

**PART 5**

**RESOURCE PROTECTION MISSION**

Greenways, Trails & Bikeways

**Urban Wilds & Natural Areas**

Harbor Open Space



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*Urban Wilds & Natural Areas*

## OVERVIEW

**B**oston's remaining islands of natural heritage and biological diversity are crucial components of the city's open space system. The geographic position and geologic history of the city's landforms has led to a complex array of wetland and upland habitats. Vast salt marshes once covered most of East Boston and the Dorchester shoreline, meadows dotted the hilltops of Roxbury, and pristine streams coursed through the forests of Hyde Park and West Roxbury.

Though almost all significant portions of these habitats have been lost due to extensive human-induced manipulation of land and water, we are fortunate today to have remnants of these original ecosystems. These areas provide a glimpse of the past, when most land in Boston was relatively undisturbed by people. They provide habitat for native plants and animals, harboring the city's remaining native biodiversity, and perform a wealth of ecological services such as storing floodwater, producing oxygen, and filtering stormwater run-off. They offer a haven for people seeking a refuge from hectic city streets and serve as outdoor classrooms for children and adults learning about the natural world. Urban wilds and other natural areas expand the range of landscape experiences beyond that of the dense built environment and the designed and manicured landscapes of Boston's parklands.

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## HISTORY AND OWNERSHIP OF URBAN WILDS

In 1976, the Boston Redevelopment Authority issued a landmark document that inventoried and offered recommendations for Boston's remaining natural areas. *Boston's Urban Wilds: A Natural Area Conservation Program* identified 143 areas throughout the city, whether privately or publicly owned, and categorically ranked them for significance. It also offered strategies for their preservation within a then-limited spectrum of protection mechanisms. The BRA study offered a plan for land protection by identifying particular available spaces, defining priorities, and suggesting an aggressive strategy for acquisition. The report's description of the irreplaceable nature of these sites reinforced the need for protection.

The Boston Natural Areas Fund (BNAF or the Fund; now known as the Boston Natural Areas Network (BNAN)) was incorporated in 1977 as a non-profit organization to work with city and state agencies to secure urban wilds inventoried in the 1976 report. In the early 1980s, using available federal funding programs for environmental protection, BNAF successfully assisted the City of Boston and conservation entities with acquisition, advocacy, and planning for several sites in need of permanent protection. The city acquired more than 48 acres of land with BNAF's assistance. This included BNAF's purchase of eight sites, which were then transferred to the city's Conservation Commission. The Fund, in cooperation with the Massachusetts Audubon Society, also



West/Austin Rock, Hyde Park

developed environmental educational programs at several urban wilds to encourage understanding and proper use of these sites. In 1990, BNAF also released an updated urban wilds report, documenting the loss of several important sites and stressing the need for increased protection of privately-owned natural areas.

The Metropolitan District Commission (MDC) has also aggressively sought to protect significant parcels of land. Large sites identified in the BRA report, such as Sawmill Brook (Brook Farm) in West Roxbury and the Belle Isle Marsh Reservation in East Boston, are now owned by the MDC, as are a series of open spaces along the Dorchester shoreline and Neponset River. These acquisitions provide permanent protection to the city's largest and most important remaining habitats. Several of these have also broadened waterfront access for the city's residents.

Other state agencies have identified urban wilds under their jurisdiction, which are not designated reservations, and, therefore, are not protected from public improvements, development, or encroachment. These include the Massachusetts Port

Authority's Wood Island Bay Marsh in East Boston and the Massachusetts Bay Transportation Authority's (MBTA's) New Haven Street Urban Wild in West Roxbury.

With the exception of properties under the jurisdiction of the Boston Conservation Commission and the Parks Department, other urban wilds under city ownership are generally unprotected and subject to potential development. Several other city agencies own designated urban wilds, including the Department of Neighborhood Development, the Property Management Department, the Boston Redevelopment Authority, and the Boston Housing Authority. Important sites in this ownership category include the Gladeside I Urban Wild, owned by the Boston Public Health Commission, the West Roxbury High School Urban Wild, owned by the School Department, and Calf Pasture, owned by the Boston Water and Sewer Commission, but scheduled to be transferred to the University of Massachusetts-Boston.

Several large urban wilds, such as the Cenacles and St. John's Seminary in Brighton, Roxbury Latin Woods and West Roxbury Quarry in West Roxbury, and the Daughters of Saint Paul in Jamaica Plain, are unprotected and privately owned, whether by private non-profit institutions, individuals, or businesses. Some successes have been found in the use of conservation restrictions held by the Conservation Commission in protecting natural areas within Allandale Woods in West Roxbury and atop Parker Hill in Mission Hill. Non-profit institutions such as churches and schools, however, cannot take advantage of the tax relief offered to other private entities upon the donation of conservation easements.

Since 1989, the Parks Department has been responsible for the maintenance of most city-owned urban wilds under its Urban Wilds Initiative. The Boston Youth Fund (BYF) has provided regular summer clean-ups and vegetation control in the summer months. Many neighborhood and community groups have been enlisted to conduct clean-ups and special projects in the urban wilds, with some limited support from the Parks Department Maintenance Division.

However, as staffing levels have decreased and maintenance burdens have increased with the addition of more parkland, maintenance of urban wilds has become somewhat sporadic and uneven. Uncertain ownership and lack of clear jurisdiction among city agencies also contributes to inattention. In addition, maintenance staff and summer work crews, such as the BYF, have not had the specialized training or supervision required for the care of sensitive natural areas. In 1992, the Parks Department and Environment Department installed signage at 12 city-owned urban wilds. However, today many of these signs are in disrepair and require replacement.



Allandale Woods Urban Wild, West Roxbury

## CURRENT INITIATIVES

### Site Inventory and Master Planning

In 1998, The Parks Department took a major step toward stewardship and preservation of city-owned urban wilds and other natural areas. Recognizing that traditional land protection strategies alone are inadequate to promote the important ecological functions of urban wilds in a dense, urban environment, a natural resources manager was assigned to oversee the Urban Wilds Initiative.

In addition to addressing basic upkeep and maintenance of urban wilds, this Urban Wilds Initiative manager develops management plans that include a biological assessment of each site and discuss the potential for restoration of native habitats and ecological functions.

This information will be presented in the *Boston's Urban Wilds and Natural Areas Management Plan*, a comprehensive master plan for urban wild and natural area site management, program development, and administration, now in the final stages of preparation. In addition to detailed site descriptions and assessments, the plan will outline a prioritized maintenance and management scheme and present a programmatic strategy for further outreach, resource development, increased site protection, and enhanced levels of stewardship and program administration.

While the major objective for each site will be to accommodate public access, passive recreation, and expand environmental education opportunities, projects will also be pursued at high-priority sites where restoration of ecological functions and values is a feasible prospect. Restoration projects will be implemented based on: their cost effectiveness; potential to provide habitat to native plants and animals; and ability to perform other ecological services such as filtering and reducing storm-water run-off, producing oxygen, mitigating the warming effects of urban development, reducing soil erosion, and furthering a sense of environmental stewardship within the community.

To date, the Urban Wilds Initiative has compiled a preliminary inventory of all city-owned urban wilds (see Table UWNA-1 at right). In addition, several site-specific projects have been undertaken since 1998, as shown below.



Golden Stairs, East Boston

SITE NAME	NEIGHBORHOOD	AGENCY
Euston Path Rock	Brighton	BCC
Charlestown Overlook	Charlestown	BRA
Calf Pasture	Dorchester	BWSC
Eldon Street	Dorchester	Property Management
Fernald Rock	Dorchester	BCC
Geneva Avenue Cliffs	Dorchester	BCC
Meetinghouse Hill	Dorchester	School Dept.
Belle Isle Fish Company	East Boston	BCC
Condor Street Beach	East Boston	BCC
Condor Street Overlook	East Boston	BCC
Golden Stairs/Rockies	East Boston	BCC
Boundary I	Hyde Park	Parks
Boundary II	Hyde Park	COB
Dell Avenue Rock	Hyde Park	BCC
Monterey Hilltop	Hyde Park	BCC
Mother Brook II & III (Reservation Road Park)	Hyde Park	Parks
Pleasantview	Hyde Park	Property Management
Railroad Avenue	Hyde Park	BCC
Sherrin Street Woods	Hyde Park	BCC
Sprague Pond	Hyde Park	DND
West/Austin Rock	Hyde Park	BCC
Bussey Brook	Jamaica Plain	Parks
Nira Rock	Jamaica Plain	Parks
Blue Hill Rock	Mattapan	BHA
Gladeside I	Mattapan	Public Health
Willowwood Rock	Mattapan	BCC
Woodhaven	Mattapan	Property Management
Back of the Hill	Mission Hill	BCC
Canterbury I	Roslindale	COB
Eldon Street	Roslindale	COB/Private
Cedar Street	Roxbury	DND
Dudley Cliffs	Roxbury	BRA
John Eliot School	Roxbury	Property Management
Puddingstone Garden	Roxbury	BCC
Rockledge	Roxbury	Property Management
Warren Gardens	Roxbury	BRA
Allandale Woods	West Roxbury	Parks, BCC
Dump Shoreline (Millennium Park)	West Roxbury	BCC
Municipal Service Area (Millennium Park)	West Roxbury	BCC
Rivermoor	West Roxbury	Property Management
West Roxbury High School	West Roxbury	School Dept.
<b>OTHER CITY-OWNED NATURAL AREAS:</b>	<b>NEIGHBORHOOD</b>	<b>OWNER</b>
Chandler Pond	Brighton	Parks
Dorchester Park Woodlands	Dorchester	Parks
Franklin Park Wilderness	Jamaica Plain	Parks
Jamaica Pond	Jamaica Plain	Parks
Olmsted Park/Ward's Pond	Jamaica Plain	Parks
McLaughlin Woodlands	Mission Hill	Parks

Table UWNA 1: Urban wilds and other significant natural areas owned by the City of Boston. (Source: COB 1998 Assessor's Office database; COB 1993 Open Space Plan; 1990 Urban Wilds Report compiled by the Boston Natural Areas Fund; Boston Parks Department and Boston Conservation Commission files.)

## Site-Specific Current Initiatives

### *Allandale Woods*

**A**t over 100 acres, this site, located between West Roxbury and Roslindale, is the largest city-owned urban wild and the most significant. It is the second largest forested area in the city (after the MDC Stony Brook Reservation) and contains several small ponds, streams, and wetlands. Because of its large size and overall importance as both a biological and recreational resource, special care must be taken in preparing a management plan. Currently, a detailed natural resource inventory is being prepared to better understand the site's complex ecology and existing land-use patterns. This will be used to draft a comprehensive site plan that will protect and enhance natural resources while accommodating controlled passive recreation and environmental education. One outgrowth of the preliminary inventory has been the implementation of a pilot project to control a non-native, invasive shrub, European buckthorn, in the forest understory. Using summer youth work crews sponsored by the National Parks Service and the Boston Youth Clean-up Corps, thousands of buckthorn plants were pulled out by hand.

### *Belle Isle Fish Company*

**T**his small (about two acres) coastal site is a city-owned inholding within the state-owned Belle Isle Marsh Reservation in East Boston. Historically used by a sport-fishing club, the site was acquired by the city for tax foreclosure in the 1960s. Chronic dumping and nearby industrial operations have seriously degraded the site's ecological integrity, recreational value, and aesthetics. The city is currently undertaking a state-mandated soil remediation program. The Urban Wilds Initiative is seizing upon this opportunity to restore the site back to its original condition as a salt marsh. Contaminated soil will be removed from the site and the area graded to allow restored tidal flows and the establishment of native salt marsh vegetation. This project will dramatically improve the site and its water quality, providing about 1.6 acres of intertidal habitat for fish, shellfish, and birds. Public accessibility will be improved with the incorporation of the East Boston Greenway across the enhanced upland portion of the site, connecting the main section of Belle Isle Marsh to Saratoga Street.



### *Chandler Pond*

**A**lthough man-made in the mid-19<sup>th</sup> century, Chandler Pond is the last remaining pond in Brighton and one of the largest and most significant freshwater resources left in the city. In 1998, the Parks Department undertook a dredging and pond restoration project, removing approximately 27,000 cubic yards of accumulated sediment. The Urban Wilds Initiative worked with other Department staff to minimize the ecological impacts of the pond draining and mechanical sediment excavation operations. In collaboration with the Chandler Pond Preservation Society and faculty and staff from the Harvard Graduate School of Design, the Urban Wilds Initiative also designed and implemented a project to address bank erosion and degraded wetland wildlife habitat along the pond shoreline. This project was jointly funded by the city and the Massachusetts Department of Environmental Management and involved planting 2,750 native wetland plants and installation of 300 linear feet of erosion control material.

### *Condor Street Marsh*

**S**imilar to the Belle Isle Fish Company Urban Wild, this site along the Chelsea River in East Boston is also subject to a state-mandated soil remediation project. During 20 years of city ownership, the site has not been publicly accessible and has devolved into a blighted dumping ground. The Urban Wilds Initiative is using the soil remediation project as an opportunity to transform this urban brownfield into a scenic and accessible natural area. The restored site will feature walking paths, a boardwalk and viewing platform overlooking the Chelsea River, a salt marsh and other coastal habitat elements, and interpretive displays highlighting the ecology and history of the Chelsea River. Completion of this project is expected in 2003.

### *Franklin Park Wilderness*

**T**he Urban Wilds Initiative has been providing technical support for the Emerald Necklace Woodlands Program and the Franklin Park Wilderness Restoration. This has involved sharing expertise in ecological restoration planning, project implementation, and design of long-term monitoring and evaluation methodologies. In the summer and fall of 1999, the Urban Wilds Initiative undertook a project aimed at the removal of the non-native invasive plant, Japanese knotweed, from the Loop Road area in the Wilderness. Nearly one-acre of plants were removed by hand by the BYF and a volunteer group from City Year. In place of the knotweed, 70 native trees and shrubs were planted. A comprehensive, long-term monitoring plan is being implemented and, to date, the project is highly successful. This project was funded by the Fund for Parks and Recreation.



View from the Rockies/Golden Stairs  
Urban Wild, East Boston

### *Millennium Park Natural Areas*

Working closely with the Policy & Resource Development and Design & Construction Units of the Parks Department, the Mayor's Office, and other city agencies, the Urban Wilds Initiative has worked toward the creation, enhancement, and interpretation of several important natural resource elements at this new park in West Roxbury. One element already in place is the approximately ten acres of native grassland and wildflowers along some of the sideslopes. There has also been a clean-up of debris in the forested wetland along the banks of the Charles River, thanks to the landfill closure and park construction project there. Future plans for the park also include a two-mile long, self-guiding nature trail, providing park visitors with information about the unique collection of habitats created on the restored landfill and the scenic natural habitats of the adjacent Saw Mill Marsh and Charles River. In the long term, the agenda of the Urban Wilds Initiative will include restoration of hydrology in the forested wetland to enable periodic flooding from the Charles.



Warren Gardens Urban Wild, Roxbury

### *McLaughlin Woodlands*

This four-acre natural area is part of McLaughlin Playground in Mission Hill. It is a very steep, wooded slope along Fisher Avenue. The woodland is prone to erosion and is dominated by non-native invasive plant species. Under the supervision of the Urban Wilds Initiative, a summer youth work crew sponsored by Earthworks Projects and the BYF began to clear the overgrown vegetation, focusing on the removal of Norway maple, multi-flora rose, and Japanese knotweed. A pilot planting and slope stabilization project, completed in 1999, involved planting about 80 native trees and shrubs and the installation of 500 square yards of erosion control matting. In addition, the Urban Wilds Initiative has continued to work with Earthworks and a dedicated group of local volunteers on other on-going planting and invasive species control projects at this long-neglected natural area.

### *Nira Rock*

This small (1.8 acres) urban wild in Jamaica Plain features a dramatic rock outcrop, a meadow, and an orchard planted and maintained by Earthworks Projects. In 1998 the Urban Wilds Initiative, in collaboration with Earthworks and United Plant Savers, who provided funding, conducted a small pilot planting project aimed at stabilizing thin soils on steep slopes and enhancing the site's native biodiversity. In addition, a local stewardship group was organized to help care for the site and to work with the BYF and other city-sponsored groups on implementing appropriate maintenance practices.

### *Puddingstone Garden*

**R**esponding to community needs for open space and passive recreation in the densely developed Grove Hall section of Roxbury, the Urban Wilds Initiative is working with the local neighborhood association and a volunteer design team from the Community Outreach Group for Landscape Design to rehabilitate this 1.5-acre site. Historically tended as a formal garden, the site has fallen into disrepair and does not provide any significant public benefits. After meeting with the neighborhood association in the spring of 2000, the design team is preparing a master plan and implementation strategy. Funding from various sources is currently being sought.

### *City-wide Site Clean-ups*

**I**n addition to the special projects described above, the Urban Wilds Initiative has organized and overseen general clean-ups and routine maintenance at all city-owned sites. This work has included litter and trash removal, fence repair, mowing, and trail maintenance. The work has been primarily conducted by Parks maintenance staff and BYF summer work crews. Additional volunteer work days have utilized many other partnering agencies and groups, including the National Parks Service, the Suffolk County Community Service Program, Community Corrections, Earthworks Projects, City Year, The Girl Scouts, the Chandler Pond Preservation Society, Suffolk Conservation District, and the Neighborhood of Affordable Housing/Chelsea Creek Action Group.

## THE NEXT FIVE YEARS

**T**he strides made by city agencies toward the protection and management of urban wilds should be augmented to address the considerable challenges of the next several years. Based upon preliminary site evaluations and the work projects undertaken at urban wild sites to date as described above, generalized recommendations for urban wild and natural areas site management and program administration are summarized below. *Boston's Urban Wilds and Natural Areas Management Plan* will explore these goals and objectives in more detail.

**Goal: Protect city-owned urban wilds and other natural areas from development, encroachment, and uses that degrade their natural character.**

- Document the ownership status and agency jurisdiction of all parcels comprising presumed city-owned urban wilds and other natural areas.
- Complete a boundary survey of all parcels and verify that existing boundaries conform to current ownership records. Document and rectify any boundary encroachments encountered.

- Work with the appropriate city agencies to transfer jurisdiction of all city-owned urban wilds and other natural areas to either the Parks Department or the Boston Conservation Commission. If outright transfer of jurisdiction cannot be facilitated, conservation restrictions should be placed on parcels to ensure their preservation as natural areas.

**Goal: Manage and maintain city-owned urban wilds and other natural areas to facilitate public access and promote ecological values.**

- Continue to work with the Parks Department Maintenance Division, the Boston Youth Fund, and community service groups year-round to implement clean-ups and basic maintenance and improvements at each site.
- Continue site-specific inventories and assessments at a scale and scope appropriate for each site. Continue to adapt and modify maintenance/management plans as conditions and circumstances change.
- Develop and implement cost-effective ecological restoration projects at priority sites, generally those containing significant acres of forest, wetlands, and/or open water.
- Develop and implement projects at all sites, as appropriate, to encourage establishment of native plant communities, control invasive plant species, and curtail soil erosion.
- Explore the feasibility of hiring a year-round, specially-trained work crew committed to implementing projects at urban wilds and other natural areas.

**Goal: Promote the use of city-owned urban wilds and other natural areas for passive recreation, environmental education, and other uses in keeping with their natural character.**

- Produce a map and brochure describing city-owned urban wilds and other natural areas and discussing the role of the Parks Department in managing the Urban Wilds Program.
- Develop systematic trail/path systems and site-specific maps, signage, information kiosks, and printed interpretative material for each site, as appropriate.
- Work with the Boston Park Rangers, local schools, scout troops, and environmental education organizations such as Massachusetts Audubon Society in using urban wilds and other natural areas as outdoor classrooms and natural history study sites for school groups, children's nature programs, families, and adults.

**Goal:** Develop administrative, fiscal, and programmatic resources to ensure ongoing, long-term maintenance and management of city-owned urban wilds and other natural areas.

- Develop site-based volunteer stewardship and advocacy groups to implement limited work projects and provide local support for urban wilds and natural areas.
- Establish sufficient yearly capital budget funds for implementation of basic, necessary improvements at all city-owned urban wild sites.
- Continue efforts to raise funds from other private and public funding sources for expanded operational expenses (e.g., dedicated work crews, continued clean ups, restoration efforts, and interpretive tours by groups such as Earthworks), special projects, and other capital needs.
- Develop a system for monitoring of urban wild and natural area management activities, with an aim toward measuring progress on stated goals and objectives.
- Develop and implement an outreach strategy to ensure effective communication of urban wilds and natural areas management activities, successes, and notable achievements.

**Goal:** Advocate for the long-term protection and stewardship of other (non-city) publicly- and privately-owned urban wilds and other natural areas.

- Continue to work with the city's Open Space Acquisition Program in the identification, assessment, and acquisition of high priority, privately-owned urban wilds and other natural areas.
- Work with private landowners, other public natural area management agencies, such as the MDC, and other concerned parties such as Earthworks, Boston Natural Areas Network, and neighborhood-based groups in facilitating ecologically-based land management activities for all natural areas in Boston.



Canterbury I Urban Wild, Roslindale



