

## Farm Pond Preserve

Oak Bluffs, MA


Land Management Plan
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## ALL MAPS FOLLOW THE TEXT AND APPENDICES

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## I. Introduction

Farm Pond Preserve is a 27.2 acre property located off of Beach Road and South Circuit Avenue in Oak Bluffs, Massachusetts. The land bank commission purchased 9.7 acres of the preserve in February 1988 for the sum of $\$ 10,000$ and 17.5 acres of conservation restriction for the sum of \$1,000 in March 1996.

The parcel lies on either side of Farm Pond, a thirty-one acre coastal pond on Oak Bluffs' eastern shore. It includes a small island in the pond, Woodie Island, and a strip of land that connects the pond with the new Oak Bluffs school. On the property are salt marshes, red cedar stands, open meadows, and pine woods. There are currently over 180 plant species recorded for the preserve. In the various habitats are found such things as royal fern, sea lavender, and butterflyweed. Of particular note is a second, small pond in the back meadows of an old Vineyard farm. Views from South Circuit Avenue and Beach Road include the quiet Farm Pond and its neighboring Nantucket Sound.

The land management plan below is split into three major sections. First is the natural resource inventory that details the information gathered about the property so far. This inventory has been thorough, but inventories are always ongoing. The second section is an analysis of the inventory. It explains the opportunities, problem areas, and constraints for management of the property. The final section is a proposal of strategies for dealing with these problems and opportunities The maps referred to in the text are included at the end of the document.

The land bank commission and the Oak Bluffs town advisory board determined the approach for inclusion in a final management plan. Their decisions followed a public hearing, a period for written public comment, the recommendations of the land management staff, the recommendations of the Oak Bluffs School, and their own discussions.

# II. Natural Resource Inventory 

A. Base Maps

## 1. Locus

Farm Pond Preserve is a 27.2 acre property located in Oak Bluffs, Massachusetts at $41^{\circ} 26^{\prime} 47^{\prime \prime}$ north latitude, $70^{\circ} 33^{\prime} 33^{\prime \prime}$ west longitude (USGS, 1979). This is east-central Oak Bluffs. The property has frontage on Beach Road, South Circuit Avenue, DeBettencourt Place, and Dukes County Avenue Extension. Locus Map I is a copy of part of the United States Geological Survey's Edgartown Quadrangle that has geographical data updated to 1979 (USGS, 1979). Locus Map IIA and IIB are a compiled copy of Oak Bluffs tax maps 17, 18, 19, and 20. Farm Pond Preserve is parcel 17-110.1 (17.5 acres of the 27.82 acre parcel) and parcel 18-33 (9.7 acres).

## 2. Property Base Map

The Base Map shows boundaries, roads and trails, near-by structures, and marsh. The map was drawn from registered surveys, aerial photographs, and field notes. For consistency and ease of comparison, natural resource inventory data will be presented on this map format whenever practical.

## 3. Survey Plan

A deed to the Martha's Vineyard Land Bank Commission registered at the Dukes County Registry of Deeds in book 515, page 716, describes 9.7 acres of the property. It is dated February 7, 1989. A conservation restriction over the remaining 17.5 acres is recorded in book 674, page 291. It is from the Town of Oak Bluffs to the Martha's Vineyard Land Bank Commission, and is dated March 5, 1996. A copy of the deed and the conservation restriction are included as Appendix A.

There is no recorded plan of the 9.7 acres of fee simple land on the east side of the pond. The 17.5 acres with a conservation restriction are shown as Lot 1 on a plan entitled "Plan of Land in Oak Bluffs, Mass., Prepared for Town of Oak Bluffs \& William H. Hart Realty Company, Inc." dated February 1, 1994, and recorded as Oak Bluffs Case File No. 303. The Survey Plan in this management plan is a copy of the aforementioned plan.

## B. Physical Characteristics

## 1. Geology and Land Form

The Geology Map is a copy of a map provided in the Soil Survey of Dukes County (SCS, 1985). It shows the property as located on what Clifford Kaye of the $U$. S. Geological Survey described as outwash atop Martha's Vineyard moraine (Oldale, 1992). This moraine and outwash is a sand-gravel mix of deposits left by the Wisconsinan ice sheet approximately 25,000 years ago (Pleistocene). When the ice sheet first pushed into the area, the moraine was created. As the ice retreated, outwash was deposited on top of the moraine by meltwater streams (Oldale, 1992).

Elevations at Farm Pond Preserve range from approximately sea level at the pond to fifteen feet above sea level at the far western edge of the property, near the Oak Bluffs School. The Topography Map shows the ten-foot contour line on the property. Contour data is from the USGS Map (USGS, 1979).

## 2. Soils

There are five soil types at Farm Pond Preserve as shown on the Soils Map. These are Pawcatuck mucky peats, Freetown muck, Klej loamy coarse sand, Pompton sandy loam, and Carver loamy coarse sand. In the wetland areas, organic deposits of plant materials in varying stages of decomposition accumulated after glaciation. The Pawcatuck soil developed in relatively recent (Holocene) tidal-marsh deposits, and the Freetown soil developed in similarly aged, freshwater deposits. The Klej, Pompton, and Carver soils all formed in material originally moved by the glacier that was subsequently sorted and shifted by meltwater streams. The Pompton and Klej are basically wet Carver soils. With the Klej, however, water stands at a lower depth than the Pompton during the wet season. The Carver soil is the predominant soil of the Martha's Vineyard moraine and covers most of the Oak Bluffs neck. (SCS, 1986).

None of these soils is considered prime farmland for the county. Nor are any particularly productive in terms of woodland management. The Klej has the highest site indices - trees grow faster quicker on them. A white oak will reach 70 feet in 50 years on Klej soils, but perhaps only 40 or 50 feet on Carver soils. Site indices for red maple are 55 for the Pompton and Klej soils, and 45 for the Freetown. The Pawcatuck soil is in salt marsh vegetation and will not typically support tree growth, but may be very productive. The soils with the most severe limitations to supporting paths and trails are the Pawcatuck and Freetown. The thick humus and ponding of water in these soils mean that they can only be used with special design, limited use, and or intensive
management. The Klej and Pompton soils have moderate limitations for paths and trails due to wetness, but these can be overcome by planning, design, or special maintenance. Carver soils can also have moderate limitations, but these are due to sandiness, not wetness.

## 3. Hydrology

There are five lobes of upland heading north or northeast along the eastern side of Oak Bluffs. Farm Pond Preserve falls in the lowland between the lobe that makes up Oak Bluffs center and the lobe that stretches out to Harthaven. The entire property drains into Farm Pond and is part of the Farm Pond watershed. Farm Pond is a thirtyone acre coastal plain pond open to the ocean by a culvert through the barrier beach at Beach Road. It is fed by subsurface groundwater flow and probably does not exceed six feet in depth (USGS, 1979). The Hydrology Map shows the approximate extent of wetland resource areas on the property. These include saltmarshes, bordering vegetated wetlands, and land subject to coastal flooding.

## C. Biological Characteristics

## 1. Vegetation

Land bank staff conducted a comprehensive inventory of the vegetation of Farm Pond Preserve in August, 1995. There are four vegetative communities at Farm Pond Preserve as shown on the Vegetation Communities Map. The four vegetation communities, in decreasing order of size, are: shrubland-grassland; high salt marsh; pitch pine-oak woodland; and shrub swamp. Additionally, much of the property is bordered by roads. Those plants which occur along roadsides are also included in the property vegetation list, under the vegetation type "disturbed roadside". This category is not large enough to represent a community in itself, but is presented so as to include the full diversity of plant species occurring on the preserve. Unique species are those that are found in only one vegetation community type, and are thus unique to that community on the preserve. Many salt-tolerant species are uniquely found in the salt marsh, and many invasive weeds are unique to roadsides. Species that are not unique are found in a broader range of habitats. Table 1 summarizes the extent of each type:

Table 1. Vegetation Communities at Farm Pond Preserve

| Vegetation Community | acreage | \% property | \# species | $\%$ unique <br> species |
| :--- | :---: | :---: | :---: | :---: |
| shrubland-grassland | 11.2 | $41 \%$ | 103 | $31 \%(32)$ |
| high salt marsh | 10.0 | $37 \%$ | 41 | $49 \%(20)$ |
| pitch pine-oak woodland | 3.7 | $14 \%$ | 50 | $14 \%(7)$ |
| shrub swamp | 2.3 | $8 \%$ | 65 | $42 \%(27)$ |
| "disturbed roadside" | na | na | 59 | $27 \%(16)$ |
| Total | 27.2 | $100 \%$ | 182 | $56 \%(102)$ |

## a. Shrubland-Grassland

The shrubland-grassland community covers 11.2 acres, or $41 \%$ of the property's total area, and occurs on Carver and Klej soils. There are a total of one hundred and three different species identified in this shrubland-grassland. This mosaic of shrubland and grassland has a dense cover of 3-4'-tall shrubs and scattered sapling trees, with open patches of grasses and herbs scattered throughout. Tree saplings as well as a tangle of vines increase in density adjacent to the woodland (west), while areas in closer proximity to the residential neighborhood have more introduced shrub and vine
species growing in a thick hedgerow (north). A thin line of pitch pine trees remains along the southern edge of this shrubland, just north of the neighboring freshwater shrub swamp. The most abundant shrubs and vines are virginia rose (Rosa virginiana), shining sumac (Rhus copallinum), and poison ivy (Toxicodendron radicans). Other common shrubs, vines and sapling trees are eastern red cedar (Juniperus virginiana), black cherry (Prunus serotina), highbush blueberry (Vaccinium corymbosum), japanese honeysuckle (Lonicera japonica), bayberry (Myrica pensylvanica), virginia creeper (Parthenocissus quinquefolia), oriental bittersweet (Celastrus orbiculatus), black oak (Quercus velutina), pasture rose (Rosa carolina), pitch pine (Pinus rigida), white oak (Q. alba), northern arrowwood (Viburnum recognitum), and common greenbrier (Smilax rotundifolia). Less common but present are red chokeberry (Aronia arbutifolia), japanese barberry (Berberis thunbergii), common blackberry (Rubus allegheniensis), red oak (Q. cf. rubra), multiflora rose (Rosa multiflora), southern arrowwood (V. dentatum), red maple (Acer rubrum), shadbush species (Amelanchier species), yamleaved clematis (Clematis terniflora), sweetfern (Comptonia peregrina), autumn olive (Elaeagnus umbellata), dangleberry (Gaylussacia frondosa), cinnamon fern (Osmunda cinnamomea), beach plum (Prunus maritima), bracken fern (Pteridium aquilinum), domestic apple (Pyrus malus), post oak (Q. stellata), staghorn sumac (Rhus typhina), beach rose (Rosa rugosa), bittersweet nightshade (Solanum dulcamara), and fox grape (Vitis labrusca).

The herbaceous and graminoid groundcover is dominated by sheep fescue (Festuca ovina), redtop (Agrostis gigantea), little bluestem (Schizachyrium scoparium), seaside goldenrod (Solidago sempervirens), lance-leaved goldenrod (Euthamia graminifolia), rough-stemmed goldenrod (Solidago rugosa), pennsylvania sedge (Carex pensylvanicum), american germander (Teucrium canadense), new york aster (Aster novi-belgii), prickly dewberry (Rubus flagellaris), velvetgrass (Holcus lanatus), field sorrel (Rumex acetosella), bristly dewberry (Rubus hispidus), butterflyweed (Asclepias tuberosa), bushy aster (Aster dumosus), wild lettuce (Lactuca canadensis), and field hawkweed (Hieracium caespitosum). Less common herbs present are slender-leaved goldenrod (Euthamia tenuifolia), pilewort (Erechtites hieracifolia), cow parsnip (Heracleum lanatum), flat-topped aster (Aster umbellatus), cat's ear (Hypochoeris radicata), striped wintergreen (Chimaphila maculata), hyssop-leaved boneset (Eupatorium hyssopifolium), butter-and-eggs (Linaria vulgaris), elliott's goldenrod (Solidago elliotti), yarrow (Achillea millefolium), common ragweed (Ambrosia artemisiffolia), pearly everlasting (Anaphalis margaritacea), pussytoes (Antennaria species), blunt-leaved milkweed (Asclepias amplexicaulis), common milkweed (Asclepias syriaca), stiff aster (Aster linariifolius), yellow wild indigo (Baptisia tinctoria), spotted knapweed (Centaurea maculosa), sickle-leaved golden aster (Chrysopsis falcata), chicory (Cichorium intybus), bull thistle (Cirsium vulgare), field bindweed (Convolvulus arvensis), wild carrot (Daucus carota), thoroughwort (Eupatorium perfoliatum), sweet everlasting (Gnaphalium obtusifolium), common St. Johnswort (Hypericum perforatum), a pinweed species (Lechea species), wild peppergrass
(Lepidium virginicum), whorled loosestrife (Lysimachia quadrifolia), indian pipe (Monotropa uniflora), english plantain (Plantago lanceolata), climbing false buckwheat (Polygonum scandens), sweet goldenrod (Solidago odora), and common mullein (Verbascum thapsus). Less common graminoids and groundcovers present are orchard grass (Dactylis glomerata), canada rush (Juncus canadensis), marsh straw sedge (Carex cf. hormathodes), poverty grass (Danthonia spicata), hairgrass (Deschampsia flexuosa), purple love grass (Eragrostis spectabilis), red fescue (Festuca rubra), forked rush (Juncus dichotomus), path rush (Juncus greenei), perrenial rye grass (Lolium perenne), deer-tongue grass (Panicum clandestinum), switchgrass (Panicum virgatum), haircap moss (Polytrichum juniperinum), and reindeer lichen (Cladonia species).

## b. High Salt Marsh

The high salt marsh vegetation community covers 10 acres, or $37 \%$ of the property's total area, and occurs on Pawcatuck and Carver soils. The high salt marsh vegetation community has a relatively low species diversity, with only forty one different species identified in this grass and herbland. Four species - salt meadow cordgrass (Spartina patens), spike grass (Distichlis spicata), common glasswort (Salicornia europea), and seaside goldenrod - constitute nearly all of the biomass in this community. Salt meadow cordgrass occurs on average in densities of twenty four hundred stems per square meter. Other common grasses and herbs that withstand a regular tidal cycle of saltwater inundation include saltwater cordgrass (Spartina alterniflora), black rush (Juncus gerardii), common three-square (Scirpus pungens), orach (Atriplex patula), and common reed (Phragmites australis). Less common but present are yarrow, large salt-marsh aster (Aster tenuifolius), sea rocket (Cakile edentula), marsh straw sedge, slender-leaved goldenrod, red fescue, marsh elder (Iva frutescens), sea lavender (Limonium carolinianum), curled dock (Rumex crispus), saltmarsh bulrush (Scirpus robustus), and salt-marsh sand-spurrey (Spergularia marina).

The border between the high salt marsh and upland vegetation is included in this community type. Although this area experiences less frequent inundation by salt water due to a slightly higher elevation, it is heavily influenced by salt spray and coastal storms which cause periodic die-back of shrubs. This is exemplified by dead bayberry (Myrica pensylvanica) shrubs on the upland edge of the marsh. The transition zone is presently dominated by virginia rose, poison ivy, sheep fescue, and groundsel tree (Baccharis halimifolia). Other less common plants are seabeach orach (Atriplex arenaria), prickly lettuce (Lactuca scariola), sweet gale (Myrica gale), pokeweed (Phytolacca americana), english plantain, common plantain, black bindweed (Polygonum convolvulus), beach plum, wild radish (Raphanus raphanistrum), pasture rose, beach rose, bittersweet nightshade, freshwater cordgrass, american germander, narrow-leaved cattail (Typha angustifolia), common cattail (Typha latifolia).

## c. Pitch Pine - Oak Woodland

The pitch pine-oak woodland community covers 3.7 acres, or $14 \%$ of the property's total area, and occurs on Carver soils. There are a total of fifty plant species identified in this woodland. The woodland's canopy is composed of 30 to 55 foot pitch pine, white oak, and black oak. This woodland's relative composition of pitch pine and oak trees varies within the stand. Along the western boundary of the property the woodland has an almost pure canopy of pitch pine, with oak seedlings scattered in the understory. The easternmost portion of the stand is almost entirely black and white oak, with isolated pines and eastern red cedars interspersed. The portion between these two extremes is composed of a mixture of pitch pine, black oak, and white oak, with most of the oaks ranging from saplings to mature trees. Sapling black cherry trees were found in the understory of every plot sampled in this community type, while poison ivy was present in over $90 \%$ of plots sampled. The understory is sparsely vegetated where the canopy is dominated by pines, and has a denser shrub and vine layer with an increase in oaks in the canopy. Common understory trees, shrubs and vines include eastern red cedar, shining sumac, common greenbrier, virginia creeper, northern arrowwood, swamp azalea, oriental bittersweet, and virginia rose. Less common but present are highbush blueberry, bayberry, pasture rose, southern arrowwood, a shadbush species, red chokeberry, japanese barberry, dangleberry, japanese honeysuckle, multiflora rose, willow, and lowbush blueberry (Vaccinium angustifolium).

The herbaceous and graminoid groundcover is generally sparse, with a denser covering under the pitch pine canopy (i.e. the shrub layer is thinner here). The groundcover is dominated by sheep fescue (Festuca ovina), striped wintergreen, pennsylvania sedge (Carex pensylvanica), little bluestem, redtop, and bristly dewberry (Rubus hispidus). Less common herbs present are field sorrel, butterflyweed, wild sarsaparilla (Aralia nudicaulis), wild yellow indigo, field hawkweed, rough hawkweed (Hieracium scabrum), cat's ear, pinesap (Monotropa hypopithys), prickly dewberry, sweet goldenrod, and starflower (Trientalis borealis). Less common graminoids and groundcovers present are poverty grass, marsh straw sedge, a reindeer moss lichen (Cladonia species), swan's sedge (Carex swani), orchard grass, velvetgrass, northern ground cedar (Lycopodium complanatum), and bracken fern (Pteridium aquilinum).

## d. Shrub Swamp

The shrub swamp community covers 2.3 acres, or $8 \%$ of the property's total area, and occurs on Freetown and Pompton soils. There are a total of sixty five different species identified in this shrub-dominated wetland. Although most of this vegetation community occurs to the south of the property, this preserve's northeastern portion, along South Circuit Avenue, contains a sizeable area of thick shrub swamp, with species not commonly found occurring in the Town of Oak Bluffs. The area is seasonally saturated, and grades from high salt marsh along the shores of Farm Pond itself into a freshwater shrub swamp as one moves away from the western shoreline. This wetland is dominated by a 6-10' shrub and vine canopy, but also hosts grass and
sedge dominated openings closer to the Farm Pond shore, as well as around the perimeter of the little pond located on the western end of the property. The most abundant shrubs and vines in this dense shrub swamp are highbush blueberry, southern arrowwood, swamp azalea (Rhododendron viscosum), poison ivy, black cherry saplings, and common greenbrier. Other common shrubs, vines, and sapling trees are maleberry (Lyonia ligustrina), japanese honeysuckle, virginia rose, shining sumac, virginia creeper, pasture rose, bayberry, red chokeberry, white oak, and common elder (Sambucus canadensis). Less common but present are red maple, japanese barberry, oriental bittersweet, winterberry (Ilex verticillata), morrow's honeysuckle (Lonicera morrowii), sweet gale, royal fern (Osmunda regalis), willow (Salix species), sassafras (Sassafras albidum), and northern arrowwood.

Where the shrub and vine canopy is dense, effectively shading out most sunlight, the herbaceous and graminoid groundcover is sparse. The dominant groundcover in shaded areas is bristly dewberry, cinnamon fern, and sensitive fern (Onoclea sensibilis). Where the shrub canopy is less dense and sunlight filters in, the groundcover is dominated by slender-leaved goldenrod, new york aster, roughstemmed goldenrod, marsh fern, wild geranium, pennsylvania sedge, spotted jewelweed (Impatiens capensis), flat-topped aster, and common cinquefoil (Potentilla simplex). Less common herbs are purple gerardia (Agalinis purpurea), groundnut (Apios americana), eastern joe-pye weed (Eupatorium dubium), elliott's goldenrod, and marsh St. Johnswort (Triadenum virginicum). Less common graminoids are soft rush (Juncus effusus) and switchgrass. Open grassy areas are composed primarily of slender-leaved goldenrod, poison ivy, purple leaved willow-herb (Epilobium cf. coloratum), grass (Agrostis species), curled dock (Rumex crispus), and steeplebush (Spiraea tomentosa). Less common but present are lance-leaved goldenrod (Euthamia graminifolia), yarrow, redtop, swamp milkweed (Asclepias incarnata), bushy aster, swamp beggar ticks (Bidens connata), sallow sedge (Carex lurida), straw-colored flatsedge (Cyperus strigosus), velvetgrass, northern bugleweed (Lycopus uniflorus), dotted smartweed (Polygonum punctatum), arrow-leaved tearthumb (Polygonum sagittatum), mock bishop-weed (Ptilimnium capillaceum), seaside goldenrod, freshwater cordgrass (Spartina pectinata), and red clover.

A full botanical list for the property, entitled "Flora of Farm Pond Preserve", is presented at the end of this section. It includes information on the abundance of all one hundred and eighty-one plant and one lichen species recorded on the property to date. Presentation is alphabetical by scientific name as in Gleason and Cronquist, 1991. With each scientific name is a frequently used common name, the morphological type, and the abundance in each vegetation community. The morphological types include: tree, shrub, vine, herb, graminoid, fern, clubmoss, moss, and lichen. Abundance is considered either "abundant" (relative frequency of occurrence $\geq 50 \%$ ), "common" (relative frequency of occurrence $\geq 10 \%$ and $<50 \%$ ), or "uncommon" (relative frequency of occurrence $<10 \%$ ). Plants not detected in the vegetation survey, but
observed at other times of the year are considered "uncommon" and are denoted with a " $\mathrm{U}^{*}$ ".

A taxonomic list is provided as Appendix $B$. This list allows for an examination of floral diversity at the family level. Of the one hundred and eighty-one species of plants from fifty-five families, the Division Bryophyta (mosses) is represented by one species in one family, the D. Lycopodiophyta (clubmosses) is represented by one species in one family, the D. Polypodiophyta (ferns) is represented by five species in four families, the Gymnosperms (conifers) are represented by two species in two families, and the Angiosperms (flowering plants) have one hundred and seventy-two species in fortyseven families. The families represented by the most species on the property are the aster family (Asteraceae), with thirty-six species, the grass family (Poaceae), with twenty-one species, the rose family (Rosaceae), with fourteen species, the smartweed family (Polygonaceae), with eight species, and the sedge family (Cyperaceae), with seven species. Eighty-six ( $48 \%$ ) of all the plants found to date on the preserve are represented by these five families. Additionally, twenty-six of the fifty-five families ( $47 \%$ ) are monotypic, or represented by a single species.
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## Flora of Farm Pond Preserve, Oak Bluffs, MA

|  | scientific name | commion name | morphology | shrubgrassland | munity <br> shrub <br> swamp | $\begin{aligned} & \text { type } \\ & \text { high } \\ & \text { saltmarsh } \\ & \hline \end{aligned}$ | pine-oak woodland | disturbed roadside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mosses and lichens |  |  |  |  |  |  |  |
| 1 | Cladonia species | reindeer lichen | lichen | $U^{*}$ |  |  | U |  |
| 2 | Polytrichum juniperinum | haircap moss | moss | U |  |  |  |  |
|  | Vascular Plants |  |  |  |  |  |  |  |
| 3 | Acer pseudo-platanus | sycamore maple | tree |  |  |  |  | C* |
| 4 | Acer rubrum | red maple | tree | $\mathrm{U}^{*}$ | $\mathrm{U}^{*}$ |  |  |  |
| 5 | Achillea millefolium | yarrow | herb | U* | $\mathrm{U}^{*}$ | $U^{*}$ |  | $A^{*}$ |
| 6 | Agalinis purpurea | purple gerardia | herb |  | $U^{*}$ |  |  |  |
| 7 | Agropyron repens | quackgrass | graminoid |  |  |  |  | U |
| 8 | Agrostis gigantea | redtop | graminoid | C | $\mathrm{U}^{*}$ |  | C | U |
| 9 | Agrostis species | panicgrass species | graminoid |  | A |  |  |  |
| 10 | Ambrosia artemisiifolia | common ragweed | herb | $U^{*}$ |  |  |  | C* |
| 11 | Amelanchier species | shadbush species | shrub | U* |  |  | $\mathrm{U}^{*}$ |  |
| 12 | Anaphalis margaritacea | pearly everlasting | herb | $\mathrm{U}^{*}$ |  |  |  |  |
| 13 | Anternaria species | pussytoes | herb | U* |  |  |  |  |
| 14 | Apios americana | groundnut | vine |  | U* |  |  |  |
| 15 | Aralia nudicaulis | wild sarsaparilla | herb |  |  |  | U* |  |
| 16 | Aronia arbutifolia | red chokeberry | shrub | U | C |  | U* |  |
| 17 | Artemisia stelleriana | dusty miller | herb |  |  |  |  | U* |
| 18 | Asclepias amplexicaulis | blunt-leaved milkweed | herb | U* |  |  |  |  |
| 19 | Asclepias incarnata | swamp milkweed | herb |  | $U^{*}$ |  |  |  |
| 20 | Asclepias syriaca | common milkweed | herb | U* |  |  |  |  |
| 21 | Asclepias tuberosa | butterflyweed | herb | C |  |  | U | $C^{*}$ |
| 22 | Aster cf. dumosus | bushy aster | herb | C | $\mathrm{U}^{*}$ |  |  |  |
| 23 | Aster linariifolius | stiff aster | herb | U* |  |  |  |  |
| 24 | Aster novi-belgii | new york aster | herb | C | C |  |  |  |
| 25 | Aster tenuifolius | large salt-marsh aster | herb |  |  | U* |  |  |
| 26 | Aster umbellatus | flat-topped aster | herb | U | C |  |  |  |
| 27 | Atriplex arenaria | seabeach orach | herb |  |  | U* |  |  |
| 28 | Atriplex patula | orach | herb |  |  | C |  |  |
| 29 | Baccharis halimifolia | groundsel tree | shrub |  |  | $\mathrm{U}^{*}$ |  |  |
| 30 | Baptisia tinctoria | yellow wild indigo | herb | $\mathrm{U}^{*}$ |  |  | $U^{*}$ |  |
| 31 | Berberis thunbergii | japanese barberry | shrub | U | U* |  | U* | U* |
| 32 | Bidens connata | swamp beggar ticks | herb |  | U* |  |  |  |
| 33 | Cakile edentula | sea rocket | herb |  |  | U* |  |  |
| 34 | Carex cf. hormathodes | marsh straw edge | graminoid | U* |  | $\mathrm{U}^{*}$ | U | U* |
| 35 | Carex lurida | sallow sedge | graminoid |  | U* |  |  |  |
| 36 | Carex pensylvanica | pennsylvania sedge | graminoid | C |  |  | C | C* |
| 37 | Carex swanii | swan's sedge | graminoid |  |  |  | U* |  |
| 38 | Celastrus orbiculatus | oriental bittersweet | vine | C | $\mathrm{U}^{*}$ |  | C | A |
| 39 | Centaurea maculosa | spotted knapweed | herb | U* |  |  |  | $\mathrm{C}^{*}$ |
| 40 | Chimaphila maculata | striped wintergreen | herb | U |  |  | A |  |
| 41 | Chrysopsis falcata | sickle-leaved golden aster | herb | U* |  |  |  |  |
| 42 | Cichorium intybus | chicory | herb | U* |  |  |  | $\mathrm{C}^{*}$ |
| 43 | Cirsium species | thistle species | herb | U* |  |  |  |  |
| 44 | Cirsium vulgare | bull thistle | herb | U* |  |  |  |  |
| 45 | Clematis terniflora | yam-leaved clematis | vine | $\mathrm{U}^{*}$ |  |  |  |  |
| 46 | Comptonia peregrina | sweetfern | shrub | U* |  |  |  |  |
| 47 | Convolvulus arvensis | field bindweed | vine | U* |  |  |  |  |
| 48 | Conyza canadensis | horseweed | herb |  |  |  |  | $C^{*}$ |
| 49 | Cornus cf. florida | flowering dogwood | shrub |  |  |  |  | U* |





Vegetation Inventories:
$1=1994$ MVLBC inventory of plant commuunities (WM)*
$2=$ spring/early summer 1995 MVLBC ongoing plant inventory (WM)
3=late summer/fall 1995 MVLBC vegetation survey (MD, WM)
*MD=Matthew Dix, WM=Wendy Malpass

## 2. Wildlife Habitat

## A. Wildlife of Upland Habitats

## 1. Shrubland-grassland

## a. Habitat Features

The shrubland-grassland is composed of shrub thickets with scattered trees and openings of grassy and herbaceous cover. The grasses, vines, low shrub thickets, and trees provide forage and cover for insects, reptiles, birds, and mammals; regenerating shrubs, vines, and sapling trees provide nesting and cover for ground-foraging reptiles, birds, and mammals; fruiting shrubs and vines provide forage for reptiles, birds, and mammals; shrubland-woodland ecotone on the edge of the pitch pine-oak woodland provides perching sites and cover for nesting and foraging amphibians, reptiles, birds and mammals.

## b. Invertebrates

Terrestrial invertebrates that have suitable habitat on the property include mites and ticks (Arachnida; Order Acarina); spiders (Arachnida; O. Araneida); and insects such as dragonflies and damselflies (O. Odonata); butterflies and moths and their caterpillar larvae (O. Lepidoptera); beetles (O. Coleoptera); grasshoppers and crickets (O. Orthoptera); ambush bugs (O. Hemiptera); antlions (O. Neuroptera); gnats, midges, mosquitoes and flies (O. Diptera); and wasps, ants, and bees (O. Hymenoptera) (Borror and White, 1970). Insects observed in the shrubland-grassland in June include adult dragonflies hawking insects over the shrubs. In August the larvae of a pandorus sphinx moth (Eumorpha pandorus) was observed feeding on the leaves of a virginia creeper vine. Additionally, common garden spiders (Argiope species) were seen in abundance on their webs in the shrubland-grassland in August, 1995. A few monarch butterflies were seen in migration in October. Little work has been done at this point in assessing the invertebrate fauna of Farm Pond Preserve. Much valuable knowledge about relationships between insects and their host plants, pollination biology, and dispersal could be gained from future investigations of the area. A list of the butterflies of Martha's Vineyard is available at this time from Felix Neck Wildlife Sanctuary, and would be a valuable starting point for butterfly observations.

## c. Amphibians

The shrubland-grassland with its grassy and herbaceous understory provides suitable habitat for nonbreeding eastern american toads (Bufo a. americanus), a species that uses a variety of terrestrial habitats, Fowler's toads (Bufo woodhousii fowleri), and eastern spadefoots (Scaphiopus h. holbrookii) (DeGraaf and Rudis, 1987). None of these species have been observed on the preserve to date. Survey
techniques that could be used to verify the presence of any amphibian species include visual sampling, the use of pit fall traps and straight-line drift fences (Heyer et al., 1994).

## d. Reptiles

The shrubland-grassland at Farm Pond provides suitable habitat for breeding common snapping turtle (Chelydra s. serpentina), spotted turtle (Clemmys guttata), and eastern box turtle (Terrapene c. carolina); breeding and nonbreeding northern redbelly snake (Storeria o. occipitomaculata), eastern garter snake (Thamnophis s. sittalis), northern black racer (Coluber c. constrictor), smooth green snake (Opheodrys v. vernalis), and eastern milk snake (Lampropeltis t. triangulum) (DeGraaf and Rudis, 1987; Klemens, 1993). None of these species have been observed on the preserve to date. Survey techniques that could be employed to verify the presence of these species include a visual encounter survey, although pit fall traps might also be employed (DeGraaf and Rudis, 1987).

## e. Birds

Surveys of birds were conducted on twenty-eight visits to the property from June 15, 1994, to May 25, 1995. These visits recorded the presence of both resident birds and occasional migrants during the breeding season ( 15 June - 20 July), fall migration (13 September - 26 October), winter (4 November - 16 March), and spring migration (21 March - 25 May). Birds were sampled from four locations as shown on the Avian Inventory Map.

Farm Pond Preserve supports a relatively large number of bird species, for its size. Fifty-eight bird species were detected in a year at Farm Pond Preserve (see Table 2). Table 2 summarizes the changes in the numbers of bird species observed, by season, for the three broad habitat categories present on the property. The numbers do not add up in this table because many birds were seen in more than one habitat type or in more than one season.

Table 2. Number of Bird Species at Farm Pond, By Season

| Season | Upland <br> Habitats | High Salt <br> Marsh | Farm <br> Pond | Total <br> Species |
| :--- | :---: | :---: | :---: | :---: |
| breeding | 26 | 22 | 5 | 35 |
| fall | 27 | 29 | 7 | 42 |
| winter | 19 | 14 | 9 | 30 |
| spring | 30 | 24 | 9 | 40 |
| Totals | 41 | 37 | 14 | 58 |

Forty-one species of birds were observed at two survey locations in upland habitats. This encompasses portions of the pitch pine-oak woodland, the shrublandgrassland, and shrub swamp. Table 3 lists all of the bird species detected in upland habitats of the property, their seasonal residency patterns and abundance within each season. It does not discriminate by habitat.

## Table 3. Seasonal Abundance of Birds in Upland Habitats, Farm Pond Preserve *

| Bird Species | Breeding Season | Fall <br> Migration | Winter | Spring Miaration |
| :---: | :---: | :---: | :---: | :---: |
| Winter Residents |  |  |  |  |
| yellow-rumped warbler |  | common | common | common |
| white-throated sparrow |  | uncommon | uncommon | uncommon |
| dark-eyed junco |  |  | uncommon |  |
| Spring/ Fall Migrants |  |  |  |  |
| house wren |  | uncommon |  |  |
| hermit thrush |  | uncommon |  |  |
| ovenbird |  |  |  | uncommon |
| chipping sparrow |  | uncommon |  |  |
| Year-round Residents |  |  |  |  |
| mallard |  |  |  | uncommon |
| herring gull |  |  | occasional | occasional |
| great black-backed gull | uncommon | uncommon |  | uncommon |
| northern bobwhite | uncommon | uncommon |  |  |
| mourning dove | common | occasional | uncommon | common |
| northern flicker | common | common | common | uncommon |
| hairy woodpecker |  | uncommon | uncommon |  |
| downy woodpecker |  | uncommon |  |  |
| blue jay | common | common | common | common |
| american crow | common | common | common | common |
| black-capped chickadee | common | common | common | common |
| white-breasted nuthatch |  | occasional |  | occasional |
| carolina wren | common | common | occasional | occasional |
| american robin | common | common | common | common |


| northern mockingbird cedar waxwing | occasional | occasional occasional | occasional occasional | common <br> uncommon |
| :---: | :---: | :---: | :---: | :---: |
| european starling | common | occasional | uncommon | uncommon |
| northern cardinal | common | common | common | common |
| rufous-sided towhee | common | uncommon |  | occasional |
| song sparrow | common |  |  | common |
| brown-headed cowbird |  |  |  | occasional |
| house finch | occasional | occasional | common | occasional |
| american goldfinch | common | common | common | common |
| house sparrow |  |  |  | uncommon |
| Summer Residents |  |  |  |  |
| chimney swift | uncommon |  |  |  |
| eastern kingbird | uncommon |  |  |  |
| great crested flycatcher | occasional |  |  | uncommon |
| tree swallow | uncommon |  |  |  |
| gray catbird | common | occasional |  | occasional |
| yellow warbler | uncommon |  |  | occasional |
| prairie warbler | uncommon |  |  |  |
| common yellowthroat | common |  |  | occasional |
| red-winged blackbird | common | uncommon | uncommon | common |
| common grackle | common | occasional |  | common |

* "common" birds were detected in $50 \%$ or more of the survey visits, "occasional" birds were detected in $20-49 \%$ of the survey visits), and "uncommon" birds were detected in fewer than $20 \%$ of the survey visits.

In addition to the bird species observed during the survey, a juvenile red-tailed hawk (Buteo jamaicensis) was repeatedly observed perching over and foraging in the shrubland east of Farm Pond, in August, 1995.

Accompanying this inventory are four maps that identify species of wildlife observed in each habitat during the four seasons of the year. The Wildlife in Summer Map shows the wildlife species commonly observed during summer months (mid-June to late July). The Wildlife In Fall Map lists the wildlife species commonly observed during fall months (mid-September through October), including species seen as fall migrants as well as summer residents that have not yet begun southerly migrations. The Wildlife in Winter Map shows the wildlife species commonly observed during winter months (November through mid-March). The Wildlife in Spring Map lists the wildlife species commonly observed during spring months (late March through May),
including species seen as spring migrants as well as summer residents that are just beginning to return to northern breeding grounds from southern wintering areas. Yearround residents are excluded from the migration maps so that the less frequently observed migrants are easier to distinguish.

The avian fauna at Farm Pond Preserve has species from twenty-four separate families. A complete checklist of birds is provided as Appendix C. The families with the most members are the Emberizidae (warblers and sparrows) with sixteen species, the Anatidae (swans, geese, and ducks) with seven species, and the Picidae (woodpeckers) with four species.

## f. Mammals

The shrubland-grassland provides suitable habitat for breeding, foraging, and wintering masked shrews (Sorex cinereus), northern short-tailed shrews (Blarina brevicauda), eastern cottontails (Sylvilagus floridanus), eastern chipmunks (Tamias striatus), white-footed mice (Peromyscus leucopus), meadow voles (Microtus pennsylvanicus), house mice (Mus musculus), meadow jumping mice (Zapus hudsonius), striped skunks (Mephitis mephitis), river otters (Lutra canadensis), and white-tailed deer (Odocoileus virginianus); and foraging keen's myotis (Myotis keeni), little brown myotis (Myotis lucifugus), red bats (Lasiurus borealis), hoary bats (Lasiurus cinereus), norway rats (Rattus norvegicus), and raccoons (Procyon lotor) (DeGraaf and Rudis, 1987). The proximity of this area to freshwater wetlands and the shoreline of Farm Pond provides suitable habitat for foraging and wintering muskrats (Ondatra zibethicus). Three mammals from this list have been observed here - the northern short-tailed shrew, eastern cottontail and white-tailed deer. A dead shrew was seen lying along the path through the shrubland in the late spring. Cottontail scat was ubiquitous in this habitat in August and September. The deer was observed along the properties' shrubby northern boundary. Additionally, neighboring properties are residential in character and domestic dogs and cats have been seen regularly on or near the property during site visits.

## 2. Pitch pine-oak woodland

## a. Habitat Features

The pitch pine-oak woodland is a mature softwood forest at its western end, grading into a younger hardwood forest at its eastern end. This woodland contains tall trees which provide nesting and roosting habitat; mast-bearing trees (white and black oaks) which provide fall forage; cavities in old and dead trees and in forest floor logs which provide nest sites and cover; and a cover of leaves, graminoids, herbs, and low shrubs on the forest floor that provide cover and forage.

## b. Invertebrates

Orders of terrestrial invertebrates that could be found in the pitch pine-oak woodland are outlined in section 1.b., above (i.e. invertebrates of the maritime shrubland-grassland). Lepidoptera typically found in pine and oak woodlands include such butterflies as the banded hairstreak (Satyrium calanus), whose larvae feed on oak, the striped hairstreak (Satyrium liparops), whose larvae feed on oaks and blueberries, juvenal's duskywing (Erynnis juvenalis), whose larvae feed on white oak, and the eastern pine elfin (Incisalia niphon), whose larvae feed on pitch pine and eastern red cedar. The imperial moth (Eacles imperialis), a species of special concern in Massachusetts due to declining populations and threats to its habitat, is a large yellow moth whose larvae prefer to feed on pines (Covell, 1984). None of these species are yet documented for the preserve.

## c. Amphibians

The pitch pine-oak woodland provides suitable habitat for breeding and wintering redback salamanders (Plethodon cinereus), wintering red spotted newts (Notophthalmus v. viridescens), eastern american toads, and northern spring peepers or "pinkletinks" (Pseudacris crucifer crucifer) (DeGraaf and Rudis, 1987). None of these species have been observed on the preserve to date.

## d. Reptiles

The pitch pine-oak woodland at Farm Pond provides suitable habitat for breeding and wintering eastern box turtle, breeding and nonbreeding northern redbelly snake, eastern garter snake, northern ringneck snake (Diadophis punctatus edwardsi), northern black racer, and eastern milk snake (DeGraaf and Rudis, 1987). None of these species have been observed on the preserve to date.

## e. Birds

Birds that are found in pitch pine-oak woodlands are included in the survey of birds of upland habitats (see Table 3). The two avian study points encompassed portions of the pitch pine-oak woodland, the maritime shrubland-grassland, and shrub swamp. However, a few species that occur in similar habitat at Trade Wind Fields Preserve, 1000 feet to the south, were not identified in the survey. These are the redbellied woodpecker, golden-crowned kinglet, and pine warbler. These three species could also occur in this woodland, although the habitat is smaller in area than the similar habitat at Trade Wind Fields Preserve. Additionally, red-breasted nuthatches occur in this habitat on Martha's Vineyard, but are described as unpredictable and erratic in distribution (Whiting and Pesch, 1983). They are especially abundant some years in fall migration, with a fair number remaining to overwinter in such years. One may observe this noisy nuthatch in this woodland habitat during such an "outbreak" year.

## f. Mammals

The pitch-pine oak woodland provides suitable habitat for breeding, foraging and wintering masked shrew, northern short-tailed shrew, eastern cottontail, gray squirrel (Sciurus carolinensis), white-footed mouse, woodland jumping mouse (Napaeozapus insignis), raccoon, striped skunk, and river otter; breeding, foraging, and roosting keen's myotis, little brown myotis, red bat, and hoary bat; breeding and foraging white-tailed deer, and foraging meadow vole and meadow jumping mouse (DeGraaf and Rudis, 1987). Signs of two species have been observed in this habitat to date. Fresh diggings are common in the loose soils of the path edge, which could be due to either gray squirrels or striped skunks (Stokes, 1986), and eastern cottontail scat was observed at the edge of the woodland in August. Further time spent observing mammalian activity, especially at dusk and dawn, would surely uncover many more residents of this habitat on the preserve.

## 3. Shrub swamp

## a. Habitat Features

The shrub swamp is a freshwater wetland dominated by shrubs from three to fifteen feet tall, and whose soils are seasonally saturated. This vegetated wetland's dense shrub and vine cover provides roosts, forage, and nesting habitat for amphibians, reptiles, birds, and mammals; herbaceous and grassy openings provide sunning for reptiles, and ample forage and cover for reptiles, birds and mammals. A small pond occurs at the edge of the shrub swamp, and has standing water throughout much of the year. An exception was in August, 1995, when a summer drought resulted in a brief drying of the pond.

## b. Invertebrates

Aquatic invertebrates that have suitable habitat in the small pond on the property as well as in the shrub swamp include mayflies (O. Ephemeroptera), dragonfly and damselfly nymphs (O. Odonata), stoneflies (O. Plecoptera), water striders (O. Hemiptera, F. Gerridae), alderflies (O. Neuroptera), and caddisflies (O. Trichoptera). Many of these insects rely upon clean, fresh water as feeding larvae, and are then associated with emergent wetland vegetation once they have metamorphosed into flying adults.

## c. Amphibians

The shrub swamp provides suitable habitat for breeding and nonbreeding redspotted newts, eastern american toads, northern spring peepers, and green frogs (Rana clamitans melanota), and for breeding eastern spadefoot toads. None of these species have been observed on the preserve to date.

## d. Reptiles

The shrub swamp and small pond provides suitable habitat for breeding spotted
turtles, northern black racers, and smooth green snakes; and breeding and nonbreeding northern redbelly snakes, and eastern ribbon snakes (Thamnophis s. sauritus), and nonbreeding eastern garter snakes. None of these species have been observed on the preserve to date.

## e. Birds

In addition to those species that were detected in surveys of the upland habitats on the preserve, the following species could possibly occur in the shrub swamp habitat in subsequent years, as suitable habitat is available: breeding black-crowned nightheron, american black duck, american woodcock, black-billed cuckoo, white-eyed vireo, blue-winged warbler, nashville warbler, chestnut-sided warbler, and swamp sparrow; summer foraging wood duck; wintering and foraging american bittern, great blue heron, green-backed heron, black-crowned night-heron, american black duck, northern harrier, rough-legged hawk, american kestrel, merlin, peregrine falcon, winter wren, hermit thrush, american tree sparrow, swamp sparrow, and common redpoll; and greenwinged teal, american black duck, american kestrel, merlin, alder flycatcher, yellowbellied flycatcher, chestnut-sided warbler, magnolia warbler, palm warbler, northern waterthrush, mourning warbler, wilson's warbler, canada warbler, and rusty blackbirds foraging on migration stopovers (DeGraaf and Rudis, 1987).

## f. Mammals

The shrub swamp and small pond provide suitable breeding, foraging, and wintering habitat for masked shrew, northern short-tailed shrew, eastern cottontail, white-footed mouse, meadow vole, muskrat, meadow jumping mouse, woodland jumping mouse (Napaeozapus insignis), raccoon, mink (Mustela vison), river otter, and white-tailed deer; breeding and foraging habitat for striped skunk; and foraging habitat for Keen's myotis, little brown myotis, red bat and hoary bat (DeGraaf and Rudis, 1987). None of these species have been observed on the preserve in this habitat to date.

## B. Wildlife of Coastal Wetland Habitats

## 1. High salt marsh

## a. Habitat Features

The high salt marsh is composed of water and salt-tolerant grasses growing on a layer of marsh peat, which is formed by the deposition of sediments and the accumulation of dead and decaying marsh grasses. Patches of shrubs are found on slightly elevated islands in the marsh, and rim the drier, upland edge of the marsh. The grassy marsh provides forage and cover for insects, reptiles, birds, and mammals; the moist, muddy peat substrate provides nesting and burrowing sites for aquatic invertebrates, insects, fish, spiders, reptiles, and mammals; the low shrubs provide forage and cover for insects, reptiles, birds, and mammals; and the scattered stunted
trees (red cedars and pines) provide perches and cover for predatory birds.

## b. Invertebrates

The moist, muddy peat substrate provides a suitable burrowing substrate for aquatic invertebrates in Farm Pond such as sand shrimp (Crangon septemspinosa), shore shrimps (Palaemonetes species), green crabs (Carcinus maenus), blue crabs (Callinectes sapidus), and juvenile american lobsters (Homarus americanus) (Gosner, 1978). Of these, only sand shrimp have been observed to date. Further investigation through seining or snorkeling would surely uncover more species of interest.

Adult dragonflies and damselflies are abundant around the margins of Farm Pond, as well as over the pond itself. Although odonates rely upon fresh water as feeding larvae, they are associated with many types of aquatic vegetation once they have emerged from the water and have metamorphosed into flying adults. Odonates can be very specific about habitat associations with sedges, rushes, and grasses, using them as landing platforms during courtship and foraging (Miliotis, 1995). The common buckeye (Junonia coenia) was seen over the marsh in mid-April. This butterfly will hibernate over winter as an adult, but the ones that do not survive the winter are replaced each year by spring migrants moving up the coast (Klots, 1979). This butterfly feeds on the plantains, butter-and-eggs, and gerardias found on the property. Surveys of insects occurring on the property could be performed using techniques such as light and pit trapping, or simple feeding (i.e., larval-host plant associations) and flight observations.

## c. Amphibians

Although the high salt marsh at Farm Pond is inhospitable to amphibians that require a source of freshwater to breed and grow from egg to larvae to juvenile to adult, it is possible that species breeding elsewhere could migrate and occur here as adults. The grassy marsh and shrubland behind it provides suitable habitat for nonbreeding eastern american toads (DeGraaf and Rudis, 1987). None of these species have been observed on the preserve to date. Spring peepers are heard every March in the small marsh across South Circuit Avenue from the salt marsh, but never on the preserve.

## d. Reptiles

The high salt marsh provides suitable habitat for breeding common snapping turtles and spotted turtles, and for breeding and nonbreeding northern black racers, eastern milk snakes, smooth green snakes, and eastern garter snakes. None of these species have been observed on the preserve to date.

## e. Birds

Thirty-seven species of birds were observed at a survey location in the high salt marsh bordering Farm Pond. Table 4 lists all of the bird species detected in the salt marsh habitat, their seasonal residency patterns and abundance within each season.

## Table 4. Seasonal Abundance of Birds in High Salt Marsh, Farm Pond Preserve *

| Bird Species | Breeding Season | Fall <br> Migration | Winter | Spring Migration |
| :---: | :---: | :---: | :---: | :---: |
| Winter Residents |  |  |  |  |
| yellow-rumped warbler |  | occasional |  |  |
| white-throated sparrow |  | uncommon | uncommon |  |
| Spring/Fall Migrants |  |  |  |  |
| broad-winged hawk |  | uncommon |  |  |
| eastern kingbird |  | uncommon |  |  |
| house wren |  | uncommon |  |  |
| black-throated blue warbler |  | uncommon |  |  |
| pine warbler |  | uncommon |  |  |
| Year-round Residents |  |  |  |  |
| canada goose |  |  |  | uncommon |
| herring gull | occasional | uncommon | uncommon | uncommon |
| great black-backed gull |  | uncommon |  | uncommon |
| northern harrier |  | uncommon |  |  |
| mourning dove | occasional | occasional | uncommon | occasional |
| red-bellied woodpecker |  | uncommon |  |  |
| northern flicker |  | uncommon |  | uncommon |
| blue jay | uncommon | common | common | common |
| american crow | occasional | common | common | common |
| black-capped chickadee |  | occasional | common | occasional |
| white-breasted nuthatch |  |  | uncommon |  |
| carolina wren | common | common | uncommon | occasional |
| american robin | common | occasional |  | common |
| northern mockingbird | uncommon | occasional | common |  |
| cedar waxwing |  | occasional |  |  |
| european starling | common | occasional |  | uncommon |
| northern cardinal | uncommon | uncommon | occasional | common |
| rufous-sided towhee | uncommon | uncomimon |  | uncommon |
| song sparrow | common | uncommon | uncommon | common |
| house finch | uncommon | uncommon | occasional | occasional |


|  | common | common | uncommon |
| :--- | :---: | :---: | :---: |
| american goldfinch | common |  | common |
| house sparrow |  |  | occasional |
| Summer Residents | uncommon |  |  |
| great crested flycatcher | common |  | uncommon |
| tree swallow | common |  | uncommon |
| barn swallow | common | occasional | occasional |
| gray catbird | occasional |  | occasional |
| yellow warbler | common |  | occiasional |
| common yellowthroat | common |  | common |
| red-winged blackbird | common | occasional | uncommon |
| common grackle |  |  |  |

* "common" birds were detected in $50 \%$ or more of the survey visits, "occasional" birds were detected in $20-49 \%$ of the survey visits), and "uncommon" birds were detected in fewer than $20 \%$ of the survey visits.

In addition to the bird species observed during the survey, a green-backed heron (Butorides striatus) was observed feeding on fish in the high salt marsh bordering Farm Pond, in August, 1995.

## f. Mammals

The high salt marsh provides suitable habitat for masked shrews, northern shorttailed shrews, foraging little brown myotis, foraging red bats, eastern cottontail, whitefooted mice, meadow voles, muskrats, norway rats, meadow jumping mice, raccoons, striped skunks, river otters, white-tailed deer, and the domestic cat (Felis catus) (DeGraaf and Rudis, 1987). Signs of eastern cottontails (scat) were abundant in this habitat, and a domestic cat is regularly seen hunting in the salt marsh/maritime shrubland border along the eastern edge of Farm Pond.

## 2. Farm Pond

## a. Habitat Features

Farm Pond is a shallow, brackish, coastal pond. Two openings connect the pond to Nantucket Sound, from which saltwater enters with each tidal cycle. The pond is rimmed by a salt marsh that is very narrow in places. A small tidal creek channel enters from the west. Much of this pond's shoreline is closely bordered by roads and residential neighborhoods. The pond contains an island - Woodie Island - that is a wooded upland, with a salt marsh border.

## b. Invertebrates

Although no comprehensive survey of invertebrates has been performed on the property, marine invertebrates observed along the banks of the Farm Pond shoreline
include the ribbed mussel (Gaukensia demissus), bay scallop (Aequipecten irradians), and carapaces of the blue crab, horseshoe crab (Limulus polyphemus) and common spider crab (Libinia emarginata) (Gosner, 1978). A further survey of the marine invertebrates found in the salt marsh peat and subtidally in the shallow waters and sediments of Farm Pond could be conducted by seining, wading and snorkeling techniques.

## c. Fish

Marine fishes observed at the edge of the high salt marsh along the Farm Pond shoreline include the mummichog (Fundulus heteroclitus) and atlantic silverside (Menidia menidia). Fishes that occur in this region in salt marshes and brackish waters include the threespine stickleback (Gasterosteus aculeatus), american eel (Anguilla rostrata), white perch (Morone americanus), sheepshead minnow (Cyprinodon variegatus), northern puffer (Sphoeroides maculatus), and northern pipefish (Syngnathus fuscus). Fishes which inhabit shallow inshore waters and are likely to enter Farm Pond include striped bass (Morone saxatilis), bluefish (Pomatomus saltatrix), alewife (Alosa pseudoharengus), blueback herring (Alosa aestivalis), atlantic menhaden (Brevoortia tyrannus), atlantic tomcod (Microgadus tomcod), grubby (Myoxocephalus aeneus), shorthorn sculpin (Myoxocephalus scorpius), juvenile winter flounder (Pseudopleuronectes americanus), and oyster toadfish (Opsanus tau) (Robins and Ray, 1986). A further survey of the fishes found in the high salt marsh and adjacent shallow waters of Farm Pond could be conducted using seines and snorkeling observations.

## d. Reptiles

The waters of Farm Pond provide suitable habitat for only two reptile species the common snapping turtle and eastern painted turtle. Neither of these species is encountered regularly in this habitat (DeGraaf and Rudis, 1987), and neither have been seen to date on this preserve.

## e. Birds

Fourteen species of birds were observed from a survey location overlooking the waters of Farm Pond. Table 5 lists all of the bird species detected in the coastal pond, their seasonal residency patterns and abundance within each season.

Table 5. Seasonal Abundance of Birds on Farm Pond, Farm Pond Preserve *

| Farm Pond Preserve Manageme 29 October 1996 |  |  |  | page 27 |
| :---: | :---: | :---: | :---: | :---: |
| Bird Species | Breeding <br> Season | Fall Migration | Winter | Spring Migration |
| Winter Residents <br> hooded merganser <br> red-breasted merganser <br> bufflehead |  |  | occasional occasional common | common occasional |
| Spring/Fall Migrants <br> pied-billed grebe <br> sandpiper | uncommon | occasional |  |  |
| Year-round Residents great blue heron |  |  | uncommon |  |
| mute swan | occasional | common | common | common |
| mallard | uncommon | uncommon | occasional | occasional |
| american black duck |  | occasional | common | occasional |
| herring gull |  |  | uncommon | common |
| great black-backed gull |  |  |  | uncommon |
| american crow |  | uncommon | occasional | uncommon |
| Summer Residents double-crested cormorant green-backed heron | uncommon uncommon | occasional uncommon |  | occasional |

* "common" birds were detected in $50 \%$ or more of the survey visits, "occasional" birds were detected in $20-49 \%$ of the survey visits), and "uncommon" birds were detected in fewer than $20 \%$ of the survey visits.

Although mute swans were encountered only occasionally on Farm Pond in the summer of 1994, four adults and one juvenile swan were regularly observed feeding in Farm Pond in August, 1995, and their scat was present in the high marsh along the eastern banks of Farm Pond.

## 3. Rare or Endangered Species

Although general plant and wildlife inventory data are addressed above in this plan, a separate section on rare and endangered species is warranted. Focus on rare and endangered species is important as a meter for the most sensitive qualities of the land's ecological communities as well as as a description that helps encompass the full range of biological diversity.

According to the commonwealth's Natural Heritage and Endangered Species Program, Farm Pond is not presently recognized as a "priority habitat of state-listed rare species." The Rare Species Map shows the property in relationship to other near-by, priority habitats. Farm Pond Preserve and adjacent Farm Pond do have the potential to be used by state-listed, rare species as foraging habitat during the breeding season. They also have the potential to host breeding, state-listed, rare species or to act as a post-breeding dispersal area.

The following state-listed rare species are documented for the town of Oak Bluffs in similar habitats as those at Farm Pond Preserve:


The plants listed above, $\square$ are present nearby in the dry, open grasslands of the Trade Wind Fields Preserve, but are not found on this property due to a lack of suitable habitat. $\square$ is reported to be intolerant of shade and moisture (MA NHESP, 1985), and is found in grassy openings in pine barrens. The pitch pine-oak woodland on this preserve has a continuous canopy, with openings restricted to trailside areas. Similarly, the maritime shrubland-grassland has only a few small (<100 square feet) sandy openings not shaded by taller herbs or shrubs, and no plants of either of these two species have been observed in these areas. None of the plants identified on the preserve to date are state-listed species.

The invertebrates listed above have not been observed to date on the property. Suitable habitat for is present in the pitch pine-oak woodland on the preserve (Covell, 1984), although no individuals have been observed here to date. The is found in open, sandy areas or grass-free areas at Katama Plains, Edgartown (Braker, 1987), and is described as a sandplain grassland species that was found in open, nonvegetated areas such as the sandy ecotonal edges of the pine forests at Trade Wind Fields, Oak Bluffs (BEC, 1988). As described above, suitable habitat for this ground beetle is only available in a few small, sandy openings at Farm Pond Preserve. Additionally, the $\square$ is described as living in association with bearberry (Arctostaphyllos uva-ursi), with which it is highly cryptic (BEC, 1988). This plant does not occur on the Farm Pond Preserve.

Although have not been observed foraging at Farm Pond to date, suitable foraging habitat is present in the pond and its tidal inlets (MA NHESP, 1988). A small colony is located about a half mile south, on Joseph A. Sylvia State Beach, Oak Bluffs. Individuals of this species have been observed foraging along the nearby beach on Nantucket Sound, just across the road to the east of Farm Pond. Breeding adults as well as post-breeding dispersal of juvenile and breeding birds may use this habitat for foraging in the late summer, but have not been observed doing so to date.


#### Abstract

have not been observed on the property. Suitable breeding and foraging habitat exists on the property and on neighboring wetlands to the south of the property, including brushy fields, thickets, and tidal brackish marsh (MA NHESP, 1994). It is unlikely that these turtles are found at Farm Pond due to the residential nature of the surrounding neighborhood. Additionally, land bank staff has never observed this species in coastal areas on the island.


The a threatened species in Massachusetts, was observed at Farm Pond, but is not on record for Oak Bluffs. One adult was seen on Farm Pond on two dates in the fall of 1994 (October 12 and 21). This was most likely an individual observed on a stopover during its migration to more southerly wintering areas. Although suitable nesting habitat exists for this species in Farm Pond's surrounding salt marsh (MA NHESP, 1990a), the residential nature of the area would preclude this opportunity. This species does not have a history of nesting on Martha's Vineyard (Whiting and Pesch, 1983), but finds suitable migratory and winter foraging habitat, as well as cover, in the marsh, tidal creeks, and waters of Farm Pond.


#### Abstract

The a threatened species in Massachusetts, was observed at Farm Pond, but is not on record for Oak Bluffs. An immature was seen once in the fall of 1994 (Sept. 30), hunting over the high salt marsh on the southern side of Farm Pond. This may have been a first year bird dispersing from a nearby nesting site on the island, or a bird that had migrated to this coastal area for the winter from elsewhere in New England (DeGraaf and Rudis, 1987). Nesting habitat exists in the high salt marsh and freshwater wetlands just south of the Preserve (MA NHESP, 1990b), but is unlikely due to the residential character of the area, the abundance of predators (feral cats and dogs), and the frequent noise from automobile and recreational traffic on the adjacent road and bikepath. These factors combined would most likely detract from the suitability of this habitat for nesting harriers.


## D. Cultural Characteristics

## 1. Land History

During the mid-seventeenth century, the area that is now Farm Pond Preserve was under the jurisdiction of Wampamag a.k.a. Wabamuck a.k.a. Samuel, son of Autumsquum (Banks, 1966). This Wampanoag man was sachem of Sanchacantacket which included all of the land in Akeshkeppe neck (now Oak Bluffs - the land between Lagoon Pond and Sengekontacket).

Thomas Mayhew purchased the right to settle Martha's Vineyard in 1641. It was only a year later in 1642 that Mayhew granted his Watertown neighbor John Daggett the permission to choose a 500 acre farm in Edgartown (Deeds, 1/189). Daggett chose an area just south of the present downtown Oak Bluffs. It included all of what is now Farm Pond Preserve. Under colonial law, Daggett had to purchase the land from a Wampanoag sachem, and this was done in 1660 (Deeds, $2 / 253$ ). Unfortunately the purchase was made in the wrong area according to the Mayhews, and Daggett was fined five thousand pounds for the mistake (Banks, 1966). A great controversey ensued, but Daggett was considered to own the land at his death in 1673.

The dispersal of the estate left the farm in three equal shares to sons John, Thomas, and Joseph (Banks, 1966). Joseph, the youngest, married a Wampanoag woman and settled in the area to the south of Farm Pond. Thomas was granted the middle part of the farm including all of the land that is now Farm Pond Preserve. The deed mentions a "fresh meadoe" which appears to be off present-day South Circuit Ave. at the west end of the pond (Deeds, 1/115). Thomas sold his share in 1677 to brother John, Jr. who had re-settled to Rehoboth (Deeds, 1/323). John acquired a confirmation of the original sale to his father again from Wampamag, in 1686 (Deeds 1/289). He sold his entire holdings of 330 acres six years later in 1692 to a man from Braintree named James Allen (Deeds, 1/151).

James Allen became a man of some influence in both Tisbury and Chilmark (Banks, 1966). He was an early land speculator who owned large parcels both on and off the island, and never settled in the Farm Pond area. He sold the Daggett land to his son Ebenezer Allen in 1703 who proceeded to sell it to John Butler, Jr. a Tisbury farmer, in 1727 (Deeds, 2/40, 4/330).

Butler owned the land for six years before selling it to his brother Simeon Butler for the purposes of establishing a tannery on the shores of Farm Pond (Deeds, 5/351). A tan barn is mentioned in later deeds as located immediatly to the south of Farm Pond just off-site of what is now Farm Pond Preserve. Simeon Butler was known as a tanner,
and presumably operated his tannery from around 1733 to 1750 when he sold it to his sons Ebenezer and Thomas (Deeds, 8/263,167). Ebenezer was "judged incapable of conducting his affairs" in 1758, so the property was consolidated in Thomas' hands (Probate, I/377). Thomas owned the tannery and the surrounding land until his death in 1780. The land was dispersed to Thomas' sons Levi and William Butler (Probate, 6/244). William was a farmer at Farm Neck and was also described as a gentleman. In addition to the land around Farm Pond, he owned the Camp Meeting Grounds in the early nineteenth century (Banks, 1966). William's brother Levi moved to a place called Sandy River in Lincoln County, Massachusetts and sold his rights to William in 1795 including his "priveledge at the Tan Barn" (Deeds, 13/449). It was with William Butler that the present Farm Pond Preserve land was split into two ownerships. The Farm Pond east section is the salt marsh area along Beach Road, and the Farm Pond west section is the portion west of the pond.

The west part of the property was sold by William Butler to Nickerson Chase in 1810 as part of a 115 acre transfer including a dwelling house and a barn (Deeds, 17/450). Chase was an Edgartown mariner who may have purchased the Butler land as an investment. He sold it four years later to a local farmer named Bays Norton (Deeds, 18/288). Norton was a close contemporary of the Butler brothers. He married the daughter of a farmer who worked land at the head of the Lagoon, settled down on the area near Farm Pond, and had three daughters and a son (Banks, 1966). The son, Shubael, inherited the farm in 1818 when Bays Norton died.

Shubael Norton was a mariner who had large landholdings in Edgartown. The 1850 census puts him with 222 acres of improved land and 65 acres of unimproved (Pease, 1850). He had a young farmer living with the family to help with the good size herd and flock. With eight cattle, two cows, and four oxen, Norton's herd was of medium to large size for Edgartown in 1850. His flock of 60 sheep was in the same category. The farm produced rye, corn, potatoes, hay, meat, and wool. Norton died in 1851 and the farm went to his twelve year old son Henry. The name H. B. Norton appears on an 1858 map of the area (Walling, 1858). This map places the farmhouse approximately 1200 feet south of the present Farm Pond Preserve. A second map of 1876 locates the house very close to if not on the western end of the property, near the small pond (DCHS, 1876).

Henry Norton died sometime after 1858 and the land went to his son Shubael L. Norton. This Shubael was one of the founders of the Dukes County Savings Bank (Banks, 1966). He appears to have been involved in numerous land deals throughout his life, and was more a businessman than farmer. In 1889, he sold the land that is now Farm Pond west to Manuel Debettencourt who was from the Island of Graciosa in the Azores (Deeds, 81/111). Debettencourt farmed the area for many years. He sold the farm in 1926 to the William H. Hart Realty Company of Kensington, Connecticut
(Deeds, 166/508).
The land that is now the preserve continued to be farmed up until at least 1938. A 1938 aerial photograph shows the property to be completely open from the present site of the Oak Bluffs School all the way down to Farm Pond. Most of the land appears to have been cultivated for hay crops, although some may have been pasture (DCHS, 1938). The small pond at the west end of the preserve stands out clearly, as does a ditch that runs from the pond eastward. No sign of the Norton settlement is evident, and all of the farming appears to be based at a house north of the present preserve on Dukes County Avenue Extension.

The Hart Realty Company sold the parcel to the Town of Oak Bluffs in 1994 (Deeds, 629/320). Part of the land was used for the Oak Bluffs School, and the rest was placed under permanent conservation protection with the land bank.

The Farm Pond east portion of the preserve had a somewhat different history. It somehow went from William Butler to Benjamin Davis, Sr. in the early 1800s. The Davis family owned land south of Farm Pond and was connected closely to the Butlers. Benjamin's father Malatiah Davis first came to Edgartown from Falmouth in 1740 to work in Thomas Butler's tannery (Banks, 1966). In an 1825 transaction between Benjamin Davis and his son Benjamin, Jr. there was reserved "to William Butler of said Edgartown the privelege of occupying six rods of said piece or tract of land for the purpose of tanning leather" (Deeds, 22/318). This was land along the south shore of Farm Pond. The suggestion is that Butler was still tanning leather or intending to as late as 1825.

In 1838, Benjamin Davis died and left the Farm Pond east part of the preserve to his son Benjamin, Jr. (Probate, I/845). Benjamin Davis, Jr. was born in 1805 and lived until 1869. He was considered an Edgartown gentleman. His son Henry Hunt Davis became the town clerk in Oak Bluffs for many years, and his daughter Phebe Ann married Shubael L. Norton, previously mentioned (Banks, 1966). After Davis died in 1869, the trustees of his estate gradually sold off his holdings. These included a "Broad Meadow," "Gateway Meadow," and "Beach Meadow" (Probate, I/1467).

It is in this era that evidence of a second industry at Farm Pond appears. Some of the land surrounding the pond went to Charles Hamblin, an ice man. Hamblin's main operation was at Crystal Lake, but he appears to have also cut ice on Farm Pond. He died in 1891 and left his son John six hundred dollars worth of ice, two horses, three ice wagons, ice tools, an ice house, and ice rights at Farm Pond (Probate, D1/552).

The various parts of the meadow on the east side of Farm Pond eventually were sold to the Hart family of New Britain, Connecticut during the 1910s and 20s (Deeds,

130/528, 148/572, 155/504). The Harts owned this land until 1989 when they sold it to the land bank (Deeds, 515/716).

## 2. Areas of Planning Concern or Jurisdiction

Portions of the property are subject to the Massachusetts Wetlands Protection Act (MGL 131, 40) because of their status as wetland resource areas. These areas are shown on the Hydrology Map, but have not been officially delineated. The Oak Bluffs conservation commission and the Department of Environmental Protection will evaluate any management activities that would remove, fill, dredge, or alter a wetland resource.

The property is subject to a decision of the Martha's Vineyard Commission dated February 28, 1991. This decision relates to a development of regional impact (division of land) proposed by the Hart Realty Trust.

## 3. Property Lines and Abutters

There are thirty-eight lots that directly abut Farm Pond Preserve. These lots are shown on the Abutters Map. Below is a list of these abutters as supplied by the Town of Oak Bluffs tax assessors:

| Map 17, Lot 110; <br> Map 18, Lots 23, 38 | William H. Hart Realty Co. 52 Chamberlain Highway Kensington, CT 06037 |
| :---: | :---: |
| Map 17, Lot 109.2 | Manuel \& Claudia DeBettencourt P.O. Box 817 <br> Oak Bluffs, MA 02557 |
| Map 17, Lot 109 | Maria \& Michael Bettencourt Teaberry Ln. <br> Edgartown, MA 02539 |
| Map 17, Lot 60 | Gloria G. DeBettencourt P.O. Box 605 Oak Bluffs, MA 02557 |
| Map 17, Lot 59 | Gloria Ann DeBettencourt P.O. Box 3022 Oak Bluffs, MA 02557 |
| Map 17, Lot 58 | Nelson J. DeBettencourt, Jr. P.O. Box 863 Oak Bluffs, MA 02557 |


| Map 17, Lot 57 | Richard \& Brenda Macedo 4 Barbara ct. <br> N. Dartmouth, MA 02747 |
| :---: | :---: |
| Map 17, Lot 56 | Albert \& Yvonne Maule 7 Mark Ln. <br> Rocky HIII, CT 06067 |
| Map 17, Lot 55 | Della Hardman <br> P.O. Box 2035 <br> Oak Bluffs, MA 02557 |
| Map 17, Lot 54 | Susan Klein. <br> P.O. Box 214 <br> Oak Bluffs, MA 02557 |
| Map 17, Lots 50-53 | Joseph Leonardo, Jr. P.O. Box 81 Oak Bluffs, MA 02557 |
| Map 17, Lot 49 | Francis G. DeBettencourt 9600 Page Ave. <br> Bethesda, MD 20814 |
| Map 17, Lot 48 | Owner Unknown |
| Map 17, Lot 39 | Diran, Vahan, \& Ara Barnakian 3 Myopia Rd. <br> Winchester, MA 01890 |
| Map 17, Lot 47 | Lloyd \& Mary Niederlitz 425 Baycrest Dr. Venice, FL 33595 |
| Map 18, Lot 14 | Orris \& Alfhild Noyes P.O. Box 708 Oak Bluffs, MA 02557 |
| Map 18, Lot 15 | Jamie Kageleiry \& Craig MacCormack P.O. Box 2414 Oak Bluffs, MA 02557 |
| Map 18, Lot 16 | Alison Shaw <br> P.O. Box 1214 <br> Edgartown, MA 02539 |
| Map 18, Lot 16.2 | Barbara Whitmore <br> P.O. Box 409 <br> Oak Bluffs, MA 02557 |
| Map 18, Lot 8 | Faith N. Dale |


|  | 2362 Adam C. Powell Rd. New York, NY 10030 |
| :---: | :---: |
| Map 18, Lot 7 | Roland \& Janice Aubut P.O. Box 189 Oak Bluffs, MA 02557 |
| Map 18, Lot 6 | Dr. Palmer L. Hamilton 526 Central Avenue Massapequa, NY 11758 |
| Map 18, Lot 17 | Christine Wilson \& Dorcas Brown P.O. Box 187 <br> Burns, KS 66840 |
| Map 18, Lot 32 | Town of Oak Bluffs P.O. Box 1327 Oak Bluffs, MA 02557 |
| Map 18, Lot 37 | Department of Conservation Commonwealth of Massachusetts Hart Haven Oak Bluffs, MA 02557 |
| Map 18, Lot 35; Map 19, Lot 3 | Barbara H. Roberts 1088 Old Northfield Rd. Thomaston, CT 06787 |
| Map 18, Lot 34 | Maxwell Moore <br> CNB-MISN 242 <br> 777 Main St. <br> Hartford, CT 06115 |
| Map 19, Lot 2 | Jerrems Hart \& Virginia Low 11 Crescent Ave. Peaks Island, ME 04108 |
| Map 19, Lot 4 | Mahomey Associates Trust <br> c/o Stan Hart <br> P.O. Box 171 <br> West Tisbury, MA 02575 |
| Map 19, Lot 5 | Joanne Shepard \& Martha Albelo 1864 Sherman Ave. Evanston, IL 60201 |
| Map 19, Lot 6 | David \& Eleanor Driscoll 72 Perkins St. <br> West Newton, MA 02165 |
| Map 19, Lot 33 | Chesterson \& Marion Knight |

c/o Mrs. Robert Williams
1 Virginia Rail Ln.
Hilton Head, SC 29926
Map 19, Lot 29 William Stevens
P.O. Box 1116

Oak Bluffs, MA 02557

## 4. Existing Use and Infrastructure

Farm Pond Preserve has been used in the recent past as a neighborhood hiking area. There are existing trails on the property. The property has been used for access to Farm Pond and it has been used as a dump. The Existing Use Map identifies six significant locations or features on the property.

1. Trail to South Circuit Avenue - this 2,250 foot trail crosses the western part of the preserve from the fields at the Oak Bluffs School to South Circuit Avenue. It is a three to six foot wide footpath that has a 90 foot boardwalk over a wet section at the east end.
2. Small Pond - a small, unnamed pond lies at the south end of the property. It is an old stock-watering pond that has filled in with some sediment. The pond dries up considerably during summer months.
3. South Circuit Avenue - there is 1,400 feet of frontage on this paved road. The road is secluded and unlit. People park on the side of the road to loiter and dump trash.
4. Causeway - there is a causeway that runs from South Circuit Avenue down to Farm Pond. It is eight feet wide and 180 feet long.
5. Farm Pond East Trails - an 800 foot trail system is in place on the eastern end of the preserve. This area is used heavily by bicycle riders passing by, often as a bathroom.
6. Oak Bluffs School - the grounds of a (\# to be inserted) student elementary school abuts the preserve at the western end.
7. Boat Storage and Launching - neighboring landowners launch a small number of hand-powered watercraft from this location and occasionally store them along the shore.
8. Beach Road and Bike Path - the main road and bike path linking Oak Bluffs with Edgartown runs along the property's eastern boundary. The bike path is paved and there is approximately 1,125 feet of frontage. Beach Road is a busy highway with

## III. Inventory Analysis

The natural resource inventory section above provides the foundation for decisions about management of the conservation area. It gives the background for the property and establishes a base record of resource information. This section, the inventory analysis, takes the planning one step further. It uncovers the cause-effect relationships that will be triggered by attempts to solve problems or take advantage of opportunities, and then examines the problems and opportunities that the land bank is bound to address.

## A. Identifying Constraints and Issues for Management

## 1. Ecological Context

Farm Pond Preserve is a linear conservation area that encompasses a range of vegetation communities and wildlife habitat. An obvious general pattern is the gradation of community type from coastal pond back through high salt marsh to wet shrubland to upland woodland. This gradient is typical of areas near coastal ponds on the eastern shore, such as at Felix Neck Wildlife Sanctuary. The salt marsh at the Preserve is particularly impressive for its flowering herbaceous component. The asters, goldenrods, sea lavender, and germander are thick when flowering in some areas. The shrubland-grassland and pitch pine-oak woodland on the Preserve are heavily influenced by past land use and could be considered typical of abandoned agricultural lands in the region. There are noticeable numbers of wasteland herbs such as plaintains, orchard grass, mullein, and yarrow. The size of some of the eastern red cedars - still open grown - in the abandoned field-shrubland is quite large relative to other old fields where these trees are quickly swallowed up by competing pitch pines. In the shrublands, especially where the old field grades into a shrubby wetland, there was a striking diversity and number of many common birds like mockingbirds, catbirds, sparrows, cardinals, and wrens. The range of vegetation structure and the abundant fruit and seeds available contribute greatly to these robust populations. Finally, an examination of ecological context would be neglectful were it not to emphasize the proximity of this Preserve to areas of residential development. The Preserve is surrounded on three sides by residential neighborhoods that have been there for decades. The influence of people, their pets, and landscape plantings is evident on much of the Preserve.

There are twenty-one other conservation or park areas within one mile of Farm Pond Preserve. With the Preserve, they total 453 acres. Of these 453 acres, 176 (39\%) are public conservation areas, 44 acres (10\%) are town parks, 205 ( $45 \%$ ) are a
private golf course, and 28 acres (6\%) are private conservation area. There is little linkage between the conservation areas except heading west and then south from the Preserve, through the Oak Bluffs Water Department land to Trade Wind Fields Preserve and Farm Neck Golf Course. This constitutes a contiguous land area of 338 acres. Connections between the other areas are broken up by residential housing. Much of the residential lands are densely settled with numerous roads and buildings, so wildlife movement is generally affected.

## 2. Natural Resource Concerns


#### Abstract

The land bank management team has identified four areas of greatest natural resource concern for the property. These are disturbance of pondshore vegetation, impacts from littering, invasive plant species, and predation by domestic animals. These impacts are ongoing problems from a resource protection standpoint. Each concern is considered below in detail. disturbance of pondshore vegetation - the occasional trampling of salt marsh grasses will not have serious consequences. Repeated trampling on a path or storage of boats on the shore will. Killing pondshore vegetation can lead to increased erosion, changes in water quality, loss of wildlife habitat, and aesthetic decline.


impacts from littering - there are over 2,500 feet of road frontage at the Preserve. This frontage gives easy access for littering and dumping. The negative impacts from such activity are primarily aesthetic, but may extend to include attraction of nuisance wildlife and damage to vegetation and water quality.
invasive plant species - there are numerous invasive plant species on this property. They include oriental bittersweet, poison ivy, multiflora rose, and japanese knotweed among others. Plants such as these can easily displace desirable plants, alter wildlife habitat, and are often difficult to control.
predation by domestic animals - the location of the Preserve on the borders of several residential neighborhoods make it an easy target for hunting by domestic pets such as cats and dogs. Cats were often noticed on land bank staff surveys hunting small mammals and songbirds. These predators impact wildlife populations both by directly influencing lower trophic species and by indirectly influencing higher trophic species.

## 3. Sociological Context

Farm Pond Preserve is located next to several high-density, residential neighborhoods (zoning district R-2 to the north, minimum lot size 20,000 square feet, and zoning district R-3 to the south, minimum lot size 60,000 square feet). In the area of land delineated by South Circuit Avenue to Beach Road to Anther's Lane to Tyler's Creek Road to Farm Neck Way to County Road to Trade Winds Road (aka. Farm Neck Road aka. Old County Way) to Wing Road there are 140 lots and 94 houses. There is a density of 4.4 acres per house ( 413 total acres). In this 413 acres, there are 99 acres of conservation land open to the public and another 108 acres of conservation land without public access, for a total of 207 acres ( $50 \%$ of the area).

Several hundred residences stand within easy walking distance (2,500 feet) of Farm Pond Preserve, but of perhaps greater significance is the parcel's proximity to the newly constructed Oak Bluffs School. This K through 8th grade school has approximately 420 students in attendance. Recreational trails directly link the school grounds with Farm Pond Preserve. The Preserve is a potential "outdoor classroom" that may be useful to a variety of taught disciplines including science, math, language arts, and industrial arts. Trails on the Preserve also may serve as commuting corridors for children in neighborhoods off South Circuit Avenue.

## 4. Neighborhood Concerns

A draft of this land management plan was sent to all abutters of the Preserve for input as to how the property could best be managed to both meet the goals of the land bank and neighboring landowners. The land bank advisory board held a public hearing in order to accept comment from neighbors and other interested people on September 24,1996 . A copy of the minutes from this meeting are included as appendix D of this document. The following list is an attempt to characterize the potential concerns of the neighborhood. These characterizations may or may not be accurate for individual neighbors.
trespassing onto private lands - a frequent concern of abutters is that conservation land users will trespass onto private land. Visitors to conservation land sometimes do get disoriented and may accidently wander off the public area onto private land. Sometimes, they will do so intentionally out of curiousity or the wish for a longer walk. Occasionally, trespassing will occur through crowding on the public land. At Farm Pond Preserve there is a particular concern that school classes and children be made aware of the limits to public lands.
noise levels - when groups of people congregate, noise levels can increase either by accumulation or by the need for people to speak louder to be heard. Thick vegetation can be used to screen out sounds, and limits could be placed on the number of people at any one time or on the number of daily classroom visits, if noise becomes a problem.
appearance of the property - neighbors will be concerned that the conservation area does not end up looking like a mess or like something that does not fit in with the character of the neighborhood. There are presently problems with illegal dumping on the property, and in the past there has been illegal camping during the summer months.

## B. Addressing Problems and Opportunities

## 1. Land Bank Commission Mandate

The land bank commission was created to acquire, hold, and manage land in a predominantly natural, scenic, or open condition. It is in the business of keeping island open spaces open while simultaneously allowing modest public use of them. To this end, the land bank maintains a policy of multiple-use management that seeks to provide a mix of public benefits ranging from low-impact recreation and aesthetics to wildlife and watershed protection.

Multiple-use is a management system that balances resource values and environmental protection with the interests of people who want to use those resources. The land bank tries to provide a wide range of public benefits on a sustainable basis now, and in perpetuity. The protection of environmental resources is its highest priority. Since nearly any human activity causes some level of adverse impact to the environment - whether fishing, bird watching, or mountain biking - a balance must be achieved between long-term environmental protection and the fulfilment of these public needs. The process of finding this balance is the essence of natural resource conservation.

## 2. Preliminary Goals for Farm Pond Preserve

The land bank commissioners and the Oak Bluffs town advisory board members have voted to support the goals of the Oak Bluffs selectmen for the land, as they were expressed in the selectman's conservation easement. This was done on July 26 and August 1, 1994, respectively. The town's goals, excerpted from the easement, are as follows:

1. Provide opportunities for education and nature study, possibly in conjunction with programs at the Oak Bluffs elementary school;
2. Protect Farm Pond by limiting harmful or deleterious development of its watershed;
3. Protect wetlands and uplands from inappropriate development;
4. Provide a natural buffer between Farm Pond and the Oak Bluffs elementary school;
5. Manage for a diversity of habitats;
6. Provide a public waiking trail that links the Oak Bluffs elementary school with South circuit Avenue.

During the draft planning process for the Preserve, several Oak Bluffs elementary school teachers identified more specific goals of their own. These are as follows:

1. Have students produce a complete list of plant and animal species for the Preserve;
2. Educate students of the tremendous scientific diversity of the natural history of Martha's Vineyard and Oak Bluffs;
3. Encourage cooperative problem solving in science education;
4. Have students produce trail markers for identification purposes;
5. Produce a Self Guided Student Trail Guide for educating others of the biodiversity of the site;
6. Acquaint students with the changing uses of the site from the Wampanoag time to current date;
7. Make students aware of positive and negative human impacts on the site;
8. Locate and map vernal pools for the study of endangered amphibians;
9. Locate and map possible archaelogical sites of the native Wampanoags;
10. Educate students of the changing seasonal inhabitants and scientific characteristics of the site;
11. Acquaint students with basic orienteering skills;
12. Instill pride in students by completion of desired tasks;
13. Encourage a life-long commitment and appreciation of the natural world;
14. Build and install wildlife nesting boxes;
15. Undertake studies of small mammal populations;
16. Reclamate a small freshwater pond on the Preserve;
17. Have areas that are available for school picnics;
18. Provide access to Farm Pond for boat launching and scientific study;

## 3. Additional Opportunities

Several additional opportunities for use of the Preserve have occurred to the land bank management staff. This section examines these opportunities, but is not intended as a recommendation for or against any of the possibilities.
bird-watching - From a bird-watcher's perspective, the most desirable area of the Preserve may be the thick shrubland that borders the wetlands on the southern part of the property. This is a good place for viewing a variety of common bird species in large numbers during spring and summer. Another desirable site is Farm Pond itself and its surrounding salt marshes.
boating - the opportunity for recreational boating in Farm Pond is limited because of deed restrictions and physical layout of the property. The conservation restriction under which the land bank must operate restricts waterfront access on the town parcel to educational and scientific uses only. Recreational boating is not permitted. The land bank fee simple land on the east side of the pond could serve as a potential boat launching area, but logistics are difficult. There is no good location for parking and a boardwalk would have to be constructed across the salt marsh.
fishing - fishing in Farm Pond for finfish or shellfish is a distinct possibility. This use will be overseen by the town, not the land bank. Use of the shorefrontage along the Pond could potentially result in an adverse impact, but anticipated numbers of fisherman is low. Impact to pondshore vegetation is addressed above.
hiking trails - the property is too small to develop hikes of any significant length on the site itself. It is the beginning of the Cross-Oak Bluffs Trail, which runs from Farm Pond to Trade Wind Fields Preserve and beyond to the State Forest.
hunting - although adequate game species have been observed on or near the property (white-tailed deer, cottontail rabbit, and waterfowl), hunting is not considered an appropriate use for the Preserve given the proximity to an elementary school and to numerous private residences.
viewsheds - there are several existing or potential prime views on the property. Two
are associated with Farm Pond. These are from the Beach Road and from South Circuit Avenue out over the pond. Views from South Circuit Avenue could be enhanced with a vegetation management project to control plants growing into the view. A third prime view is in and around a meadow and small freshwater pond that are in the interior of the property. This view could be improved and maintained with some clearing and regular mowing.

## IV. Land Management Planning

This final section of the plan is a description of a series of goals and objectives, and the tools to carry them out. It is next to impossible to develop a plan that is pleasing to all of the people who have an interest in a piece of public land. Someone is bound to be unhappy with some aspect. Nevertheless, the following approach fits within the ecological and sociological constraints defined in the previous section of the plan. There are five broad areas of planning concern. These are Nature Conservation, Environmental Education, Recreation and Aesthetics, Primary Production, Community Interaction, and Administration. Following each specific objective is a series of suggested strategies or tools that could be used to achieve that objective. The objectives and strategies are placed in numerical and alphabetical order, but this organizational technique is not meant to imply any order of priority.

## Nature Conservation

## GOAL: provide long-term protection to the variety of plants, animals, and functioning ecological processes that are characteristic of the Farm Pond watershed.

Objective 1: maintain several types of plant communities, ranging from salt marsh and grassland to shrubland and woodland.

Strategies:
A. maintain grass-dominated communities in the "meadow" areas as shown on the Management Planning Map. Do so with regular mowing or brushcutting, including in-season treatments for woody plant control, if needed.
B. allow shrub- and tree-dominated communites to grow in areas that are not grasslands or salt marsh. Rely on ecological processes to determine the amount of each and their constitution, except as permitted by objective 3 below.

Objective 2: Encourage favorite plant species including but not limited to post oak (Quercus stellata), beach plum (Prunus maritima), red chokeberry (Aronia arbuitifolia), the milkweeds (Asclepias sp.), wild indigo (Baptisia tinctoria), switchgrass (Panicum virgatum), the cattails (Typha sp.), american germander (Teucrium canadense), and cinnamon fern (Osmunda cinnamomea).

Strategies:
A. create and maintain habitat for selected species where consistent with other management objectives.
B. assist in the propogation of selected species where consistent with other management objectives.
C. provide information about plants on sign-boards.

Objective 3: Discourage invasive, undesirable plants including but not limited to oriental bittersweet (Celastrus orbiculatus), autumn olive (Elaeagnus umbellata), japanese knotweed (Polygonum cuspidatum), multiflora rose (Rosa multiflora), poison ivy (Toxicodendron radicans), and yucca (Yucca filamentosa).

Strategies:
A. gradually reduce populations of undesirable plants by cutting or digging them out.
B. avoid the use of chemical herbicides, except as a last resort for the control of poison ivy in educational use areas, and only with permission of the Board of Selectmen and the Conservation Commission.
C. investigate wildlife management techniques that could be used to reduce the spread of undesirable plants.

## Objective 4: Protect pondshore vegetation from trampling and deterioration.

 Strategies:A. prevent unauthorized trail access to the shore of Farm Pond and install attractive signs and fencing, as needed.
B. prohibit all overnight storage, including boats and outhaul anchors. Prohibit motorized boat landings at all times and prohibit non-motorized boat landings on vegetated shorelines; allow short-term boat storage during the day on unvegetated beach shorelines (amendment).
C. where access to Farm Pond is permitted for scientific and educational purposes as described below, harden access points with wooden boardwalks, and store boats on wooden boat racks.

Objective 5: Encourage favorite wildlife species including but not limited to tree swallow (Tachycineta bicolor), eastern bluebird (Sialia sialis), osprey (Pandion haliaetus), barn owl (Tyto alba), little brown myotis (Myotis lucifugus), and american woodcock (Scolopax minor).

## Strategies:

A. provide artificial nesting opportunities for tree swallows, bluebirds, barn owls, and brown myotis, at appropriate locations on the Preserve, with the assistance of the Oak Bluffs School.
B. put up an osprey pole at an appropriate location on Woodie Island with the assistance of the Massachusetts Audubon Society's Felix Neck Wildlife Sanctuary and the Oak Bluffs School.
C. maintain open meadows in the areas as shown on the Site Management Map to favor many of these species.
D. attempt to attract woodcock by providing preferred feeding habitat including open pasture and possibly a small amount of cultivated land. Improve conditions for earthworms, a major food source, by adjusting pH of soils, as needed.
E. explore options for controlling stray pets, striped skunk, raccoon, and other predators of ground-nesting birds, and implement, as needed.
F. provide information about wildlife on sign boards.

Objective 6: clean-up trash, junk, and other waste that have been dumped on the property, and take steps to discourage such activity in the future.

Strategies:
A. properly dispose of all trash, junk, and other waste that has been dumped on the property in the past.
B. install attractive split-rail fencing along South Circuit Avenue as needed and as shown on the Site Management Map to prevent people from parking and dumping in this area.
C. work with the Town of Oak Bluffs police department to reduce the amount of illegal dumping off of South Circuit Avenue.
D. work with the Oak Bluffs School to ensure that trash from school dumpsters is kept contained and does not blow onto the conservation area.

## Environmental Education <br> GOAL: provide opportunities for education and nature study, especially in conjunction with teachers from the adjacent Oak Bluffs School.

## Objective 1: assist teachers with the construction and maintenance of

 educational facilities that will give classes access to Farm Pond for scientific and educational purposes.Strategies:
A. allow a causeway existing off of South Circuit Avenue to be used for pond access by school groups and classes.
B. improve the causeway so that it is stable and does not continue to erode into the surrounding marsh.
C. allow construction of a boardwalk, boat rack, and short pier as shown on the Site Management Map, and require these before pond access is granted.
D. install a gate as shown on the Site Management Map to limit use to school groups and classes only.
E. possibly construct an additional boardwalk as shown on the Site Management Map that will link the trail from the Oak Bluffs School directly with the causeway, so that schoolchildren will not be required to walk on South Circuit Avenue in order to reach the pond.

Objective 2: maintain the western-most meadow and small freshwater pond, close to the school, in a condition that is suitable to use as an outdoor classroom.

Strategies:
A. while this meadow is intended to be a meadow that will serve the needs both of school classes and wildlife, mow it regularly enough that poison ivy is minimized as a potential problem, and that it may be used to seat kids.
B. establish and maintain thick vegetation in the area north of the meadow as a buffer between the meadow and neighboring residences.
C. investigate the possibility of altering the small pond to improve its
quality as exemplary freshwater pond habitat. Undertake dredging, welldrilling, pond-lining, or other reclamation measures only after a compléte study of the benefits and drawbacks to various wild life species.
D. provide a six to eight foot wide path around the shore of the pond, where appropriate. Use boardwalks to protect water quality, as needed.

Objective 3: provide teachers with biological and geographic information about the property that can be used for classes.

Strategies:
A. make this management plan, its natural resource inventory, and maps generally available to teachers at the Oak Bluffs School for their use.
B. continue to update teachers with any additional findings made by land bank staff.

Objective 4: encourage teachers to use the property as a scientific and educational resource.

Strategies:
A. allow teachers to use the Preserve for biological, geological, historical, and navigation studies.
B. allow teachers to collect plants, animals, and water samples from the Preserve for identification and research purposes, but only with permission from land bank staff.
C. encourage teachers to minimize the impact of educational research on the natural resources of the Preserve.
D. allow teachers to construct and place interpretive signs on the Preserve, as needed, under the oversight of land bank staff.

## Recreation and Aesthetics

GOAL: allow limited, low-impact, recreational use of the area for bicycling, hiking, horseback riding, and nature observation, but only so that it does not preclude attainment of nature conservation goals; also, maintain attractive views and landscapes.

## Objective 1: maintain a recreational trail system on the property.

 Strategies:A. maintain trails in the location as approximately shown on the Site Management Map. Trail corridors will be six feet wide and eight to ten feet tall. Trail treads will be approximately sixteen inches wide and will be free of roots and stones where practical. Install drainage structures such as water bars and side ditches as needed to minimize erosion of tread surfaces. Mark trails with color-coded markers, as practical.
B. allow land bank staff the discretion to move trails or create additional trails, as needed.
C. provide a bicycle rack at the Beach Road that will hold up to six bicycles.
D. allow bicycle use of the trails at the discretion of land bank staff.
E. when the existing boardwalk that lies south of South Circuit Avenue needs to be replaced, replace it with a boardwalk that will better accommodate bicycle passage.
F. install small wooden benches in the locations as shown on the Site Management Map at the discretion of the land bank staff.

## Objective 2: Maintain attractive views of Farm Pond from South Circuit Avenue and Beach Road.

Strategies:
A. maintain the majority of vegetation in the "meadow" areas along the roads, as shown on the Site Management Map, at or below three feet in height.
B. prevent the dumping of trash, junk, or other waste in roadside areas in the manner described above, but continue to pick-up any trash that continues to appear.

## Objective 3: Limit public use of the conservation area by maintaining set hours of use.

Strategies:
A. open the property every day of the year from one-half hour before sunrise to one-half hour after sunset.
B. no nighttime use except by special permission from land bank staff.
C. monitor the property at dawn on a regular basis in spring, early summer, and additionally as needed, and whenever practical, work with the Town of Oak Bluffs police department to penalize illegal campers.

## Primary Production

GOAL: maintain a hunting, fishing, and agricultural policy for the property.

## Objective 1: make the conservation area a "no-hunting" zone.

## Strategies:

A. present the property on the land bank map and elsewhere as a "nohunting" property.
B. post the area as a "no-hunting" zone during commonwealth hunting seasons, as necessary.
C. have the land bank staff visit the property on a regular basis during hunting seasons to verify public compliance with this policy.

Objective 2: allow access across the property for shore fishing in Farm Pond, so long as Nature Conservation goals are met.

Strategies:
A. monitor the occurrence of unauthorized trails to the pondshore. Allow land bank staff the discretion to close or boardwalk such trails, as needed.

## Objective 3: make land available for agricultural use within the framework of a long-term, farm management plan.

Strategies:
A. entertain proposals for agricultural use of the salt marsh meadows. Such proposals will be in the form of a long-term, farm management plan that addresses likely impacts to nature conservation goals, proposes mitigation of impacts, and proposes steps to maintain or improve site productivity.
B. have existing land management staff monitor farmer compliance with the farm management plan.

## Community Interaction

GOAL: provide helpful and interesting information about the property for visitors; participate in community activities.

Objective 1: help people find the property and avoid trespassing on private lands.
Strategies:
A. include the property on the land bank map.
B. maintain a land bank logo marker for the property at the western-most trail entrance near the Oak Bluffs School, at South Circuit Avenue, and at Beach Road.
C. limit trespass onto neighboring lands by leaving vegetative screens between recreational trails and near-by houses. Add signs, fencing, and staff presence, as needed, to meet the objective.

Objective 2: inform people about the interesting and unique characteristics of the property and its surroundings.

Strategies:
A. build a sign-station at Beach Road for posting information about the plants, animals, and natural processes occurring on the property.
B. keep copies of this management plan at the land bank office and at the Oak Bluffs library for public use.

Objective 3: include this property in a comprehensive, recreational use plan that focuses on making provisions for use of land bank conservation areas by people with disabilities.

Strategies:
A. complete a comprehensive plan by June 1997.

## Land Administration

GOAL: oversee and police the land on a regular basis in order to systematically protect natural resources.

Objective 1: keep well-maintained boundaries and monitor for encroachment. Strategies:
A. locate boundary corners and perambulate on an annual basis.
B. have a photographic record of boundary corners.

Objective 2: keep good records of land management activities and other natural events.

Strategies:
A. complete a land bank event record for all management actions taken and for any observed natural event, including human impacts to resources.
B. continue to update plant and animal lists as a regular part of land management activities.
C. maintain a photographic record of landscape appearance.

Objective 3: employ adequate staff to effectively implement land management goals.

Strategies:
A. have existing land management staff inspect the property on at least a monthly basis.
B. adjust staffing as needed to implement goals.

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## Appendix A:

## Copies of relevant deeds and easements including:

1. Quitclaim Deed dated February 7, 1989 and recorded in the Dukes County Registry of Deeds on February 8, 1989 in Book 515, Page 716;
2. Quitclaim Deed dated February 7, 1989 and recorded in the Dukes County Registry of Deeds on February 8, 1989 in Book 515, Page 718;
3. Conservation Restriction dated March 5, 1996 and recorded in the Dukes County Registry of Deeds on April 9, 1996 in Book 674, Page 291.

## 4545718

HOWARD S. HART, II and Lucy Hart Abbot, individually and as Trustees of Mahomy Associates Trust under Declaration of thust dated August 25, 1977 and recorded in the Dukes County Registry of Deeds in Book 352, Page 308
of P.O. Box 171, West Tisbury
County of Dukes
County, Massachusetts,
in consideration of TEN THOUSAND AND 00/100 ( $\$ 10,000.00$ ) DOLIARS
grant to MARTHA'S VINEYARD LAND BANK COMMISSION, a body politic and corporate, with a usual place of business at Main Street, Edgartown, Massachusetts, and having a mailing address

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of P.O. Box 1417
Edgartown, MA 02539
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Those three certain parcels of vacant land in Oak Bluffs, County of Dukes County, Commonwealth of Massachusetts, which parcels, together with the parcel being conveyed by these grantors under separate deed recorded herewith, total 9.7 acres more or less, and are described more fully as follows:

## PARCEL I:

Beginning at a bound distant about two hundred and thirty-three (233) feet from the old way on the Beach Road, course southwesterly, then N. $483 / 4 \mathrm{~W}$. about two hundred and seventy-five (275) feet to the Pond; thence by the Porld northeasterly to the Beach Road; thence by the Road to the place of beginning. .
Being a portion of the premises described in a deed to Howard s. Hart dated March 25, 1922, and recorded in the Dukes County Registry of Deeds in Book 148, Page 572.

## PARCEL II:

Beginning at a bound on the State Road that leads across Farm Pond, in said Oak Bluffs, said bound being the northeast corner of land now or formerly owned by Charles T. Luce Estate; thence west on the line of land now or formerly owned by said Luce Estate to Farm Pond; thence northerly by said Pond to land now or formerly owned by John C. Hamlin; thence easterly by line of land now or formerly owned by John C. Hamlin to the State Road; thence by said Road in a southerly direction to the place of beginning. Said land containing three-fourths of an acre, more or less.
Being a portion of the premises described in a deed to Howard s. Hart dated March 25, 1922, and recorded in the Dukes County Registry of Deeds in Book 148. Page 572.

## PARCETY III:

A parcel of land lying between the two parcels of land conveyed by John C. Hamblin to Howard S. Hart by deed dated March 25, 1922 and reoorded in Dukes County Registry of Deeds in Book 148, Page 572 and between the State Highway and Farm Pond.
Being a portion of the premises described in a deed to Howard S. Hart dated May 19, 1922, and reoorded in the Dukes County Registry of Deeds in Book 155, Page 504.

## 4 $515 \quad 717$

The above parcels are shown as a portion of Oak Bluffs Assessor's Map 18, Parcel 33.

For our title, see Parcel I as described on a deed dated October 6, 1978 and recorded in the Dukes County Registry of Deeds in Book 361, Page 641.

Executed as a sealed instrument this


Howard S. Hart, II, individually and as Trustee as aforesaid

Luey Hart arbart
Lucy Hart Abbot, individually and as Trustee as aforesaid

## 

Dukes County
ss.
February 7, 1889

Then personally appeared the above named
Howard S. Hart, II and Lucy Hart Abbot:


DONNA S. POST
Notary Public
Quv Commission Expires August 12,1904


HOWARD S. HART, II and LUCY HART ABBOT, individually and as Trustees of Mahomy Assoctates Trust under Declaration of Trust dated August 25, 1977 and recorded in The Dukes County Registry of Deeds in Book 352, Page 308
of P.O. Box 171, West Tis bury, County of Dukes
County, Massachusetts,
in consideration of ONE ( $\$ 1.00$ ) DOLLAR
of P.O. Box 1417 Edgartown, MA 02539
with qutfrlatat raturatutn

That certain parcel of land In Oak Bluffs, County of Dukes County, Commonwealth of Massachusetts, which parcel, together with the parcels being conveyed by these grantors under separate deed recorded herewith, totals 9.7 acres, more or less, and is described more fully as follows:

Beginning at a point on the State Highway running from Oak Bluffs to Edgartown adjoining land now or formerly of John C. Hamblin and distant about fifty seven and one half feet southerly from a State Highway bound marking the second angle southerly from the junction of Sea View Avenue aud the State Highway; thence running southerly by the west side of said State Highway to land now or fommerly of Mary A. Butler; thence westerly by land now or formerty of said Mary A. Butler to Farn Pond; thence northerly by said Farm Pond to land now or formerly of John G. liamblin; thence southeasterly by land now or formerly of sald Hamblin to the point of beginning.

Being the same premtses described in a deed to W11Jiam H. Hart dated September 18 , 1912, and recorcled in the Dukes County Registry of Deeds in Book 130, Page 582.

The above Parcel is shown on Oak Bluffs Assessox's Map 18 as a portion of parcel 33.
$4015 \quad 710$

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\begin{tabular}{|c|c|c|}
\hline Executed as a sealed instrument this & 7th & day of February 1989 \\
\hline & & Soweun An thent ar \\
\hline & & Howard S. Haxt, II, individually and as Trustee as aforesaid \\
\hline & & Dewey frat ceftet \\
\hline & & hacy Hart Abbot, individuanly and as Trustee as aforesald \\
\hline
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## 

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Dukes County
ss.
February 7,
1989
Then personally appeared the above named Howard S. Hart, II and Lucy Hart Abbot
and acknowledged the foregoing instrument to be Before me,
```



My commission expires
19
DONNA S. POST
Notary Public
My Commission Expires August 12, 1994


## CONSERVATION RESTRICTION

THE TOWN OF OAK BLUFFS, Commonwealth of Massachusetts, acting by and through its Board of Selectmen, having a business address at P.O. Box 1327, Oak Bluffs, Massachusetts 02557, its successors and assigns (the "Grantor"), hereby grants, with quitclaim covenants, to the Martha's Vineyard Land Bank Commission, a corporate body politic with a principal office address of Upper Main Street, P.O. Box 2057, Edgartown, Massachusetts.02539, its successors and permitted assigns (the "Grantee"), in perpetuity and exclusively for conservation purposes, the following described Conservation Restriction on a parcel of land located in the Town of Oak Bluffs, County of Dukes County, Massachusetts, shown as "Proposed Open Space Area $16.06 \pm$ AC. (Part of Lot 1)" and "(Woodie Island)' 1.43士 AC. (Part of Lot 1)" on the plan, entitled "Plan of Land in Oak Bluffs, Mass. Prepared for Town of Oak Bluffs \& William H. Hart Realty Company, Inc. Scale: $\mathbf{1 " = 1 2 0 ' ~}^{\prime \prime}$ February 1, 1994 Schofield, Barbini \& Hoehn, Inc. Civil Engineers \& Land Surveyors State Road, P.O. Box 339, Vineyard Haven, MA 02568", which plan is recorded in the Dukes County Registry of Deeds as Oak Bluffs Case File No. 3.03, and as shown on the sketch plan attached hereto as Exhibit "A".

PURPOSES. This Conservation Restriction is defined in and authorized by Sections 31-33 of Chapter 184 of the Massachusetts General Laws and otherwise by law. Its purpose is to assure that the Premises will be retained in perpetuity predominantly in their natural, scenic and open condition and to prevent any use of the Premises that will significantly impair or interfere with

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the conservation values of the Premises. The public benefits resulting from conservation of the Premises include, without limitation:
(1) Provision of opportunities for education and nature study, possibly in conjunction with programs at the Oak Bluffs elementary school, to be located on property adjacent to the Premises;
(2) Protection of Farm Pond by limiting any development of its watershed that might be harmful or deleterious to Farm Pond's natural and ecological value;
(3) Protection of the wetlands and uplands on the Premises from inappropriate development;
(4) Provision of a natural buffer between Farm Pond and the Oak Bluffs elementary school to be built on property adjacent to the Premises. This natural buffer, which itself contains valuable wildlife habitat, will enhance the wildlife habitat value and ecological viability of Farm Pond and its surrounding wetlands;
(5) Provision of opportunities for the Premises to be managed for and used by a diversity of habitat

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types and systems; and
(6) Provision of an opportunity to establish a walking trail for the public from the Farm Neck Road Path Easement and the proposed Land Bank trail on the Town of Oak Bluffs Water Department property through the Premises to Farm Pond and South Circuit Avenue.

The terms of this Conservation Restriction are as follows:

Prohibited Acts and Uses, Exceptions Thereto and Permitted Uses:
A. Prohibited Acts and Uses. Except as to reserved rights set forth in paragraph $B$ below, the following acts and uses are expressly prohibited on the Premises:
(1) Constructing, placing or allowing to remain any building, tennis court, landing strip, mobile home, swimming pool, asphalt or concrete pavement, sign, fence, billboard or other advertising display, antenna, utility pole, tower, conduit, line or other temporary or permanent structure or facility on, above or under the Premises;
(2) Mining, excavating, dredging or removing from the Premises of soil, loam, peat., gravel, sand, rock or other mineral resource or natural deposit, except as necessary for
proper drainage or soil conservation, or as may be determined appropriate by the Grantee or the Oak Bluffs Elementary School for educational and scientific purposes including, without limitation, in connection with the restoration of pond habitat, in a manner which does not impair the purpose of this Conservation Restriction;
(3) Placing, filling, storing or dumping on the Premises of soil, refuse, trash, vehicle bodies or parts, rubbish, debris, junk, waste or other substance or material whatsoever or the installation of underground storage tanks;
(4) Cutting, removing or otherwise destroying trees, grasses or other vegetation, except as provided in paragraph $C$ below;
(5) Activities detrimental to drainage, flood control, water conservation, water quality, erosion control or soil conservation;
(6) Use of pesticides, or biocides, including but not limited to insecticides, fungicides, rodenticides and herbicides (except as absolutely necessary to preserve rare endangered plant and animal species and subject to prior written approval and
agreement of the Grantor, the Oak Bluffs Conservation Commission, the School Committee and Secretary of Environmental Affairs);
(7) Pollution, alteration, depletion or extraction of natural water courses, subsurface water, wetlands or any other water bodies and all activities which would be detrimental to water purity or which would alter natural water level and/or flow in, over or through the Premises, except as provided in paragraph B (11) below;
(8) The use of motorcycles, motorized trail bikes, snowmobiles and all other motor vehicles, except as reasonably necessary in exercising any of the reserved rights in paragraph $B$, or as required by the police, firemen or other governmental agents in carrying out their lawful duties;
(9) The construction and maintenance of any paved surfaces, trails and ways, except as provided in paragraph B.(4) below;
(10) Access by members of the general public to Farm Pond by motorized or non-motorized boat by crossing the conservation land, except as provided in paragraph B.(9) below;
(11) The construction of overnight campsites,
picnic grounds or outdoor fireplaces on Woodie Island; and
(12) Any other use of the Premises or activity thereon which is inconsistent with the purpose of this Conservation Restriction or which would materially impair significant conservation interests unless necessary for the protection of the conservation interests that are the subject of this Restriction.
B. Reserved Rights. All acts and uses consistent with the general purposes of this Conservation Restriction and a Management Plan (which is described in paragraph $E$ below), and not prohibited in paragraph A, are permissible. Notwithstanding the provisions of paragraph $A$, the following acts and uses are also permitted, but only if such acts or uses do not materially impair the purposes of this Conservation Restriction or other significant conservation interests and are undertaken in accordance with the Plan to be developed by the Grantee as follows:
(1) The study, propagation and maintenance of plant, bird, fish, shellfish and animal species, which may be carried out by the Grantee, or by students at the Oak Bluffs Elementary School under the guidance of the Oak Bluffs Elementary School teachers or the Grantee;
(2) The expansion of cleared areas of the

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Premises to accommodate the activities described in paragraph B.(1) above;
(3) Use of the Premises by members of the general public for hiking, bicycling, horseback riding, cross-country skiing and other passive outdoor recreational activities along existing trails and any trails established in future by Grantee in accordance with the Plan;
(4) The construction and maintenance of a trail, which may contain a treated surface but only if for the purpose of accommodating wheelchair accessibility, in the location shown as "Proposed Path" and "Existing Path" on Exhibit $A$ and the construction and maintenance of such additional trails as reasonably necessary for the uses granted or reserved herein;
(5) Notwithstanding anything to the contraxy contained. in paragraph A.(4) above, selective pruning and selective cutting of trees and vegetation to prevent, control or remove hazards, disease or insect damage, or fire hazard, and to preserve the present condition of the Premises, including without limitation, the preservation of existing and

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future trails permitted hereunder;
(6) Measures designed to restore native biotic communities throughout, including without limitation, fish and shellfish species in Farm Pond, and/or to maintain, enhance or restore wildlife, wildife habitat, or rare or endangered species, including without limitation, fish and shellfish species in Farm Pond;
(7) Notwithstanding anything to the contrary contained in paragraph A.(1) above, the erection, maintenance, repair and replacement of the following signs:
(a) two (2) signs (not to exceed five (5) square feet) to identify the interest of the Grantee in the Premises;
(b) a reasonable number of regulatory signs (such as "no trespassing" or "no hunting" signs), each not to exceed four (4.) square feet; and
(c) a reasonable number of signs, each not to exceed four (4) square feet, to mark existing and future trails, nesting areas, or for other ecological or educational purposes;
(8) Notwithstanding anything to the contrary

## 80) $674: 299$

contained in paragraph A.(2) above, excavation and removal from the Premises of soil, gravel or other mineral resource or natural deposit as may be incidental to the maintenance of good drainage, soil conservation practices or to other permissible uses of the Premises;
(9) Notwithstanding anything to the contrary contained in paragraph A.(11) above, access to Farm Pond and to Woodie Island by motorized or non-motorized boat in connection with educational or scientific studies, including, without limitation, studies and field trips undertaken by the Oak Bluffs Elementary School students under the guidance of the Oak Bluffs Elementary School teachers or the Grantee; and
(10) The placing of fences that do not interfere with the conservation purposes of this Conservation Restriction.
(11) Alterations of water bodies, water courses or wetlands as may be determined appropriate by the Grantor or the Grantee in consultation with the Oak Bluffs Elementary School for educational and scientific purposes, conducted in a manner which does not impair

## 80) $873 \times 30$

the purpose of this Conservation Restriction including, without limitation, alterations made in connection with the restoration of pond habitat.

The exercise of any right reserved by Grantor under this Paragraph $B$ shall be in compliance with the thencurrent Zoning By-Laws of the Town of Oak Bluffs, the Wetlands Protection Act (General Laws Chapter 131, Section 40) and all other then current applicable federal, state and local laws. The inclusion of any reserved right in this Paragraph B requiring a permit from a public agency does not imply that Grantee takes any position on whether such permit should be issued.
D. Proceeds from Extinguishment. Grantor and Grantee agree that the grant of this Conservation Restriction gives rise for purposes of this paragraph to a property right, immediately vested in Grantee, with a fair market value determined by multiplying the current fair market value of the Premises unencumbered by this Restriction (minus any increase in value attributable to improvements made after the date of this grant) by the ratio of the value of this Restriction at the time of this grant to the value of the Premises, without deduction for the value of this Restriction, at the time of this grant. For the purposes of this paragraph, said ratio shall remain constant over time. If circumstances arise in the future such as render the purpose of this Conservation Restriction impossible to accomplish, this Restriction can only be terminated or

$$
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$$

extinguished, whether in whole or in part, by judicial proceedings in a court of competent jurisdiction, or as otherwise provided by law. If any change in conditions ever gives rise to extinguishment or other release of the Conservation Restriction under applicable law, then Grantee, on a subsequent sale, exchange or involuntary conversion of the Premises, shall be entitled to a portion of the proceeds equal to such fair market value, subject, however, to any applicable law which expressly provides for a different disposition of proceeds. Whenever all or any part of the premises or any interest therein is taken by public authority under power of eminent domain or other act of public authority, then Grantor and Grantee shall cooperate in recovering the full value of all direct and consequential damages resulting from such action. All related expenses incurred by Grantor and Grantee shall first be paid out of any recovered proceeds, and the remaining proceeds shall be distributed between Grantor and Grantee in shares equal in proportion to the aforementioned ratio (though if a less-than-fee interest is so taken, the proceeds shall be equitably allocated according to the nature of the interest taken). Grantee shall use its share of the proceeds in a manner consistent with the conservation purpose set forth herein.

## E. Legal Remedies of the Grantee.

(1) Legal and Injunctive Relief

The rights hereby granted shall include the
right to enforce this Conservation Restriction by appropriate legal proceedings and to obtain injunctive and other equitable relief against any violations, including, without limitation, relief requiring restoration of the premises to its condition prior to the time of the injury complained of (it being agreed that the Grantee may have no adequate remedy at law), and shall be in addition to, and not in limitation of, any other rights and remedies available to the Grantee.
(2) Reimbursement of Costs of Enforcement The Grantor and thereafter the successors and assigns of the Grantor covenant and agree to reimburse the Grantee for all reasonable costs and expenses (including without limitation counsel fees) incurred in enforcing this Conservation Restriction or in remedying or abating any violation thereof.
(3) Grantee Disclaimer of Liability

By its acceptance of this Conservation Restriction, the Grantee does not undertake any liability or obligation relating to the condition of the Premises.
(4) Severability clause

If any provision of this Conservation Restriction shall to any extent be held invalid, the remainder shall not be affected.
(5) Non-Waiver

Any election by the Grantee as to the manner and timing of its right to enforce this Conservation Restriction or otherwise exercise its rights hereunder shall not be deemed or construed to be a waiver of such rights.
F. Access. The Conservation Restriction hereby conveyed does not grant to Grantee, to the public generally, or to any other person any right to enter upon the Premises except rights of the public and others as are expressly set forth herein and except also as follows:
(1) There is hereby granted to Grantee and its representatives the right to enter the Premises (a) at reasonable times and in a reasonable manner for the purpose of inspecting the same to determine compliance. herewith and (b) after thirty (30) days prior written notice to Grantor, to take any and all actions with respect to the Premises as may be necessary or appropriate, with or without order of court, to remedy, abate or otherwise enforce any violation hereof;

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(2) To insure that the purposes of this Conservation Restriction are carried out, the Grantee named herein agrees to develop, within one hundred eighty (180) days of the date hereof, a written management plan for the Premises, with the advice of the oak Bluffs Consexvation Commission. Any amendments to the management plan developed by Grantee in accordance herewith shall also be made by Grantee with the advice of the Oak Bluffs Conservation Commission. The management plan developed by the Grantee hereunder with the advice of the Oak Bluffs Conservation Commission, as it may be amended from time to time, is hereinafter referred to as the "Plan". The Plan shall include an identification of the natural resources and plant and animal habitats located in and on the Premises, shall provide a mechanism that will allow the students and teachers at the Oak Bluffs Elementary School to participate in the management and use of the Premises as permitted hereunder, shall serve as the basis of all management decisions affecting the Premises in accordance with the affirmative rights contained in paragraph $B$; and may be

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modified from time to time.
G. Acts Beyond Grantor's Control. Nothing contained in this Conservation Restriction shall be construed to entitle Grantee to bring any action against Grantor, for any injury to or change in the Premises resulting from causes beyond the Grantor's control, including, but not limited to, fire, flood, storm and earth movement, or from any prudent action taken by Grantor under emergency conditions to prevent, abate, or mitigate significant injury to the Premises resulting from such causes.
H. Duration and Assignability. The burdens of this Conservation Restriction shall run with the Premises and shall be enforceable against Grantor in perpetuity. Grantee is authorized to record or file any notices or instruments appropriate to assuring the perpetual enforceability of this Conservation Restriction. The benefits of this Conservation Restriction shall be in gross and assignable by Grantee exclusively to other public conservation organizations and pursuant to the provisions of Article 97 of the Constitution. However, Grantee agrees not to assign its rights under this Conservation Restriction unless there is a change of circumstances that would defeat the conservation purposes of this Conservation. Restriction or unless Grantee: is unable to carry out its obligations hereunder, and, in any such instance, Grantee agrees that such assignment shall only be made if and to the extent that: (i) as a condition of the assignment, Grantee requires that the purpose of this Conservation Restriction and Grantee's obligations continue to be

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carried out, and (ii) the assignee, at the time of assignment, qualifies under Section $170(\mathrm{~h})$ of the Internal Revenue Code of 1986, as amended, and applicable regulations thereunder, and under Section 32 of Chapter 184 of the General Laws, or under analogous regulations that may then be in force, as an eligible donee to receive this Conservation Restriction directly. Grantor and Grantee intend that the restrictions arising hereunder shall take effect when all requisite signatures pursuant to section 32 of Chapter 184 of the General Laws have been obtained, and said Conservation Restriction has been recorded, or if registered land, it has been registered.
I. Subsequent Transfers. Grantor agrees to
incorporate by reference the terms of this Conservation Restriction in any deed or other legal instrument by which Grantor conveys any interest in all or a portion of the Premises. Failure of Grantor to do so shall not impair the validity of this Conservation Restriction or limit its enforceability in any way.
J. Termination of Rights and obligations.

Notwithstanding anything to the contrary contained herein, the rights and obligations under this Conservation Restriction of any party holding any interest in the Premises shall terminate upon transfer of that party's interest.
K. Miscellaneous.
(a) Controlling Law. The interpretation and performance of this Conservation Restriction shall be governed by the laws of the Commonwealth of Massachusetts.

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(b) Liberal Construction. Any general rule of construction to the contrary notwithstanding, this Conservation Restriction shall be liberally construed in favor of the grant to effect the purpose of this Conservation Restriction and the policy and purpose of Mass. Gen. Laws Chapter 184, Sections 3133. If any provision in this instrument is found to be ambiguous, an interpretation consistent with the purposes of this Conservation Restriction that would render the provision valid shall be favored over any interpretation that would render it invalid.
(c) Entire Agreement. This instrument sets forth the entire agreement of the parties with respect to the Conservation Restriction and supersedes all prior discussions, negotiations, understandings, or agreements relating to the Conservation Restriction, all of which are merged herein.
(d) Settlement of Disputes. Any dispute which arises between the parties hereto which relates to this Conservation Restriction shall be settled by the Secretary of Environmental Affairs for the Commonwealth of Massachusetts.

No documentary stamps are required, as this Conservation Restriction is a gift.

EXECUTED under seal this 5 th day of March 1996.


COMMONWEALTH OF MASSACHUSETTS
Dukes County, ss.
March 5 , 1996

Then personally appeared the above-named unity $\operatorname{luncup}^{\prime}$ and acknowledged the foregoing instrument to be his/her free act and deed, before me,


My commission expires:
Oof 16, 1998

## ACCEPTANCE OF GRANT

The above Conservation Restriction is accepted this 6th day of _ March , 1996.


COMMONWEALTH OF MASSACHUSETTS
County of Dukes County, ss.


Then personally appeared the above-named Thomas Robinson, Chairperson as aforesaid, and acknowledged the foregoing in:.... instrument to be the free act and deed of the Martha's. Wizard Land Bank Commission, before me,

My commission expires

## APPROVAL BY SECRETARY OF ENVIRONMENTAL AFFAIRS COMMONWEALTH OF MASSACHUSETTS

The undersigned, SECRETARY OF THE EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS OF THE COMMONWEALTH OF MASSACHUSETTS, hereby certifies that the foregoing Conservation Restriction to Martha's Vineyard Land Bank Commission has been approved in the public interest pursuant to M.G.L. Chapter 184, Section 32.

Dated: $\qquad$ , 1996


Edgartown, Mass.
 1096 at \& o'clock and 30 minutes o received and entered with Dukes County Deeds book $\qquad$ page $\qquad$ 29 Attest: Decree 2 .fawners Register

Sharon M. Pelosi NOTARY PUBLIC My Commission expires June 21,2002.

## Appendix B:

## Flora of Farm Pond Preserve, Oak Bluffs, MA

## Division Bryophyta (Mosses and Liverworts)

## Polytrichaceae

Polytrichum species haircap moss species

## Division Lycopodiophyta (Clubmosses and Quillworts)

Lycopodiaceae (Clubmoss Family)
Lycopodium species clubmoss species

## Division Polypodiophyta (Ferns)

Aspleniaceae (Spleenwort Family)
Thelypteris palustris
Dennstaedtiaceae (Bracken Family)
Pteridium aquilinum
bracken fern

Onocleaceae (Sensitive fern Family)
Onoclea sensibilis
sensitive fern

Osmundaceae (Royal fern Family)
Osmunda cinnamomea cinnamon fern
Osmunda regalis
royal fern

## Division Pinophyta (Gymnosperms)

## Cupressaceae (Cypress Family)

Juniperus virginiana
eastern red cedar

Pinaceae (Pine Family)
Pinus rigida
pitch pine
Division Magnoliophyta (Flowering Plants)
Aceraceae (Maple Family)

Acer pseudoplatanus
Acer rubrum

## Anacardiaceaa (Cashew Family)

Rhus copallinum
Rhus typhina
Toxicodendron radicans

## Apiaceae (Carrot Family)

Daucus carota
Heracleum lanatum
Ptilimnium capillaceum
Aquifoliaceae (Holly Family)
llex verticillata
Araliaceae (Ginseng Family)
Aralia nudicaulis
Asclepiadaceae (Milkweed Family)
Asclepias amplexicaulis Asclepias incarnata Asclepias syriaca Asclepias tuberosa

## Asteraceae (Aster Family)

Achillea millefolium
Ambrosia artemisiifolia
Anaphalis margaritacea
Antennaria species
Artemisia stelleriana
Aster cf. dumosus
Aster linariifolius
Aster novi-belgii
Aster tenuifolius
Aster umbellatus
Baccharis halimifolia
Bidens connata
Centaurea maculosa
Chrysopsis falcata
Cichorium intybus
Cirsium species
sycamore maple red maple
shining sumac
staghorn sumac poison ivy

Queen Anne's Lace
cow parsnip
mock bishop-weed
winterberry
wild sarsaparilla
blunt-leaved milkweed swamp milkweed common milkweed butterflyweed
yarrow
common ragweed
pearly everlasting
pussytoes species
dusty miller
bushy aster
stiff aster
new york aster
large salt-marsh aster
flat-topped aster
groundsel tree
swamp beggar ticks
spotted knapweed
sickle-leaved golden aster
chicory
thistle species

Cirsium vulgare
Conyza canadensis
Erechtites hieracifolium
Eupatorium dubium
Eupatorium hyssopifolium
Eupatorium perfoliatum
Euthamia graminifolia
Euthamia tenuifolia
Gnaphalium obtusifolium
Hieracium caespitosum
Hieracium scabrum
Hypochoeris radicata
Iva frutescens
Lactuca canadensis
Lactuca scariola
Solidago elliottii
Solidago odora
Solidago rugosa
Solidago sempervirens
Sonchus arvensis

## Balsaminaceae (Touch-me-not Family)

Impatiens capensis

## Berberidaceae (Barberry Family)

Berberis thunbergii

## Brassicaceae (Mustard Family)

Cakile edentula
Lepidium virginicum
Raphanus raphanistrum

## Caprifoliaceae (Honeysuckle Family)

Lonicera japonica
Lonicera morrowii
Sambucus canadensis
Viburnum dentatum
Viburnum recognitum

## Caryophyllaceae (Pink Family)

Saponaria officinalis
Spergularia marina
bull thistle
horseweed
pilewort
eastern Joe-Pye weed
hyssop-leaved boneset
boneset
lance-leaved goldenrod
slender-leaved goldenrod
sweet everlasting
field hawkweed
rough hawkweed
cat's ear
marsh elder
wild lettuce
prickly lettuce elliott's goldenrod
sweet goldenrod
rough-stemmed goldenrod
seaside goldenrod
field sow-thistle
spotted jewelweed
japanese barberry
sea rocket
wild peppergrass
wild radish
japanese honeysuckle
morrow's honeysuckle
common elder
southern arrowwood
northern arrowwood
soapwort
salt-marsh sand-spurrey

## Celastraceae (Staff-tree Family)

Celastrus orbiculatus

## Chenopodiaceae (Goosefoot Family)

Atriplex arenaria
Atriplex patula
Salicornia europaea

## Cistaceae (Rock-rose Family)

Lechea species

## Clusiaceae (Mangosteen Family)

Hypericum perforatum
Triadenum virginicum

## Convolvulaceae (Morning-glory Family)

Convolvulus arvensis

## Cornaceae (Dogwood Family)

Cornus florida

## Cyperaceae (Sedge Family)

Carex cf. hormathodes
Carex lurida
Carex pensylvanica
Carex swanii
Cyperus strigosus
Scirpus pungens
Scirpus robustus
Elaeagnaceae (Oleaster Family)
Elaeagnus umbellata
Ericaceae (Heath Family)
Gaylussacia frondosa
Lyonia ligustrina
Rhododendron viscosum
Vaccinium angustifolium
Vaccinium corymbosum

## Fabaceae (Pea Family)

Apios americana
asiatic bittersweet
seabeach orach.
orach
slender glasswort
pinweed species
common St. Johnswort marsh St. Johnswort
field bindweed
flowering dogwood
marsh straw sedge
sallow sedge
Pennsylvania sedge
swan's sedge
straw-colored flatsedge
common threesquare
saltmarsh bulrush
autumn-olive
dangleberry
maleberry
swamp azalea
lowbush blueberry
highbush blueberry

Baptisia tinctoria
Lathyrus latifolius
Trifolium pratense
Fagaceae (Beech Family)
Quercus alba
Quercus cf. rubra
Quercus stellata
Quercus velutina

## Geraniaceae (Geranium Family)

Geranium maculatum
Juncaceae (Rush Family)
Juncus canadensis
Juncus dichotomus
Juncus effusus
Juncus gerardii
Juncus greenei

## Lamiaceae (Mint Family)

Lycopus uniflorus
Teucrium canadense

## Lauraceae (Laurel Family)

Sassafras albidum

## Monotropaceae (Indian Pipe Family)

Monotropa hypopithys
Monotropa uniflora

## Myricaceae (Bayberry Family)

Comptonia peregrina
Myrica gale
Myrica pensylvanica
Onagraceae (Evening-primrose Family)
Epilobium cf. coloratum
Oenothera biennis
Oxalidaceae (Wood sorrel Family)
yellow wild indigo
everlasting pea
red clover
white oak
red oak
post oak
black oak
wild geranium

Canada rush
forked rush
soft rush
black rush
path rush
northern bugleweed
american germander
sassafras
pinesap
indian pipe
sweetfern
sweet gale
bayberry
purple-leaved willow herb common evening-primrose

Oxalis species

## Phytolaccaceae (Pokeweed Family)

Phytolacca americana
Plantaginaceae (Plantain Family)
Plantago lanceolata
Plantago major
Plumbaginaceae (Leadwort Family)
Limonium carolinianum
Poaceae (Grass Family)
Agropyron repens
Agrostis gigantea
Agrostis species
Dactylis glomerata
Danthonia spicata
Deschampsia flexuosa
Distichlis spicata
Eragrostis spectabilis
Festuca ovina
Festuca rubra
Holcus lanatus
Lolium perenne
Panicum clandestinum
Panicum virgatum
Paspalum species
Phragmites australis
Schizachyrium scoparium
Setaria glauca
Spartina alterniflora
Spartina patens
Spartina pectinata
Polygalaceae (Milkwort Family)
Polygala polygama
Polygonaceae (Smartweed Family)
Polygonum convolvulus
Polygonum cuspidatum
Polygonum punctatum
wood-sorrel species
pokeweed
english plantain
common plantain
sea lavendar
quackgrass
redtop
panic grass species
orchard grass
poverty grass
hairgrass
saltmarsh spikegrass
purple love grass
sheep fescue
red fescue
velvet grass
perrenial ryegrass
deer-tongue grass
switchgrass
bead grass species
common reed
little bluestem
yellow foxtail
saltwater cordgrass
salt meadow cordgrass
freshwater cordgrass
racemed milkwort
black bindweed japanese knotweed dotted smartweed

Polygonum sagittatum
Polygonum scandens
Rumex acetosella
Rumex crispus
Rumex obtusifolius

## Primulaceae (Primrose Family)

Lysimachia quadrifolia
Trientalis borealis
Pyrolaceae (Shinleaf Family)
Chimaphila maculata
Ranunculaceae (Buttercup Family)
Clematis terniflora

## Rosaceae (Rose Family)

Amelanchier species
Aronia arbutifolia
Potentilla simplex
Prunus maritima
Prunus serotina
Pyrus malus
Rosa carolina
Rosa multiflora
Rosa rugosa
Rosa virginiana
Rubus allegheniensis
Rubus flagellaris
Rubus hispidus
Spiraea tomentosa

## Salicaceae (Willow Family)

Salix cinerea
Salix species

## Scrophulariaceae (Figwort Family)

Agalinis purpurea
Linaria vulgaris
Verbascum thapsis
arrow-leaved tearthumb
climbing false buckwheat
field sorrel
curled dock
bitter dock
whorled loosestrife starflower
striped wintergreen
yam-leaved clematis
shadbush species
red chokeberry common cinquefoil
beach plum
black cherry
domestic apple
pasture rose
multiflora rose
beach rose
virginia rose
common blackberry
prickly dewberry
bristly dewberry
steeplebush
grey willow
willow species
purple gerardia
butter-and-eggs
common mullein

## Smilacaceae (Catbrier Family)

Smilax rotundifolia
Solanaceae (Nightshade Family)
Solanum dulcamara

## Typhaceae (Cat-tail Family)

Typha angustifolia
Typha latifolia
Vitaceae (Grape Family)
Parthenocissus quinquefolia
Vitis labrusca
common greenbrier
bittersweet nightshade
narrow-leaved cattail common cattail
virginia creeper
fox grape

## Appendix C:

## Checklist of Bird Species at Farm Pond Preserve

## Family Podicipedidae (grebes)

pied-billed grebe Podilymbus podiceps

## Family Phalacrocoracidae (cormorants)

 double-crested cormorant Phalacrocorax auritusFamily Ardeidae (herons)
green-backed heron great blue heron

Butorides striatus
Ardea herodias

| Family Anatidae (swans, geese, and ducks) |  |
| :--- | :--- |
| mute swan | Cygnus olor |
| canada goose |  |
| mallard | Branta canadensis <br> Anas platyrhynchos |
| american black duck | Anas rubripes |
| bufflehead | Bucephala albeola |
| red-breasted merganser | Mergus serrator <br> hooded merganser |

## Family Scolopacidae (sandpipers)

sandpiper species Calidris species

## Family Laridae (gulls and terns) <br> herring gull Larus argentatus great black-backed gull Larus marinus

> Family Accipitridae (hawks and eagles) northern harrier broad-winged hawk $\quad$ Circus cyaneus

## Family Phasianidae (grouse)

northern bobwhite Colinus virginianus
Family Columbidae (pigeons and doves)
mourning dove Zenaida macroura

## Foraging Guild*

$\mathrm{w}^{* *}$ : omnivore, bottom forager
s: piscivore, water diver
s/w: carnivore, water ambusher s/w: carnivore, water ambusher
s/w: herbivore, water grazer s/w: herbivore, ground grazer s : granivore, water forager w: omnivore, water forager $\mathrm{s} / \mathrm{w}$ : omnivore, water forager w: omnivore, bottom forager w: piscivore, water diver w: piscivore, water diver
m : carnivore, ground prober
s/w: carnivore, coastal scavenger s/w: carnivore, coastal scavenger
s/w: carnivore, ground pouncer s/w: carnivore, ground pouncer
s/w: omnivore, ground gleaner
s/w: granivore, ground gleaner

## Family Apodidae (swifts)

chimney swift Chae
Family Picidae (woodpeckers)
red-bellied woodpecker. Melanerpes carolinus
downy woodpecker Picoides pubescens
hairy woodpecker . Picoides villosus
northern flicker
Colaptes auratus

## Family Tyrannidae (tyrant flycatchers) <br> eastern kingbird Tyrannus tyrannus great crested flycatcher Myiarchus crinitus

Family Hirundinidae (swallows)
tree swallow
Tachycineta bicolor barn swallow

Hirundo rustica
Family Corvidae (jays and crows)

| blue jay | Cyanocitta cristata |
| :--- | :--- |
| american crow | Corvus brachyrhynchos |

Family Paridae (titmice and chickadees) black-capped chickadee Parus atricapillus

Family Sittidae (nuthatches)<br>white-breasted nuthatch Sitta carolinensis

## Family Troglodytidae (wrens)

carolina wren
house wren
Thryothorus ludovic
Troglodytes aedon
s/w: omnivore, ground gleaner s/w: omnivore, ground gleaner
s : insectivore, lower canopy gleaner
w: omnivore, lower canopy gleaner
s/w: insectivore, bark gleaner
s: insectivore, air screener s : insectivore, air screener
s/w: insectivore, bark gleaner
s/w: insectivore, bark gleaner
s/w: insectivore, bark gleaner
s : insectivore, ground gleaner
w: omnivore, ground gleaner
s: insectivore, air sallier
s: insectivore, air sallier
s/w: insectivore, lower canopy gleaner
s: insectivore, lower canopy gleaner
w: omnivore, lower canopy gleaner
m : omnivore, ground+foliage gleaner s/w: omnivore, ground gleaner

Martha's Vineyard Land Bank Commission

OAK BLUFFS TOWN ADVISORY BOARD<br>MINUTES<br>REGULAR SESSION<br>MEETING OF SEPTEMBER 24, 1996

Town Hall. Oak Bluffs, Massachusetts

CALL TO ORDER: 5:45 pm
BOARD MEMBERS PRESENT AT CALL TO ORDER
Judith Bates, Melanie Bilodeau, Elizabeth Dolan, Nancy Penn, Elizabeth Talbot

BOARD MEMBERS ABSENT AT CALL TO ORDER
Richard Coutinho, Arthur Smith
LAND BANK COMMISSIONERS PRESENT AT CALL TO ORDER Priscilla Sylvia

STAFF PRESENT AT CALL TO ORDER
James Lengyel, John Potter

## PUBLIC HEARINGS

1. Farm Pond Preserve (South Circuit Avenue)

The Board conducted a public hearing regarding this property's draft management plan. The following members of the public were present: Susan Dawson, Manuel deBettencourt, Penny deBettencourt, Gloria Ann deBettencourt Broadbent, Maura McGroarty, Lloyd Niederlitz, Mary Niederlitz, Leonard Schoenfeld and Barbara Whitmore. Mrs. Penn opened the public hearing at 5:45 pm.

Land bank land superintendent John Potter gave a presentation outlining the plan's species inventory and its proposals for land management. The land was acquired by the Town of Oak Bluffs in order to serve as public conservation land and as a "outdoor laboratory" for pupils at the nearby elementary school.

Mrs. Niederlitz stated that she was accustomed to launching a small boat into the pond off South Circuit Avenue and questioned whether this would be limited or restricted. Mr. Potter. responded that it would be best environmentally if multiple accesses to the pond did not exist
P.O. Box 2057 - Edgartown, Massachusetts 02539 - 508 627-7141 ${ }^{\text {• }}$ •Fax 508 627-7415
but the land bank would be concentrating on other management matters of higher priority. She stated that she supported the concept of opening up greater public views of the pond from South Circuit Avenue.

Susan Dawson repeated Mrs. Niederlitz's question. Mr. Potter stated that the terms of the easement did not permit boat access in this area; since the easement was drafted by the Board of Selectmen it would be appropriate to direct inquiries to this Board.

Penny deBettencourt expressed reservations about the proposal to mow a small field in the center of the property. She stated that previous mowing there had led to floods in her basement and that creating a space where schoolchildren could congregate would lead to disturbing noise. Mr . Potter stated that the purpose of the mowing was to increase and improve wildife habitat and to allow students the opportunity to study the species there. Mrs. Bilodeau stated that when she purchased her house she was surrounded on three sides by vegetation but a large garage had since been built very close to one of the property lines; she stated that she can understand that changes in one's neighborhood can be upsetting but that she would prefer to have conservation land as her neighbor rather than this garage.

Manuel deBettencourt stated that he was concerned about camping and trash. Mr. Potter stated that the plan called for the land bank staff to monitor and control these matters. Mrs. deBettencourt expressed concern about fires. Mr. Potter stated that that the plan called for the land bank staff to monitor and control this matter.

Mr. deBettencourt questioned whether benches or picnic tables would be erected on this property. Mr. Potter stated that benches would be located in certain areas but that pienic tables would not. Mr. deBettencourt questioned whether the provision of benches would lead to the creation of trash.

Barbara Whitmore asked whether the Town would pick up trash in a land bank refuse container. Mr. Potter stated that there would be no refuse receptables and that land bank staff would pick up any scattered litter.

Ms. Broadbent questioned who would be allowed to use the
trail on this property; she stated that mopeds have used this area in the past that it she was unhappy about it. Mrs. Bilodeau stated that it would be useful if Ms. Broadbent could document the use of this trail by mopeds any time it happens as it will help the land bank and the Town police to eliminate the problem.

Ms. Dawson asked if the land bank would help in trying to get a second culvert reopened between the Farm pond and the Nantucket Sound. Mr. Potter stated that the pond was the jurisdiction of the commonwealth and that the land bank would not involve itself in this matter.

Hearing no other comment, Mrs. Penn closed the public hearing at 6:52 pm.

## NEW BUSINESS

1. Farm Pond Preserve (South Circuit Avenue)

The Board briefly discussed the input received at the public hearing which had just earlier concluded. After discussion, Ms. Talbot moved and Ms. Bates seconded and the Board voted unanimously to take this matter under advisement and to suggest that Mr. Potter meet with Mr. and Mrs. deBettencourt in order to determine if any modifications to the mowing plan are warranted.

Mrs. Bilodeau departed the meeting at this time.

## TRANSFER FEE HEARINGS

1. Maynard Silva (Wing Road)

Mr. Silva had requested a hearing regarding the possibility of receiving a payment plan for his upcoming transfer. Mrs. Penn opened the public hearing at 6:52 pm.

Mr. Lengyel reported that Mr. Silva had asked to pay his $\$ 1780$ transfer fee over a period of 18 months. He addytionally reported that the Land Bank Commission had voted to approve this plan. Mrs. Penn closed the public hearing at 6:53 pm.

After discussion, Ms. Talbot moved and Ms. Bates seconded and the Board voted unanimously to approve a payment plan for Mr. Silva.

## Maps:

The following maps are included after this page:

1. Locus Map I;
2. Locus Map II (2 pages A and B);
3. Base Map;
4. Survey Plan;
5. Geology Map;
6. Topography Map;
7. Soils Map;
8. Hydrology Map;
9. Vegetation Communities Map;
10. Spring Wildlife Map;
11. Summer Wildlife Map;
12. Fall Wiidlife Map;
13. Winter Wildlife Map;
14. Rare Species Map;
1.5. Abuttors Map (2 pages $A$ and $B$ );
15. Existing Use Map; and
16. Site Management Map.

Farm Pond Preserve
Oak Bluffs, MA - 27.2 acres
LOCUS MAP IIA
prepared by M.V. Land Bank (Jan. 1996)
$z$















RARE SPEGIES MAP





