NATURAL AND CULTURAL RESOURCES

Rural Roots

The area that is now the town of Burlington has historically been agricultural. In the mid-1600s, the town’s area was a portion of a grant known as Charlestown Village. Colonists from the Massachusetts Bay Colony established farmsteads in the hills throughout the area, and the abundant natural resources and topography of the land have been critical for the town’s farming success. Following a few changes in governance, Burlington incorporated as an independent town in 1799. Throughout the industrial revolution, the geography of the town restricted most industrial uses, and the landscape continued to be used primarily for farming. The agricultural nature of the town and its open landscape remained until the 1950s when the network of roadways stimulated new industrial and residential development.

Burlington’s rather recent transition from agricultural community to suburban town means large open spaces exist for recreation and natural resource protection. Lands unsuitable for farming were relatively untouched throughout the town’s history. Most of the agricultural lands, which had been cleared of trees for farming, were eventually sold for residential and commercial development.

Protection of environmentally-sensitive areas did not occur until the mid-1900s. The town’s Conservation Commission was founded in 1966 “for the promotion and development of natural resources and for the protection of watershed resources” and was given responsibility for administering the Massachusetts Wetlands Protection Act in 1972. Today, the Conservation Commission administers the Massachusetts Wetlands Protection Act and associated Bylaws; manages permanently protected Conservation Areas; and promotes environmentally-conscious residential, commercial, and industrial practices.
Resources Today

As Burlington developed and land use changes occurred, its natural environment has been noticeably changed. Agricultural use, urbanization, and development have resulted in alterations to the town’s natural resources. The preservation and enrichment of its remaining resources is critical to maintain wildlife habitat, resource protection, and recreational opportunities for residents and visitors.

Through efforts of the town and local associations, cultural and historical assets continue to be protected. The Town and local historical organizations have worked to preserve a variety of buildings and sites throughout Burlington.

NATURAL RESOURCES: BURLINGTON’S ENVIRONMENT

Burlington’s hilly suburban character is a part of the Boston Basin Ecoregion. The flat areas within its rolling topography were once tilled for the numerous farms throughout the community, but are now mostly suburban developments.

The largest pond within Burlington, Mill Pond Reservoir, is the primary source of the town’s water supply. This off-stream storage pond contains approximately 513 million gallons of water within a surface area of 64 acres. Its water originates in the Shawsheen River, approximately six miles north, with diversions during high flow stages of up to eight million gallons per day. The Massachusetts Department of Environmental Protection’s (MassDEP’s) Source Water Assessment and Protection (SWAP) Report for Mill Pond Reservoir noted that it is moderately susceptible to contamination, based on threats posed by nearby land uses.

Groundwater provides the remainder of the town’s water supply through seven wells. The SWAP Report determined these wells have a relatively high susceptibility rating for contamination. This is due to the high threat land uses within the wells’ water supply protection areas. For example, a small portion of the Middlesex Turnpike and a small portion of a commercial parking lot are within the water supply protection areas for two wells.

Smaller ponds, such as Butterfield Pond, are located along Vine Brook. There are also smaller retention ponds located in developed areas, such as Beacon Village and Seven Springs Apartments.
Burlington is within three watersheds:

- **Shawsheen River Watershed** – At approximately 78 square miles, this watershed is one of the smaller watersheds in the state. Through land generally urban in character, the Shawsheen River flows 25 miles from its headwaters in Bedford to its confluence with the Merrimack River in Lawrence.

- **Ipswich River Watershed** – This watershed encompasses approximately 155 square miles. The Ipswich River begins in the northeast corner of Burlington, flows through a variety of land uses, eventually ending at Plum Island Sound in Ipswich.

- **Mystic River Watershed** – This watershed covers approximately 76 square miles. The headwaters form at the Aberjona River in Reading, and then flow through suburban and urban land before emptying into the Boston Harbor.

Current regulations limit future development, but previous development along these waterways and affiliated wetlands has created flooding and pollution concerns. Within Burlington, inland wetlands, like streams, brooks, swamps and vernal pools, are areas where water is at or just below the surface of the ground. Burlington has 16 vernal pools that have been certified by the Natural Heritage and Endangered Species Program (NHESP), and 31 potential vernal pools. These pools are small, seasonal wetlands that provide important wildlife habitat; they are best known for the amphibians and invertebrate animals that use them to breed.

As noted in Figure 1, there are several areas the Federal Emergency Management Agency (FEMA) has identified within the town as likely to flood during various flood events. Areas along Vine, Sandy, and Long Meadow Brooks, and near Seven Spring Apartments were categorized as Special Flood Hazard Areas (SFHAs), which are areas that will be inundated by a 100-year flood, defined as floods that have a one percent chance of being equaled or exceeded in any given. Areas near the Arboretum development and Mill Pond Reservoir were identified as moderate flood hazard areas, which are between the limits of the base flood and the 500-year flood (0.2 percent annual chance flood).
FIGURE 1: BURLINGTON FEMA FLOOD HAZARD AREAS

Legend
- BURLINGTON
- Major Watersheds
- Hydrographic Features

FEMA National Flood Hazard
- A: 1% Annual Chance of Flooding, No BFE
- AE: 1% Annual Chance of Flooding, BFE Determined
- X: 0.2% Annual Chance of Flooding
The primary habitat areas within Burlington are the Mill Pond Conservation Area, Mary Cummings Park/City of Boston Property, and the Landlocked Forest. These largely forested areas are mostly secondary succession forest, with a few pockets of mature forests.

The few wildlife corridors between habitat areas in Burlington are largely unprotected. Both Mary Cummings Park/City of Boston Property and the Landlocked Forest are, however, adjacent to land protected by Woburn and Lexington, respectively. The power line corridors owned or restricted by Eversource are the most extensive within the town. Though they are not managed for wildlife, they provide a somewhat natural connection between habitat areas in a mostly undeveloped environment.

Burlington is home to two plants, one butterfly, one fish, and one turtle on the Massachusetts Endangered Species Act’s (MESA’s) list of Endangered, Threatened, and Special Concern species. The habitat for the Variable Sedge, an endangered species on the MESA List, has been found along a power line right-of-way between Winn Street and Locust Street. The most recent observation was in 2015. The Lion’s Foot, also an endangered species, is a member of the sunflower family. Though the last sighting in Burlington was in 1906, it was found in 2015 in Woburn, a neighboring city. The Oak Hairstreak, a butterfly species of concern on the MESA List, has inhabited a portion of the Mary Cummings Park/City of Boston Property along the Woburn border. The Bridle Shiner, a species of concern, is a type of small minnow last observed in 2013 in a portion of Vine Brook. The Eastern Box Turtle, also a MESA List species of concern, was last observed in Burlington in 1998.
THE CULTURAL OPPORTUNITIES IN BURLINGTON

Burlington is home to a broad range of cultural and historical resources and amenities. Cultural opportunities within Burlington include historic resources like districts, buildings, and sites, art in a variety of media, such as visual, musical, and performance, and all types of museums. During the Master Plan development, community residents noted they value a variety of cultural resources, such as Concerts on the Common, the Burlington Players, and community celebrations. Many of these resources cross between private, non-profit, and public sectors.

Historical preservation efforts by the Town—also valued by community residents—include the purchase of Marion Tavern/Grandview Farm and the West School. In addition to the Town’s efforts, the citizen-composed Burlington Historical Society, initially incorporated in 1964, works towards the restoration and protection of local historic structures and areas. Burlington has several historic areas that are integral to the overall character of the town, including:

- **Town Common** – The historical and cultural heart of the town encompasses both the Town Common and Simonds Park. Numerous 18\(^{th}\), 19\(^{th}\), and early 20\(^{th}\) century wood frame buildings in a variety of styles are found near this area, including Marion Tavern and the Woburn Second Parish Meeting House.

- **Center School/Burlington Historical Museum** – Built in 1855 and used as the grammar school until 1897, it was turned into and then functioned as, the public library until 1969. Recently restored, it now serves as the Historical Museum and contains many historical artifacts.

- **Francis Wyman House** – Built in 1666 to serve as a garrison house to which farmers in the vicinity could flee in case of Indian attacks, the Francis Wyman House is one of the three oldest homes in Massachusetts. It is listed on the National Register of Historic Places.

- **General John Walker House** – Built in 1780 and owned by General John Walker, one of the people who convinced the General Court in 1799 to allow Burlington to incorporate as a separate town.

- **Isaiah Reed House** – Built in the mid-1700s and purchased by Isaiah Reed in 1850, Reed heirs continue to reside in this historic home. The wood-framed buildings and detached barn are located at the site of a watering station along a street that was used for more than 100 years prior to the American Revolution by farmers travelling to produce markets in Boston.
• **John Wynn House** – Also known as the Hens and Chickens Tavern, this farmstead and Colonial tavern was built in the 1730s. It is Burlington’s only 18th century Georgian Gambrel mansion.

• **Marion Tavern/Grandview Farm** – The original house was built in 1770 and connected to the property next door in 1840, this is Burlington’s only surviving 19th century connected-farm complex. The five main structures are a series of connected houses and barns.

• **Old Burying Ground** – Land given to the Woburn Second Parish (predecessor of Burlington) for use as a burial ground in 1769. With some gravestones dating back to 1736, it contains some of the oldest gravestones in the area. The stone wall that runs the length of the front of the cemetery was funded in part by the estate of Ruth Wilson, who died in 1871.

• **West School** – Built in 1794, this one-room schoolhouse served as one of five schoolhouses until 1898. Originally located where Simonds Park is today, it was moved to its current location in 1839. It was acquired by the Town, and completely restored in the 1990s through the efforts of the Burlington Historical Society.

• **Woburn Second Parish Meeting House** – Built in 1732, and the only place of worship in the town for 206 years. On the National Register of Historic places, it is now occupied by the United Church of Christ.
The Town Common and Simonds Park are home to several cultural events through the year. The Burlington Parks and Recreation Department holds community-building events such as Concerts, Children’s Shows, and Family Movies throughout the summer, and the Winter Carnival. Annual events such as Celebrate Burlington, Truck Day, and the Christmas Tree lighting are also open to the public and held at the Common. Many residents participate in the annual Fourth of July festivities, which include a parade on Cambridge Street from Terry Avenue to the Town Common. All community groups, clubs, and organizations are invited to participate in the parade by marching, entering a float or vehicle, sponsoring, or volunteering.

A variety of community organizations and groups, such as the Burlington Area Chamber of Commerce, the Last Word Toastmasters Club, and the Burlington Quilters Guild host public meetings and events throughout the year. The Burlington Players, an adult, all-volunteer theater group, presents several productions during their performance season. The Burlington Players also run the Children’s Theater Workshop for children in grades 1 through 7, with classes and workshops culminating in a springtime production.

Burlington Cable Access Television (BCAT), a nonprofit television facility formed in 1987, provides community organizations access to equipment to enable the creation of community programming that is unique and locally relevant. Staff also produce BNEWS Weekly, a weekly newscast regarding events and issues of community importance. The BCAT website hosts a community calendar with upcoming and ongoing community events, such as events at the Burlington Public Library or at local businesses.
The Burlington Cultural Council (BCC) supports community-based projects and activities in the arts, humanities, and interpretive sciences. The volunteers who manage the BCC are appointed by the Board of Selectmen to administer public funds allocated by the Massachusetts Cultural Council. Past projects that have received funding include theater and musical productions, school activities, and historical preservation efforts.

Enriching the Town’s Resources

Natural and cultural resources help preserve, protect, and enhance a community’s character and quality of life. The historic and cultural assets tell the story of Burlington, and celebrate the town and what makes it unique. The continuing work of Town staff and citizen volunteers of protecting and preserving the community’s natural resources is evidence of the value residents place on these resources. The participation of residents in the protection and enhancement of cultural resources enables the enhancement of the visual and cultural qualities of the community. The Town could increase funding for open space and historic preservation and protection by adopting the Community Preservation Act.

ENHANCING AND PROTECTING THE NATURAL ENVIRONMENT

Burlington can preserve the integrity of its natural resources while enhancing social and environmental benefits. For example, the town could protect a variety of natural resources by preparing to avoid and mitigate the effects of extreme weather events. The impacts of such events can cause large areas of flooding, overwhelm stormwater management systems, and/or cause wind damage. Local planning can build on the Conservation Commission’s role in protecting wetlands to encourage natural resource protection.

The Conservation Commission could coordinate educating residents about the unique and interesting features of Burlington’s environment. For example, they could inform residents about the town’s natural resources and invasive plants, and best management practices related to invasive plants, such as removal, management, and restoration. The Town could develop an invasive species management plan that identifies priorities and recommendations for best management practices, and conservation permits could include requirements for invasive species management.
To protect mature trees on residential and commercial lots and ensure the adequate replacement of trees with development or redevelopment, the Town could create a *Tree Protection Bylaw* that sets minimum standards for tree replacement and ensures the protection of mature trees whenever possible. To create corridors to connect wildlife habitats, the Town could identify parcels that would create or contribute to these corridors and secure conservation restrictions or prioritize the acquisition of these parcels.

Many properties along wetlands and near waterways were built prior to current regulations that limited development in these areas. This development has created flooding and pollution concerns. The Town could support the use of low impact development (LID), the design and implementation of site-level practices to control stormwater and replicate the natural hydrologic character of the site. For instance, through stormwater regulations that prioritize natural stormwater control and groundwater recharge.

**SUPPORTING A DIVERSE CULTURAL LIFE**

Like natural resources, historic and cultural assets contribute to a community’s character, enhance the quality of life for residents, and create a unique environment for visitors. Various opportunities exist within the town, but they are not always organized or highly visible. Increased advertisement and cooperation with local organizations would spread awareness of the resources available to the public.

The Town could coordinate with local organizations to educate residents about the town’s history and related sites. For example, to celebrate and highlight Burlington’s history, the Town could hire a stagecoach for Burlington Day or other celebrations. In addition, the Heritage Trail, which was developed by the Burlington Historical Commission, could be expanded with the creation of a self-guided tour of key historical routes through town. The Town and historic-related organizations could create awareness of existing historic resources and buildings through advertisements and informational signage. The Town could work with advocates and historic-related organizations to identify further assets for preservation and protection, such as buildings and sites from the 1800s and early 1900s, or sites of Native American heritage.

Local planning can encourage landmark features that reflect elements of the town’s history and character, such as stone walls or hip roofs, by ensuring they are incorporated into future developments and redevelopment. Such features would contribute to local identity.
To identify creative and cultural resources, the Town could work with the BCC to conduct a Cultural Inventory that includes local artists, creative companies, cultural institutions, and non-profit organizations. The Town could create additional opportunities for community and public art through a Utility Box Mural Program or installations of crosswalk murals. Such community projects would engage the community and local artists and create public art at locations throughout the town. The Town and the BCC could work with the Burlington Players to fully understand their needs and assist with securing a permanent location for their operations.

Natural and Cultural Resources Recommendations

NC 1. Protect the town’s clean water through actions and regulations that address both the groundwater and watershed resources. Burlington is dependent on a clean water supply provided through the combination of the Mill Pond Reservoir and wells. The Town should continue to protect and enhance this municipal resource through measures focused on stormwater and groundwater management that would reduce the potential for contamination and provide for reliable supplies. This could be accomplished through coordination of development regulations and infrastructure projects that apply Best Management Practices in regards to water quality protection.

NC 2. Plan for additional resiliency in areas that will likely be affected by flooding resulting from extreme weather and storm events in the future. Many areas in town are located along wetlands and waterways that are subject to flooding; long-term projections suggest that the severity and frequency of flooding may increase over time. Renovations of existing and construction of new infrastructure and development should be designed to anticipate future flood events to limit potential damage to properties, roads, and utilities.
NC 3. Protect and enhance the natural habitats and ecological systems within Burlington.
The Town’s land management regulations and practices should be coordinated to protect and extend natural corridors. Expanded corridors offer increased habitats and conditions that support a diverse, rich ecosystem of plants and wildlife. The Town should coordinate the acquisition and preservation of open space and wildlife corridors that may be preserved or added within existing and new development. As a primary steward of the town’s natural environment, the Town should use the guidance in the Open Space and Recreation Element to distinguish between public open space that is devoted primarily for recreation, and areas that should have limited access and use. Town regulations should guide new development so that it employs landscaping and site design practices that purposefully create new habitats and contribute to a diverse, sustainable natural environment. These measures should be accompanied with information and interpretive programs to support citizen’s understanding and appreciation of Burlington’s exceptional assets.

NC 4. Preserve and interpret the Town’s historic resources as a link to its heritage and as part of the community’s identity.
The town will benefit from the preservation—and celebration—of the historic buildings and places that link the community to the rural and village-centered character that preceded, and stands in contrast with, the more contemporary development of Burlington. In part, this can be accomplished through programs and incentives to retain and restore historic buildings. The Town should also work with the advocates and organizations devoted to the town’s heritage to provide interpretation, information, and programs to convey the value of the past.

NC 5. Actively support the creative economy in Burlington and promote the related contributions of individuals, businesses, and organizations.
The creative economy is composed of those who provide services and products oriented towards the aesthetic and intellectual engagement of their clients. This segment of Burlington’s economy would benefit through Town-supported programs that identify and promote creative businesses and individuals. This should include creating or co-sponsoring projects such as a Cultural Inventory with on-line information and links. This recommendation can be accomplished through pro-active projects or support that might include special website and media outlets, displays, lectures, open houses, forums, and fairs held in the Town’s public buildings and places.
NC 6. Engage the community in a variety of accessible cultural events and programs through imaginative promotions, sponsorship, and support.

The Town should be an active organizer and partner in the cultural life of Burlington. The Town should assemble a Public Arts Plan through a collaborative enterprise that engages arts-oriented organizations such as the Burlington Cultural Council and the Burlington Players. The Plan should set the stage for temporary and permanent public arts projects that are integrated into the design and implementation of public open space, streetscape, and municipal facilities. The Plan should provide a framework for events, information, promotion, and engagement. The Plan should establish the stewardship role and responsibilities within the Town as it determines the quantity, quality, and types of projects that the Town should promote, provide, and fund.

NC 7. Make art a visible dimension of Burlington’s townscape.

The artistic and cultural dimensions of the community should be visibly expressed as part of the townscape of Burlington. Implementing its Public Arts Plan, artistic expressions should punctuate the experience of those moving through Burlington and visiting its civic destinations. The selection and placement should include temporary and seasonal components, as well as permanent installations that are integrated into the Town’s historic interpretations, sidewalks and streetscapes, and public buildings.