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Proposed Greenway of Hatfield, Massachusetts - LA497C - Senior Studio

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Town of Hatfield
Greenway Plan

Green Light Designs
"Mitigating Interstate 91"

Hatfield, MA

Produced By:
Jane Alexanderr, Nick Betts, Tanya Chesnell, Julie Goodwin & Sage Sluter
Town of Hatfield Greenway Plan
State of Massachusetts

Prepared for: The Town of Hatfield
By: Jane Alexanderr, Nicholas Betts, Tanya Chesnell, Julie Goodwin, and Sage Sluter,
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Current Hatfield Planning Introduction

Hatfield, Massachusetts is a small town within the Pioneer Valley. With the Connecticut River to the east, Hatfield is spanned with extremely rich agriculture near the river and mountains in West Hatfield. The town is split into two major areas, separated by both geographical features, and major transportation routes that head from the North to the South. Hatfield also is home to the Mill River, a waterway that is revered for its biodiversity. Founded in 1630, Hatfield was once settled by the Native Americans, and it currently hosts many historical buildings and districts of different time periods. Hatfield has many unique and valuable traits that the town is attempting to preserve. The preservation of the current lifestyle of Hatfield residents is a major goal outlined in the Town Master Plan, Open Space and Recreation Plan, and the Town Center Revitalization Plan. These planning documents illustrate the efforts the town is putting forward to planning and preparing for expected increase in development demands.

Hatfield is governed by a board of selectman and conducts its business in a town meeting forum. The current town planning board is comprised of five members who meet monthly. Hatfield is a prime location for further growth but it has been slow to receive the population increase and development impacts that have been facing surrounding towns like Northampton. In some ways, the town of Hatfield is fortunate to not receive the bulk of development in the Pioneer Valley, as current regulation may not be unable to monitor growth. The town must plan accordingly to prevent the consequences of unregulated development. Although the town has received recommendations from the Pioneer Valley Planning Commission in their efforts to gain a stronger planning structure, further help is needed to preserve and protect the unique landscape and character of Hatfield.

As indicated in the Hatfield Master Plan of 2009, town residents value the “rural character, open space, working farms, local schools, and easy access to I-91”. Goals contained within that article reflected these ideals and contained aspirations to preserve town character which involves supporting the schools, maintain a low municipal tax rate, protect natural resources, and maintain working farms. A sense of town center, areas for passive recreation, restoration for plantings, and including cemeteries in a greenway plan are also important goals stressed by the residents of Hatfield. The master plan looked to preserve agriculture in the area by establishing an agricultural advisory commission, this has since been set into motion, that aims to create farmer friendly bylaws and zoning, an agricultural preservation restriction program. The Master Plan also shows a focus on natural resource protection with objectives like creating sensitive natural area zoning overlay districts, better zoning regulations for watersheds and critical areas, storm water management bylaws, making environmental impact analysis requirement, increase the vegetated buffer strips between wetlands and developments, monitor wells with a program, creating greenway corridors along streams, and improving flood plain regulations. Finally, in terms of maintaining and improving cultural character, the Master Plan seeks to better the recreational facilities, increase Hatfield Historical Commission responsibilities and create a historical overlay district.

The Open Space and Recreation Plan of 2003, the first since 1989, was developed through Hatfield’s existing planning process and public participation. The OSRP was created in light of the evolving and changing community needs and circumstances. The OSRP seeks to replace and build on the positive existing conditions of Hatfield and to address the objectives established in the Master Plan but with broader goals focusing on recreational opportunities and natural resources (i.e. wetlands, floodplanes, woodland and the water supply). In addition, the OSRP includes a specific inventory of woodlands, significant hydrology, as well as open space and recreational resources and a five year action plan.
In order to protect the woodland in particular, the OSRP committee suggests to acquire lands specifically where the watersheds are, identify forested lands that are in need of protection, and reach out to property owners of unprotected forested land. They also plan to identify a wildlife corridor from Hatfield to Northampton, specially in Fitzgerald Lake conservation area.

To protect the water supply the town aims to gain land in the running water watershed and as well as establish town wells. In the event that the land cannot be acquired, the OSRP committee to protect the land through conservation efforts. To preserve the wetlands and floodplains, the town is looking to certify potential vernal pools, protect and restore the Hatfield dam, as well as make better use of zoning bylaws and tools.

Finally, in terms of recreation, the town aspires to build on its remarkable existing resources. The OSRP has ambitions to redesign the layout of the Smith Academy school grounds, utilize the schools nearby to design trail systems, increase management of existing places such as Bashan Beach, provide a better way of managing recreational use, create more opportunities for accessing Mill River and Great Pond, find out more about the capped landfill and what is in its future entails, possibly connect the Northampton bike trail on Damon Road to Hatfield and create better access use of the Dike along the Connecticut River.

The Town Center Revitalization Study (2010) was completed by the Pioneer Valley Planning Commission to look at the strengths and weaknesses of the town center. Currently there are 8 properties that are vacant or underutilized which can provide great opportunity for revitalization. Important sites of focus include the Hatfield Mill area, the Town Hall and barn buildings, former School Street School, former Center Street school and grounds, trustees of Smith Academy Park, the Connecticut River Dike Road, Hatfield Elementary School grounds, and the parcel next to the school and the town cemetery.

The main goal addressed in the TCRS is to create a thriving town center. The Study pays specific attention to the history and the scenic features within a walking distance. The TCRS reveals the desire for bike paths and bike safety awareness, highway programs, provision of abandoned railway corridors to trails, the beautification of the center through landscaping, incorporation of archaeological planning and research, management and removal of outdoor advertising, utilize historic transportation facilities, address highway environmental concerns, establish transportation museums, utilize grant money to include affordable housing and to take advantage of the schools nearby in order to reach their design ambitions.

Since 2001, the Hatfield Master Plan has included recommendations for the acquisition of greenway corridors along streams, a process that could help preserve the habitat of Hatfield’s unique aquatic ecosystems and well as provide more connectivity for the movement of wildlife. In addition to preserving the natural resources of Hatfield, a greenway could also preserve the rural community character and historical sites that the town members value most. In the remainder of this report we address the opportunity for a greenway and propose a specific plan for the town.
The overall goal of the Hatfield Greenway Plan is to use the town recommendations and analysis found in the Hatfield Open Space and Recreation Plan of 2008, the Hatfield Master Plan of 2009, and the Town Center Revitalization Study of 2010.

The Hatfield Greenway Plan aims to create and update ecological, recreational, and cultural connections throughout the town. The plan connects current destinations within the town, enhances and improves current destinations, and proposes new destinations and protected land.

The connections of the Hatfield Greenway Plan are united through the incorporation of education, recreation, ecological improvements, and historical or cultural references.
Hatfield is located in western Massachusetts and is part of Hampshire County, roughly 25 miles north of Springfield. The towns surrounding Hatfield include: Northampton, Sunderland, Whately, Williamsburg, and Hadley. (see regional context map) The Connecticut River acts as the town’s boarder to the east and Horse Mountain creates a strong western edge. Due to Hatfield’s proximity to the Connecticut River the eastern portion of the town consists of fertile flood plains that are the remains of Glacial Lake Hitchcock. These ancient glacial remains are also responsible for creating the steeper mountainous terrain to the west. (see local context map)

It is important to look at the existing transportation in Hatfield in order to address how people access the town and move through the town. The first thing to take into consideration is that Hatfield has no forms of public transportation, leaving people with a need for access to a vehicle. However the town does have a number of bike trails and public walkways that encourage a healthy life style. Transportation is a crucial factor when assessing a site because it is the one of the building blocks for how the town can be developed.

Hatfield lies directly off of interstate 91 which divides the town in half on a north-south axis. (see transportation map) Interstate 91 provides quick access from Interstate 90 (MassPike) which runs east-west through the state. The major interstate is Hatfield’s front door connecting it to larger cities such as Northampton, Springfield to the south, and Greenfield to the North. The town also benefits from the publicity of Interstate 91 and its potential to bring visitors into the town center. From a commercial and industrial perspective, Interstate 91 allows for good to be shipped in and out of Hatfield, keeping the agricultural demands high.

There is less than 60 miles of paved roads in the Town of Hatfield. Routes 5 and 10 run north-south through the town providing more direct access to smaller town roads. (see transportation map) The main roads in Hatfield still have a very old-fashioned, small scale feel to them which gives some character to the town's center. Secondary roads branch of the main streets and extend into the farm lands and more secluded areas of the town.

Other forms of transportation in Hatfield include the rail lines which run parallel to Interstate 91. The tracks are used for shipping good and in the future will be accommodating the Amtrak Lines which run from Burlington, Vermont, to Hartford, Connecticut, and continue south.
A thorough analysis of the land uses in Hatfield as well as in the surrounding towns is important in the greenway design process to help fully understand the town’s layout, finding potential natural and man-made corridors to build upon. The land use analysis also begins to lay down a pattern for the potential greenways creating hubs, and focal points of which help the town benefit from other surrounding town’s attributes.

The land use maps (see regional land use map & local land use map) are broken down into seven major categories each of which can be broken down further, into more specific land uses. The seven major categories include:

Forested Area: This category includes all of the woodlands in Hatfield ranging from dense forested areas to forested wetland areas. Also included in this category are wetlands and transitional forested areas.

Open Land: This category includes all of the open space in Hatfield. Open land consists of pastures, meadows, orchards and agricultural fields. The dike that runs along the Connecticut River is also considered an open space.

Commercial: This accounts for all of the commercial business in Hatfield. These businesses include food distribution companies, sales, truck stops along interstate 91, etc.

Recreational: This category is a combination of parks, athletic fields, golf courses, etc.

Residential: This category consists of high-density, medium-density, low-density, and multiple-family residential areas.

Industrial: This category includes major industrial facilities, mining, junkyards, waste disposal stations, etc.

Institutional: This includes all of the school in Hatfield, Broer Elementary and Smith Academy.

Key components to Hatfield’s land use include rich soils of the Connecticut River flood plains and the residential patterns that line the town’s streets. This information gives strong building blocks to work off of when planning for a greenway. Hubs, connections, and destinations all play major roles in a successful greenway design.

The mineral deposits found in the flood plains of the Connecticut River give Hatfield some of the richest and most fertile soils in the entire world, creating excellent opportunities for agriculture. The land Use map shows how the land has been utilized along the western edge of the Connecticut River for agricultural crops. It is important to take this into consideration due to the fact that the agricultural industry is one of Hatfield’s largest employing over 15% of the town’s population. The hard grid lines of the farming lands and the natural curves of the Connecticut River create a harmony of land use, with great potential for a greenway corridor.
The residential areas form a continuous chain through Hatfield, lining the streets and becoming denser towards the town's center. Smaller fragmented residential areas are more abundant towards the western side of Hatfield as the town is divided by Interstate 91. This pattern in residential areas helps decipher where the majority of the people in the town are traveling and how much exposure can be gained from building off of the main roads.

From looking at the local land uses in Hatfield and cross referencing it with development restricted areas and the already developed areas I was able to for a potential development map. The map depicts the potential land in Hatfield that can be developed (see potential developable land map). The yellow areas of the map consist of areas that are protected by wetland regulations, slopes over 25%, and protected river buffers. The red areas of the map account for all of the current development in the town including housing, industrial, and commercial developments. The remaining black areas of the map make up the land that is able to be developed. Along the eastern edge of Hatfield along the Connecticut River is the flood plain that would deter any developers from building in that area.

Economic development in the town has been slowly but steadily growing for the past twenty years. With such a small population of Hatfield residence that actually work in Hatfield, the town is able to keep a steady income while holding a very low unemployment rate of 3%. With a constant demand for produce the agricultural industry has been a huge factor in the stability of Hatfield’s economy.

With the majority of the town’s population community to work outside of Hatfield it shows that there is a need for publicity for any greenway project. The town would greatly benefit if it could attract people to come to the town and spend money, which in turn will help boost their economic status. Hatfield lies in a prime location for outside visitors, right outside of Northampton and only 25 miles from the city of Springfield. With the addition of a greenway and more areas for passive recreation Hatfield has the potential to become a tourist destination.

Another factor that plays a role in Hatfield’s high potential for tourism is its proximity to more developed towns such as Northampton. Interstate 91 is acting as the front door of Hatfield allowing for development to creep in towards the southern portion of the town. (See regional land use map) These infringing developments are the starting point for the town’s future, making it very important to act on establishing some form of greenway plan to eliminate and problems with this future development. The town of Hatfield can use this to their advantage by getting ahead of any “concrete” development and leaving areas for passive recreation.
Regional Land Use Map
Natural Features: Topography, hydrology (streams and wetlands), vegetation, soils, geology, and sensitive natural areas.

Hatfield’s natural features are no doubt one of the town’s greatest assets. The variety of hydrology, topology and vegetation, in particular, are remarkable. Bordering on the East by the swift waters of the major Connecticut River, it was this natural feature that first enticed settlers to the area. With both its opportunity for trade and its periodic flooding, the Connecticut River is to thank for some of the most fertile farmland in America. Today, while the Connecticut River is developing into a hot spot for boating and water recreation, Mill River is a haven for flora and fauna of all kind and is considered the most ecologically diverse waterway in Massachusetts. In addition, Great Pond is prized by its residents for its “pristine” water and good fishing. Horse Mountain and the Berkshire Hills form the Western edge of town. The forested granite peaks of the glacial remnants give way to the exceptionally flat farmland down to the banks of the Connecticut River.

Since 2001, the Hatfield Master Plan has included recommendations for the acquisition of greenway corridors along streams, a process that could help preserve the habitat of Hatfield’s unique aquatic ecosystems and well as provide more connectivity for the movement of animals. The 2008 Master Plan recommended improved GIS capacity of natural resource data layers for use by Town departments for resource protection planning. This collection and consideration of data pertaining is a crucial step in identifying and preserving the special natural characteristics of Hatfield such as the valuable diversity of the Mill River ecosystem. The Town Center Study of 2010 shows Hatfield’s continued focus on sustaining and restoring its unique natural features with its recommendations for historic preservation of farmland, mitigation of highway runoff pollution, as well as maintenance of habitat connectivity.

In this section of the report Hatfield’s natural features will be examined and assessed in depth focusing specifically on topography, geology, soils, hydrology and vegetation. From this assessment, a background of the study area’s natural resources will be established and opportunities and constraints to greenway design will be identified.

Approximately 18,000 years ago, the Laurentide ice sheet began to retreat northward, leaving behind glacial Lake Hitchcock in New England. At it’s maximum extent, the lake covered about 200 miles, including much of where Hatfield is today. Evidence of this early activity still visible in the varves, basalt with striations, deltas and drumlins throughout Western Massachusetts and Hatfield is no exception.

A veritable dictionary of geology, Hatfield has all three rock types (igneous, sedimentary, and metamorphic) are readily found as well as abundant sand, gravel, and clay deposits from the last ice age (Little). Topographically, Hatfield’s enjoys the advantage of its unique geography (see Topography maps), with the majority of the towns development and all of its prized cropland at about 250’ above seal level resting on the flat lake bottom plain of the former Lake Hitchcock. To the west, scenic mountains formed in the early Paleozoic Era elevations reach elevations of 840’ feet above sea level in the Hatfield Hills. To the East, the shoreline of the Connecticut River flows along, its glacial origins evident in the oxbow formation of Great Pond as well as the presence of of red sandstone sedimentary layers, which have been discovered to contain dinosaur footprints along the river (Little).

As if by design, Hatfield’s configuration of natural geological features predisposes it to agriculture. The area where glacial Lake Hitchcock once sat became a level expanse of rich, silty land. The soils fertility is sustained by the frequent flooding of the Connecticut River (see Floodplane map*) and is ranked in the top 10 in the entire world. In a time where family farms are becoming scarce in America (see declining cropland acreage in Table 3 below), it is imperative to protect the cropland in Hatfield as fiercely as any other natural resource because it truly is a crown jewel of agriculture.
In addition to agriculture, Hatfield’s natural geological features have in the past been made profitable in the form of barium sulphate, lead, gravel and sand mines in the rocky West Hatfield. While the Galena barium sulphate mine has been abandoned, mining operations for gravel and sand deposits occur off Mountain and Rocks Roads, as well as between Linseed Road and Routes 5-10, in the western third of the Town. (OSRP)

Table 3. Land Uses in Hatfield 1971 – 1997 (OSRP)

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Acres 1971</th>
<th>Use as % of Total</th>
<th>Acres 1985</th>
<th>Use as % of Total</th>
<th>Acres 1997</th>
<th>Use as % of Total</th>
<th>% Change '71 - '85</th>
<th>% Change '85 - '97</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crop Land</td>
<td>3,754</td>
<td>34.9%</td>
<td>3,717</td>
<td>35%</td>
<td>3,478</td>
<td>32%</td>
<td>-1%</td>
<td>-6%</td>
</tr>
<tr>
<td>Pasture</td>
<td>73</td>
<td>0.7%</td>
<td>84</td>
<td>0.8%</td>
<td>82</td>
<td>0.8</td>
<td>16%</td>
<td>-3%</td>
</tr>
<tr>
<td>Forest</td>
<td>5,043</td>
<td>46.8%</td>
<td>4,868</td>
<td>45%</td>
<td>4,795</td>
<td>45%</td>
<td>-3%</td>
<td>-2%</td>
</tr>
<tr>
<td>Wetland</td>
<td>141</td>
<td>1.3%</td>
<td>141</td>
<td>1.3%</td>
<td>141</td>
<td>1.3%</td>
<td>0%</td>
<td>0%</td>
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Development in Hatfield remains centered between the mountains and the Connecticut river not only due to the challenges of topology but because of the limits posed by its soils. In the rocky West Hatfield’s region, the soils are very thin, generally poorly drained and wet, with shallow bedrock. With the exception of some low-density residential, the limitations these soils pose on intensive development have kept the area undisturbed and forested. This large swath of forest, if continued to be preserved, could serve as a key feature in organizing the feature development of Hatfield and its greenway system.

In direct contrast to the soils of West Hatfield, the soils in the lowlands, particularly the cropland along the Connecticut River, impose their own limits on development. These soils are “subject to occasional flooding and seasonally high water, which could limit their use for private septic systems.” (OSRP) Recently, as the number of small farms dwindle, Hatfield, as part of the Pioneer Valley, has been identified the 19th most threatened agricultural landscape in the Nation. And its not the poorest of the farmland that Hatfield risks losing to development -- as the richer soils are better suited for development. This land, like the forested West Hatfield, has until been kept for the most part free of development until now due of the soil’s limitation (as well as its productivity as cropland). Preserving these prime agricultural areas should be a priority for the town and their integration into the greenway system, perhaps in the form of farmers markets, educational purposes and liens for access to the Connecticut River, could be integral to the shaping of Hatfield into a modern, integrated farming town.

The entire Town of Hatfield is situated in the Connecticut River Watershed. In accordance with the topography, all of the Town’s naturally draining surface water eventually finds its way to the Connecticut River with the exception of two minor watersheds in West Hatfield that drain to Northampton (see Hydrology map). “There are approximately 35 miles of stream and river Channel within the Town boundaries, primarily consisting of the Connecticut River, the Mill River, Running Gutter Brook, Mountain Brook, and Broad Brook.” (OSRP)

The Connecticut River is one of the longest and largest rivers in the American northeast. While the river has supported Hatfield’s economy with its fertile soil for centuries, the construction of the Town wastewater treatment plant offers a new potential for recreation. This development broadens the town’s opportunities for tourism and commerce based on water recreation (See Open Space and Recreation & Connecticut River assessment). The treatment plant will also preserve the river’s 30 plus species of fish by maintaining the quality of their habitat. As a naturally formed greenway, the Connecticut River, its continued maintenance and improvement, is a vital first step in creating a greenway system for Hatfield.
The Mill River spans the entirety of Hatfield. Entering the town's borders on the Northern edge shared with Whately, the watershed meanders to its confluence with the Connecticut River on the Southern tip of town. Varied in its depth, width and speed, the Mill River is a haven for flora and fauna alike. The waterway supports the habitat dozens of endangered species from the freshwater muscle to the wood turtle. These facts have people calling Mill River “one of the most biologically diverse river systems in Massachusetts.” (OSRP) Incorporating the Mill River watershed into the greenway design could not only protect the existing ecosystem but strengthen it by enforcing the corridor for the movement of species to bring even more biodiversity to the river.

In recent years the removal of Hatfield Dam, located on Mill River near its confluence with the Connecticut River (see Hydrology map), has been considered due to the fact that it blocks the movement of fish and other organisms. Complications involving the historic status of the adjacent Old Mill building and the potential impacts on the Mill River have quelled the idea. In terms of natural resources, in the 300 years since its construction, the Mill River has regained its equilibrium and removal of the dam would only serve as a disturbance to the flourishing ecosystem.

Wetlands make up a significant portion of the town's hydrology, and while the percentage stated in the table above list the area as 1.3%, the actually number, as verified by GIS and mapping performed by Paul Davis of the Conservation Commission, is closer to 30%. This discrepancy in data is troubling because the wetlands of play a vital role in the habitat of numerous species of plants and animals. The wetlands span the expanse of Hatfield, dappling the rocky forests in the West, lining the Mill River watershed along I-91, and comprising the ancient oxbow formation of Great Pond. Much of this wetland running along Mill River has natural potential as a corridor but its relationship to the highway must be negotiated if it is to be integrated most successfully into the greenway design.

Vegetation ranges from the thickly forested mountainside of West Hatfield to the cultivated crops of the lowland. The forest patches (see vegetation map) consist of a mix younger coniferous softwoods near development due to clearing as well as older hardwood growth with oaks indicating a shift into a mature forest succession phase. Clearing for development along I-91 has begun to fill back in with its first species of trees but still remains vulnerable to forb and shrub invasive like Staghorn Sumac. The vegetative buffer to both the Mill and Connecticut River is compromised by both residential and agricultural development that have left the buffer too thin in spots for it to be most effective in maintaining the water quality and conducting wildlife. The agricultural lands continue to be productive, yielding crops like strawberries, potatoes, corn and tobacco. But with farming on the decline, in the case that the fields are no longer being cultivated, care must be taken to keep invasive plants from taking over the cleared land.

Without taking steps toward protection, many of the natural resources of Hatfield are in danger of being further damaged or depleted. Due to the topography of the mountains and the confines Connecticut River, Hatfield's opportunity for development is limited in space. This constraint manifests itself in the extention of farmland and residences to the near edge of both the Mill and Connecticut river and the resulting reduction of vegetative buffers. Development also imposes on itself, and is evident in the emerging trend of cropland being sold off for residential development, further depleting the wildlife connectivity and character of Hatfield. Any intervention, including a greenway design, must be done with great sensitivity to the unique environment. Today, planning to solve the current problems and the prevention of future problems is vital in the protection of Hatfield's natural assets.
Floodplain Map Notes:
Zone A - Areas subject to inundation by the 1-percent-annual-chance flood event generally determined using approximate methodologies. Because detailed hydraulic analyses have not been performed, no Base Flood Elevations (BFEs) or flood depths are shown. Mandatory flood insurance purchase requirements and floodplain management standards apply.
Zone AE - Areas subject to inundation by the 1-percent-annual-chance flood event determined by detailed methods. Base Flood Elevations (BFEs) are shown. Mandatory flood insurance purchase requirements and floodplain management standards apply.
Zone X500 - An area inundated by 500-year flooding; an area inundated by 100-year flooding with average depths of less than 1 foot or with drainage areas less than 1 square mile; or an area protected by levees from 100-year flooding.
Open Space and Recreation
By: Tanya Chesnell

The key aspects of Hatfield’s recreation and open space include wide streets, sidewalks that are setback, Connecticut River access points, the dike along the river which provides recreational opportunities, and Mill River recreation. White Rock on Horse Mountain has views of the valley, and there are trails here as well as in the watershed area. The town wants additional trails in these places, as well as at Great Pond. The only current public recreation in Hatfield is owned by the school. There are currently no town parks (Field Trip, 2011). The town of Hatfield only has two playgrounds to offer children (Master Plan, 2009). The town is currently attempting to follow the Open Space and Recreation Plan of 2008. This plan lasts 5 years and focuses on preservation and recreation opportunities.

In eastern Hatfield, open space includes agricultural fields and wooded floodplains. In the west, Hatfield’s open spaces are Horse Mountain, Chestnut Mountain, and the “Rocks” which are forested lands. In the north are farms and fields, while the center of town hosts recreational fields, cemeteries, lawns, and gardens. Near Horse Mountain is the town’s reservoir and forested lands. The town forest not only acts as open space and habitat, but it provides a protection service to the town’s drinking supply (Hatfield Open Space Committee, 2008). (Figure 1. Open Space and Recreation Composite).

One of the largest reasons to preserve Hatfield’s open space from further developments is to retain the rich river soils which are more than perfect for farming. Hatfield is now known for having a “rural character” due to the “agriculture, natural resource protection, open space and recreation, and historic preservation” found in the community (Hatfield Open Space Committee, 2008).

Hatfield is comprised of nearly 30% wetlands, which were mapped by Paul Davis of the Conservation Commission (Hatfield Open Space Committee, 2008). In Hatfield, most of the land zoned for industrial and commercial uses are being utilized or have restrictions due to their proximity to the floodplain, river, or wetlands. One restriction in the town for developing within these zones includes the Rivers Protection Act, which prevents development within 200 feet of the river, or 25 feet in an urban setting. (Figure 1. Open Space and Recreation Composite). The problem lies not with the current laws and restrictions, but with what future development and population changes may do to the current restrictions and laws (Hatfield Open Space Committee, 2008).

Due to the current zoning, residential properties are consuming rich farmland, and industrial and commercial properties are being built nearby the wetlands. The town Master Plan is working on correcting these issues by creating Agricultural Zoning Districts, Water Supply Protection Districts, Stormwater Management Bylaws, Environmental Impact Analysis, and Floodplain Overlay Districts. The creation of a business center district, light industrial park district, and the adoption of Transfer of Development Rights bylaws also aid in the protection of Hatfield’s rural character (Hatfield Open Space Committee, 2008).

The town of Hatfield has lands that qualify under Chapter 61B, which classifies parcels greater than five acres of “natural, wild or open condition, landscape or pasture conditions, or managed forests” as recreational lands (187th General Court of the Commonwealth of Massachusetts). The classification of lands as recreation allows for “hiking, camping, nature study and observation, boating, golfing, non-commercial youth soccer, horseback riding, hunting, fishing, skiing, swimming, picnicking, private non-commercial flying, including hang gliding, archery, target shooting and commercial horseback riding and equine boarding” (187th General Court of the Commonwealth of Massachusetts) The town of Hatfield also has lands that fall under Chapter 61A, which classifies agricultural and horticultural lands of over five acres as agricultural lands with temporary protection and allows tax benefits to property owners (Massachusetts Department of Revenue ). (Figure 1. Open Space and Recreation Composite).
Analysis/Inventory:

Sidewalks in Town: There are sidewalks throughout the center of town, and most children who walk or ride bikes to school are within this town center (Field Trip, 2011). The Square is the two mile sidewalk and roadside walk around the town center. The Square, which is School Street, Prospect Street, Maple Street and Main Street is one of the unique features of the town of Hatfield, and a distinct place of character for the town (Town Center Revitalization Plan, 2010). (Figure 4. Town Center Close-Up Open Space and Recreation Composite). The town is fairly small in size, and the walking distances in the town cover a significant amount of land. This provides an opportunity for walkable trails and routes throughout the entire town. (Figure 7. Walking Radii).

Wide Streets for Biking: In terms of bike safety on streets, broad shoulders on safe and wider streets will remedy this. Fast streets are of the most concern, and many people bicycle through town (Field Trip, 2011). Although Hatfield does not have a recreational destination within the Pioneer Valley, bicyclists from around the Valley enjoy the roads in Hatfield which are flat and lack traffic (Hatfield Open Space Committee, 2008).

Northampton Bike Trail Extension: There is the desire to link to the Northampton bike trail in Hatfield from Damon Road to Elm Court along the river, down Elm, Maple and Main Street, and to also potentially connect to the dike (Field Trip, 2011). Hatfield wishes to potentially connect to the Norwottuck Bike Trail (Master Plan 2009). Currently the Norwottuck Rail Trail passes through Hadley, Amherst and Northampton. The path is paved and uses overpasses and underpasses to cross most of the road intersections. The bike path is used by “pedestrians, joggers, bicyclists, roller bladers, and skiers” (Freewheelers). (Figure 5. Potential Bike Trail Connection Composite)

Connecticut River Access Points Recreation: The Connecticut River accounts for 450 acres of open water and 7.5 miles in length. The Connecticut River is class status B, which allows “bathing, recreational boating, fishing, and wildlife propagation” (Town Center Revitalization Plan, 2010). River access occurs through “Old Farms Road, Upper Farms Road, Bashin Road, the state boat ramp, the dike” at Maple Street and Main Street, the Indian Hollow boat ramp at Kellogg Hill Road, and where the Connecticut meets the Mill River (Town Center Revitalization Plan, 2010). The Indian Hollow boat ramp is reserved for canoes, while the state boat ramp services all boats. The State Boat Ramp is a 5.7 acre property with parking, access to the river, and potential picnicking and recreational possibilities near Kellogg Hill Road. Bashin Beach on the Connecticut Riverfront is a Massachusetts Department of Recreation and Conservation Property. The beach is one portion of the Connecticut River Greenway State Park, and it brings people from the valley to Hatfield due to its access to the Connecticut River. This is one of the most potentially successful recreational areas in Hatfield, and it provides a beach and swimming area access for the river, but it is poorly maintained and cared for at this stage. Swimming occurs at Bashin Beach, Indian Hollow, and where the Mill River meets the Connecticut River. There is a Connecticut River Access that is a 1.8 acre town owned parcel currently not being used, with the potential for water and picnic recreation. Northampton and Hatfield are looking into “extending the Connecticut River Greenway Trail for one and a half miles to Elm Court in Hatfield” (Town Center Revitalization Plan, 2010). Hatfield is in the process of possibly making Main Street part of the Connecticut River Scenic Byway that runs on Route 47 (Town Center Revitalization Plan, 2010). (Figure 1. Open Space and Recreation Composite).
The Basin/ Canary Island: The Basin is a sandy location on the Connecticut River where up to nearly 50 boats can collect during the summertime to enjoy the water and sunshine (Field Trip, 2011). The Connecticut River is home to Canary Island, which allows boats to camp out, and picnic (Hatfield Open Space Committee, 2008). (Figure 1. Open Space and Recreation Composite).

The Dike: The Connecticut River Dike Road travels from Hatfield Center along the Connecticut River to the south. The views from the Dike Road are perfect to draw recreation in the form of walking, biking, dogwalking, horseback riding, bird watching, cross-country skiing and snowshoeing. This road connects Bridge Lane, South Street and Valley Street, which would allow for path loop connections off Dike Road onto dirt roads. The community also suggests including the history of the river along with the experience of the Dike Road (Town Center Revitalization Plan, 2010). The Dike Road is owned by the town, even in portions where private parcels span it. To the left of the town hall the dike has trees and it is left unmaintained, but it goes on to the right for over one mile. The dike disappears into elevation near Ferry Road (Field Trip, 2011). Although the Dike Road is not a formal hiking trail, many residents use it as a “circuit hike through the town center” (Master Plan 2009). The public access roads that link to the Dike Road are important in maintaining this hiking loop that is valued by many. One significant problem regarding the Dike Road is the use of motorized vehicles, which could lead to erosion of the dike (Master Plan 2009). The community also wishes to connect the Dike Road to the bike paths and lanes in Northampton. The Hatfield community also strongly desires way-finding and a comprehensive trail system and guidebook, which may also be funded by the Community Preservation Act (Town Center Revitalization Plan, 2010). (Figure 3. Town Center Open Space and Recreation Composite).

Mill River Access Points and Recreation: The Mill River is a 7 mile “green belt through the town” (Hatfield Open Space Committee, 2008). It has a variety of sizes and forms throughout its duration in Hatfield, which provides recreation opportunities. It is one of the most “biologically diverse river systems in Massachusetts” providing many research opportunities (Hatfield Open Space Committee, 2008). The Mill River can be accessed from Plain Road, Chestnut Street, Bridge Street, Elm Street, and Farm Road (Hatfield Open Space Committee, 2008). The Mill River has mostly private boat access, and the town wants a clear public access point. There is an informal entry near the cemetery, but there is no parking at this access point (Field Trip, 2011). The Mill River corridor and West Hatfield have many attributes that may qualify the areas for the Massachusetts Department of Environmental Management Program (Hatfield Open Space Committee, 2008). (Figure 1. Open Space and Recreation Composite).

Great Pond: In the North of Hatfield amongst the agricultural lands is Great Pond and Cow Bridge Brook. Great Pond is an oxbow of the Connecticut River, it is nearly 200 acres and home to rare species of plants, as well as migrating bird populations (Hatfield Open Space Committee, 2008). The town owns land around the landfill at Great Pond, which has potential for a future public site (Field Trip, 2011). (Figure 1. Open Space and Recreation Composite).

The Mountains: The access to the mountains is mostly through dirt roads for hiking. There were power lines that were used for hiking, but they have all grown up. There are only one or two trails to the higher mountains (Field Trip, 2011). Running Gutter Brook is home to endangered species, but it also provides recreational, water supply,
and aesthetic draws with small falls along the way (Hatfield Open Space Committee, 2008). (Figure 1. Open Space and Recreation Composite).

Horse Mountain: Near Horse Mountain Hatfield needs to work to limit developments due to its proximity to the aquifer recharge area and reservoir, as well as due to the poorly draining shallow bedrock in the area. Horse Mountain is 3100 acres and reaches 840 feet in elevation. A trail from Coles Road is the easiest access to the mountain. Horse Mountain is known for having steep slopes which lead to vistas, such as White Rock which exposes Hatfield and the Connecticut River Valley. (Hatfield Open Space Committee, 2008). (Figure 1. Open Space and Recreation Composite).

Chesnut Mountain: Chesnut Mountain is 740 feet in elevation, and is most easily accessed by Chestnut Road. This mountain and surrounding forest is part of the Northampton Mountain Street Reservoir, which protects it as open space. Recreation on both the mountains includes “hiking, snowmobiling, horseback riding, and hunting” (Hatfield Open Space Committee, 2008). (Figure 1. Open Space and Recreation Composite).

The Rocks: A bedrock ridgeline between Route 5 and Linseed Road is known as the “Rocks,” which has potential to connect with the mountains of Hatfield. The “Rocks” comprise of 300 acres of forest, with the Hatfield Reservoir seperating it from Horse Mountain. It is important to preserve these places as wildlife habitats and places for passive recreation (Hatfield Open Space Committee, 2008). (Figure 1. Open Space and Recreation Composite).

Forest and Wetlands: Hatfield has developed “wetlands regulations to supplement” the Wetlands Protection Act (Master Plan 2009). Hatfield is made up of nearly 45% forested land, or 4,800 acres. The forested lands are important to protect due to the restraint of flood-waters, air quality improvements, visual buffers, and habitat forests create. Hatfield is home to a large scale of “hunting, fishing, trapping, bird watching, and nature study” (Hatfield Open Space Committee, 2008). The Forest Legacy Program protects one property in the west of 71 acres (Hatfield Open Space Committee, 2008). Hatfield protected 133 acres of watershed through conservation easements and the USDA Forest Service's Forest Legacy Program. Between the land owners, the Legacy Program, and the Town of Hatfield, development is now restricted, and the Valley Land Fund plans to purchase the title to the land until the town can afford the property. (USDA Forest Service, 2002). The Forest Stewardship Program is working to educate landowners on proper management of forested lands in Hatfield. The program develops a relationship between a “licensed consulting forester” and the property-owner over ten years. The program may be used by towns, individuals, or non-profit organizations (Stewardship). (Figure 1. Open Space and Recreation Composite).

Cahillane Conservation Area: The Cahillane Conservation Area is a 2.8 acre property on the Connecticut River bank in the south of Hatfield protected by the Valley Land Fund (Hatfield Open Space Committee, 2008).

The Reservoir: Reservoir Road to the reservoir is gated to close access to the water, but Mountain and Rocks Road is not gated and allows access. There is potential around the reservoir, but the town does not want people directly accessing the water (Field Trip, 2011). Since Hatfield’s drinking water comes primarily from the Hatfield Reservoir, developments in the nearby forested areas can negatively affect the water quality. Misuse of recreation, and poor care of forested lands by foresters can cause problems with the watershed. Removing vegetation for development increases runoff and erosion, which lead to contamination. The 529 acres of town reservoir, two wells, reservoir watershed,
and Northampton’s Mountain Road Reservoir watershed are protected by the “sale of a conservation restriction to the state” (Hatfield Open Space Committee, 2008). The watershed for Running Gutter Brook and the town wells Zone II are protected by the Water Supply Protection Zoning District, which subsequently protects the wildlife habitat and the passive recreation, such as “hiking, skiing, and horseback riding” on nearby dirt roads (Hatfield Open Space Committee, 2008). The 90 acres of land owned by the Northampton Water Commission for the Mountain Road Reservoir are protected by the same watershed zoning, but it restricts all recreation and protects only wildlife habitats (Hatfield Open Space Committee, 2008). (Figure 1. Open Space and Recreation Composite).

Agriculture: There are 5,045 acres of fertile, farm-able soils in Hatfield. Nearly 1/5 of these fertile acres are extremely important to the town and the state. National Geographic labels Hatfield soils as the seventh best for agriculture in the world. The Massachusetts Agricultural Preservation Restriction Program protects other private properties in Hatfield from development. There are currently only two APR properties in Hatfield comprising of 259 acres (Hatfield Open Space Committee, 2008). The percentage of farms in Hatfield that are protected is only 4% (Master Plan 2009). (Figure 1. Open Space and Recreation Composite).

Old Center Street School Vacant Elementary School Grounds: The Old Center School Grounds are six acres that are managed by the town and include a baseball field, and a field hockey field. The dike connects to an underutilized portion of the property, allowing for future expansion (Hatfield Open Space Committee, 2008). This property is historical, has a great location in the Town Center, is close to the riverwalk and the building itself is sound and aesthetically pleasing. The town is potentially considering relocating the athletic fields currently on the property. Regardless of the building, the rear of the property close to the river could potentially become a riverfront park. Currently, the town is working on encouraging outdoor events and activities to occur on the parcel (Master Plan 2009). (Figure 3. Town Center Open Space and Recreation Composite).

Broer Elementary School Grounds, Cemetery, and Vacant Lot: The Hatfield Elementary School property of nine acres consists of “two soccer fields, two baseball fields, a preschool/ kindergarten playground, and an elementary playground” (Town Center Revitalization Plan, 2010). The new Breor School removed the tennis and basketball courts during construction (Hatfield Open Space Committee, 2008). The area near the cemetery and the current elementary school has potential for playing fields or passive recreation (Field Trip, 2011). This vacant 4.6 acre lot has been suggested to be used for community gardens, additional playing fields, an ice skating rink, or other forms of recreation. In 2006, Hatfield voted to begin the Community Preservation Act. This act works to “preserve open space, historic sites, recreational land, and community housing” (Town Center Revitalization Plan, 2010). In addition to the cemetery adjacent to the school, there are historic cemeteries dating
back to the 1600s throughout Hatfield (Field Trip, 2011). (Figure 4. Town Center Close-Up Open Space and Recreation Composite).

Lions Club Pavilion: The Lions Club Pavilion is an “outdoor covered pavilion” with restrooms near the Hatfield Elementary School where private and community festivals, cook-outs, dances, and celebrations are held (Hatfield Open Space Committee, 2008). The Pavilion is a privately owned facility that can be used by all residents for public and private events (Master Plan 2009). (Figure 4. Town Center Close-Up Open Space and Recreation Composite).

Smith Academy School Grounds: The Smith Academy Fields are thirty-eight acres of public high school land with two baseball fields, two softball fields, one soccer field, and one basketball court. The school committee may approve non-academic groups using the fields. The property is not fully developed, and has room for expansion if necessary (Hatfield Open Space Committee, 2008). (Figure 4. Town Center Close-Up Open Space and Recreation Composite).

Smith Academy Trustees Park: The Trustee of Smith Academy Land at the center of Hatfield is a one acre parcel for a passive recreation town park. There are currently “no amenities” and it has been suggested that the land need to be “made more inviting” to residents (Hatfield Open Space Committee, 2008). The site is owned by the Smith Academy Trustees, and it is currently the only space in town that functions as a town park. This site requires improvements to create a usable space that can be used as the town common Hatfield is lacking. A town gazebo has been recommended to the town by residents for this particular location (Master Plan 2009). This area is planned to become the Hatfield Town Green for passive recreational uses such as ice skating, bandstand for events, an open space quad, or a Memorial garden (Town Center Revitalization Plan, 2010). (Figure 4. Town Center Close-Up Open Space and Recreation Composite).

The Old Mill, Dam, and Closed Bridge: The old mill, dam and the closed bridge is a very scenic area in town. The town wishes to open and plank this bridge to make it accessible to pedestrians and bikers (Field Trip, 2011). (Figure 4. Town Center Close-Up Open Space and Recreation Composite).

Popular Recreation: The majority of recreation in Hatfield is passive and undesignated recreation. There are not currently any “formal trails” in Hatfield, but recreational activities such as “walking, hiking, and jogging” continue to occur throughout the town (Master Plan 2009). There is horseback riding on the dike, cow bridge, and near great pond. There is deer and bird hunting where it is not posted (Field Trip, 2011). The roads in West Hatfield and private property are used frequently for ATV riding. There is a desire to create designated town swimming, skating, and picnic areas (Master Plan 2009). The citizens want tennis courts. The basketball courts that they have are in bad shape (Field Trip, 2011). If forests, fields, and wildlife areas are lost to development, not only will open space be lost, but opportunities for passive recreation such as “jogging, hunting, fishing, skiing, bird watching, walking,
boating, cycling, snowmobiling,” and other activities popular in town will lose “linear open spaces” that are required for these forms of recreation (Master Plan 2009).

Events: The town of Hatfield is home to a few events and festivals that occur on an annual basis. There is a fall festival held behind the library near Hatfield Elementary. There is an antique car festival in town during the fall festival. There is also a Veterans Day Ceremony in front of the town hall. The town holds a lumineria event mainly at the town hall, although many residents also participate. Next door to the town hall, a Memorial Day Ceremony is held as well as a town parade. The town also has a homecoming parade. The town also has several road races including: The Hatfield Educational Road Race, the Lions Club Road Race, and the Agricultural Road Race (through roads and fields). The town historic barn includes a museum of farm equipment, and one or two historical days per year. They open the museum for three seasons, host seasonal hayrides and educate people. There is also a small historical museum in the attic of the library, that is looking to move into the town hall following renovations (Field Trip, 2011).

Assessments: Highest Priority (1) Priority (2) Desirable (3) (Figure 6. Open Space and Recreation Priority Assessment).

Connecticut River Access Points Recreation: (1) The Connecticut River is one of Hatfield’s biggest assets, but access and recreation relating to the river should be greater encouraged and taken advantage of. The creation of the Connecticut River Greenway is a step in the right direction, but Hatfield must continue to make use of this recreational resource. A connection between the Connecticut River Greenway and a proposed greenway system would unify the town’s resources.

The Dike: (1) One of the town’s biggest priorities should be in maintaining and regulating activities occurring on the Dike Road. By programming the road for certain uses and creating adequate signage, even more use will be had at the dike but with little or no impact. The use of the Dike Road will increase the accessibility and use of the Connecticut River.

Mill River Access Points and Recreation: (1) The Mill River is currently not utilized to its greatest potential although it offers many things to the residents of Hatfield. By creating educational programs and greater access to the beauty and knowledge held in the Mill River, Hatfield can take advantage of the great resource they hold. The Mill River is biologically significant, and it provides unique research and wildlife educational recreation opportunities.

Great Pond: (1) Great Pond is a wonderful resource for the town, and will provide excellent recreation and educational possibilities with some structure.

The Mountains: (1) Clearer, more distinct and managed trails need to be provided throughout all of the mountains to allow for public use of the forested terrain of West Hatfield. The mountains are in need of structure and guidance in order to receive consistent recreational use.
Agriculture: (1) The unique character and splendid quality of Hatfield's agriculture demands the protection of agricultural lands. The presence of working agriculture in Hatfield is one of the town's greatest attributes, and it must be preserved.

Smith Academy Trustees Park: (1) The Trustee of Smith Academy Land should be created into a more active and used town center. The town of Hatfield is in need of a town center, and the current property is open, but underutilized.

The Old Mill, Dam, and Closed Bridge: (1) The history of the Old Mill Area creates an important opportunity for reopening the bridge as a pedestrian way. As historic recreation, the Old Mill Area should be incorporated in recreation plans for Hatfield.

Old Center Street School Vacant Elementary School Grounds: (2) The proximity and access to the river and dike create a highly prioritized recreation space behind the Old Center Street School.

Wide Streets for Biking: (2) In the experience of the residents, the broad streets with widened shoulders provide security for bikers, and this method could be applied to more roads in Hatfield where the speed limit is high. Although making the town more bike-friendly is a goal, recent improvements have already been made to enhance the experience of bicyclists, and further improvements can be made at a later date.

Forest and Wetlands: (2) Hatfield is working towards protecting the forest and wetland open space found mostly in West Hatfield, but attempts should not cease. It is important to the passive recreation Hatfield citizens are fond of to retain the unique landscape of Hatfield found in the forest and wetlands. By taking initiative to preserve the open space in the mountains of West Hatfield primarily, efforts to protect, preserve and make use of the forest and wetlands will grow from the mountains down through other portions of West Hatfield.

The Reservoir: (2) The reservoir must continue to be protected due to its importance in the health of Hatfield residents, and although access to the waterbody may not be desireable, the protected land around the reservoir could be utilized by a variety of hikers, snowshoers, and other outdoor recreationists. Although there is protection of the Reservoir lands, more can be had to ensure the safety of the water and the use of land around it.

Broer Elementary School Grounds, Cemetery, and Vacant Lot: (2) Surrounded by an elementary school and fields, the vacant lot by the Lions Club Pavillion provides an ample opportunity for expanding town active recreation spaces.

Northampton Bike Trail Extension: (3) The connection of the Northampton Bike Trail to Hatfield only makes sense, since the town is frequented by bicyclists without the addition of a structured trail system. By connecting the town to an existing bike trail, Hatfield will become a destination for residents of the Pioneer Valley wishing to enjoy the nature and history offered there. Although some residents are against a bike trail due to fear of robbery, the town is already working on the connection.
Summary

Overall, Hatfield has an abundance of open space, and plentiful opportunities for self-guided recreation. It is now necessary that the town create more guidance and way-finding to promote the use of the town’s protected open space. The town has several features which should be enjoyed by the public, and it must be made clear where people can go to enjoy these features. By continuing to protect the unique and varying landscape in Hatfield, the town will ensure the continuation of the passive recreation. Through the proper implementation of guidance and design, the town will boost the amount of passive recreation occurring within the town. Hatfield has many spaces to treasure, but it must be preserved and utilized to reveal the value to those around it.
Figure 1.

Open Space and Recreation Composite

Legend
- Pasture, Massachusetts
- Swimming Areas
- Schools
- Gravel Boat Ramp
- Community Groundwater Source
- Surface Water Intake
- River Access Roads
- The Dike Road
- Existing Bicycle Trail
- Potential Bicycle Trail
- Rail in Public Interest
- Existing Undefined or Private Trails
- Interstate
- U.S. Highway
- Roads
- Reservoir
- Wetlands
- Rivers
- 200' River and Stream Buffer
- Unacknowledged Open Space
- Cemetery
- Participatory Recreation

OPEN SPACE ASSESSMENT
TANYA CHESHLE
GREEN LIGHT DESIGNS
LA 497C: LANDSCAPE PLANNING STUDIO
MASSACHUSETTS GEOGRAPHIC SYSTEMS, JAN 2011

0 0.2 0.4 0.8 1.2 1.6 Miles
Figure 4.

Town Center Open Space and Recreation Composite

Legend

- Hatfield, MA
- Swimming Areas
- River Access Roads
- The Dike Road
- Potential Bicycle Trail
- Rail in Public Interest
- Existing Sidewalks
- Wetlands
- 200' River and Stream Buffer
- Unacknowledged Open Space
- Cemetery
- Participation Recreation

OPEN SPACE ASSESSMENT
TANYA CHESNELL
GREEN LIGHT DESIGNS
LA 497C: LANDSCAPE PLANNING STUDIO
MASSACHUSETTS GEOGRAPHIC SYSTEMS, JAN 2011
Figure 5.
Figure 6.
Figure 7.

Open Space and Recreation Priority Assessment

Legend:
- Hatfield, Massachusetts
- The Dike Road
- Existing Bicycle Trail
- Potential Bicycle Trail
- Existing Undefined or Private Trails
- Cemetery
- Agriculture
- Forest
- Wetland
- Open Land
- Participation Recreation

OPEN SPACE ASSESSMENT
TANYA CHESNELL
GREEN LIGHT DESIGNS
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MASSACHUSETTS GEOGRAPHIC SYSTEMS, JAN 2011

N

0 0.2 0.4 0.8 1.2 1.6 Miles

Connecticut River

Norwottuck Rail Trail

Canary Island

Mill River

Town Center

Boat Ramp

Mountain Reservoir

Horse Mountain

The Rocks

Great Pond

Bashin Beach

Chestnut Street

Linseed Road

Interstate 91

Route 310

Elm Street

Chestnut Mountain

Figure 7.
Historical and Cultural Resources

The Town of Hatfield is a historic agricultural river town on the west bank of the Connecticut River. During the colonial period, Native Americans occupied the town as well as settlers. Local products, such as grain and wool, were traded along the Connecticut River to various connections including the Pynchons of Springfield. Most, if not all, of the area’s native population abandoned Hatfield at the outbreak of King Philip’s War in 1675. During the Federal period, the community took on broom corn harvesting and broom making, but Hatfield remained less populated, unlike its surrounding valley towns.

In the early industrial period, Hatfield became significantly more connected along the north-south axis with the Connecticut River Railroad from Northampton to Greenfield (1846). Local depots were established at West and North Hatfield, which also connected Bradstreet Village by way of Depot Road.

During the Late Industrial Period, two philanthropists who were residents of Hatfield were responsible for the creation of two very important institutions in Northampton. Sophia Smith used her money to create Smith College, a well known girls school of higher education. And Caleb Cooley Dickinson put his money to the founding of the Cooley Dickinson Hospital. During this period, the outer villages of Hatfield expanded due to the rising Polish and Austrian immigrant population. West and North Hatfield villages become more established due to a local street car service from Northampton to West Hatfield in 1903, which then traveled for a short period of time along Elm and Main streets to Hatfield Center and Bradstreet villages. As of 1905, Hatfield was the leading tobacco producing town in the state, as well as the leading onion producing town in the state. Population increased and the town prospered due to its rich agricultural land and new industrial institutions.

During the Early Modern Period the streetcar service was abandoned (1924) and automobile corridors were improved. The route 5-10 highway from Northampton to Greenfield was used heavily. There was an agricultural shift from tobacco to potatoes due to the rise of larger tobacco companies.

During the later 20th Century the Interstate highway system was constructed, including I-91 running north-south next to the rail line. Hatfield has also become a more densely developed community due to some subdivisions of old agricultural lands. However, Main Street in Hatfield retains a remarkable historic character, with may well-preserved 18th and 19th century family homes, and views of agricultural meadows.

Surviving Late Industrial Buildings:
The Smith Academy was built in 1872 and later demolished in 1960, the lot is still undeveloped.
Dickinson Memorial Hall (1892), renaissance revival
West Hatfield Chapel (1889), now a Lutheran Church
St. Josephs Church (1892)
An old Victorian Gothic Building, Now a firestation on Chestnut St.
Two three-story freight sheds at Bridge St. and Dwight St.
Perhaps as many as fifty tobacco barns survived from this period

Surviving Early Modern Period Buildings:
The High School (1925), now a regional library
The Town Hall (1935)
Hatfield Center Historic District:

Hatfield Center was laid out following English town planning patterns, dividing off long narrow home lots on either side of a broad, tree-lined street. Surrounding the residential center was the land dedicated to tilling, pasture, and woodlot. Most Connecticut Valley towns followed this development pattern. Hatfield has retained its linear street plan to this day. While at least five taverns were known to have operated in Hatfield in the colonial period, only one, the Daniel White Tavern on Elm Street, still stands.

The Indian wars of the late 17th and early 18th centuries had considerable impact on the community’s settlement patterns. The homes in the center mostly date from mid-to-late 18th century and represent the architectural style and craftsmanship of the region. The earliest surviving house is the Hubbard House at Elm and Prospect Streets, dated 1700. Federal style homes were later added along Maple, Elm and Main streets, approximately one dozen survive in the center today. As tobacco profits began to raise farmers’ incomes, homes were expanded, re-styled, and built new. Greek style homes, and Italian styles were added later, as well as Sophia Smith’s French Second Empire style home in 1867. In the mid 19th century, a major cleanup of the town center occurred as well as the Elm tree planting that has distinguished the center for its shady canopy-covered streets.

Hill Cemetery (1669) was the first burial ground in Hatfield; established a year before the town separated from Hadley. The cemetery lies at the corner of Elm and Prospect St. on the west side of the Mill River. It contains one of the largest collections of early Colonial period burial markers in the Connecticut River Valley. One mound area is the burial site of 25-30 native Americans who were killed during King Phillips War in 1676. Over the centuries, the burial ground has been well tended by the Cemetery Commission, and is in acceptable condition. However, the survival of a number of stones is in jeopardy due to severe weathering. The 1830 Cemetery behind the Congregational Church on Main St. is mostly made up of mid-to-late 19th century monuments. It is a more spacious and park-like, which was typical of its time.

“The Square” has become a landscape feature within the larger heritage landscape of Hatfield Center. It is a two-mile walking route on sidewalks and roadsides. It runs along School and Chestnut Streets on the north, Prospect St. on the west, Maple St. on the south and Main St. on the east.

(http://imagemuseum.smugmug.com/History/Hatfield)

Bardwell homestead, 44 Main St. built 1750
Congregational church 1849, and town hall 1829 (replaced in 1930).
Hatfield Town Hall, Main St. 1930

Center School- 1914
Sophia Smith’s Birthplace, 22 Main St., built 1820.
Hill Cemetery showing stones from the first settlers and table markers from 18th cen.
The Mill River Historic Site and The Mill-Prospect Street Historic District are just to the west of Hatfield Center. The Falls on the Mill River are a natural resource which attracted many uses. Capawonk Native Americans used it as a fording and fishing site. The colonial settler, Thomas Meekins set up grist and sawmills beginning in 1661. Around 1800 Prospect Street crossed the river and many more homes began to be built in the district. Beginning in 1830, Simeon Borden mapped the area from Hatfield to South Deerfield and his basepoint is located at 30 Bridge Road, now a National Historic Civil Engineering Landmark, and part of this heritage landscape.

West Hatfield Cemetery is located on Bridge St. and was established in 1850. Some stones go back to 1818 which had been moved from earlier cemeteries to be near their West Hatfield families. All of the monuments are modest and mostly belonging to families with Polish ancestry.

In 1850 the Meekins Mills were torn down and new gristmills and sawmills followed as well as carpenters’ and blacksmiths’ shops. The sawmill was turned into a pistol factory in 1870 for Crescent Pistol Company and a dam was built at the falls on top of the red rock soon after in 1875. The pistol factory burned in 1881, and the Shattuck Gun and Machine Shop was built later that year, which still exists today as a bed and breakfast. Manufacturing buildings continued to be constructed and secured the area as a manufacturing center, with workers living on nearby roads. The workers homes and late 19th and early 20th century vernacular buildings, such as the Polish Club, illustrate much of the history of the district.
Bradstreet Historic District:

This historic district is the largest in Hatfield. It includes the agricultural fields in the Bradstreet area, the lands along the Connecticut River in Northern Hatfield, and Great Pond. This area includes the Hatfield half of the river, the long stretches of man-made dike, and the adjacent meadow and farmland. Since Hatfield’s first occupation of Native Americans, this area has been a valuable natural resource. The trails formed by native peoples along the river became the principle roadways of Hatfield, and the cleared lands on which they lived and farmed was divided amongst settlers and became farms, which are still separated by small stone markers. It is in the corridor that the first Native American attack on Hatfield (occurring during King Philip’s War) took place and where defense walls were constructed to protect the settlement.

The corridor’s fertility was of great importance to the many phases of agriculture in Hatfield. Spring floods would annually cover the corridor until the 1938 flood which deposited a layer of silt many feet deep. Residents and the Army Corp of Engineers used the silt to construct the 13’ dike that runs parallel to the river. In some places they built stepped markers into the slope in order to judge the rising water height in the Spring. The dikes are a recreational destination for many walkers, fishermen, birders, joggers, and boaters today.

The river is a scenic resource as well, for residents and visitors. The land along the corridor is protected from future development, in a way, because it is on the flood plane and is not insurable. However, former agricultural land at a higher elevation has begun to be developed into residential subdivisions. Farmers struggle financially in recent years due to successive years of poor farming due to weather, some farms may go out of business as a result. These circumstances threaten the integrity of this heritage landscape.
Belden Farm Heritage Landscape:
The last remaining dairy farm in Hatfield, located on Depot Road in North Hatfield, has occupied the same site since 1661. Today the farm is in its 13th generation of operation. The farm has split into two parts, one being occupied by Richard Belden and the other by the Williams family. The Belden family and the plot of farm land has a rich history of various agricultural uses. The farm is about 300 acres, there are about 200 dairy cattle, with about 100 milking at any one time. The existing farmhouse is of Italian style from 1865 and the farmland has been put into the Agricultural Preservation Restriction program, to permanently protect it from development.

Great Pond Heritage Landscape:
In North Hatfield, this arc-shaped string of ponds and wetlands is the result of the Connecticut River's meandering current which forcibly cut across land several hundred years ago to form a straighter path. It left an oxbow lake, which over time has shrunk in size and filled in to become wetlands. The ponds and wetlands today provide valuable wildlife habitats and offer scenic views from several roads in Hatfield. These views are from privately owned land, with the exception of the town transfer center. Great Pond offers geographers and others evidence of the region's post-glacial development. Formerly polluted by sewage and fertilizer run-off, the ponds have been cleaned up to act as an important contributor to the ecological health of Hatfield.

North Hatfield Historic District:
North Hatfield is a small village with several historic buildings and a cemetery. North Hatfield Cemetery sits on West St. and was established in 1849 and is about an acre in size. 19th century stones are of marble, and 20th century stones are of granite. The most recent monument is from 1963. Older marble stones have some stone loss due to acid rain and lichen.

Elm Street Historic District:
Elm Street Historic District includes the area around Elm Court, and the area roughly contained by Scotland, Sunset, and Little Neponset Rd. Holy Trinity Cemetery is a Catholic cemetery located on Elm Court, south of Elm St. This cemetery contains mostly 20th century stones.
The scenic areas that are shown above were highlighted in the Hatfield Reconnaissance Plan. View cones represent places where a long view shed can be experienced. Scenic corridors are highlighted in yellow.
The Mill River and Connecticut River Corridor

The Town of Hatfield is dominated by waterways. The Hatfield Open Space and Recreation Plan concludes, “The land use data on wetlands significantly underestimates the actual extent of wetlands within the Town, which is closer to 30% based on mapping performed by Paul Davis of the Conservation Commission.” (12)

The entire town of Hatfield is located in the Connecticut River Watershed. The River makes up the Eastern border extending 7.5 miles. The Connecticut River is the longest most prominent body of water that flows through New England. The River begins just north of the Country boundary in Canada then flows though Vermont, New Hampshire, Massachusetts and Connecticut. The Department of Energy and Environmental Affairs identifies the water body:

“The watershed was designated the Silvio O. Conte National Fish & Wildlife Refuge by an Act of Congress in 1991 and later became designated as a National Heritage River by President Clinton in 1998. It is the first of its kind that encompasses an entire watershed ecosystem.”

This designation does not come lightly as the watershed is home to many endangered species such as, American Bald Eagle, Shortnose Sturgeon, Peregrine Falcon, Puritan Tiger Beetle, Dwarf Wedge, and Yellow Lamp Mussel. The watershed has other designations from the Ramsar Convention; “Wetlands of International Importance especially as waterfowl habitat,” as well as from the Nature Conservancy as the “Last Great Places” in 1993.

Three of the five watershed priorities outlined by the Department of Energy and Environmental Affairs should be directly addressed in this Greenway design for Hatfield:
• Restore the river community by removing barriers to fish and eel passages within the tributaries to the Connecticut River
• Reduce the negative effects of non-point source pollution, primarily storm water runoff
• Continue to promote the protection and/or creation of riparian buffer zones along the waterways within the watershed

Over 30 species of fish are supported by the Connecticut River, some of them include: shad, walleye, northern pike, and catfish. This section of the river is also part of the Atlantic Restoration, with the prospect of allowing some salmon fishing to occur in the future. It is also home to many other types of wild animals, such as ospreys, river otters, and herons.

Most of the land within 2,000 feet of the riverbank is used for agriculture. There are forestland vegetated buffers along the river to separate human activities, but much is too narrow less than 200 feet deep. Much of the land is located in a floodplain and is currently unattractive for development; however, it remains unprotected from development in a legal standpoint.

(Hatfield Open Space and Recreation Plan, 22)

Access to the Connecticut River is advertised one mile north of Hatfield centre for light-weight boats and canoes. This access point is at the end of the “Water Trail” where jet powered water craft is prohibited and the Maximum Boat speed is only 15 mph. “The Bashan,” as this access point is called can be further promoted as part of a canoe trail incorporating the Connecticut River recreation into the town of Hatfield. (Connecticut River Greenway state park, DCR) Other access points used for swimming are along Bashin Road, Indian Hollow, and the confluence of the Mill and the Connecticut. Canary Island in Southern Hatfield offers the potential for partial access picnicking or boat camping. (Hatfield Open Space and Recreation Plan pg 22) Bashin Beach, a swimming area, has few amenities and is not maintained. Still, it is an important recreational facility in Hatfield. It shows evidence of litter and the lack of sanitary facilities, given its lack of development; it is not particularly safe or attractive as a swimming area.

Improvement and the right kind of development for this beach will be a part of our development plan. (Open Space Recreation plan pg 46) already formed through the center of town. The OS Rec Plan of Hatfield describes it as being an “enchanted wilderness, a haven for recreationalists, naturalists, hunters and fishermen.” (22) The Mill River also holds a Historic Dam, which holds cultural and historic significance, but stops fish migrations. Because of its conflicting uses, the dam needs careful consideration in our designs.
There has been research on the Mill River watershed including studies performed by Smith College, University of Massachusetts and Cornell University. The results have gained the river the reputation of the most biologically diverse river systems in Massachusetts. Part of this designation is due to the species it supports including, four of the state’s seven listed species of freshwater mussels, protected flora and fauna in this river corridor, including the wood turtle. River otter live along the brook, and brook trout signify there is good water quality. Atlantic salmon are known to migrate to the base of the historic Hatfield Dam on Prospect Street. There are at least five access points to the Mill River (Plain Road, Chestnut Street, Bridge Street, off Elm Street, and off Farm Road) for fishing and other activities. (Open Space Recreation Plan pg 22)

The Open Space and Recreation Plan of Hatfield identify the importance of the waterways:

“Most of the rare plants (and animals) of Hatfield are species of riparian areas – river and stream side specialists. Because floodplain areas are also prime agricultural lands, habitat for these species has diminished over the years. The remaining undisturbed and even moderately disturbed lands along the rivers provide important habitat for these rare and other more common native species, as well as helping to protect the waters of the rivers and streams.” (Open Space Recreation Plan pg 30)

Scenic vistas: three of the six spots identified for scenic vistas have to do with the mill and Connecticut River

• Banks of Connecticut River, in particular the areas defined by public access points in the Bashin Beach area and along the dike from the Town center south and then west to the confluence of the Connecticut River with the Mill River

• Canary Island beach in the Connecticut River near the Northampton Town line that is accessed from Little Neponsett Road.

• The Mill River itself, which has been identified as part of MA DCR’s “Commonwealth Connections, A Greenway Vision for Massachusetts

(Open Space Recreation Plan pg 35)

The Massachusetts DOR has classified both the Mill River and the Connecticut River as class B meaning they are safe for swimming and recreation.
Assessment of GIS Maps

The Mill River is currently a natural greenway through the center of town and offers opportunities for connections, particularly across interstate 91, in conjunction with the Running Gutter Brook in South Hatfield. Based on the location of the points of interest of access and the views, there is a need of more aggressive conservation around the areas of the Mill Dam and the segment of the Connecticut river near the town center. Currently the land use shows that there is conflicting uses in these areas, being they have aesthetic value the use should conserve this and be less invasive. This should be addressed aggressively to preserve the water quality within the 200 foot buffer.

The Sub-basins layer illustrates that almost half of Hatfield drains directly into the Connecticut River, making the ecological concerns regional. Since much of this land if farm land, fertilizers entering into the water and causing eutrophication is a possibility and concern, indicating that buffer lines of vegetation should be increased.

The Connecticut River sections illustrate how the farmland is within the flood zone of the Connecticut River and at points the buffer zones are too narrow with close development. Much of ecological concerns with the Connecticut River are how it provides habitat to species and the invasive species taking over.

The Mill River is overall in much better condition, but it is still threatened by close development and fertilizer runoff. Due to the dam, there is a significant change in the rate of flow between the upper Mill River and the lower Mill River. But because of the dam, a habitat for rare mussels has been maintained, making this an asset to Hatfield.

Overall the river corridor assessment indicates there is a need for conservation of the existing, and some more aggressive approach in reestablishing buffers around the river corridors.
Connecticut River Watershed Basin With Topography

Legend

Shaded Relief (1:5,000)

Value
- High : 255
- Low : 0

Hatfield_Boundary

Data taken from MassGIS. Map Created using ArcMap Desktop 10.
Views and Access Points

Acess Points to the water

Views

“Water Trail” ~ no motorized boats

Data taken from MassGIS Map Created using ArcMap Desktop 10
**Connecticut River Cross Section Typologies**

**Wide and Shallow Sections With Islands**

- Forested Edge
- Island
- Island
- Narrow Buffer
- Development Close to the River

**Deep Sections with Single Waterway**

- Dike
- Farmland within floodzone
- Farmland outside floodzone
- Recreation Fields
Mill River Section Typologies

Above Dam - Wetland & Slow moving
- Forested Edge
- Sucessional Wetland Forest
- Oxbow swamp and wetland area
- Thick forested buffer
- Agriculture

Below Dam - Fast Moving and Shallow
- Road
- Rocky and shallow water
- Steep Banks
- Bridge over water
- Close Development

Key Animal Species

Endangered Plants

Invasive Plants
Greenway Assessment: Conclusion

In overlaying the many layers of assessment conducted in Hatfield, the complexity of the area becomes apparent. In particular, the dividing line of I-91 is emphasized: the forested swath of West Hatfield is in contrast to the colorful mixed lots of the East. By analyzing the corresponding points of interest perceptible on the composite map, opportunities may be identified for greenway system to strengthen the bounty of natural resources, town character, recreation, and protected open space.

In terms of natural resources, the densely vegetated West Hatfield shows promise in that many of its lots are under the protection of the Forest Stewardship Program. Unfortunately, the connectivity of these forest habitats is broken by I-91, and remains scattered and patching among the agricultural fields of East Hatfield, further impeding the movement of wildlife. Even more regrettably, this highway is built along the Mill River watershed, running over the wetlands in the Northern part of town. Also coinciding with Mill River’s course is the estimated biocore habitat for endangered species. As the river meanders into East Hatfield the riparian corridor becomes thin and the delicate ecosystem is closely edged by cropland, raising concern over diminished buffer’s ability to filter out agricultural waste land fertilizers. The Connecticut River suffers from a similar problem with fields and residences running clear up to the bare banks of the river.

The specific pattern of development that characterizing of Hatfield is apparent in conjunction with the other layers of assessments. The strong town center, its rich historical residences is flanked by traditional agricultural fields, are the elements that define Hatfield’s spirit. These features are irreplaceable and irreplaceable, and therefore should be protected with the same ferocity as the natural features of the site.

Nearly all of Hatfield’s open space in contained within the town center. These spaces, especially the Center Street School, have the opportunity to engage the nearby Connecticut River and utilize its views, access, and recreation. Due these spaces being in such close proximity to each other, as a system they fail to demonstrate the diversity and richness of Hatfield’s natural resources particularly in the Mill River and forested Western area.

Regionally, the potential to connect to existing greenways is perceptible. Linking up with the Northampton Rail Trail across Damon Street is a clear opportunity that has been proposed and can be identified in the map. In addition, large patches of of biocore habitat lay just outside Hatfield, both to the Southwest in Northampton as well as the North in Sunderland and Whately. It would be beneficial to wildlife movement to increase connectivity in these patches within Hatfield and beyond because turkeys don't understand town lines.

The composite maps illuminates potential opportunities and obstacles in the development of a greenway system. Further protection of both forested areas and cropland, preservation of historical features, increased connectivity of wildlife habitats, improved integrity of riparian corridors, as well as the enhanced enjoyment of resident and vistor experience in Hatfield will be a few of the issues to address in the development of a greenway.
Proposed Composite Greenway Plan

Branching the gap between assessment and design, just as the existing condition analysis, the greenway plan was created through the overlaying of layers. The greenway plan can be deconstructed into the individual components that each address its own set of problems while working together to support the project as a whole. These layers will be explored individually and then overplayed to compose the final greenway design in the paragraphs to follow.

The overall concept addresses the obstacle identified in nearly all of the assessment layers: the divide and separation of East and West Hatfield. The focus of the greenway system is the creation more accessible and hospitable connections for pedestrians, bicyclists and wildlife alike across the highway 5 and 10, railroad tracks, and Interstate 91. In addition, strengthening links between destinations that bolster the connectivity beaten educational, historic, recreation and ecological sites.

Regionally, it is important to connect to the broader greenway system. By providing more access to the Connecticut river the opportunity to become part of the statewide Connecticut River utilized. Also, the current proposal to link to the neighboring Northampton Bike Trail with the addition of a connection through West Hatfield is included in the overall scheme.

In terms of natural resources, steps were taken to preserve the character of West Hatfield and connect forest patches to the Connecticut River. In our site designs, wildlife connectivity is further addressed in the proposal for hedgerows across the agricultural fields. In addition, natural resources are made more accessible through the integration existing mountain paths and the creation of a footpath along the Mill River. The opportunity to create a destination in West Hatfield for the residents and visitors to enjoy the full spectrum of natural features in Hatfield is further explored in the design of Camp Fiddlehead.

The town of Hatfield possesses a rich history and a strong cultural identity. In the treatment of planning as a gentle measure toward preserving current character, the cultural and historic assets will be maintained and sustained for years to come. The historic presence of Hatfield serves as inspiration in each site design including street tree plans to restore and preserve the iconic elms lined streets as well as the creation of a brochure that highlights the many cultural “hotspots”, existing and proposed, in Hatfield.

The Recreation Greenway Plan depicts the planned linear recreation routes throughout town. There are existing dirt roads that will be made safer for bicycle and pedestrian travel. There are proposed extensions of sidewalks and bike friendly roads throughout the town, particularly in the center. Multi-Use unpaved trails are proposed throughout the mountains, along the Mill River, around Great Pond, and between the Broer Elementary School and Smith Academy. The Recreation Land Use Greenway Plan displays the current land use through which each proposed and existing trail goes through, as well as where each destination in Hatfield will reside. The land use will inform the town of which properties are in need of political attention for easements and permission in regards to public trails.

The town center plan dives closer in on site specific greenway plans. It is proposed that the Trustees of Smith Academy Park become an educational and formal own center. It is also proposed that a fish by-pass, canoe launch, pedestrian bridge, and educational center occur near the historic mill. Hedgerows through agricultural property lines, and street trees along Main Street will provide extra vegetation to the town, enhancing health and character of the town while promoting wildlife movement and reducing wind erosion. At Smith Academy, it is suggested that more tree canopy is added to create a proper building climate and a friendlier atmosphere. An educational garden may also be implemented in a portion of the unused property on Academy grounds to encourage youth gardening and plant care. An additional soccer field at the
Center Street School, as well as tennis and basketball courts at the Broer Elementary School will provide adequate active recreational facilities for the town. An outdoor classroom and nursery planting at the Broer Elementary School will allow for a pleasant atmosphere and an educational opportunity right outside the school doors. A town operated nursery will allow for tree transplants and replacements along Main Street for minimal cost. An extension of the town cemetery will allow proper room for expansion.

Overlayed, these different layers of planning form the composite map that addresses the objectives and goals in preserving and unifying Hatfield with a greenway system. In the following pages, site-specific designs are proposed in plan, section and perspective. These were chosen as opportunities to create or improve on destinations and connections in the Greenway system. Center Street School, as well as tennis and basketball courts at the Broer Elementary School will provide adequate active recreational facilities for the town. An outdoor classroom and nursery planting at the Broer Elementary School will allow for a pleasant atmosphere and an educational opportunity right outside the school doors. A town operated nursery will allow for tree transplants and replacements along Main Street for minimal cost. An extension of the town cemetery will allow proper room for expansion. Overlayed, these different layers of planning form the composite map that addresses the objectives and goals in preserving and unifying Hatfield with a greenway system. In the following pages, site-specific designs are proposed in plan, section and perspective. These were chosen as opportunities to create or improve on destinations and connections in the Greenway system.
Recreation Greenway
Hatfield Proposed Greenway Design: Recreation

Legend
- Destinations
- Connecticut River Greenway
- Blueway
- Roads
- Bike Friendly Roads
- Bike Friendly Dirt Roads
- Multiuse Trails Unpaved
- Existing Sidewalks
- Town Proposed Bike Trail Connection
- Non-Motorized Boat Way

COMPOSITE GREENWAY DESIGN
GREEN LIGHT DESIGNS
LA 497C: LANDSCAPE PLANNING STUDIO
 MASSACHUSETTS GEOGRAPHIC SYSTEMS, JAN 2011
Mill River Greenway

The Mill River Corridor can be a part of our larger concept. Of the Three arrows that diagrammatically cross and connect Hatfield over interstate 91, the mill River corridor can be viewed as the lower arrow. The design focus areas are along this corridor; this corridor is the most applicable to the people as Hatfield, as it is the closest to the town center. The corridor can be experienced by the pathway that follows it.

Starting at the Mill Rivers confluence with the Connecticut River, there is access to the pathway as well as the Connecticut River. From this lower walk of the path, views of the hedgerow connections can be seen. These hedgerows are an ecological corridor connecting wildlife across the farmland.

The next connection is to downtown Hatfield. Through the Broer Elementary school the Mill River Corridor is connected to downtown and the parks of downtown, such as The Trustees of Smith Academy Park.

The Mill River dam and Education center is the next destination offering a resting place directly on the path. Here there is also a Canoe access to the upper Mill River.

When the Mill River comes to Interstate 91 there is a underground connection proposed to allow for wildlife to safely cross the highway.

The last destination is a place where people can connect to the woods and wilderness of Hatfield. Fiddlehead Park is a place to camp for families and groups as well as a place for practical outdoor education.
Mill River Corridor Plan

The Mill River
& Running Gutter Brook

Legend
- Mill River Blueway
- Walking Path
- Bike Roads
- Major Roads
- Other Roads
- Points of Interest
- Connections

N

0.00 0.1 0.2 0.3 0.4 Miles
Town Center Plan

The town center plan is a compilation of the designs proposed for within the center of Hatfield. The proposals for within the town center include hedgerows and street trees which will unify the town center through vegetation and wildlife corridors.

At the Broer Elementary School, a street tree nursery is proposed for the town. This nursery will allow for there to be a consistent supply of trees that can be used to replace dying street trees. Also as the Broer Elementary School, two tennis courts and a basketball court are proposed next to the expansion room allowed for the cemetery. A student amphitheater/outdoor classroom in front of the school will allow for learning to expand beyond the interior of the building.

A new soccer field at the old Center Street School grounds will provide an opportunity for more active recreation within the town center, and it will provide a place for soccer games to occur for community groups without permission from Smith Academy.

The Smith Academy grounds have incorporated more tree cover to create a more serene and comfortable learning environment for the students. An educational garden has also been incorporated into the design, allowing for alternative hands-on education to take place at the school.

Current destinations such as the Mill River Dam and Trustees of Smith Academy Park are planned to be redesigned to further the experience for people in Hatfield. These two sites will be further covered in more development in site designs.

Sidewalks and bike friendly roads are proposed to be expanded upon throughout the town center. This will allow for a more unified pedestrian experience through the center of Hatfield. The Mill River walkway and the new connection from Smith Academy to the Broer Elementary School will allow for pedestrians to come off the streets and experience Hatfield while moving across the town center.
Street Tree and Hedgerow Recommendations

Hatfield’s Town Center Revitalization plan focuses on the aesthetic integrity and the overall health of Main St. and its immediate surrounding features. One of the key concerns in the plan is the health of the street trees that line Main St. and other main roads such as Elm St. and Maple St. The members of the town have made it clear that they would like to see a variety of different species of trees to replace some of the current dead and diseased trees.

From looking at the trees along Main St. I was able to come up with a plant list that would be suitable for the Main St. environment. The variety of species and different cultivars allows for a diverse street tree collection while maintain the towns character. (See Main St. Plant List)

While doing an inventory of the street trees along Main St. I also noticed the size of the buffer between the road and the first street tree (roughly 30’). The land in this area is currently owned by the town. During the town meeting many of the Hatfield residence stressed on the fact that the bikers that frequently ride along the street are creating dangerous situations for both drivers and themselves. A solution that I am proposing is to construct 8’-wide bike lanes in the buffered areas. This would take the bikers completely off the Main St. and make it safer for all users. (see Main St. Sections 1 & 2)

Another one of the towns concerns was the overall ecological connectivity. With a large percentage of Hatfield being cleared and used for agricultural fields the importance of a connected ecosystem is crucial. The farm lands primarily to the eastern edge of Hatfield create large gaps between the western forested mountains and the Connecticut River. This disconnect prevents wildlife from being able to migrate through the town without running into manmade barriers.

The proposed solution is to introduce and increase the number of hedgerows along the eastern side of Hatfield. For my focus area I chose the south eastern portion of farm land that creates a large divide between the Mill River corridor and the Connecticut River. This area also creates a potential connection to the dike road which can be accessed from the town center area.
After some research of successful hedgerows I was able to come up with a plant palette that will thrive in the sites conditions (see hedgerow plant palette). One of the biggest concerns with developing the plan palette was the susceptibility of flooding in the south eastern area. The agricultural fields are built in the flood plains of the Connecticut River so and plant material must be able to withstand seasonal flooding. To avoid potential flooding destroying the hedgerows I chose plants that thrive in wetland areas.

The next step in creating successful hedgerows is the actual planting pattern which is used to create a linear connection between two forested patches (see Hedgerow Planting Pattern). The recommended planting pattern for hedgerows consists of larger trees in the middle and smaller plantings of grasses along the outer edges. The overall shape of the hedgerow when looking at a cross section should resemble a triangle form (See Hedgerow Section).

Depicted in the overall master plan of hedgerow plantings and town center street tree extension is the increased connectivity that would be gained (see hedgerow mast plan). The increased connectivity will allow for better and safer movement of wildlife between the Mill River corridor and the Connecticut River corridor. The addition of street trees along the farm roads that connect to Main St. will inspire pedestrians to continue walking from Main St. to the dike road. The plan overall creates a more connected network for wildlife and pedestrians.
Main St. Section 2
Hedgerow Cross Section
Hedgerow Master Plan
The Trustees of Smith Academy Park is a very logical place for a town common, which Hatfield is lacking. Hatfield is a historical town, and New England is known for historic town common areas. It is only right that Hatfield acquire a town common to relate to its long New England history. The site is a former school ground, and it ties in with the educational background of the town. Founded by Sophia Smith, Smith Academy once sat on the plot now known as The Trustees of Smith Academy Park. Due to its long history with education and prime location within the town center, the site is designed in order to retain history found throughout the town center. (See Figure 1).

The original Smith Academy building on the site was a Victorian Gothic Revival brick building. This building was once one of the many architectural styles found within the town. The unique and complex roof lines of the building inspired a vertical design, which leaves the majority of the park open for concerts and town gatherings. An incorporation of arches, which are inspired by the Victorian Gothic Revival arches of Smith Academy bring in the variety of architectural styles found within the center. Each arch represents an architectural style found within the town center, which reminds and educated people about the past and its relationship to architectural forms. At the entrance from the corner of School Street and Main Street sits a Jacobean inspired arch. Off of School Street, a Colonial Revival inspired arch welcomes visitors, and from the town hall pathway, a Renaissance Revival arch brings people into the common. (See Figure 2 and 3).

The bandstand at the southwest corner of the site, and all the entries to the park are framed by plantings done in a Victorian style. The Victorian style was chosen due to its popularity during the time of the former building on site. The plantings in the new town common are parterre revivals from the Victorian Age, which frame plantings of perennials and shrubs. The garden also includes botanical information to educate visitors, as well as to relate to the gardenesque style of the time period. (See Figure 4 through 10).

The linear pathways were inspired by the former pathways to the school, found in historical images. One inspiration from the site was taken from the Skinner Trowbridge House at Yale University, designed by Towers-Golde Associates in New Haven, Connecticut. The boxwood knot garden edges filled with shrubs and perennials at Yale were designed originally by Marian Coffin. The formality of the boxwood and the loose form of the perennials and shrubs inspired the plantings of the new town common in Hatfield. This approach brings a more modern feel to a Victorian revival park within the town center. A swath of grass lawn from the Northwest and the Southeast allows freedom in movement and activity in the town common. Vines climb up the legs of the bandstand structure, which reconstructs the style of the old Smith Academy. Cast-iron benches at the edges of the park sit underneath the canopy of trees. (See Figure 4 through 10).

Through the revival of architecture in the town center and the variety of plants with botanical labels, Hatfield's former site of Smith Academy also revives the educational history that is vital to the formation of the town. The Victorian style of the time recalls the former building through small cues such as the linear paths, iron benches, parterre revivals, a bandstand, climbing vines, bright plantings, and grass swaths while providing the town with the common area that should have been present all along. The new town common design is a key feature in preserving and bettering Hatfield for the present and the future through education and community connection. (See Figure 4 through 10).
Figure 1.

Current Conditions at Trustees of Smith Academy
Inspiration for Design

Historic Smith Academy Building
Formerly on the Site

Architectural Features
Taken From The Former Building

Architectural Features Used In Bandstand Design

Figure 2.
Inspiration for Design

Arches inspired from the architecture found around the Hatfield Town Center.

Arches used in the Trustees of Smith Academy Park design.

Figure 3
Contextual Site Design

Figure 4.
Trustees of Smith Academy Park
Tanya Chesnell- Green Light Designs
LA 497C: Greenway Planning

Figure 5.
Figure 6.
Before

After

Figure 7.
Before

After

Figure 8.
Before

After

Figure 9.
Figure 10.
Mill River Dam

The Mill River Dam is an area rich in ecological and industrial heritage. It is located off of Prospect Street on Bridge and School Street on one side and Prospect Court on the other. The Mill river dam is a beautiful historical feature, being that it has been there for 300 years, it is an important Icon that should stay, although previsions should be made to reestablish native fish up the river such as the salmon and trout that are found at the base of the dam.

The Old Mill on the site has been converted into an Inn, although it is nice looking it is somewhat alone. The buildings across the dam are in poor shape. There is another building like the Inn that s right on the water, this building is currently being unused or underutilized. The storage facility is turning its back on the river and blocking vies to the river. The bridge that connects these two areas is currently closed, but offers the possibility of a bike and pedestrian bridge.

The design concept for this area is using the circular shape of the water wheel to shape my spaces. Each space is a part of a circle. The paths offer a dynamic where one is encouraged to explore the area, with multiple walkways on different levels. The bridge will be opened and planted as a green bridge or a bridge of flowers, like the one in Shelburne Falls, Massachusetts. The planting for this bridge will be focused on native plantings with vines covering the sides; it will be a low maintenance plating design.

The old storage facility building will be refurbished and downsized. A new program will occupy the space, an educational center of industrial heritage and ecological diversity. The space opened up by downsizing the building will be used for outdoor gatherings and classrooms.

The fish bypass is interestingly shaped using arcs from the circle; there are resting pools for the fish in four locations. These pools will ensure the fish will make it to the top of the bypass, as the traditional fish ladders don’t work well for all anadromous fish as some need a place to rest. The exterior form of the bypass will be straight lines, playing off of the idea of canals, concurrent with historical industry. The interior will be naturalized, creating the appropriate habitat for fish with hiding spots and vegetation.

The building on the dam will be given a new use as well, it will become a sweet for the Inn that people can rent and enjoy the countryside of Hatfield.

The park across the street from the Mill Inn will be made into a more usable space, with a landform which is slightly depressed from the road, with trees surrounding the space, to create a comfortable area to come to rest. The road to the South West will be closed and narrowed and will serve as a bike path. This closing will create a safer park since cars will be traveling on it less.

Overall this design activates the space. The spaces will be united in their concepts and design as well as materials. The paths will promote exploration and discovery, as well as connect to the Mill River pathway. The program of the buildings and uses will bring people to the area and connect one side of the dam to the other.
Mill River Dam Context
Left:
Historical photo of people resting close to the dam and the water. This design reenlivens this historical space and character.
A photo showing the current revitized mill
Overview Perspective of fish bypass

View from the Inn cottage of fish bypass
Section A-A’ Water Wheel Park

Section of Waterwheel Park
The design of Camp Fiddlehead addresses the need for a more accessible way to enjoy the unique natural features of West Hatfield. Currently, the mountainous West Hatfield is separated from the town center by Interstate 91, highway 5 and 10, as well as the train tracks, leaving few opportunities for recreation for people who don't reside in the West Hatfield area. While this plan focuses on private property and is many steps away from being a feasible site design, it provides an example solution to the accessibility and connectivity of West Hatfield.

The chosen site is a clearing between highway 5 and 10 and Linseed Rd. Once assessable through via dirt road through a small industrial park off of the highway, the area was originally used in the construction of Interstate 91 in the 1970s. Later, the area was used as a gravel pit for a construction company but issues with dumping arose and the site fell into disuse. The site is a round clearing in the dense forest of West Hatfield about 600 ft wide. On the east side, it is protected by a tertiary ridge stemming from The Rocks. To the west before the topography climbs to the peaks of Chestnut and Horse Mountains is the clear water source of Running Gutter Brook.

The name Camp Fiddlehead is chosen for cultural significance, form and purpose (see Figure 2). Fiddleheads are the unfurled fronds of young ferns that are harvested for vegetables. Native to the area, they were most likely a component to the Pocomtut tribe's diet, and speak to the agricultural character of the area. The form of the design resembles the spiral of the fiddlehead green, the paths both converging into a tight track around the great space and furling back out into mountain trails.

The new paths define a series of spaces along the main drive. These areas (Figure 2. C, D, E & F) are intended as group campsites as an opportunity for organized recreation like Summer camps, school trips, sports training camps etc. These campsites could also be used as a site for services like Americorps.

The drive terminates in the parking lot and drop off area for the proposed building. This purpose of this structure is as simple as a bathroom facility with compost toilets and water sourced from Running Gutter Brook that is pumped with solar power. The opportunity for the building to become a management headquarters and education center could also be considered.

At the center of the campground is the community meadow space (Figure 2. G). This area is defined by the landform of The Rocks on the East side and the reforested buffers of the of the camping plots to the West. Taking advantage of the relatively flat clearing of the site, this area is a microcosm of the diversity of natural features in Hatfield. The densely vegetated and rocky exterior gives way to the flat clearing reminiscent of the agricultural fields. This area is intended for a variety of events, from field day to company picnics.

Overlooking the meadow are additional camping plots situated in the existing woods atop the hill to the East (Figure 2. H). These plots are intended for individual use. Their remote location and low density speak to the preference of privacy and “wilderness” of some campers.

The path system both provides the form for the design as well as the purpose. The main connection is to the town center through Mill River Walk (Figure 2. J) that makes Camp Fiddlehead both a destination and departure point for pedestrian and bicyclists utilizing the Hatfield Greenway system. Also stemming off from the camp, is its own system of paths, a series of existing unimproved trails along vehicular access roads identified.
as the Mountain Rd Loop (Figure 2. 2.) (Perspective 1). These trails are accessible from the park over Running Gutter Brook via a small footbridge. Several smaller loops are proposed (Figure 2. 3, 4, & 5) that explore the variety of natural resources. For example, the Running Gutter Brook Loop is a simple foot path that runs along the brook that encourages people to interact and experience the water serves as loading and emergency vehicle. Within each site is a fire pit and council circle style seating and picnic tables (Perspective 3). The layout emulates the overall design form and is intended to be both functional spatially as well as beautiful when view from the adjacent hilltop.

The design of Camp Fiddlehead celebrates the natural resources of West Hatfield while providing a clear connection to the town center. The rehabilitation of the clearing into a useable space is sustainable in its purpose as well as its methods. The reforesting of the clearing to support design also increases wildlife habitat, the use of local water sources and solar power educates and promotes low-impact recreation. The incorporation of projects like Camp Fiddlehead into Hatfield Greenway plan enforces the character of Hatfield by reflecting the resident’s value of wildlife and natural features in everyday life.

Looking more closely at the plots (Figure 2. C &D), a potential layout for group campsite is outlined (Figure 3). In this proposal, each plot has been divided into two sites. Each with its own parking accessible from the main drive by a dirt road with also serves as loading and emergency vehicle access to the community meadow space (Figure 2. E & F.) Within each site is a fire pit and council circle style seating and picnic tables (Perspective 3). The layout emulates the overall design form and is intended to be both functional spatially as well as beautiful when view from the adjacent hilltop.

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Town Brochure and Greenway Experience

Bashin Beach, a summertime hot spot for swimming.

The Boat Launch, Hatfield's most widely used boat access point to the Connecticut River.
Great Pond Lookout Point, a capped landfill, converted to a grassy lawn area, perfect for resting at before continuing along the bike trail.

Smith Academy Fields, includes the existing ballfields, as well as the proposed educational garden. This makes this spot a destination for kids.
Trustees of Smith Academy Park, designed by Tanya Chesnell, incorporates Hatfield’s architectural history into a contemporary town common.

Center school fields and access road is a beautiful place to start a walk along the Connecticut river dike road, or watch a son or daughter’s soccer game.
The cemetery has been extended, to plan for future growth, and basketball and tennis courts have been added as a response to Hatfield’s Town Center revitalization plan.

The Mill River Dam, designed by sage sluter, creates a system around the dam for activity and education.
Bridge Lane is a scenic area down a dirt road that connects to the dike road, it overlooks the river and the agricultural fields, and the holyoke range can be seen in the distance.

Confluence point is where the Mill River meets the Connecticut River; a scenic spot to rest along the Rivere walk.
Canary Island is another local hot spot for boating and swimming along the ct river.

Camp Fiddlehead, designed by Joolie Goodwin, is a destination for visitors to enjoy the natural features and wildlife in west hatfield.
This Greenway design responds to all facets of the needs of Hatfield. It outlines clear systems that overlap each other to create a cohesive plan addressing Hatfield’s history, culture, ecology, recreation and regional context. The concept of three connecting spheres offers the most diversity within Hatfield’s developable land, insuring that these areas of natural beauty will remain equally accessible across town.
Works Cited


Hatfield Open Space Committee with Assistance from Pioneer Valley Planning Commission. 24 Apr. 2008.


