



Trailside Exhibit Wing and Blue Hills Pond (Pressley Associates 2007).

1. Introduction

Project Overview

The Trailside Museum at the Blue Hills Reservation in Milton, Massachusetts is owned by the Massachusetts Department of Conservation and Recreation (DCR) and operated by the Massachusetts Audubon Society (MAS) through a 5-year permit agreement. The facility opened in 1959 and was initially operated by the Museum of Science. In 1961, the Massachusetts Zoological Society (later the Boston Zoological Society) assumed management. MAS took over as operator of the Museum building and its associated site and outdoor exhibits in 1974, with the mission “to promote awareness, appreciation and active concern for our environment among people of all ages and to provide enjoyable, affordable environmental education by drawing upon the natural resources of the Blue Hills Reservation, Trailside and beyond.”

In 2007, DCR initiated this Master Plan to provide a ten-year vision for the buildings, site and educational exhibits at Trailside. This draft Master Plan represents the culmination of a year of work by the project proponents (DCR in collaboration with MAS) and the consultant team, with input from the Trailside Advisory Committee.

Trailside is a pivotal component of the Blue Hills Reservation, Massachusetts’ largest park in the metropolitan Boston area, as it functions both as the primary interpretive center for the Reservation, but also because it is located at the base of Great Blue Hill, where the most popular trailhead in the park is located. However, despite its popularity and importance, the existing buildings and site are both outdated and deteriorated with several urgent needs related to health and safety, universal access, public use and orientation, and environmental sustainability. As a result, this Master Plan envisions a new nature education center that forms a gateway to the Blue Hills, with up-to-date interpretive exhibits that celebrate the ecology, geology, cultural resources, habitats, and plant and animal species that comprise this diverse park.

The project area for the Trailside Master Plan consists of a nine-acre area that includes the existing Museum building, two parking lots, pond, animal exhibit enclosures, the historic Canton Ave. Restroom building, and trailheads leading to the summit of Great Blue Hill. Two adjacent facilities, the Blue Hills Ski Area and Blue Hill Observatory, use the Trailside parking areas.

DCR

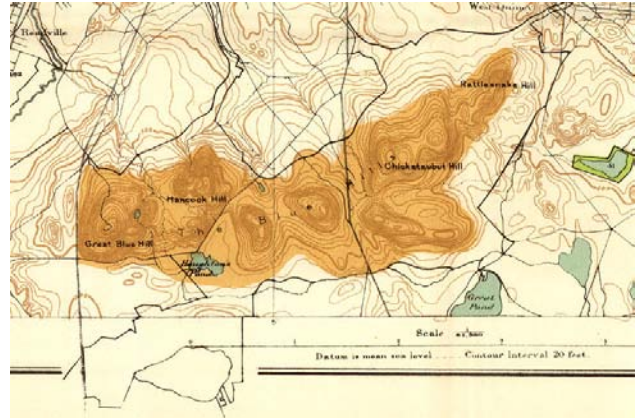
The Massachusetts Department of Conservation and Recreation (DCR) was established in 2003 as a merger of the former Metropolitan District Commission (MDC) and the Department of Environmental Management (DEM). DCR is responsible for the care and management of 450,000 acres of land, including over 2000 buildings, 28 campgrounds, 64 beaches, 13 skating rinks, 44 pools, 2 golf courses, 64 playgrounds, and many athletic fields. The agency also manages 650 lane miles of parkways, 278 bridges and 300 dams, and oversees watershed and forestry management across the state.

The mission of DCR is to “protect, promote and enhance our common wealth of natural cultural and recreational resources.” To achieve this, the agency cares for and oversees management of a broad diversity of natural, cultural, and historic resources and provides quality public outdoor recreational opportunities that are environmentally sustainable, affordable, and accessible to all citizens.

Blue Hills Reservation

The Blue Hills Reservation was established in 1893 by the Metropolitan Park Commission, as the largest park in the first metropolitan park system in the nation. At over 7,000 acres in size, the Reservation is the Commonwealth's largest urban park, extending from Quincy to Dedham, and Milton to Randolph. It's most distinguishing characteristic is Great Blue Hill, which reaches a height of 635 feet and is the highest of the twenty-two hills in the Blue Hills chain. From the summit, park visitors can see over the entire metropolitan Boston area. With its scenic views, varied terrain and 125 miles of trails, the Blue Hills Reservation offers year-round enjoyment for visitors.

The Blue Hills Reservation has an abundance of cultural and natural resources including sixteen (16) historic structures listed on the National Register of Historic Places that tell the fascinating tales of Native Americans, explorers, farmers, quarry workers and inventors.¹ The historic Blue Hills [Meteorological] Observatory is a National Historic Landmark. The natural resources of the Blue Hills include a diverse association of plants, animals and habitats including several rare and endangered species.

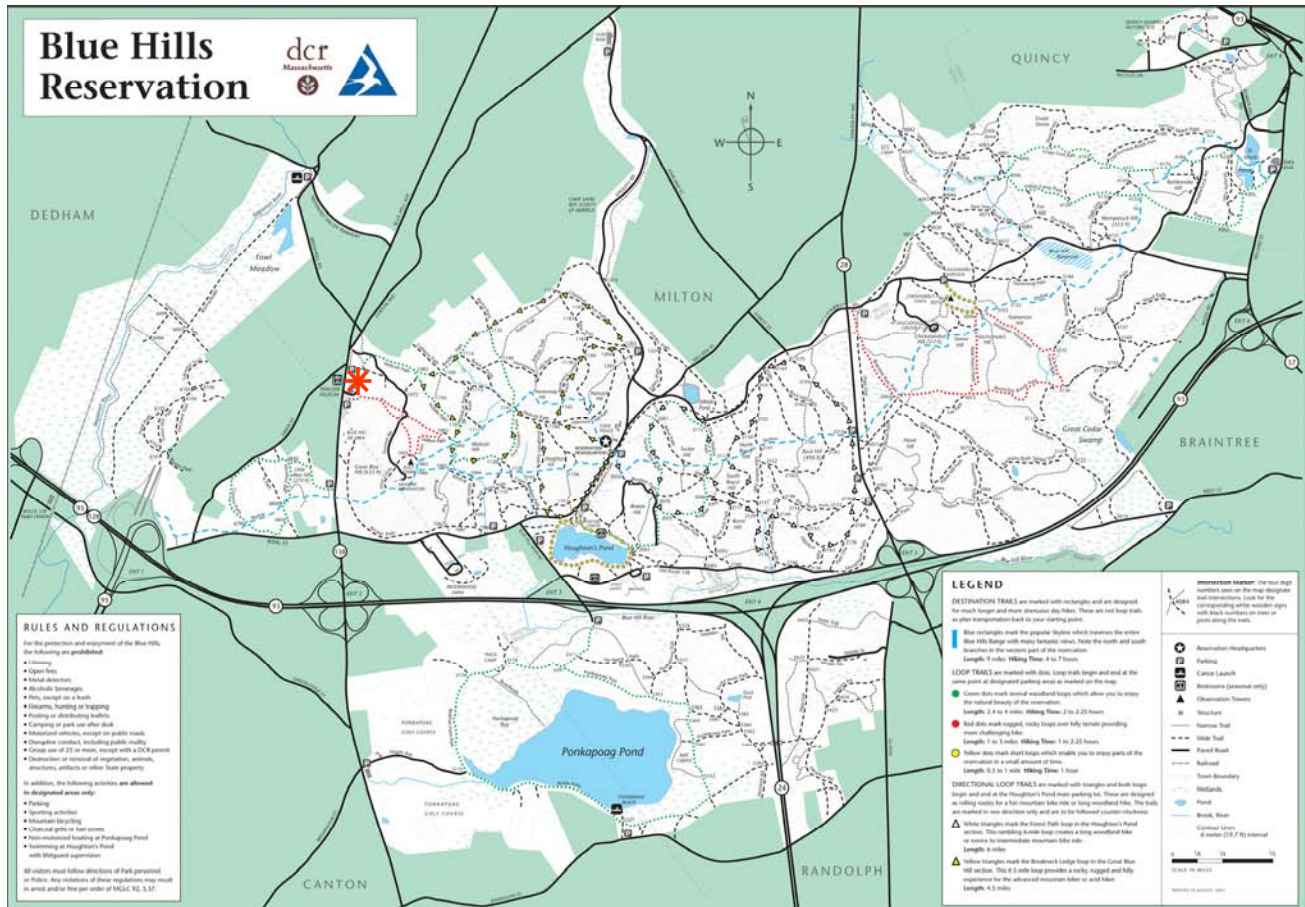


1893 map of the proposed Blue Hills Reservation (Report of the Metropolitan Park Commissioners, 1893).

Recreational opportunities are also abundant in the Reservation, and include:

- 125 miles of hiking trails with some designated for mountain biking;
- Swimming, picnicking and baseball at Houghton's Pond;
- Appalachian Mountain Club cabins at Ponkapoag Pond;
- Fishing, with trout stocked at Houghton's Pond and Pine Tree Brook;
- The 36-hole Ponkapoag Golf Course;
- Two ice-skating rinks;
- Rock climbing at the Quincy Quarries and Rattlesnake Hill
- Cross-country skiing throughout the Reservation and downhill skiing at the Blue Hills Ski Area;
- Brookwood Community Farm;
- Education programs are offered by DCR Rangers on weekends throughout the year.

The park headquarters is located on Hillside Street in Milton.



Trail Map for the Blue Hills Reservation; Trailside is shown with a red asterisk at the west side of the Reservation (DCR).

Massachusetts Audubon Society

Founded in 1896, the Massachusetts Audubon Society (MAS) is the oldest independent state Audubon society in the nation and the largest environmental organization in New England.² MAS protects more than 33,000 acres of conservation land in Massachusetts including 58 wildlife sanctuaries, 45 of which are open to the public and serve as the location for its education and conservation programs such as Trailside.³ MAS conducts educational programs for nearly 200,000 school children and adults each year, and advocates for sound environmental policies at the local, state and federal levels. In their 2000-2010 Strategic Plan, MAS defined their role as a “leader and catalyst for conservation, by acting directly to protect the nature of Massachusetts and by stimulating individual and institutional action through education, advocacy and habitat protection.”

Adjacent Uses

Trailside sits between two other partners in the Blue Hills Reservation – the Blue Hills Ski Area and the Blue Hill Observatory described below. The project area is bordered by Route 138 (Canton Avenue), residential neighborhoods and is within close proximity to I-93/128. The Thacher Montessori School is located northwest of the project area on the opposite side of Canton [Blue Hill] Avenue.

Blue Hills Ski Area

The Blue Hills (William F. Rogers) Ski Area is located south of Trailside, but shares the south parking lot during the winter season. It has a total of nine trails on sixty skiable acres, with a vertical drop of 309’. The ski area is within the DCR Blue Hills Reservation and is operated through a 5-year permit agreement with Ski Blue Hill Management LLC.

Skiing has existed in the Blue Hills since 1935, with the first ski trail developed by the U.S. Department of the Interior in

1937. By 1949, a parking area had been constructed at the base of Great Blue Hill, with additional plans developed for ski trails completed in 1950. The 1962 design plans for snowmaking equipment indicate that Blue Hills is noteworthy for its very early use of snowmaking equipment, as fan snowmaking machines were first patented in 1961 by Alden Hanson.⁴ Additional chair lifts were completed between 1963 and 1978. Today, the Blue Hills Ski Area is known as the place many metropolitan Boston residents learned to ski and is currently managed by Ski Blue Hill Management LLC. The facility has historically been used solely in the winter, but there currently appears to be some interest in a three-season operation that might include additional recreational activities, thus potentially increasing the level of activity adjacent to Trailside. The legislature has authorized DCR to offer a 25-year lease for the site, which must be done through an open solicitation.



Blue Hills Ski Area (courtesy Blue Hills Ski Area www.ski-bluehills.com)

Blue Hill Observatory

Sitting atop Great Blue Hill, the Blue Hill Observatory is a historically significant structure that has provided continuous weather observation since it was founded in 1885 by Abbot Lawrence Rotch. The Observatory is a National Historic Landmark (NHL), which is a list of nationally significant historic properties designated by the Secretary of the Interior. While the NHL is not within the project area, the north parking area at Trailside is used by visitors to the Observatory, and the access road leading to the Observatory is located north of the Trailside project area off Canton Avenue.

Like Trailside and the Blue Hills Ski Area, the Observatory is owned by DCR and operated through a 5-year permit agreement with the Blue Hill Observatory Science Center

(BHOSC). In 2006, the BHOSC announced plans and a capital campaign to fund a proposed new science center designed by CBT Architects. Like the Ski Area, the Massachusetts legislature has authorized DCR to offer a 25-year lease for the Observatory site, which must be done through an open solicitation.



1897 view of the Blue Hill Meteorological Observatory.

Trailside Management and Operation

The existing Trailside Museum building is the interpretive center for the Blue Hills Reservation; the building and its associated site and outdoor exhibit area is managed by MAS. The building is open Wednesday through Sunday, and Monday holidays, 10 A.M. to 5 P.M., with the outdoor exhibit area open daily 10 A.M. to 5 P.M. Hiking trails to the summit of Great Blue Hill are accessible from the Trailside parking area and are open every day from dawn to dusk.

The Museum building contains indoor exhibits that introduce visitors to the native wildlife and the natural and cultural history of the Reservation. Outside, Trailside offers live animal (zoological) exhibits featuring a River Otter, Red-tailed Hawks, Snowy Owl and other native wildlife. Entrance to the building interior requires a small admission fee (\$3 for nonmember adults; \$1.50 for nonmember children (3-12); \$2 for nonmember seniors, and MAS offers free weekend programs with admission.

MAS provides a wide variety of both on-site and remote programs that are based at Trailside, serve a diverse audience, and which have a direct connection to the natural

resources of the Blue Hills Reservation. MAS records for 2007 indicate that Trailside was visited by an estimated 254,314 visitors; it is the most popular facility operated by MAS. Over a year, MAS conducted 373 public programs, 173 community group programs, 397 school programs, 4 special events, and 6 rentals serving a total of 37,804 participants.

Indoor programs, included with admission, explore adaptations, endangered species, and other aspects of New England wildlife, and the cultural history of the Blue Hills.

Outdoor programs can be customized for specific audiences, including adult groups. Many include a lecture and walk with an experienced naturalist and may be general in nature or focused on a specific ecological theme.

Off-site education programs transport animals to other locations for interactive programs led by a MAS naturalist and focused on the nature of New England and the Blue Hills in particular. While these programs are most often used for in-school programs, MAS staff bring animals to other venues for adult-oriented programs. These programs and indoor exhibits are intended to reinforce MAS conservation and stewardship mission and encourage participants to explore the “real” museum/outdoor classroom – the Blue Hills Reservation.

MAS also run a very popular children’s summer camp at Chickatawbut Hill also in the Blue Hills Reservation, with four levels of experiences depending on age (Chickadees, Naturalists, Explorers, Adventurers). While planning for the program and facilities at Chickatawbut is not in the scope of this Master Plan, adequate office space for MAS staff and animal care facilities are needed at Trailside to support the summer camp operation. MAS staff also occasionally run programs at elsewhere in the Reservation, such as maple sugaring demonstrations at Brookwood Farm, or nature walks in other locations.

Given Trailside’s location at the base of the most popular trailhead in the Reservation, DCR rangers also conduct or start interpretive programs at Trailside, so that there is real need for additional facilities to support the educational program needs of both organizations.

The existing 5-year permit agreement between the Department of Conservation and Recreation and the Massachusetts Audubon Society forms the framework for the

joint management, operation and maintenance of the Trailside facility. The Commonwealth provides an annual subsidy of approximately \$425,000 appropriated by the Legislature for Trailside, but the MAS current cost of operations is approximately \$600,000. Both MAS and DCR Blue Hills District contribute services toward the maintenance of the site and buildings, but current operational and capital funds are not sufficient to support the facility’s maintenance, management, staffing and programmatic needs.



Visitors and programs often gather in front of the Otter enclosure (Pressley Associates, 2007).

Goals and Objectives

After a careful inventory and evaluation of existing conditions, including buildings, site, and exhibits (summarized in Chapter 2), the project team worked collaboratively with DCR and MAS to reinforce the mission of Trailside, and to consider appropriate alternatives for its future. Key principles for the future Trailside facilities include:

1. Trailside will continue to operate as a non-profit nature education center that introduces residents and visitors to the natural and cultural history of the Blue Hills.
2. Trailside will continue to operate as a partnership between the Massachusetts DCR and MAS. Future management agreements and funding must be structured to reinforce this collaboration.
3. Live animals are, and will continue to be, an integral part of the Trailside experience as both indoor and outdoor exhibits, and animals used for onsite and off-site programs.

4. The current, realistic goal for Trailside staffing is 12 [MAS] positions, which is a very small increase from the existing positions. Additional DCR staff may be recommended to support the collaboration.
5. Environmental stewardship and awareness will continue to be a focus of the new Trailside – expressed in the exhibits, programs and facilities.
6. The new Trailside should both visually communicate and function as a “gateway” to the Blue Hills Reservation. Other facilities that use the site should not diminish the operation, function, and character of Trailside.
7. While this Master Plan is focused on Trailside, parking improvements to facilitate access for hikers and park operation during peak ski season have been considered.
8. Every effort should be made to make the primary visitor experience (arrival, building entrance, public program and exhibit areas) safe, interesting, informative, engaging and universally accessible.
9. Recommendations for parking and vehicular drop off should meet current safety standards, and strive to maintain current capacity to the greatest extent possible. Major re-grading of the hillside or relocating the pond has not been considered.
10. Strategies for new buildings and site amenities are designed with consideration for natural and cultural resource protection.
11. The new Trailside strives to establish a clear identity with separate [primary] access from the ski area.



Interior exhibit space, Trailside museum (Schwartz/Silver Architects).

Planning Process

This Master Plan has been created by an integrated team led by DCR, and including representatives from the Division of Urban Parks, Blue Hills Reservation staff and rangers, the Bureau of Planning and Resource Protection, DCR Traffic Engineers, the Office of Long Term Permits and Leases, and serving as project manager, the Architecture Section of the Bureau of Planning and Resource Protection.

MAS has contributed significantly to the Master Plan through the Trailside Museum Sanctuary Director, Regional Director, Visitor Education, and Director of Capital Assets Management. In addition to the DCR and MAS staff, the newly formed Trailside Advisory Committee included a broad spectrum of individuals representing abutters, Blue Hills Reservation partners, and town representatives as well as nearby nature centers/ reservations/zoos.

Together, these individuals and the organizations they represent, provided significant input into the Master Plan design to augment the expertise provided by the consultant team (landscape architecture, architecture, civil engineering, exhibit planning and interpretation, natural resources, and zoological exhibit planning). The linear process for the project includes the following timeline:

- The project began with a site survey at 1"=40', which was completed in June 2007.
- During summer 2007, the project team completed the existing conditions documentation, which was presented as a Phase 1 Summary of Findings Report in September 2007.
- Following Phase 1, the project team developed a physical program for the building and site and presented it to DCR and MAS in October 2007.
- DCR and MAS met to re-affirm their common goals for the project in November 2007.
- In winter/early spring 2008 and working collaboratively with DCR and MAS, the consultant team developed goals and principles for the project, and produced a series of three site and building alternatives based on these goals.

- After considerable revision and discussion of the alternatives, DCR and MAS selected a preferred alternative in May 2007, which represented a hybrid plan between two of the alternatives.
- DCR, MAS and the consultant shared the preferred alternative with the Trailside Advisory Committee in May 2007, who offered feedback and suggestions.
- Based on feedback from the Advisory Committee, DCR, and MAS, the consultant team revised the recommended site and building plans and produced a draft Master Plan document for review.
- This final Master Plan reflects comments on the draft Master Plan received from DCR and MAS.
- The new NSTAR exhibit includes a wood frame pavilion for viewing two enclosures, and is located on a “Rocky Outcrop” upslope from the White-tailed Deer enclosure. This exhibit was designed by Trace Design Group and is currently under construction; while the exhibit was originally intended for Red Fox and Turkey Vulture, it has been modified to house two Red Foxes.



New Rocky Outcrop exhibit enclosure and accessible path, under construction, Fall 2008 (Pressley Associates).

Ongoing Projects Underway During the Planning Process

While this Master Plan is intended to guide the future improvement of Trailside, the existing Museum building and its surrounding site require constant improvement to ensure that the entire facility is safe and accessible, natural and cultural resources are protected, and that the live animals are cared for properly. With this in mind, the DCR is currently engaged in several ongoing projects that improve deteriorated conditions at Trailside, which were underway or being implemented during the Master Plan process:

- Renovation and accessibility improvements to the historic Canton Ave. restroom (sanitary) building. This project will add two small accessible toilet rooms on the east side of the historic building designed by Beacon Architectural Associates, as well as interior and exterior renovation. Construction is underway in Summer and Fall 2008.
- Dredging/slope stabilization at the pond based on the recommendations developed by Baystate Environmental Consultants, Inc. (BEC) in October 2006. Plans and specifications have been completed, with an Order of Conditions issued in Spring 2008. This project is currently awaiting funding.
- New accessible path within the animal enclosure area, necessitated by the installation of the new NSTAR exhibit. These improvements were underway in Fall 2008.
- New fencing for animal enclosures; in 2008, DCR replaced a significant amount of black chain link fence around the animal enclosures, and improved some of the holding areas and visitor set-backs associated with the site conditions documented in late 2007. Installation of the new fencing was completed in Summer 2008.
- Construction of new holding structures (mews) for program raptors – located within animal enclosure area. Three separate structures were constructed in 2008 in the former location of the picnic area, allowing for the removal of the small program bird sheds below the deer enclosure. The size of the mews have been increased to provide improved housing for the program birds, who now inhabit the new structures.



New enclosure for Red Tail Hawk, after completion Fall 2008 (Pressley Associates).

- Relocation of the picnic area to an accessible site in the northwest corner of the project area within the perimeter fence. This work is underway in Fall 2008.
 - New electrical and water service to the NSTAR exhibit.
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Endnotes

¹ Department of Conservation and Recreation, "Blue Hills Reservation" www.mass.gov/dcr/parks/metroboston/blue.htm, October 18, 2008.

² Massachusetts Audubon Society. "Strategic Plan 2000-2010." (Lincoln, MA: Massachusetts Audubon Society, 2000), 1.

³ Ibid. 6.

⁴ Mary Bellis. "Making Snow." <http://inventors.about.com/library/inventors/blsnow.htm>