

# Town of Eastham Open Space Committee Managed Lands Plan 11-20-2003

## *Executive Summary*

This plan describes the management strategy for various parcels of property that are owned by the town and are open to the public for passive recreational uses. Open land is defined by statute as

“Retained in substantially a natural, wild or open condition in such a manner as to allow to a significant extent the preservation of wildlife and other natural resources”

Clearly, with the rapidly diminishing natural habitat within the town, the reservation of such tracts in as near natural condition as possible needs to be the primary goal of this management plan. However, many residents and visitors to the area wish to experience an undisturbed natural setting, and this must also be considered as part of the habitat. Thus the dilemma is to provide for the use of the area without enabling the destruction of the very features that make it attractive. This management plan will balance the two interests and provide a framework for the continued protection of the area that was envisioned by the townspeople who decided to purchase the land for these purposes.

## *Goals*

The following goals summarize the management strategy for town owned land open to the public for passive recreation

- Keep it Natural
  - Maintain and enhance existing habitats*
  - Address potential fire control problems*
  - Minimize growth of invasive vegetative species*
  - Maximize growth of indigenous species*
  - Construct bridges or boardwalks where necessary*
- Make it Accessible
  - Maintain walking trails*
  - Establish loop trails as appropriate for return to starting point*
  - Create links between various parcels*
  - Provide vehicle parking facilities and bicycle racks*
  - Maintain and establish viewing / rest areas with benches*
- Render it Educational
  - Provide trail maps at trail heads*
  - Provide way markers or signposts along the trails*
  - Furnish rest areas with interpretive wildlife information*
  - Install signs*

## *Section I*

### *Introduction*

The Eastham Open Space Committee under the general overview of the Conservation Commission as the agency charged with the protection of the community's natural resources has developed this plan. The committee has walked and studied all the parcels of land that are managed for passive open space recreation. In 2000, a questionnaire was developed and placed at the most active walking trails. The focus of the questionnaire was to assess the needs and preferences of the people who frequently used the sites. More than one hundred responses were collected and the results have been incorporated into the management plan. All the existing trails have been mapped using GPS technology. A plan of each site has been developed indicating these trails, remarkable features and potential areas for innovative additional improvements.

Since 2000, three important acquisitions have been added to this plan. They are the Aschettino property that abuts the South Eastham Conservation Area, the Meservey property which provided a key connection between the Cottontail and Nickerson properties, and the Walters property adjacent to the bike trail. All of these, as well as Wiley Park, are a part of this plan, and future acquisitions of open space under the Land Bank program will be added to the plan as they materialize. In 2002, the Board of Selectmen charged the Committee with acquiring land for Open Space under the Land Bank Act. The Committee has updated and prioritized the lists of desirable properties, (included in the Appendix), and has sent letters of interest to all of the property owners on our "short list".

A narrative description follows which details the goals and objectives of the management plan. The results of the questionnaire are presented in section III. Section IV includes maps of the four parcels currently included in the plan showing various features and existing trails. A graphic representation of the work plan is presented in spreadsheet format (Section V) to allow for a comprehensive overview of the tasks and timing that is anticipated to implement the proposals in this management strategy. Various agencies will participate in the implementation phase including town forces, Americorps and the members of the Open Space Committee. Some of the work outside the scope of available resources will require the use of outside contractors. The development of an informal "Friends of..." association comprised of frequent users of the areas, such as the "Friends of the 1651 Arboretum" in Wiley park, may provide a corps of willing volunteers.

It is most important that this document be considered a dynamic blueprint rather than a fixed formula for the future. As the work progresses, or as more open space is acquired, it is anticipated that changes may be made to the schedule or sequence of events and experience will be the best teacher in that regard.

## ***Section II Narrative***

### ***Goal***

#### **I. Keep it Natural**

##### ***Objective 1***

##### ***Maintain existing habitats and rest areas***

The normal course of events in forest succession includes the growth of various types of shrubs, trees and other vegetation that evolves over time. Maintaining some of the unique habitats that occur on Cape Cod includes some ongoing pruning, mowing and in general managing of the process by which certain habitats are replaced by others. Pine Oak Woodlands are replacing the open agricultural fields that were characteristic of Eastham fifty years ago. Yet the open fields are

the only places where certain species of birds and mammals are able to exist. To that end, maintaining the habitat types that occur on our various parcels of open space is of vital importance. Identifying which species of shrubs and trees are important and pruning for best growth is a good first step. Preservation of certain habitats that are classified as open fields require a more dramatic treatment with periodic clearing of the vegetative cover by mowing. These habitats are remnants of the effects of human intervention during the previous centuries through agricultural applications. With the transformation of the land into residential use, many species of shrubs and trees have colonized these areas and created the mixed woods that are typical of most of our sites. However, a variety of species of insects, mammals, reptiles and birds can only survive in such open fields. Maintaining these habitats requires periodic mowing. This is best undertaken in the spring of the year to allow birds and mammals access to seed throughout the winter months.

Encouragement of the use of the area by other species, especially birds, can be accomplished by the construction and installation of suitable birdhouses. Maintenance of existing bluebird nesting boxes requires an annual cleaning of the box and inspection for deterioration. These boxes are a valuable addition to the areas that are maintained as open field habitats.

Vernal Pool habitats are of critical importance as wetlands in addition the surrounding upland is extremely important to the well being of the species that spend most of the year nested under the decaying limbs or leaves. By allowing these special places to remain undisturbed we can provide as much value as by mowing an open meadow. Certain habitat types are best enjoyed and appreciated by redirecting foot traffic onto elevated walkways especially near wetland soils. Identification of these sites and construction of a limited number of walkways will allow the enjoyment by visitors while protecting the very habitat that they have come to admire.

## ***Objective 2***

### ***Fire Control***

Fire control becomes a larger issue in areas that are allowed to return to natural conditions. Fire itself is a natural part of the cycle of growth and regrowth in forests but has largely been eliminated in managed areas in recent times. It is becoming apparent that the longer an area is without fire events, the greater the impact when such a fire does eventually occur. Dead limbs and brush are consumed in short order in such fires and the regrowth of the understory is more vigorous. Mature trees are not likely to be affected if the fire proceeds quickly through the area. The situation in our open space lands is not a natural system and cannot respond in the same fashion as a large tract of open forest elsewhere in the country.

The presence of residential neighborhoods in close proximity to the area and limited ability to contain brush fires make this an unacceptable alternative. As a result, alternate methods of fire suppression are the basis of this management strategy. Specifically, removal of many of the fuel sources by selective cutting, chipping and burning in place must be effected without adversely affecting the positive habitat values that these trees, branches and understory provide. Initially, wood which is categorized as 1-hour or 3-hour brush (that which will be consumed by fire in the period of one or three hours time) shall be removed, chipped or collected and piled in various areas and covered with kraft paper for burning during the winter open burning season. Fuel that is greater than three hour rated shall be selectively removed to allow for habitat considerations described earlier. The initial response will be in an area extending 25 feet in both directions from the trail. In year 3, the area will be expanded to 100 feet in each direction, and in year 5 other sites that are more remote will be addressed. Controlled burning is a technique that is effective and has been employed in several National Seashore areas as well as other Cape towns. This would be a cooperative effort between the Cape Cod National Seashore, and the Fire Department. Many specifics and details would be outlined in a separate plan if this activity were anticipated

### **Objective 3**

#### **Maximize indigenous species**

The control of invasive species that are by nature opportunistic (fast growing and resistant to drought, shade and poor soil conditions) presents an increasing problem. As mentioned above, clearing of trails provides more sunlight to the deep woods, and many of these species are quick to take advantage of this benefit. Others are capable of growing in remote areas and their control cannot be easily accomplished by mechanical means such as mowing without destruction of the surrounding desirable species. Thus, selective removal by hand is the method of choice. This process includes the identification and flagging of the invasive species followed by a work crew removing the plants in their entirety. Removal of such invasive plant species allows opportunity for growth of native indigenous species. Ideally, it is best to speed this process up by planting appropriate species. The plan will include identification of appropriate plants for particular habitat types, purchase of healthy specimens and planting with appropriate aftercare. Costs and manpower make it difficult to implement this on a broad scale.

However, in Wiley Park, the so-called "1651 Forest" is a project that will replicate the vegetative cover if not climax vegetation that the first settlers to Eastham likely encountered upon their arrival. This project has started in part of the Park property and has been designed so as to be consistent with the habitat of the site. The 1651 Advisory Board and Friends group have researched appropriate plants, and they have purchased and planted beech, sassafras, elm and highbush blueberry.

#### **Goal**

## **II. Make it Accessible**

### **Objective 1**

#### **Safe Trails**

Existing trail maintenance requires removal of obstructions in the footpaths that are the result of traffic eroding the soil and exposing roots, stones or other objects that were not visible when the trail was originally established. Ideally, reduction of erosion by the use of wood chips or other surface treatments would both reduce the number of instances of surfacing objects and prevent the loss of topsoil to wind and rain erosion. A thorough examination of all the trail surfaces is essential on a regular basis. Overhanging branches and deceased trees close by the trail or windfall across the trail present the most immediate hazard to walkers and shall be removed to prevent injury. Care must be taken to allow those trees which are deceased yet not in danger of falling onto the walkway to remain and serve as a 'bowl' or 'hang' to provide roosting sites for birds or feeding opportunities for animals scavenging for insects. An example of this would be a tree which has been split off ten or more feet off the ground but whose trunk is still stable and providing habitat.

Equestrian users of the trails will require higher clearance and those trails designated for such use will receive such consideration. Branches that grow into the trail area are responding to the increased light penetration allowed by the creation of the trail. As a natural activity of plants to seek sunlight, the limbing of branches encourages more growth that in turn requires more limbing of branches. In any event, such limbs shall be cut back flush with the trunk of the tree rather than allowing a partial branch to extend which may become diseased or present a hazard to passers by. By such trimming strategy the trail may become quite wide in some areas initially if the main trunk is located far from the trail.

Two methods of trimming suggest two scenarios. One provides for a target trail width of five to ten feet on average. By trimming to this width it is anticipated that the following year's growth will

encroach on that size significantly requiring an annual assessment and maintenance. The second approach is to provide for a wider trail width initially (target width of 25 feet overall) with a less frequent review and anticipated growth back over a five year period. While the second method requires less activity it produces what may be considered an excessively wide path after the initial work is completed. The choice of strategies is site specific to a large degree and may well be best decided on a case by case basis depending on the types of vegetation and their propensity for rapid growth. Results of our survey questionnaire are overwhelmingly in favor of maintaining the width in the narrower five foot dimension in an effort to maintain the character of the site.

Disposal of the slash and other debris can be performed in a variety of fashions. Chipping the branches will provide needed trail covering material in some locations but will require transportation of the chipper to the area; removal of the brush to a central point for pickup and disposal off site may be appropriate in some areas where a staging area is convenient and wood chip treatment is not required for the trail surface. Where the wood is infested with disease or beetles, complete removal will be necessary. Diseased wood may have to be disposed of out of Town.

Another aspect of maintaining a trail is that of mowing a path in those areas where grasses or other plant species are capable of rapid growth. Such plants are likely places for tick species to be abundant and mowing is a suitable preventative measure to reduce chance of contact. The frequency of mowing is a function of particular seasonal variability in rainfall and may need to be done as frequently as three times per year. In other areas where the understory is primarily pine needles mowing is much less a necessity.

Poison Ivy is the single most problematic species in that it will survive in a variety of habitat types, grows aggressively and can present safety issues if users of the area are in contact with the plant. Recent experiments with a hedge trimmer have proven it to be an effective and safe method of control, and will be the primary method used in the future to cut back encroaching plants. Chemical methods of control of these species is not a part of this management plan due to the fact that residual byproducts of the chemical treatment will eventually find their way to our groundwater and is contrary to good stewardship of that critical resource. Further, application of such chemicals is not permitted by other than licensed applicators, which excludes the current municipal workforce.

Another approach to control includes mowing which is effective but requires a regular maintenance schedule and introduces the possibility of allergic reaction by the operator or others in the vicinity of the operation. Additionally, mowing is not selective to only one species and may not be appropriate in all areas. Covering the growing plant with plastic mulch is an effective method for more selective control and the plastic mulch can be top-dressed with wood chips to provide a more aesthetically pleasing area. After one growing season the mulch will deteriorate and will need to be removed but typically the poison ivy has been eliminated due to lack of sunlight. The use of animals such as goats for grazing on the poison ivy has been reviewed and used experimentally. Our observations however are that the goats prefer a wide variety of other species of plants and poison ivy may be consumed but it is not their preferred food.

Another aspect of maintaining a safe walking trail includes providing some direction for the traveler as to waypoints and directions. Getting lost in the woods is not much fun but excessive signs detract from the experience. The balance of subtle but helpful directional signs will include determining the appropriate size and locations and tasteful construction and installation. The unsanctioned development of 'shortcut' trails by users who wish to cross over from one section of the loop trail to another shall be discouraged by temporary placement of signs or brush to impede passage. Users shall be encouraged to stay within marked trails by signs and comments in the literature.

Creation of a loop trail is preferred to a simple extension of an existing spur that will require that the user turn around at the end and retrace steps. However, in certain areas the additional habitat destruction involved with such a loop may not be a good choice.

Numerous areas along the trails are suitable for visual enjoyment and appreciation. These tend to be overlooks of water, bluffs or other extraordinary scenes, and demand attention by persons walking along the trail. Providing a suitable viewing area in some cases may also be destructive to the naturally occurring vegetation and habitat. Selected sites have been established for this purpose and shall be maintained in the existing configuration through selective trimming of the surrounding vegetation. An alternative to the cutting of brush is the creation of an elevated platform to allow viewing. Clearly, the benefit of preserving vegetation may be exceeded by the visual intrusion of a large structure, so the option must be decided on a case by case basis. Benches have been established at several of these sites for the convenience of the visitors and require periodic painting or other maintenance as well as mowing in the immediate vicinity of the structure.

Selected sites deep within the woods provide for contemplative solitude as well without a spectacular vista. Short exits off the trail to access these benches provide some insulation from the general traffic to allow peace and quiet.

The goal of providing full accessibility to all unimproved areas is beyond the scope of this plan. However, certain of the trails have been designed and implemented with handicapped accessibility as the focus. Trails that are flat, wide and smooth are found at Wiley Park where the ground contours are relatively shallow. Additionally, ADA compliant restrooms and picnic facilities are located adjacent to the parking area. The Eastham PACE accessibility plan adopted in 1996 identified fresh water fishing facilities, and fishing habitat enhancement as goals as well as investigating improved accessibility at salt water ramps such as Hemenway Landing, Collins Landing and Boat Meadow Creek.

Elevated walkways with appropriate slope considerations will be necessary in some areas to allow full accessibility to fishing areas without destroying bordering vegetated wetlands adjacent to the pond shore. Parking areas at all sites shall be made compliant with HP access standards and so posted

## ***Objective 2***

### ***Linkage and expansion***

Development of new trails to connect and link existing sites is important to the long range objective of allowing access through several of the open space lands. In the central part of town this was accomplished with the recent purchase of the Meservey property, connecting Nickerson and Cottontail Acres. In the South Eastham area, the Upper Boat Meadow (Aschettino) purchase connected with the SECA (Lamont-Smith) area as well as the bike trail and existing marsh conservation areas. New trails have been created in both parcels.

As additional parcels of land become available for purchase they shall be evaluated in the light of the Open Space Management Plan with an eye toward the existing trails and opportunities for passive recreation already provided. Identifying potential parcels for purchase and designing compatible trail systems will be important for the continued use of these habitats. New trail development shall to the greatest extent possible utilize preexisting roads or paths and shall be designed so as to minimize the destruction of natural features and provide enjoyment of a wide range of habitat types while avoiding sensitive areas. Similar balance between providing safe passage and creating a manicured landscape shall be the primary objective of the new trail areas.

The mapping of new trails shall be accomplished using GPS technology and GIS computer software will allow for planning the final layout

## ***Goal***

### **III. Render it Educational**

#### ***Objective 1***

##### ***Interpretation***

A pleasant experience visiting one of our open space lands can be enhanced greatly by the availability of information covering a wide range of topics. Simple additions such as identifying entry points, parking areas and trail maps will provide a sense of familiarity without an overbearing presence of regulation. Certainly, displaying rules and guidelines for helping protect the area are required as well. Finally, guides to the flora and fauna of the area are welcome additions for some visitors and provide a better understanding of the site as well as an appreciation for other outdoor experiences.

It is clear from the results of the survey that the majority of users of our open space lands are people who appreciate their neighborhood site rather than far flung travelers with a need for environmental education. To that end, the less habitat disruption with interpretive materials, the better. Focusing the information at a few sites will provide adequate coverage without creating sign pollution. The signs and interpretive materials at all of these have been improved but more work at some sites is needed. Several additional guideposts or directions are required and many more interpretive signs could be added.

Identification of Poison Ivy through signs and markers is an important aspect of both avoiding user encounters with the plant and encouraging users to remain on established trails rather than wandering and creating additional habitat degradation.

#### ***Objective 2***

##### ***Publication***

Finally, mapping of all of the actual trails with GPS is complete and the posting of these maps at the trailheads has provided a better guide for users. An inventory of existing habitats together with identifying rare or endangered species will be completed over time. Markers installed along the trail to help identify items discussed in the flyer will further guide the user. Those areas that are designated as rest stops would be appropriate sites for more detailed interpretive signs. Care shall be taken to preserve the inherent beauty of such rest areas and not obliterate the quality or tranquility of the rest spot with overbearing interpretive materials. An Open Space brochure is being developed that will be distributed to all Eastham It contains a brief description of the important characteristics of each parcel. Development of site specific brochures is a long term objective. It is best if such brochures are posted, rather than available loose, at each site to prevent a litter problem.

In the age of virtual information exchange it is only natural that the various trail maps, unique characteristics and graphic displays would be well suited to inclusion on the INTERNET web site that describes the various features of the town. It is one of the objectives of this plan to design such a web site and submit it for inclusion. Much of the work has been done to date.