

# **Habitat Management Plan for the Short Beach Preserve**

## ***I. Introduction***

### **A. Authors of the Plan and Date**

This plan was drafted by Vincent DeLuca for January, 2009.

### **B. Statement of Purpose**

The purpose of this plan is to guide the Branford Land trust (BLT) in making future management decisions concerning the Short Beach Preserve (SBP) that balances public use and enjoyment with the protection of the preserve's ecological and cultural integrity. The management plan describes the natural and cultural resources and management goals for the Short Beach Preserve property. Recommendations for management and restoration actions needed to preserve, protect, and restore the Preserve's natural habitats, significant species populations, and cultural resources are also included.

### **C. General Property Description**

#### **1. Physical Characteristics**

Deep in the heart of the Short Beach area of Branford lies 40 acres of hidden treasure of land with rugged rock outcroppings, tall oaks, beech, groves of mountain laurel, wetlands and a magnificent bluff offering spectacular views of Talmadge pond (also known as Altmannsberger's Pond) and Long Island Sound. An extensive trail system is in place. There are no existing structures on this property. The Short Beach preserve forms the boundary between the Short Beach and Branford Hill area, bounded by Plymouth Colony on the west, Midwood Road and Granite Bay on the south, Briarwood lane on the North and with access from Short Beach Road on the east and Midwood Road on the South. See *Figure 1* for a visual depiction of the preserve.

To visit the Short Beach Preserve follow Route 1 to Route 142 (Short Beach Road). Pass Branhaven Plaza on your right, continue 1.5 miles, and turn right onto Midwood Road. Continue to end of cul de sac where parking is available at the main entrance.

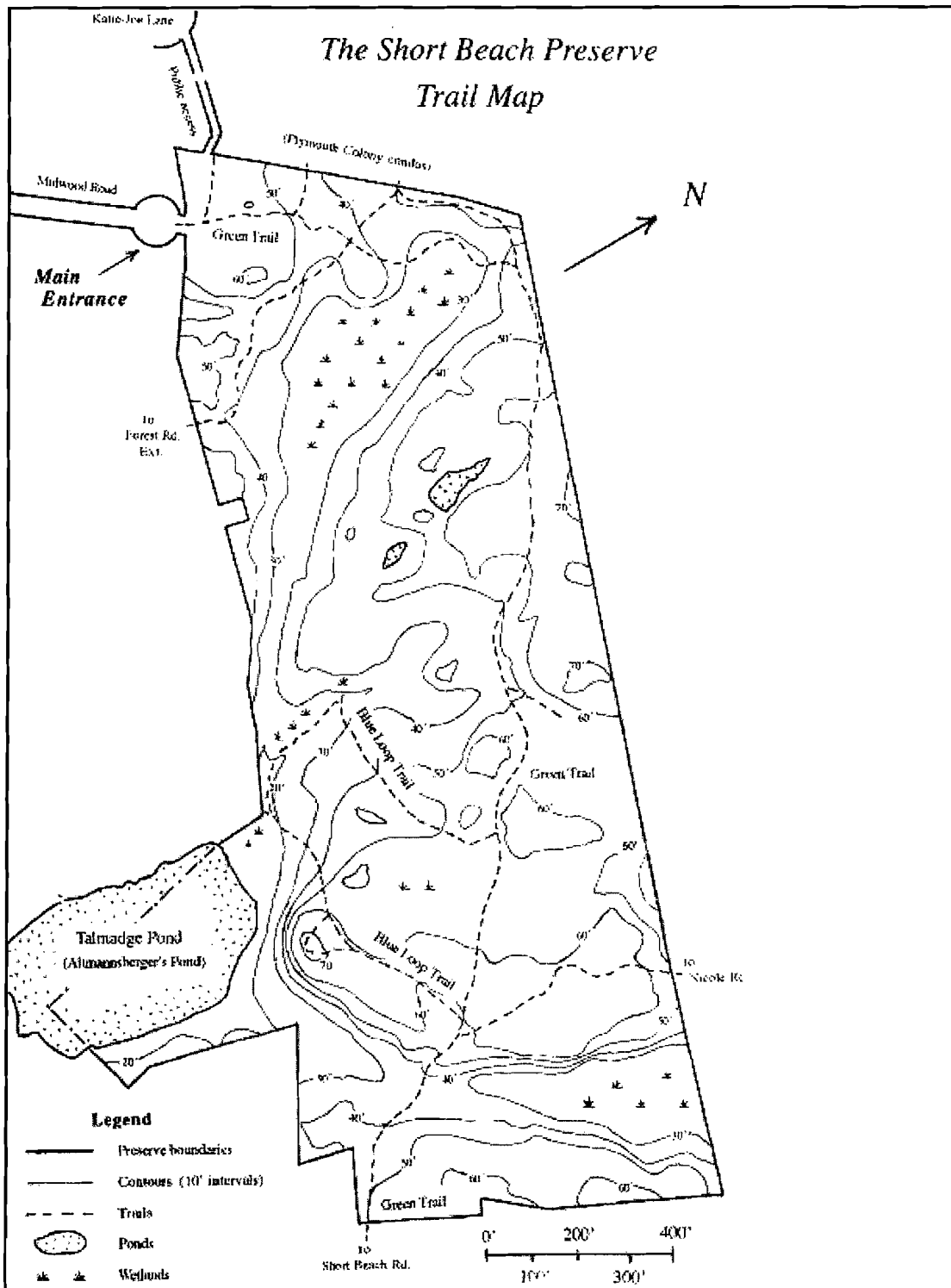


Figure 1 : Map of Short Beach Preserve from the Branford Land Trust Web site

## 2. History and Background

The Foote Family Charitable Trust and two anonymous donors donated 36.7 acres in 1999. BLT purchased an additional 4.3 acres in January, 2001 for a total of 40 acres. The preserve was throughout much of the nineteenth century divided into a series of privately

owned wood lots. Harvesting of trees 80-100 years ago is evidenced by the presence of many sprouted oak trees. Ice harvesting at Talmadge Pond produced ice for shipment to New York City and beyond until the 1940's. The Pond, currently, and for more than a century, continues to be a favorite ice skating area for local residents.

### **3. Ownership**

Currently the property is owned by the Branford Land Trust and managed by several BLT Property Stewards.

Abutters ??

### **4. Use and Management Restrictions**

Per Policy of the Branford Land Trust the following activities are restricted on the Short Beach Preserve:

- Use of motorized vehicles
- Fires
- Camping
- Alcoholic beverages
- Hunting
- Avoid walking in wetland areas except on marked trails
- Dumping

*restricted or not allowed?*

### **5. Current Management**

The stewards of this property maintain the trails system listed in our Trail Book and complete a 'Report and Monitoring' form which is reviewed and acted upon by the Property Management Committee. If necessary, work parties are held to carry out necessary management activities.

## ***II. General Management Goals for the Short Beach Preserve***

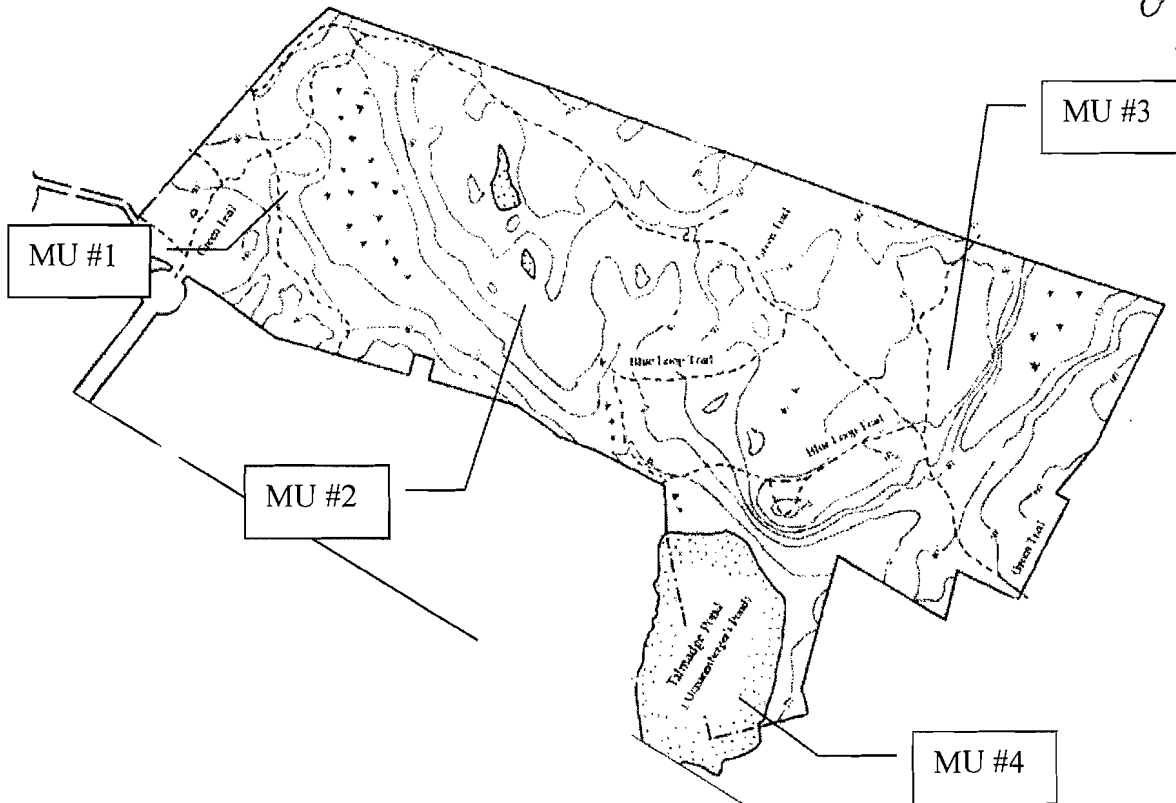
- Protection of open space
- Provide the public with opportunities for passive recreation and scenic enjoyment
- Provide opportunities for nature study, environmental education, and scientific research
- Protection of cultural resources
- Protection of water quality and forest health
- Protection and enhancement of native species diversity

### III. Inventory of the Short Beach Preserve

The property has been divided into 4 Management Units (MU) by use of an aerial map and other maps present in the appendix. Subsequently each MU was toured by the stewards of this preserve and other interested members. A check list for conducting a forest inventory was used to record all geographical and physical attributes of each MU. We walked the boundaries, identified pins, and marked key locations with red paint and surveyors' ribbon. As will be discussed in later sections, it is evident that we need to clear a trail following the boundary markings.

*based on what?  
[for future reference]*

*can boundaries  
of MU be  
shown?*



#### MANAGEMENT UNIT #1

##### Physical Characteristics

- **Geography and Topography**  
Located at the western portion of the property at the Midwood Road entrance about 14 acres, hilly with steep cliffs.
- **Geology**  
The bedrock is predominately of Ct. Lapetos (oceanic) terrain consisting of metamorphic schist and gneiss rock of the Hartland and Gneiss Dome belts (CT DEP, 1996) A prominent ridge (bluff), going north to south offers spectacular views of Talmadge pond and Long Island Sound, separates MU#1 from MU#2,

NRCS  
online  
has sand survey

about 30' wide, and probably formed during the Triassic period over 200 million years ago. The superficial geology, like most of Ct. Lapetos, is composed of glacial till (rocks, sand, soil).

- **Soils**  
????
- **Hydrology**  
Wetlands and intermittent streams cover about 25% of this unit.

### Natural Habitats

- **Forests**
  - The ecosystem is predominately forested and contains almost exclusively deciduous (hardwood) trees consisting of maples, large oaks, birch, beech, sassafras, and a predominance of oaks ( mostly white), many over 20 inches in diameter. The basal area of trees is high (90-100) and the crown cover is variable but also high (65%-90%) both indicating a high tree density (overstocked forest). The forest age seems to be mostly late mid-successional and even-aged.
  - *Understory* - Mountain Laurel is dominant and occupies about 50% of the understory and about 50% are dead probably resulting from old age and lack of sunlight from the tight canopy which overcomes its shade tolerant quality. The extensive Mountain laurel prevents the regeneration of other more desirable growth such as oaks.
- **Special Habitats**
  - Intermittent pools are found in the Spring, some of which may be vernal pools.
  - Snags and cavity trees for wild life are present throughout this unit.
  - The long ridge and rock outcroppings also serve as a special habitat for wild life (reptiles, amphibians, chipmunks and mice) and vegetation.

excellent plants!

### Disturbances

- **Harvesting**  
Evidence of sprouted trees indicating tree harvesting and use of this forest as a woodlot (fuel wood) about 80-100 years ago.
- **Disease**  
Birch Bark Diseases are prevalent, indicated by large cankers, affecting larger and older trees which may become hazardous in the future. No available treatment at this time. Scattered Birch, mostly black, some are infected with Nectria Cankers. Patches of green are found on some trees probably lichen and green moss, possibly related to areas of dampness in this forest.

- ***Trash and Fire Pits***  
Trash is found along the “Green Trail” segment between the Midwood Road entrance and the access point on Forest Road. There is broken glass in the low-lying wetland area and a fire pit was found. It appears that local children might be camping on the property – moving wood to a site between the rock ledge in the center of MU#1 and the slope down to the low-lying wetland.

## **Management Characteristics**

- ***Trails***  
Existing trails are in good condition and are described in the Walks of Branford booklet. There is a tree that crosses the path in one section. The “Green Trail” starts at the main entrance at Midwood Road. The “Green Trail” provides access to Katie-Joe Lane, the Plymouth Colony condos, and Forest Road by way of several short trails that branch off the main trail.
- ***Signage***  
Signs are badly needed throughout the SBP. The sign marking the entrance from Midwood Road has been remounted on a tree because the sign’s pole was stolen. Here, there is also a plaque marking the preserve on a rock to the right of the entrance.



<entrance photo>

The branches off of the “Green Trail” are not clearly marked and can be confusing to visitors who are not familiar to the property. There are a few flags tied to some of the trees along the trails as well, that were not placed by the Land Trust Property Stewards.

- ***Boundaries***  
The South, West and North side of MU# 1 abuts private, residential property without any boundary demarcation. Need to be identified and marked. There are shrubs and landscaping from the Plymouth Colony condos along the West side of MU#1 and the houses’ backyards along the North that runs on to the SBP.

## Cultural Resources

- **Past Use History**

The Stonewalls present at the entrance and the hilly terrain suggest that the land was used for Grazing of cattle. There is also a history that the land was used as private woodlots.

## Wildlife Species

- **Wildlife**

The following have been identified by the stewards of this property: deer, fox, turtles, squirrels, grouse, sparrows, owls, blue jays, black crows, and woodpeckers. Some fresh coyote scat was found near the "Green Trail", a few squirrel nests in trees above the path.

- **Invasive Species**

Surprisingly not prevalent showing scattered areas of English Ivy and green briar. There are patches of winged geronomus as well.

*Handwritten note:* ~~English Ivy~~ ~~green briar~~ ~~winged geronomus~~

## Management Unit #2

### Physical Characteristics

- **Geography and Topography**

Located east of MU#1 and contains about 18 acres of land, Hilly with extensive metamorphic outcrops of bedrock. A steep cliff about 70 feet high offers a spectacular view of Talmadge Pond and Long Island Sound. Mostly upland and little wetland, unlike MU #1.

- **Geology**

The same ridge present in MU#1 is present in this unit in a circuitous fashion varying in height from 50-70 feet high and 100-200 feet wide as described in MU #1. The superficial geology like most of Ct. is composed of glacial till (rocks, sand, soil).

- **Soils**

- **Hydrology**

On the west side, in the Spring, an intermittent stream forms with pool areas with probable Vernal pools.

### Natural Habitats

- **Forests**

A predominately late, mid-successional, even aged forest, continues from MU#1 covering about 10 acres and contains white, black birch, white and swamp oak,



ash, tulip poplar and chestnut trees. Their are groves of sucker root beech and sassafras trees present. The basal area remains high averaging about 90 but less dense areas of 50 are also present. There are more areas of less dense canopy than in MU#1, with open patches and rejuvenating maples but not oak. The lack of oak regeneration is of great concern. The understory of this area, as in MU#1, is predominately tall mountain Laurel, about 50% dead.

o Immediately east of this area is a completely different forest predominately early - successions and even aged. This area of about 5 acres was used as a woodlot about 30 years ago and contains saplings (less than 4" dbh) and pole sized trees (less than 10" dbh) The trees which have regenerated in this area are predominately maple and groves of sassafras seedlings which prefer more sun and less shade. Wolf Trees, representing trees grown in the past, in an open field for agriculture or grazing, are scattered throughout.

The remainder is essentially as found and described for MU#1.

#### **Disturbances**

- *Disturbances*
- *Diseases*

#### **Management Characteristics**

- *Trails*
- *Signage*
- *Boundaries*

#### **Cultural Resources**

#### **Wildlife Species**

- *Wildlife*
- *Invasive Species*

### **Management Unit #3**

#### **Physical Characteristics**

- *Geography and Topography*  
Located east of MU#2 contains about 8 acres, and hilly, mostly upland with lower areas of wetland (about 2-3 acres) draining into Talmadge Pond

- ***Geology***  
Continuation of metamorphic schist and gneiss bedrock with less ridging.
- ***Soils***  
Essentially as in other units less sloping 15+%, very rocky with Cheshire-Holyoke complex.

## **Natural Habits**

- ***Forests***  
A continuation of previous units with predominance of deciduous trees consisting of a wide diversity of ash, tulip, hickory (shagbark), birch, white-red and black oak, a scarlet oak, red maple, sassafras. The oaks are the dominant (highest in the canopy), although tulip trees compete for this honor. The basal area is high in most areas (up to 130) with tight canopy (80-100%) indicating a dense, overstocked forest. The age remains predominately even-aged, mid-to late successional. The site index in most areas is excellent (70-100).

Our state forester Thomas Worthley, who led us on an educational tour of the property and helped us conduct an inventory of MU#3, took two core samples of Oaks, one a suppressed tree that was about 9 inches in diameter and looked young but was actually about 50 years old by yearly ring count. The second core sample was in an unsuppressed tree and had wider rings indicating better growth.

*Understory*-reveal diversity with areas of Mountain Laurel, regenerating red maple but no regenerating Oak. Extensive areas of attractive Yellow Pepper Bush are present as in the two previous units. More limited area of Viburnum is present. Arrowwood was found on the lower ground.

- ***Special Habitats***  
Scattered snags were present but no brush piles.  
The remainder is essentially as found and described for MU#2.

## **Disturbances**

- ***Trash and Debris***  
Along the far east side of the SBP there is evidence of road runoff and debris from the old town dump. Large pieces of trash are littered around the south portion of MU#3.
- ***Diseases***

## **Management Characteristics**

- ***Trails***

- *Signage*
- *Boundaries*

### **Cultural Resources**

- *Past Use History*

A stone wall exists in the far northeast portion of MU#3. A portion of the property used to be used as a town dump. Evidence of large debris is still found on the southeast portion of the property.

### **Wildlife Species**

- *Wildlife*

- *Invasive Species*

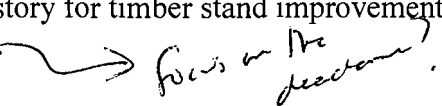
Multiflora Rose, barbury, burning bush present along trail.

## **IV. Potential Management Goals**

### **Management Unit #1**

- **Bird Boxes**
- **Signage**

Both the “Green Trail” and the branches of the trail need to be more clearly marked. The boundary of the SBP and the abutting residential properties need to also be marked much more clearly. This can be done with trail blazing and the installation of boundary poles. Weather-proof signs can be installed along the boundary at the SBP entrances from other roads as well.
- **Timber Stand Improvement**

Consider creating small patches in the understory for timber stand improvement (TSI). Some Mountain Laurel can be cleared. 
- **Trail improvement**

A portion of the “Green Trail” is repeatedly flooded by the low-lying wetland area in MU#1. Consider building walkways over wetland areas to keep visitors on the trail and to allow the trail to be accessible.
- **Specimen tree**

Along the “Green trail”, a few hundred feet in from the entrance on Midwood Drive, is a large White Birch tree that can be featured as a specimen tree. The Mountain Laurel can be removed around it to make the tree more apparent. There is a sassafras tree and some small maples that may also be trimmed or removed to reduce resource competition. Chain saw workshop to clear an area to afford a better views.
- **Trash removal**

The wetland area has a lot of trash, a fire pit, and broken glass. These can be carefully removed with the help of a work party. Thought can be put towards how to deter a fire pit from being rebuilt and more glass being broken on the property.

### **Management Unit #2**

Oak trees have been king of our New England forest, this past century, having succeeded the Magnificent American Chestnut, which were killed by fungus blight. MU#1 and 2 have an impressive forest of great oaks, however, the clock is ticking, and, if we want to prevent oak from being replaced by birch, beech and maple, we would need to consider reverting the trend. Consultation with a forester can be obtained to decide what needs to be done, for example should we:

- **Encourage Regeneration**

Create patches after a good acorn season to encourage oak regeneration.

- ***Timber Stand Improvement***  
Perform a Timber Stand Improvement (TSI) to eliminate dying, diseased, crooked, suppressed and densely crowded trees, in order to create areas for oak regeneration.
- ***Prescribed burning.***

### **Management Unit #3**

It is important to understand how to read succession in this MU where there are dominant tree changes along with the changes in elevation and soil moisture. Succession is evident in the age of the tree, the size and the species mix in the stand. Tree cores taken demonstrated that "tall" does not necessarily equate to age. To promote healthy tree growth with specific tree management, and canopy clearing, these characteristics need to be considered. Further consultation with a forester can help direct management in this unit.

*→ excellent point!*

- ***Invasive Species Management***  
Invasive are present to greater extent than in prior Units but are still manageable and should be eliminated. (Multiflora Rose, Winged Euonymus, Japanese Barberry) by a work party in conjunction with the stewards of this property. Over two years, the burning bush can be cut back and Round-up can be dabbed on the exposed stems, to help control further growth of the invasive.
- ***Habitat Improvement***  
Create brush piles for wildlife.

## V. Implementation

	ACTION	WHO	WHEN	RESOURCES	EVALUATION/ MONITORING
1	Bird Boxes	Stewards	Spring 2009	PMC	Stewards
2	Signage	Stewards Signage Team	Spring 2009	PMC	Stewards
3	Creating small Patches in Understory (TSI)	Forester Stewards	Spring 2009	PMC	Stewards PMC
4	Build Walkway in MU#2 over wetlands	Stewards ?Boy Scouts	2009	PMC	PMC Stewards
5	Control Invasives In MU#3	Stewards Working Party	2009	PMC	Stewards
6	Clear Area around beautiful white birch MU#1	Chain saw Work Party	Late Winter 2009	PMC	Stewards
7	Create brush piles for wild life	Work party Stewards	In conjunction with rows # 3,6	PMC	Stewards
8	Clear a trail around marked boundary	Stewards Work Party	Fall 2009	PMC	Stewards