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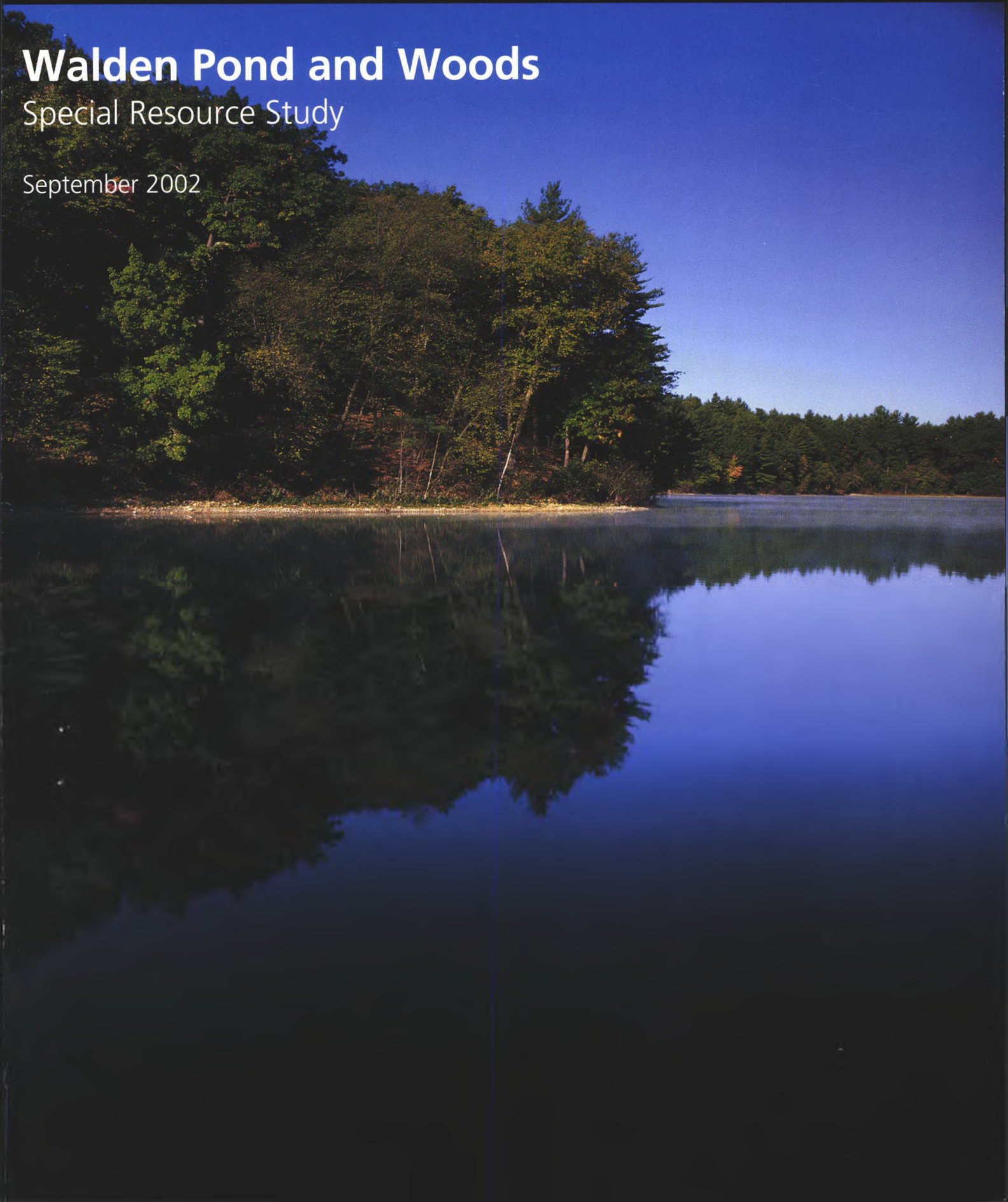
Boston Support Office  
Northeast Region



# Walden Pond and Woods

## Special Resource Study

September 2002



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0903/133903A  
10/11/02

# **Walden Pond and Woods**

## Special Resource Study: Reconnaissance Survey

Massachusetts  
September 2002

Produced by the Boston Support Office  
Planning & Legislation

National Park Service  
U.S. Department of the Interior

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## Summary

### Resources Considered

The National Park Service was directed by Congress to conduct a special resource study of Walden Pond and Woods, located in the towns of Concord and Lincoln, Massachusetts (S.326, P.L. 106-113). Historian Thomas Blanding and ecologist Edmund Schofield describe Walden Woods as a 2,680-acre area including the much smaller (411-acre) Walden Pond State Reservation, the center of which is Walden Pond, designated a National Historic Landmark (NHL) in 1962. The majority of land outside the NHL is privately owned. As defined by Blanding and Schofield, Walden Woods is an integrated literary and ecological unit whose natural and cultural resources were observed and recorded by Henry David Thoreau. Walden Woods was integral to the development of Thoreau's philosophy of ecology, conservation, and man's relationship to nature, which he explored in his book *Walden; or Life in the Woods* (1854).

Due to persistent development pressures, and a lack of coordinated planning among the many property owners, the conservation of Walden Woods has been the subject of increased concern by several parties. The Walden Woods Project, a nonprofit educational institution, has been at the forefront of conservation efforts, and advocated a role for the NPS in helping involve local landowners plan the future of the Woods. This study was intended to provide a greater understanding of the significance and extent of the resources and of the threats facing Walden Woods, and to explore alternative approaches to management, including redefinition of the NHL boundary. It was not the intent of project proponents to consider Walden Woods as a unit of the national park system.

Discussions were held with key stakeholders, including the Walden Woods Project, the towns of Concord and Lincoln, and the Massachusetts Department of Environmental Management (DEM), to determine the study process and begin resource analysis. Recognizing concerns from local elected officials, and a lack of consensus to go forward, town officials and the NPS agreed to conclude the study at the reconnaissance survey stage, and not consider planning strategies or management alternatives. In accordance with NPS Special Directive 92-11, this Special Resource Study: Reconnaissance Survey is a categorical exclusion requiring no further compliance with the National Environmental Policy Act (NEPA) as it does not evaluate alternatives.

As a Special Resource Study: Reconnaissance Survey, this report describes the resources of Walden Woods and applies the four criteria for inclusion in the national park system (NPS 2001). The following findings and options for protecting Walden Woods are based on limited fieldwork, data collection, analysis of the resources, and discussion with stakeholders and subject-matter experts.

### Basic Findings

- Walden Woods appears to be a distinct 2,680-acre ecosystem and cultural landscape, recognized and celebrated by Thoreau, as described by Blanding and Schofield. Its underlying geology permits definition of the Woods with unusual clarity.

- The existing boundary of the Walden Pond NHL contains only a portion of Walden Woods. Important resources exist on the approximately 200 private and public parcels outside the NHL boundary.
- Maintaining the integrity of Walden Woods in the face of persistent regional development pressure requires concerted private and public stewardship. In this context, the ongoing future of undeveloped land in Walden Woods is uncertain.
- Walden Woods appears to meet the criteria for national significance: it is (1) an outstanding example of a particular type of resource, (2) possesses exceptional value in illustrating themes of our nation's heritage, (3) offers superlative opportunities for recreation, public use and enjoyment, or for scientific study; and (4) retains a high degree of integrity as a true, accurate, and relatively unspoiled example of a resource. In 1990, the Massachusetts Historical Commission found Walden Woods eligible for listing as a district on the National Register.
- Walden Woods appears to meet the criteria for suitability for inclusion in the national park system when assessed under four natural history themes (landforms of the present, geologic history, land ecosystems, aquatic ecosystems) and six historical themes (environmental conservation, intellectual philosophy, literature, recreation, science, social and humanitarian movements).
- Walden Woods does not appear to meet the criteria for feasible establishment as a unit of the national park system. At this time, the local governments do not support establishment of a unit, and there are serious constraints to acquiring an appropriately sized and configured area.
- Direct NPS management of Walden Woods does not appear to be a clearly superior alternative at this time. Resource protection and visitor enjoyment appear to be competently managed by the combined, though uncoordinated, efforts of many parties. Furthermore, federal funding and technical assistance for the preservation and interpretation of Walden Woods are presently available through several federal programs.
- NPS "Management Policies" (2001) state that "alternatives for NPS management will not be developed for study areas that fail to meet any one of the four criteria for inclusion" as new units of the national park system. Walden Woods is found to meet the first two criteria (significance and suitability), but not satisfy the last two (feasibility and need for NPS management) at this time. Walden Woods is not proposed as a new NPS area, and no NPS study to determine management alternatives is recommended.

## Options for the Protection of Walden Woods

- Local initiatives are the key to protecting Walden Woods. Private organizations, historically the leaders in protection efforts, are already sustaining research and analysis of the Woods and disseminating this information to landowners. Other grass roots actions could include assembling private landowners to discuss modest ways they might work cooperatively to

protect the Woods. This group might chose to address the issue that the existing NHL does not include what appears to be the full extent of Walden Woods.

Working in cooperation with private landowners, town governments could convene forums to build broad public acceptance and recognition of Walden Woods, update open space and comprehensive town plans to assign greater priority to land protection in Walden Woods, and establish a Walden Woods historic district.

- The state's role focuses on DEM's continued stewardship of the Walden Pond State Reservation, particularly through long-term water quality monitoring and implementing plans to improve visitor management and resource protection along the Route 126 corridor. Other support could come from the state's highway and environmental protection departments.
- Federal roles include: review of federal actions affecting Walden Pond NHL and the nearby Sudbury, Assabet, and Concord (SuAsCo) Wild and Scenic River; providing technical assistance in interpretation and education through nearby Minute Man National Historical Park; encouraging continued research of Walden by local organizations; and reexamining the NHL boundary if requested by local and state government.





## Background

### Legislative Authority for This Study

In the 106<sup>th</sup> Congress, Senate Bill 1349, introduced by Senator Craig Thomas, directed the Secretary of the Interior to conduct special resource studies of 11 areas including “Walden Pond and Woods, Massachusetts.” The Secretary was charged with determining the national significance of the areas, as well as the suitability and feasibility of their inclusion as units of the national park system. Titled the “National Park System New Area Study Act of 1999,” it was passed with minor amendments and became section 326 of Public Law 106-113 on November 19, 1999.

The law directs the Secretary of the Interior to use criteria for the study of areas for potential inclusion in the national park system in accordance with section 8 of Public Law 91-383, as amended by section 303 of the National Park System New Area Study Act (16 U.S.C. 1a-5). Congress declared in the NPS General Authorities Act of 1970 that areas comprising the national park system are cumulative expressions of a single national heritage. Potential additions to the national park system should therefore contribute in their own special way to a system that fully represents the broad spectrum of natural and cultural resources that characterize our nation. The NPS is responsible for conducting professional studies of potential additions to the national park system when specifically authorized by an Act of Congress, and for making recommendations to the Secretary of the Interior, the President, and Congress. To receive a favorable recommendation from the NPS, a proposed addition to the national park system must:

1. possess nationally significant natural or cultural resources;
2. be a suitable addition to the system;
3. be a feasible addition to the system; and
4. require direct NPS management, instead of alternative protection by other public agencies or the private sector.

These criteria are designed to ensure that the national park system includes only the most outstanding examples of the nation’s natural and cultural resources. They also recognize that there are other management alternatives for preserving the nation’s outstanding resources.

The Secretary was further directed to submit to the Committee on Energy and Natural Resources of the Senate and the Committee on Resources of the House of Representatives a report on the findings, conclusions, and recommendations of the study within three fiscal years following the date on which funds were first made available for each study. This Special Resource Study: Reconnaissance Survey fulfills the Secretary of the Interior’s requirements under P.L. 106-113 (see Appendix A).

### Study Purpose and Methods

In testimony before Congress on S. 1349, Donald J. Barry, Assistant Secretary for Fish and Wildlife and Parks, explained that the Walden Pond and Woods study would:



*...evaluate lands and sites in Concord and Lincoln associated with Henry David Thoreau near Walden Pond, a National Historic Landmark, to assess their significance and relationship to the landmark. The study explores alternative methods of protecting and interpreting these lands, which were integral to the development of Thoreau's philosophy of ecology, conservation, and man's relationship to nature, which he explored in his book Walden. ...proposing an area for study does not mean that we expect to conclude that the area should be managed by the NPS. In fact, most of our studies over the past 20 years have focused on alternatives to direct acquisition and management by the NPS. While we believe that all of the candidates on our list are worthy of our attention, we expect the study process to help identify ways to protect many of these sites through action by States, local governments, private entities, and other Federal agencies (see Appendix A).*

With this mandate the NPS launched the special resource study (SRS).

A chronology summarizing NPS involvement with Walden since 1962 is presented as Appendix B. Of particular importance, in 1989 the Thoreau Country Conservation Alliance (TCCA) requested that the NPS reexamine the boundary of the Walden Pond National Historical Landmark (NHL) to more accurately reflect the definition of Walden Woods reported by Blanding and Schofield (1989). Beginning the SRS in December 1999, the NPS conducted preliminary research and held meetings to build an understanding of the resources and explore strategies for conducting the study. The NPS met with representatives from the Walden Woods Project (WWP), the Massachusetts Department of Environmental Management (DEM), and selectmen from the towns of Concord and Lincoln. In response to requests from the participants the NPS developed a draft project brief (see Appendix C).

In a meeting on February 29, 2000, selectmen from the Town of Concord expressed considerable alarm over language in the legislation stating that the study would assess the suitability and feasibility of the area's inclusion as a unit of the national park system. The principal parties involved in the study (NPS, WWP, towns, and DEM) sought remedies to clarify the intention of the study and limit the scope of possible future federal actions.

The parties decided to explore a general agreement to guide the conduct of the study. The NPS developed a draft agreement and the towns offered a jointly revised draft. In discussion with the principal parties it was unanimously and amicably determined that the most appropriate course of action was not to proceed to consider a full range of alternatives but to conclude at the reconnaissance survey stage. In accordance with NPS Special Directive 92-11, this Special Resource Study: Reconnaissance Survey is a categorical exclusion requiring no further compliance with the National Environmental Policy Act (NEPA) as it does not evaluate alternatives.

This report provides a concise description of the resources of Walden Pond and Woods. It uses established NPS criteria to make assessments of the:

## Background

- significance of Walden Pond and Woods
- suitability for inclusion as a unit of the national park system
- feasibility for establishing and efficiently managing a unit
- need for direct NPS management

The findings are based on limited fieldwork, data collection, analysis of the resources, and discussion with stakeholders and subject-matter experts.

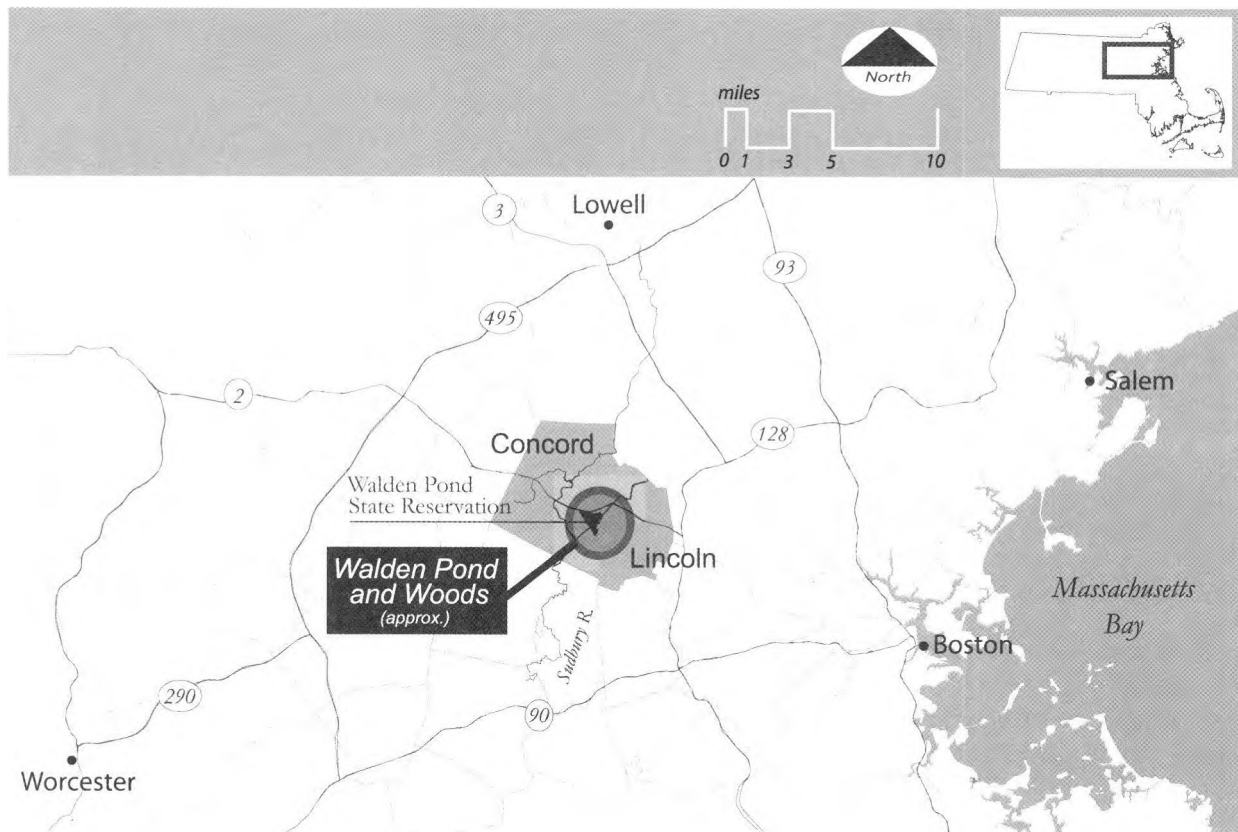


Figure 1: Regional Context Map

## Resource Description

### Location

Walden Pond and Woods are located in eastern Massachusetts, within Middlesex County (population 1,426,606) and in the towns of Lincoln (7,666) and Concord (17,076). Boston lies nearly 15 miles to the east. The term “Walden Woods” refers to an area defined by distinct physical and cultural characteristics, encompassing Walden Pond and its surrounds. The Walden area has an enduring association with the life and work of Henry David Thoreau (July 12, 1817–May 6, 1862).

This report employs the boundary for Walden Woods, or Walden, developed by ecologist Edmund A. Schofield and historian Thomas Blanding for the TCCA (1989). Theirs is the most well documented comprehensive description of Walden Woods, and appears to be generally accepted by other scholars. The report has been the subject of numerous educational programs offered by the Walden Woods Project, and was used as a basis for certain designations in Concord’s 1992 Open Space Plan. Schofield and Blanding combine ecological analysis with literary references from Thoreau’s writings to identify an area of some 2,680 acres that includes the 333-acre Walden Pond State Reservation. Walden is thus bordered by Sandy Pond on the east, approaches the Codman Estate and South Lincoln Village on the south, meets the Sudbury River on the west, and extends across Route 2 to Minute Man National Historical Park on the north. The Lincoln-Concord town line and the MBTA Fitchburg line railroad tracks, which intersect at right angles, roughly quarter Walden Woods. UTM coordinates for the intersection are 19 307355E, 4700427N.

### Historic Summary

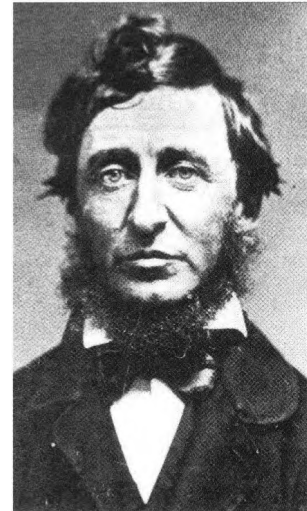
The archeological record of the Concord area documents more or less continuous Native American occupation of this area for 12,000 years. By the time colonial settlers entered the area, the Nipmucks, one of many Eastern Algonquian-speaking peoples of greater New England, were harvesting the plentiful salmon, shad, and herring during their seasonal spawning runs.

The town of Concord was settled in 1635 by the English as a frontier outpost of the Massachusetts Bay Colony and was the first interior, non-tidal town in Massachusetts. Small-scale farming was the fundamental way of earning a living, and Concord developed as a compact settlement with outlying fields around a central green, characteristic of old New England towns. Lincoln, nicknamed “Niptown,” was founded in 1754, incorporating small portions nipped from neighboring towns, including Concord.

Walden Woods, lying midway between the centers of Concord and Lincoln, and markedly less suitable for agriculture, supplied the fuel and timber needs of the area. The word *Walden* is traced to “wald” and “weald,” Germanic terms meaning “a hilly wooded area” (Blanding, 1989.) Woodlots were common in the area. By 1850 it was estimated that woodcutting had reduced forests in the Concord area to 10% of vegetative cover. The

opening of the Fitchburg Railroad line skirting Walden Pond in 1844 marked accelerated change in the Woods.

Thoreau, a native of Concord, left the town center to live in the remnant forest surrounding Walden Pond, building and occupying a one-room cabin from July 4, 1845 to September 7, 1847. Ralph Waldo Emerson had recently purchased the land. Thoreau was a few days short of 28 when he moved into his cabin. His experiences and observations form the basis of *Walden; or Life in the Woods* (1854). Along with his journals, which also record observations in Walden Woods, many regard *Walden* as the beginning of ecological science, and one of the most influential literary works of an American author.



With logging increasing in the middle of the 19<sup>th</sup> century to support the needs of the expanding railroads and Boston's growing population, Thoreau expressed growing concern for the conservation of Walden Woods. The Woods were the favorite destination for frequent walks with his friends Ralph Waldo Emerson and William Ellery Channing, who formed "The Walkers." Others involved in the Transcendentalist movement often joined their "saunterings." Thoreau's concern over woodchoppers in Walden motivated and gave opportunity for his study of the succession of forest trees. This is evident in "The Dispersion of Seeds," recently published in *Faith in a Seed* (1993). Likewise, Thoreau recorded in his journal his wish for Walden:

*Each town should have a park, or rather a primitive forest of five hundred or a thousand acres, where a stick should never be cut for fuel, a common possession forever, for instruction and recreation. We hear of cow-commons and ministerial lots, but we want men-commons and lay lots, inalienable forever.... All Walden Wood might have been preserved for our park forever, with Walden in its midst....* (Blanding, 1989)

After Thoreau's death in 1862, his friends, and a growing public audience, began to conceive of Walden Woods as a memorial and the symbol of his ideas. The intimate association with Thoreau, Emerson, and the Transcendentalist movement began to secure Walden's reputation as a philosopher's grove. Increasingly, Walden became a place of pilgrimage for Thoreau's admirers (Blanding, 1989).

In 1866 the Fitchburg Railroad opened the Ice Fort Cove excursion park on the western shore of Walden Pond. Swelling to include bathhouses, halls, a baseball diamond, and a bicycle track, the park was a popular regional attraction until it burned down in 1902. It was not rebuilt.

In 1922, Emerson's heirs (Forbes, Emerson, and Heywood) donated 80 acres surrounding the pond to the Commonwealth of Massachusetts, underscoring their desire to

*...preserve the Walden of Emerson and Thoreau, its shores and nearby woodland for the public who wish to enjoy the pond, the woods, nature, including bathing, boating, fishing and picnicking. (DEM, 1992)*

This gift forms the core of the now 411-acre Walden Pond State Reservation managed by DEM. Described in more detail below, visitation to the Reservation is high (at least half a million annually), with many coming for its diverse recreational activities as well as its association with Thoreau.

The town of Concord has evolved from a frontier town into a prosperous regional center. It is internationally known as the site of the battle at North Bridge, which marked the beginnings of the Revolutionary War. Minute Man National Historical Park protects lands and features associated with the battle. A vibrant tourism industry builds upon an equally remarkable period of literary history, Concord having been the home of several leaders of intellectual movements of 19<sup>th</sup> century America. In addition to Thoreau, Louisa May Alcott, Bronson Alcott, Margaret Fuller, Ralph Waldo Emerson, and Nathaniel Hawthorne lived in Concord at one time or another. Considerable concern is felt by Concord residents about the pressures on the town from its significant tourist industry and suburban development.

Lincoln became a popular site for country estates, some of which have become schools, museums, town buildings, or parks. Retention of open space and protection of its rural character against an encroaching surge of urban development are extremely important to the community. To that end, Lincoln was one of the first towns to create a Conservation Commission, which has, with the Lincoln Land Conservation Trust, acquired key parcels of land throughout the town. Significant areas of the town are now preserved against development, providing protection for wildlife and water supply and creating conservation trails for use by the public. Its counterpart in Concord is the Concord Land Conservation Trust.



Due to the conservation efforts of the TCCA and the Thoreau Society in the late 1980s, and the publicity they generated regarding the endangerment of Walden Woods, recording artist Don Henley became aware of proposed developments within Walden Woods. In response he founded the Walden Woods Project in 1990. The Walden Woods Project is dedicated to preserving land in historic Walden Woods. With assistance from the Trust for Public Land and other organizations, the Walden Woods Project successfully led opposition to a pair of development projects, purchasing the 25-acre DeNormandie tract (proposed 139-unit condominium complex on Bear Garden Hill) and the 18.5-acre Zuckerman tract (proposed commercial office building on Brister's Hill). Henley was

awarded the National Humanities Medal in 1997 for his conservation leadership. Establishing the Thoreau Institute in 1998 (a collaboration with the Thoreau Society), the Walden Woods Project remains committed to preventing further inappropriate development of the Woods and bringing education (centered on Thoreau's work) to a worldwide audience via local programs and the Internet. To date, the Walden Woods Project has invested nearly \$30 million in the protection of Walden Woods and in the creation of the Thoreau Institute.

### Summary of Natural Resources

Blanding and Schofield teamed up to define for the TCCA the natural and literary boundaries of Walden Woods. The physical characteristics of Walden Woods, as described by Schofield (1989), are based principally on the area's geological origin as an artifact of the retreating Wisconsin glacier. However, Schofield systematically advances the concept of Walden Woods as an unusually well defined ecosystem. He describes a "Walden Ecosystem" with distinct geology, hydrological regime (water system), biotic community (collection of plants and animals), and historical land-use pattern, which unite to clearly distinguish the area from its context. This section describes the ecology of Walden Woods as a layer cake, from its geology up.

Glacial processes, particularly the formation and recession of glacial Lake Sudbury at the end of the last Ice Age (the Pleistocene) some 10,000 to 20,000 years ago largely shaped the Walden Woods ecosystem. These processes created the broad sand plain, or kame delta complex, with Walden Pond, a kettle pond, roughly at its center. Several smaller glacial ponds flank Walden Pond, including the Andromeda Ponds and Goose Pond, which skirts the base of Pine Hill. This hill, along with Fairhaven Hill, is a thick rise of glacial till, and is the highest elevation in the area at approximately 200 feet. Underlying these glacial features, Walden's bedrock geology is Precambrian, belonging to the Marlboro and Nashoba Formations of metamorphic schists (800–500 million years ago). These are overlaid with successive beds of biotite, granitic gneisses, schists, quartz, and gabbrodiorites (450 million years ago). Large outcrops of the latter intrusive granites can only be found at Emerson's Cliffs near Walden Pond.

Hydrological conditions reflect the area's geology. The majority of Walden Woods lies in the Concord River watershed, with the exception of a very small area to the extreme east, which is part of the Charles River watershed. Topographically, Walden Woods is convex and nearly all groundwater flows in a radial pattern out of the



area. With Walden Pond at 48.5 meters above mean sea level, and midway between Sandy Pond (70.5 meters) and the Sudbury River (35.0 meters), there is a clear east–west hydrological gradient (or slope). A narrow fringe of land adjacent to the Sudbury River lies within the floodplain. Several wetlands occur in depressions where the water table and the surface of the ground intersect. Despite intersecting the wetlands and ponds, the water table is characterized as very deep (at least 10 feet below ground), strongly influencing the other physical characteristics of Walden Woods. Glacial sands and gravels form an important aquifer.

Walden Pond, perhaps the centerpiece of the Woods, is approximately 62 acres in size and reaches approximately 103 feet in depth. Its circumference is 1.7 miles. As a steep-sided kettle pond, it has no surface outlet. Its clear waters are supplied through groundwater inflow (55%) and precipitation (45%). Water leaves the pond through evaporation (26%) and seepage to the groundwater system (74%) (Colman, 2001). First measured and discussed by Thoreau, the pond undergoes alternating periods of thermal stratification and mixing. Water quality in Walden Pond, measured in nutrient content, turbidity, color, and bacteria, was found to be good (DEM, 1988). Ongoing investigations by the USGS are monitoring cultural eutrophication of the pond (Colman, 1998).

Soils in Walden Woods are predominantly sandy in texture, owing to their origin as glacial outwash plains. By contrast, loamy soils have developed from glacial bottom deposits in other sections of Concord. Walden’s soils are very porous, permeable, rapidly draining, and droughty—having a tendency to dry out in summers. They typically exhibit little formation of horizons, with thin profiles of organic matter topping the mineral layers. They are *podzolic* in nature, acidic, and generally possess few stored nutrients. These conditions make them rather infertile and ill suited for agriculture. Exceptions are wetland soils—peats and mucks—which occur in limited areas. Soils series represented in Walden Woods are predominantly Hinckley loamy sand, with some Windsor and Merrimac (DEM, 1988; Schofield, 1989; Collins, 2000).

The low water table and over-drained sandy soils, together with regional climate, controlled the development of a distinct biotic community at Walden. The Northern Pine–Oak forest, also called the sand plain, is unlike the Oak–Chestnut–Hickory association that occurs in most of the surrounding area. Indicator species of the Northern Pine–Oak forest include the following:

- **Trees**      pitch pine (*Pinus rigida*)  
                     bear oak (*Quercus ilicifolia*)  
                     black oak (*Quercus velutina*)
- **Shrubs**      sheep laurel (*Kalmia angustifolium*)  
                     wild raisin (*Viburnum cassinoides*)
- **Birds**        prairie warbler (*Dendroica discolor*)  
                     chipping sparrow (*Spizella passerina*)  
                     common flicker (*Colaptes auratus*)



- **Mammals** gray squirrel (*Sciurus carolinensis*)  
Eastern chipmunk (*Tamias striatus*)

Walden Pond was once abundant in fish, particularly pickerel (*Esox niger*). Currently, the Massachusetts Division of Fisheries and Wildlife stocks the pond with trout. Perch and sunfish occur naturally.

Biodiversity is notably high due to topographic and microclimatic variation, and the adjacency with the Sudbury River corridor, an important flyway. Varied habitats include interior forested uplands, dense brushy areas, and mature stands of trees in the town forests. White birch (*Betula alba*) can be found on some north-facing slopes, and Eastern hemlock (*Tsuga canadensis*) are evident in cool, shaded areas. Springs, ponds, bogs, marshes, and vernal pools support populations of amphibians.

The ebb of agriculture and shift to coal and petroleum-based fuels has allowed Walden's cut-over woodlots to recover. The return of the forest has increased the amount of forest habitat while decreasing the extent of field habitat, with particularly negative effects on field birds such as the meadowlark and bobwhite. Walden Woods is now one of the largest relatively unfragmented patches of natural vegetation in the area.



Similar in structure to the surrounding forests, the Northern Pine–Oak forest is considered a subclimax community. Succession to the climax stage (the Oak–Chestnut–Hickory association) is prevented by disturbances, in this case, fire. The droughty soils and pine needle litter can create conditions favorable to fire, which the pines and oaks tolerate better than other species.

Indeed, there is a long history of fire in Walden Woods. Native Americans are hypothesized to have burned Walden to improve conditions for game and agriculture. Their intermittent and low-intensity fires allowed the forest to recover. The extension of the railroad and settlement has also been responsible for fires, one accidentally started by Thoreau in 1844. Today, conservation and fire suppression allow Walden Woods to remain a largely forested landscape.

### Summary of Cultural Resources

There is evidence of continued Native American activity in the area for 12,000 years, and, according to DEM, the area must be considered to have high archeological potential. DEM has identified two Late Archaic (prehistoric) habitation sites on the shores of Walden Pond

(19-MD-750 and 19-MD-408). A third site, the McCune Site, lies just south of the pond. Some of the highest prehistoric site densities for a non-coastal setting exist nearby at the confluence of the Sudbury, Assabet, and Concord rivers.

Hoag (undated) claims that over 25,000 Indian artifacts have been found around Walden Pond. Thoreau was noted to have been able to find arrowheads almost at will as he walked the Woods. His large collection is now in the Fruitlands Museum of the New England Landscape in Harvard, Massachusetts. Additional artifacts are likely dispersed throughout Walden Woods.

Archeological remains of Thoreau's tenancy, notably his cabin, are protected by DEM. The site of the cabin is marked with a cairn, regularly added to by visitors since 1872. Adjacent to the cabin site are stumps of some of the 400 white pines, as well as oaks, birches, and larch trees, planted by Thoreau for Emerson in 1859. Part of the grove burned in 1872, and the remainder was blown down by the 1938 hurricane (Harding, 1995). A replica of his cabin is located near the DEM visitor center about a quarter mile away. Many of Thoreau's personal effects are maintained by several organizations, most notably the Concord Museum and Fruitlands Museum. The remains of several cellar holes from other settlers in Walden Woods, some referenced in Thoreau's *Walden*, may prove important.

The broad classification of cultural resources suggested by Blanding (1989) recognizes Walden Woods as a unique cultural landscape. He fashions a literary definition parallel to Schofield's ecological definition of Walden Woods. Perhaps most importantly, the two definitions outline the same geographic area. The same spatial bounds of Walden Woods appear to be able to be described by either ecological or literary criteria.

There are two parts to Blanding's argument. First, Blanding asserts that the term Walden Woods has long been in popular use, representing an area with discernable boundaries. He cites a profusion of land deeds and notable authors, extending from well before Thoreau's time to the present. Including places referenced in Thoreau's writings, he describes how Walden Woods encompasses the following still-identifiable places:

- *Walden Pond, Goose Pond, and Flint's Pond (now Sandy Pond)*
- *Wyman Meadow*
- *Heywood's Peak*
- *Fair Haven Hill, or the Cliff*
- *The Boiling Spring at Bear Garden Hill*
- *The Cambridge Turnpike*
- *Fairyland*
- *Brister's Hill and Brister's Spring*
- *Andromeda Ponds*
- *Orchris Swamp*
- *Laurel Glen and the Hosmer Farm*
- *Baker Farm and the Pleasant Meadow*
- *The Deep Cut*
- *Hubbard's Woods and Hubbard's Close*

Like Schofield, Blanding asserts that Walden Woods remains clearly distinguishable from the surrounding area. And, that Walden Woods can be distinguished from other uninhabited areas frequented by Thoreau and his Concord contemporaries, such as the Estabrook Country. Based on Blanding's work, the TCCA and Walden Woods Project published a map showing a cluster of over 100 features that define the Woods (1991). This map included modern features, yet is similar to a map published by Herbert W. Gleason in 1906, reproduced as Figure 4.

The second part of Blanding's argument is that Thoreau's use of the term Walden Woods incorporated Walden Pond, conceiving the whole as "Walden." Revisions to Thoreau's manuscript, and the development of the title itself, illustrate Blanding's point. Thoreau rewrote "went to the *pond* to live" to "went to the *woods*." Two months before his death, Thoreau asked that the subtitle "*or, Life in the Woods*" be dropped from the second printing, and the book simply called *Walden*. Blanding highlights the discrepancy between the expansive, historic Walden Woods of Thoreau's time and its small protected subset the Walden Pond State Reservation. In his opinion, many wrongfully equate the two.

Walden Woods is a landscape inextricably connected to Thoreau's life and labors. The host of places frequently visited by Thoreau, and the source of inspiration for his scientific and social observations, largely remain accessible today. In his writing, by his example, and by those who have perpetuated Thoreau's memory, the unremarkable backcountry has been transformed into a mosaic sacred to many.

### Current Land Uses and Ownership

There is great diversity of land ownership and land use in Walden Woods. Categories of ownership include federal, state, town, and private. It is estimated that private ownership, either by land trusts or individual owners, accounts for a slight majority of the 2,680 acres. Land uses include conservation/open space, agricultural, institutional, residential, and transportation. Conservation/open space is the most common land use, accounting for nearly 60% of the area. No commercial use is known to exist in Walden Woods. Landowners and their uses are described below.

Although mapping of Walden Woods has been done without a high level of precision, it is likely that a small portion of Minute Man National Historical Park lies within the Woods. A narrow wooded peninsula extends into the Battle Road unit, approaching the Olive Stow house, near the junction of Lexington Road with Route 2A. This wooded area receives little public visitation.

The stretch of shore land along the Sudbury River extending from Fairhaven Bay to Sudbury Road lies within Walden Woods. This section of the Sudbury River has been designated a Wild and Scenic River. The federal government does not own the waterway or adjacent lands. The river is an important resource especially for its high ecological, scenic, and recreational values. Its conservation is overseen by the Sudbury, Assabet, and Concord River Stewardship Council, with representatives from area towns, nonprofits, state and federal agencies.

Walden Pond State Reservation holds approximately 411 acres of protected open space, including Walden Pond. In conformity with the 1922 deed that conveyed the first 80 acres, recreational uses is consistent with "*the Walden of Emerson and Thoreau*": bathing, boating, fishing, and picnicking, along with walking and hiking the many scenic woodland trails. Winter activities include ice fishing and skating. Middlesex County operated the reservation, steadily growing in size, until 1975 when DEM assumed management. The Reservation became part of the Massachusetts State Forests and Parks System that currently consists of over 285,000 acres of protected land throughout the state.

Open every day of the year, the State Reservation receives high levels of visitation, recording nearly 500,000 per year. Walden is one of a very limited number of freshwater ponds open to the public in the Boston metropolitan area. Attendance peaks in summer months when regional visitors converge on the pond for swimming and non-motorized boating. A bathhouse and boat ramp support water activities. Noting a decline in water quality and faced with visitor safety issues (visitors walk from the parking lots across Route 126 to access the pond), DEM limits access to 1,000 persons at any one time by limiting parking to 350 vehicles. Yet, car queues and parking in nearby neighborhoods are common on summer weekends. To further ensure a positive visitor experience and maintain the integrity of the resources, trails are limited to foot traffic, erosion is controlled by reducing access points to the pond, and natural stabilizing materials have been embedded along the banks of the pond.



In addition to activities specified in the deed, DEM operates an interpretive program with themes that focus on Thoreau and his contributions to science and philosophy. In 2001, the Reservation staff provided 350 public programs serving close to 15,000 people, and an additional 250 educational tours for close to 10,000 students. The headquarters, horse barn, maintenance facility, restrooms, and orientation center selling books and gifts are located east of Route 126. The shop is managed by the Thoreau Society. The adjacent "Walden Breezes" trailer park, acquired by DEM in 1976, is being gradually phased out.

Nonprofit land conservation organizations own or manage substantial portions of Walden Woods. The largest landowners are the Concord Land Conservation Trust, the Conservation Commission (in Lincoln), the Lincoln Land Conservation Trust, and the Walden Woods Project. Much of this land is open to public uses including hiking and cross-

country skiing. Some conservation land in Lincoln has been used for limited forestry and agriculture, marking a trend toward productive use of the commons (Donahue, 1999).

Institutional uses include the Walter Gropius House and portions of the Codman Estate, both operated as museums by the Society for the Preservation of New England Antiquities. Educational uses include the private Carroll School and the public Concord-Carlisle High School (92 acres, school population 1,059). The Thoreau Institute and Walden Woods Project have administrative, educational, and research facilities at the former Higginson estate flanking Pine Hill in Lincoln.

There are an estimated 200–400 private residences in Walden Woods. These range in scale from mobile homes to large estates. The prevailing character of residential development is dispersed, low density, well set back from roads, and to a great degree screened by forest vegetation.

Local governments control several important areas. Concord owns a sanitary landfill on 35 acres adjacent to the Walden Pond State Reservation. The landfill no longer receives residential or commercial refuse and was fully capped in 2001. At that time, additional grading, placement of loam, and landscaping was funded, in part, by a grant from the Walden Woods Project. The landfill supports essential municipal services including snow dumping, storing debris from street sweeping, and composting leaf and yard waste from town residents and departments. Thoreau documented his visits to Ripple Lake, part of the landfill site now partially filled. Concord also owns the Hapgood Wright Town Forest (144 acres). In Lincoln, the Mount Misery Acquisition (nearly 600 acres) provides for conservation and passive recreation. Lincoln also draws its town water from wells located in the Sandy Pond watershed.

There are several major roads in the area. State Route 2, built in the mid-1930s, serves as a high-volume regional route connecting the area with metropolitan Boston. It sweeps across the northern portion of Walden Woods. State Route 126, passing along the shore of Walden Pond, is owned by the towns it passes through. It extends from Walden Street in Concord into Lincoln. Receiving substantial commercial and residential traffic, the Massachusetts Highway Department classifies it as an Urban Systems Route. Various lesser roads cross much of Walden Woods; however, there are substantial sectors that are relatively inaccessible by improved roads. The Sudbury River provides good access via water. No longer connected by the Ice Cove Fort station, Walden Woods is still crossed by the Fitchburg branch of MBTA. Approximately 32 commuter trains daily pass by the western edge of the pond. The northernmost edge of Walden Woods also lies within a mile of Hanscom Field, a regional general aviation facility. Plans to expand commercial aviation at Hanscom are highly controversial and threaten to impact resources at Minute Man NHP.

The multiple and varied land uses reduce the integrity of Walden Woods. However, its integrity remains remarkably high. One can still see and understand the landscape encountered by Thoreau, even with the losses and changes. Present land use continues to reflect the historic pattern.

## Resource Type

Following the NPS “Natural History in the National Park System” thematic framework for natural resources (1990), Walden Woods could be classified within the New England–Adirondacks Natural Region. Natural history themes represented by Walden could include:

- GROUP I: Landforms of the Present—Theme 8, River systems and lakes, and Theme 9, Works of glaciers
- GROUP II: Geologic History—Theme 19, Oligocene, Recent epochs subtheme
- GROUP III: Land Ecosystems—Theme 24, Eastern deciduous forest
- GROUP IV: Aquatic Ecosystems—Theme 32, Lakes and ponds, within the “Kettle lakes and potholes” and “Swamps and marshy areas” subthemes.

Walden Woods is also representative of the following themes, or categories of significance, identified in NPS “Historical Themes in America” (2001):

- Environmental Conservation: Natural Conservation
- Intellectual Philosophy
- Literature
- Recreation
- Science
- Social and Humanitarian Movements

In the next chapter the suitability of Walden Woods for inclusion in the national park system is evaluated under these six historical themes and four natural history themes.

The “Revision of the National Park Service’s Thematic Framework” (1994) was not used in the evaluation of suitability in this survey. However, Walden Woods might also be representative of the following themes referenced in that framework:

- THEME II: Creating Social Institutions and Movements, under the topic of “reform movements”
- THEME III: Expressing Cultural Values, under “literature”
- THEME VI: Expanding Science and Technology, under “scientific thought and theory”
- THEME VII: Transforming the Environment, under “protecting and preserving the environment.”

In sum, Walden Pond and Woods represents a complex association of overlapping natural and historical themes. The strong nexus of these themes, evidenced in Thoreau’s writings and in the continued preservation of this landscape, make Walden Woods a compelling place.



Figure 2, Concord and Lincoln Vicinity. Scale: 1 inch = approx. 3,800 feet. (Maynard quadrangle, USGS, 1987)



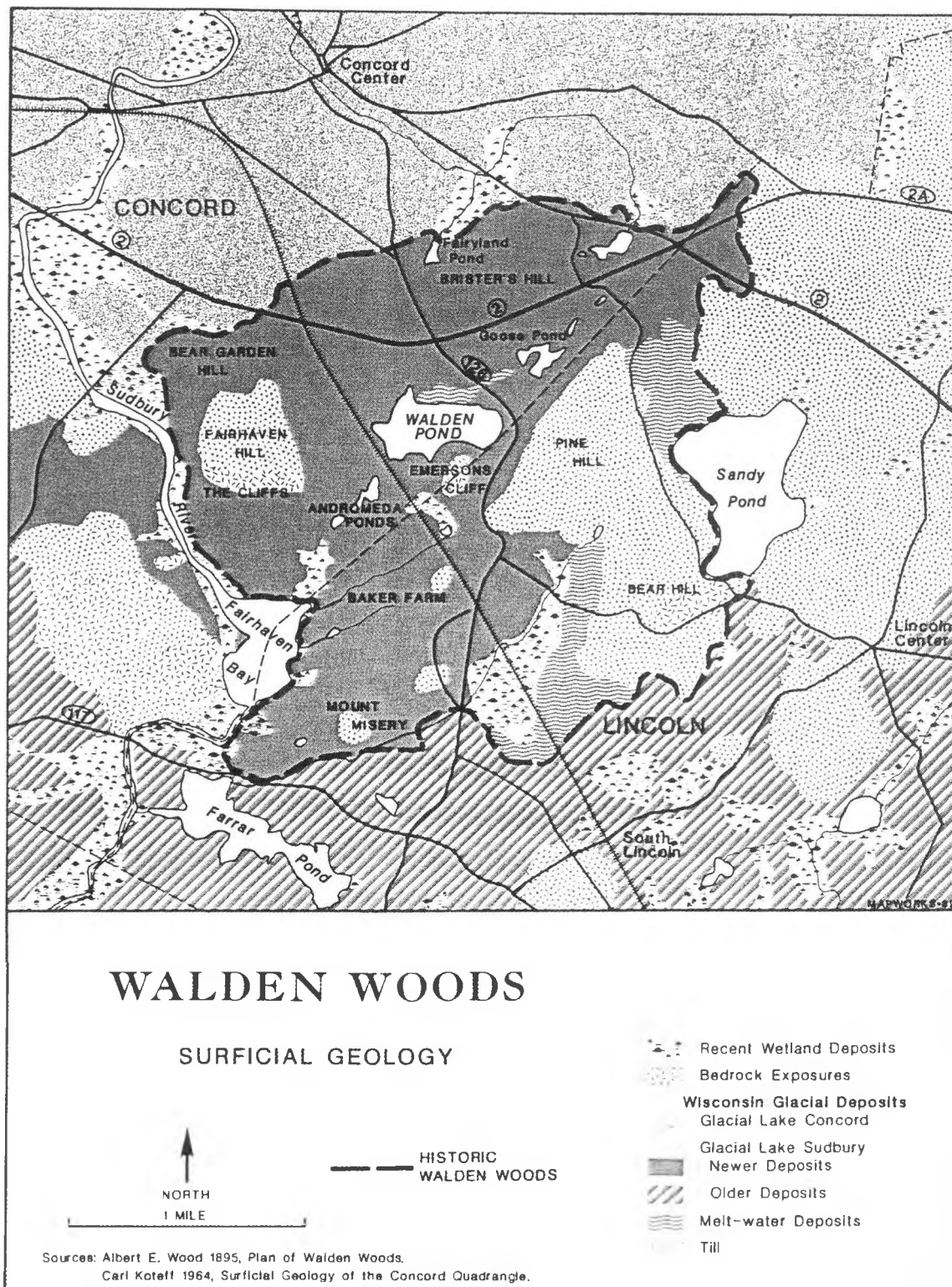


Figure 3, Surficial Geology of Walden Woods. (Schofield for TCCA, 1989. Cartography by Mapworks.)

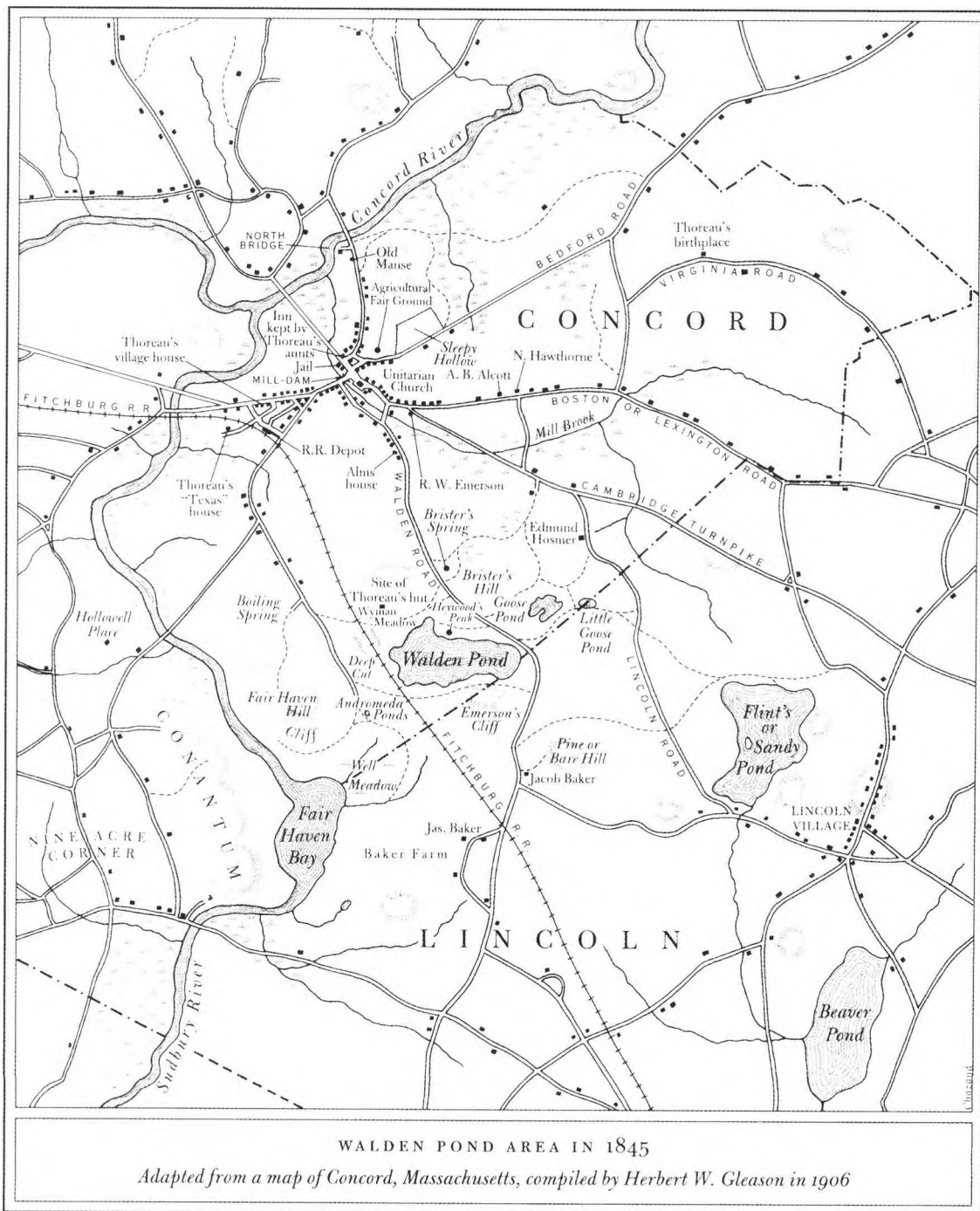


Figure 4: Walden Pond Area in 1845. Scale: 1 inch = approx. 3,800 feet.  
 (Walden: An Annotated Edition by Henry David Thoreau, edited by Walter Harding, 1995.  
 Courtesy of Houghton Mifflin Company. All rights reserved.)

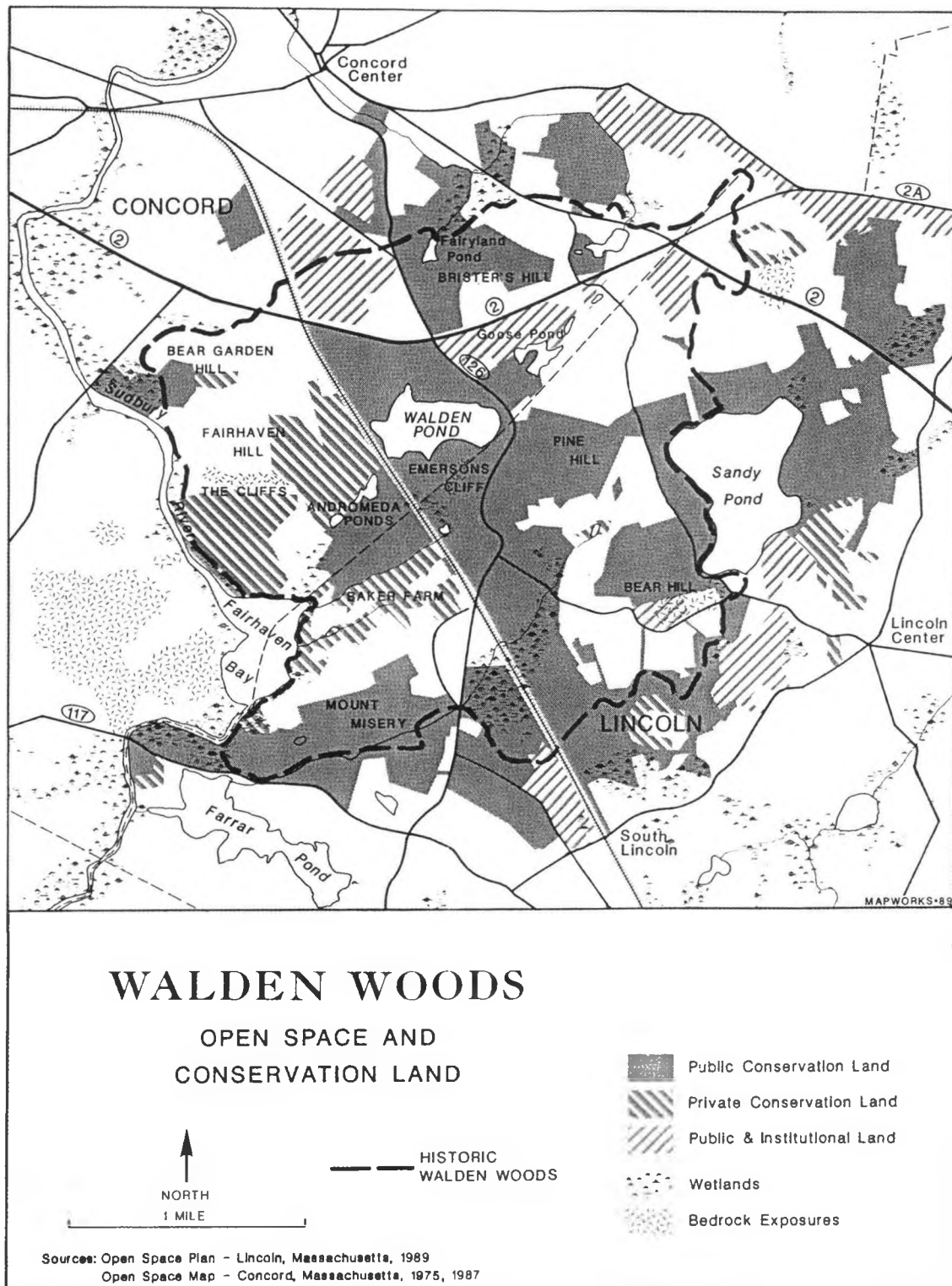
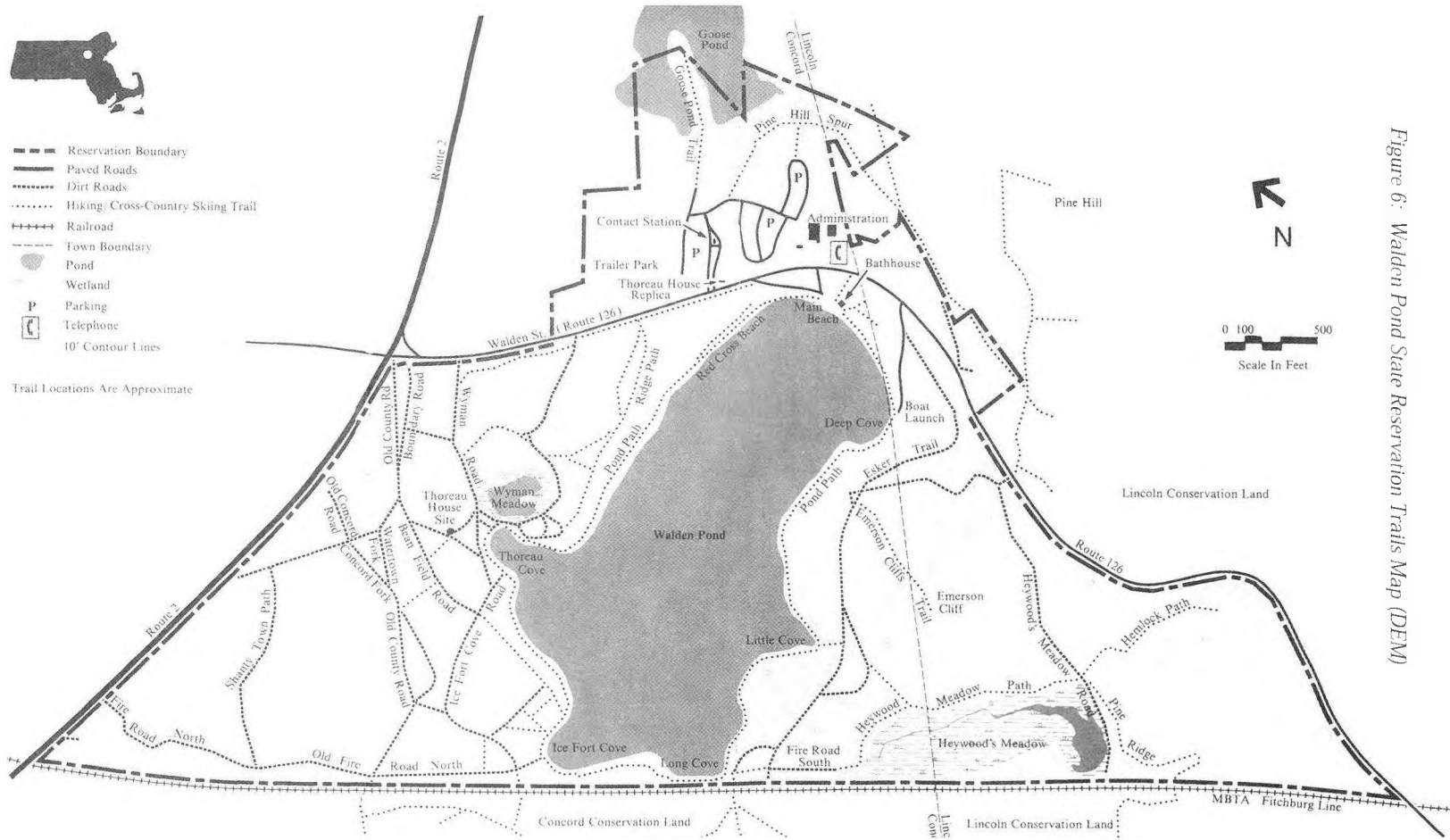


Figure 5: Open Space and Conservation Land. (Schofield for TCCA, 1989. Cartography by Mapworks.)

Figure 6: Walden Pond State Reservation Trails Map (DEM)



## Evaluation of Significance & Suitability

### Criteria

NPS “Management Policies” (2001) states that the first criterion for inclusion in the national park system is national significance.

*An area will be considered nationally significant if it:*

- *is an outstanding example of a particular type of resource,*
- *possesses exceptional value in illustrating themes of our nation’s heritage,*
- *offers superlative opportunities for recreation, public use and enjoyment, or for scientific study; and*
- *retains a high degree of integrity as a true, accurate, and relatively unspoiled example of a resource.*

The NPS second criterion for inclusion is suitability:

*An area is considered suitable for addition to the national park system if it represents a natural or cultural resource type that is not already adequately represented within the national park system, or is not comparably represented and protected for public enjoyment by other federal agencies: tribal, state, or local governments; or the private sector (NPS, 2001).*

The determination of suitability is made in a case-by-case comparison of differences and similarities in the character, quality, quantity, or combination of resources and opportunities for public use (NPS, 2001). NPS themes and categories of significance represented by Walden Woods are described in Section 3 under Resource Types, above.

### Current Status and Designations

Walden Pond was designated a National Historical Landmark (NHL) by the Secretary of the Interior on December 29, 1962. The designation under the theme “Literature” recognizes its significant association with the internationally recognized writings of Thoreau. Boundaries were not required for NHLs until the National Register program was initiated in 1966. A study dated January 10, 1975 adopted the property boundary of the Walden Pond State Reservation. This was a boundary of convenience, as the limits of Thoreau’s activities at Walden, and the limits of Walden Woods itself, were not understood.

In the late 1980s, with growing concern about development threats to Walden Woods, and awareness of the greater scope of Thoreau’s Walden, a reexamination of the boundary was proposed. Supporting this effort, in 1990 the Massachusetts Historical Commission (MHC) determined that Walden Woods, as opposed to Walden Pond alone, met criteria for listing as a district on the National Register of Historic Places. This determination was based on Walden’s association with Thoreau, and the history of the towns of Lincoln and Concord. However, in light of the growing success of the Walden Woods Project, the NPS and MHC agreed that a study of the NHL boundary might confuse the issues, and not result in greater protection of Walden. The existing boundary of the Walden Pond NHL contains only a

portion of Walden Woods. Important resources exist on the approximately 200 private and public parcels outside the NHL boundary.

Small areas of Walden Woods may fall under two other federal designations: National Park, and Wild and Scenic River. Fringes of Walden Woods appear to either lie within or abut Minute Man National Historical Park and the Sudbury, Assabet, and Concord (SuAsCo) Wild and Scenic River. In addition to the events of April 1775, Minute Man NHP interprets themes related to Thoreau and local authors, particularly at The Wayside, the former home of the Alcotts, Hawthornes, and Lothropes. The SuAsCo Wild and Scenic River principally conserves water resources; however, adjoining landowners are expected to employ a high level of shoreline conservation and maintain sympathetic land uses.

State designations focus on the Walden Pond State Reservation, operated by DEM as part of a statewide system of over 100 parks, forests, monuments, and reserves. The Massachusetts Natural Heritage and Endangered Species Program has certified Little Goose Pond and two small pools at the northern end of Walden Pond as vernal pools. Walden Pond itself is a priority site of rare species habitat (Collins, 2000). The lake quillwort (*Isoetes lucustris*), a state-listed rare plant species, has been identified in the area. The McCune site, a Native American archeological resource in the State Reservation, is listed on the National Register.

The BioMap, a product of the state's Executive Office of Environmental Affairs (EOEA) to map critical areas of biodiversity, identifies portions of Walden Woods as "Core Habitat" and "Supporting Natural Landscape." Unprotected lands with these classifications represent the State's "highest priority for biodiversity protection" (Commonwealth of Massachusetts, 2001). Identification on the BioMap does not carry any additional regulation, but is intended to help set land protection priorities.

Town designations fall into two categories: zoning and open space. The majority of Walden Woods in both towns is zoned for residential uses. The Concord "Zoning Bylaw" (2000) identifies two residential districts: district "AA" specifies a 2-acre (80,000-square-foot) minimum lot size; "A" specifies a 1-acre (40,000-square-foot) minimum lot size. Other permitted uses include conservation, forestry, agriculture, and certain institutional and government uses by special permit. The bylaw identifies "Limited Business Commercial District #4" at the intersection of Walden Street and Route 2. "Business Office" is the only business use permitted in this district. The district roughly coincides with the office park proposed by Zuckerman in the late 1980s. Referred to as Brister's Hill by Thoreau, much of the land is now owned by the Walden Woods Project and is permanently protected as open space.

Three conservancy districts are identified in the Bylaw: flood plain, wetlands, and groundwater. The flood plain district as mapped appears to include some lands within Walden Woods along the Sudbury River. The wetlands district is defined by all wetlands within Concord, and would therefore include many areas within Walden Woods. The groundwater district is an overlay based on public-water-supply wells. It encompasses several areas within Walden Woods, most notably a zone extending from Walden Pond to Fairhaven Bay and down the Sudbury River.



A “Route 2 By-Pass District” prohibits building within roughly 250 feet of Route 2, controls establishment of vehicular entrances, and mandates retention of existing vegetation. A “Wireless Communications Facility District Overlay” extends 1,000 feet from the centerline of Route 2.

The Lincoln “Zoning By-Law” (1999) describes a Single Family Residence district (R-1) requiring a 2-acre (80,000-square-foot) minimum lot size. Additional uses similar to those identified by the Concord bylaw are permitted with written advice of the Planning Board.

Five overlay districts include:

- “Open Space Conservation,” which does not identify sites in Walden Woods
- “Flood Plain,” based on Flood Insurance Rate Maps (FIRM) that may include portions of Walden Woods adjacent to Fairhaven Bay
- “Wetlands and Watershed Protection,” also encompassing portions of Walden Woods
- “Historic District,” limited to three areas: the town center/five corners area, the Codman Estate, and the Gropius House on Woods End Road, which is the only one of the three that lies fully within Walden Woods
- “Wireless Communications Facility District,” which identifies eight parcels in the town, of which two are within Walden Woods, albeit at the far northeastern edge.

Both towns have adopted Open Space Plans. Concord specifically addresses portions of Walden Woods in four ways. First, a large area similar to Schofield’s Walden Woods ecosystem is designated a Natural Vegetated Area, recognizing its unique ecological structure and function. The second designation is that of a Corridor for Wildlife and Water Protection. The area referenced is the “Town Forest to Walden Reservation via railroad underpass.” Third, the plan identifies the inter-town walking paths at the State Reservation as a Human Corridor, important to the town’s connective network. The final designation is that of a Special Site. This broad category recognizes unique values afforded by Walden Pond: ecological habitat, high biodiversity, a special geologic feature (a large, deep pond), the historic site (a “major area made famous by Thoreau”), scenic views of Walden Pond, and recreational values of swimming, boating and fishing.





The objectives of Lincoln's plan are to protect water systems, agricultural lands, and prime forest lands for their functional uses; and preserve the general scale and landscape of a rural New England town. Three of the town's seven "Major Open Spaces" address Walden Woods. They are Sandy Pond, the Walden Pond State Reservation, and the Mount Misery Acquisition.

### Significance

To begin, National Historic Landmark status recognizes the national significance of Walden Pond. Walden Pond NHL, coterminous with the State Reservation's 1975 boundary, is presently designated under the theme "Literature" and subtheme "Non-fiction." The NHL nomination asserts that "Although regarded as eccentric in his own time, [Thoreau] has today achieved a high place among American literary figures.... *Walden* is not a literal record of Thoreau's experiment but rather a fable of spiritual renewal presented in the narrative of a single cycle of seasons from summer to spring" (1975). *Walden* is commonly credited as the beginning of the American conservation movement, particularly as advanced through literature. The 1963 NPS study "Theme XIX: Conservation of Natural Resources" recognized the importance of Thoreau, of *Walden*, and of Walden Pond, excerpting laudatory passages from Lewis Mumford's *Brown Decades* (1931). John Muir, Rachel Carson, and other naturalist authors cite the influence of Walden, as place and book, on their work. Thoreau's other writings, particularly the essay "Civil Disobedience" prompted by an overnight incarceration for refusing to pay his poll tax while a resident at Walden, are known to have influenced Mahatma Gandhi, John F. Kennedy, and Martin Luther King, Jr. If Thoreau's Walden is really Walden Woods, then the national significance of the NHL, under the theme "Literature," may appropriately be extended from the pond to the 2,680-acre Walden Woods.

In addition, the Massachusetts Historical Commission's preliminary assessment of the significance of Walden Woods in 1990 indicated that it appeared to meet NHL Criterion A (association with events that have made a significant contribution to the broad patterns of our history: settlement of Lincoln and Concord) and Criterion B (association with persons significant in our past: Thoreau) on the national level. They found it eligible for listing as a district on the National Register of Historic Places (1990).

The aspects of significance of Walden Woods are further evaluated as follows:

#### • *Outstanding Example of a Particular Type of Resource*

Walden Woods' distinct landforms, geologic history, and land and aquatic ecosystems, as detailed by Schofield, appear to make it an outstanding example of a natural resource. Walden Pond in particular is perhaps the finest kettle pond in northeastern Massachusetts, and perhaps the best-known kettle pond in the world. The pond's largely undeveloped setting contributes to its uniqueness. The distinctiveness of the Walden Woods ecosystem from its surrounding ecological context is also uncommon in New England. Although the long history of human intervention in Walden Woods is not as fully documented as its

natural resources, this human impact appears to make Walden Woods an outstanding example of a cultural landscape.

• *Possesses Exceptional Value in Illustrating Themes of Our Nation's Heritage*

As described in the NHL nomination, Walden Woods, for its relationship to the development of American literature (Thoreau's contribution) and with the settlement of Lincoln and Concord, possesses exceptional value in illustrating themes of our nation's heritage.

• *Offers Superlative Opportunities for Recreation, Public Use and Enjoyment, or for Scientific Study*

Walden Woods appears to represent a superlative opportunity for recreation, public use and enjoyment. Local, regional, and international visitors come in great number to participate in the long tradition of walking, or "sauntering," in these woods. This type of "re-creation" bears the distinct Transcendentalist marks of Thoreau and Emerson: restoring the human spirit through contemplation of nature. The growth of this attraction began shortly following Thoreau's death. It increased steadily as his work reached larger audiences, still more following Emerson's death, and now tops 500,000 annually as the State Reservation makes Walden Woods easily accessible. Popular interpretive and educational programs offered by DEM and the Walden Woods Project, among others, enhance the area's recreational value.

Visitors come to participate in other forms of recreation. So-called passive uses (walking, canoeing, fishing) are complemented by more active ones, especially swimming, as Walden Pond is one of very few large freshwater ponds open to the public in the metropolitan area. While visitation peaks in the summer, the pond's year-round use includes ice skating, ice fishing, cross-country skiing (interconnected with town-wide trails), and even off-season swimming.

Further, Walden Woods appears to represent a superlative opportunity for scientific study of long-term ecological change. Few ecosystems have been the object of such extended scientific study. In his numerous journals, Thoreau systematically recorded his profound observations of plant succession, bird life, ecology, and the effects of human actions on landscapes. Ornithologist Ludlow Griscom called this area's research "the greatest continuous quantity record in the United States," and remarked that "such a wealth of data over so long a period of decades represents as great an opportunity for study of general scientific interest as an ornithologist could wish for" (Griscom, 1949). Roger Tory Peterson wrote,

*It may be argued that the hermit of Concord [Thoreau] made no great contribution to the science of ornithology, but he is significant, if only because he was the first in a long succession of observers to make notes on the avian residents and visitors of the Concord River Valley in Massachusetts. He was followed, with but a short break, by Brewster, father of the American*

*Ornithologists Union, and later by the incomparable Griscom and more recently by Drury and his associates. One hundred and thirty years of almost continuous observation gives Concord a history of bird watching unmatched anywhere in the New World (Cruickshank, 1964).*

Contemporary scientists involved with research in the area include E.O. Wilson, Ernst Mayr, and Brian Donahue.

• ***Retains a High Degree of Integrity as a True, Accurate, and Relatively Unspoiled***

***Example of a Resource***

Walden Woods appears to retain a relatively high degree of integrity as a natural resource. Approximately 60% of the area is currently protected as open space. The ecology of the Woods is relatively unspoiled. The hydrologic system is largely unchanged, water features exhibit high water quality, and the mosaic of vegetation still contains several large patches of woods that are home to a variety of wildlife. As a cultural landscape, Walden Woods appears to retain much of its integrity. The pattern of rural roads and distributed land uses is similar to that which existed in Thoreau's lifetime. It could be said that Walden Woods retains a high degree of integrity of location, setting, feeling, and association.

Attributing national significance to Walden Woods is touched with irony. Thoreau chose it as his home and laboratory for its very commonness, unremarkable except perhaps for the pond. Walden Woods may be most significant as an ordinary landscape that inspired great things.

## Suitability

The Natural History themes, landforms, geologic history, and land and aquatic ecosystems, (NPS, 1990) appear to be evident at other protected sites. These include Minute Man NHP and Cape Cod NS, both in Massachusetts. However, Minute Man represents an 18<sup>th</sup> century historical landscape with few notable natural features, and Cape Cod is predominantly focused on coastal conditions. Walden Woods may be most similar to the New Jersey Pinelands National Reserve, where highly integrated geologic conditions and biotic communities are the area's primary and most apparent resources. Walden Woods is better known and more highly visited than most of the Pinelands. Given the limited representation of Walden's natural history themes in existing park units, the area appears to be suitable for inclusion in the national park system.

Assessment of the following six Historical Themes (NPS, 1994) represented at Walden Woods also indicates that Walden Woods appears to be suitable for inclusion in the national park system.

1. "Environmental Conservation: Natural Conservation" is represented by 11 sites. Most similar is Marsh-Billings-Rockefeller NHP in Woodstock, Vermont. This park has a deep association with conservation history and the evolving nature of land stewardship in America. Like Walden Woods, it is also associated with an early and influential

conservation author (George Perkins Marsh). Walden Woods is somewhat unique in that the physical setting was never controlled or owned by Thoreau. Other protected sites associated with “Natural Conservation” in the national park system are:

- Acadia NP
- Denali NP
- Everglades NP
- Frederick Law Olmsted NHS
- Great Smoky Mountains NP
- John Muir NHS
- Sagamore Hill NHS
- Shenandoah NP
- Yellowstone NP

2. “Intellectual Philosophy” is represented by only two sites: the Delaware Water Gap National Recreation Area’s Charles S. Peirce House, and the Independence National Historical Park’s American Philosophical Society Hall. These areas feature historic buildings in contrast to Walden Woods, which is a principally natural area serving as the inspiration for an enduring philosophy (Transcendentalism).
3. “Literature” is represented by nine sites that protect and preserve the physical settings of important American authors. As with the “Intellectual Philosophy” category, the protected sites are structures previously occupied by writers. *Walden*, and Thoreau’s journals, were largely written in Walden Woods. Only one of the sites below (John Muir NHS) is associated with a writer of conservation. [It is interesting to note that Muir cited Thoreau as a strong influence on his own writing.] The protected sites include:
  - Adams NHS
  - Carl Sandburg Home NHS
  - Dayton Aviation Heritage NHP: Paul Laurence Dunbar House
  - Edgar Allan Poe NHS
  - Eugene O’Neill NHS
  - John Muir NHS
  - Longfellow NHS
  - Minute Man NHP: The Wayside (home to Emerson and Hawthorne)
  - Upper Delaware Scenic and Recreational River: Zane Grey House
4. Six diverse sites represent “Recreation.” Walden shares some of the recreational opportunities offered at these sites. Located within a major metropolitan area, Walden Woods presents perhaps greater potential for public use than the other sites. These include:
  - Acadia NP
  - Appalachian NST
  - Hot Springs NP
  - John Muir NHS
  - Lake Mead NRA
  - Mount Rainier NP: Paradise Inn

5. Five sites represent “Science.” Edison National Historic Site in West Orange, New Jersey, is most similar to Walden Woods, which protects and preserves the home and laboratory of Thomas Edison. Walden Woods offers the outdoor corollary to Edison NHS, the Woods being both home and laboratory to Thoreau. Further, none of the existing sites represent the sciences of ecology or ornithology. The sites are:
  - Agate Fossil Beds NM
  - Dinosaur NM
  - Independence NHP: American Philosophical Society Hall
  - John Day Fossil Beds NM
6. “Social and Humanitarian Movements” is represented by 11 units. Like many of the sites above, these are principally structures. The Transcendentalists’ role in the growth of the abolitionist movement and Thoreau’s writings on the concept of passive resistance suggest Walden Woods is appropriate for inclusion in the system. The related units are:
  - Boston NHP: Faneuil Hall
  - Brown v. Board of Education NHS
  - Clara Barton NHS
  - Eleanor Roosevelt NHS
  - Frederick Douglass NHS
  - Harpers Ferry NHP
  - Johnstown Flood NM
  - Martin Luther King, Jr., NHS
  - Mary McLeod Bethune Council House NHS
  - Sewall-Belmont House NHS
  - Women’s Rights NHP

## Evaluation of Feasibility & Direct NPS Management

### Criteria

The third NPS criterion for inclusion in the national park system is feasibility.

*To be feasible as a new unit of the national park system, an area must:*

- (1) be of sufficient size and appropriate configuration to ensure sustainable resource protection and visitor enjoyment (taking into account current and potential impacts from sources beyond proposed park boundaries); and*
- (2) be capable of efficient administration by the NPS at a reasonable cost (NPS, 2001).*

In evaluating feasibility, the NPS considers a variety of factors, such as: size; boundary configurations; current and potential uses of the area and surrounding lands; land ownership patterns; public enjoyment potential; costs associated with acquisition, development, restoration, and operation; access; current and potential threats to the resources; existing degradation of resources; staffing requirements; local planning and zoning for the study area; the level of local and general public support; and the economic/socioeconomic impacts of designation.

The evaluation also considers the ability of the NPS to undertake new management responsibilities in light of current and projected constraints on funding and personnel. An overall evaluation of feasibility is made after taking into account all of the above factors.

The fourth NPS criterion for inclusion in the national park system is that areas require direct NPS management.

*There are many excellent examples of the successful management of important natural and cultural resources by other public agencies, private conservation organizations, and individuals. The National Park Service applauds these accomplishments, and actively encourages the expansion of conservation activities by state, local, and private entities, and by other federal agencies. Unless direct National Park Service management of a studied area is identified as the clearly superior alternative, the Service will recommend that one or more of these other entities assume a lead management role, and that the area not receive national park system status (NPS, 2001).*

### Short-Term Plans, Trends, and Threats

The towns of Lincoln and Concord, DEM, and several organizations have various plans for the area. These can be set against a backdrop of intense regional development pressure as Walden Woods represents a large and relatively undeveloped landscape, well located within the growing Boston metropolitan area. In 1999, the organization Scenic America named Walden Woods as one of its 12 endangered American landscapes, citing concerns about adjacent development. The threats of land development should be seen in the context of continued vigilance and stewardship exercised by many parties. Presently, better than 60%

of Walden Woods is protected from future development, and the real estate boom of the late 1980s and early 1990s has somewhat abated, with relatively little development taking place in the Woods over the last decade. Specific plans are outlined below.

DEM prepared a GOALS Plan (Guidelines for Operations And Land Stewardship) for the Reservation in 1992. The plan is based on an inventory and assessment of the natural and cultural resources, and it makes recommendations for management to balance public recreation with resource protection. DEM is in the midst of projects that address soil erosion, decreased water quality, conflicts between visitors, and traffic safety. A trails restoration and bank stabilization project has been particularly successful, dramatically improving the shoreline of Walden Pond.

However, questions remain as to whether these conservation efforts are enough to maintain good water quality in Walden Pond. A recent USGS study of water quality (Colman 2001) found that swimmers and the septic leach field for the Reservation's bathhouse and headquarters contribute nearly two thirds of the pond's nitrogen budget. Swimmers also contributed more than half of the summer phosphorous load. The study noted that water quality "appears to be desirable and may not need management," but described how changing conditions could trigger the need for management. Efforts to continue long-term water quality monitoring of Walden Pond are currently being explored through a collaborative grant authored by the Walden Woods Project.

DEM is also working with stakeholders and local residents on plans to improve pedestrian and traffic safety, control stormwater runoff, and enhance the visitor's experience along the Route 126 corridor. One option under study considers realigning the road as it passes alongside Walden Pond. Moving the road east of the visitor parking lots would improve visitor safety (eliminating almost 1,000,000 annual crossings) and prevent road-related runoff from entering the pond. Preliminary plans also study a new visitor center and restoring the road (historic Walden Street) to its circa 1840 character. The planning process is ongoing, and it has not been determined if the road will remain as currently located or be realigned. The State Reservation faces other challenges from intensive visitation, particularly conflict between so called active and more passive or contemplative types of use. Along with physical planning, DEM is developing additional environmental education curricula on "Thoreau the Conservationist," including his studies on Walden Woods. Finally, the EOE's BioMap project reflects the state's priorities for land conservation, which includes portions of Walden Woods.

The Town of Lincoln's Open Space Action Plan includes support for land acquisition, realigning Routes 126 and 2, expanding the trails network, and exploring forest management. Concord's 1992 Open Space Plan makes several recommendations for Walden Woods, calling "imperative" the need for the two towns to "embark on a comprehensive planning process for all of Walden Woods." It advocates a visionary and well-conceived protection plan for Walden Woods. Issues addressed in a plan might include protection of historical, ecological, and recreational resources; guiding development into appropriate areas; mitigating impacts of road corridors; and putting into place a program for land



acquisition and conservation. The town has also expressed interest in expanding the high school at some future date.

The future of the Concord landfill is controversial. The town continues to utilize a portion of the site for essential municipal services, yet the Walden Woods Project hopes to reestablish the ecological health of the area, and incorporate it into the existing network of conservation land. In the recent past, DEM and the Walden Woods Project have expressed an interest in obtaining conservation easements and restrictions over the site, but no agreement has been reached with the town. At the Concord Town Meeting on May 21, 2001, voters passed an article authorizing a study of appropriate uses of the landfill. Recommendations of a town-appointed study committee will be included in the town's Comprehensive Long Range Planning Process. A preliminary report is due for submission to the selectmen in December 2002.

Private local land conservation groups and the Walden Woods Project are likely to remain active in protecting Walden Woods. They have strong records in land protection and acquisition, much of it through gifts. Walden Woods is part of an area being nominated by local activists as an "Important Bird Area" under a 136-country conservation program sponsored by BirdLife International. The Walden Woods Project has publicized its interest in restoring the landfill and Brister's Hill following plans commissioned from the Massachusetts Audubon Society. The group has raised somewhere in the order of \$30 million to protect Walden Woods. The Walden Woods Project lists many prominent individuals on its advisory board. Its influence and advocacy should be considered a tremendous asset to the Woods preservation.

Freedom's Way Heritage Association completed a feasibility study with support from DEM in 1997. The association seeks to establish a national heritage area that would recognize cultural and natural legacies in a ribbon stretching across 40 communities in northeastern Massachusetts and southern New Hampshire. The bill, introduced in the second session of the 106<sup>th</sup> Congress, cites the State Reservation as an example of resources that illustrate significant legacies such as the evolution of social ideas and religious freedom. The bill has been reintroduced in the 107<sup>th</sup> Congress. Should legislation be enacted, the association would prepare a Cultural Heritage and Management Plan for the heritage area. The plan would explore local initiatives to increase recognition for the themes and resources of the heritage area. The town of Concord has not indicated an interest in participating in the heritage area.

### **Longer-Term Plans, Trends, and Threats**

Several of the issues discussed above are not likely to be resolved in the short term. In particular, the considerable pressure to develop unprotected lands within Walden Woods will likely persist. However, the diligence of the towns, EOEA, DEM, and conservation groups is likely to thwart most overt threats. Of greater potential bearing are impacts due to the absence of coordinated comprehensive planning and the unanticipated consequences from projects thought to be unrelated. The growth of commercial aviation and other uses at nearby Hanscom Field could be an example of the latter.

## Public Interest and Support

Interest in land conservation is particularly high in the communities of Lincoln and Concord, which evidence long traditions of leadership in the field. The principal community land trusts were early successes in land conservation. Most recently (April 9, 1999), Concord celebrated the designation of the SuAsCo Wild and Scenic River, following a concerted multi-year planning effort. Both town governments are participating in DEM's Route 126 corridor improvement study. These land conservation efforts are accompanied by an equally strong tradition of historic preservation evidenced by the protection of many buildings and districts, including Minute Man NHP and, more recently, Thoreau's birthplace and family farm. The involvement of several well-known nonprofit organizations in the preservation of Walden Woods further demonstrates the high level of interest in conservation. In addition to the Walden Woods Project, these include the Trust for Public Land, the Thoreau Society, the Fairhaven Preservation Association, RESTORE: the North Woods, the National Trust for Historic Preservation, Walden Forever Wild, the Audubon Society, and The Wilderness Society. State and town governments and the citizenry are watchful of Walden Pond and Woods.

However, the idea of specifically protecting Walden Woods has not been universally endorsed. The Zuckerman and DeNormandie development proposals were both approved at the town level in the 1980s. It should be noted that the Zuckerman proposal was fully within the permitted zoning adopted through the Town Meeting process, and occurred before publication of Blanding and Schofield's work on Walden Woods. The DeNormandie project was proposed under a state zoning authority concerning affordable housing (40B) that limits town review. Town approvals led to concern on the part of the TCCA and other groups as well as the founding of the Walden Woods Project. There continues to be growing interest among people outside the local area in protecting the Woods as the birthplace of the American conservation movement. At the time of the development proposals, some people in the towns questioned the interest of a newly alerted and far-flung public.

There seem to be several factors that account for the mixed local interest. First, there is a general unfamiliarity with, or non-acceptance of, the concept of Walden Woods as a discrete area incorporating vital cultural (historical and literary) and natural resources. Second, Walden Woods is but one of many historical and recreational resources in the area. These sites draw local, regional, national, and international visitors. At times the influx of visitors seems to overtax the towns' considerable hospitality. Planning for such extensive tourism places a significant burden on the towns. Additionally, the towns are circumspect regarding outside interest, especially at the federal level. The creation of Minute Man NHP through land acquisition beginning in the 1960s was a difficult episode for both towns.

Early in the SRS, town selectmen expressed concern over the intentions of the study and the possibility of unilateral federal actions that could result from its completion. These concerns focused on the task of assessing the suitability and feasibility of the area's inclusion as a unit of the national park system, a standard task in NPS special resource studies. The selectmen judged that the authorizing legislation opened a possibility that Walden Woods

could receive some federal designation without their consent. As they had not been involved with shaping the legislation that authorized the study, their concerns were understandable.

The NPS, the Walden Woods Project, and Senator Kennedy's office explored remedies, including amendatory legislation that would clarify the intent of the study and prohibit federal designation as a park unit. No amendment was found to be agreeable to all parties. In consultation with the towns, DEM, and Senator Kennedy's and Congressman Meehan's offices, the NPS proposed a government-to-government general agreement to clarify the scope of the study and guide its conduct. It should be noted that the Walden Woods Project objected to the use of a government-to-government agreement on the grounds that it diminished their role in the study. The draft general agreement suggested carrying out the study in a series of facilitated public meetings, followed by formal town meetings to present, vote on, and endorse the study findings. The towns offered a revised draft with constructive modifications.



In subsequent discussions between the NPS, town officials, and DEM, consensus could not be reached on how to go forward. It was agreed that the most appropriate course of action was not to proceed to consider a full range of management alternatives but to conclude the study at the reconnaissance survey stage. The parties reflected that, without a development threat that could galvanize the community, attributable in part to the diligence of the Walden Woods Project, pursuing a comprehensive federal study of Walden Woods at this time was not a high priority. The towns are addressing other issues believed to be more pressing than the Walden Woods SRS. Further, the towns and DEM stated that the questions posed by the study, as outlined, might not provide new information vital to their conservation activities. The Walden Woods Project concurred with the decision to end the study at the reconnaissance survey stage and not consider management alternatives.

## Feasibility

Walden Woods does not appear to be a feasible addition to the national park system at this time. Most importantly, the local town governments do not support a role for the NPS in protecting Walden Woods. Furthermore, there appear to be serious constraints to the acquisition of an appropriately sized and configured area. There are several hundred developed residential parcels in the 2,680-acre area, and real estate values are very high. Costs associated with acquisition and restoration, if willing sellers could be found, would be

extremely high. These parcels are also distributed across Walden Woods, a condition that could create numerous in-holdings that would complicate resource protection and management. There are also numerous owners of protected lands, and none have expressed a desire to transfer the land to the federal government.

### **Direct NPS Management**

Direct National Park Service management of Walden Woods as a new area does not appear to be a clearly superior alternative at this time. Resource protection and visitor enjoyment, as assessed for this reconnaissance survey, appear to be competently managed by the cumulative, though uncoordinated, efforts of DEM, the towns, the Walden Woods Project, and other organizations and individuals. Furthermore, federal funding and technical assistance for the preservation and interpretation of Walden Woods is presently available through the NHL program, Minute Man NHP, and the Wild and Scenic Rivers program.

NPS Management Policies (2001) states that “alternatives for NPS management will not be developed for study areas that fail to meet any one of the four criteria for inclusion” as new units of the national park system. Walden Woods is found to meet the first two criteria (significance and suitability), but does not meet the last two (feasibility and need for NPS management) at this time. Walden Woods is not proposed as a new NPS area, and no NPS study to determine management alternatives is recommended.

## Options for the Protection of Walden Woods

The following options do not involve establishment of a new Walden Woods NPS area. They reflect the reconnaissance nature of this study in that they were developed by the study team in limited consultation with the principal stakeholders, and may require further analysis and public input. The order in which the options are presented does not necessarily convey any ranking or priority.

### Local Roles

Local initiative is the key to protection of Walden Woods. These local efforts can be divided into two categories: private and government.

#### *Private*

Protection of Walden Woods has historically been championed by private parties, beginning with Thoreau himself, followed by Ralph Waldo Emerson, his heirs, the Lincoln and Concord land trusts, the TCCA, and the Walden Woods Project. Each has provided strong and timely leadership.

The grass roots advocacy of contemporary private groups and local landowners in preservation and interpretation will likely continue to prove critical. The two land trusts have long experience in acquiring and managing open space for multiple uses. The Walden Woods Project, which also owns and manages land in the Woods, represents not just a local constituency, but an international one. Together with private landowners, these groups could be effective in protecting Walden Woods. Activities already underway include sustaining research and analysis of the Woods and disseminating this information to landowners. Private landowners could assemble to discuss modest ways they might work cooperatively to protect the Woods. This group might chose to address the issue that the existing NHL does not include what appears to be the full extent of Walden Woods.



The work of the Freedom's Way Heritage Association and Estabrook Woods advocacy groups may also be important. Coordinating these private efforts, and assuring the involvement of the two towns, are among the most urgent needs—and may prove to be the most challenging.

#### *Local Government*

The towns' participation in local efforts to protect Walden Woods is crucial. It may work best if they serve as active coordinators, or maybe partner with the Walden Woods Project

to accomplish this. The towns could begin by sponsoring an effort to build broad public acceptance and recognition for the resources and values of Walden Woods. Drawing on local expertise and the considerable body of research on Thoreau, town forums could be employed to discuss, corroborate, and possibly endorse the work of Blanding and Schofield (1989), which to date has only received tacit acceptance from the town governments. Endorsement of the Blanding and Schofield definition of Walden Woods is a critical step in moving forward to protect the Woods. The Walden Woods Project has offered similar public programs, but they have lacked the intimate involvement of the towns. The towns' collaboration on the recent SuAsCo Wild and Scenic River designation could be an appropriate model. For the SuAsCo, the towns committed to long-term planning and management of a valuable shared resource with a diverse set of partners forming the River Stewardship Council.

If Blanding and Schofield's definition of Walden Woods is endorsed, two approaches could be effective in protecting and interpreting the Woods. The towns could:

1. Update their Open Space and Comprehensive Town Plans, formally assigning greater priority to land protection in Walden Woods. By establishing a clear focus on Walden Woods, the towns may better position themselves to leverage state and federal money in pursuit of the living network of landscapes their plans envision. Apart from state and federal funding, securing conservation easements or acquiring land on a willing-seller basis could be achieved in partnership with the Walden Woods Project and local land trusts. The participation of the SuAsCo River Stewardship Council in the plan update process may be beneficial.
2. Establish a Walden Woods historic district in both towns as authorized by state law. Constructed with public input, and based on consensus among interested parties, the district might be a precursor for an updated National Historic Landmark boundary if desired. Alternately, the towns could create a special zoning overlay district. In this way the towns could exercise greater control over existing land use patterns and future development within the district and maintain direct contact with affected landowners.

### State Roles

The state Executive Office of Environmental Affairs' (EOEA) proactive stance on land conservation for biodiversity could help the towns protect critical areas of biodiversity. As part of the EOEA, the DEM can be expected to continue conservation activities at the Walden Pond State Reservation, the core of Walden Woods. "*Preserving the Walden of Emerson and Thoreau*," as stated in the 1922 deed, can be advanced by implementing plans for the Route 126 corridor, and through long-term water quality monitoring, with continued assistance from the USGS. Coordinating the interpretive and educational programming with the Walden Woods Project and Thoreau Institute could continue to improve the experience for many visitors. The Department's role in administering federal and state land acquisition funds could assist local initiatives.

Other potential state roles include the Highway Department's support for protection of Walden Woods along Routes 126 and 2, and the Department of Environmental Protection's continued regulation of the landfill.

## Federal Roles

There are beneficial federal roles in protecting and interpreting Walden Woods. Four are described:

1. The NPS will continue to review proposed federal funding or licensing of activities that affect the existing Walden Pond NHL, Minute Man NHP, and SuAsCo Wild and Scenic River. These authorities may be found under the National Historic Preservation Act, the National Environmental Policy Act, and the Wild and Scenic River Act.
2. As Minute Man NHP interprets many of the same themes represented at Walden Woods, park staff could, by invitation, assist organizations to develop interpretive programs and educational curricula telling the stories of Walden Woods. Technical assistance from the NPS could be even greater if the Freedom's Way heritage area becomes established.
3. The NPS will continue to encourage research into the resources and boundaries of Walden Woods without formally adjusting the boundary of the NHL. This can be achieved through the existing challenge grants program, targeted to organizations like the Walden Woods Project and Thoreau Institute with track records and stated interests in understanding and protecting the broad scope of Walden's resources.
4. If requested by local and state government, the NPS would give priority to preparing and processing a revised nomination and boundary adjustment for the Walden Pond NHL.



*You searched for essence at Walden and, whether successful in your own mind or not, you hit upon an ethic with a solid feel to it: nature is ours to explore forever; it is our crucible and refuge; it is our natural home; it is all of these things. Save it, you said: in wildness is the preservation of the world.*

Edward O. Wilson to Henry David Thoreau, in *The Future of Life*

## Appendices

### Appendix A: Legislation

*Senate Bill 1349, National Park System New Area Study Act of 2000*

S. 1349 ES

106th CONGRESS  
1st Session

S. 1349

#### AN ACT

To direct the Secretary of the Interior to conduct special resource studies to determine the national significance of specific sites as well as the suitability and feasibility of their inclusion as units of the National Park System.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

#### SECTION 1. SHORT TITLE.

This Act may be cited as the “National Park System New Area Study Act of 2000.”

#### SEC. 2. FINDINGS AND PURPOSES.

(a) FINDINGS— Congress finds that pursuant to Public Law 105-391, the Administration has submitted a list of areas recommended for study for potential inclusion in the National Park System in fiscal year 2000.

(b) PURPOSE— The purpose of this Act is to direct the Secretary of the Interior to direct special resource studies to determine the national significance of the sites, and/or areas, listed in section 5 of this Act to determine the national significance of each site, and/or area, as well as the suitability and feasibility of their inclusion as units of the National Park System.

#### SEC. 3. DEFINITIONS.

In this Act:

(1) SECRETARY— The term ‘Secretary’ means the Secretary of the Interior acting through the Director of the National Park Service.

#### SEC. 4. STUDIES.

(a) IN GENERAL— The Secretary shall submit to the Committee on Energy and Natural Resources of the Senate and the Committee on Resources of the House of Representatives a report on the findings, conclusions, and recommendations of each study under section 5 within three fiscal years following the date on which funds are first made available for each study.



(b) CONTENTS— In conducting the studies authorized by this Act, the Secretary shall use the criteria for the study of areas for potential inclusion in the National Park System in accordance with section 8 of Public Law 91-383, as amended by section 303 of the National Park System New Area Study Act (16 U.S.C. 1a-5).

**SEC. 5. STUDY AREAS.**

The Secretary shall conduct studies of the following:

- (1) Bioluminescent Bay, Puerto Rico;
- (2) Civil Rights Sites, multi-State;
- (3) Gaviota Coast Seashore, California;
- (4) Kate Mullany House, New York;
- (5) Low Country Gullah Culture, multi-State;
- (6) Walden Pond and Woods, Massachusetts;
- (7) World War II Sites, Commonwealth of the Northern Marianas;
- (8) Loess Hills, Iowa;
- (9) Anderson Cottage, District of Columbia;
- (10) Fort Hunter Liggett, California;
- (11) upon the request of the Government of the Republic of Palau, World War II Sites, Palau; and
- (12) upon the request of the Government of the Federated States of Micronesia, Nan Madol in the State of Ponape.

**SEC. 6. AUTHORIZATION OF APPROPRIATIONS.**

There are authorized to be appropriated such sums as are necessary to carry out this Act.

Passed the Senate November 19, 1999.

Attest:

Secretary.

*Testimony of Donald Barry, Assistant Secretary for Fish and Wildlife and Parks*

EXECUTIVE COMMUNICATIONS (This statement was prepared for the hearing on S. 1349 which later became Sec. 326 of P.L. 106-113)

The legislative report received by the Committee from the Department of the Interior setting forth Executive agency recommendation relating to the S. 1349, are set forth below:

Department of the Interior, Office of the Secretary, Washington, D.C.  
October 25, 1999.

Hon. Frank Murkowski,  
Chairman, Committee on Energy and Natural Resources  
U.S. Senate, Washington, DC.

Dear Mr. Chairman:

This letter presents the Department's view on S. 1349, a bill directing the Secretary to conduct special resource studies to determine the national significance of specific sites as well as the suitability and feasibility of their inclusion as units of the National Park System.

The Department supports this legislation with amendments that are explained within this legislative report.

S. 1349 authorizes nine new area studies, also referred to as special resource studies. These studies were proposed by the Administration in a letter sent to the Committee earlier this year, pursuant to the requirement in the National Parks Omnibus Management Act of 1998 (Public Law 105 391). A tenth study on that list, Loess Hills, in the State of Iowa, was considered by this Committee separately earlier this year. Since the time the list was developed, the Administration decided to request two more candidates for studies: Anderson Cottage, the summer home of President Lincoln, in Washington, D.C., and Fort Hunter Liggett, in California.

Each year, the National Park Service receives numerous requests and suggestions for potential new areas for the National Park System. We narrow the list to a relatively small number of proposals that, in our collective judgment, represent areas or themes that are not adequately represented in the National Park System and that offer the greatest potential for being determined to be nationally significant, feasible, and suitable according to specified criteria.

Proposing an area for study does not mean that we expect to conclude that the area should be managed by the NPS. In fact, most of our studies over the past 20 years have focused on alternatives to direct acquisition and management by the NPS. While we believe that all of the candidates on our list are worthy of our attention, we expect the study process to help identify ways to protect many of these sites through action by States, local governments, private entities, and other Federal agencies. We certainly recognize that a new area must be evaluated in light of the competing demands for funds and staff in existing units of the National Park System.

The Department has determined that the areas listed in Section 5 of S. 1349, along with Loess Hills, Anderson Cottage, and Fort Hunter Liggett, are our priorities or studies to be authorized for FY 2000 and beyond.

**Anderson Cottage, Washington, D.C.** [description omitted]

**Bioluminescent Bay of Mosquito Lagoon, Puerto Rico** [description omitted]

**Brandywine and Paoli Battlefields, Pennsylvania** [description omitted]

**Civil Rights Sites, Multi-State** [description omitted]

**Fort Hunter Liggett, California** [description omitted]

**Gaviota Coast Seashore, California** [description omitted]

**Kate Mullany House, New York** [description omitted]

**Low Country Gullah Culture, Multi-State** [description omitted]

**Nan Madol, State of Ponape, Federated States of Micronesia** [description omitted]

**Walden Woods and Pond, Massachusetts**

The study would evaluate lands and sites in Concord and Lincoln associated with Henry David Thoreau near Walden Pond, a National Historic Landmark, to assess their significance and relationship to the landmark. The study explores alternative methods of protecting and interpreting these lands, which were integral to the development of Thoreau's philosophy of ecology, conservation, and man's relationship to nature, which he explored in his book *Walden*.

**World War II Sites, Republic of Palau and Commonwealth of the Northern Marianas**  
[description omitted]

Cost estimates for these studies range from \$50,000 to \$400,000. We estimate that it would cost about \$1.1 million to start all of the studies listed above, along with Loess Hills, in FY 2000. Any additional studies approved by Congress, would, of course, raise the total cost estimate further.

Completion of on-going special resource studies previously approved by Congress is expected to require about \$763,000 in FY 2000. Despite a limited budget, we hope that Congress authorizes the studies this year, so that we can begin the studies as soon as funds are available, and so that we have the flexibility to apply funds to projects where personnel are available to work on them.

There are three changes we recommend to S. 1349. First, we suggest amending Section 4(a) to provide three years for each study, rather than two years for all the studies, from the time funding is made available. Most of the proposed studies will take much less than three years, but if the legislation is to provide a standard length of time for the studies, we would like that time frame to be three years to assure adequate opportunities for public involvement and analysis. In addition, this change is consistent with the time frame called for in Section 303 of the National Parks Omnibus Management Act.

Second, we recommend amending Section 4(b) to reference the requirements for new area studies that are listed in Section 303 of the National Parks Omnibus Management Act. Section 4(b) of S. 1349 as drafted includes some, but not all, of the criteria for studies that are included in Section 303. Referencing existing law helps prevent any confusion about which requirements apply to studies authorized by this legislation.

Third, we recommend amending Section 5 so that it contains not only the names of the sites or themes for study, but also descriptions of the studies, similar to studies authorized by Congress in the past. These descriptions help to provide clear direction from Congress about the areas and resources to be studied.

The Office of Management and Budget advises that there is no objection to the presentation of this report from the standpoint of the Administration's program.

Sincerely,  
Donald J. Barry,  
Assistant Secretary for Fish and Wildlife and Parks

*Section 326. (a) of Public Law 106-113*

**SHORT TITLE**—This section may be cited as the “National Park Service Studies Act of 1999.”

**(b) AUTHORIZATION OF STUDIES—**

**IN GENERAL**—The Secretary of the Interior (“the Secretary”) shall conduct studies of the geographical areas and historic and cultural themes described in subsection (b)(3) to determine the appropriateness of including such areas or themes in the National Park System.

**CRITERIA**—In conducting the studies authorized by this Act, the Secretary shall use the criteria for the study of areas for potential inclusion in the National Park System in accordance with section 8 of Public Law 91-383, as amended by section 303 of the National Parks Omnibus Management Act (Public Law 105-391; 112 Stat. 3501).

**STUDY AREAS**—The Secretary shall conduct studies of the following:

- A. Anderson Cottage, Washington, District of Columbia.
- B. Bioluminescent Bay, Puerto Rico.
- C. Civil Rights Sites, multi-State.
- D. Crossroads of the American Revolution, Central New Jersey.
- E. Fort Hunter Liggett, California.
- F. Fort King, Florida.
- G. Gaviota Coast Seashore, California.
- H. Kate Mullany House, New York.
- I. Loess Hills, Iowa.
- J. Low Country Gullah Culture, multi-State.
- K. Nan Madol, State of Ponape, Federated States of Micronesia (upon the request of the Government of the Federated States of Micronesia).
- L. Walden Pond and Woods, Massachusetts.
- M. World War II Sites, Commonwealth of the Northern Marianas.
- N. World War II Sites, Republic of Palau (upon the request of the Government of the Republic of Palau).

**(c) REPORTS**—The Secretary shall submit to the Committee on Energy and Natural Resources of the Senate and the Committee on Resources of the House of Representatives a report on the findings, conclusions, and recommendations of each study under sub-section (b) within three fiscal years following the date on which funds are first made available for each study.

## Appendix B: Walden Pond NHL Chronology

*\* Indicates document is available*

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1962 December 29	Walden Pond is designated a National Historic Landmark (NHL) by the Secretary of the Interior in recognition of its association with the nationally significant writings of Henry D. Thoreau. [This action predated the establishment of the National Register of Historic Places, and there was no formal boundary delineation as part of the nomination documentation.]
1975 Fall	In compliance with the regulations set forth for management of the National Register program, all NHLs, which were incorporated into the NR when it was established in 1966, are required to have geographical boundaries established. The boundary study* (dated January 10, 1975) for Walden adopts the property boundaries for the Walden Pond State Reservation. [This was a boundary of convenience as the limits of Thoreau's activity at Walden, and the limits of Walden itself, were not understood.]
1981	Congressional mandating of monitoring and reporting on the threats and damage occurring at NHLs. Over the next nine years there is consideration given to the threats to the State Reservation lands and water resulting from intensive visitor use.
1989 July 20	Thoreau Country Conservation Alliance (TCCA) sends letters to the then Mid-Atlantic Regional Office (MARO) and the Washington, D.C. office of the NPS requesting consideration of revised boundaries to the NHL as set forth in a draft report* issued that year by Thomas Blanding and Dr. Edmund Schofield. This report, prepared for the TCCA, establishes a finite geological zone as the basis for Walden Woods. It also locates numerous specific places that Thoreau wrote about within the Woods.
1990 January 29	NPS NHL Program Manager in MARO, Bill Bolger, is contacted by Senator Kennedy's office requesting participation in a meeting in Boston to examine the NHL boundary issues at Walden.
February 26	Bolger tours the Walden area.
February 27	Lauren Meier (NPS-Preservation Assistance Division) letter* responds to Blanding. Provides information on NHL and National Register criteria and processes.
February 28	Bolger participates in meeting with a group of about 15 citizens, state and local officials, and representatives of Sen. Kennedy's office to discuss the Schofield/Blanding study as well as the process for modification of the NHL boundary. Sign-in sheet lists: Bradley, Massachusetts Historical

	Commission; E. Shean-Hammond, NPS; Brain, TCCA; Woodhouse, Sen. Kerry; Farrow, Concord; Weinreb, TCCA; Blanding, TCCA; Schledwitz, TCCA; Blatt, Congr. Atkins; Chapman, TCCA; Shelley Morss; Sandstead, National Trust for HP; Anderson, Sen. Kennedy; Sullivan, Concord.*
March 23	NPS-MARO sends letter to the Massachusetts Department of Community Affairs advising against a proposed increase in density for an approved housing project (DeNormandie/ Bear Garden Hill site) within the proposed Schofield/Blanding boundary.
April 25	Bolger meets with MHC officials to discuss an approach to considering expanding the Walden NHL boundary.
Spring	Walden Woods Project, Inc. (WWP) is established by Don Henley.
Summer	NPS-MARO includes Walden on the draft report to the Secretary of the Interior for inclusion in his annual report to Congress. The listing is approved by the Secretary's office and is sent to Congress early the following year. Included in the findings is the need for a redefinition of the Walden NHL boundary, the need to protect the NHL from intensive development, as well as the need for mitigation within the Reservation to deal with visitor impacts. Walden is carried on the Secretary's report in all succeeding editions.
<b>1992</b> February 4	<p>Bolger visits site and attends meeting at Massachusetts Institute of Technology arranged by the National Trust to consider the development of a computer program for studying and evaluating design issues within the Woods.</p> <p>At about this time NPS-MARO decides not to pursue a boundary study in the immediate future. WWP maintains that their approach to negotiate and purchase the imminently threatened land is the best frontline defense of the district. NPS/Bolger and MHC/McDonough agree that the WWP approach is working and that a NHL study might confuse the issue further.</p>
<b>1994</b> May 28	Erich Veyhl, Concord resident and land rights activist, files a request for information on NPS-NHL activity regarding Walden. NPS responds in June with a packet of documents relating to the work.
<b>1997</b> Spring	WWP submits a proposal to the NPS Challenge Cost Share Program (CCSP) for assistance in developing a reforestation project for the Brister's Hill tract. [Brister's Hill is one of the parcels that had been zoned for intensive development, is purchased by WWP, Inc. It is located within the Schofield/Blanding boundary and is also the site where Thoreau first made his observations on forest succession in the 1840s.]

## Appendices

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August	WWP is awarded the CCSP grant for \$15K and signs a cooperative agreement with NPS to carry out the work.
1998	
June 1	MHC sends letter to NPS–MARO identifying the Estabrook Woods area as a related and endangered resource.
June 5	President Clinton attends dedication ceremonies for the Thoreau Institute (TI) in Lincoln. Bolger attends ceremonies and meets the following day to tour Estabrook Woods and to discuss NHL issues at that site.
November 1	Kathi Anderson, WWP Executive Director, sends letter* to Jim Pepper (NPS) regarding WWP request to fund a preservation plan for historic Walden Woods.
December 11	Bolger transmits* Anderson's letter of Nov. 1 to Bob McIntosh (NPS, ARD–NER) at the request of Jim Pepper.
1999	
Winter	Anderson meets with Donald J. Barry, Assistant Secretary for Fish and Wildlife and Parks (AS/FWP), about study for Walden.
March 19	Barry (AS/FWP) transmits study list* including Walden to Congress.
June 28–29	NPS facilitates a planning concept meeting at the TI to consider planning issues for Walden Woods. WWP is seeking federal funding of part of a study, although the appropriation has not been made. Meeting at TI is intended to consider the desirable approach for a Walden planning study regardless of who funds it or manages it. Bolger invites NPS, Anderson invites local interests.
	Agenda* lists: Anderson and Bowdoin of WWP; Bolger, Gall, Mitchell, Nelson, and Pepper from NPS; Schofield; Campbell, DEM; Thornton, Concord Land Conservation Trust; Harris, Thoreau Society; Kellett, WWP Advisory Board; Constable, Lincoln Land Conservation Trust; Ells and Dwyer from Estabrook; and Wheeler and Gordon from Thoreau Farm Trust.
	Signed-in sheet* for NPS: Bolger, L. Gall, N. Mitchell, N. Nelson, Pepper, and S. Peskin. Non-NPS attendees signed-in: Anderson, Bowdoin, Dwyer, Ells, Gordon, Reeve, and Wheeler.
July 21	Sarah Peskin, Team Leader for Planning and Legislation (NPS–BOSO), drafts briefing statement* on possible Special Resource Study (SRS).
September 15	Preliminary proposal* from Marie Rust (NPS, RD–NERO) to Washington Office (WASO) for funding FY 2000 plans and studies requests \$250K for Walden SRS.



October 25	Barry (AS/FWP) gives supporting testimony* at Congressional hearing on S. 1349, later Sec. 326 of Public Law 106-113.
November 29	Public Law 106-113* "National Park Service Studies Act of 1999" is signed into law. Authorizes the Secretary of the Interior to "conduct studies of the geographical areas and historic and cultural themes described in subsection (b) (3) to determine the appropriateness of including such areas or themes in the National Park System." ["Walden Pond and Woods, Massachusetts" was one of 14 studies with responsibility delegated to RD-NERO.]
December 17	Peskin notifies Pepper via email* of communication with Anderson concerning NPS-BOSO authorization to conduct an SRS beginning in FY 2000, and of intention to meet with Anderson 12/21/99.
December 21	Peskin and Brian Aviles (NPS-BOSO) meet with Anderson and Helen Bowdoin of WWP, to discuss the objectives and process of the study and identify interested parties.
<b>2000</b>	
January 18	Rust receives funding advice for \$75K from WASO.
January 28	Peskin and Aviles brief Superintendent Nancy Nelson of Minute Man NHP on the SRS.
February 8	Peskin and Aviles meet with Anderson at TI to discuss SRS progress.
February 18	Rust sends letter* to Anderson, informing passage of legislation authorizing the study.
February 22	Peskin and Aviles meet with Anderson, John Kerr (selectman), and Tom Gumbart (conservation director), Town of Lincoln, to discuss the Town's involvement in the SRS.
February 29	Peskin, Nelson, and Anderson meet with Ruth Lauer and Sally Schnitzer (selectmen) and Chris Whelan (town manager), Town of Concord, to discuss the Town's involvement in the SRS.
March 7	Lauer letter* to Peskin expresses the Town of Concord's concerns with the SRS and asks for information on "the specific events leading up the new National Park initiative at Walden Pond."
March 9	<i>Concord Journal</i> article* on proposed SRS appears p. 13. Title: "Walden study to start." Quotes Peskin and Bowdoin on process.
March 13	NPS-BOSO releases project brief* outlining the objectives and process proposed for the SRS. Brief is shared with Towns of Lincoln and Concord, DEM and WWP.
March 14	Lauer letter* to Sen. Kennedy expresses Town of Concord's concerns with SRS and asks for information on the development of the study.

## Appendices

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April 3	Erich Veyhl draft op-ed letter* criticizing proposed study received by NPS-BOSO via Whelan and Lauer. Letter remains unpublished as of November 2001.
April 21	Presentation of Massachusetts Audubon Society's "Ecological Inventory and Conservation Management Plan for Brister's Hill and the Concord Landfill"* at Town of Concord. Peskin, Nelson, and Weinreb (DEM) in attendance.
May 31	Aviles meets with Markus Pinney (natural resources administrator, Town of Concord), Jennifer Petrie (GIS coordinator, Town of Concord), and Tom Gumbart (conservation director, Town of Lincoln) separately to discuss information available for study.
June 20	McIntosh and Peskin meet with Whelan to discuss Lauer letter and study objectives.
August 16	NPS team (McIntosh, Peskin, Bolger, and Aviles) meets with Concord selectmen Richard Wheeler (Chair) and Lauer, Whelan, and Tim Higgins (Town of Lincoln executive secretary) to discuss study objectives and process. Agree to explore a draft government-government agreement. NPS team briefs Anderson on project status.
October 16	NPS sends draft general agreement sent from to Wheeler, Roz Delori (Chair, Lincoln Selectmen), Weinreb, Anderson, Thornton and Reeve of the Concord Land Conservation Trust, and Constable (Lincoln Land Conservation Trust).
October 25	Comments and suggestions on draft general agreement returned to NPS by Wheeler, Delori, and Lauer.
November 13	NPS team (McIntosh, Peskin, Bolger, and Aviles) meets with Schnitzer, Wheeler, Whelan, Stuart Weinreb of DEM, Lincoln selectman Roz Delori, and Higgins to review revised draft agreement. Agree to conclude the SRS at the reconnaissance stage in 2001.

## Appendix C: Draft Project Brief

### Walden Woods and Pond, Massachusetts — Special Resource Study

#### Purpose

The National Park Service has been authorized by Congress to conduct a special resource study of Walden Woods and Pond. Walden Woods and Pond were integral to the development of Henry David Thoreau's philosophy of ecology, conservation, and man's relationship to nature, which he explored in his book *Walden; or Life in the Woods*. The purpose of the study is to establish a common understanding of the boundary for Walden, and consider actions that may be taken to protect the area in the future.

The study will examine the existing National Historic Landmark (NHL) boundary in light of current knowledge of Walden. The original designation as an NHL in 1962 did not identify a boundary. Some years later, federal legislation required boundaries for all landmarks. In response, the limits of the State Reservation were established as the boundary in 1975. Walden has been the subject of considerable scholarship and public concern over the last few decades that suggest a larger boundary may be appropriate. NHL designation follows a well-defined process and can only occur with the support of a majority of the landowners.

If the study finds the resources of the NHL are threatened, it will explore a variety of alternative preservation methods. These might include changes to the NHL boundary, or measures by individual landowners, land trusts, the Commonwealth of Massachusetts, the towns of Concord and Lincoln, and others.

#### Process

The study will have five broad tasks. Each will be accomplished in consultation with key stakeholders including the towns of Concord and Lincoln, the Massachusetts Department of Environmental Management, and the Walden Woods Project.

- Establish a common understanding of the **boundary** of Walden. This would include reviewing a range of existing scholarship and research on Walden.
- Examine the **integrity** of Walden and define **compatible uses**. This would include assessing the significance of the resources, analyzing current land-use patterns, and evaluating the existing levels of resource protection and interpretation.
- Identify **goals** for the protection of Walden.
- Identify **strategies** for the protection of Walden. Categories would include:
  - Actions by private landowners
  - Actions by state and local entities
  - Revising the NHL boundary, following 36 CFR Part 65
  - Federal support for actions such as educational programs, restoration, or land acquisition (No federal action would be taken without the consensus of stakeholders. Any such actions would be subject to determinations of the suitability of the resources and the feasibility of an ongoing NPS role.)
  - Combinations of the above

- Summarize **findings** and make **recommendations** for future actions.

### **Schedule and Budget**

The study as described above will take two to three years and is expected to cost \$250,000. Work began in January 2000. As directed by Congress, a copy of the final report will be submitted by the end of September 2002. For reference to the authorizing legislation, see Public Law 106-113, November 29, 1999.

### **Study Team**

The study will be led by Sarah Peskin, Program Manager for Planning and Legislation, Boston Support Office; and Bill Bolger, National Historic Landmark Program Manager, Northeast Region. Brian Aviles, Landscape Architect, Boston Support Office, will be the project manager. For additional information, please contact:

National Park Service  
Boston Support Office-Planning  
15 State Street  
Boston, MA 02109-3572  
Tel. (617) 223-5051, fax (617) 223-5164  
Email to: Brian\_Aviles@nps.gov

## Appendix D: Participants

### *National Park Service*

- Brian Aviles, Landscape Architect, Boston Support Office, Project Manager
- Bill Bolger, National Historic Landmark Program Manager, Northeast Region
- Robert McIntosh, Associate Regional Director, Northeast Region
- Nancy Nelson, Superintendent, Minute Man National Historical Park
- Sarah Peskin, Program Manager, Planning & Legislation, Boston Support Office
- Vicki Jo Sandstead, Stewardship & Partnerships, Boston Support Office
- David Clark, Environmental Compliance Officer, Boston Support Office
- Sandra Corbett, Superintendent, Boston Support Office
- Deb DiQuinzio, Regional Coordinator, National Natural Landmarks Program, Northeast Region
- James Fosburgh, Program Manager, Wild & Scenic Rivers, Boston Support Office
- Larry Gall, Program Leader, Stewardship & Partnership, Boston Support Office
- Steve Golden, Program Leader, Rivers, Trails & Conservation Assistance, Boston Support Office
- Lee Steppacher, Wild & Scenic Rivers Program, Boston Support Office
- Charles Tracy, Massachusetts Program Director, Rivers, Trails & Conservation Assistance, Boston Support Office

### *State and Town Governments*

- Denise Morrissey, Park Supervisor, Walden Pond State Reservation
- Richard Thibedeau, Director, Bureau of Resource Protection, Massachusetts Department of Environmental Management
- Peter C. Weber, Commissioner, Massachusetts Department of Environmental Management
- Stuart Weinreb, Massachusetts Department of Environmental Management
  
- Ruth Lauer, Selectman, Town of Concord
- Markus Pinney, Natural Resources Administrator, Town of Concord
- Sara S. Schnitzer, Chair, Board of Selectmen, Town of Concord
- Richard W. Wheeler, Past Chair, Board of Selectmen, Town of Concord
- Chris Whelan, Town Manager, Town of Concord
  
- Penny Billings, Selectman, Town of Lincoln
- Rosamond Delori, Past Chair, Board of Selectmen, Town of Lincoln
- Thomas Gumbart, Conservation Director, Town of Lincoln
- Tim Higgins, Town Administrator, Town of Lincoln
- John Kerr, Chair, Board of Selectmen, Town of Lincoln
- Sara Mattes, Selectman, Town of Lincoln

*Consulted Parties*

- Kathleen Anderson, Executive Director, The Walden Woods Project of the Thoreau Institute
- Helen Bowdoin, Education Program Director, The Walden Woods Project of the Thoreau Institute
- Richard Canale, Freedom's Way Heritage Association
- William G. Constable, Chair, Lincoln Land Conservation Trust
- Bradley P. Dean, Ph.D., Director of the Media Center, The Thoreau Institute
- Patrick Field, Consensus Building Institute, Cambridge, Massachusetts
- Michael Kellett, The Walden Woods Project Advisory Board, and President TCCA
- David Oliveira, Legislative Assistant, Office of Senator Edward M. Kennedy
- Polly Reeve, Chair, Concord Land Conservation Trust
- Mark Sternman, Economic Development Director, Office of Congressman Martin T. Meehan
- Marian Thornton, past Chair, Concord Land Conservation Trust

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As the nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural and cultural resources. This includes fostering wise use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people. The department also promotes the goals of the Take Pride in America campaign by encouraging stewardship and responsibility for the public lands and promoting citizen participation in their care. The department also has a major responsibility for American Indian reservation communities and for people who live in island territories under the administration of the United States of America.

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