NEW HAVEN GREEN MAP

3rd Edition

Courtesy of Mayor John DeStefano, Jr., the New Haven Urban Resources Initiative, the Hixon Center for Urban Ecology at the Yale School of Forestry and Environmental Studies, and the New Haven City Plan Department

Need More Green Maps?

The New Haven Green Map, 3rd edition, can be downloaded from the internet at www.cityofnewhaven.com. To request printed copies, please contact the New Haven Urban Resources Initiative at 432-6570.

The Green Map System

The Green Map System is a globally connected eco-cultural program for community sustainability. Green Maps (both printed and online) utilize icons to chart the sites of environmental significance here in New Haven and around the world. Green Maps illuminate the inter-connections between society, nature and the built environment, helping residents make lower impact lifestyle choices and discover great ways to get involved in the urban ecology, and simultaneously guide visitors to successful initiatives they can replicate back home. For more information about Green Maps and samples of Green Maps from around the world visit the Green Map System website at www.greenmap.org.

GREEN MAP

On the cover: Photographs of New Haven from West Rock by Raymond Pupedis, *Sanguinaria canadensis* flowers by New England Wild Flower Society/William Cullina, fall foliage by Hemera, and Lighthouse Point and the New Haven Green by Thomas P. Benincas, Jr.

Acknowledgments

Creating the third edition of the New Haven Green Map was accomplished through a strong partnership between the New Haven City Plan Department and the New Haven Urban Resources Initiative. Special credit for the vision, talent and time goes to staff from both these organizations, including Donna Hall, Colleen Murphy-Dunning, Nicole Rousmaniere, Chris Ozyck, and Alec Vincitorio.

Additional thanks and recognition for map contributions of text and imagery goes to David Heiser at the Yale Peabody Museum, the New Haven Colony Historical Society, the Coastal Center for Watershed Studies, the New Haven Land Trust, the Greater New Haven Convention and Visitors Bureau, and CitySeed.

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Printed on 100% post-consumer recycled, processed chlorine free, FSC certified paper.

NEW HAVEN WATERSHEDS

Do you live in a watershed? The answer for everyone is, "Yes", because anyone who lives on land lives in a watershed. Watersheds are the area of land that water flows over or through to a common water body. Every stream, lake, river and ocean has an associated watershed contributing flow. Watershed size can range from an acre or two for a small stream to many thousands of square miles, as in the example of the Mississippi River. The elevation of the land determines the boundaries of a watershed, since water flows downhill.

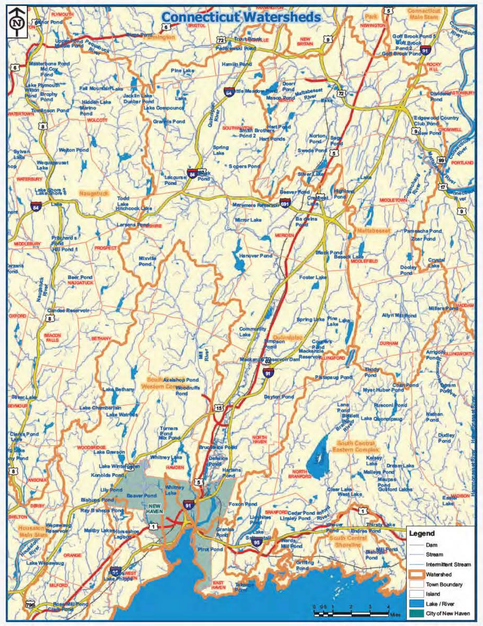
The City of New Haven lies within the watersheds of three rivers and several smaller streams. The West River watershed, the Mill River watershed and the Quinnipiac River watershed extend far beyond the City boundaries, with the Quinnipiac, the largest, extending all the way north to town of Farmington in Hartford County. Rain water falling in any part of these watersheds eventually will flow into New Haven harbor. Some areas of the City are in watersheds for small streams that flow directly to the harbor or Long Island Sound.

Mary Ann Lamb

Park Ranger Dan Barvir paddles the Mill River with East Rock Elementary School students.

Shoreline Inc.

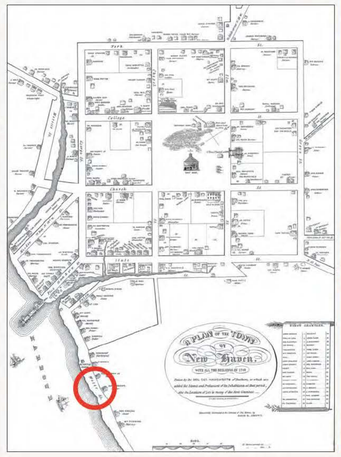
The schooner Quinnipiack sails past Lighthouse Point.



DOWNTOWN NEW HAVEN PAST AND PRESENT

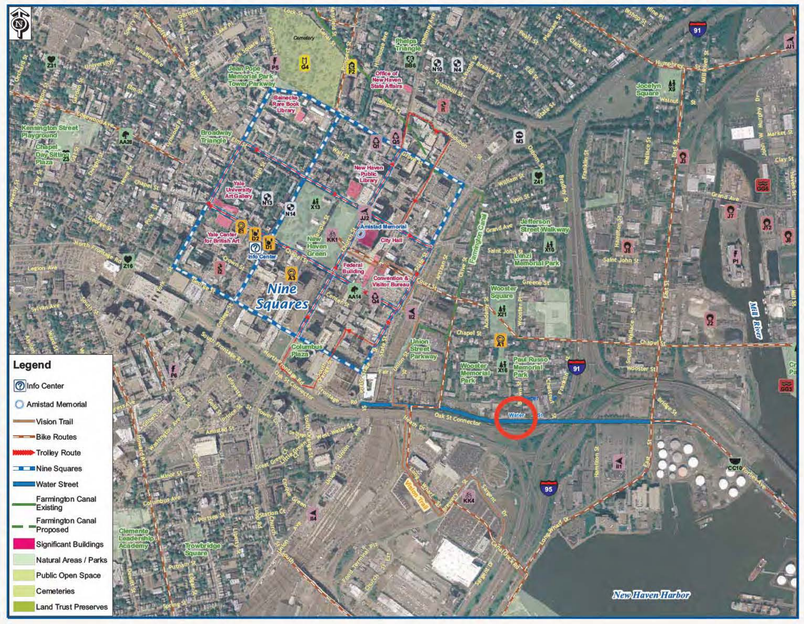
Downtown New Haven still embodies the first settlers' original design. The seventeenth century Puritan founders chose a clearly organized, nine square plan, with streets and house lots surrounding a Public Square. Today this central space is called the Green and is still used for the city's civic, religious and cultural activities. While the surrounding streets have transformed from a mix of houses and shops to a central business district, the original downtown has remained the heart of New Haven.

For three hundred years, the Green and waterfront were very closely connected. This relationship was lost due to the post World War II interstate highway system and a large harbor dredging project. Today, the Green and waterfront are separated, but if you look at the map from 1748, you will notice they were once only about a block apart. This connection drove commerce and industry during the eighteenth and nineteenth centuries, leading to the creation of the Farmington Canal, Long Wharf and the city's industrial success. On the 1748 map, Long Wharf is the pier extending into the harbor; it ultimately grew to extend into the middle of the harbor, with warehouses, the Customs House and other maritime businesses extending along its length. Today's Long Wharf only represents the last few yards of the original. The Farmington Canal route is occupied by both the railroad tracks and the walking trail today. One way to define the dramatic landscape change which has transformed New Haven's downtown and waterfront is to locate Water Street on both the 1748 map (street name circled in blue) and the contemporary satellite map and note the distance that now exists between the street and the harbor edge.



Right: 1748 Plan of New Haven.

Far Right: Satellite image of downtown New Haven today.



THE NATURE OF NEW HAVEN

East Rock

One of the best bird's-eye views of New Haven and its harbor can be found at the summit of East Rock Park, a crown jewel of the City of New Haven's Department of Parks, Recreation and Trees. East Rock is one of a series of basaltic traprock ridges that occur from New Haven north through Massachusetts to the border of New Hampshire. The ridges formed nearly 200 million years ago as molten rock rose from below to fill stress cracks in the sandstone bedrock, and then cooled to form hard, erosion-resistant basalt. Erosion of the surrounding sandstone by glaciation and weathering, along with some degree of tilting, have left these prominent ridges, which rise hundreds of feet above the surrounding terrain, with steep west-facing cliffs and gradual slopes to the east.

Raymond Pupedis

East Rock Park

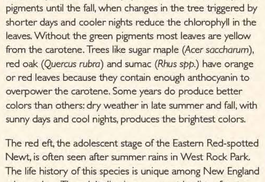
East Rock Park is home to a number of native amphibians, which are attracted to its vernal pools, temporary bodies of water that typically form in shallow depressions in wooded or semi-wooded areas and catch rain and snow melt in the spring. These pools do not support fish or many other aquatic predators because they dry up in the summer, and so are ideal places for specific organisms to reproduce. Among the many amphibian species that rely on vernal pools for reproduction are the Spotted Salamander, Jefferson Salamander, and the Wood Frog. These species, along with all of the state's native amphibians, are part of the Connecticut Amphibian Monitoring Project, a long-term study to identify population trends. In recent years habitat loss has reduced the occurrence of vernal pools and consequently has led to the decline in the numbers of amphibians in Connecticut.

While most amphibians and reptiles spend the cold months of winter deep underground, buried in mud, or in a shelter such as a cave or rock pile, others spend the winter under leaf litter or just barely under the surface soil. These animals will be among the first to respond to spring rains, and thus among the first to reach the breeding ponds. However, without insulation against the cold they frequently freeze. The Wood Frog is known to change its physiology as winter approaches so that it can freeze without cellular damage. This species is currently being studied in the context of cryogenics, the study of the effect of low temperatures on living tissues for medical transplants and other lifesaving procedures.

Greg Watkins-Colwell

*Wood frog (*Rana sylvatica*)*

In addition to being a very large piece of undeveloped, wooded open space within the New Haven city limits, East Rock is recognized as one of the best places in this part of the state to observe warblers during their annual spring migration. The Trowbridge Environmental Center highlights the wildlife of the park and also calls attention to some of the uncommon plants and animals that occur only on traprock ridges; hours of operation are limited. Just over a mile away, the Yale Peabody Museum of Natural History houses the remarkably lifelike Southern New England dioramas, the Hall of Connecticut Birds, and many other exhibits of local, regional and global interest.



Raymond Pupedis

Regicide Trail, West Rock Ridge State Park.

West Rock

West Rock Ridge State Park, on the west side of New Haven and extending north into Hamden and beyond, is another prominent traprock ridge that rises nearly 300 feet higher than East Rock. The views from the top are magnificent, and sunsets on the steep, reddish, west-facing cliffs as seen from Route 69 on the west side of the park have a phenomenal, alpenglow-like quality. There are literally miles of hiking trails, plenty of roadbeds and a few trails for biking, and beautiful Lake Wintergreen on the east side of the park for those who are looking for an idyllic canoe ride. As the name indicates, the understory surrounding the lake is a great place to see spotted wintergreen (*Chimaphila maculata*), a small plant with dark green, waxy leaves that are present year-round, and equally small, cream-colored flowers in the summer. Look for the broad, light green stripe down the middle of the leaves.

Every spring Connecticut wildflowers come alive with an explosion of color. Large-flowered trillium, bloodroot, blue cohosh and Dutchman's breeches are just a few of the many plants that can be found growing in forests, along streams and on ridge tops in parks like West Rock and East Rock. Most early spring wildflowers are dependent on such insects as mining bees, honeybees and bee flies for pollination. Ants disperse the seeds of many other wildflowers, including Dutchman's breeches and trillium. Attracted by the rich food body (elaiosome) attached to each seed, the ants eat the food bodies and discard the seeds unharmed.

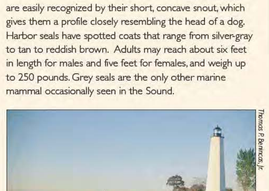
New England Wildflower Society/Jeff Gamache

Trillium grandiflorum

Equally colorful as the spring flowers and a sure sign of autumn in New England are the bright red, orange and yellow leaves of the deciduous trees of West Rock and other forested regions. Leaves are green during the summer because they contain chlorophyll, a primary component of photosynthesis. Most leaves also contain a yellow pigment called carotene, and some leaves have red pigments known as anthocyanins. The chlorophyll masks these red and yellow pigments until the fall, when changes in the tree triggered by shorter days and cooler nights reduce the chlorophyll in the leaves. Without the green pigments most leaves are yellow from the carotene. Trees like sugar maple (*Acer saccharum*), red oak (*Quercus rubra*) and sumac (*Rhus spp.*) have orange or red leaves because they contain enough anthocyanin to overpower the carotene. Some years do produce better colors than others: dry weather in late summer and fall, with sunny days and cool nights, produces the brightest colors.

The red eft, the adolescent stage of the Eastern Red-spotted Newt, is often seen after summer rains in West Rock Park. The life history of this species is unique among New England salamanders. The adults live in permanent bodies of water where they breed and lay eggs. The aquatic larval period lasts several months to over a year, depending on environmental conditions. Once the larva has completed metamorphosis it moves onto land for several years. This terrestrial stage is the "red eft," named for its bright color, a warning to predators that it is toxic if eaten. For this reason, red efts move freely around the forest, even during the day, seemingly without any concern for birds or other predators.

Predators avoid this little salamander much in the way that predators avoid poison dart frogs in tropical America.



Greg Watkins-Colwell

*Red eft, terrestrial stage of the red-spotted newt (*Notophthalmus viridescens*)*

Lighthouse Point

A tour of the New Haven parks would not be complete without a stop at Lighthouse Point Park. In addition to the historic lighthouse, working carousel, and well-kept beach, Lighthouse Point Park is one of the best hawk watching sites in New England. Every fall birds of prey from northern New England and Canada migrate south in a broad band across Connecticut. On reaching Long Island Sound they turn west to avoid crossing such a large body of water and concentrate along the coast, especially at the south-protruding peninsula of Lighthouse Point. Commonly observed species include Sharp-shinned and Cooper's Hawks, Osprey, Northern Harrier, Red-tailed Hawk, Broad-winged Hawk, and American Kestrel. Even a few Bald and Golden Eagles turn up each year. Over the course of the fall, Lighthouse Point hawk watchers regularly count more than 15,000 raptors representing 15 species. In addition to hawks, Lighthouse Point also attracts numerous other birds as well as migrating butterflies.

Yale Peabody Museum of Natural History

*Red-tailed hawk (*Buteo jamaicensis*)*

The harbor seal is generally found swimming in the ice-free northern waters of eastern Canada and Maine, but as winter approaches it migrates southward. Over the past several years an increasing number of harbor seals call the Long Island Sound their winter home. These wild seals begin arriving in early November and remain through mid-May, feeding on available fish, including winter flounder and American herring.

During the winter months harbor seals can be seen along the Connecticut coast in small groups lounging on sandbars, rocks or remote beaches. These avid swimmers are easily recognized by their short, concave snout, which gives them a profile closely resembling the head of a dog. Harbor seals have spotted coats that range from silver-gray to tan to reddish brown. Adults may reach about six feet in length for males and five feet for females, and weigh up to 250 pounds. Grey seals are the only other marine mammal occasionally seen in the Sound.

Thomas P. Benincasa, Jr.

Lighthouse Point

SIGNIFICANT ORGANIZATIONS

Recreation

Canoe New Haven
A community initiative linked by New Haven's rivers. Programs include canoe and kayak excursions, river cleanups, demonstrations and walks. 203-946-6768

Farmington Canal Rail-to-Trail Association
A nonprofit group made up of volunteers from communities that are connected by the trail. info@farmingtoncanal.org.

New Haven Bird Club
NHBC is dedicated to the conservation of the area's natural resources in order to make available more opportunities for recreation and education in bird watching. www.newhavenbirdclub.org.

New Haven Inner City Outings
A volunteer organization that provides trained leaders, equipment, and transportation to help children get outdoors and experience nature. A program of the Sierra Club. 203-432-7730.

Environmental Education

New Haven Ecology Project
358 Springside Ave. Seeks to cultivate healthy living habits and sustainable practices. NHEP offers environmental education programs, demonstrating environmentally appropriate practices. 203-389-4333. www.nhep.com.

Yale Peabody Museum of Natural History
170 Whitney Ave. Offers a window of discovery to our world's natural heritage—its flora, fauna, geology, and people. Hours: Mon-Sat 10am-5pm, Sun noon-5pm. Free admission Thurs. 2-5pm. 203-432-5050. www.peabody.yale. edu. Also offering courses with the New England Wild Flower Society. http://www.newfs.org.

Schooner, Inc.
60 South Water St. Dedicated to promoting environmental awareness and personal growth by providing educational experiences in marine science, sailing and the history of Long Island Sound and its watershed. Schooner owns and operates the schooner Quinnipiack for schools, public sails and charters. 203-865-1737. www.schoonerinc.org

Solar Youth, Inc.
54 Wayfarer St. Provides opportunities for young people to develop a positive sense of self and connection and commitment to others through environmental exploration, leadership and community service programs. 203-387-4189. www.solaryouth.org.

Whitney Water Center
945 Whitney Ave. Hamden. An innovative education center created by the Regional Water Authority. Offers water science programs to school classes, scouts and other groups. 203-777-1142.

Urban Agriculture

CitySeed
CitySeed seeks to grow an equitable, local food system that promotes economic development, community development and sustainable agriculture. Programs include the network of City Farmers' Markets and the New Haven Food Policy Council. 203-773-3736. www.cityseed.org.

Yale Sustainable Food Project Farm
Edwards St. between St. Ronan and Prospect St. This one-acre organic garden serves as a year-round educational resource for Yale students as well as New Haven school groups. Produce is sold at the Wooster Square Farmers' Market. Visitors always welcome. 203-432-2084. www.yale.edu/sustainablefood.

Environment

Connecticut Fund for the Environment
205 Whitney Ave. Uses science and law to advocate for sound environmental policies, monitor government agency implementation of state and federal statutes, and educate citizens about environmental issues. 203-787-0646. www.cfenv.org.

Elm City Parks Conservancy
720 Edgewood Ave. A New Haven parks advocacy group working to promote, protect and serve the interests of the New Haven parks system and its constituents. 203-946-5713. www.cityofnewhaven.com/parks/ecpc.

Environment Northeast
101 Whitney Ave. Environment Northeast is a non-profit research and advocacy organization that implements environmentally and economically sustainable solutions to energy, climate and air quality issues in New England and the Eastern Canadian Provinces. 203-495-8224. www.env-ne.org.

The Garden Club of New Haven
Founded in 1924, and a member of the Garden Club of America and the Federated Garden Clubs of Connecticut, the purpose of the Club is to create interest in and promote knowledge of gardening, preservation of natural resources and horticulture work in the greater New Haven area.

Mill River Watershed Association
P.O. Box 6642 Hamden CT, 06517. MRWA is a broad-based collaborative that exists to promote the effective stewardship of the watershed through conservation and restoration. 203-624-6737. www.millrivernet

New Haven Environmental Justice Network
NHEJN promotes environmental justice through education and activism. Its goals are to safeguard the health of New Haven residents and reduce illness from environmental pollution. Contact: nhejn@snet.net or www.environmental-justice.org.

New Haven Urban Resources Initiative
230 Prospect St. URI is a not-for-profit/university partnership whose mission is to foster community-based land stewardship, promote environmental education and advance the practice of urban forestry. 203-432-6570. www.yale.edu/uri.

New Haven Land Trust
205 Whitney Ave. A non-profit land trust dedicated to land conservation, community gardens and environmental education. 203-562-6655. www.newhavenlandtrust.org.

Quinnipiac River Watershed Association
99 Colony St. Meriden, CT 06450. Dedicated to the preservation of the Quinnipiac River and its watershed, which extends from Plainville south to New Haven Harbor. 203-237-2237. www.qrwa.org.

Sierra Club
The Sierra Club's members are encouraged through group activities to explore and enjoy the environment so that they will be motivated to protect it. Volunteers from the Club run the Inner City Outings program to introduce children to the same philosophy. connecticut.sierraclub.org/newhaven.shtml.

Trust for Public Land
101 Whitney Ave. A national non-profit organization dedicated to conserving land for people to enjoy as parks and open space. 203-777-7367. www.tpl.org.

Yale Green Corps
Yale Greencorps is committed to working towards a more just local environment through grassroots organizing and collaboration with state legislature.

Yale Student Environmental Coalition
YSEC is committed to improving the environment at Yale, in New Haven and around the world. Members participate in environmental campaigns, organize habitat restoration and organic farming events, and educate the community about environmental issues. www.yale.edu/ysec.

The Watershed Partnership, Inc.
155 White Birch Drive, Guilford 06437. An organization for clean water, healthy watersheds, and safe, healthy, livable communities. We advocate sound environmental policies, and educate citizens about environmental issues affecting both the environment and human health. 203-453-8537. WaterPartnership@sbcglobal.net.

City Government

City Plan Department
165 Church Street, 5th Floor. City Plan facilitates the physical development of the City and encourages the development of sustainable land use, economic and social policy. www.cityofnewhaven.com/CityPlan/index.asp.

Community Services (CSA)
165 Church St. CSA's mission is to improve the health and quality of life for all New Haven residents. www.cityofnewhaven.com/CommunityServices/index.asp.

Livable City Initiative
165 Church St. LCI removes blighted buildings, reduces neighborhood density, promotes homeownership, and prevents the spread of blight. 203-946-7090. www.cityofnewhaven.com/LivableCity/index.asp.

New Haven Parks, Recreation and Trees
720 Edgewood Avenue. Responsible for the stewardship of New Haven's entrusted assets for the enhancement of the City and the enjoyment of its citizens, and for initiating and conducting recreational programs and activities. 203-946-8027 or 203-946-6071. www.cityofnewhaven.com/Parks/index.asp.

State Government

Connecticut Council on Environmental Quality
79 Elm Street, Hartford. The state agency that monitors environmental trends in Connecticut, makes recommendations for improving state environmental policies, reviews Environmental Impact Evaluations, and investigates citizens' complaints. 860-424-4000. www.ct.gov/ceq.

Connecticut Resources Recovery Authority
100 Constitution Plaza, Hartford. The Connecticut Resources Recovery Authority is a quasi-public agency established by the state in 1973 to modernize Connecticut's solid waste disposal. 860-757-7700. www.crra.org.

Department of Agriculture
Connecticut Agricultural Experiment Station.
123 Huntington St. Research station that investigates plants, insects, soils and water, and analyzes food, pesticides, fertilizers and other products for the benefit of the general public.

Department of Environmental Protection
79 Elm St, Hartford. The mission of the Department of Environmental Protection (DEP) is to conserve, improve and protect the natural resources and environment of the State of Connecticut. 860-424-3000. www.dep.state.ct.us.

COMMUNITY GREENSPACES AND GARDENS

NEW HAVEN URBAN RESOURCES INITIATIVE (URI) believes that people who live in cities must take action to protect, restore, and enhance the environment, which they live in. Through our Community Greenspace program, URI advocates that people are the primary drivers and beneficiaries of the urban ecosystem and thus should be engaged along with city agencies to manage and improve our environment. URI began the Community Greenspace program in 1995 so that citizens would have an opportunity to access the resources they needed to be the stewards of their neighborhoods' environment. Each summer through Community Greenspace, hundreds of New Haven's citizens plant street trees, recover vacant lots, improve city parks and undertake many other acts of stewardship. City residents identify projects they would like to do and URI provides the plant materials and technical guidance needed to implement the projects. As a result of ongoing affiliation with Community Greenspace, volunteers report heightened membership in civic and voluntary organizations, rejuvenated feelings of neighborhood ownership, and lasting visible improvements in their daily environment.

Neighborhood volunteers across the City are making our environment healthier and more beautiful - to learn more about how you can take action contact URI's Greenspace Manager, Chris Ozyck at 432-6189, or visit www.urbanresourcesinitiative.org.

Josh Schachter

Tree planting, Atwater and Pine greenspace

Josh Schachter

Ivy Narrow greenspace

Josh Schachter

Tree planting, Newhallville greenspace

The Community Greenspace program is primarily supported through a partnership between the Community Foundation for Greater New Haven, the City of New Haven and the New Haven Urban Resources Initiative at the Yale School of Forestry and Environmental Studies.

Josh Schachter

Watering flowers at May and State greenspace

The NEW HAVEN LAND TRUST, INC. was founded in 1982 with the goal of open space preservation. Through land acquisition, the Land Trust established six nature preserves encompassing a variety of habitats. In 1991 the Land Trust started a Community Gardening Program. Today the Land Trust has gardens in almost every neighborhood of New Haven. Gardens can be found on Land Trust land, on City owned lots, at subsidized housing, on private land, at senior housing, and at institutions. The gardens are all grass roots organizations. The Land Trust provide gardeners with water, soil amendments, plant materials, technical expertise, and horticultural and environmental education. The garden program focuses on food production. Historically a community building and urban revitalization tool, the program has become an essential self provisioning opportunity, a recreational outlet, and a model of sustainability and stewardship. Our program is open to all and has a very diverse membership reflecting New Haven's heterogeneous population. Call 562-6655 or visit www.newhavenlandtrust.org.

Ezra Middleton

Pumpkin party

New Haven Land Trust

View from Long Wharf Preserve

New Haven Land Trust

COMMUNITY CARE INITIATIVE

The Community Action for a Renewed Environment (CARE) program is a community-based, community-driven, multi-demonstration program sponsored by the Environmental Protection Agency. Through this newly-announced initiative, the City of New Haven is taking action to reduce local toxic pollution. The program goal is to broaden the work of an existing partnership with in-house capacity and to understand / reduce toxic levels in the air, water and land resources of the city as prioritized in the comprehensive plan. Based on an existing air toxics inventory and state-level pollution data, New Haven is adversely affected by harmful levels of air toxics and particulate matter (PM). To improve local air quality, the City of New Haven has aggressively pursued renewable energy solutions and demand management programs. In addition, the City purchases ultra low sulfur diesel and has installed retrofit equipment on its school buses.

From here, the CARE program intends to continue implementation of the air toxics initiative; enhance the City's environmental planning capacity specifically tasked to improve toxic-related land use decision-making and initiate an on-site pollution prevention and best practices program at key residential, commercial, institutional and industrial facilities. The City is honored to work with dedicated partner organizations – Connecticut Department of Environmental Protection, Environment Northeast, the New Haven Environmental Justice Network, the New Haven Urban Resources Initiative, CONNSTEP, Yale University, the New Haven Ecology Project and the New Haven Land Trust.

For more information or to participate in the program, please visit www.cityofnewhaven.com or www.epa.gov.