

Town of Westborough

Scenery

When the water level is high, the Sudbury/Assabet/Concord (SuAsCo) Reservoir (also known as the “A-1 Impoundment” or “Mill Pond”) at the headwaters of the Assabet in Westborough provides dramatic views of surrounding wooded hills across a large expanse of water. Great blue herons lifting off on enormous wings from their rookeries in the reservoir are a thrilling sight.

From the SuAsCo Reservoir to the wetlands around Route 9, the Assabet is a small private stream, babbling through back yards of suburban homes. Just before the river runs under Route 9, the Westborough Wastewater Treatment Plant discharges into the river. North of Route 9, much of the river is undeveloped and surrounded by dense wetland vegetation with scenic interest.

History

Westborough’s key location has attracted people to its waterways, swamps, and hills since before recorded time. As early as 9,000 years ago, prehistoric people in canoes hollowed out from tree trunks followed the Sudbury and Assabet Rivers to their headwaters in Westborough. Here they discovered abundant fish and game, as well as Westborough quartzite, a stone especially suited for making tools and weapons. According to archaeologist Donna Ingham of Public Archaeology Laboratory (PAL), who conducted a 1999 archaeology survey at the Assabet Headwaters Reservation, the Assabet River most likely was formed by a glacial lake that drained about 7,500 to 6,000 years ago into a stream with bordering wetlands.

Ingram and her archaeological team discovered seven sites upland from the Assabet headwaters and present Mill Pond that dated to the Middle Archaic Period (7500 to 5000 years ago). According to the lithic debris evidence, small hunting groups set up temporary upland work sites to make weapons and tools such as drills, knives, and scrapers, from the local quartzite. The Westborough quartzite geological fault runs to Rhode Island and produces stone that is finely grained, durable, and prone to breaking into predictable patterns.

Late Archaic Period (5,000 to 3,000 years ago) brought more seasonal migrations of people along the banks of the Assabet. In base camps along the river, they hunted deer, small mammals and turtles. The Woodland Period

(from 3000 years ago to the arrival of Europeans) saw the introduction of pottery and corn agriculture, so fertile river valleys proved more attractive than the rocky hills and swamps of Westborough. However, Woodland sites that were inhabited several seasons of the year have been documented in Westborough. These Woodland people may have fished with nets along the banks of the Assabet because plummet and weights for nets have been found in nearby Charlestown Meadow sites. During the Late Woodland Period (950-1500 A.D.), seasonal migrations continued to bring Nipmuc Indians to hunt and fish near Cedar Swamp and Lake Hocomonco.

Since 1974, archaeologists have been conducting digs and identifying major prehistoric sites in Westborough, dating from 9000 to 450 years ago. This archaeological research has been directed by the Westborough Historical Commission in Cedar Swamp, in Charlestown Meadows near the SuAsCo flood plain off Fisher Street, and most recently, in the Assabet Headwaters Reservation near Mill Pond School.

After its incorporation as the Hundredth Town in Massachusetts in 1717, Westborough continued to attract settlers. Soon large farms were carved out and mills were built along the Assabet River, such as the Ward/Whipple corn mill in the first half of the 18th century. The Rider grist and sawmill near the present Nichols Dam was built in 1780 and gave Mill Road its name. This mill, still standing, later became the Parker Mill run by Isaac, Joel and Gardner Parker in the late 1700s.

In colonial times, commercial and industrial development sprouted up along Route 9, then known as the Boston-Worcester Turnpike. Because of the large wetland areas associated with the Assabet, colonial toll-keepers in that area had trouble maintaining a solid and dry surface for their customers¹. Soon after - federal-style houses, such as the Wesson Tavern and the Nathan Fisher House, were built on Route 9 (now listed on the National Historic Register), the influence of the highway withered, due to the arrival of the Boston-Albany Railroad in 1834. The railroad fostered the increased development of the Westborough town center south of Route 9².

Despite the industrial and commercial development of Westborough center and Route 9, the town maintained an agricultural focus with its many dairies and orchards. In the 1930s, when the automobile came into widespread use, Route 9 regained its former role of stimulating development. The boom in population resulting from suburban development (made possible by the

automobile) has, during the past fifty years, taken its toll on farmland and the wetlands of Westborough.

Westborough contains the headwaters of both the Assabet and the Sudbury Rivers, along with broad flood plains and wetlands. In the 1970s, efforts to build in the wetlands created controversy between developers in Westborough and Town boards promoting conservation and down-river flood control.

Recreation

The small size of the Assabet River in Westborough has discouraged most river-related recreation. While plans for a canoe launch and provisions for paddlers have been considered north of Route 9, the potential impact on the ecology of the river makes this undesirable. Canoeing and kayaking have become popular on the SuAsCo Reservoir, especially since many of the stumps left when the reservoir was created have now deteriorated.

The Office of Water Resources of the Department of Environmental Management, which manages the reservoir, is reluctant to make any changes in the condition of the reservoir since it now serves as an important migratory shorebird habitat. The reservoir is a popular fishing pond, with golden shiners, brown bullhead, yellow perch, pumpkinseed, largemouth bass, black crappie, white sucker and white catfish reported. Large ice fishing derbies annually attract fishermen from across the region. Parking space and a boat launch are provided for fishing enthusiasts off Mill Road.

The SuAsCo Reservoir provides a fine recreation area for nature walks. Hiking trails exist or are planned for much of the shoreline of the reservoir, with links to trails on nearby town-owned open space.

The river corridor from the SuAsCo reservoir to the Northborough town line has potential for riverfront or river-related recreation. The planned Westborough Charm Bracelet, a 26-mile walking trail circling the town, will follow the river for much of the distance (see map 3). Westborough is working to connect the trail with trails to Northborough.

Much of the eastern bank of the river has been or will be protected as open space. Especially notable is the large tract of land north of Route 9 that consists of the Massachusetts Department of Fisheries and Wildlife property, the Sudbury Valley Trustees' Cedar Hill and Sawink Farm properties, and land

of the Metropolitan District Commission. This tract of more than 800 acres of contiguous open space provides many opportunities for outdoor recreation.

Biodiversity

Except where the Assabet runs under major thoroughfares, most of the river corridor in Westborough is covered on both sides by hardwood forests or by scrub-shrub and wetland plants.

The SuAsCo Reservoir is maintained by the Massachusetts Department of Fisheries and Wildlife (MDFW) as a migratory shorebird habitat. The trees that were left standing in half of the reservoir when it was inundated now serve birds as nesting sites.

The Assabet Headwaters Reservation, newly acquired by the Town, is a well-known wildlife habitat. The reservation is home to a heron rookery, the only nesting pair of ospreys in central Massachusetts, and many varieties of waterfowl, meadow birds, and woodland birds. It is also habitat for foxes, coyotes, fisher, deer, and many smaller woodland mammals.

The 2000 Biodiversity Protection and Stewardship Plan for the SuAsCo Watershed³ identifies biodiversity areas that are significant on the watershed scale, and makes recommendations for their future protection. Two of the Biodiversity Protection and Stewardship Plan's Biodiversity areas fall within Westborough. They are both partially protected (see map 2).

Crane Swamp, also in Northborough, Marlborough and Southborough, is made up of several important communities: large red maple swamp, successional shrub habitat, three connected water bodies, and extensive agricultural fields. Its wetland and upland habitats connect corridors to other protected areas, and Crane Swamp has been identified by the Massachusetts Natural Heritage and Endangered Species Program (NHESP) as habitat for rare species.

At the headwaters to the Sudbury River, **Cedar Swamp**, which stretches into Hopkinton, is an Atlantic white cedar and red maple swamp. It is an Area of Critical Environmental Concern (ACEC) and has been identified by NHESP as habitat for rare species.

Hydrology

The Town of Westbrough lies within the watersheds of the Assabet (headwaters), Blackstone, and Sudbury Rivers (headwaters). The surface water supply for the town is the Westborough Reservoir (or Sandra Pond). Other water bodies in the town include Lake Chauncy, Lake Hocomocco, and Cedar Swamp. Cedar Swamp, where the Sudbury River begins, is designated an Area of Critical Environmental Concern (ACEC) and comprises 1650 acres. The ACEC overlies two aquifers that supply two public wells for Westborough.

There are three major wetlands in Westborough: Cedar Swamp, Crane Swamp, and the Assabet Swamp. Together all three wetlands cover about 3 square miles. The floodplain of the town generally follows the wetlands and streams. The largest floodplain area is just east of downtown, around Cedar Swamp.

The SuAsCo Mill Pond flood plain, built from 1968 to 1970, covers 380 acres off Mill Road and is designed to withstand a hundred year flood. All the land below an elevation of 314 feet acts as a flood retention area. Excess water from the 4,500-acre drainage area can be stored in this 380-acre pond. The SuAsCo Mill Pond flood plain and dam is operated by the Massachusetts Division of Water Resources.

The George H. Nichols Dam in Westborough, built in 1970, is 20 feet high and 1300 feet wide with a gated concrete riser that controls the river's flow by narrowing the outlet. Not only does the Nichols Dam provide flood control and low-flow augmentation, but it has also created an excellent habitat for water fowl and aquatic animals.

In addition to Westborough Reservoir, the water supply system for the Town of Westborough consists of nine active wells. The wells include Chauncy Lake No.1 and 2, Andrews No. 1 and 2, Wilkinson, Otis, Hopkinton, Morse, and Indian Meadows.

In 2000, Westborough's population was 17,997. The average daily demand for water was 2.63 million gallons per day (mgd), or about 960 million gallons per year (1999 data), with a permitted withdrawal of 2.88 mgd, or 1,050 million gallons per year.

In 2001, the Commonwealth of Massachusetts, contracting with Regional Planning Agencies, provided buildout analyses to each community analyzing

their population projections and future infrastructure needs. The Central Massachusetts Regional Planning Commission (CMRPC) performed Westborough's analysis. CMRPC's buildout analysis projects that Westborough's population will grow to more than 23,000 at full buildout. With this population increase, it is projected that daily water demand will increase to 3.62 mgd (1,320 million gallons per year), as compared to current demand of 2.63 mgd (960 million gallons per year). This will put a strain on the water budget of the Assabet River headwaters and become a critical issue in the future when balancing water needs for future development and water needs to support a healthy river flow.

For several years the Town has worked to mitigate the problem of infiltration/inflow (I/I). A Sewer System Evaluation Survey was completed which continues to guide efforts to reduce the amount of I/I.

The Westborough Wastewater Treatment Facility (WWTF) is the Town of Westborough's only wastewater treatment facility. The WWTF also serves the towns of Shrewsbury and Hopkinton. Over the last three years the facility treated an average of 5.0 – 5.6 mgd (1,825 - 2,007 million gallons per year) or from all three towns, 1.82-1.97 mgd (664 – 720 million gallons per year) from Westborough alone.

The U. S. Department of Agriculture states that 100% of the town has severe soil conditions and is therefore not suited to installation or use of Title 5 wastewater disposal systems. Therefore, any future building in Westborough must rely on the capacity of the town's sewage treatment plant.

Lands in need of protection (see map 4)

1. The Headwaters Area covers 63 acres of woodlands purchased by the Town, but is currently not protected. This area includes a number of archeological sites, and is a major walking area in the town. It is hoped that the town will protect the parcel in the next year.
2. Several parcels on West Main Street and Mill Road have back lands in need of protection. The area is roughly 35 acres of hay fields and woods linked to the Assabet Headwaters Area by Department of Environmental Management land along the shore of the SuAsCo Reservoir. Significant development would require action by three landowners, but efforts should be made to buy the development rights of the parcels.

3. The Country Club and Pazo Property are both Town-owned, and protect much of the east bank of the river. There are plans for a major building for golf course maintenance equipment being constructed in this area. The only current use of this property is a couple of hiking trails through the area. The Town should combine the unused land of the Country Club and the Pazo Property with the conservation area off of Mill Road.

4. Lake Hocomocco, a 29-acre former Superfund Site, is owned by the Town. Most of the pollution from creosote left by telephone pole treatment activity has been cleaned up. The EPA has recommended that this become a conservation area in the future. The Town should work with the EPA to transfer this land to conservation within the next three years.

5. A parcel of more than 50 acres, a mix of dry land and red maple swamp along the Assabet River. At present this land is protected from development by Highway Business Zoning which requires 60 percent of the parcel to be left open. As part of the new Westborough Master Plan, there is a proposal to change this zoning so that the open space of the parcels could be transferred to the Town or a land trust for permanent protection. This proposal should be pursued for this land.

6. A wonderful wet meadow, lying directly north of the sewer treatment plant in Westborough, is protected by its lack of buildable land, but its significant frontage on Route 9 means the parcel will constantly be under threat of development. Investigations should be undertaken on buying this parcel to protect it.

7. The eastern riverfront north of Route 9 is part of Stage Coach Plaza. This area cannot be developed because of zoning defining maximum buildout of a commercial development. This area is directly south of land that is either fully protected, or again protected by wetlands and zoning. This region covers most of the eastern bank of the river from Route 9 to Route 135. Like parcel 5, this land should be acquired for permanent protection if the town changes the Highway Business Zoning.

Recommendations

These recommendations are specific to the Town of Westborough. Please also refer to the general recommendations at the end of the introduction.

Recreational Opportunities

1. Improve existing and create new **walking and biking trails that provide access to the Assabet River**. This includes the Charm Bracelet; ideally this trail would link to others to create a trail system in the Upper Assabet.

Regulatory changes

1. **Site Plan Review** should include the following: automatic sprinkler bans, limitations on water-consumptive landscaping (grass), and reduction of impervious surfaces.
2. **Site Plan Review for riverfront land** should have standard language requiring: invasive plant removal, a minimum 200-foot buffer along the river (or mitigation), consideration of the view from the river (including mitigation for any impact), planting of native plants if restoration is needed, and encouragement of conservation restrictions along the Assabet.
3. Westborough should adopt the new **DEP stormwater regulations** town-wide (not just in wetlands or within 100-200 feet) as a local policy.
4. Westborough should adopt a local **wetlands bylaw**. The bylaw should eliminate development on floodplains and include the ability of the Town to retain staff at the developer's expense. A reference for a good wetlands bylaw is in the appendix.
5. The Town of Westborough should include the Assabet River and emphasize its conservation in all planning documents.
6. Westborough should adopt a **poop-scooping bylaw** to require dog owners to clean up after their pets. Supplying plastic bags and garbage cans in high-traffic areas will promote compliance. The bylaw can be enforced by police officers and animal control. Northborough has a good bylaw.
7. Westborough should adopt the **Community Preservation Act** to raise funds for land preservation.

¹ Zwinger, Ann and Edwin Way Teale. *A Conscious Stillness. Two Naturalists on Thoreau's Rivers*. University of Massachusetts Press, Amherst, Massachusetts. 1984.

² Massachusetts Historical Commission. *MHC Reconnaissance Survey Report*. Unpublished historical summary for each town in Massachusetts, MHC, Boston, Massachusetts. 1980.

³ Clark, Frances. *Biodiversity Protection and Stewardship Plan for the SuAsCo Watershed*. Massachusetts Riverways Program, Massachusetts Watershed Initiative. August 2000.