

# OPEN SPACE AND RECREATION PLAN

for

Borough of Chatham,  
County of Morris  
*"On the Banks of the Fishawack"*

Compiled by:  
The Land and Historic Conservancy  
Committee  
July 2010

## **Acknowledgments**

Chatham Borough Land and Historic Conservancy Committee would like to acknowledge the following individuals and organizations for their help in providing information, guidance and materials for the Borough of Chatham Open Space and Recreation Plan.

### **The Land and Historic Conservancy Committee (Constituted 2009):**

Marcy Wecker, Chair  
Richard Mikaluinas, Vice Chair  
Edward DiFiglia, Secretary  
Paul Suszczyński  
Vincent J. DeNave, Borough Engineer  
Lee Byrd, Environmental Commission  
Joe Marts, Borough Council Liaison  
Bruce Harris, Environmental Commission

### **Mayor – Borough of Chatham**

Nelson V. Vaughan III

### **Chatham Borough Administrative Staff**

Janice R. Piccolo, Administrative Secretary  
Christopher M. Finazzo, Intern

### **Recreation Committee — Borough of Chatham**

Carol Nauta, Director

### **Tax Assessor's Office — Borough of Chatham**

Pat Aceto, Assessor  
Anne Mandal, Assistant to the Assessor

### **Historic Preservation Commission — Borough of Chatham**

Janet Siegel, Chairman

### **Clerk's Office — Borough of Chatham**

Susan Caljean, Borough Clerk

### **Administrator's Office — Borough of Chatham**

Robert Falzarano, Administrator

## Table of Contents

### Contents

<b>Executive Summary</b> .....	4
<b>Community Resources in the Borough of Chatham</b> .....	5
<b>Natural Resources</b> .....	5
<b>Historical Resources</b> .....	8
<b>The Built Environment</b> .....	11
<b>The Open Space Program in the Borough of Chatham</b> .....	14
<b>Inventory of Outdoor Resources in the Borough of Chatham</b> .....	19
<b>Outdoor Needs in the Borough of Chatham</b> .....	20
<b>A System of Open Space in the Borough of Chatham</b> .....	26
<b>Action Program and Recommendations</b> .....	28
<b>Preservation Tools and Funding Sources</b> .....	30
<b>References</b> .....	34
<b>Maps (Appendix)</b> .....	34
Natural Features in Chatham Borough Land Use in Chatham Borough Open Space Map - Borough of Chatham Greenways Map - Borough of Chatham The Buried Valley Aquifer System Estimated Annual Groundwater Recharge in Chatham Borough Wellhead Protection Areas in Chatham Borough	
<b>Land Acquisition Recommendations</b> .....	36
<b>Appendix</b>	
Referendum Resolution #01-195 - Resolution Authorize an Open Space Ballot Measure Resolution #01-240 - Resolution to Dedicate by Rider Funds for an Open Space Trust Fund Statement of Determination of the Board of Canvassers Open Space Tax Reduction Resolution Land Acquisition Resolutions Borough Properties Listing Borough of Chatham Recreation and Open Space Inventory (ROSI) National Register of Historic Places - Dunesberry House Resolution # 09-01 – Create the Land & Historic Conservancy Committee Resolution #09-161 – Allocating Open Space Tax Fund Monies to Study Public Land Spaces	

## Executive Summary

Chatham Borough is a small community in southeast Morris County. Chatham is developed residentially with a small industrial area in the southeast section of the Borough. Route 124 serves as the Borough's Main Street and primary commercial area. The east end of Main Street is a State Registered Historic District, with a history dating back to the early 1700s, when settlers moved through Short Hills Hobart Gap to find open lands west of the Watchung Mountains.

Chatham Borough has several environmentally sensitive areas. The Passaic River, which forms Chatham's eastern border, flows about three miles through the community. A large wetlands area occurs in the north of the Borough, in the River's floodplain. Second Watchung Mountain also known as Fairmount Avenue Hill and atop of which runs Fairmount Avenue extends northeast from Chatham's southern border to the center of the community at Main Street. On the east side of Fairmount Avenue Hill are steep slopes, which end at the Passaic River.

The Chatham Borough Land and Historic Conservancy Committee has identified the Borough's wetlands as an important area for preservation. Chatham's priorities also include protecting the Passaic River corridor, expanding recreational facilities to meet the community's growing need, protecting steep slopes and groundwater recharge areas and preserving historically significant parcels.

To move towards the goal of protecting open space, Chatham Borough voters approved a referendum in November 2001, supporting the establishment of an Open Space Trust Fund. Beginning in January 2002, the Borough began collecting one cent per \$100 of assessed property value. The Open Space Committee was formed as an advisory body to develop an Open Space Plan for the Borough.

In 2009, The Open Space committee was reconstituted as the Land & Historic Conservancy Committee following a resolution adopted June 9, 2008 to reduce the obligation of the Open Space Tax Fund to one half of one cent to remain fiscally prudent within the best interests of the public. The recent economic depression and a decline in state aid towards municipal governments has necessitated that any open space acquisitions are carefully considered before being made. The Borough needs to fulfill its fiscal responsibilities to taxpayers by working to keep the municipal budget low while still being able to meet its objectives.

The Plan includes an inventory of potential open space that consists of vacant land, farmland assessed property, tax exempt property and commercial and industrial properties greater than one-and-a-half acres. These properties are listed in the Plan's Appendix, and depicted graphically on the Open Space Map.

This Open Space and Recreation Plan recommends a system of greenways to protect the Passaic River and its floodplain. These areas of potential connectivity are shown on the Greenways Map, which is included in the Maps Section. Greenways along the River will buffer it from encroaching industrial and residential development, and absorb storm water runoff. Greenways will provide the dual benefit of connecting the Borough's extant parklands. The Open Space Plan also recommends the expansion of active recreation fields to answer the community's well-documented growing needs.

Chatham Borough's Open Space Plan concludes with an Action Plan that describes the next steps in the implementation of the Plan. One of the first recommendations is to adopt this Plan as an element of the Borough's Master Plan.

## Community Resources in the Borough of Chatham

*It is only fairly recently that we have begun to appreciate the many critical functions performed by the different plant habitats, and the often dire consequences when their integrity is destroyed or even seriously impaired.”*

*-- Borough of Chatham Environmental Resource Inventory*

The Borough of Chatham is located in southeastern Morris County, New Jersey. The Borough is bordered by Chatham Township, Madison Borough and Florham Park Borough in Morris County; Millburn Township in Essex County; and Summit City in Union County. The Passaic River forms the eastern boundary of Chatham Borough. The Passaic is also the eastern border of Morris County.

Chatham Borough has a vibrant, historic downtown with scenic homes along Main Street, and sensitive natural resources throughout. A planned system of open space preservation can protect community resources and enhance the quality of life for Chatham Borough residents.

A community's natural resource base provides many important functions. Wetlands prevent flooding, forests provide wildlife habitat and help regulate surface water temperatures. Rivers provide aquatic wildlife habitat and contribute to the maintenance of the water cycle. Natural resources can also provide recreational opportunities in the form of trails and walkways, nature study and river access for boating. Open space preservation maintains the integrity and improves the function of natural resources upon which life depends in any community

## Natural Resources

### *Geology*

Chatham Borough is situated in the Piedmont physiographic province. The Piedmont, which provides the interface between the Atlantic Coastal Plain and the interior mountainous provinces, extends the length of the east coast of the United States east of the Appalachian Mountains. Piedmont translates from French to “foot of the mountains.” Chatham's topography is gently rolling, except in the southern part of the Borough where 200-foot Long Hill descends sharply from Fairmount Avenue to the Passaic River. Long Hill, a community gathering point, provides exceptional views east to New York City. Elevations in the Borough range from 168 feet along the Passaic River to 463 feet near Fairmount Avenue.

The Piedmont physiographic province experienced several sinking episodes 170- 200 million years ago, leaving it in a series of basins up and down the east coast. At the same time the Highlands were rising, causing runoff of sand and clay to be deposited over the Piedmont. These deposits would form Chatham Borough's bedrock, which consists of shale and sandstone. At this time, a series of volcanic eruptions spread sheets of erosion-resistant basalt over what is now southern Morris County. One of these eruptions formed Long Hill, also known as Fairmount Avenue Hill (*Borough of Chatham Environmental Resource Inventory*).

Chatham's pre-glacial drainage was through a gap in the second Watchung Mountain at Short Hills. As glaciations extended southward a one-mile wide belt of debris \_ the terminal moraine of the glacier— plugged the existing gap in the mountain. This forced the waters to back up against the natural impoundment. Coupled with the series of basins that had come to exist in the region, the blocked waters formed glacial Lake Passaic. As the glacier retreated, melting water extended the Lake to a maximum of 30 miles in length and 10 miles in width. It had a depth of up to 200 feet. As the water from Lake Passaic found other outlets through which to drain, most notably Little Falls Gap on the Passaic River, it was reduced to a series of ponds and swamps in the basins. Vestiges of Lake Passaic include the Great Swamp, Black Meadows, Troy Meadows and the wetland areas in the north of Chatham Borough (*Borough of Chatham Environmental Resource Inventory; U.S. Fish and Wildlife Service*).

Perhaps the most important aspect of the geologic history of Chatham Borough from a municipal-services perspective was the deposition of a series of glacial-fluvial layers in a north-south belt from present day East Hanover south to Chatham Borough. The land areas that received the glacial deposits were never glaciated themselves, but they were close enough to the limit of glaciations that they received the outwash from melting ice. Lake Passaic and other sediments covered these extremely porous beds. Today these beds form what is known as the Buried Valley Aquifer System. This aquifer has been designated by the United States Environmental Protection Agency as a sole-source aquifer (*Morris County Department of Planning and Development 1998*).

### ***Watersheds***

Chatham Borough lies completely within the Passaic River drainage basin. There are no other sub-watersheds in Chatham Borough. Aside from the Passaic River itself, the only other notable waterways in the Borough are Day's Brook and Harmon Brook, both of which run northward to meet the Passaic River in Florham Park (Natural Features Map in Maps Section). The Passaic River's headwaters, located in south-central Morris County, are of exceptional water quality. The upper reaches of the Passaic—above Chatham—have received Federal Wild Trout Stream designation and a New Jersey designation as a trout production stream (*Morris County Department of Planning and Development 1998*).

Watersheds determine to what surface water body precipitation will drain. All of Chatham's land area drains to the Passaic River. As precipitation is transported to surface water bodies it accumulates pollutants from lawns, roads and storm drains. Chatham should look toward the quality of the Passaic River in assessing the non-point source pollution inputs of the community.

The only standing body of water in the Borough is Milton Avenue Pond, which is located north of the Milton Avenue School. This small manmade pond is located on Borough property, and is host to an annual fishing tournament.

### ***Wetlands***

Wetlands mitigate flooding through their immense storage capacity, buffer pollutants, and provide aquatic wildlife habitat. In Chatham, the majority of wetlands are located in the northern section of the Borough. The Milton Avenue Woods and Wuhala Woods contain the largest contiguous wetlands in the Borough. These wetlands are located within the Passaic River's floodplain. There are other isolated patches of wetlands in the Borough located along the Passaic River. However, the stretch of the Passaic River in Chatham Borough upstream of Summit Avenue contains little wetlands for it is incised in a narrow valley with steep slopes (*see Borough of Chatham Natural Features Map in the Maps Section*).

### ***Soils***

The Borough of Chatham Environmental Resource Inventory labels soil as "one of our most important natural resources." Soil type and quality not only dictates what can be grown, but also what can be built. Soils determine what type of vegetation will occur in a given area and how quickly precipitation will drain to the ground. There are three main areas of soil types in Chatham Borough. In the Long Hill area, along Fairmount Avenue, soils consist of "stoney and silty soils and gravelly fine sandy loam" (Borough of Chatham Environmental Resource Inventory). The central portion of the town--south of the wetland complexes in the north, and on either side of Long Hill—consists of sandy loam and silty loam soils. In the north of the Borough the soil consists of silt and clay with some alluvial and muck soils. These last two soil types are indicative of the wetlands contained in this third area (*Borough of Chatham Environmental Resource Inventory*).

The most severe limitations for buildings based on soil conditions occur in the north of the Borough on either side of North Passaic Avenue. This area consists of a large wetland complex located in the Passaic

River's floodplain. Another area of severe limitation for buildings is the east side of Fairmount Avenue Hill. In two distinct slopes the hill drops several hundred feet to the Passaic River, making it unsuitable for many construction purposes (*Borough of Chatham Environmental Resource Inventory*).

### ***Land Use***

Chatham Borough is 2.4 square miles, or 1,533 acres, in area. It is developed primarily as a residential community with small apartment buildings and single-family homes. A total of 1,191 acres (78%) of the Borough are classified as urban, or developed, by the Department of Environmental Protection (*Land Use Map in the Maps Section*).

Forested land covers 300 acres (19%) in Chatham Borough. Among forested areas of the Borough, there are two classes: wetland forest and upland forest. The majority of the Borough's wetland forest (202 acres) occurs in the northern section of the community, in Borough-owned Milton Avenue Woods and Wuhala Woods. These wetland forests are defined by their poorly drained soils and vegetative communities consisting of ash, pin oak, white oak, red and silver maple, and black gum (*Borough of Chatham Environmental Resource Inventory*).

Forests located in well-drained upland areas (98 acres in the Borough) consist of mixed oak, sugar maple, tulip, and hickory trees. Upland forests occur throughout the Borough wherever soils and topography allow water to runoff or drain more easily. A notable concentration of upland forest exists in the southern part of the Borough, along the Fairmount Avenue Hill (*Chatham Borough Environmental Resource Inventory*).

Marshy wetlands, or non-forested wetlands, occupy 17 acres (1%) of the Borough. These wetlands are also located in the northern section of the Borough, primarily along Highway 24 and under the power line right-of-way.

There is one farmland assessed property in the Borough. It is located between Fairmount Avenue and Hillside Avenue along the Chatham Township border. The property is 2 acres in the Borough, of which 3/4 of an acre is cultivated. The farm is part of a larger holding that lies mostly in Chatham Township.

### ***Groundwater Resources***

Chatham Borough relies on public groundwater; there are no private wells in the Borough. The three wells that provide water for Borough residents are located off Van Doren Avenue at the Department of Public Works facility. These wells are maintained by Chatham Borough.

Chatham draws its water from the Buried Valley Aquifer Systems formed by melting glaciers 15,000 years ago. After the glacial outwash deposited layers of sand and gravel, impervious layers of clay and silt were deposited on top, forming the aquifer. There are three distinct valleys—Whippany, Chatham, and Millburn— within the Buried Valley Aquifer Systems, all of which are believed to be hydraulically linked to each other and to the rivers that now flow above them, such as the Passaic and the Whippany. Chatham Borough sits atop both the Chatham and Millburn Buried Valleys. The three wells in the Borough are located near the interface of these two Buried Valleys (*Passaic River Coalition 1998; Borough of Chatham Environmental Resource Inventory*).

Due to the extensive layers of impervious material capping the aquifer, the exact extent of its recharge areas in Chatham is not well known. It was believed in the not too distant past that no recharge occurred in the Borough at all (*Borough of Chatham Environmental Resource Inventory*). However, there is recharge to the aquifer within Chatham Borough's boundaries, but the exact extent cannot be determined without a costly and extensive research program. For example, as existence of recharge in the Borough, a dell in extreme southwest Chatham—an area with sandy and gravelly soils that is inundated at times with up to

six feet of rainwater, all of which is gone in a matter of days. Whether the water draining from the dell actually winds up in the aquifer is undetermined.

A groundwater recharge map has been produced by the Passaic River Coalition (*Maps Section*). It reveals that the highest potential recharge levels are found to the south of Main Street in predominantly residential areas. According to the map, there are some greater recharge levels located along the Passaic River at Stanley Park and the horseshoe bend where the rail line touches the Passaic (*Passaic River Coalition 1998*).

## Historical Resources

Chatham's history is as rich as it is varied. From the time before Europeans colonized the countryside around Chatham, the land and the Passaic River were important in the seasonal migration of Native Americans. European settlement—occurring in the very spot laid out by centuries of Native American travel—left a very profound mark on the architecture and character of the community.

The first humans to arrive in this region after glacial Lake Passaic's retreat were Native Americans. The Lenape, or Delaware, Indians were the first tribe to arrive in the area. The Minsi people—the band of Lenape from northern New Jersey—were a migratory people, traveling to the sea in summer and back to inland areas in winter. The trail created and used by Indians en route from the interior of New Jersey to the sea would become State Highway 124 (Chatham's Main Street). The path, known as the Minisink Trail, ran from northern Sussex County past Lake Hopatcong, through Randolph, Dover, Morristown, Madison and Chatham (*Cunningham 1967*).

Although evidence of permanent Indian settlement exists to the south of the Borough, in Chatham Township, they were for the most part nomadic people. Evidence of an Indian stone axe factory has been found in the southwest section of Chatham, near Washington Avenue. Indian artifacts such as axes and arrowheads have also been found near Stanley Park in Chatham Borough and along the Passaic River north of Main Street.

It was believed by colonists that the Lenape Indians called the Passaic River the Fishawack, or Pishawack. It is speculated that Passaic is a variation of Pishawack. As for its meaning, no one is quite certain. Definitions as disparate as “valley,” “peace,” and “place where the river splits” have been conjectured (*Cunningham 1967; Philhower 1914*).

Whatever the true meaning of the name, on the Indians' path to and from the sea they most assuredly forded it slightly north of the current Highway 124 bridge. This may have been the most profound legacy of the Indians, for their choice of where to cross the Passaic—and the trail that led there from the sea opened the door to European settlement in Chatham Borough (*Cunningham 1967*).

The first Europeans to settle west of the Passaic River in what is now Morris County did so in 1710, though these settlements were south of Chatham Borough. John Budd was the first to formally own land in what would become Chatham Borough, though he made his home in Whippany. It was not until 1730 that settlement came to Chatham with the purchase of 250 acres by John and Daniel Day from John Budd. The land was located near the Passaic River (*Philhower 1914*).

The Days settled the area north and south of the Minisink Trail (Main Street). It is for these men that Day's Brook is named. The Days also constructed a bridge across the Passaic near the current Main Street Bridge. The village around the Days' settlement came to be known as Day's Bridge for some time (*Cunningham 1967*).

Other prominent names in the early days of Chatham were Lum and Bonnell. The former was a weaver who owned 27 acres north of Main Street along the Passaic River. Bonnell was an industrial entrepreneur who owned and operated several mills along the Passaic River south of Main Street.

Chatham officially received its name on November 19, 1773, with an advertisement in the *New York Gazette* proclaiming its new name. The newly named village was previously known as “at Passaic River,” but this name caused substantial confusion regarding mail delivery. The name Chatham was in honor of Minister William Pitt, Earl of Chatham. Pitt was held in very high regard by colonists for his belief that Britain should not oppress Americans, but rather embrace them for their role in spreading the influence of the British Empire (*Cunningham 1967*).

The American Revolution brought action to Chatham. Shepard Kollock published the *New Jersey Journal* from 1779 to 1783 in Chatham Borough. The Journal was the second paper in all of New Jersey, and the first in the northern part of the state. Sponsored by the government, the paper was full of colonial propaganda but lacked any substantive news reporting. Kollock operated in several locations in Chatham. The final site of the newspaper was about 500 feet west of the Passaic River, on the south side of Main Street.

In August 1781, in an effort to trick British forces into believing an attack on New York by General Washington was imminent, an elaborate camp was built in Union County on the banks of the Passaic River across from present-day Chatham Borough. A base camp suitable for 3,000 men was erected, including an elaborate bakery. During this time it is believed that Washington spent several nights in Chatham at the Morrell House on Main Street (later known as the Talimadge House).

In the middle of the night Washington and his troops quietly departed Chatham, embarking on a southward march to Yorktown to meet up with the French. This union of allied forces signaled the beginning of the end of the war, which came at Yorktown in October 1781 with Cornwallis’ surrender. It would be several days before Clinton and his British troops became aware that they had been severely tricked by American forces. Had Washington not stalled Clinton in New York with the faux encampment, British forces might have followed Washington to Virginia where a very different outcome could have transpired.

Main Street in Chatham was the original dividing line between Morris and Hanover Townships. Morris was located to the south of the street and Hanover to the north. This became increasingly difficult to manage politically with Chatham—a growing singular community centered around Main Street—divided by the two Townships. To ease the political tension the new Chatham Township was officially formed in 1798. It included all of the present municipalities of Chatham Township, Chatham Borough, Florham Park Borough and Madison Borough (*Cunningham 1967; Philhower 1917*).

From 1798 until 1891 Chatham’s town center was included in the Township of Chatham. In 1892 the Village of Chatham was established and governed by village trustees. The Village of Chatham lasted for five years. In 1897 the Borough of Chatham was formed, which allowed the town greater power in developing public infrastructure. The Borough’s water system—the same one in use today—went on line in early 1898; Electric lights, a police force, and a volunteer fire company were established soon after (*Philhower 1914*).

### ***Community Growth***

One of the first roadways to be formally constructed through Chatham was the Morris Turnpike, New Jersey’s first turnpike. The path of the Turnpike, which was chartered in 1801, was down Main Street, Chatham. It ran in its entirety from Elizabeth to Morristown and the upper Delaware Valley. The turnpike

was initially heralded for its efficiency of travel, but when patrons realized there was a fee associated with travel the mood cooled. Rates on the turnpike varied depending on cargo and equipment, but an average toll was one cent per mile for a standard horse-drawn carriage (*Cunningham 1967*).

As travelers became frustrated with the fees associated with the Morris Turnpike a renegade roadway opened up to the south of the toll road. The problem with the road was that the turnpike company had a monopoly over roadways for several miles on either side of the Morris Turnpike. Thus, travelers of the Shunpike were subject to prosecution for eluding the tolls. The Shunpike still retains its historic name in stretches of its run from Morristown to Summit (*Cunningham 1967*).

The next wave of transportation technology to change Chatham was rail service. Rail lines reached Chatham Borough in 1837. In this year, construction of the Morris and Essex Railroad was completed from Newark to Morristown. In addition to the personal transportation benefits, industry also took advantage of the new rail line (*Philhower 1914*).

At the present location of the Chatham Recycling Center there existed an engine house for the railroad. Trains would stop over there to obtain a stronger engine to traverse the hill into Summit. Because of the need to change engines Chatham became an unofficial terminus for the Pennsylvania coal trains whose contents were destined for the urban centers further east. Coal trains would lay over for weeks, awaiting their final segment of the journey. Philhower (*p. 35*) writes, "It was not an uncommon sight to see dozens of trains made up of 'coal jimmies' lying in the switches at this junction."

A century before the railroad's arrival, the Passaic River provided the energy for Chatham's earliest economic production. By 1850 four mills were in operation within Chatham. A sawmill was located at the current site of Stanley Park, but by the 1860s it had become a felt paper mill. The surrounding area was called 'Stanley' (*Cunningham 1967*). Stanley had a post office, and several residences clustered around the river (*Wesall, personal communication*). Further downstream, where Summit Avenue crosses the Passaic River, there were two mills. One produced paper and the other iron. Another sawmill was in place further down the River (*Cunningham 1967*).

Because of their convenient location along the Morris Turnpike and the railroad, Chatham's mills were used heavily by farmers from western counties such as Hunterdon, Warren and Sussex. After bountiful harvests farmers would cart their grains to the Chatham mills for processing.

In the latter part of the 19th century two new industries arose in Chatham: brick making and rose gardening. Lum's Brickworks was located behind the present day municipal building, and it operated from 1835 until 1891. The brickyard unearthed massive amounts of clay during its operation. Bricks from Lum's operation were used in the original Drew University buildings in Madison as well as in nearby Catholic churches (*Cunningham 1967; Borough of Chatham Master Plan*).

By the late 1800s rose gardening and greenhouses became a very popular enterprise in Chatham Borough. According to Mueller's 1910 maps of southeastern Morris County, there were eight rose gardens of varying sizes located throughout the Borough. At the peak of Chatham's rose production there existed seventy separate greenhouses in the town (*Cunningham 1997*). Over time the rose industry waned in Chatham as competition from other areas increased and Chatham moved more towards a suburban community.

Although Chatham has many sites of historic importance throughout the town, the greatest concentration of historic buildings occurs on the east end of Main Street, near the Passaic River. The East Main Street Historic District was placed on the New Jersey Register of Historic Places in 1973. This was one of the first ten areas in Morris County to be selected for the Register (*Chatham Historic Preservation Commission 1991*). The District encompasses Main Street from its intersection with Summit Avenue east almost to the Passaic River. In 2001, the Chatham Borough Council designated a local Main Street Historic

District. The local district encompasses the East Main Street district and continues west along Main Street to near Lafayette Avenue on the south side of Main Street, and Washington Avenue on the north side of Main Street (*Westfall, personal communication*).

Chatham contains one building on the National Register of Historic Places (*see Appendix*). The Dusenberry House, constructed in 1848, was used as a parsonage until 1904. It has been owned privately since that time, first as a residence and most recently as a real estate office (*New Jersey Department of Environmental Protection 1989*).

The Passaic River provided resources and obstacles for both cultures that inhabited the area: Native Americans were forced to find a suitable place to ford the waterway; they also took advantage of the natural bounty provided by the River. Europeans exploited the hydropower of the River and for a time identified their town by the name of the River. Open space preservation can help Chatham preserve its cultural heritage, which grew around the Passaic River and Main Street corridor.

## **The Built Environment**

Open space can complement the existing built areas and infrastructure of the Borough of Chatham. Open space preservation can also shape Chatham Borough's future growth and community identity.

### ***Demography***

The Borough of Chatham occupies an area of 2.4 square miles (1,533 acres). Chatham is among the smallest municipalities in Morris County.

The 2000 census revealed a population of 8,460 for Chatham Borough. This is a density of 3,525 persons per square mile. Aside from the extreme north of the Borough, where a significant amount of forest exists, and along the banks of the Passaic River, the Borough is primarily a developed residential community (*Morris County Department of Planning and Development 1988*).

With its convenient access to roads and rail lines, Chatham became developed after World War II. The population of Chatham was 4,888 in 1940 and 7,391 in 1950. By 1960 Chatham's population was 9,517, over 1,000 people greater than the 2000 figure. Chatham's population remained stable through 1970, at which time the Borough's population was 9,566.

From 1970 to 1980, the Borough's population declined by 1,029 people. From 1980 to 1990 the Borough lost another 530 people. From 1990 to 2000, Chatham Borough saw the first substantial growth in population in 40 years. During this period, the Borough added 453 people, or 6% of its population (*Borough of Chatham Master Plan*). From 2008 it is estimated that Chatham Borough. From 2000 to 2008, it is estimated that Chatham Borough lost 278 people, or 3.4% of its population (*Morris County Data Book, revised 1/25/10*).

### ***Housing***

In 2000 Chatham Borough contained 3,159 households, 2,384 of which contained families. In 2010 it is estimated that Chatham Borough contained 3,028 households (*www.clrsearch.com*). The average household size in the Borough is 2.67 people. The majority of Chatham's housing, consistent with the statistics, consists of single-family detached units. Chatham's median home values rose by 48.2% between 1990 and 2000 (*Morris County Data Book, revised 1/25/2010*). This was the highest increase in Morris County for the time period. The increase is attributable in part to New Jersey Transit's Midtown Direct service to New York City (*Morris County Daily Record*).

Sewers service the entire municipality, with the wastewater treatment plant located in the extreme northeast of the Borough. Chatham shares ownership of, and operating responsibility for, this treatment plant with Madison. It is estimated that Chatham's median home value rose by 52% between 2000 and 2008 (*www.city-data.com*).

### ***Transportation Infrastructure - Roads***

Chatham Borough contains two state highways and three county roads. The balance of Chatham's roadways are local residential roads and smaller thoroughfares. Before the completion of State Highway 24, which has a stretch of about one mile through the north of the Borough, the old State Highway 24, now State Highway 124 or Main Street, was the main thoroughfare from Morristown to Chatham, Summit and points east. State Highway 24 connects to Interstate 287 in Hanover and Interstate 78 in Springfield.

The completion of Highway 24 in the early 1990s had the effect of reducing traffic on Highway 124 by several thousand vehicles per day. Highway 24, because of its convenience for commuters, has seen a dramatic increase in usage since its inception. The highway now handles over 82,000 vehicles per day on its four lanes (*New Jersey Department of Transportation*).

County Road 646, known as Watchung Avenue, runs through Chatham Borough from the Chatham Township line east into Summit. In the eastern section of the Borough, the area around Watchung Avenue and River Road makes up Chatham's industrial sector.

County Road 607, known as North Passaic Avenue, runs from Main Street north into Florham Park and Livingston Township in Essex County. The roadway provides access to a portion of Chatham's residential areas as well as the wastewater treatment plant located at the Florham Park/Chatham border.

Fairmount Avenue, designated as County Road 638, runs from Main Street, Chatham, south into Chatham and Long Hill Townships. Chatham Borough's Municipal Building, which includes the police station and municipal offices, is located on Fairmount Avenue. Through the Borough, Fairmount Avenue runs atop Long Hill, also known as Fairmount Avenue Hill, which consists of material laid down from an ancient volcanic eruption (*see Natural Resources Section of this Plan*). The view east from the road is very attractive as it overlooks the City of Summit, the Passaic River Valley and New York City.

### ***Transportation Infrastructure - Railroads***

The Morris and Essex rail line, operated by New Jersey Transit, runs through the Chatham Borough from Dover and Morristown east to Summit, Newark and New York City. Chatham Borough's station on the line is located off Fairmount Avenue between the Municipal Building and Main Street. The line enters the Chatham in the western section of the Borough. After the train stop the railroad bends to the south and exits the southeastern section of Chatham. Opening New Jersey Transit's Midtown Direct service to New York City has increased railroad commuter usage significantly (*Morris County Daily Record*).

### ***Commercial Development***

The majority of Chatham's commercial activity is located along Main Street from Madison to the Passaic River. Along this 1 1/2 -mile stretch of roadway there are several shops, restaurants, professional services, and places of worship. The Library of the Chathams is located on Main Street. The Borough's industrial district is located along the Passaic River at the intersection of Watchung Avenue and River Road. Several manufacturing facilities and commercial services are located in this area.

## ***Education***

Chatham Township and Chatham Borough merged their respective school systems in 1988. Because of the merger, several schools were closed and converted to the Municipal Buildings of Chatham Borough and Chatham Township. One school, located behind the Municipal Building, was leased to a private educational institution (*Borough of Chatham Master Plan*).

Currently facilities for kindergarten through third grade consist of three schools, two in the Borough and one in the Township. At this level students attend school in their own municipality. The Borough schools are Washington Avenue School, which accommodates 403 students, and Milton Avenue School, which accommodates 349 students as of July 2009.

After the completion of third grade, students from both municipalities come together for the remainder of their primary and secondary educations. Fourth and fifth grade education is obtained at Lafayette School, located in Chatham Township. The most recent enrollment figure for the Lafayette School is 630 students. The Middle School houses grades 6 through 8, and is located in the Borough. The enrollment is 846. Students return to the Township for high school. The Chatham High School has 996 students (*School District of the Chathams, personal communication*).

## ***Recreation Areas***

The Borough's passive open space and recreation lands exist primarily along the Passaic River and in its floodplain. It is there that Stanley Park, Shepard Kollock Park, Wuhala Woods and Milton Avenue Woods are located. These areas contain a good deal of wetlands and feature walking trails and access to the Passaic River.

Active recreation areas in the Borough are located at smaller, more developed parks, and at the Borough's schools. Memorial Park, located behind the library, houses the community pool, basketball courts, and two small ball fields. Garden Park, located adjacent to the Middle School, contains tennis and backboard courts. In addition to its passive opportunities, Shepard Kollock Park contains two baseball diamonds and a multipurpose field.

The Borough's schools—Washington Avenue School, Middle School, Milton Avenue School and the Lum Avenue Property leased to the private Early Childhood Learning Center—also contain active playing fields used by the community (*Borough of Chatham Master Plan*). The field at located at the Lum Avenue Property received artificial turf in 2007.

## The Open Space Program in the Borough of Chatham

*“In the light of anticipated increasing pressure for development of this region ... there is an urgent need for a clearly defined, long-range program for providing permanently protected open space in the Borough.”*

— *Borough of Chatham Environmental Commission*  
*Open Space: An Evaluation and Proposal for the Borough of Chatham, p. 13.*

Preservation of open space must be planned just as any municipal infrastructure. The development of an Open Space and Recreation Plan, and the Borough governing body’s commitment to implement the Plan, are essential in maintaining a community’s character, and to preserve and improve the quality of life for its residents.

The Borough of Chatham Land and Historic Conservancy Committee has outlined the following open space goals for the Borough. These goals and policies will guide the recommendations of the Open Space and Recreation Plan:

- Preservation and enhancement of historically significant areas in the community.
- Protection of the ground water supply to ensure a continued supply of water for the Borough.
- Protection of well heads in the Borough to ensure the quality of the drinking water supply.
- Protection of the Passaic River corridor through the Borough.
- Preservation of wetlands, woodlands and watershed recharge areas.
- Expansion of existing parks and recreation areas.
- Creation of new passive recreational facilities.
- Establishment of a greenway linking parks along the Passaic River to municipal holdings in the northern part of Chatham Borough and into other communities.
- Preservation of the remaining tract of farmland in the Borough.
- Protection of community vistas and gathering points.

### ***Borough of Chatham — 2000 Master Plan & 2006 Re-examination Plan***

The goals and objectives of the Open Space and Recreation Plan are drawn from the Borough of Chatham Master Plan and from discussions with the Borough of Chatham Open Space Committee. Since a goal is for the Open Space and Recreation Plan to become an amendment to the Borough’s Master Plan, consistency between the two documents is important. Although the Master Plan articulates many goals, only those that can be achieved through open space preservation are repeated in this Plan. The open space goals and objectives of the Borough of Chatham Master Plan include the following:

- Preservation of “the character of the local neighborhood and of open space and the limitation of water runoff” (p. 3-5).
- Development of “the west bank of the Passaic River as a recreational area” (p. 3-5).
- Promotion of “the conservation of historic sites and districts, open space and valuable natural resources” (p. 2-2)
- Provision of “adequate light, air, and open space” (p. 2-4).
- Encouragement of “municipal action to guide the appropriate use and development of land” (p. 2-2).
- Prevention of “the degradation of the environment through improper use of land” (p. 2-2).
- Provision of “sufficient space in appropriate location for a variety of ... recreational uses, and open space, both public and private, according to their respective environmental requirements, in order to meet the needs of all citizens” (p. 2-9)
- Establishment of a greenway system containing “publicly accessible portions of scenic and historic significance” (p. 2-9).
- “Protection from development of significant wooded areas, flood plains, steep slopes, wetlands, and high water table areas” (p. 2-10).

In addition to the goals and objectives of the Master Plan, the Conservation Plan Element of the *Master Plan* details objectives for the community. The goals of the Conservation Plan are to:

- “Establish and maintain a greenway along the Passaic River from Shepard Kollock Park south ultimately to Stanley Park” (p. 7-3).
- “Continue to negotiate easements across private property along the Passaic River north of Main Street with the ultimate aim of having a greenway along the entire portion of the Borough which abuts the Passaic River” (p. 7-3)
- “Preserve the natural features of land characterized by steep slopes” (p. 7-4).
- “To protect and maintain the quality and quantity of the Chatham Borough water supply” (p. 7-6).
- “To preserve trees within the Borough while balancing tree preservation with an individual’s right to develop his property” (p. 7-9).

### ***New Jersey State Development and Redevelopment Plan***

Chatham Borough lies completely within the Metropolitan Planning Area of the State Development and Redevelopment Plan. The Borough is highly developed, with Passaic River frontage on the eastern border.

The State Development and Redevelopment Plan suggests goals to guide land use in the Metropolitan Planning Area. Towns in this Planning Area often have “strong ties to, or are influenced by, major metropolitan centers – the New York/Newark/Jersey City metropolitan region in the northeast counties (roughly within the 1-287 beltway)” (*New Jersey State Planning Commission, p. 165*). This Planning Area consists of towns whose borders have been blurred by the extent of development in the surrounding areas. Chatham Borough is the prototypical Metropolitan Planning Area community in that it contains a Main Street which provides social and cultural services, and is serviced by a rail line.

Within the Metropolitan Planning Area the intention of the State Plan (*p. 167*) is to:

- Revitalize cities and towns;
- Promote growth in Compact Forms;
- Stabilize older suburbs;
- Redesign areas of sprawl;
- Protect the character of existing stable communities.

### ***History of the Open Space Program***

The first steps toward establishing an open space program in Chatham Borough came in 1975. It was in this year that the Environmental Commission prepared *Open Space: An Evaluation and Proposal for the Borough of Chatham*. In the report the benefits of open space were elaborated upon, with specific examples included of how these benefits could positively impact Chatham Borough. The report also included the first open space inventory in Chatham Borough, detailing the size and location of the then-open parcels in the Borough. The concluding proposal was that Chatham Borough establish a “clearly defined, long range program for providing permanently protected open space in the borough” (*p. 13*).

In 2001 the Chatham Borough Environmental Commission completed a new Open Space Inventory. The new inventory was more detailed and complete in its analysis of the open space located in the Borough than was the 1975 Inventory. A result of that process was the recommendation by the Commission that the Borough Council establish an Open Space Trust Fund to assist in the acquisition of open space.

The Borough Council established an Open Space Committee to oversee the production of the Open Space and Recreation Plan and to recommend to the Borough Council parcels for preservation. The Open Space Committee is composed of seven members including representation from the Planning Board, Environmental Commission, Recreation Committee, and Borough Council (*Acknowledgments*).

The Borough of Chatham established a dedicated tax for the acquisition of open space through voter referendum in November of 2001 (*Appendix*). A total of 66 % (1,522) of Chatham voters supported the referendum question establishing an “Open Space Trust Fund”. A total of 34 % (783) voted “no”. In 2009, the tax obligation was reduced.

Resolution #01-240 established an “Open Space Trust Fund” for the Borough (*Appendix*). The Trust is funded by an amount of one cent (\$.01) per \$100 of assessed property value beginning in the year 2002. The fund will generate approximately \$78,000 per year. The amount by which the Trust is funded is not to exceed the current amount of one cent (\$.01) per \$100 of assessed property value. The funding level is to be revisited in a period of five years.

Resolution #08-232- The mayor and Borough Council, after review of outstanding obligations, in connection with budget for the Borough of Chatham, for the fiscal year 2008, have determined that it is fiscally prudent and the best interest of the public would be served by reducing the tax obligation of the Open Space Tax Fund to one half of one cent (\$.005).

### ***Other Participants in Open Space Preservation in the Borough of Chatham***

Several regional entities are working to preserve open space and provide stewardship activities in the Borough of Chatham. These regional initiatives include the following participants:

- **Army Corps of Engineers.** This federal agency administers the ‘Preservation of Natural Storage Areas Component’ of the larger Passaic River Project. The goal of the Component is the buyout of flood prone areas along the Passaic River and in its floodplain. There are several properties in the Borough of Chatham that are candidates for federal buyout.
- **Township of Chatham.** Chatham Township collaborated with the Borough for the purchase of Woodland Park on September 23, 2002. (*Resolution #02-288*) The Chathams also share recreation space and a joint school system.
- **New Jersey Green Acres.** Green Acres administers the Planning Incentive Program, which provides grants and loans to municipalities for open space acquisition and preservation. The funding requires a one to one match.
- **Upper Passaic Conservation Committee.** This group consists primarily of members from Environmental Commissions of municipalities located in the upper Passaic River Watershed. Participating towns include Bernards, Warren, Long Hill, Berkeley Heights, New Providence, Chatham Borough, Chatham Township, Summit and Florham Park. The Morris County Planning Board and the Passaic River Coalition are also on the Committee. The goal of the Upper Passaic Conservation Committee, which was formed in 2001, is to protect the River from non-point source pollution. The Upper Passaic Conservation Committee is working on technical and educational materials related to groundwater recharge and riparian buffers.
- **Ground Water Protection Committee** (formerly the Passaic Valley Ground Water Protection Committee). Established in 1980, the Committee is working towards the goal of developing well head protection strategies for municipalities with public or private wells drawing on the Buried Valley Aquifer Systems, a designated sole source aquifer. Participants include municipalities in Morris and Essex Counties, including Chatham Borough; representatives from county, state and federal agencies; and representatives from private and public water companies (Passaic River Coalition 1998).
- **Passaic River Coalition.** This non-profit organization founded in 1969, works to preserve land in, and protect the health of, the Passaic River Basin. The Passaic River Coalition, also a land trust, is currently working towards the establishment of a greenway along the upper Passaic River, which includes a stretch through Chatham Borough.
- **Minisink Club.** Founded in 1955 this member-owned, non-profit organization operates a swim club in the Borough. Also present at the 15-acre facility are volleyball, tennis, basketball and paddle tennis courts. There is a sizable portion of woods on Minisink Club property that abut Borough-owned Wuhala Woods (*Sullivan 2002*).
- **New Jersey Audubon Society.** Founded in 1897, the Audubon Society works to promote environmental awareness and a conservation ethic among New Jersey’s citizens. Goals of the organization are “to protect New Jersey’s birds, mammals, other animals, and plants, especially endangered and threatened species, and to promote preservation of New Jersey’s valuable natural habitats” (*The Audubon Society of New Jersey*). The Society has conducted bird surveys at Shepard Kollock Park along the Passaic River.
- **Morris County Park Commission.** The Morris County Park Commission administers Patriots’ Path and Loantaka Trail, both of which are being extended into the Chatham Borough area.
- **Morris County Department of Planning and Development.** The Morris County Department of Planning and Development is developing bike and pedestrian paths throughout the County. In Chatham Borough Watchung Avenue and Fairmount Avenue are designated as Shared Roadways, which indicates their utility

as bicycle and pedestrian roadways. Also in Chatham Borough is a proposed walking path along the Passaic River from Stanley Park north to the Florham Park line (*Morris County Bicycle and Pedestrian User Guide*). The Morris County Department of Planning and Development also administers the annual Morris County Open Space and Farmland Preservation Trust Fund Grants.

- **Morris Land Conservancy.** Founded in 1981, Morris Land Conservancy is a nonprofit, member-supported organization working in land conservation and stewardship. The Conservancy assisted the Borough of Chatham in the production of its Open Space and Recreation Plan, and is an active participant in neighboring communities' land preservation programs.

## **Inventory of Outdoor Resources in the Borough of Chatham**

*“Open space ... can no longer be considered a given, it must be planned for as a basic infrastructure need as essential as roads, sewers and schools.”*

*– Helen Fenske, testimony, Greenway Council,  
Hudson River Valley, 12 February 1990*

This section of the Open Space and Recreation Plan inventories the open space lands within Chatham Borough. The acreage numbers within this section of the report come from the property lists in the Appendix. The accompanying Open Space Map details the location of these properties and has been developed using the Geographic Information System software Arcview 3.2. As noted on the Open Space Map, Morris County Department of Planning and Development produced the base map. Chatham Borough’s Tax Assessor’s office supplied the property list information. Some of these lands may have structures or other development. Vacant lands or outdoor recreation sites will be noted. Publicly owned property often represents opportunity for open space preservation.

### ***Public Land***

#### **Federal Land**

*There is no federally owned land in Chatham Borough.*

#### **State Land**

##### *New Jersey Transit*

New Jersey Transit owns 1 acre of land in the Borough. The land is located in two vacant parcels on Hillside and Summit Avenues. The parcels are near the railroad line, although not part of the track.

#### **County of Morris Land**

*There is no county-owned land in Chatham Borough.*

#### **Municipal Land Borough of Chatham**

##### *Chatham Borough*

The Borough of Chatham owns 367.1888 acres of land throughout the Borough (*Class 15A, 15C and 15F in the Appendix*). The majority of Borough-owned land is located in the northern section of the community in the Milton Avenue Woods and Wuhala Woods holdings. Several Borough-owned parcels are being used for conservation and recreation purposes, and are listed on Chatham’s Recreation and Open Space Inventory (ROSI) filed with Green Acres (*Appendix*). These parcels total 193 acres and include Stanley and Shepard Kollock Parks along the Passaic River, Wuhala Woods, Milton Avenue Woods and several smaller municipal parks scattered throughout the Borough.

Chatham Borough owns 63 acres that are not listed on the ROSI. These lots are smaller and scattered through the municipality. The Land Acquisition Recommendations Section of the Open Space and Recreation Plan will detail the possible uses of some of these properties as they may serve as extensions or connections to the existing park system in Chatham Borough.

## **Other Publicly owned property in the Borough of Chatham**

### *School District of the Chathams*

The regional school district owns 39 acres in four holdings in the Borough (*Class 15A and 15B in the Appendix*). Three of the District's holdings are the Washington Avenue School, the Milton Avenue School, and the Middle School, all of which are actively used. The fourth is a tiny lot located off Woodland Road, bordering Cougar Field in Chatham Township.

### *Madison-Chatham Joint Meeting Sewage Plant*

This regional wastewater treatment plant is located on 20 acres (*Class 15C in the Appendix*) in the extreme northeast of the Borough. The Facility services all Chatham Borough and Madison Borough residents and a small number of Chatham Township residents (*Borough of Chatham Master Plan, p. 57*).

## **Private Land**

### **Industrial and Commercial Property Lots greater than 1 1/2 acres**

There are a total of eleven industrial and commercial lots greater than 1 1/2 acres in Chatham Borough (*Class 4A and 4B in the Appendix*). These lots total 26 acres.

### **Farmland Assessed Property**

There are 2 acres of farmland assessed property in the Borough. This parcel is located between Fairmount Avenue and Hillside Avenue (*Class 3B in the Appendix*). This parcel is part of a much larger farmland-assessed property, the majority of which is located in Chatham Township.

### **Vacant Land — Land with no Structural Improvements**

Chatham Borough contains a total of 135 acres of vacant land on 39 lots (*Class 1 in the Appendix*).

## **Private Recreation Lands**

### *Minisink Club*

This private swim and tennis club is located on 11 acres on Princeton Street (*Class 4B in the Appendix*). The Club, founded in 1955 and member-owned, features a swimming pool, tennis courts, basketball courts and paddle tennis courts (*Pat Sullivan, personal communication*).

### *Chatham Fish and Game Protective Association*

The Chatham Fish and Game Protective Association operates a private club on Fairmount Avenue, across from the Municipal Building (*Class 4B in the Appendix*). The 2-acre facility offers tennis, paddle tennis and swimming facilities. The Fish and Game Association was founded in 1889 with the goal of promoting hunting, trapping and fishing on the lands in and around Chatham Borough. The Association no longer offers hunting or trapping.

### *Center Court*

At the northern border of Chatham Borough, Center Court provides 25 tennis courts, a pool and a weight room. The facility is separated into an indoor area and an outdoor area. The indoor area contains 11 courts that can be used by members of Center Court and by non-members. The outdoor area contains 14 courts and the pool. The weight room is also located

at the outdoor facility, although it is housed in a separate building. The outdoor area is open to members only. Center Court is located on 4 acres in Chatham and an adjacent 11 acres in Florham Park.

### **Church and Charitable Properties**

There are 14 religious institutions located on 11 acres in Chatham Borough. The properties are small and are actively being used.

### ***Preserved Land in Chatham Borough***

Chatham Borough consists of a total of 1,533 acres. Of this total, 193 acres, or 13%, are preserved through the Borough’s Recreation and Open Space Inventory (ROSI). The Borough’s protected lands are described below:

Municipal property listed on the ROSI	193 acres
---------------------------------------	-----------

### ***Chatham Borough Open Space Inventory***

The Open Space Inventory is the list of lands in the municipality that the Borough should look towards when planning for open space preservation. This list is comprehensive and includes property that is not traditionally thought of as “open space.”

In order to increase the amount of preserved land within the municipality, the Open Space and Recreation Plan recommends that Chatham Borough utilize a diverse inventory of lands to begin to prioritize properties for acquisition. This inventory\* includes (in acres):

Vacant Land	135
Municipally owned properties not included on the ROSI	63
Farmland Assessed Property*	2
Private Recreation Sites*	17
Industrial properties greater than ½ acres*	26
<b>TOTAL ON INVENTORY</b>	<b>243 ACRES</b>

Of the 1,533 acres in Chatham Borough, 243 are included on the inventory of available open space. Thus 13% of Borough land is potentially available for open space preservation.

\*Note: These parcels may have structures on them.

## **Outdoor Needs in the Borough of Chatham**

The needs set forth in this section are developed largely from the goals articulated in the System of Open Space Section of this Plan. A community's recreation and open environmental needs can be met through open space preservation. The headings below are areas where Chatham Borough's open space program should focus its efforts. Many of the needs can be accomplished simultaneously, creating a more perfect fitting system of open space in the Borough.

### **Chatham wells need protection to maintain Borough water quality and supply**

Chatham Borough was formed as a municipality in 1897 largely out of the need to provide municipal services to residents. In that year the first well was dug off Van Doren Avenue, at the interface of the Millburn and Chatham Buried Valley Aquifers of the Buried Valley Aquifer Systems. Today three wells are in operation at the same location, and they represent the source of drinking water for the entire Borough's population. The wells draw water from the sole source-designated Buried Valley Aquifer Systems. It was originally thought that no groundwater recharge occurred within the Borough, but it is now believed that there are areas of Chatham where recharge occurs. Sand and gravel in these aquifers was deposited 15,000 years ago with the melting of the Wisconsin Glacier (*Borough of Chatham Master Plan, p. 6-5*).

Since the 1930s Chatham Borough has increased its withdrawal of water from about 300,000 gallons per day to the current figure of 925,000 gallons per day. Over the same period static water levels have been dropping, from 185 feet above sea level in 1930 to 150 feet in 2000. Because of this the Borough has had to lower the pumps in the wells three times over the past 70 years. As the level of static water is not currently dropping, the Borough does not currently have plans to lower the pump bowls again. (*Passaic River Coalition 1998, p. 11-5; Borough of Chatham Master Plan; Borough of Chatham Department of Public Works Water Department*).

The wells are located at the current Department of Public Works facility. Road salt, sand and other substances are stored within 100 feet of the wells. In recent years there has been an increase in sodium in the drinking water, probably due to the proximity of salt used for road de-icing. Measures have been taken to prevent further precipitation from reaching the salt storage. Other than a disinfectant administered at the well head no other water treatment is currently necessary (*Plambeck 2002; Borough of Chatham Master Plan*).

### **Passaic River needs protection from non-point source pollution and to preserve wildlife corridors**

From the Passaic River's headwaters in Mendham to the Chatham-Florham Park border, the Passaic receives permitted discharges from 10 facilities, two of which are located in Chatham Borough. These inputs, according to the Morris County Department of Planning and Development's *Natural Resource Management Guide for the County of Morris*, have severely limited the River's ability to assimilate and dilute other pollutants.

In addition to the permitted discharges into the River several non-point sources of pollution contribute adversely to the Passaic River's water quality. Non-point inputs to the Upper Passaic River system include, "residential and commercial development, highway and urban surface water runoff, storm water outfalls, application of golf, lawn and garden chemicals, septic system leachate and leaking underground storage tanks" (*Morris County Department of Planning and Development 1998, p. 5-8*). The Upper Passaic River near Chatham contains elevated levels of Phosphorous, Nitrogen and Lead (*Morris County Department of Planning and Development 1998*).

Chatham’s industrial sector is located in the vicinity of River Road and Watchung Avenue, near the Passaic River. From north of Stanley Park to the Summit Avenue Bridge, several facilities are located immediately along the water in areas with little or no vegetative buffering.

An Audubon Society study in the area of Shepard Kollock Park found a remarkable array of bird species. The Passaic River corridor provides suitable habitat for other species as well, particularly in the northern, wooded section of the Borough. The River corridor is heavily developed, with new housing being constructed rapidly. The biological integrity of Chatham’s existing parklands depends to a great extent on what occurs elsewhere along the River.

**Trails connect neighborhoods to parks**

Residents from throughout the Borough actively use the municipal parks. As part of an expanded open space system, a municipal trail system incorporating both walking paths and bikeways would connect the existing municipal parks with the local neighborhoods, inviting people to the outdoors surrounding them. Chatham Borough is in the enviable position of offering its residents the ability to access their local parks through pedestrian or bicycle access, due to the closeness of their neighborhoods and the diversity of parks available to the community.

**Active recreation space is needed to satisfy significantly increased demand on community resources**

Chatham Borough, in conjunction with Chatham Township, offers a wide variety of recreation opportunities for its residents. Organized sports are offered each of the four seasons, with participation highest for fall and spring sports. In addition to municipally sponsored sports, the Chatham United Soccer Association offers a more competitive program for select players. The activities offered by the Borough and Township are as follows, with ages and number of participants included. Winter sports have been omitted because they take place in indoor facilities, and are out of the scope of an Open Space and Recreation Plan (2008/2009 figures):

Spring

Chatham United Soccer	Ages 8-16	425 (both seasons)
Baseball/Softball/T-ball	Grades 1-8	1,253
Lacrosse		
Boys	Grades 3-8	435
Girls	Grades 5-8	517

Summer

Traveling baseball (Boys)	Ages 9-14	208
Traveling softball (Girls)	Grades 7-8	45
Men’s/Women’s softball	Adults	240

Fall

Chatham United Soccer	Ages 8-16	425 (both seasons)
Soccer	Grades 1-8	911
Football	Grades 6-8	159
Flag Football	Grades 4-5	182

Field Hockey	Grades 5-8	196
Cheerleading	Grades 6-8	40

The total number of participants expected in year 2008-2009 for all Borough sports is about 5,036. These participants live in both Chatham Borough and Chatham Township. According to Borough Recreation Director Carol Nauta, two sports that are growing in popularity are field hockey and lacrosse. Both of these sports require a large outdoor field on which to play.

The following is a list of recreational facilities used for organized team sports in the Borough of Chatham used by the Joint Recreation Committee, and the number and type of field per facility. In addition to Borough-owned parkland, the recreation program also utilizes facilities at Board of Education property.

### **Borough-owned property**

#### Memorial Park

2 sixty-foot baseball diamonds

#### Lum Avenue Fields

3 sixty-foot baseball diamonds  
1 large multipurpose field

#### Shepard Kollock Park

1 sixty-foot baseball diamond  
1 ninety-foot baseball diamond  
1 large multipurpose field

### **Board of Education-owned property**

#### Middle School

2 sixty-foot softball diamonds  
2 large multipurpose fields  
1 medium multipurpose field

#### Milton Avenue School

1 sixty-foot baseball diamond  
1 forty-foot baseball diamond (used by T-ball)  
1 small multipurpose field

#### Washington Avenue School

1 sixty-foot baseball diamond

The demand for field space is great. Football, soccer, lacrosse and field hockey all share the same fields. Multipurpose fields serve these sports. Many of the Borough's multipurpose fields overlay baseball diamonds, which prohibits both activities at the same time. This has put a further strain on available space.

Spring and fall recreation participants have grown by about 35% in the past 7 years. Recreation Director Carol Nauta explained that two major reasons for the recent increase in athletic participation are increased enrollment in the school system and the fact that many are now playing two sports per season. This is attributable to the popularity of lacrosse and field hockey, which coincide with the baseball and soccer seasons, respectively. The increased participation has had negative effects on the quality of grass fields. According to Carol Nauta, the resting and rotating of fields are of paramount importance, but because of the need to keep fields open for sports, rotation cannot be accommodated unless safety is a

concern. The one benefit gained was the addition of artificial turf at the Chatham Borough Lum Field and also at 2 of the school district fields. This has provided the ability to reduce weather-related cancellations and gave recreation usable space in lieu of constant pressure on the grassed fields.

Increased participation has also forced the Recreation Committee to consider measures that would alleviate the burden on field space. Wait lists, increasing the number of players per team, and limiting enrollment have been considered by the joint recreation program. These severe measures could be avoided with additional recreation field space.

### **Farmland preservation can protect picturesque and unique land**

One farmland property remains in Chatham Borough, and it represents the last vestige of the Borough's vibrant agricultural heritage. The Borough would like to see this property protected from development and preserved either as an active farmland parcel or as open space. The agricultural industry has been an integral part of the Borough through its history. Development pressure is intensifying, and protection of this last remaining farm would enable the community to retain an image of its historical roots.

### **Connectivity enhances municipal parks**

Connectivity benefits Borough parkland for two main reasons. First, connecting parks through trails provides a more enhanced recreation experience for Borough residents. Second, connectivity by means of natural areas, to the extent possible, would provide wildlife with more protected, healthier, and stable habitat.

Chatham Borough has an area of 1,533 acres, or 2.4 square miles. Within that area are several parks containing active and passive uses. The passive use areas are primarily along the Passaic River and in its floodplain, while the active use areas are contained primarily in the central part of the Borough. Parking is limited at many facilities and they can become crowded. A method of alleviating the crowding, while maintaining the amenities, would be to develop paths of connection between Borough parks. This would also benefit recreationists by allowing them to experience several parks in one "visit," as opposed to having to drive from park to park. Chatham is a community where this idea is feasible.

Connection of parks by natural areas would also provide a benefit to wildlife, whose migrations are increasingly cut off by roadways, developments and industrial facilities. Although there are several parks in Chatham containing good bird and mammal habitat they are segmented and surrounded by the built environment. Natural corridors provide migration paths, promoting healthier wildlife population.

## **A System of Open Space in the Borough of Chatham**

This section expands from Chatham Borough's goals and needs for open space. It outlines a Chatham Borough that has reached its goals—a community with open and accessible parkland and ample recreation space for its growing athletic programs. The realization of Chatham's goals will also provide the community with protection of the Passaic River through a greenway, connection of Chatham parkland by way of walking and bicycling trails, the preservation of its historic resources and a stable supply of clean drinking water. Chatham's natural lands will become valued additions of the healthy, thriving community. These components can all be achieved through open space preservation.

### **A Passaic River Blueway will link parks along the Passaic River, protect riparian areas and provide wildlife habitat.**

Chatham Borough features two parks along the Passaic River and one Borough- owned parcel of land listed on Chatham's Recreation and Open Space Inventory. In between these holdings—from Summit Avenue to Watchung Avenue—is Chatham's industrial sector. A "blueway" along the banks of the Passaic River would connect existing public parkland, providing a continuous swath of natural lands and wildlife habitat. It would also provide passive recreation opportunities for Chatham residents, a dedicated area for nature study, and a buffer for the River from non-point sources of pollution.

The idea of establishing a greenway has been addressed by Chatham before. In 1991, the Chatham Borough Environmental Commission had a study done by Abeles, Phillips, Preiss, and Shapiro, Inc. of a greenway design from Stanley Park to Shepard Kollock Park. The study concluded that of the whole stretch the only segment that could present a challenge was from Summit Avenue to Watchung Avenue. Home to the Borough's industrial area, the stretch contains several facilities located near the River. The rest of the greenway area was considered to be a feasible project. The greenway is also consistent with the Morris County Master Plan, which designates the Passaic River through Chatham as having "open space potential" (*Morris County Planning Board 1988*).

Although the *Passaic Greenway Master Plan* ended its northern design at Shepard Kollock Park, a greenway along the entire length of the Passaic River in Chatham is an appropriate, realistic document. New Jersey American has a large vacant holding along the Passaic River, and Wuhala Woods is located in the River's floodplain. Tying these areas into the greenway provides a continuous picture of the land along the Passaic River. The Passaic River Blueway can link with other greenways envisioned through the Borough (*Greenways Map in Maps Section*), as well as linking with greenways in other municipalities along the Passaic River.

### **Regional coordination presents opportunities for partnership and preservation.**

Chatham is located in an area where there are many active players in open space preservation. Municipal and county governments as well as non-profit land trusts all make excellent partners in open space acquisition.

Chatham Borough has partnered with Chatham Township for the 2002 round of the Morris County Open Space Trust. Other municipalities in the area that are active in acquiring open space are Florham Park Borough, Morris Township, Hanover Township, East Hanover Township and Harding Township. Chatham Borough can partner with neighboring towns to achieve its open space program goals. As partnership opportunities arise Chatham should take advantage of the strength of a joint effort.

Across the Passaic lies Union County, where the Union County Park System manages Passaic River Park. An important goal of Chatham is the protection of the Passaic River. Union County and Essex County, and their municipalities near the River, have resources that can be helpful in the realization of the protection of the Passaic River. Essex County, which borders the east side of Chatham to the north of the Main Street bridge, is also an important resource in regional open space preservation.

Non-profit land trusts, such as the Passaic River Coalition and Morris Land Conservancy, provide the expertise to coordinate regional efforts and look for partnership opportunities. The Passaic River Coalition is in the process of working toward an upper Passaic River Greenway, which includes several towns on both sides of the river upstream of Chatham. Chatham should remain active with the Coalition as it works toward the greenway.

Partnering with other entities, whether it is a municipality, a county or a private organization, makes economic sense. Common goals and objectives can be accomplished much more quickly with greater resources.

### **Public gathering places are community treasures.**

Following the tragedy of September 11, 2001, members of the Chatham Borough community instinctively gathered and stood together at the Fairmount Avenue hill to view the overwhelming loss and offer support to one another. The vista point at Fairmount Avenue is a special place in the Borough. Offering a commanding view of New York City and the surrounding region, it is a natural “high point” of the community and a defining spot for its residents. Designating community gathering places as open space treasures and identifying them on greenway designs and community planning maps will stimulate protection of the vista and preserve the integrity of the special places that identify the community. Open space planning and preservation offer the opportunity for highlighting and protecting these special community resources for the town.

### **Trails are greenways for public access.**

Working with the Morris County Park Commission and neighboring communities, opportunities exist to develop a trail system that connects the municipality with regional parks. There is an existing mosaic of trails surrounding the Borough; the Borough can become an integral link connecting the trails through the municipality.

The Morris County Department of Planning and Development has developed a *Morris County Bicycle and Pedestrian User Guide* outlining existing and proposed trails for both bicyclists and walkers through the County. In Chatham Borough these shared roads provide access to residents to use non-vehicular modes of transportation to access other municipalities and park systems.

The creation of a trail system connecting the developed portions of the Borough with largely undeveloped woodlands and parks affords residents the opportunity to access and experience natural areas and become more aware of their natural environment. Trails provide access to open space for the enjoyment of the community and pathways for people to reach their destination. Just as wildlife needs a corridor to safely pass from habitat to habitat, people need to experience the outdoors and be able to travel from one neighborhood to the next without getting in a car to do so. Providing a system of trails to connect the community will bring residents together—providing a back porch to share common interests. Access to the outdoors and experience in natural areas knits neighboring communities together.

### **Historic sites preserve a link to the Borough’s storied past.**

Chatham has a vast body of recorded knowledge of its history. From the days before American Independence through to the modern era, Chatham has seemingly always had something important occurring within its borders. History gives present generations a sense of where they came from as a community, and where they're heading. The preservation of historic resources is vital to maintain that link. Chatham has been fortunate to have a dedicated citizenry willing to devote their time to the preservation of its historic resources. In conjunction with an appreciation of an area's natural history, an appreciation of human history defines a community's sense of place. The two provide connection, an intangible, yet powerful force within a viable healthy community.

There are other historic resources in Chatham that have been lost, or which need enhancement. Open space preservation can enhance existing historic structures and landscapes. Open space priorities should be discussed with the Historic Preservation Commission, presenting an opportunity for joint projects. One of the projects may result in listing additional buildings on the State and National Registers of Historic Places.

**Open lands can provide a safe guard against pollution and provide recharge and retention of groundwater.**

In 1998, the Passaic River Coalition undertook a study to determine well head protection areas for sixty public wells drawing water from the Buried Valley Aquifer Systems. Chatham Borough's three wells were included in the study. The well head protection areas were designed in three levels, or tiers, of protection.

Tier 1 delineates areas where microbes and other pollutants could reach well heads and be pumped out in less than two years. Within this short time frame, according to the Passaic Valley Groundwater Protection Committee, "there would probably be no warning about the pollution coming and no way to clean it up before it reaches the well." Tier 2 marks an area where hazardous substances could travel to the well heads in less than five years. Pollution occurring in Tier 2 would be hard to detect and remediate before being pumped out. Tier 3 delineates an area in which pollutants would take from 5 to 12 years to reach well heads. Within this Tier there is time to clean up pollutants; however, in all three Tiers the best course of action is the prevention of pollutants from reaching well heads (*Passaic River Coalition 1998, pp. 11-14, 11-15; Passaic Valley Groundwater Protection Committee*). (*Well Head Protection Areas - Borough of Chatham Map in Maps Section*).

Protection of the best recharge areas is necessary to ensure that an ample quantity of water is available for withdrawal by Chatham. The total extent of the recharge areas of Chatham's wells is not entirely known, but it is believed that there are several areas within the Borough that provide good recharge rates. The Morris County Department of Planning and Development's Natural Resource Management Guide for the County of Morris indicates an area in the north of Chatham, along North Passaic Avenue, where soils have high permeability. The rest of the Borough is listed as having moderate permeability, except for the large wetland areas in the north of the Borough, which have low permeability. Those lands that have the highest recharge should be kept free of structures to allow precipitation to percolate into the soil, adding water to the aquifer.

Within the well head protection areas open space preservation will ensure that those sensitive areas remain off limits to development and the possibility of contaminants being released into the ground. Open space preservation within the well head protection areas will provide long-range protection of the aquifer.

**Additional playing fields will keep pace with recreation demands.**

The Chatham Borough Recreation Committee cites the upgrade of an additional 6 multipurpose fields (150' X 150') that would include one 90 ft. and two 60 ft. ball diamonds to meet the current demand for recreational facilities. Recreation Director Carol Nauta stressed the importance of rotating and resting fields.

The addition of playing fields will take the burden off the current grass fields. This will give fields a chance to rest, and to be cared for so that they may endure. New facilities also aid the quality of the recreation programs. Practices are held less frequently than ideal because the schedule of teams and sports vying for the limited fields.

According to Nauta, "Locating additional new field space would allow the opportunity to designate space for practices and games and most importantly to rest and rotate field use" (*Nauta 2002*). The location of new facilities will be a challenge, but a necessary one to keep the Chathams' recreation program viable and to avoid measures that will prevent participation by residents that want to play.

### **Trails through Borough parks will bring the community outdoors.**

Chatham offers a number of diverse parks throughout the Borough. From Stanley Park in the southeast to Milton Avenue Woods in the north, a number of passive recreation opportunities exist for expanding the amenities offered at the parks. The creation of trails through these parks will offer recreational opportunities to residents, while at the same time fostering an appreciation for the natural areas of the Borough.

As part of the scoping process in the early stages of developing goals and priorities for its open space program, Chatham Borough held a public meeting allowing people to voice their desires for how open lands in the Borough should be used. It was recommended that Borough parks along the Passaic River as well as Wuhala Woods and Milton Avenue Woods in the north be used for passive recreation, such as trails.

It was mentioned by several members of the Open Space Committee that many residents did not know that the Borough owned nearly all the land in the north of Chatham-Wuhala Woods and Milton Avenue Woods. By providing access to these properties for walking trails and interpretive displays, Chatham residents will have an opportunity to learn about the natural environment of their town. Milton Avenue Pond, already the site of an annual fishing contest, is located near the center of Milton Avenue Woods. Adding a system of trails from the pond will promote public enjoyment year round.

## Action Program and Recommendations

*“Conservation rests upon the fundamental law that neither man nor nation can prosper unless, in dealing with the present, thought is steadily taken for the future.”*

— Theodore Roosevelt, 1910

The Action Program suggests projects that the Borough should pursue to implement the Open Space and Recreation Plan. The activities listed will further Chatham Borough’s Open Space program but some projects will take some time to complete while others will be completed within an appropriate time frame, as opportunities arise. The Open Space and Recreation Plan is not a static document. The Action Program should be updated every year, and progress should be reported to the governing body.

- Prepare at least one application per year for the Morris County Open Space and Farmland Preservation Trust.
- Meet with the Morris County Department of Planning and Development to discuss the expansion and connection of walking and bicycling trails through Chatham Borough.
- Work with the Army Corps of Engineers to see how their priorities fit into Chatham’s open space program.
- Identify potential sites for new passive recreational facilities.
- Inventory existing easements on properties throughout the Borough.
- Acquire, or otherwise protect land adjacent to the Passaic River, to protect the waterway from non-point source pollution.
- Acquire, or otherwise protect, land in areas of the Borough that are important to the recharge and protection of Chatham Borough’s groundwater supply.
- Meet with adjacent municipalities in Morris, Essex and Union Counties to discuss open space objectives and common programs and goals.
- Re-examine Borough-owned properties and consider placing them on the Recreation and Open Space Inventory for permanent protection. A list of these properties is included in the appendix.
- Enact, or enhance existing, critical area ordinances to protect, at a minimum, flood plains and wetlands, stream corridors, steep slopes, well head protection areas and groundwater recharge areas. This should be done in concert with the Environmental Commission and Planning Board.
- Work with neighboring municipalities to coordinate and enhance Chatham Borough’s & Morris County’s Land Preservation and Open Space goals.
- Discuss preservation priorities and other work being done by non-profits active in the area to form partnerships.

- Maintain and further develop a formal network of trails through Wuhala Woods and Milton Avenue Woods in the north of the Borough.
- Pursue the listing of additional historic sites in Chatham Borough on the state and national registers of historic places.
- Review the Open Space and Recreation Plan yearly to update the properties and information, and submit the update to Green Acres.
- Improve and make our River Road property safe, environmentally sound and accessible for the public's use and enjoyment.
- Continue to develop community gardens, develop a dog park, and develop a fishing area.

## Preservation Tools and Funding Sources

This section is a listing of the tools and funding sources available to preserve open space. It is not meant to be exhaustive or a complete listing. It is a list of the most commonly used and successful techniques.

### *Preservation Tools*

#### **Fee Simple Acquisition**

Usually, the most expensive way to preserve property is direct acquisition through fee simple purchase. The title to the property changes hands from one owner to another. A disadvantage to this approach is the need to have the full purchase price available at the closing. Government agencies may not be able to raise the funds in time before an owner decides to sell the property to another buyer.

#### **Municipal Preservation Tools**

One preservation tool at the disposal of the municipality is tax foreclosure. If a parcel falls under Chatham Borough's ownership through tax foreclosure, the municipality may want to consider holding the property as part of its lands for recreation and conservation purposes if it falls within an identified greenway corridor. Periodic examination of properties with tax liens upon them may also yield opportunities for the Borough to purchase the lien and preserve the land for environmental or recreational uses.

The Borough may want to develop educational materials that target property owners to describe various financial approaches to preserving land. For example, some owners may want to work out an arrangement where they sell blocks of their land over time to the Borough or some other preservation partner. Other landowners may sell their land to the Borough at a bargain sale to receive deductions for a charitable contribution on federal income tax. Donations of property may also be considered charitable contributions. Chatham Borough can establish a relationship with a nonprofit land trust, such as Morris Land Conservancy or Passaic River Coalition, to help reach out to inform property owners of preservation options.

#### **Less Direct Acquisition: Easements**

Another effective tool for preserving land is an easement. An easement grants an entity the right to use another's property for a specific purpose. There are many kinds of easements designed for many purposes. Easements most appropriate for land conservation in the Borough of Chatham include:

- Trail easements: the right to traverse a specific path through a property
- Scenic easements: the right to maintain a view and ensure that view is maintained
- Conservation easement: purchases the development rights to a property to preserve the natural landscape of the site
- Agriculture easement: purchases the development rights to the property to preserve the agricultural use of the site

The advantages of easements include the lower costs to the buyer to acquire a particular use on a piece of property. Conservation easements generally cost from 70% to 80% of the fair market value of the land. Trail easements may be used appropriately to create greenways along and around water bodies.

Another advantage of easements is that the land remains in private ownership. Chatham will still collect property taxes from the owner. The amount and type of easement right that is sold will typically lessen the owner's tax liability.

Written into the deed, an easement will be associated with a tract of land despite an ownership change. Public access is not necessarily a condition for an easement.

Easements can provide a conservation solution for the municipality and the private landowner. They represent a flexible tool that can be written to satisfy public uses as well as private landowners' needs.

### **Bonding**

The municipality can issue bonds to borrow money to pay for acquisitions. The funds from the Open Space Trust could be used for the 5% down payment to issue the bonds as well as the debt service over time. General obligation bonds require voter approval and can impair the tax credit of the municipality. The consistent, dedicated revenue from the Open Space Trust make revenue bonds an attractive alternative, but these bonds typically have a higher interest rate than the general obligation bonds.

### **Installment Purchases**

The municipality may work out an arrangement with a landowner that allows an incremental purchase over time. The property owner receives the purchase price over time as well as interest on the unpaid, negotiated balance. Funds from the Open Space Trust can be committed for this payment. This arrangement may result in tax benefits for the seller, and the Borough is not obligated to pay the full price of the land in one payment.

### **Lease-Back Agreement**

If the land is not needed for immediate use, the Borough can purchase a piece of property and lease it back to the owner or another entity for use. Owners who want to remain on their property can sell a life estate.

Partial reimbursement of the purchase price can be repaid through rental fees, and maintenance costs are reduced. This technique is most useful when the Borough identifies an important tract and wants to ensure its availability in the future. The landowner may realize estate tax advantages through these methods.

### **Donation/Bargain Sale**

Donating or selling land to a nonprofit organization or to a municipality may provide tax advantages to the owner. Landowners who own property that has escalated in value may reduce their capital gains liabilities through donating the property or selling it at a bargain sale or less than the appraised value. Estate taxes may also be reduced with proper planning. Conservation easements are effective tools for estate planning. The Borough may want to discuss land priorities with a nonprofit land trust. The land trust will contact owners to discuss general tax advantages of donations and bargain sales. This is a cost effective method of obtaining open space.

### **Long-term Lease**

Chatham may be able to negotiate a long-term lease with a landowner unwilling to transfer complete ownership. This method may be a useful option for trail easements or athletic fields. The Borough will have to weigh the cost advantages of long-term rental payments to outright acquisition costs.

### **Eminent Domain**

The Borough has the right to condemn and acquire privately owned property for a public purpose. This technique should be considered only when negotiation options have been exhausted. The cost of the

property is likely to be considerably higher than a negotiated price because of increased legal fees and the uncertain court determination of the land value.

## **Zoning**

Open space benefits may be achieved through the use of municipal tools, such as cluster zoning. This technique allows the same density on a tract of land but reduces individual lot sizes. It can be an attractive incentive to developers since they will spend less on construction and infrastructure costs. The remaining land becomes dedicated open space at no cost to the municipality. The dedicated open space resulting from cluster zoning should be monitored to ensure the open space values are maintained. If these lands are not under conservation easement restrictions, the Borough should consider that action. Any open space dedicated as part of a developer's agreement should be placed under a conservation easement. Chatham may also want to require the establishment of an endowment or trust supplied with funds to be used to maintain the easement.

Protective zoning is a tool used to limit development in environmentally sensitive areas, such as well head protection areas, aquifer recharge zones, wetlands, steep slopes, stream corridors, natural and historic sites.

## **Funding Sources**

To accomplish all of its open space goals, Chatham Borough will have to seek funding support from a variety of sources.

## **Nonprofit Land Conservation Organizations**

The Morris Land Conservancy and other nonprofit land conservation organizations are eligible for nonprofit grants from the State Green Acres program. Nonprofit grants may total up to \$500,000 and require a dollar for dollar match. The land trust associations are good partners for acquiring lands within the sensitive natural areas in Chatham. These organizations also have experienced staff knowledgeable about benefits to a landowner interested in preserving property as well as strategies for open space preservation. Nonprofit land trusts can also "sign on" to Chatham's Open Space Plan registered with Green Acres. This process makes nonprofits eligible for Green Acres' funding to acquire land identified in the Borough's Open Space Plan.

## **Historic Preservation**

Funding is available from the State Green Acres program for historic preservation projects. Matching historic preservation and open space goals promotes access to this funding.

The Crossroads of the American Revolution project is another State initiative to identify, preserve and document Revolutionary War sites. This is applicable to Chatham, which has a number of sites of Revolutionary War significance. With the Historic Preservation Commission, appropriate historic sites should be identified and submitted to the state for inclusion in this project that may result in resources available to the Borough. The National Park Service is developing this project and can aid Chatham in identifying other sites of Revolutionary War significance.

## **New Jersey Green Acres and State Agricultural Development Committee**

The state is under a 1998 mandate to protect one million acres of open space and farmland over a period of ten years. The Green Acres program provides funding assistance for the acquisition of municipal park and recreation areas listed in the Open Space and Recreation Plan. Through its Planning Incentive Program, Green Acres will provide a grant that will cover up to 50% of the land acquisition costs of a particular tract.

The State Agricultural Development Committee (SADC) provides funding for farmland preservation and farmland enhancement projects. SADC coordinates its operations at the state, county, and local level.

### **Morris County Open Space and Farmland Preservation Trust**

As of 2010, Morris County residents currently pay 2 cents for every \$100 of equalized assessed property value to a dedicated trust to acquire public land. A 2001 referendum was approved allowing the County to increase the open space tax rate to up to 5 cents per \$100. The Trust generates close to \$20 million a year to be used to acquire county watershed and parkland, municipal and nonprofit parkland, and development rights for farmland. The Morris County Open Space and Farmland Preservation Trust Fund is a competitive grant program for municipalities in the County to apply for funding to preserve land. Chatham Borough is eligible to apply to this Fund for land acquisition grants. The Trust also provides money to preserve farmland through the County Agriculture Development Board and watershed land through the Morris County Municipal Utilities Authority.

Nonprofit land trusts can also apply for County grants. Partnership with a nonprofit organization on a particular tract may provide access to additional funding from the County.

### **Morris Land Conservancy**

Morris Land Conservancy is a nonprofit, membership organization working to preserve open space in northern New Jersey. The Conservancy is helping twelve municipalities in Morris County, one in Somerset County, and three in Sussex County implement their open space program and acquire land. The Conservancy produced the Open Space and Recreation Plan for the Borough of Chatham. The Conservancy has also completed numerous Open Space and Recreation Plans throughout Morris, Somerset, Sussex and Gloucester Counties. The Conservancy does not have a source of funding for land acquisition but has staff skilled in the art of land negotiations and crafting successful conservation strategies.

### **Transportation Enhancement Act (TEA-21)**

The U.S. Department of Transportation has established that funding for trail development and enhancement is an eligible expenditure from the Federal Transportation Trust. The amount of funding for these purposes is substantial, and funds for land acquisition are available. A special category of funding is dedicated to enhancement of National Recreation Trails. An eligible project must show that the trail is part of the community's overall transportation system. Funds can be used for facilities such as signage, bike racks, surfacing as well as acquisition of land through easement or fee simple. TEA-21 funding can jumpstart a community's bikeway and walking trail system.

### **Environmental Infrastructure Trust**

The New Jersey Environmental Infrastructure Financing Program administered by the New Jersey Department of Environmental Protection provides low cost loans to acquire open space that will preserve water quality. This program is a partnership between the New Jersey Environmental Infrastructure Trust and Green Acres. The mission of the Trust is to assist in achieving a cleaner and healthier environment by providing low-cost financing for projects that enhance and protect ground and surface water resources, and ensure the safety of drinking water supplies.

## References

- Abeles, Phillips, Preiss, and Shapiro, Inc. *Passaic River Greenway Master Plan*. 1991.
- Audubon Society, The. <http://www.njaudubon.org/AboutNJAS/OurStaff.html>. Accessed 21 May 2002.
- Borough of Chatham. *Master Plan*. 2000. *Master Plan Reexamination Report*. May 2006.
- Borough of Chatham. Department of Public Works. Personal Communication. 3 Sept. 2010.
- Borough of Chatham Environmental Commission. *Open Space: An Evaluation and Proposal for the Borough of Chatham*. 1975.
- Borough of Chatham Environmental Commission. *Open Space Inventory*. 2001.
- Borough of Chatham Environmental Commission. *Natural Resources Inventory*. 1976, *Environmental Resource Inventory*. 2010.
- Chatham Historic Preservation Commission. *Historic Sites Background Study and Inventory: Chatham, New Jersey*. 1991.
- Cunningham, John T. *Images of America: Chatham*. Arcadia Press. Dover, NH. 1997.
- Cunningham, John T. *Chatham at the Crossing of the Fishawack*. Chatham Historical Society. Chatham, NJ. 1967.
- Morris County Daily Record. 24 May 2002, July 2010.
- Morris County Data Book Revised, January 25, 2010.
- Morris County Department of Planning and Development.  
<http://www.co.monis.nj.us/idemographics/RaceByMuniCensus2000.pdf> Accessed 15 May 2002.
- Morris County Department of Planning and Development. *A Natural Resource Management Guide for the County of Morris*. Morristown, NJ. 1998.
- Morris County Department of Planning and Development. *Bicycle and Pedestrian User Guide*. Second Edition. 2002.
- Morris County Planning Board. *Morris County Master Plan — Open Space Element*. 1988.
- Morris Land Conservancy & Borough of Chatham Open Space Committee Open Space & Recreation Plan for Chatham Borough, Morris County “*On the Banks of the Fishawack*”. July 2002
- Mueller, A.H. *Atlas of Morristown, Madison, Florham Park, Chatham, Mendham and Part of Morris County, New Jersey*. Philadelphia. 1910.
- Nauta, Carol - Director of Recreation. Personal communication. 21 May 2002; Deputy Director Carol Nauta, July 2010.
- Chatham Borough Recreation Committee. 15 May 2002.

New Jersey Department of Environmental Protection — Office of New Jersey Heritage.  
*Individual Structure Survey Form for Dusenberry House*. December 1989.

New Jersey Department of Transportation. New Jersey Traffic Volumes Search  
webpage. <http://search.panzitta.com/searchesinfcustomresults.cfm>

New Jersey State Planning Commission. *The New Jersey State Development and Redevelopment Plan*.  
2001.

Passaic Valley Groundwater Protection Committee. *The Ground Water Sentinel*. Volume 1, Issue  
3. June 2002.

Philhower, Charles A. *Brief History of Chatham*. Lewis Historical Publishing Company. New York.  
1914.

School District of the Chathams. Personal Communication. 8 May 2002.

Passaic River Coalition. *Planning for Well Head Protection for Ground Water from the Whippany,  
Chatham, and Millburn Valleys of the Buried Valley Aquifer System*. 1998.

United States Fish and Wildlife Service. *Great Swamp National Wildlife Refuge (brochure)*. 1999.

#### ***Maps (Appendix)***

Passaic River Coalition. *Well Head Protection Areas - Borough of Chatham*. 2002.

Passaic River Coalition. *Estimated Annual Groundwater Recharge — Borough of  
Chatham*. 2002.

Passaic River Coalition. *Whippany, Chatham, and Millburn Valleys of the Buried Aquifer  
Systems*. 2002.

## Land Acquisition Recommendations

Included in this Open Space and Recreation Plan is a map detailing the Land Acquisition Recommendations listed in this section of the document. The *Chatham Borough Greenways Map* illustrates the extended greenways connecting the parklands, natural areas and waterways of the Borough. The map provides a vision for Chatham's open space preservation program.

Properties included in the *Land Acquisition Recommendations Section* will not necessarily be purchased for preservation. Inclusion on the Land Acquisition Recommendations list indicates that the specific property falls within one of the designated greenways and that the property has been identified on the Open Space Inventory (*Parcel Data Tables in the Appendix*).

There are properties that also fall within the identified greenway, but which are not listed on the Open Space Inventory. Although these properties are not included on the following lists they are potential candidates for some form of preservation. The following pages outline the blocks and lots of parcels in the open space inventory that would create the several greenways envisioned on the *Greenways Map*. Accompanying the list of specific properties is a summary of the open space significance of the individual greenways as well as funding sources that could be used to preserve the properties.

***Milton Avenue Woods Greenway Extension***

Open Space Significance: This greenway stretches from Milton Avenue Woods westward to the western border of the Borough and southward past the rail line. It also includes a swath intended to link Garden Avenue Park with Milton Avenue Woods. This region lies over the Buried Valley Aquifer Systems and falls within the Passaic River drainage basin. These are both important for the protection of drinking water quality and quantity in the Borough and beyond, Preservation of this region would also provide further buffering to the wetlands and forested areas of Milton Avenue Woods while extending passive open space opportunities to residents. It would also enhance access to Milton Avenue Woods for residents located in the western portion of the Borough.

Potential Preservation Strategy: Funding for the preservation of vacant parcels could be obtained via the NJDEP Green Acres program, the Morris County Open Space Trust and the Borough’s Open Space Trust. If a trail were to be created, TEA-21 funding might also be available. Property already owned by the Borough could be placed on the Recreation & Open Space Inventory for preservation in perpetuity as open space. Where property is owned by the Board of Education, a church or an Association, the Borough could obtain first right of refusal if the present owners were ever to sell their property.

<b>Block / Lot</b>	<b>Owner</b>	<b>Owner’s Address</b>	<b>Owner’s City, State, Zip</b>	<b>Class</b>	<b>Acreage</b>
26 / 16	Public Service Electric & Gas Co	80 Park Avenue	Newark, NJ 07102	1	2.2630
26 / 19	Township / Borough of Chatham	58 Meyersville Road	Chatham, NJ 07928	1	0.270
26 / 20	Board of Education	54 Fairmount Avenue	Chatham, NJ 07928	15B	0.1510
26 / 21	Public Service Electric & Gas Co	80 Park Avenue	Newark, NJ 07102	1	0.1430
27 / 21	Public Service Electric & Gas Co	80 Park Avenue	Newark, NJ 07102	1	0.7270
28 / 7	Public Service Electric & Gas Co	80 Park Avenue	Newark, NJ 07102	1	0.5590
29 / 1	Public Service Electric & Gas Co	80 Park Avenue	Newark, NJ 07102	1	5.0640
29 / 2	Hurley, Allyson Kingsley	57 Hall Road	Chatham, NJ 07928	1	0.3220
30 / 1	Public Service Electric & Gas Co	80 Park Avenue	Newark, NJ 07102	1	3.1260
31 / 1	Jersey Central Power & Light Co	300 Madison Avenue PO Box	Morristown, NJ 07962	1	1.0170
31 / 2	Public Service Electric & Gas Co	80 Park Avenue	Newark, NJ 07102	1	7.5910
33 / 1	Borough. of Chatham	54 Fairmount Avenue	Chatham, NJ 07928	15C	7.0250
33 / 16	Borough. of Chatham	54 Fairmount Avenue	Chatham, NJ 07928	15C	4.0330
33 / 2	Chatham Methodist Church	464 Main Street	Chatham, NJ 07928	15D	1.6060
33 / 3.01	Board of Education	58 Meyersville Road	Chatham, NJ 07928	15A	19.863
33 / 3.02	Overlook Hospital Associates	99 Beauvoir Avenue	Summit, NJ 07901	15F	0.7450
34 / 1	Borough. of Chatham	54 Fairmount Avenue	Chatham, NJ 07928	15	93.8430
34 / 38	Borough. of Chatham	54 Fairmount Avenue	Chatham, NJ 07928	15F	0.1290
34 / 45	Board of Education	58 Meyersville Road	Chatham, NJ 07928	15A	11.3480

34 / 54	Borough. of Chatham	54 Fairmount Avenue	Chatham, NJ 07928	15F	0,3510
34 / 61	Stanton, Thomas M.	33 Dune Circle	Kailua, RI 96734	1	0.4490
34 / 71	Borough. of Chatham	54 Fairmount Avenue	Chatham, NJ 07928	15F	0.1430
37 / 72	Borough. of Chatham	54 Fairmount Avenue	Chatham, NJ 07928	15F	0.2550
37 / 4	Borough. of Chatham	54 Fairmount Avenue	Chatham, NJ 07928	15F	0.2570
83 / 5	Borough. of Chatham	54 Fairmount Avenue	Chatham, NJ 07928	1	0.1610

***Wuhala Greenway Extension***

Open Space Significance: This small region is located north of Route 24 Freeway and is adjacent to property owned by the Borough. Preservation of this region would provide additional protection to the extensive wetland complex that stretches into the Borough of Florham Park. Chatham Borough owns several parcels of land in the area of Florham Park where this greenways runs.

Potential Preservation Strategy: Funding for the preservation of vacant parcels could be obtained via the NJDEP Green Acres program, the Morris County Open Space Trust and the Borough’s Open Space Trust. The Borough-owned property could be placed on the Recreation & Open Space Inventory for preservation in perpetuity as open space.

<b>Block / Lot</b>	<b>Owner</b>	<b>Owner’s Address</b>	<b>Owner’s City, State, Zip</b>	<b>Class</b>	<b>Acreage</b>
38 / 4	Borough of Chatham	54 Fairmount Avenue	Chatham, NJ 07928	15F	2.5850
38 / 5	Borough of Florham Park	111 Ridgedale Avenue	Florham Park, NJ 07932	1	1.5210
38 / 6	Blank, S.J., Mrs S. Blank, Trustee	40-C Cotters Lane, Suite	East Brunswick, NJ 08816	1	0.5710

### ***Wuhala Greenway***

Open Space Significance: This greenway extends north of the Route 24 Freeway and is an extension of the existing open space area known as Wuhala Woods. This area lies over the Buried Valley Aquifer and within the Passaic River drainage basin. There are also wetlands located in this region. Preservation would help aid with flood mitigation, and buffer the Passaic River. The greenway would also extend the acreage of Wuhala Woods and link with a potential preservation area that borders the Passaic River in the Borough of Florham Park.

Potential Preservation Strategy: Funding for the preservation of vacant parcels could be obtained via the NJDEP Green Acres program, the Morris County Open Space Trust and the Borough's Open Space Trust. Passaic River Coalition and the Army Corps of Engineers could also contribute to the acquisition of these properties. The Borough owned property is already preserved through its listing on the Recreation and Open Space Inventory (ROSI). A conservation easement could be pursued on undeveloped portions of other properties.

<b>Block / Lot</b>	<b>Owner</b>	<b>Owner's Address</b>	<b>Owner's City, State, Zip</b>	<b>Class</b>	<b>Acreage</b>
42 / 3	Borough of Chatham	54 Fairmount Avenue	Chatham, NJ 07928	15F	11.9700
42 / 4	Chatham Madison Sewer Plant	214 North Passaic	Chatham, NJ 07928	15C	19.721
42 / 5	Kaplan Center CT Associates	222 North Passaic Avenue	Chatham, NJ 07928	4A	4.7050
42 / 7	Della Pello, Val	Milltown Road	Union, NJ 07083	1	0.0551
42 / 8	Onorato Construction Co Inc	131 Columbia Tpk –St 3D	Florham Park, NJ 07932	1	0.70
42 / 9	NJ American Water Co-Accounts Pay	PO Box 5088	Mt. Laurel, NJ 08054	1	49.31

***Passaic River Blueway***

Open Space Significance: This greenway stretches along the Passaic River throne]. the Borough of Chatham. The Passaic River has a Federal Wild Trout Stream designation in its upper reaches. Protection of the land directly adjacent to the River would aid in the preservation of the river itself by providing a buffer against pollutants. It would also protect the wetlands surrounding the River. This would aid in flood mitigation (the floodplain stretches along the length of the river). The region is also located over the Buried Valley Aquifer Systems and within the Passaic River drainage basin. Protection of these systems assists the general health of the watershed, preserves drinking water quality, and provides a healthy habitat for plants and animals. Possible groundwater recharge areas also lie within the boundaries of this greenway, where the railway line meets the Passaic River, and at Stanley Park. Protection of these recharge areas assists the Borough in protecting the quality of its drinking water.

Potential Preservation Strategy: Funding for the preservation of vacant parcels could be obtained via the NJDEP Green Acres program, the Morris County Open Space Trust and the Borough’s Open Space Trust. Borough owned property not already listed on the Recreation and Open Space Inventory could be added to preserve property in perpetuity. A conservation easement could be pursued on undeveloped portions of commercially or industrially owned property. Passaic River Coalition is working on an upper Passaic River Greenway; their resources should be examined for support in the acquisition of land within Chatham Borough’s Passaic River Blueway.

<b>Block / Lot</b>	<b>Owner</b>	<b>Owner’s Address</b>	<b>Owner’s City, State, Zip</b>	<b>Class</b>	<b>Acreage</b>
40 / 5	Borough of Chatham	54 Fairmount Avenue	Chatham, NJ 07928	15F	1.4640
43 / 1	Minisink Club, Inc.	PO Box 8	Chatham, NJ 07928	4A	11.3000
43 / 5	Borough of Chatham	54 Fairmount Avenue	Chatham, NJ 07928	1 5F	25.3133
49 / 2	Normandy Chatham LLC	67 Park Pl. East, 8th	Morristown, NJ 07960	4A	4.7000
53 / 1	Borough of Chatham	54 Fairmount Avenue	Chatham, NJ 07928	15F	0.0816
99 / 1.18	Borough of Chatham	54 Fairmount Avenue	Chatham, NJ 07928	15F	2.1056
99 / 12	Borough of Chatham	54 Fairmount Avenue	Chatham, NJ 07928	15F	0.1607
99 / 14	Fairmount Cemetery Assn. Crtkr Off.	233 Hillside Avenue	Chatham, NJ 07928	15E	0.8117
99 / 1	La Vela, Joseph/Elizabeth % Burgdorff	24 Maple Street	Chatham, NJ 07928	1	0.1791
100 / 1	Borough of Chatham	54 Fairmount Avenue	Chatham, NJ 07928	15F	0.9480
101 / 1	Borough of Chatham	54 Fairmount Avenue	Chatham, NJ 07928	15F	1.6529
102 / 1	Willows Court, LLC	600 S Livingston	Livingston, NJ 07093	1	0.3306
129 / 1	One Main Street Associates	981 Route 22, PO Box 6872	Bridgewater, NJ 08807	4A	2.0000
129 / 1.0	Borough of Chatham	54 Fairmount Avenue	Chatham, NJ 07928	15F	13.0000
129 / 40	Borough of Chatham	54 Fairmount Avenue	Chatham, NJ 07928	15F	11.3500
129 / 41	Jersey Central Power & Light Co	300 Madison Avenue PO Box	Morristown, NJ 07962	1	2.0800
129 / 42	Borough of Chatham	54 Fairmount Avenue	Chatham, NJ 07928	15F	0.3121
129 / 7	Borough of Chatham	54 Fairmount Avenue	Chatham, NJ 07928	15C	0.0826
134 / 1	4 Watchung, LLC	430 Morris Avenue	Summit, NJ 07901	4A	22000
134 / 2	8 Watchung, LLC	PO Box 719	Chatham, NJ 07928	1	1.3272
134 / 29	Commerce Street Assoc	1 Madison Avenue	Morristown, NJ 07960	4A	1.5000

134 / 5	Triggs, Judith W & Sally W	20 Watchung Avenue	Chatham, NJ 07928	4A	2.6500
136 / 1	Borough of Chatham	54 Fairmount Avenue	Chatham, NJ 07928	15F	0.6470
137 / 1	Borough of Chatham	54 Fairmount Avenue	Chatham, NJ 07928	15F	6.8900
137 / 5	Borough of Chatham	54 Fairmount Avenue	Chatham, NJ 07928	15F	0.1990
138 / 1	Borough of Chatham	54 Fairmount Avenue	Chatham, NJ 07928	15F	1,6006
139 / 1	Borough of Chatham	54 Fairmount Avenue	Chatham, NJ 07928	15F	2.0735
139 / 4	Fusco, Umberto & Libero	55 River Road	Chatham, NJ 07928	1	0.2394
139 / 6	Fusco, Umberto & Libero	55 River Road	Chatham, NJ 07928	1	0.2479
139 / 7	Fusco, Umberto M & Sandra L	66 River Road	Chatham, NJ 07928	1	0.1240
140 / 1	Borough of Chatham	54 Fairmount Avenue	Chatham, NJ 07928	15F	2,1830
140 / 11	Chatham Project, LLC	1 Station Pl. – Metro Ctr.	Stamford, CT 06902	4B	2.3700
140 / 13	Kamik, LLC, S. Rotondi & Sons	P.O. Box 1407	Summit, NJ 07901	1	4.6160
140 / 15	Borough of Chatham	54 Fairmount Avenue	Chatham, NJ 07928	15F	0.0665
140 / 6	Fusco, Umberto & Libero	55 River Road	Chatham, NJ 07928	1	0.5151
140 / 7.01	National School Bus Service Inc	% Laidlaw Tran 2100 Hwy 3	Sea Girt, NJ 08750	1	0.2792
140 / 8	National School Bus Service Inc	% Laidlaw Tran 2100 Hwy 3	Sea Girt, NJ 08750	1	0.3283