andover Historical Society is sponsoring a weekly farmers market on its grounds for the second year.

F. More open space and farms

Participants desired more open space and more farms- forty years ago there were more

than a dozen farms; now there are less than a handful of working farms. Others suggested the downtown area needs more green space.

G. Wildlife

There are abundant wildlife corridors in town; however beaver management is a problem. It is estimated that there are more than 200 beaver in Andover and water levels are rising, threatening septic systems, trails through reservations and backyards.

H. Trail system

There is strong approval of the current and always increasing trail system throughout town. One hiker advocated that the old railroad beds be incorporated into the trail system.

I. Playing fields

There is a need for more fields as population increases. There will be new sports fields on the former Reichhold land and Town Meeting 2009 authorized construction of playing fields on the Blanchard Street land purchased for that purpose in 2008. Multi-use parks like the Ipswich River Park in North Reading were discussed as a model for development of the Reichhold parcels along the Shawsheen River, which will be used for both passive recreation and playing fields. There are many opportunities for sports fields too in the southern area of town.

J. Mountain biking

There is a strong and organized interest in on-road and off-road biking amenities as evidenced by *Appendix L*, a report submitted by a newly formed bike advocacy citizens committee.

Overall, the preservation of open space for both passive and active recreation was found to be a clear and strong priority of the forum participants.

OPEN SPACE & RECREATION PLAN “GREEN” SURVEY RESULTS

In addition to the forum sponsored by the League of Women Voters of Andover/North Andover and the Andover Conservation Commission, the task force distributed hundreds of Open Space and Recreation Plan surveys on bright green paper.

The ranking system is 4 = very important, 3 = important, 2 = less important and 1 = not important indicating your/your family’s priorities for using current open space and for future open space acquisition.

For the purpose of this analysis, items that earned 3s and 4s were counted for approval

Keeping Andover green:

- Land that abuts or connects dedicated open space: more than 95%
- Parcels that maintain Andover’s visible “green” character: more than 95%
- Riverwalks more than 95% approval, more 3’s than 4s
- Picnic areas: less than 25% approval
- Open space buffers between highways and community: 90% approval

Historic, Architectural and Cultural Resources:

- Property that enhances other community resources: more than 95% approval
- Buildings/places of historic or architectural importance: more than 95% approval

Recreation:

- Sports fields (baseball, football, soccer, etc.): 90%
- Tennis courts: 30%
- Camping (scouts, community camping): 85%
- Hiking, walking trails, XC skiing, snow shoeing, horseback riding: more than 95% with almost all 4s
- Trails for mountain biking: 45% approval
- Paved bike and walking paths: 85%
- Swimming: 50%
- Fishing access: 20%
- Boating access: 15%
- Playgrounds: 90% more 3s than 4s

Agriculture:

- Dedicated farmland/agricultural land: 90%, more 3s than 4
- Community gardens: 92%
- Community Supported Agriculture (CSA): 65%

Natural Resource Protection:

- Water Protection Overlay District (drinking water supply): 99% support- all 4s
- Wetlands: 95%, mostly 4s
- Wildlife habitat: 90%, mixed 3s and 4s
- Flood control: 90%, more 4s than 3s
- Land adjacent to rivers and streams: 95%

Community Paths/Safe Ways to Walk to School:

- Paths to interconnect adjacent neighborhoods: 95%

Comments:

Need a list of town-owned open space parcels.

Build multi-purpose parks. Protect riverbanks for recreation.

Access to trails and Conservation Commission land should be marked well so trails can be found and abutters do not treat the land as their own.

Save Ballardvale dam to protect wetlands and the resources along the Shawsheen

Protection of open space is a “Great Job!”

Problem with the siting of 40Bs for affordable housing and the loss of open space

Ballardvale Historic District-:

1. Improvements to Ballardvale Playground (See draft of Master Plan)
2. Improvements to Ballardvale Green, 173 Andover St. (See draft of Master Plan)
3. Development of town-owned parcel 25 Tewksbury St. as the Ruth Sharpe Park
4. More access to the river for boating

More green space in the downtown area

“Keep Andover green.”

Look into the Al Gore Foundation for grant money to purchase open space.

Need professional planning for the management of the extensive town-owned open space.

Be persistent; keep the issue [of funds to purchase open space] before the voters.

No more houses. Let land values go up.

More walkways. Create town amenities, places to build community, gardens, open spaces, farms and connect them.

VISION 21 A VISION FOR ANDOVER FINAL DRAFT, JULY 2004

This is a well-crafted statement of town values and needs with extensive public input. It includes the results of the Town Meeting 2003 survey done by the Cecil Group. Open space is a “crucial natural resource” and there is a strong mandate to continue to acquire and protect open space. This document is found in *Appendix N*.

C. MANAGEMENT NEEDS, POTENTIAL CHANGE OF USE

1. Maintenance and Management of Town Land

It is crucial that the Conservation Commission set aside time to discuss land management and to reach consensus about the management of the more than 2,200 acres under its control.

Accomplished since Open Space Plan 2001

- a. Robert Decelle, Special Projects Manager for the Conservation Commission, has updated the *Guidelines for Overseers* and circulated to all. He has written regulations for family camping. He and Conservation Overseer Andy Menezes have recently developed several camping areas and enhanced Serio's Grove for public use. Mr. Decelle guides Eagle Scout projects and work parties, and puts up extensive signage.
- a. Commissioner Gail Ralston has encouraged Overseer activity by holding educational meetings of Overseers with the Conservation Commission, and sending out reports to them. Ms. Ralston hopes to establish in the near future a Conservation Commission e-mail newsletter to maintain contact with the Overseers and to increase public awareness of Commission activities.
- b. Mr. Decelle and the Commissioners have encouraged volunteer efforts for maintenance of reservations including clearing nature trails and building boardwalks, fire pits, tables and other amenities for camping.
- c. Mr. Decelle has also encouraged the Commissioners to support "the adoption" of major reservations by such groups as scouts, churches and other civic organizations in exchange for continued stewardship and an opening to the public for a yearly event to celebrate the wonders of "their reservation."

Recommended Options:

- a. The Conservation Commission lands, should develop a profile of town-protected reservations and educate the public about them. A model is AVIS's and The Andover Trails Committee's trail guide.
- b. The Commission must develop and recommend proper land management protective policies and plans for its reservations as well as special requirements for individual parcels.
- c. The Conservation Commission should promote the role and activities of the existing Overseer network and appoint new overseers and train them.
- d. When new acquisitions occur; the Commission should immediately appoint new Overseers for them and post signs.

- e. The town should fund a land manager to oversee and manage the maintenance and development for passive recreation the more than 2,200 acres of Conservation Commission holdings when budget considerations permit. In the meantime (and even thereafter) the importance of engaging volunteers in land management activities must be a high priority and is a traditional feature of the Andover community.
- f. Well-publicized annual town-wide clean-up on Earth Day, which includes all town-owned open space lands, should be continued.
- g. Encourage beautification. Good examples of success include the clean-up and landscaping of Rogers Dell organized by Louise Van Everen, the installation of barrels of flowers in the central business district organized by local merchants and garden clubs, and the perennial garden created by Andover residents at Wood Park to commemorate the town's 350th anniversary.
- h. The Commission should encourage the continued use of the volunteer Andover trails Committee to establish new trails and to maintain existing trails on town land as well as to coordinate with the trail systems of other landowners.

2. Privately Owned Land

Almost 1,000 acres of Andover's reserved open space are in private ownership, and thus subject to change of ownership and possible development. An additional 1,351 acres are in Chapter 61 status and 11 acres are non-Chapter 61A status with almost 90 acres on the west side of Route 93 as *Priority Habitat for Endangered and Rare Species*. As Andover has done in the past, it should be prepared to react to changes in the circumstances of these properties and to take appropriate action to preserve them if feasible.

This means there must be a continuing ability to bond money for acquisition of open space by means of Town Meeting warrant articles as has been the policy and custom for several decades.

Recommended Options:

- a. The Conservation Commission should compile a list of desirable properties to purchase and then educate the public about the types of parcels it is seeking; it should actively and continually work with landowners in considering the future of their parcels.
- b. If any changes in status of Camp Maude Eaton (50 acres) bordering Pomp's Pond is contemplated, the town should acquire it in its entirety.
- c. The town should pursue the 69 acres of unprotected open space at the St. Francis Seminary along the Merrimack River or at least permanently secure the trail area along the river, connecting to the AVIS Deer Jump Trail. AVIS plans to negotiate with NGrid to secure a permanent arrangement for parts of the Deer Jump Trail along the

Merrimack River.

- d. The town should seek the acquisition of any undeveloped parcels now owned by Phillips Academy and not needed by the Academy; this includes more than 100 acres of land, mainly wetlands, on the east side of Route 125.
- e. The town should attempt to secure the Fish Brook frontage and associated wetlands off the Lowell Street/Route 93 apartment complex, by means of acquisition in fee or by Conservation Restrictions (CRs).
- f. The town should acquire Indian Ridge Country Club, should its status change, both for recreation and to protect the headwaters of Fish Brook.

3. Acquire Additional Open Space Regularly

Recommended Options:

Yearly appropriations by Town Meeting for open space funds are required.

- a. It is an Andover value to protect open space. In the recent past, Town Meeting has approved more than \$3.5 million for both specific parcels as well as general funds to be available when properties come on the market. The Commission should be purchasing open space in good and bad economic times. It makes economic sense. The Commission must develop new strategies and tactics for acquisition of open space.
- b. Gifts: The town has received a number of gifts of land and of conservation restrictions in recent years. Many of the gifts are the "green areas" of cluster subdivisions, which according to local bylaw must be dedicated for conservation purposes to the town, to a private land preservation group such as AVIS, or to a neighborhood association organized for the purpose.
- c. Government Funds: The town will continue to seek out and apply for funds from state and federal programs and departments to help with acquisition costs. In the past, Andover frequently received self-help funds from the state. The last time such funding was received was in 1984. This *Open Space and Recreation Plan 2009* is being done to enable Andover to apply for state and other grants to purchase open space and recreation sites.
- d. Private Funding: AVIS will continue to pursue very much the same objectives of open space preservation as the Conservation Commission. Its funds are limited, but it enjoys the support and confidence of the townspeople, so that it is likely to be successful in securing more open land by gift or purchase.

Collaborate with land trusts

a. In addition to the open space preservation efforts of the Conservation Commission, the town should encourage the active use of land trusts whose primary objective is the acquisition of open space to fulfill the goals of this plan, such as AVIS, the Essex County Greenbelt Association, the Trust for Public Lands, and the Trustees of Reservations. Collaborations among organizations work well.

b. There is a need for collaborations among organizations that: a) can proactively seek out properties for either acquisition or protection through easements, and b) have a lot of flexibility in its funding means and disposition of properties. Examples of flexibility include the use of options, the ability to carve out smaller pieces from large parcels to fund the overall acquisition, and the ability to use lands for active recreation as well the traditional passive recreation uses. These trusts would not necessarily have to be the long-term owners of the properties (in fact the existing organizations may be better at filling that role). The real purpose would be facilitating the acquisition of properties. The Conservation Commission is precluded from that role because of the constraints of the procurement act.

Community Preservation Act

Although defeated at the ballot box in 2008 after passing Town Meeting 2007, the Community Preservation Act still has strong support of many townspeople. There may an opportunity to pass it when economic times improve, especially because townspeople see the extensive purchases of open space, sports sites, affordable housing and preservation of historic buildings that our neighboring towns have done with matching state aid.

SECTION 8 – GOALS AND OBJECTIVES

The following goals and objectives build on the inventories of lands, both public and private, in Section 5, a broad statement of open space and recreation goals in Section 6 and the analyses of community needs for resource protection, community and management needs in Section 7.

The sources are the professional survey, *The 2008 Andover Citizens Survey: Preliminary Report*, the public forum on April 23, 2009 a partnership between the Conservation Commission and the League of Women Voters of Andover/North Andover, extensive interviews with town leaders and experts, and results of widely distributed surveys.

These goals and objectives will be used as a basis for developing the Five-Year Action Plan in Section 9.

A. Protection of the Merrimack and Shawsheen rivers for active and passive recreation

Merrimack River: the town or AVIS should acquire permanent protection of the Deer Jump Trail that goes through the St. Francis land and the NGrid land along the Merrimack River.

Shawsheen River: the town or AVIS or other nonprofit organizations should seek to acquire in fee or protect with permanent Conservation Restrictions all the riverfront parcels from Lawrence to the Tewksbury line.

The town should construct a Riverwalk the entire length of the Shawsheen River from the Lawrence to Tewksbury lines. Portions of this Riverwalk should be accessible to people with disabilities. The town should provide for both active and passive recreation sites, such as playing fields and boat ramps.

The town should purchase or protect with Conservation Restrictions land on the west side of Route 93 to preserve the oxbow Shawsheen riverfront, the wetlands and areas for the *Priority Habitat of Rare Species and Estimated Habitat of Rare Wildlife*.

B. Planning for Open Space for the future

The Conservation Commission should annually seek funds from the town to be able to purchase open space when it becomes available. There is strong support from townspeople.

The Conservation Commission should assess Chapter 61 parcels regarding acting upon “first right of refusal” before they come on the market.

The Conservation Commission should investigate and create a “parcels of interest” list of unprotected open spaces, large and small, with view to purchase or to make Conservation Restrictions, and should dialogue with landowners before parcels come on the market. These include parcels include wetlands, abutting open space and wildlife corridors, property that enhances other community resources plus neighborhood “pocket parks.”

The Conservation Commission should consider partnering with AVIS, Trustees of Reservations or similar groups to collaborate to purchase open space.

C. Land Management

The Conservation Commission should seek to refine the land management and usage plan for the more than 2,000 acres under its control

It is important to strengthen and support the existing Overseer system for town-owned reservations. In addition, the town needs a Land Manager to oversee the hundreds of open space parcels under the control of the Conservation Commission.

D. Education

The town should better educate the public about the parcels under its control so as to encourage access and use.

Maps, fences and more signage are needed to define reservations and to inform the public.

Media use including a website, newsletter and cable TV shows are needed to educate the public about wildlife and town preservation issues, and the features of the reservations.

E. Community Gardens

The town should support the creation of community gardens in several neighborhoods across town, especially for people with disabilities, school children, apartment dwellers, seniors and families.

The town should continue support for the weekly farmers market in season.

F. Trail system

The town should strengthen the extensive trail system throughout town to connect neighborhoods and schools, and to encourage connections to abutting open space when new developments are planned.

Encourage a volunteer network to keep trails clear and safe, and to create more trails.

G. Active Recreation

Establish new boat launch sites on the Merrimack and Shawsheen rivers.

Build a Riverwalk along the Shawsheen River

Maintain current sports fields, create new ones on former Reichhold land and seek new sports fields sites and multiuse parks.

Support on-road and off-road biking for recreation and for commuting to work and school.

Create and execute an open space and recreation plan for the lands on both sides of Route 93 in the southern part of town to be developed as the result of the new intersection.

Include features for accessibility for people with disabilities and both active and passive recreation in multi-use parks. Build a bridge over the Shawsheen and a suspended walkway under the highway.

SECTION 9 – FIVE YEAR ACTION PLAN

Foundation for the Five-Year Action Plan

This section uses as its foundation the goals and objectives from Section 8. It builds upon the inventories of lands, both public and private, in Section 5, a broad statement of open space and recreation goals in Section 6 and the analyses of community needs for resource protection, community and management needs in Section 7. The timeline extends for the next five years.

The town continues to place emphasis on these policies regarding acquiring lands:

1. Protection of all river frontages;
2. Protection of the Fish Brook/Haggetts Pond watershed;
3. Creation of cross-town and inter-town linkages to expand and enhance the town's existing resources;
4. Protection of fragile resources
5. Adding to already existing reservations
6. Close monitoring of large private parcels, semi-public land, and agricultural land, and negotiations with owners in the event of the need to sell the properties.

Sources of input

The sources are the professional survey, *The 2008 Andover Citizens Survey: Preliminary Report*; the public forum on April 23, 2009 sponsored by the Conservation Commission and the League of Women Voters of Andover/North Andover; extensive interviews with town leaders and experts; and analyses of the results of widely distributed public input surveys in spring 2009.

A. GOAL: Protection of the Merrimack and Shawsheen Rivers for active and passive recreation

- Merrimack River: the town or AVIS should acquire permanent protection of the Deer Jump Trail that goes through the St. Francis land and the NGrid land along the Merrimack River.
- Shawsheen River: the town or AVIS or other nonprofit organizations should seek to acquire in fee or protect with permanent Conservation Restrictions all the riverfront parcels from Lawrence to the Tewksbury line.
- The town should construct a Riverwalk the entire length of the Shawsheen River from the Lawrence to Tewksbury lines. Portions of this Riverwalk should be accessible to people with disabilities. The town should provide for both active and passive recreation sites, such as playing fields and boat ramps.

- The town should purchase or protect with Conservation Restrictions land on the west side of Route 93 to preserve the oxbow Shawsheen riverfront, the wetlands and areas for the *Priority Habitat of Rare Species and Estimated Habitat of Rare Wildlife*.

FIVE-YEAR ACTION PLAN

1. Negotiate with NGrid and the Franciscan Fathers to make permanent Conservation Restrictions (CR) or to purchase land in fee along Deer Jump Trail along the Merrimack River.

AVIS, the Board of Selectmen

Timeline: Agreement with NGrid: 2009-2010

Timeline: Agreement with the Franciscan Fathers: 2009-2014

2. The Conservation Commission should actively seek to acquire in fee or by CR or easements all the land along the Shawsheen River from Tewksbury to Lawrence.

Conservation Commission, Planning Board, Board of Selectmen

Timeline: 2009-2014, and into the future

This will require annual approvals at Town Meeting to replenish the Open Space Fund so as to have the ability to acquire when land becomes available.

3. Create a Shawsheen Riverwalk, including the Shawsheen Renaissance Project.

Planning Board, Board of Selectmen, Conservation Commission and other town departments

Timeline: 2009-2014

4. The town should acquire most or all of the land on the west side of Route 93 to protect the riverfront of the Shawsheen, extensive wetlands and habitat for endangered species.

Conservation Commission, Board of Selectmen and Planning Board

Timeline: 2009 –2014 and beyond

B. GOAL: Planning for Open Space for the future

The Conservation Commission should annually seek funds from the town to be able to purchase open space when it becomes available. There is strong support from townspeople.

- The Conservation Commission should assess Chapter 61 parcels regarding acting upon “first right of refusal” before they come on the market.
- The Conservation Commission should investigate and create a “parcels of interest” list of unprotected open spaces, large and small, with view to purchase or to make Conservation Restrictions, and should dialogue with landowners before parcels come on the market. These include parcels include wetlands, abutting open space and wildlife corridors, property that enhances other community resources plus neighborhood “pocket parks.”

- The Conservation Commission should consider partnering with AVIS, Trustees of reservation or similar groups to collaborate to purchase open space.
- Wetlands Protection should be ongoing.

FIVE-YEAR ACTION PLAN

1. The Conservation Commission should annually seek funds for the Conservation Land Fund to be ready to purchase parcels that meet the requirements of the Commission when they come on the market.

Open Space Task Force and Conservation Commission, Board of Selectmen

Timeline: 2009-2014 and beyond

2. The Conservation Commission should investigate and prioritize the purchase of Chapter 61 lands, which is more than 1,300 acres of open space.

Conservation Commission and Open Space Task Force

Timeline: 2009-2010

3. The Conservation Commission should create and prioritize a “parcels of interest list,” to actively seek to acquire open space. The Commission should reach out to owners in advance of parcels coming to the market. This list should be flexible to be ready to purchase desirable parcels when the owners are ready to sell.

Conservation Commission and Open Space Task Force

Timeline: 2009-2011

4. Wetlands Protection: the 2009 Annual Town Meeting approved by two-thirds a zoning bylaw, *The Watershed Protection Overlay District Zoning Amendment* to strengthen the town’s ability to protect its water supply. The town should continue to monitor this bylaw and to propose other protections for the water supply.

Board of Health, Conservation Commission, Town Meeting

Timeline: 2009-2014 and ongoing

5. There is much interest in “pocket parks,” small parks in dense neighborhoods throughout town. Please see the plan for the Ballardvale park and the Ruth Sharpe commemorative site (Ballardvale) in *Appendix B*.

Conservation Commission, Planning Board and Ballardvale Historic Commission

Timeline: 2009-2014

C. GOAL: Land Management

- The Conservation Commission should develop a land management plan for the more than 2,200 acres under its control.

- The Conservation Commission should work to strengthen and support the existing Overseer system for town-owned reservations.
- Andover needs a Land Manager to oversee the hundreds of open space parcels under the control of the Conservation Commission.

FIVE-YEAR ACTION PLAN

1. The Conservation Commission needs to develop a management plan for the town-owned open space. The Management Plan needs to include specific accommodations for use by people with disabilities, especially the reservations to be acquired in the future.

Conservation Commission, Special Projects Manager and Andover Disability Commission

Timeline: 2009-2010

2. The town needs to employ a land manger for the more than 2,200 acres of permanently protected town owned land under the control of the Conservation Commission.

Conservation Commission, Town Manager, Board of Selectmen

Timeline: 2009-20014

D. GOAL: Education

- The town should educate the public about the parcels under its control so as to encourage access and use.
- Maps, fences and more signage are needed to define reservations and to inform the public.
- Media use including a website, newsletter and cable TV shows are needed to educate the public about wildlife and town preservation issues, and the features of the reservations.

FIVE-YEAR ACTION PLAN

1. Several educational sites should be set up to educate the public about town-owned parcels to encourage greater use of the land. These may include a web page on the town website, an electronic newsletter, educational forums, television shows, lists of parcels and their significant features, and other methods of outreach. There should be more publicity of events at the reservations and coordination with such groups as AVIS, Trustees of reservations, Shawsheen River Watershed, and commissions in neighboring towns.

Conservation Commission, town webmaster, reservation overseers, and Andover GPS coordinator

Timeline: 2009-2014

2. The Commission should reach out to civic-action groups such as Scouts, churches that do “days of service,” educational groups, etc. to enlist assistance to create more signage for reservations, put up fences create more trails and more maps so as to make open space inviting and accessible to the public.

Conservation Commission, Special Projects Manager Conservation Commission
Timeline: 2009-2014

E. GOAL: Community gardens

- The town should support the creation of community gardens in several neighborhoods across town, especially for people with disabilities, school children, apartment dwellers, seniors and families.
- The town should continue support for the weekly farmers market in season.

FIVE YEAR ACTION PLAN

1. Under the direction of a Master Gardener, the Conservation Commission has already begun the process of setting up community gardens on town-owned sites. Currently in the planning process is a garden for seniors with accommodations for people with disabilities and an educational garden for high school students. See *Appendix R* for extensive plans on how to create community gardens written by Pam Thornton, Master Gardener. *Senior Center, School Department, School Committee, Commission on Disabilities, Conservation Commission, local garden clubs, Director of Community Gardens, and relevant town departments*

Timeline: 2009-2014

2. The weekly farmers market in season at the Andover Historical Society brings buyers and farmers together for the purpose of nutrition, financial benefit, protection of the environment and prudent use of resources. The town should encourage its continuation with support and publicity.

Andover Historical Society, local farmers and farmers market director

Timeline: ongoing

F. GOAL: Trail system

- The town should strengthen the extensive trail system throughout town to connect neighborhoods and schools, and to encourage connections to abutting open space when new developments are planned.
- Encourage a volunteer network to keep trails clear and safe, and to create more.

FIVE-YEAR ACTION PLAN

1. When new developments are planned, connections among neighborhoods and open space reservations should be encouraged, as has been the policy of the Planning Board. *Planning Board, Andover Trails Committee and AVIS*

Timeline: 2009-2014

2. Please see the extensive trail plan and recommendations for the future in *Appendix F*, and SECTION 3, 1. Regional Context, including the Bay Circuit Alliance trail network. See also SECTION 7, part 9 Trails for priorities and part 10 for Regional Resources.

Planning Board, Conservation Commission, Andover Trails Committee, Bay Circuit, AVIS, Trustees of Reservations

Timeline: 2009-2014

3. Strengthen the role of the Overseers of the town-owned reservations, the Wardens of the AVIS reservations through education and support. Encourage work parties for trail blazing and maintenance, and explore a policy of “adoption” of some Conservation Commission parcels by designated groups.

Conservation Commission, AVIS, Trustees of Reservations, Shawsheen River Watershed, Overseers and Wardens, Bay Circuit Alliance, trail groups, and the general public

Timeline: 2009-2014

G. GOAL: Active Recreation

- Establish new boat launch sites on the Merrimack and Shawsheen rivers.
- Build a Riverwalk along the Shawsheen River.
- Maintain current sports fields, create new ones on former Reichhold land, and seek new sports field sites and multi-use parks.
- Support on-road and off-road biking for recreation and for commuting to work and school.
- Create and execute an open space and recreation plan for the lands on both sides of Route 93 in the southern part of town to be developed as the result of the new intersection. Include features for accessibility for people with disabilities and both active and passive recreation in multi-use parks. Build a bridge over the Shawsheen and a suspended walkway under the highway.

FIVE YEAR ACTION PLAN

1. The Heffron Right of Way passed Town Meeting 2009 unanimously and the town now has access to its 10-acre parcel on the Merrimack River. Provisions for active sports

amenities, including a boat ramp, should be included in the Capital Improvement Plan or as a Warrant Article for a future Town Meeting.

Conservation Commission, Board of Selectmen

Timeline: 2009-2014

2. Plan for a Riverwalk the entire length of the Shawsheen River in Andover. Continue to purchase in fee or acquire permanent Conservation Restrictions on riverfront parcels. Reach out to landowners of designated parcels. Secure funds on an annual basis for the Open Space Fund to acquire parcels. Fund amenities, particularly in the Shawsheen Renaissance area, to encourage riverfront access and enjoyment.

Planning Board, Conservation Commission, Board of Selectmen, Merrimack Valley Planning Commission, Andover Disability Commission, Andover Trails Committee, League of Women Voters of Andover/North Andover, leaders of town sports teams, Department of Community Services, Bay Circuit Alliance and Shawsheen River Watershed Association

Timeline: 2009-2014 and into the future

3. With the passage of Article 57 at Town Meeting 2009, voters approved \$425,000 as a partial amount for a public/private partnership for the construction of three baseball fields and a soccer field on the Blanchard Road site, which the town purchased in 2007 for \$2,100,000.

Continue to explore similar collaborations to create new sports fields.

Plant and Facilities Director, Board of Selectmen, leaders of sports teams

Timeline: 2009-2014

4. Make improvements to the recreation parcels and buildings under the control of the Department of Community Services as recommended in SECTION 7, Community Needs. A priority list should be created and many of the improvements should be funded through the Capital Improvement Plan process.

Department of Community Services, Board of Selectmen

Timeline: 2009-2014

5. Plan for the expansion of biking, both on-road and off-road. See the working paper by the Andover Bikeway Working Group in Appendix L.

Conservation Commission, Andover Bikeway Working Group

Timeline: 2009-2014

6. Create a detailed action plan for both active and passive recreation in the extensive area to be “unlocked on both sides of the highway by the proposed new Route 93 interchange in the southern part of town. For extensive background, see SECTIONS 3, Regional Planning and SECTION 7 2. Shawsheen River Frontage.

Conservation Commission, Conservation Department, Planning Board, Planning Department, Commission of Disabilities, Department of Community Services, Board of Selectmen, Lowell Junction Task Force, AVIS, Pond Association, League of Women Voters of Andover/North Andover, Ballardvale Historic Commission and others

Timeline: 2009-2014 and into the future

SECTION 11 – REFERENCES

A. DOCUMENTS

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- Andover Bike Report
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- Andover Historic Building Survey, Andover Historical Society, begun in 1975, ongoing
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- Master Plan for the Town of Andover – 1992, Goals and Objectives
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Massachusetts DEP, October, 2003
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Topography, Andover, Massachusetts, prepared for Andover Department of Community
Development & Planning, Rebecca C. Fee, 1982
Vision for the Town of Andover (Appendix N), Andover Vision 21 Committee, July,
2004

B. EXPERTS

Anne L. Berthold, Assessor's Office
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Malinda S. Blustain, Director, Robert S. Peabody Museum of Archeology
Thomas G. Carbone, Director, Public Health
Lawrence J. Casey, member, Andover Bikeway Working Group
Thomas E. Cone, III, Ornithologist; Biology Teacher, Phillips Academy
Justin J. Coppola, Sr., Andover Disability Commission
Don E. Dager, Field Lister, Assessor's Office
Robert H. Decelle, Jr., Special Projects Manager, Conservation Commission
Laura J. DeGroot, Andover GPS Coordinator
Diane R. Derby, Vice Chair, Ballardvale Historic District Commission
Dennis A. DiZoglio, Executive Director, Merrimack Valley Planning Commission
Mary L. Donohue, Director, Department of Community Services
Dennis F. Forgue, member, School Committee
Karen M. Herman, Andover Preservation Commission
Christian C. Huntress, Chair, Andover I-93 Interchange Task Force
Paul T. Materazzo, Director, Planning Department
Jane F. Melia, Clerk, Assessor's Office
Susan E. Moore, Senior Assessor
Nancy S. Mulvey, Co-Chair, Andover Council on Aging
Kerry P. O'Kelly, member, Andover I-93 Interchange Task Force
John A. "Jack" Petkus, Director, Public Works
Joseph R. Piantidosi, Director, Plant and Facilities
Gail L. Ralston, Conservation Commission
Albert R. Retelle, Ornithologist
Lisa L. Schwarz, Senior Planner

Frederick E. Snell, President, Andover Village Improvement Society (AVIS)
Susan G. Stott, Open Space Task Force
Pamela J. Thornton, Master Gardener
Stefani M. Traina Goldshein, President,
League of Women Voters of Andover/North Andover
Katherine D. Urquhart, Director, Andover Senior Center
Todd Wacome, Fieldstone Meadows Development Corporation

C. WEBSITES

Andover, Town, www.andoverma.gov
Andover Bike Trails Committee, www.andoverbike.org **** this doesn't seem to work
Andover Historical Society, www.andoverhistorical.org
Andover Preservation Commission, www.mhl.org/historicpreservation/commission
Andover Trails Committee, www.andovertrails.org
Andover Village Improvement Society (AVIS), www.avisandover.org
Appalachian Mountain Club (AMC), www.amcboston.org/andover
Bay Circuit Alliance, www.baycircuit.org
Community Preservation Act, www.communitypreservation.org
Conservation Commission Camping Program, www.campconservation@live.com
EOEEA, www.state.ma.us/envir
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www.state.ma.us/dep/cleanup/sites
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Phillips Academy, www.andover.edu
Robert S. Peabody Museum of Archeology, www.andover.edu/rspeabody/home
Shawsheen Renaissance Project, www.beautifulshawsheen.com
Shawsheen River Watershed Association (SWRA), www.shawsheen.org
Trustees of Reservations, www.thetrustees.org
YMCA Andover, www.mvymca.org