

CHAPTER 7 NATURAL, HISTORICAL AND CULTURAL RESOURCES

7.1 INTRODUCTION

The Town of Reading contains a rich stock of natural, historic and cultural resources that contribute to the community's character, health, and quality of life. Preservation and enhancement of these resources is critical to the community.

Reading's natural resources include clean air, potable water, peace and quiet, tillable soil, native plant communities, diverse wildlife including rare and endangered species, streams, rivers, and wetlands. Public drinking water comes from an extensive aquifer in the northwestern quadrant of Town. Headwater streams in Reading such as Walkers Brook and Bare Meadow Brook contribute to the Aberjona, Mystic, Saugus and Ipswich Rivers. A summary of the Town's open space and natural resources can be found in Table 8.1. These areas are protected from development and most of them are open for public recreation.

There are also several large tracts of undeveloped land in Reading under private ownership, including a golf club, a military camp, a rifle club, and a private school campus. Much of the remaining undeveloped land is wetland, but significant upland areas remain vulnerable to development. Reading's last two active farms have recently been lost to development. A detailed inventory of land and natural resources may be found in the 2001 Open Space and Recreation Plan in the Conservation office. Hydrogeological studies of Reading's aquifers are maintained by the Water and Sewer Division of the Town's Public Works Department. The Town's Conservation office also maintains inventories of plants and animals, maps of vernal pools and endangered species habitat, and maps showing soils, surficial geology, bedrock geology, wetlands, surface waters, and floodplains.

Historically, Reading has a rich background dating back to the first settlement in 1639. At that time the settlement included the current towns of Wakefield (1st parish) and North Reading (2nd parish). In 1769 the Town of Reading was set off as the 3rd parish and kept the name Reading. The first meetinghouse was built on what is now known as the common and established the political and religious center of Town. In 1806 the Andover/Medford Turnpike was built through the center of Town and that was the beginning of the conversion of the residential buildings to the commercial development in the 'square'. In the years that followed the residential buildings in the square were gradually converted or replaced with commercial development. The Railroad, introduced in 1845, played a role in the extension of commercial development down Haven Street. This had been a primarily residential street and slowly the residences were replaced with

business structures. With the railroad came a large population of businessmen who commuted to Boston. Such traffic generated the building of Reading Highland Station at the foot of Mineral St and an engine house at the site of Tannerville. Since the 1890's Reading has maintained its own electric and water utilities.

Reading has a predominately residential character today, but in the past it had a manufacturing presence. Shoemaking, cabinets, clocks, neckties, organ pipes, brushes, book publishing, stoves and an automobile fabric mill, all were part of the economic environment of Reading. Those industries have all disappeared, replaced by one primary retail/commercial complex located on the former municipal landfill and adjacent property near I-95. Currently, several large residential housing units are under construction, once again changing the character of the Town. The downtown area has seen the demolition of older residences, offices and businesses, with new construction taking its place, thereby changing the appearance of the Town Center.

To mitigate the impacts of this trend the Town has had an active Historical Commission since 1978. The Commission's main purpose is to identify and record the Town's historic assets to develop and implement a program for their preservation. Along with a consultant, the Historic Commission compiled an 'Historical and Architectural Inventory' of significant structures in Reading. The inventory includes about 270 properties, 90 of which are on the National Register of Historic Places. In 2003 the Reading Historical Commission updated this inventory, formatted it for computer use and had it reprinted.

The recent initiative by the Historical Commission to introduce a local historic district on West St. will encourage the maintenance and preservation of architectural elements (as seen from the public way) that contribute to the character of a neighborhood and the community at large. As part of this effort in 2005 a Carriage House/Barn/Stable Bylaw was voted in at the Annual Town Meeting. This bylaw encourages the reuse of carriage houses or barns that were built before 1910, while maintaining their historic value.

In 1994 the Historical Commission, along with the 350th Book Committee, compiled and published A Pictorial History of Reading - At Wood End. This book describes the Town's rich history with photographs, maps and narrative. The Commission also established a repository in the Town Hall for the extensive collection of Reading photos and documents. A portion of this collection is the 'Bishop Collection' which consists of a life time of collecting Town photos and information by C. Nelson and Eleanor C. Bishop

Cultural resources of all kinds are available to the residents of Reading. The Town boasts its own symphony orchestra, The Reading Symphony Orchestra, founded in 1931, and Reading Civic Band. Community theatre also thrives with two community theatre groups. The Quannapowit Players use the converted Chestnut Hill Schoolhouse on Hopkins Street as their theatre and the Colonial Chorus uses the Old Hose House on Main Street as their rehearsal hall. The Reading Art Association was founded in 1959 and continues to support the advancement of art in the community. In addition, Creative Arts for Kids offers instructional programs in the fine and musical arts. The Town is home to the Parker Tavern, a public museum, which is operated and maintained by the Reading Antiquarian Society. This 1694 saltbox home has been restored and is a favorite among area schoolchildren

7.2 ANALYSIS

The Town of Reading has worked diligently in recent years to maintain and improve the Town's natural, cultural and historic resources, with notable progress. Nevertheless, like many Towns in the region, Reading faces new challenges in the next decade. Current concerns include:

Public water supply and the Ipswich River:

The aquifer that maintains the Town wells occupies the northwestern quadrant of the Town and extends into Wilmington, Woburn and North Reading. Sites have been identified in all four towns within the aquifer where hazardous materials have been released and have reached the water table. The Town has sought support of neighboring towns as well as state agencies and elected representatives to require assessment and clean-up of these releases, but the work remains incomplete. Fortunately, most of the releases were far from the wells and the contaminants have not yet reached the aquifer.

Route I-93 runs through the center of the aquifer quite close to several of the Town wells, and Route 129 is also close to one of the wells. A truck full of gasoline overturned on Route I-93 in 1992 quite close to the wellfield. Reading and state officials responded rapidly, as did the company responsible for the truck, and the spill was contained and cleaned up before it reached the nearest well. The clean-up work was expensive and time-consuming. Since that time, there have been other overturned trucks and hazardous material releases in Town, but none so close to the wells. The Town has recently engaged a consultant to conduct a risk analysis and recommend actions the Town can take to minimize the likelihood of losing part of its water supply to such an incident.

The quantity of water in the aquifer is also a concern. Most of the Town wells are located near the Ipswich River, and they draw from the same aquifer that keeps the river flowing during the dry summer months. Several times in recent years, the river has dried up in Reading, and at least part of the cause is drawdown of the water table due to pumping of the wells. The Ipswich River has been identified as one of the most threatened rivers in the country, and the Reading wells are one of several problems identified within its watershed. Reading is trying to address this concern by connecting to the MWRA regional water supply system for use during the summer. Reading's permit application to make this connection is under review by State officials at this time. Reading has also placed limitations on outdoor water use, has conducted public education campaigns, has placed strict limits on impervious cover in the aquifer district, and has supported use of low-flow plumbing fixtures, rain barrels, and other water conservation measures. The Town periodically performs surveys and assessments of the water supply distribution system. Recommendations resulting from these surveys and assessments are implemented under the direction of the Town's Department of Public Works, with capital improvements budgeted through the Town's capital plan.

Noise, light and air pollution

With two interstate highways on its perimeter and major state routes and commuter routes running through the center of Town, Reading bears its share of regional traffic and its accompanying pollution. Under the authority of the Zoning Bylaws, Reading regularly requires proponents of proposed developments to analyze traffic impacts and pay for traffic

improvements in Town. Reading also participates in the review of traffic and other impacts from proposed projects in abutting towns, under the Massachusetts Environmental Policy Act. Reading is participating in the planning process recently undertaken by the Massachusetts Highway Department for future improvements in the I-93/I-95 intersection. The Town remains concerned about other factors impacting its residents. Current Town bylaws regulate light and noise pollution, but these bylaws may need amendment in the future to protect the peace and quiet in residential areas.

FINDING

The quantity of water in the aquifer is also a concern. Most of the Town wells are located near the Ipswich River, and they draw from the same aquifer that keeps the river flowing during the dry summer months. With two interstate highways on its perimeter and major state routes and commuter routes running through the center of Town, Reading bears its share of regional traffic and its accompanying pollution. Older drainage systems in Reading often consist of catch basins and pipes with direct discharges to streams and wetlands. In addition to occasional releases of hazardous materials due to accidents on roadways, Reading has also experienced its share of leaking underground fuel tanks at gas stations, businesses, and residences, along with releases of industrial chemicals.

Stormwater Management

Older drainage systems in Reading often consist of catch basins and pipes with direct discharges to streams and wetlands. These systems provide little detention, recharge, or removal of contaminants. Long-time residents have alleged increases in flood levels in certain parts of Town. They also remember when wetlands were filled and streams were placed in underground pipes to make way for development. With the advent of wetlands protection laws and improvements in subdivision regulations and zoning bylaws, more recent development has been accompanied by significantly better infrastructure to control both the quantity and quality of storm water runoff. All of Reading's drainage systems require annual inspection, cleaning, and repair to function as designed, and older systems could be improved by retrofitting them with more modern detention and pollution treatment devices.

Under the EPA's NPDES Phase 2 requirements, the Town has set forth a comprehensive plan to improve storm water management. The Town has begun to implement the plan and is seeking new funding sources to support the work. Among other things, the Town is seeking Town Meeting approval to create a drainage enterprise fund authorizing a drainage utility fee for property owners.

The Town periodically performs surveys and assessments of stormwater management system. Recommendations resulting from these surveys and assessments are implemented under the direction of the Town's Storm Water Management Committee and Department of Public Works, with maintenance and improvements budgeted through the Town's capital plan.

Wildlife Nuisances

Several animal species that were hunted nearly to extinction in the last century have made a successful comeback, including coyotes, beavers, and turkeys. Deer populations have also expanded in recent years, and some eastern Massachusetts towns have also seen the return of moose and bears. Although these animals do well in suburban habitats, they can become a nuisance at times, partly due to their large size. Deer and mice carry Lyme Disease, which can be transmitted to people through ticks. Racoons and other animals carry rabies. Birds and mosquitos can transmit West Nile Virus and Eastern Equine Encephalitis. Beavers can cause flooding, and coyotes sometimes prey on small cats and dogs. The Town has worked in cooperation with State health and wildlife officials to address problems and to educate the public about effective ways to avoid them.

Hazardous Material Releases

In addition to occasional releases of hazardous materials due to accidents on roadways, Reading has also experienced its share of leaking underground fuel tanks at gas stations, businesses, and residences, along with releases of industrial chemicals. Fire Department and other officials have worked hard to assure that these releases are cleaned up, but much of the authority has been in the hands of the Massachusetts Department of Environmental Protection. Reading recently passed an innovative petroleum storage bylaw that will give the Town more opportunity to inspect facilities that use hazardous materials, and order improvements in containment, handling, and release response where needed. The Town has commenced an inventory of facilities and must now draft and implement regulations to serve the purposes of the bylaw.

Historic

The Historical Commission has played an active role since its creation in 1977. They work diligently to keep the inventory of historic buildings up to date and provide input in the reuse of buildings with historic significance and in new development in the Town. They have been instrumental in the creation and use of the Town's bylaws aimed at historic preservation and the maintenance and enhancement of the Town's character.

Currently the Historical Commission utilizes the Demolition Delay bylaw to protect properties on the Town's inventory of historic buildings. The bylaw enables the RHC to work with owners of properties to be demolished for period of up to six months, with the objective to find alternatives to demolition and encourage reuse. There have been many successful and positive examples of how well this bylaw works. However, a need is seen to expand and strengthen this bylaw in the future as the time period of delay is not sufficient time to complete all that is needed to save some properties.

The Scenic Road Bylaw has also been used successfully and several streets in the Town have been designated as Scenic Ways, thereby protecting the appearance of these historic streets. Currently parts of Mill, South and Walnut Streets are designated but the Town should consider expanding the application of this designation. Possible streets to be considered for designation include Ash, Grove, Franklin and Pearl Streets.

Within the past year, two new bylaws have been passed to help in the preservation and enhancement of historic buildings. The West Street Local Historic district was created and the Carriage House bylaw was enacted. Both of these bylaws should serve to further protect the Town's history.

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Cultural

The Town is fortunate to have so many cultural opportunities for its residents. The numerous resources in Town are predominately privately operated and funded. The Town considers their continued presence to be essential for the residents, and encourages these organizations to continue to seek private funding and donations as they continue their mission of providing cultural opportunities for the residents of Town.

7.3 GOALS AND OBJECTIVES

Conservation

The Town has a strong tradition and record in the area of Conservation and the Conservation Commission and Conservation Administrator perform their mission with consistent effectiveness. However, there is often dispute between developers and the Commission on the exact boundaries of the resource areas. A variety of tools should be available to protect irreplaceable resources that once altered are often permanently undermined.

Goal 1 Enhance and strengthen the Town's Conservation planning and implementation efforts

Objectives:

- A. Promote the preservation and enhancement of Reading's extent of existing uplands and wooded areas and the extent of public accessibility to these areas, particularly in new developments through appropriate amendments to the Zoning By-Laws and Subdivision Regulations and other measures such as impact fees.

- B. Protect, enhance and sustain existing wetlands and floodplains, including long-term maintenance of detention/retention ponds:
- C. Coordinate the use of complementary laws to work in tandem with open-space, resource protection, and amenity programs, such as Scenic and Recreational Rivers Act, Scenic Roads Act, Historic Preservation programs.
- D. Promote public awareness of the importance of natural resources, namely water resources, environmental quality, waste management, and their relationship to development and population pressure

Regional Cooperation

Quite often the most active forces in natural resource preservation operate at the regional and State level. These resources provide technical assistance augmented quite often funding to accomplish local preservation goals, given the recognition that the environment operates with interdependencies that do not operate neatly at Town boundaries.

Goal 2 Promote and support regional cooperation

Objectives:

- A. Ensure open communication between the Town, neighboring communities and regional organizations regarding natural resource and the environment.
- B. Encourage the development of a regional resource-protection plan (Aberjona, Saugus, and Ipswich River water-sheds, Cedar Swamp), and of regional efforts to reduce water, groundwater, and air pollution.
- C. Foster the effectiveness of regional cooperative and consultative organizations, such as the Metropolitan Area Planning Council, the North Suburban Planning Council, the Ipswich River Watershed Association, and the North Suburban Chamber of Commerce.
- D. Work regularly with other units of local government and with appropriate NGOs and State or federal agencies on particular matters of concern such as water supply and aquifer protection regional pollution clean-up and corrective efforts and regional conservation efforts.
- E. Establish new organizations, such as the Advisory Committee for the Cities for Climate Protection Program, for regional cooperation or expand the scope of appropriate existing organizations to address and effectively deal with unmet regional needs and problems.

Public Resources

The Town's water supply has been at risk on several occasions, most notably in the early 1990s when a tanker overturned on I-93, dumping fuel near the Town well fields. With continued

development in the Town and region Reading's aquifer requires even further protection, such as enhancement of regulations to strengthen existing oversight

Goal 3 Ensure that the Town provides an adequate water supply

Objectives:

- A. Protect wellfields and water-recharge areas, and strengthen and monitor the enforcement of the Aquifer Protection Zoning By-Law:
- B. Develop policies and regulations to control soil erosion and urban street runoff into wetlands and streams and develop programs to minimize the use of salt, fertilizer, pesticides, and similar substances that can endanger the environment or water supply:
- C. Promote water conservation:
 - 1. Establish voluntary and/or mandatory limits on water use
 - 2. Change water rates to discourage excessive use
 - 3. Consider a ban of automatic sprinklers
 - 4. Work with large water users to identify and eliminate practices that waste water.
 - 5. Promote landscaping practices that so not require irrigation and that infiltrate clean water on site
- D. Work cooperatively with resources inside and outside the Town, such as the Massachusetts Water Resources Authority, to ensure an adequate water supply.

Environmental Quality

Recent, large scale development such as the Walkers Brook Crossing project have escalated concerns by abutting neighborhoods regarding the visual and environmental impacts of incompatible uses in close proximity to each other. While Boards and Commissions actively try to mitigate these concerns during the permitting process the existing regulations need to be strengthen so as to provide a consistent standard for both the developer and residential community.

Goal 4 Ensure that the Town maintains an environment free of noise and light pollution, toxic materials and with good air quality

Objectives:

- A. Establish specific by-law standards for noise, light and air pollution.
- B. Develop a Town by-law to screen and control excessive noise.
- C. Control use of local roads by commercial through traffic.
- D. Monitor local air quality and cooperate regionally to reduce air pollutants.

- E. Continue the Town's participation in the Cities for Climate Protection Program or similar to reduce adverse environmental impacts.
- F. Develop policies that address emissions from both stationary (including home fireplaces) and mobile sources that degrade air quality.
- G. Encourage the Massachusetts National Guard and private clubs to develop and implement improved practices and programs which minimize noise from rifle and gunnery ranges.
- H. Encourage a public sector ban and private sector reduction of the inappropriate or harmful use of pesticides, fertilizers and salt; encourage the use of natural resource compatible, biodegradable alternatives.
- I. Encourage the use of non-toxic substitutes for pesticides, herbicides, fertilizers and other toxic materials as phosphorus, Styrofoam, freon and other chlorofluorocarbons, which may degrade the quality of water, soil and atmospheric environments.
- J. Encourage the Town to take the necessary measures to prevent contaminants from entering the Town's stormwater collection system

Sustainability

Recycling has been a Town priority since the last implementation of the Master Plan and recycling programs run by the DPW continue to be well received, with high rates of participation. However, more products enter the consumables stream everyday and these efforts require constant vigilance to be effective.

Goal 5 Reduce the production of solid waste and promote recycling

Objectives:

- A. Support, promote and expand the Town-wide solid waste management and recycling program, including but not limited to composting, source reduction and resource recovery.
- B Encourage the use of biodegradable materials.

Wildlife Habitats

Reading's wildlife habitats face constant pressure from proximity to residential uses and ongoing development. On the positive side Reading has made great strides to permanently protect rare habitats and statutes at the State level have been improved apace. However, residential development from both by-right and Chapter 40B affordable housing mandates imposed by the state have created more opportunities for marginal development into these resource areas.

Goal 6 Preserve and enhance wildlife habitats

Objectives:

- A. Identify and establish wildlife habitat protection areas, including wildlife corridors.
- B. Provide for wildlife habitats/corridors when planning open space.
- C. Allow only low-impact use within the 100-foot buffer zone of any bordering vegetative wetland or Town-designated wildlife habitat.

Cultural Resources

Reading's cultural resources are numerous, diverse and well-utilized. Maintaining them requires a systematic effort given competing uses for properties and uses. The Town has few resources to promote these efforts. Absent funding and staff resources, additional regulations to protect the historical inventory offer an effective way to achieve preservation goals.

Goal 7 Retain and preserve the Town's historic and cultural resources

Objectives:

- A. Maintain and add to the Town's inventory of historical and architecturally significant buildings.
- B. Support and encourage the preservation of historic features in the renovation or reuse of buildings with historic significance.
- C. Support and encourage quality image and long term design of new buildings in Historic districts and downtown.
- D. Preserve the Town's heritage found in historic documents, photos and other artifacts.

Scenic Appreciation

Reading has many intangible qualities that make it a distinctive colonial Town, but many more features of the built landscape provide the community the an essential element of its historical character. The plentiful rock walls, colonial structures, narrow streets, age-old trees and ancient ways all contribute to provide not only aesthetic value, but an important legacy of our unique past.

Goal 8 Retain and strengthen scenic features which enhance and support the natural environment and the character of the community

Objectives:

- A. Increase protections provided by zoning and subdivision regulations trees, stone walls, and other special scenic features and amenities.

- B. Emphasize the Scenic Roads By-Law and encourage its use.
- C. Ensure that transportation improvement programs and project design (including those resulting from the Town-Wide Traffic study) are devised and monitored so as to enhance and not degrade the scenic and visual quality of the Town and the Historic Districts.
- D. Promote regular on-going public and private efforts to clean-up, beautify, and maintain specific locations in the Town, such as traffic islands, pedestrian ways in commercial areas, and railway embankments; and maintain stream banks and wetland edges.
- E. Emphasize the Local Historic District Bylaw and encourage its use. Current Local Historic District includes a section of West Street.
- F. Emphasize the National Historic Districts and encourage their use. Current districts include the Common, a section of Woburn St.

Cultural Activities

The Town does well at making community facilities available to a variety of constituents for cultural activities of all kind. To be certain Reading has an active arts community and the Town seeks to establish ongoing support to a diverse array of activities catering to all its residents. Town resources are limited to support programs but Town facilities are often made available for any community function. Given competing uses and a lack of private facilities the importance of maintaining this support is critical to ongoing needs.

Goal 9 Encourage the availability of a wide variety of cultural activities for residents of the Town and neighboring communities

Objectives:

- A. Encourage the continuation and enhancement of the Town's of cultural organizations through private funding and donations
- B. Facilitate the reuse of existing buildings by cultural organizations

Map 11 EO-418 Locations for Natural Resource Protection

