

## Contextual Information



Mute swans on Pond A, view facing northeast, fall 2003

# Introduction

---

The purpose of the Contextual Information section of the management plan is to place the project area in the larger context of the surrounding area of southern Hamden, Connecticut. It includes sections on land use history, stakeholders, and parks and open space. The Project Overview and Client section provides a brief summary of the evolution of this document, as well as important background information on our client. The Site Location and Description section describes the geographical location and physical boundary of the property, as well as some of its existing infrastructure and uses, as well as current and historical contamination issues. The Land Use History section starts before European settlement, follows the property through significant land uses changes and development of the site, and features a timeline of historical events of the Olin Powder Farm. It further discusses the impacts of World Wars I and II on the property's use. The Major Stakeholder section provides demographic information on neighborhoods and schools, as well as descriptions of relevant local government agencies. The Parks and Open Space section presents the property in the context of current and proposed open space networks in the surrounding area.

# Project Overview and Client

---

## *Project Overview*

As part of a graduate class at the Yale University School of Forestry & Environmental Studies, our consulting team, named Crown Consulting, was asked by the Hamden Land Conservation Trust to produce a management plan for passive recreation and watershed protection on a 102.5-acre parcel of undeveloped land in southern Hamden, Connecticut, owned by the Olin Corporation. From September 2003 to March 2004, we collected information on the biophysical characteristics of the property, and its social and geographical context. This document outlines park development and stewardship recommendations that promote passive recreation on the site, while protecting the property's natural features and the water quality of the six ponds found there.

The Olin Powder Farm (OPF) site is of particular interest because it is one of the largest open spaces remaining in southern Hamden. The past industrial uses of the site have contributed to its conservation as open space. Now is a time of transition from past industrial use to the realization of the property's highest and best use as a watershed and passive recreation resource.

Winchester Repeating Arms Company, owned by the Olin Corporation since 1932, used this location for storing gunpowder and testing ammunition produced at their plant in New Haven. The gunpowder storage gave rise to the property's well-known epithet "Powder Farm." Olin discontinued use of the site for gunpowder storage and ammunition testing after World War II. In

subsequent years, parts of the property were used for industrial dumping, which has left localized contamination. It is beyond the scope of this document to assess the amount of contamination remaining on the property or to recommend specific remediation.

While portions of the natural landscape have been altered by the construction of access roads and storage bunkers, there are woodlands on site that harbor 130-year-old oak, hickory, and pine trees. The forest and aquatic habitats on site provide a refuge for wildlife, including several species of waterfowl, in this otherwise dense urban setting.

The Hamden Land Conservation Trust arranged for Crown Consulting to receive keys to the Putnam Avenue gate. We were also able to access the property through breaches in the security fence. Given contamination concerns, we were required to sign waivers and avoid areas of contamination. Contaminated areas, which are well contained in small, localized areas, do not prevent the Land Trust from conducting public tours of the property on existing marked trails.

The Land Trust commissioned this document in an effort to create a vision for open space on the site that will foster community and government support and help to motivate a definitive resolution of the property's longstanding contamination issues.

***Our Client: Hamden Land Conservation Trust (HLCT)<sup>1</sup>***

The Hamden Land Conservation Trust (HLCT) is a private, not-for-profit organization founded in 1969 and run by volunteers. It is dedicated to the conservation of natural resources of the Town of Hamden, Connecticut, and the education of landowners and other citizens about conservation issues and opportunities. The Land Trust acquires land and easements through donations and bequests, and has the legal capacity to apply for grants and solicit monetary donations to fund its conservation activities.

Currently the Hamden Land Conservation Trust owns four properties comprising 12 acres, and holds easements on three additional properties comprising 54 acres. The HLCT holdings include a conservation easement on 51 acres that was donated by the South Central Connecticut Regional Water Authority in 2002.

The Hamden Land Conservation Trust has had a lifetime interest in the stewardship of the Olin Powder Farm. In the early years after incorporation, the HLCT and the Olin Corporation were in communication to find a way to meet both organizations' goals by transferring the OPF to the HLCT. This was a complicated task given the contamination history of the site, so a transfer could not be executed. Renewed interest in the property in the 1980s led to the commencement of a walks program. Twice-yearly walks on the property, authorized by the Olin Corporation and led by HLCT trustees, were instituted in 1990 for the education of Hamden residents about the natural and historical features on

the property, and with the hope that citizen impetus could accelerate realization of the OPF's potential as a resource for the people of Hamden. The Hamden Land Conservation Trust views commissioning this management plan as an extension of the educational efforts it initiated with its walks program.

The Hamden Land Conservation Trust works to maintain a strong relationship with the Olin Corporation. Tours supervised by the HLCT have run in spring and fall since 1990, enabling hundreds of Hamden residents and other interested parties to visit the property during that time. It asserts that these walks demonstrate a high and sustained level of public interest in the site as a nature park, and illustrate the capability of the site to support walking and passive recreation on parts of the existing trail system segregated from contaminated areas.

---

<sup>1</sup> Information on the Hamden Land Conservation Trust comes from its charter and bylaws, and from interviews with current board President Tom Stavovy.

# Site Location and Description

---

## *Site Location*

The Olin Powder Farm is a 102.5-acre property in southern Hamden (**Figure M1**), Connecticut. It is situated in a busy commercial and residential corridor, confined to the west by the former Farmington Canal/ New Haven and Northampton Railroad line, and to the east by Whitney Avenue. The property is bounded by Treadwell Avenue to the north, Leeder Hill Drive and the properties fronting Leeder Hill Drive to the east, and Putnam Avenue to the south.

The wooded land and lakes across Treadwell Avenue north of the Olin property are owned and managed by the South Central Connecticut Regional Water Authority (RWA). The open space south of the property, on the other side of Putnam Avenue, is an old farm that is slated to be the site of a fire station.<sup>2</sup>

Properties on Leeder Hill Drive include the Whitney Center retirement home, Highville Mustard Seed School, and SBC Communications offices. On Putnam Avenue, the property abuts a Goodyear tire recycling factory, an abandoned industrial building, and Atlantic Film & Imaging, a commercial printing business (**Figure M2**). The former New Haven and Northampton Railroad, built on the old Farmington Canal corridor, will become the southern Hamden extension of the Farmington Canal Heritage Greenway rail trail and the old railway bed is already a well-worn path. The rail bed runs parallel to the property approximately

10 to 50 feet west of the fence. (See **Appendix C** for more details about abutting properties.)

As seen in **Figure M1**, the site is in a central location for green space development. It is adjacent to both the proposed Farmington Canal Heritage Greenway, which is slated to be extended south into this area in 2004, and the proposed Mill River Watershed Trail.

## *Property Boundary*

Most of the property line is delineated by a six- to 10-foot chain-link fence, which is topped with three strands of barbed wire. The only exception to this demarcation is directly behind the Whitney Center retirement complex, where a new fence has been placed approximately 50 feet west of the property line, allowing residents to use this small portion of the woods for passive recreation (**Figure M3**). The property line in this section is marked with one-foot wooden stakes labeled “property boundary” that are tied with blue-and-white striped flagging tape.

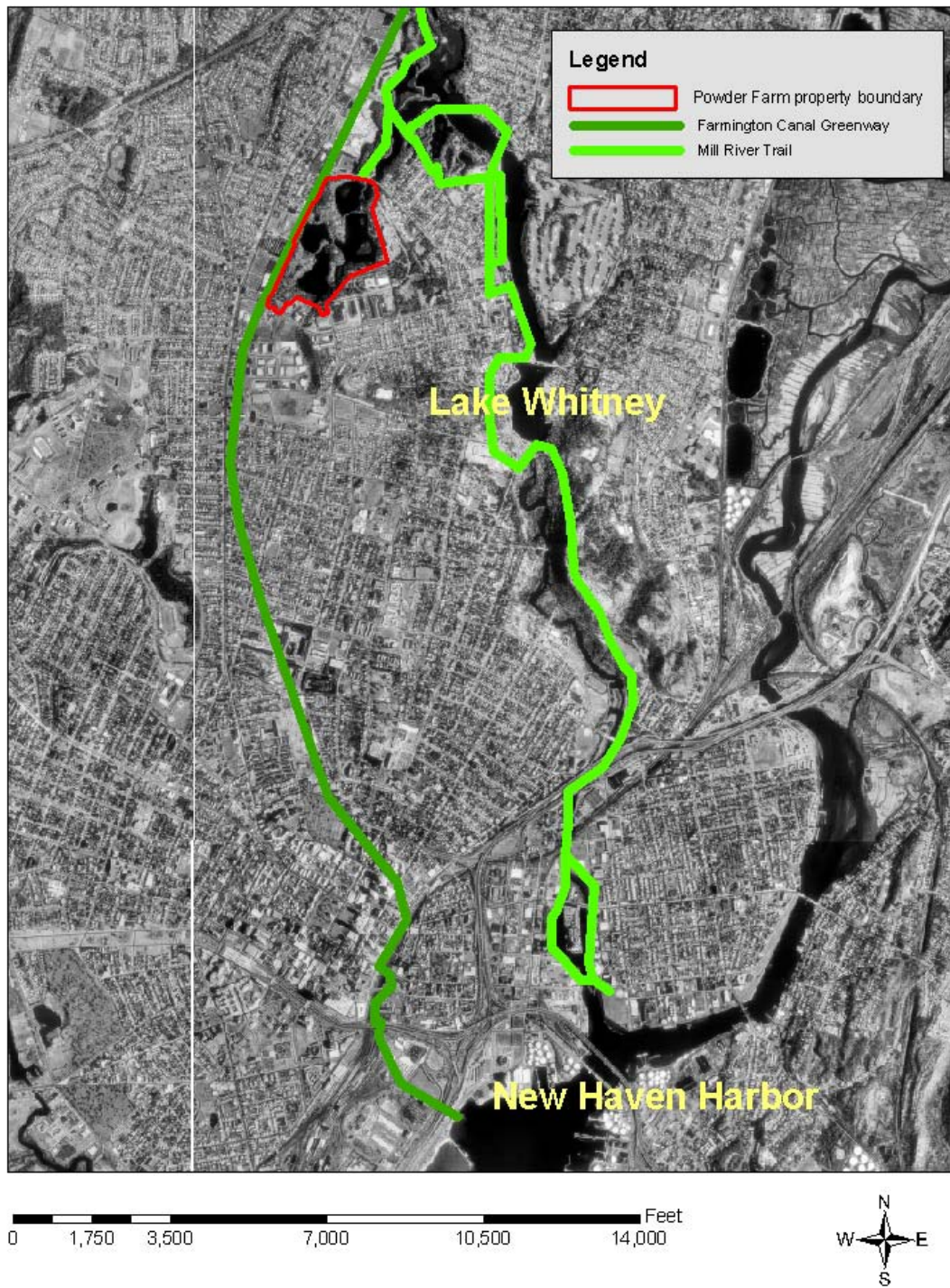
The barbed wire on the western fence boundary, near the railroad corridor, is often cut or sagging, sometimes hanging from the fence or piled on the ground. Parts of the original fence around the remaining portions of the property have eroded away in sections near the ground, and parts have been folded back or removed completely where it has been breached. There are nearly 20 breaches in the fence, varying in width from one to 20 feet, the largest concentration occurring on the western border.

---

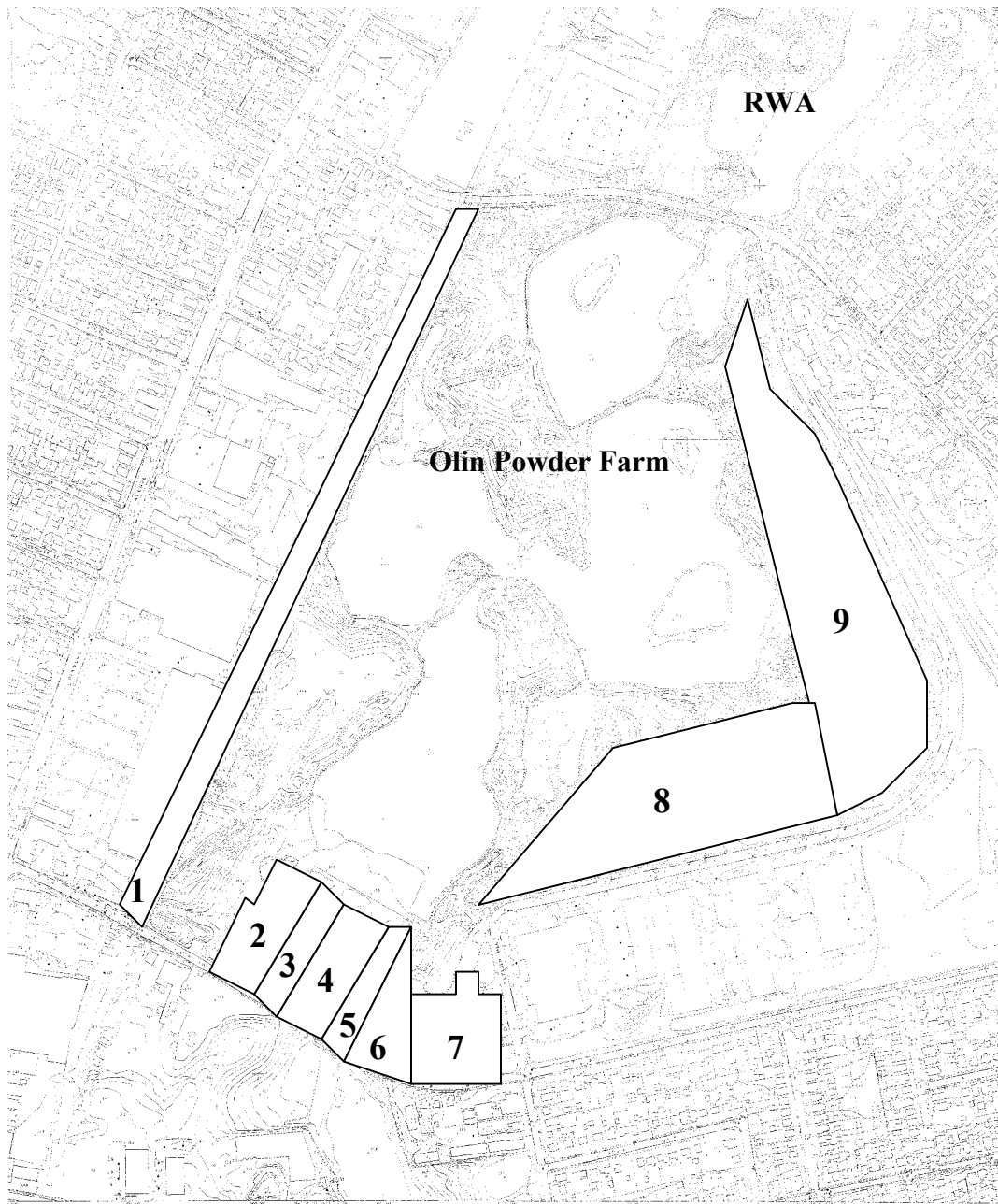
<sup>2</sup> Personal communication with Hamden town planner Leslie Creane, fall and winter 2003.



**Figure M1: Olin Powder Farm Location**



**Figure M2: Properties Abutting the Olin Powder Farm**



- |                                    |  |
|------------------------------------|--|
| <b>1</b> Farmington Canal corridor | <b>2</b> Goodyear Tire                 |
| <b>3</b> Atlantic Film & Imaging   | <b>4</b> Commercial Furniture Services |
| <b>5</b> Vacant land/Wetland       | <b>6</b> Abandoned building            |
| <b>7</b> SBC Communications, Inc   | <b>8</b> Highville Mustard Seed School |
| <b>9</b> Whitney Center            |  |

Well-worn paths on either side of the fence accompany many of the breaches (indicated by brown stars on **Figure M3**). The largest breach is the most northern one on the western side, near Pond D. We suspect all-terrain vehicles (ATVs) use this breach, where an entire 20-foot length of fence has been removed, and where we have observed freshly exposed soil and ATV tracks. Other major breaches lay on the western side just south of the Pond B, and on the eastern side between Ponds A and C (indicated by yellow circles on **Figure M3**).

Sparse signage indicates that the site is private property and that trespassing is prohibited. Signs appear to be of varying ages and conditions, and are occasionally found semi-buried in leaves and trash on the ground. Frequency of signs increases on Treadwell Avenue and the western edge of the property. A few of the signs on Treadwell, and in other locations, are barely visible behind vegetation. The signs on Treadwell have been tagged by graffiti artists.

In several locations, large trees have fallen onto the fence, creating possible entryways into the property (indicated by green triangles on **Figure M3**). The fence near the westernmost pond is sagging from the weight of vines and up to two feet of piled leaves and debris on the western side of the fence. It is here that the fence separates the pond from steep slopes to the west and prevents debris from accumulating in the ponds and on the property.



A breach in the fence on Treadwell Street

### ***Garbage Dumping***

Dumping is most common in the wooded area between the railroad path and the western property boundary. It increases in intensity farther north along the western border. Much of it is small debris, including plastic bags, pails, bikes, shoes, and clothing, but there is also large debris, including furniture, appliances, car parts, shopping carts, tires, and old railroad ties. A possible entry point for dumping is at the end of Oregon Street. This dead-end street is the only one that runs east-west into the railway corridor. The block between Oregon Street and Treadwell Avenue comprises single-family housing closer to Dixwell Avenue and industrial businesses, including a trucking company, adjacent to the railroad corridor. At the end of Oregon Street there is a well-established path through Japanese knotweed (*Polygonum cuspidatum*) to the railroad corridor. From there it is easy to dump trash down the hill towards the Olin property.



Another important feature of the OPF boundary is five stormwater drainage pipes that cross the property line and discharge stormwater on site. (see the Hydrology section for more details).

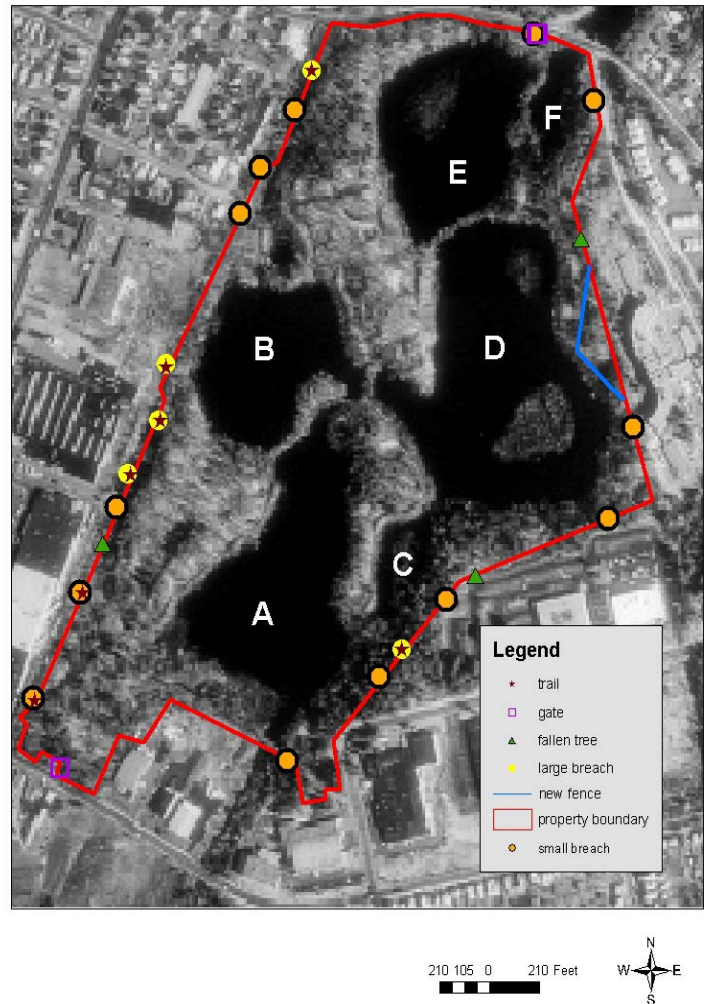
To delineate the property boundary, Crown Consulting walked along the fence on October 3, 2003. Property boundary coordinates were difficult to gather from deeds and there is no survey map at the Town Clerk's office, so spatial information about the property boundary was collected by taking GPS waypoints along the fence. We understand that there may be a significant margin of error in this data, and therefore relied on the fence to delineate the property boundary.

A section of the fence along the southern property border runs through an area of known contamination, and therefore we did not walk this part or collect information in this area. Another waste site, the Anixter site, was blocked off by an internal fence, so we were unable to explore this area as well. See **Figure M4** for the location of demarcated contamination areas.

### ***Contamination***

In 1985 the Connecticut Department of Environmental Protection conducted a survey of the site and located a series of contaminated areas (**Figure M4**) resulting from the history of dumping and range

**Figure M3: Olin Powder Farm Property Boundary and Breaches**



testing that have taken place on the Olin property.

Contaminated areas contain items such as roller skates, solvents, and battery waste. Disposal of battery waste occurred between 1937 and 1957, and disposal of solvents at the Anixter site occurred from the late 1950s through 1966. In 1986 the Anixter Company, which had purchased a parcel from Olin in the 1960s, found contaminated soil on its land, so it fenced off the 0.75-acre area containing the soil and re-sold it to the Olin Corporation for remediation. Today



### *Existing Trails and Uses*

Well-worn dirt paths traverse the Olin Powder Farm, often leading to natural lookout points on hilltops adjacent to the ponds, homeless camps, and areas where fuelwood has been harvested, or connecting to the existing asphalt trails. Within the informally established trail system are footpaths and all-terrain vehicle and dirt bike tracks. More detail on existing uses can be found in the Land Use History section. The existing trail system can be used as an excellent indicator of where people are drawn to on the site, and how they wish to travel through the woods and around the ponds on the Olin Powder Farm property. The trails also indicate that the site is used quite often for recreation despite the fact that such use is trespassing. **Figure M20** identifies existing trails and utilizes those that are on slopes less than 10 percent in the development of a permanent and formal trail system.



Fuelwood harvesting, west side of property, fall 2003



# Land Use History

---

## *Colonial History of the Site*<sup>4</sup>

Before the arrival of colonists to south central Connecticut in 1635, this region was primarily used by members of the Quinnipiac Nation, who relied on hunting and gathering techniques for survival. As part of their land management, autumn and spring fires were often set to clear underbrush and encourage meadows for deer and other wildlife. By 1675 most of the land in the Greater New Haven Watershed had been cleared of trees and stones for agricultural use by European colonists. This cleared land probably included some portions of the Olin Powder Farm. In 1786, the city of Hamden was separated from New Haven and incorporated as an independent Town.<sup>5</sup>

The history of the Olin Powder Farm property largely mirrors the history of the cities of Hamden and New Haven. In 1828 the Farmington Canal was built to connect New Haven to the Connecticut River, 83 miles north. The canal ran through the city of Hamden and abutted Pine Swamp on its northwestern side. Planned in 1825 and completed in 1828, the Farmington Canal was expected to bring similar economic vitality to the area as had been realized in

New York following the construction of the Erie Canal.<sup>6</sup> The Farmington Canal, however, was never economically viable, and in 1836 the Farmington Canal Company transferred all associated lands and waters to the newly created New Haven and Northampton Company.<sup>7</sup> By the late 1840s, a railway was operational in what had been the canal, and remained so through the early 1980s.

## *Swamp Flooded*

In 1860 the Lake Whitney dam was built, flooding the Pine Swamp basin (see **Figure M12** in the Geology section). Around the same time, a mysterious illness broke out in Hamden, resulting in the deaths of nearly half of the residents.<sup>8</sup> Most likely the illness was due to vector-borne diseases spread by mosquitoes, but residents blamed the strange odor coming from the Pine Swamp.<sup>9</sup> Residents were concerned that when water was drawn down from Lake Whitney, the Pine Swamp mud flats might be exposed and make them sick. In response to resident concerns, the water company built a dam on Treadwell Street at the stream outlet at the northeastern corner of the present-day property. This is where water flows into Lake Whitney, and the dam served to keep

---

<sup>4</sup> The land use history of this site was compiled from interviews with officials and local residents, research at the New Haven Historical Society and Eli Whitney Museum, a review of printed letters and newsletters on the history of the Olin Corporation, a review of deed records and a walk through the property with Tom Siccama, a Yale botany and soils professor. Timelines are presented in **Figure 1**, **Appendix D**, and **Appendix E**.

<sup>5</sup> Hamden Historical Society Webpage: <http://www.hamdenlibrary.org/Historical%20Society/historicalsociety.htm>

---

<sup>6</sup> Farmington Canal Greenway brochure:

<http://www.greenway.org/maps/Farmington.jpg>

<sup>7</sup> Deed held at Hamden Town Hall: Vol. 32, p. 646

<sup>8</sup> Tom Chaplik, Vice President of Water Quality. Southern Connecticut Regional Water Authority. Personal communication, September 2003. He mentioned reading the information in old Public Health reports from the time.

<sup>9</sup> The odor was probably a sulfuric smell resulting from the anoxic decomposition of organic material in the swamps, and in such low concentrations that it was not at all deadly.



water levels within Pine Swamp high when water was drawn down over the Lake Whitney spillway. Treadwell Street was later moved a couple hundred feet south and a new dam was built, this time with the intention of preventing excess water from entering the ponds on the property during storm events. Winchester was worried that the bunkers, and the ammunition stored in them, were at risk of being flooded.<sup>10</sup>

### ***Purchase of Pine Swamp***

The swampy nature of much of the site probably kept the property from being converted into housing in the mid-1800s when the greater New Haven area experienced a boom in population with the development of business and industry. One of the largest employers was Winchester Repeating Arms Company, founded in 1866 when it purchased the New Haven Arms Company and opened a factory on Winchester Avenue for the production of rifles, muskets, automatic rifles, and ammunition.<sup>11</sup>

In 1889 Winchester began to purchase property from a variety of landholders in the area to assemble extensive landholdings throughout New Haven and Hamden. Tree cores indicate that white oak (*Quercus alba*), red oak (*Q. rubra*) and pignut hickory (*Carya ovata*) trees on the site date back to sometime in the late 1870s, early 1880s-- probably around the time that the land was abandoned from farming and sold to the Winchester Repeating Arms Company (see **Figures 1** and **M5** and **Appendix D**). By 1915, Winchester Repeating Arms Company owned the 215-acre parcel of land, then referred to as "Pine Swamp," which

included the Olin Powder Farm.<sup>12</sup> Its wet nature and adjacency to the railroad made it an ideal site for storing the dangerous gunpowder used in production of ammunition. Furthermore, in the late 1800s much of the less-productive agricultural land in the region was being abandoned as the area became more residential, most likely making the land relatively cheap at that time.

Although it was difficult to formulate a comprehensive list of landowners prior to Winchester Repeating Arms Company, a review of deeds indicates that most of the transfers were small piecemeal holdings: 10 acres from Robert Merwin in 1890, three acres from Samuel Baldwin in 1902, three acres from Henry Munson in 1902, and others (see the timeline of deeds in the **Appendix D**). In 1902 Winchester purchased the right to the easterly side line of the New Haven and Northampton Company railroad abutting the property to connect the Winchester production plant with the Pine Swamp property.

### ***Bunkers Created***

Winchester intended to use the land for storage of volatile gunpowder used in ammunition production, which posed serious safety concerns for the company.<sup>13</sup> Storage of the powder was to take place in carefully designed bunkers set into the hillsides and near the water.

Excavations into the hillsides to form approximately 35 bunkers on the site began in the early 1900s. Each bunker was

---

<sup>10</sup> Otto E. Schaefer Consulting. October 22, 2002.

<sup>11</sup> Dana. Winchester Repeating Arms Company 1876. V 122; pp 26-60. New Haven Historical Society, New Haven, CT.

---

<sup>12</sup> Danar, A.Q. New Haven Old & New Factories Archive. Manuscript 1. New Haven Colony Historical Society. P. 28.

<sup>13</sup> Olin Corporation. 1995. "A 'Powder Farm' Vignette: A Pneumatic Route for Gunpowder." **Pine Swamp News**, spring 1995.

surrounded on three sides by earth and the ceilings of the bunkers were designed to be weak relative to the walls, so that if an explosion did occur, the force of the blast would be channeled straight up or into the water, and not expand horizontally into surrounding bunkers or residential



Old retaining wall in the remains of a bunker, which was used by the Winchester Repeating Arms Company for storing gunpowder.

neighborhoods.

A network of paved roads connecting the bunkers to the rail line was also developed. This involved using sand and gravel from the bunker excavations to build up a sill for the road between pond edges. Excess soil from the excavation of bunkers was piled directly across the road from each bunker to form a small running ridge, which can be observed on the site.

In the 1930s the company began planting white pine (*Pinus strobus*) across the property and Scotch pine (*P. banksiana*) along the roads to the bunkers. Cores of pine trees on the excavated bunker land date back to the 1930s, so by that time the bunkers were most likely completed and the pine trees were being planted (see **Figure M5**). It is not clear whether the trees were

planted to provide camouflage for the bunkers during wartime, for improvement of water quality, or simply to reforest a cutover property. Telephone cables were also installed so that workers at the bunkers could communicate easily with workers at the rail line for safety and convenience. The bunker excavations, roads and telephone poles can still be found on the site. In addition to gunpowder storage, the site was also used as a firing range and for industrial dumping over the years.

### ***World Wars I and II: Changing Ownership***

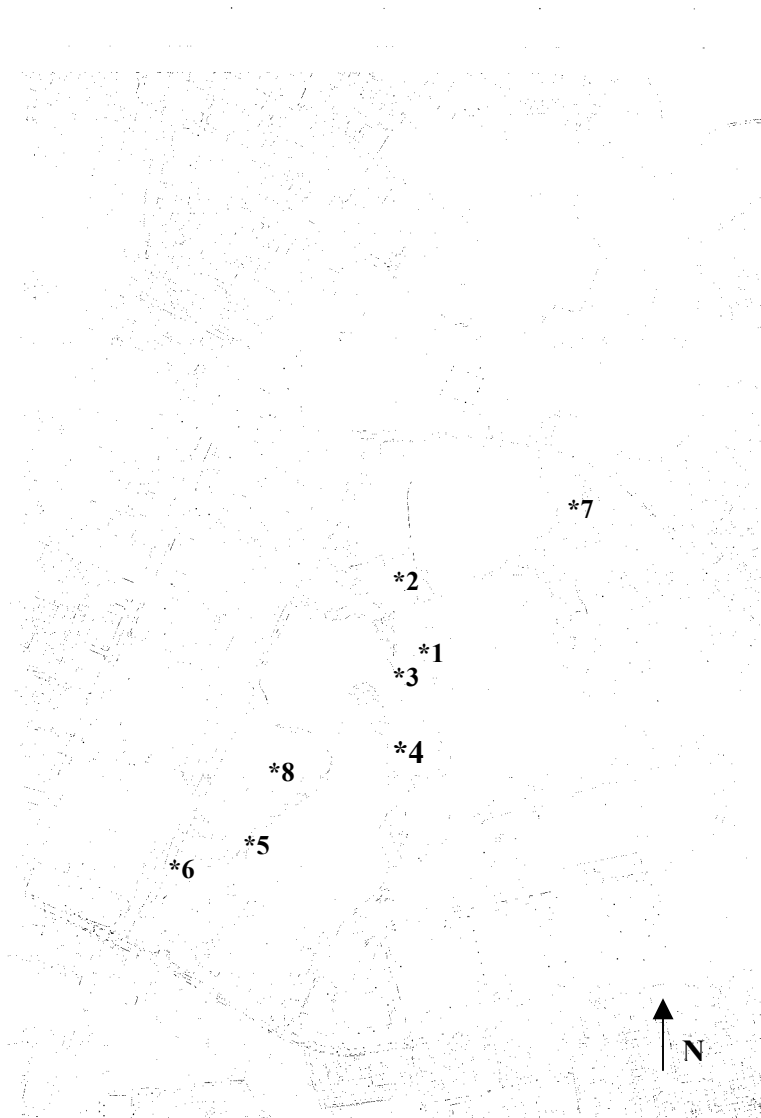
On April 6, 1917, the United States of America officially entered World War I. Even before this, Winchester expanded its size tremendously to meet wartime demands for firearms and ammunition. Between 1914 and 1918, the Winchester workforce rose from 5,600 employees to 20,000 employees. Many of the new workers who moved in to help with wartime efforts were African Americans from southern states. Today, the Olin Powder Farm is located in the only predominately African American neighborhood of Hamden, a neighborhood established at this time.<sup>14</sup>

---

<sup>14</sup> Environmental Review Team Report. 1979. Olin Powder Farm, Hamden. King's Mark Resource Conservation and Development Area.

**Figure M5: Tree Core Locations and Forest Age**

Tree cores were done on old trees throughout the property at the spots depicted by numbers on the map below. #1 was a white oak that dates back to 1896. #2 is a white pine on an excavated bunker that dates back to 1937. #3 is a pignut hickory on a plateau dating back to 1886. #4 is a red oak near the ponds dating back to 1881. #5 is a white pine on a bunker dating back to 1932. #6 is also a white pine in a plantation dating back to 1933. #7 is also a white pine in a plantation dating back to 1937. #8 is a white pine on a bunker with a fire scar. The tree is dated as 1903, the fire scar occurred in 2000.



Scale: 1:200  
Contour Interval: 2 ft  
National Geodetic Vertical Datum of 1929  
FIVE HUNDRED FOOT GRID BASED ON  
CONNECTICUT STATE PLANE COORDINATE SYSTEM  
1983 North American Datum  
This map complies with National Map accuracy standards

Town of Hamden, Connecticut  
MSE Digital Mapping  
MSE Corporation  
941 North Meridian Street  
Indianapolis, IN 46204-1061  
317 634-1000  
317 634-3576 FAX

Throughout the history of Winchester ownership, the site was used for storage of gunpowder, ammunition testing and dumping of wastes from hardware and sporting goods production.<sup>15</sup> In 1929, with the onset of the Great Depression, the Connecticut branch of Winchester Repeating Arms Corporation experienced financial difficulties and was sold to the national office, based in Delaware. The company's worth continued to deteriorate and in 1931 the entire Winchester Corporation was sold to the Western Cartridge Company, led by Franklin W. Olin. Olin continued to use the Winchester brand name for many of the items Winchester previously produced.

When World War II began in 1939, Winchester once again became a huge supplier of arms and ammunition for the Allied Forces. After the war, production of ancillary items began to be faded out as the company concentrated their efforts almost exclusively on the production of guns and ammunition. In 1957 the company discontinued its production of batteries in New Haven and later, in the 1960s, the company phased out its production of ammunition at the New Haven facilities.

At the same time that changes in production were occurring, the company went through a series of name changes. In 1945 the name of the Western Cartridge Company was changed to Olin Industries Incorporated, and in 1954 Olin Industries Inc. merged with the Mathieson Chemical Corporation to form the Olin Mathieson Chemical Corporation. In 1969 the name of the company was shortened to the Olin Corporation, which it is known as today.

---

<sup>15</sup> This included items such as sporting goods, knives, fishing tackle, clay targets, roller skates, tools, cutlery and flashlights with dry-cell batteries.

### *Use of Bunkers Ends*

In the 1950s, John Olin invented a new form of black powder, known as Ball Powder,<sup>TM</sup> which was far less dangerous than the previous powder for which the bunkers had been built. This change obviated the need for the bunkers at the OPF, so the company eventually replaced them with a central warehouse on the OPF site.<sup>16</sup> In 1964, nearly half of the 215-acres comprising the Olin Powder Farm was sold to surrounding commercial, institutional and residential interests, reducing the plot to the present-day size of 102.5-acres, approximately half of which is water. The ranges for machine gun and mortar testing were included in the parcels sold. In 1973 the bunkers were demolished, leaving the excavated hillsides and occasional brick ridges on the site as evidence of its history. Some poles for the telephone cables can also still be found on the site, as well as a short rail spur that runs northeast off the line toward the bunkers in the southwest corner of the property.

### *Connecticut DEP Finds Contamination*

See Site Location and Description section, as well as **Figure M4**.

### *Current Land Use*

Presently the site is completely fenced off and trespassing onto the site is prohibited. A local security company has been hired to enforce this. Despite these efforts, it is clear from the multitude of breaches in the fence and footpaths throughout the property that the land is used often for a variety of purposes. Evidence of beer cans, camp fires and fishing lines near the ponds shows that people are utilizing the ponds despite prohibition. Dumping of shopping carts, clothes and food materials as well as small,

---

<sup>16</sup> Olin Corporation. 1995.



man-made clearings indicate that the land provides sleeping areas for the homeless. Evidence of dirt bike trails and all-terrain vehicle usage is also present.

It is clear that although the site is no longer essential to Olin, surrounding communities find much value in the forest and ponds that this urban greenspace provides. Early recognition of this potential greenspace prompted the Hamden Land Conservation Trust to express interest to the Olin Corporation in acquiring the property for a park as early as 1969. This interest continues, but has been slowed by the need to remediate the site contamination. However, now with the extension of the Farmington Canal Greenway adjacent to the site, and the composition of this park vision and management plan, community interest in the property is again on the rise.<sup>17</sup>

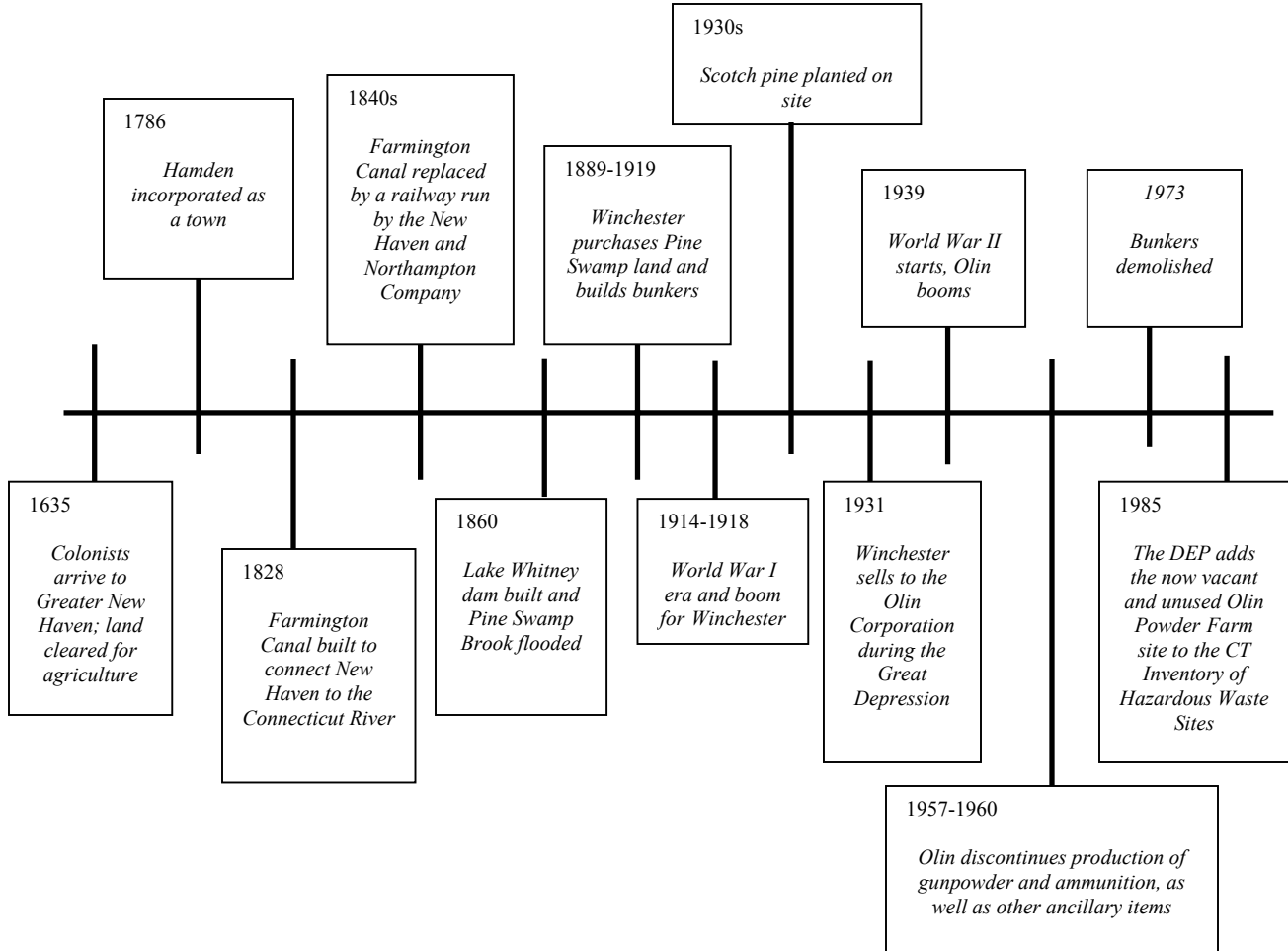


ATV damage, as shown on this bunker, wreaks havoc on the highly erodible soils and steep slopes on the property

---

<sup>17</sup> For example, the Whitneyville Civic Association has declared this project a priority for the 2004 year.

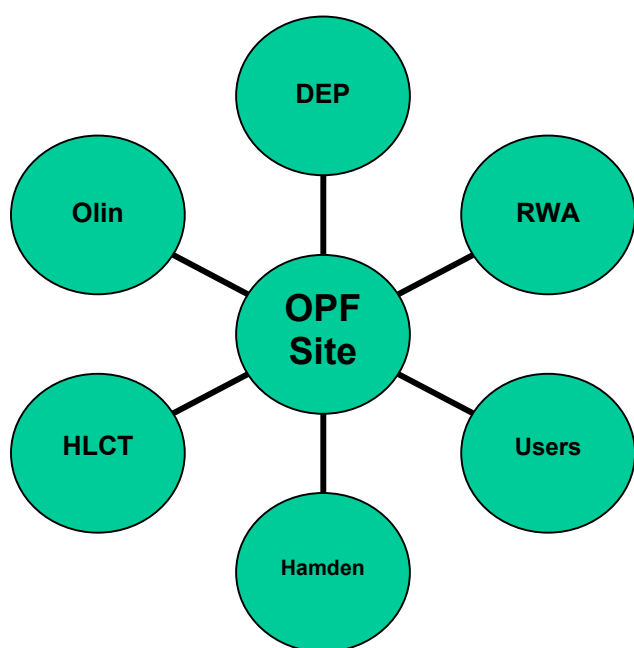
**Figure 1: Timeline of Historical Events for the Olin Powder Farm Property Since European Settlement**



# Major Stakeholders

## Introduction<sup>18</sup>

**Figure 2: Major Stakeholders**  
Depicts major stakeholders in the future development and management of the Olin Powder Farm property



The major parties currently engaged in negotiations regarding the future of the Olin Powder Farm are the Olin Corporation, the Hamden Land Conservation Trust (HLCT), the Connecticut Department of Environmental Protection (DEP), and the South Central Connecticut Regional Water Authority. Other directly affected

<sup>18</sup> The term ‘stakeholder’ in this document refers to any individual or group of people who will be affected by the way the OPF site is developed and managed.

stakeholders are the Town of Hamden, including surrounding neighborhoods and

schools, and the site’s current users (see **Figure 2**). A brief description and history of given below.

## Olin Corporation<sup>19</sup>

The Olin Corporation is a leading North American producer of copper alloys, ammunition, chlorine, and caustic soda.

In 2002, Olin posted sales of approximately \$1.3 billion. The company has approximately 6,200 employees and manufacturing locations throughout the United States. One of the world's top basic materials businesses, the company comprises three divisions; Olin Brass and Winchester, both headquartered in East Alton, Illinois, and the Chlor Alkali Products Division, headquartered in Cleveland, Tennessee. The Olin Corporation has a community outreach program titled the Olin Charitable Trust, which lists as one of its three sets of goals, “Conservation, environmental education and environmental research.”

The Olin Corporation views the Powder Farm property as an asset. The Olin Powder Farm is no longer utilized by Olin to complete its mission, however, so Olin is examining the possibility of selling it. This task is complicated, since any future owner would be responsible for cleaning up the site to remediation standards appropriate for the intended end use. Although Olin is willing

<sup>19</sup> General information on Olin comes from the Olin website: <http://www.olin.com/about/default.asp>

to cooperate with parties who wish to preserve the OPF site for use as a park, developers may be interested in acquiring the land as well. Considering the scarcity of such large undeveloped tracts of land in the southern Hamden area, its future use as a park is only one of many potential options for future land uses. Still, it is one that may be preferred, given development restrictions on public drinking water supply lands and floodplains.

The Olin Corporation is currently responsible for controlling trespassing onto the site and monitoring water quality of groundwater to verify that there is no deterioration in water quality around the site. Olin has made some remediation efforts on the property, and may continue to do so. Remediation of the property may be a costly undertaking, however, so the Olin Corporation will probably expect to recoup those expenses on the eventual transfer of the property.

#### ***Hamden Land Conservation Trust (HLCT)***

See the section titled Project Overview and Client.

#### ***Connecticut Department of Environmental Protection (DEP)***

In 1985, the Connecticut Department of Environmental Protection listed the Olin Powder Farm site on the Connecticut Inventory of Hazardous Waste Sites. Since the Olin Corporation is subject to a consent order to remediate the site, DEP is obligated to review and approve remediation activities.<sup>20</sup> Underfunding and understaffing of the DEP are seen as the major challenges to the assessment, cleanup, and transfer of

---

<sup>20</sup> E-mail from Raymond Frigon, CT DEP analyst, January 2004.

the OPF that are prerequisite to the site becoming a nature park. Since the Olin Powder Farm property is currently closed off to the public and no detection of water contamination has been made, the site is considered lower priority than other sites that Olin and the DEP are involved in.<sup>21</sup> For this reason, they have been slow in pushing the Olin Corporation through the clean-up process of the OPF site.

Currently Raymond Frigon is the environmental analyst assigned to oversee cleanup on the OPF. The OPF case is being managed under the Bureau of Waste Management, Remediation Section of the DEP. The DEP cannot actually prohibit any land use plans, although it may make general recommendations as to the appropriateness of the proposed land uses. Given a land use plan, the DEP would just require that the site be remediated to a point where it is deemed safe for the intended end use.

Mr. Frigon has said it is possible to create a safe recreation venue, without full-site remediation, as long as the park area meets the residential direct exposure criteria of the Remediation Standard Regulations.

#### ***South Central Connecticut Regional Water Authority (RWA)<sup>22</sup>***

The South Central Connecticut Regional Water Authority is a non-profit public corporation and political subdivision of the State of Connecticut. It serves a population

---

<sup>21</sup> Personal communication with Raymond Frigon, DEP analyst assigned to the Olin Powder Farm case, September 2003.

<sup>22</sup> Much of the information regarding the RWA was gained through semi-structured interviews with Tom Chaplik, Vice President of Water Quality for the RWA, and Michele Ardolino, Recreation Supervisor for RWA as well as RWA's website at <http://www.rwater.com/>.



of almost 400,000 in 12 south central Connecticut municipalities, including Hamden and New Haven. Its mission is to provide an ample supply of safe, affordable water, and also to advance the conservation and compatible recreational use of its land.

The RWA has a long history and deep interest in the Olin Powder Farm site, both as a neighbor and a potential future owner. Not only does RWA land abut the site on the northern edge, but water from the interconnecting ponds feeds into Lake Whitney, which is scheduled to go back on-line as the primary source of drinking water for the greater New Haven area in 2004. For this reason, RWA has been carefully monitoring surface water on the OPF site for any levels of contamination that exceed drinking water standards. No contamination above legal standards has been detected, but RWA has a strong interest that the property be managed in a manner that controls erosion and minimizes disturbance of pond sediments.

The ponds receive substantial urban runoff and by collecting sediments from the runoff, improve surface water quality before it flows into Lake Whitney. Due to the important role the ponds play in water quality enhancement and their immediate proximity to Lake Whitney and other RWA land, RWA is interested in acquiring the property sometime in the future.

Of its forest holdings, RWA currently manages eight different parcels for passive recreation (map in **Appendix H**), in addition to many other parcels that aid in watershed protection. Unpaved trail systems are present on the sites. The RWA must apply to the Department of Public Health (DPH) for approval of any recreational activity proposed on RWA land and follow both the

DPH and the RWA general guidelines to protect the watershed.

### *Town of Hamden*

#### **Introduction and Demographics**

Hamden, Connecticut has an area of 33.1 square miles and is home to 57,000 people. It is a commercial Town, with 1,400 businesses that employ 20,000 residents. Currently 55 percent of the land in Hamden is developed (5.4 percent is either commercial or industrial), and 23.5 percent is designated as open space, which the Town defines as city and state owned parks and recreation areas, golf courses, flood control areas, and state owned development rights and wildlife areas. The south end of Hamden is more densely populated and industrial than northern Hamden. As **Figure M6** shows, park and open space is lacking in the southern region. Park development has been identified as a priority for the Town, particularly in the southern end,<sup>23</sup> and the current mayor, Carl Amento, has shown interest in park development for the OPF.<sup>24</sup> The Town of Hamden Planning Office has identified the OPF site as desirable open space. The Town's Plan of Conservation and Development has earmarked the area directly west of the site for economic development and community facilities with protection of adjacent neighborhoods and natural resources. The Town could be a potential buyer or manager of the Olin property and proposed park.

Economic development is a primary focus of Town government. While economic plans are not directly related to park development,

---

<sup>23</sup> Harrall-Michalowski Associates, Inc. for the Town of Hamden, Connecticut, Planning & Zoning Commission. 2003. Plan of Conservation and Development. Town of Hamden, April 2003.

<sup>24</sup> Personal communication with Mayor Amento, November 2003.

the two compliment one another. According to the Town of Hamden Plan of Conservation and Development for 2003, priority economic development area is the corridor between Dixwell and Whitney Avenues. (see **Figure M7**).<sup>25</sup> This plan outlines a strategy to revitalize the local economy by making the area more attractive to business and commercial development. Studies done by the Urban Land Institute and the Trust for Public Land, a non-profit open space advocacy organization, show that property values increase when parks are created or cleaned-up in urban areas.<sup>26</sup> We spoke with several government agencies and officials about the development of the OPF site and the issues facing communities in southern Hamden.

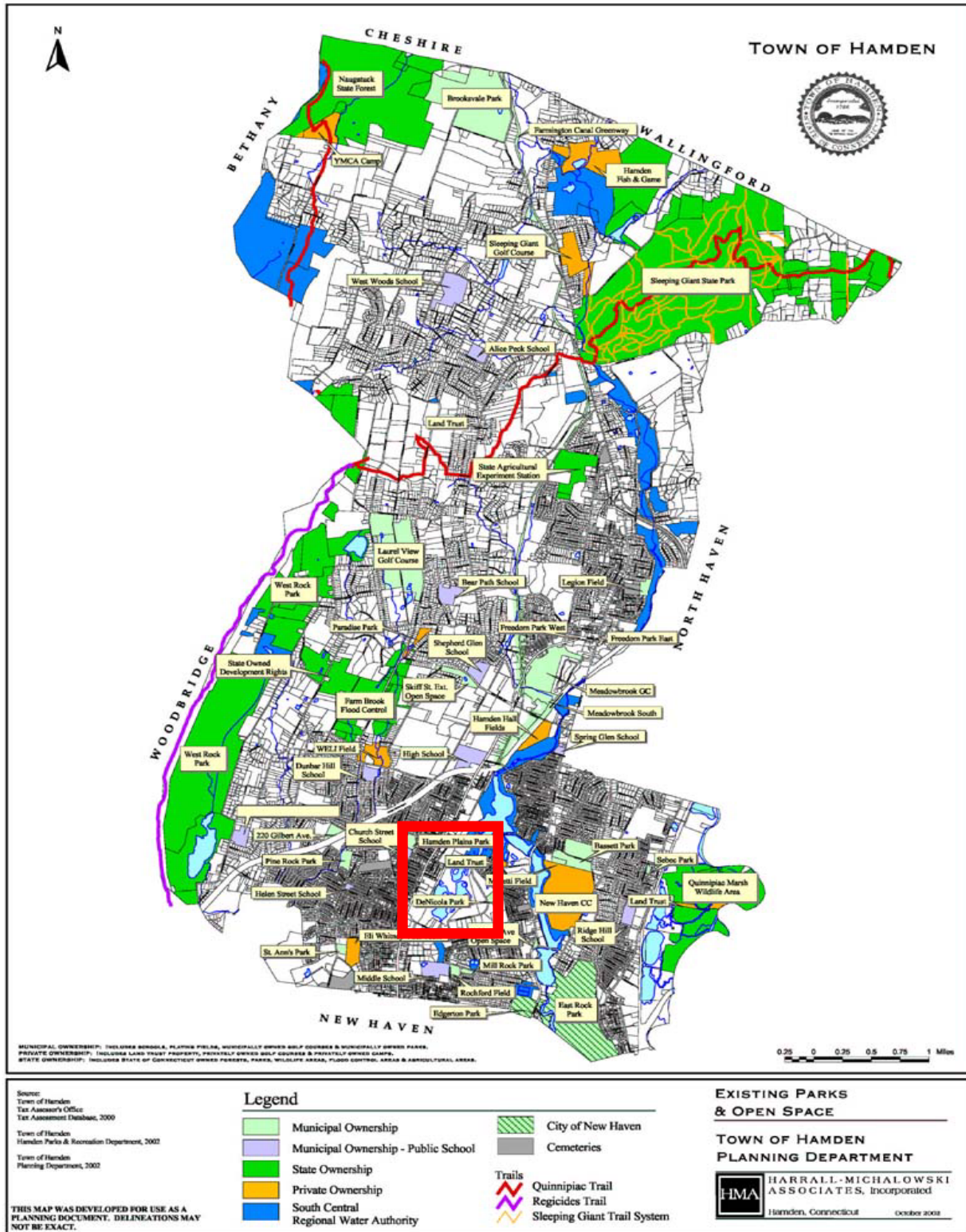
---

<sup>25</sup> Harrall-Michalowski Associates, Inc. 2003.

<sup>26</sup> Harnik, Peter. 2002. **Inside City Parks**. Urban Land Institute.

Figure M6: Town of Hamden Existing Open Space

 = Olin Powder Farm



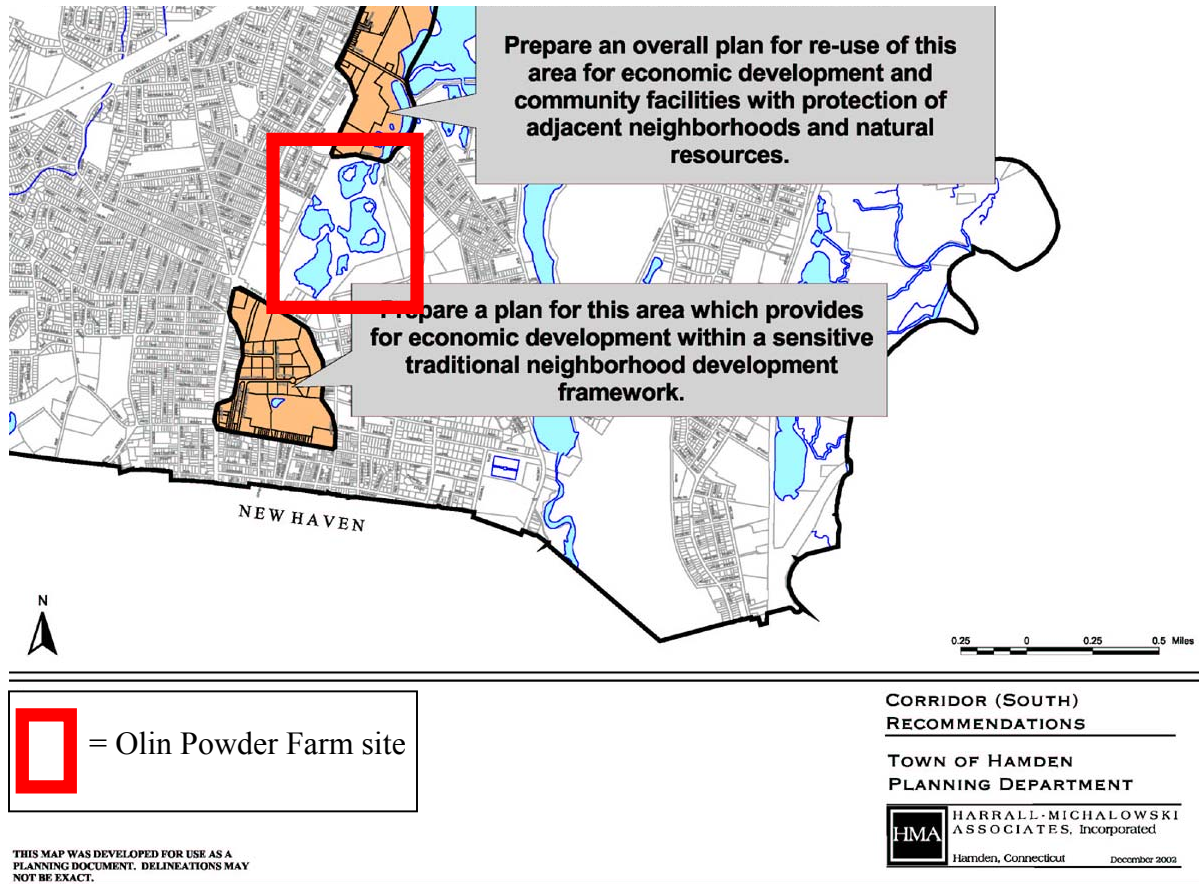
## Local government

### *Natural Resources and Open Space Commission<sup>27</sup>*

The commission is a 12-member advisory body that works with the Town Planning Department. It comprises environmental and development experts, including Town planners and officials, and staff from the RWA, Hamden Department of Parks and

Recreation, and the Yale School of Forestry & Environmental Studies. The commission recommends parcels of land for open space acquisition, and has had a lifetime interest in the Olin Powder Farm property. In a 2002 letter to the Connecticut Department of Environmental Protection, the Commission recommended that the Olin Powder Farm site be used for passive recreation with minimal soil disturbance and minimum acceptable remediation standards for the

**Figure M7: Dixwell/Whitney Corridor Development**



<sup>27</sup> This information is derived from informal interviews at a fall 2003 Natural Resources and Open Space Commission meeting.

desired end use of passive recreation.

The Natural Resources and Open Space Commission is currently focused on the acquisition of a number of different properties in northern Hamden. Obtaining conservation easements and natural resource inventories for properties they already own are also high priorities. They are interested in doing public education on the benefits of open space to communities and are exploring the possibilities of commissioning research on urban trees and invasive species.

In 1996 the Hamden Conservation Commission was divided into the Natural Resources and Open Space Commission and the Inland Wetlands and Watercourses Commission.

See **Appendix F** for contact information.

#### *Inland Wetlands and Watercourses Commission*

Unlike the Natural Resources and Open Space Commission, this commission has regulatory authority and is responsible for reviewing and approving or denying permits for development or construction within 200 feet of wetland soils. Applications can be found at the Town of Hamden Planning Office. An application for a commercial/industrial site costs 150 dollars, plus 50 dollars per acre. Applications require a maps that include a site plan, boundary and lot lines, contours, areas of fill, the “location of property and areas within 200 feet thereof of all proposed and existing watercourses (permanent and intermittent),” proposed buildings, sewage systems, and documentation on groundwater levels, impacts on flooding capacity of dams and impoundments, depth to bedrock and bedrock type, soil type, and an evaluation of plant species commonly associated with

regional watercourses, and wetlands, and an analysis of what effect development may have on these and animal species.<sup>28</sup>

See **Appendix G** for contact information.

#### *Department of Parks and Recreation*

The Olin Powder Farm site is currently not under consideration for development by this agency, because of budget constraints and a need for active recreation sites in the area that can accommodate basketball, baseball, and other sports.<sup>29</sup>

See **Appendix G** for contact information.

#### *Office of Economic and Community Development*

As is indicated in **Figure M7**, the corridor between Dixwell and Whitney Avenues in southern Hamden is a priority area for economic development<sup>30</sup>. The parcel of land south of the Olin Powder Farm site was originally proposed as high-density housing, but the proposal was voted down by the planning department and the parcel is now likely to be developed commercially with a new fire station.<sup>31</sup>

See **Appendix G** for contact information.

---

<sup>28</sup> Hamden Wetlands Commission Application for Inland Wetlands and Watercourse permit

<sup>29</sup> Personal communication with Frank Rizzuti, Director, Department of Parks and Recreation, fall 2003.

<sup>30</sup> Personal communication with Dale Kroop and Curt Leng at the Town of Hamden Office of Economic and Community Development, October and November 2003.

<sup>31</sup> Personal communication with Dale Kroop, Director of Economic & Community Development. November 2003.



*City Council*

The Olin Powder Farm is in City Council District 5, represented by Ann Altman. Councilwoman Altman has held this position for five years. She emphasizes the need for open space in the district, but also indicates that the reputation of the Olin Corporation may cause controversy. She also emphasizes the need to include or consider current users during the park planning process.<sup>32</sup>

See **Appendix G** for contact information.

**Schools<sup>33</sup>**

The Olin Powder Farm site is located within walking distance (estimated at two miles or

less) of nine elementary, middle, and high schools in Hamden and New Haven school districts (see **Figures 3 and M8**). These include the Highville Mustard Seed School abutting the property on Leeder Hill, Hamden Hall School, the Hamden Middle School and the Hamden High School (see **Figures 3 and M8**).

*Unique school opportunities provided by the OPF site*

The property holds a wealth of opportunities for outdoor education in forest ecology, freshwater ecology, wetland ecology, urban

**Figure 3: Schools Within Walking Distance of the Olin Powder Farm**

School	Age Groups	Address	Number of Students	Distance (miles)
Highville Mustard Seed School	Elementary	Leeder Hill Drive, Hamden	300	0.0
Church Street Elementary School	Elementary	95 Church St., Hamden	450	0.3
Helen Street Elementary	Elementary	285 Helen Street, Hamden	377	0.7
Hamden Middle School	Middle	550 New Hall Rd., Hamden	979	0.7
Sacred Heart Academy	College Prep.	265 Benham Street, Hamden	490	1.0
Hamden High School	High	2040 Dixwell Ave, Hamden	2,152	1.1
Hamden Hall School	Pre-K through 12	1108 Whitney Ave, Hamden	585	1.3
Shepherd Glen School	Elementary	Skiff Street Extension, Hamden	330	1.6
Dunbar Hill Elementary	Elementary	315 Lane Street, Hamden	450	1.7
<b>Number of Schools: 9</b>		<b>Total # of students:</b>	<b>6,113</b>	<b>Distance:&lt;2mi.</b>

watershed management, wildlife, and local

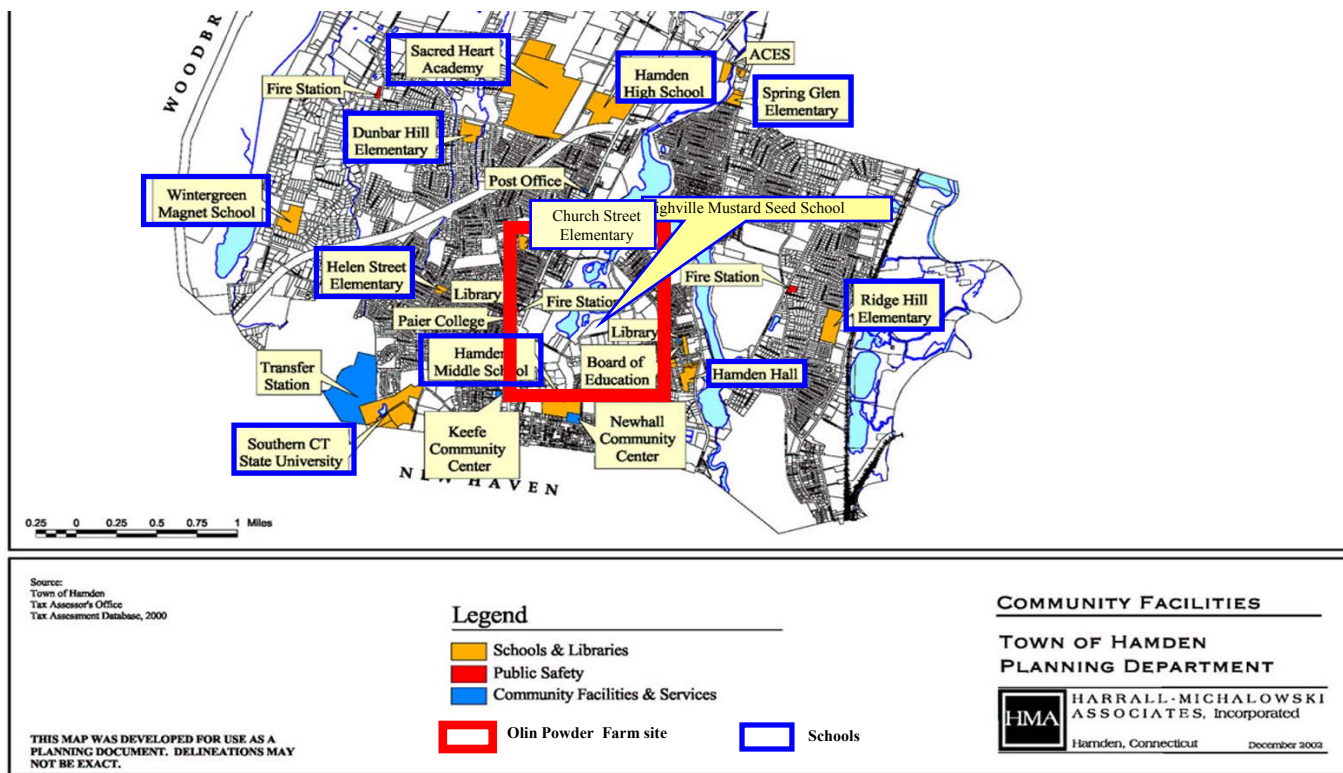
and national history. Teachers mentioned that freshwater access is uncommon among their options for field trip sites, making the

ponds are especially unique for the region. The site is also ideal for learning about water quality testing due to its relationship with the drinking water supply. Field trips

<sup>32</sup> Personal communication with Ann Altman, City Council representative, District 5. October 2003.

<sup>33</sup> Educational uses were scoped using educator focus groups following site tours, and visits to existing outdoor educational venues such as East Rock Park, Whitney Water Center, and Kellogg Environmental Center in Derby.

**Figure M8: Schools and Other Community Facilities in Southern Hamden**



could tie in visits to the OPF property with trips to RWA testing facilities and the Whitney Museum. The OPF site is also the best bird habitat for schools in the region, according to Florence McBride, a local community worker who teaches elementary students about bird ecology. The floating bog islands are unique to the region and would also have appeal to all ages, including to university students.

*Increasing Access to Outdoor Education Opportunities*

Teachers feel that outdoor education is key to engaging children in science and getting them excited about conservation and future job opportunities in the environmental arena.

At the same time, they expressed concerns regarding the lack of outdoor education in the Hamden and New Haven school districts. This lack is partially due to the extra effort it takes to make field trips directly applicable to the school curriculum. As school curricula have become more prescribed and demanding, any field trips that do not directly contribute to the curriculum have been cut.

Many of the children attending Hamden and New Haven schools are familiar only with urban environments and have never visited or seen forested areas or sites rich in wildlife. For many children, a field trip to a park is their first exposure to a non-built environment. Such trips help to broaden

students' understanding and perspective of the natural world as well as pique their interest in these topics.

## Neighborhoods

There are four neighborhoods that are adjacent to the Olin Powder Farm property that could directly benefit from its development (see **Figure M9**).

### *Whitneyville*

The Olin Powder Farm is technically in the Whitneyville neighborhood. Whitneyville has been described by Town planners as a diverse neighborhood with a range of ethnic backgrounds and economic classes.

According to 2000 census data, there are 5,000 residents in census tract 1654, which is the tract the Town Planning Office uses to describe Whitneyville. Within this census tract, 22 percent are under the age of 19 and 26.6 percent are 65 years or older. 37.56 percent of the households have children 18 or under. 55.5 percent of households own their houses.<sup>34</sup>

The Whitneyville Civic Association (WCA) has been active in providing residents and business owners in the Whitneyville community a forum to discuss issues affecting the Whitneyville neighborhood. Many of the members at the November

WCA meeting had attended the fall tour of the OPF property hosted by the Land Trust. In general, WCA members are supportive of the creation of a park on the OPF site as long as it were remediated. They are aware of the contamination on site, but also feel

that there are not enough green or open spaces in their neighborhood.

Surveys on the current perceptions and potential future uses of the OPF were distributed at their November meeting and results are compiled in **Appendix B**. The majority of respondents were in their 40s and 50s and requested that the site offer walking trails, also used for birding, as well as places to picnic on site and enjoy nature. Several respondents expressed concerns about protecting wildlife habitat, and a couple of people at the WCA meeting showed a strong interest in canoeing and other non-motorized boating options.

On the November 12 agenda were several issues related to traffic, including concern about congestion on Putnam Avenue.

### *Whitney Center (WC)*<sup>35</sup>

Whitney Center is an assisted living retirement center with approximately 250 residents with an average age of 86. The Whitney Center property abuts the OPF site to the east, and WC has leased a small section of the OPF property that it uses as a short nature trail with benches for its residents.

Most residents who attended the Crown Consulting focus group liked the idea of turning the site into a nature park, but for safety and security reasons were interested in having a private, locked access gate to the park behind the Whitney Center that only Whitney Center residents could use. Many people living at Whitney Center use walking as their major source of exercise, often

---

<sup>34</sup> U.S. Census Bureau, [http://factfinder.census.gov/servlet/QTTable?ds\\_name=D&geo\\_id=14000US09009165400&qr\\_name=DEC\\_2000\\_SF4\\_U\\_DP1&\\_lang=en](http://factfinder.census.gov/servlet/QTTable?ds_name=D&geo_id=14000US09009165400&qr_name=DEC_2000_SF4_U_DP1&_lang=en)

---

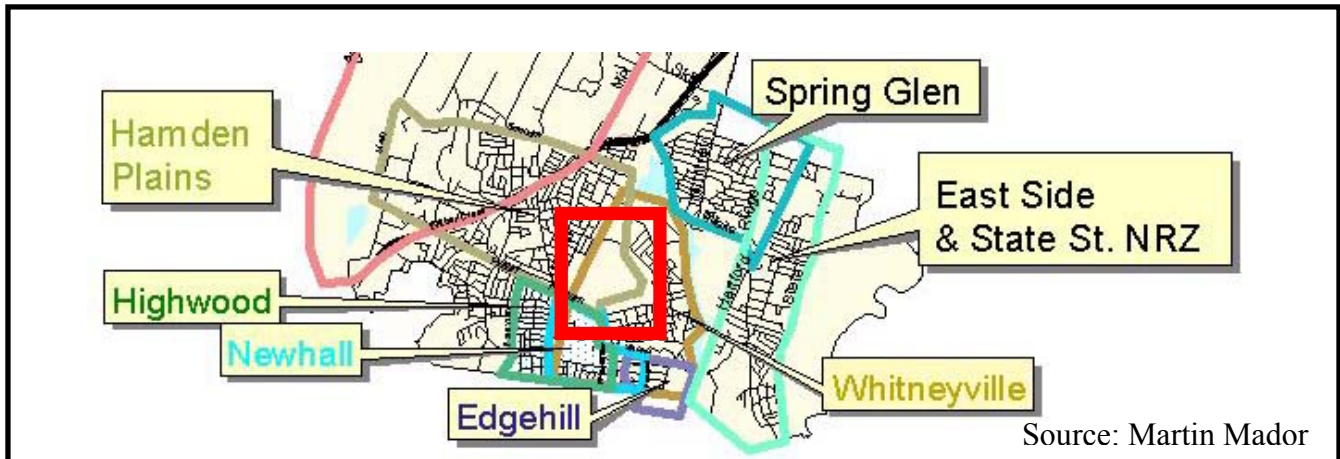
<sup>35</sup> A focus group meeting with interested Whitney Center residents and a short informal interview with the head of Whitney Center in December 2003 were used to identify attitudes and thoughts regarding the future of the Olin Powder Farm site.

walking one to two miles at least once a week. Currently, they feel that there are not as many places to walk to from the Whitney Center as they would like.

on the OPF site. In general, the residents are interested in keeping the natural, forested environment of the site while making sure it is safe for visitors.

See **Appendix G** for contact information.

**Figure M9: Neighborhoods Adjacent to the Olin Powder Farm**



Both trail design and trail maintenance should consider making the trails easily accessible to elderly walkers. People expressed concern over debris on paths that one can easily trip over, such as branches and roots that may stick up, although they do prefer an unpaved path to a paved one. There are some people with walkers at Whitney Center who would require paved paths for walking. The paved paths, such as those that already exist around much of the pond shoreline, would be usable by these residents.

Concern was raised about “fast trail traffic” such as bikes and roller blades. Many people do not like walking on trails with a lot of bike traffic since this often pushes them off the trail and could lead to accidents. There was great interest in birdwatching and other quiet passive activities. Residents also mentioned that many of them have dogs and it would be nice to be able to take the dogs

### *Highwood*

Highwood is a diverse community of nearly 5,000 people. According to the Highwood Neighborhood Revitalization Zone, “Currently, the face that Highwood shows the world is one of blight and trouble. The recession of the 1980s, the remains of the devastation of the 1989 tornado, have all contributed to the neighborhood’s decline.” There has been a decline in owner occupied properties, and the loss of small businesses. The main community organization in Highwood is the Highwood Neighborhood Revitalization Zone (Highwood NRZ). The NRZ, started in 1996, created a strategic plan that focuses on economic development.<sup>36</sup>

<sup>36</sup> Personal communication with Lyndon Pitter. November 2003.

According to Curt Leng, previously with the Town of Hamden Office of Economic and Community Development and now a City Council Representative at Large, Highwood is one of the poorest neighborhoods in Hamden.

The NRZ planning committee is chaired by Lyndon Pitter, founder of the Highville Mustard Seed charter school. The school abuts the OPF.<sup>37</sup>

See **Appendix G** for contact information.

### *Newhall*

Newhall, which is similar to Highwood in terms of economic and social make-up, has recently had to deal with serious contamination and redevelopment issues. The Hamden Middle School, previously in this neighborhood, was built on an old waste dump. It is now being relocated to a new facility farther north in Hamden.

Elizabeth Hayes is vice-president of the Newhall Coalition, which formed around the Middle School issue. She says that the Coalition would support OPF development, but can consider it only after the Middle School contamination is taken care of.<sup>38</sup>

See **Appendix G** for contact information.

### *Hamden Plains*

Hamden Plains lies to the west of Dixwell Avenue and extends to West Rock Park. This neighborhood is severed from the OPF site by a busy street, and therefore remains on the periphery of future park use. Susan

Hutchinson, president of the Hamden Plains and Evergreen Neighborhood Association, says that currently her community's top priority is to prevent the development of high-density apartments on the parcel of land south of the Olin Powder Farm.

See **Appendix G** for contact information.

---

<sup>37</sup> Pitter, Lyndon. "Highwood Neighborhood Revitalization Zone Strategic Plan: 1999 Update. Highville Mustard Seed Development Corporation.

<sup>38</sup> Personal communication with Elizabeth Hayes. November 2003.



# Parks and Open Space

## *Introduction*

According to the Town’s 2003 Plan of Conservation and Development, Hamden exceeds the state goal of 20 percent open space. There are 135 open space parcels, including city and state parks and recreation areas, flood control areas, state owned development rights and wildlife areas, totaling 4,959 acres or 23.5 percent of Hamden’s land.

Open space acquisition and development has always been a priority for Hamden. In the 1980s and 1990s the Town expanded West Rock Ridge and Brooksvale Parks, Naugatuck State Forest, and the Farmington Canal Heritage Greenway.

While Hamden has a large amount of open space, the distribution of parks and recreational facilities is skewed. Larger natural areas tend to be located in north Hamden, while the densely populated neighborhoods to the south lack open space. Recreational facilities, such as basketball courts and baseball fields are also lacking in the south, according to Ann Altman, City Council representative of District 5, which includes sections of Whitneyville, Highwood, and Newhall.

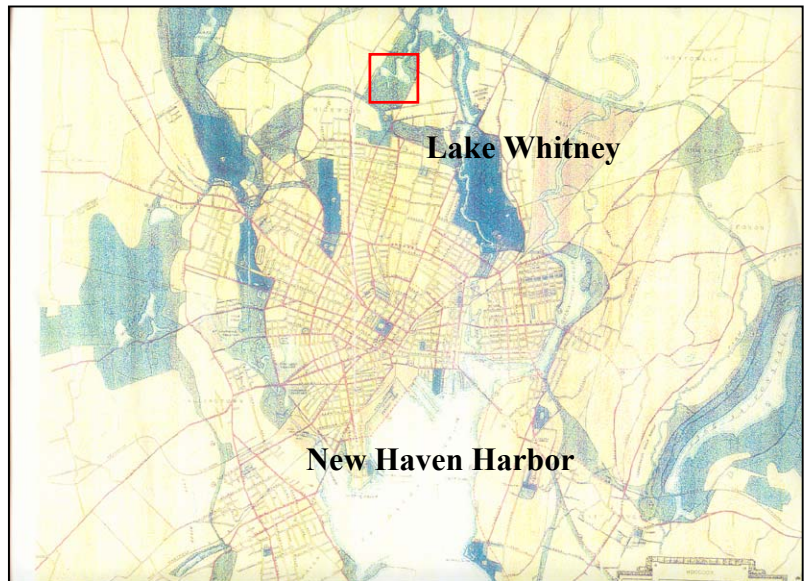
More recent open space development in southern Hamden has been limited to completion of sections of the Farmington Canal trail. The Olin Powder Farm is a logical extension of the Farmington

Canal Trail project and fits into other formerly proposed, existing, and possible future regional greenspace plans for the area. This includes Frederick Law Olmsted’s “Emerald Necklace,” the network of riparian greenspace maintained by the Regional Water Authority, and the Mill River Trail.

See **Figure M11** for the Town’s proposed open space plan.

## *South Central Connecticut Regional Water Authority Land*

The RWA currently manages eight properties for passive recreation in addition to watershed protection. The RWA has a recreation permit system that is fee-based, and permit holders receive the combination to the locked gates for entering RWA properties. Also, permit holders receive a copy of the rules and regulations (see **Appendix M** for RWA regulations and a



**Figure M10: Olmsted’s Emerald Necklace**

map of RWA recreation lands). There are year-round patrols of the properties by RWA police, and recreation staff work at some of the recreation areas during fishing season. On-road bicycling and horseback riding are allowed at two of its properties. At Lake Saltonstall, a lake owned by RWA in northeastern Branford, fishing by boat, and shoreline and stream fishing are allowed. Only the aluminum boats that RWA rents out for use at Lake Saltonstall are permitted in an attempt to prevent spread of the invasive zebra mussel (*Dreissena polymorpha*). Off road biking, all-terrain vehicles, dirt bikes, swimming, and recreational boating are all prohibited on RWA land. There are currently no paved trails on RWA land, so RWA has no policies regarding rollerblading or road-biking.

As mentioned above, the RWA must apply to the Department of Public Health (DPH) for any recreational activity proposed on its land and follow both the DPH and the RWA general guidelines to protect the watershed. If the RWA acquires the OPF in the future, it would be much more feasible for them to apply to the Department of Public Health for trail use if there are trails already established on the property upon acquisition. Recreation options could include passive, non-motorized recreation that does not require major capital improvements.

### ***Farmington Canal Heritage Greenway***

The Farmington Canal Trail is a rails-to-trails project that will connect New Haven to Northampton, Massachusetts with a 70-mile paved trail that can accommodate bikers, walkers, and rollerbladers. The northern Hamden section was the first one completed and ends just north of the Olin Powder Farm site. Parts of the New Haven section are also complete.

See **Figure M1** for the proposed trail location, and see **Appendix G** for contact information.

### ***Mill River Watershed Trail***

The proposed Mill River Trail connects Criscuolo Park and Belle Dock near the New Haven Harbor, to Sleeping Giant State Park in Hamden. The trail will run primarily along the east side of the Mill River, crossing over to the west bank near the top of Lake Whitney after running through East Rock Park. The Trail will then connect with the planned extension of the Farmington Canal Heritage Greenway at the northwest corner of the Olin Powder Farm on Treadwell Street and north onto RWA land. According to the Mill River Watershed Association, “the (Mill River) greenway will introduce pedestrian activities to areas that are now dominated by industrial uses.”

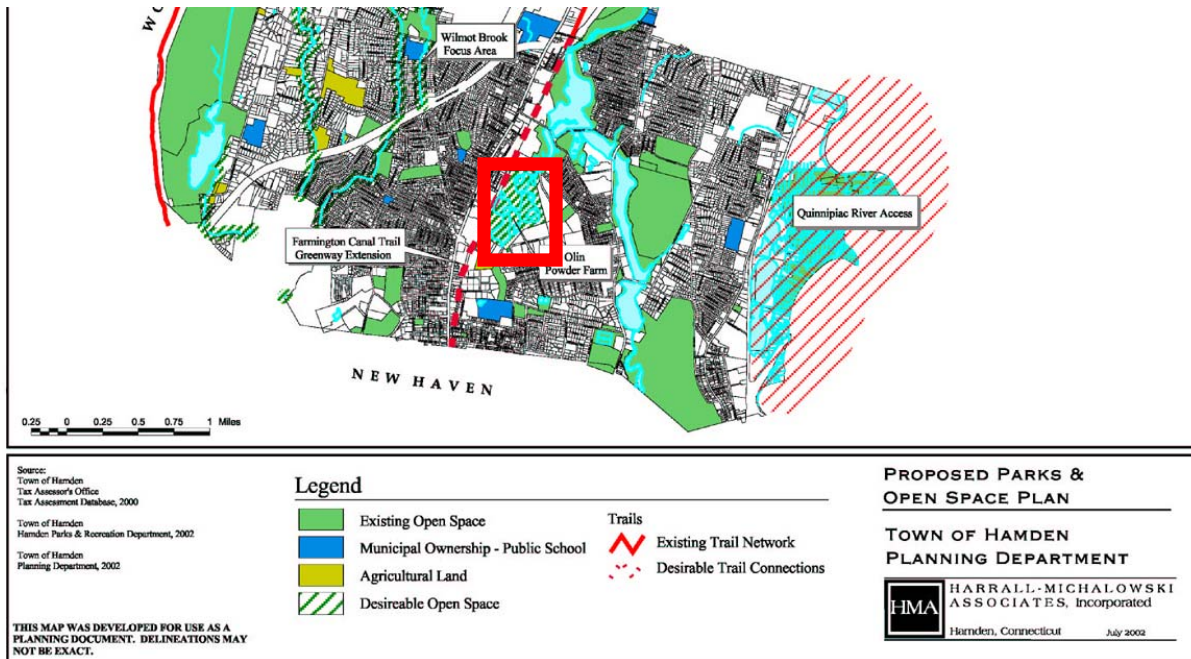
The trail will use and connect with existing trails when possible, and the East Rock Park section will be dedicated this year. The Mill River Watershed Association is partnering with the RWA to maintain and patrol sections of the trail that run through RWA land.

See **Figure M1** for the proposed trail location, and see **Appendix G** for contact information.

### ***Emerald Necklace***

During the 1880s, Frederick Law Olmsted, the famous landscape architect who designed Central Park, created a vision for an “Emerald Necklace” of parks and open space encircling New Haven and southern

**Figure M11: Town of Hamden Proposed Open Space**



Hamden. Olmsted designed many other popular parks, including Boston’s Back Bay Fens and East Rock Park in New Haven. Olmsted had an Emerald Necklace plan for Boston that was completed, while New Haven’s Emerald Necklace plan, proposed in 1909 to the New Haven City Improvement Commission, was never implemented. Nearly 100 years later, most of the open space included in Olmsted’s plan is still undeveloped, much of it owned by city parks departments and the South Central Connecticut Regional Water Authority. The Olin Powder Farm site sits on the north end of the Emerald Necklace. Dr. Stephen Kellert at the Yale School of Forestry & Environmental Studies has been interested in resurrecting Olmsted’s plan. “We took the original plan and modified it to 21<sup>st</sup>-century realities,” he says. “The beauty of Olmsted’s notion for New Haven [and southern Hamden] is that he had this

idea of a continuous corridor and it was in easy reach of people in the city.”<sup>39</sup>

<sup>39</sup> Kellert, S. 2003. “New Haven ‘Emerald Necklace’ Still Attainable,” **Environment: Yale**. New Haven: Yale University School of Forestry & Environmental Studies, fall 2003.

