

Pecoy Point Preserve

Oak Bluffs, MA



Land Management Plan

approved by vote of the Oak Bluffs town advisory board: 28 October 1997
approved by vote of the land bank commission: 3 November 1997
approved by the secretary of environmental affairs: 12 December 1997
amended by vote of the Oak Bluffs town advisory board: 7 November 2000
amended by vote of the Martha's Vineyard land bank commission: 20 November 2000
approved by the secretary of environmental affairs: 21 December 2000
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John Potter, Land Superintendent
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Matthew Dix, Property Assistant
David Warren, Property Assistant

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Executive Summary

Pecoy Point Preserve is a 15.0-acre property located off Pulpit Rock Road and County Road in Oak Bluffs, Massachusetts. The land bank commission purchased this property in November 1995 for the sum of \$775,000.

The parcel lies on Majors Cove in Sengekontacket Pond, a 690-acre coastal pond on Oak Bluffs' eastern shore. On the property are salt marshes, a white oak stand, open meadows, and pine woods. There are currently over two hundred plant species recorded for the preserve. In the various habitats are found switchgrass, groundsel tree, sassafras, and a rare plant. Of particular note is a small, freshwater pond in the meadow that is visited by red-winged blackbirds, whitetail dragonflies, river otters, and muskrats. Views from the property include sunrise over Sengekontacket and Cape Poge.

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 planned series of strategies for dealing with these problems and opportunities. The maps referred to in the text are included at the end of each section.

About the authors

John Potter has been the land superintendent at the land bank since 1992. He has a master of forestry degree from the Yale School of Forestry and Environmental Studies where he studied natural resource management. Wendy Malpass has been the ecologist at the land bank since 1993. She has a master of oceanography degree from the University of Maine where she studied benthic ecology. Matthew Dix has been a property assistant at the land bank since 1989. He has extensive knowledge of the region's natural history and local geography. David Warren has been a property assistant since 1995. He has a bachelor's of science degree from Southern Connecticut State University where he studied biology.

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I. Natural Resource Inventory

A. Physical Characteristics

1. Locus Map

Pecoy Point Preserve is a 15.0-acre property located in Oak Bluffs, Massachusetts at 41°25'26" north latitude, 70°34'00" west longitude (USGS, 1979). This is south-east Oak Bluffs. The property has 960 feet of frontage on Sengekontacket Pond, and is otherwise accessed by right-of-way across land of the Farm Neck Association, Inc. The driveway to the preserve starts 0.2 miles down Pulpit Rock Road (a sub-division road off County Road - approximately 0.9 miles north of the Edgartown-Vineyard Haven Road) and is itself 0.2 miles long. **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 II** is a compiled copy of Oak Bluffs tax maps 43, 44, 47, and 48. Pecoy Point Preserve is parcel 44-26.

Included after the Locus Maps are a series of **Aerial Photographs** that show the preserve and its general surroundings (Col-East, 1996). These photographs were taken in the spring of 1996, and are at a scale of 1"=500' or 1:6,000. The prints included are 15-22, 15-21, 14-24, and 14-22.

2. Property Base Map

The **Base Map** shows boundaries, existing roads and trails, ponds, marsh, and other features. 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 667, page 518, describes the property. It is dated December 22, 1995. A copy of the deed is included in Appendix A. Also included in Appendix A are copies of a view easement and a conservation easement that pertain to the preserve.

The property is shown as Lot 2 on a plan entitled "Plan of Land in Oak Bluffs, Mass., Prepared for Fred M. Condon, Trustee of Pecoy Point Realty Trust," dated December 13, 1995, and recorded as Oak Bluffs Case File No. 321. The **Survey Map** in this management plan is a copy of the aforementioned plan.

4. Geology and Soils

The **Geology Map** is a copy of a map provided in the *Soil Survey of Dukes County* (SCS, 1986). It shows the property as located on what Clifford Kaye of the United States 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 Wisconsin 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). Holocene-era sea level rise has seen the expansion of Sengekontacket Pond to its present extent with adjacent salt marshes and low-lying land.

Elevations at Pecoy Point Preserve range from approximately sea level at the pond to twenty-one feet above sea level at the north-western corner of the property. Eighty-seven percent of the property is at or below ten feet of elevation. These areas are regularly influenced by coastal storms, particularly along the shoreline. The **Topography Map** shows two-foot contour lines as determined by staff field surveys.

There are two soil types at Pecoy Point Preserve as shown on the **Soils Map**. These are Pawcatuck mucky peat and Carver loamy coarse sand. In the wetland areas, organic deposits of plant materials accumulated after glaciation and are in varying stages of decomposition. The Carver soil formed in material originally moved by the glacier that was subsequently sorted and shifted by meltwater streams. It is the predominant soil of the Martha's Vineyard moraine and covers most of the Oak Bluffs neck. (SCS, 1986).

Neither of these soils is considered prime farmland for the county. Nor are either particularly productive in terms of woodland management. A white oak will reach 40 to 50 feet in 50 years on the Carver soil. The Pawcatuck soil is in salt marsh vegetation and will not typically support tree growth, but may be very productive. It has the most severe limitations to supporting paths and trails, and the thick humus and ponding of water in this soil means that it can only be used with special design, limited use, and or intensive management. Carver soil can have moderate limitations, but these are due to sandiness, not wetness.

5. Hydrology and Wetlands

The entire property drains into Sengekontacket Pond and is part of the Sengekontacket Pond watershed. Sengekontacket is a 690-acre coastal salt pond open to Nantucket Sound by two permanent openings through the barrier beach at Beach Road. Saltwater enters the pond from Nantucket Sound with each tidal cycle. The pond is also fed by subsurface groundwater flow, particularly along Majors Cove. The deepest point in the entire pond is eight feet at the center of the channel in Majors Cove (Wilcox, 1997). Mean depth for the Cove (147 acres) is just over four feet, and for the entire pond is three feet (Wilcox, 1997). Though salinity is pretty much the same as in Nantucket Sound (31 ppt), it is more brackish at the south-eastern end of Sengekontacket. Greater than 90% of the volume of the pond is flushed out every day, so any potential pollutants are regularly eliminated from the system. Sediment is deposited by a longshore current into the two openings in the barrier beach, and sedimentation drops off from east to west. The pond is too shallow for any temperature stratification or layering to develop.

The **Hydrology Map** shows the approximate extent of wetland resource areas on the property. There is a small, freshwater pond of 16,910 square feet. It exists because the level of the land drops below the water table. There is no inlet or outlet, and the pond is maintained year-round by overland and subsurface flow. The freshwater in this area rides as a lens on top of a denser salt water aquifer that comes in from Sengekontacket. The contact between the salt water and the freshwater is shown by stands of cattails and giant reed at the top of the salt marsh.

There are 4.2 acres of salt marsh on the property. These are part of a larger 9.5-acre system. The hydrologic function of the system is influenced by a series of grid ditches that were probably installed in the 1930s for mosquito control. There are 610 feet of ditches on the preserve. The ditches alter water flow in the salt marshes in a way that may encourage the scouring of sediment and detritus. This can cause decreased deposition rates and lowered rates of marsh accretion. The ditches may also drain the marsh of the pans of standing water that would otherwise accumulate on the surface. This affects the biology of fish and bird populations. However, the large amount of low marsh and the number of pans at Pecoy Point Preserve indicate that the ditches may not be influencing the salt marsh to a high degree. This could be because of the depth and function of associated natural tidal creeks. Other wetland resource areas on the property include bordering vegetated wetlands and land subject to coastal flooding.

6. Ecological Processes

The major abiotic ecological processes that influence biological composition and distribution on this coastal property are erosion, wind, rain, sun exposure, and storm-related flooding, salt spray, and deposition of material along the shore. The magnitude of the impact of any of these processes is highly variable and depends on the frequency and strength of individual events. Seasonality can determine to a large extent the nature and severity of impact. For example, hurricanes are typical of mid to late summer and occur in the growing season. Indications of past hurricane damage on the preserve include things like uprooted trees near the shore, wrack lines deposited well inland, and extensive salt marsh pans. The wind exposure changes throughout the year and within the day, but can be significant as evidenced by arboreal vegetation patterns. On-shore breezes come off Sengekontacket and Nantucket Sound during summer days and will die down or reverse at nights. In the winter, winds more typically prevail from the north-west. The property is exposed to the north-west and there is little shelter from these winds. The aspect of the preserve is mainly south-east, but slopes are mild. As a result, the land heats up early in the day and for a longer period than cooler, north-facing slopes. Micro-climates occur on the site. For instance, lower topographical features such as the salt marshes can harbor cool pockets of air later into the day during the growing season. Other processes related directly to the proximity of a large salt pond include occasional fog and salt spray. These events can impact vegetative growth by delivery of moisture, nutrients, pollution, and shading. There are numerous biological processes occurring simultaneously, and these abiotic events influence and in turn are re-influenced by geology, soils, and hydrology.

B. Biological Characteristics

1. Vegetation

A census of the flora at Pecoy Point Preserve found 203 plant species in 59 families. The relatively high floral diversity is due to the richness of habitats, as well as to the large number of naturalized species that occur in a previously cultivated old field. Seven vegetation communities occur on the preserve. Table 1 summarizes the extent of each type, as well as the number of species found within the community and the number of species that occur solely within that community type (*i.e.*, a unique species). Although these communities generally reflect the underlying soils and hydrologic conditions present on and around the property, they intergrade to some degree, and in places a single "community type" is difficult to apply.

Table 1. Vegetation Communities at Pecoy Point Preserve

Vegetation Community	acreage	% property	# species	% unique species
Uplands	7.1	50 %		
old field	3.5	24 %	110	46 % (51)
high blueberry shrubland	1.4	10 %	37	11 % (4)
switchgrass meadow	1.1	8 %	49	6 % (3)
oak-pine woodland	0.7	5 %	15	33 % (5)
pond and pond edge	0.4	3 %	39	44 % (17)
Coastal Wetlands	7.2	50 %		
salt marsh	4.2	29 %	41	49 % (20)
groundsel-rose shrubland	3.0	21 %	56	13 % (7)
Total	14.3	100	203	53 % (107)

Upland communities cover 7.1 acres, or 50% of the preserve's 14.3 acres, and include old field, high-bush blueberry shrubland, switchgrass meadow, oak-pine woodlands, and the pond and pond edge. Coastal wetland communities cover 7.2 acres, also 50 % of the preserve's acreage, and include salt marsh and groundsel tree-Virginia rose shrubland. The **Vegetation Communities Map** details the geographic extent of each community type.

A full botanical list for the property, entitled "Flora of Pecoy Point Preserve, Oak

Bluffs, MA” is presented in Table 2. It includes information on the abundance of all 203 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 and the morphological type. The possible morphological types include: tree, shrub, vine, herb, graminoid, fern, and moss. An overview of the number of species and the proportion of this number found within each vegetation community type is also presented, along with a description of the season, by survey, in which the plant species was observed.

Table 2. Flora of Pecoy Point Preserve, Oak Bluffs, MA

Table 2. Flora of Pecoy Point Preserve, Oak Bluffs, MA

scientific name	common name	morph	Community Type *							
			old field	switchgrass meadow	highbush blueberry shrubland	groundsel tree-rose shrubland	salt marsh	pond edge	oak-pine woodland survey	
mosses										
1 <i>Polytrichum juniperinum</i>	haircap moss	moss	U	u						1
vascular plants										
2 <i>Acer rubrum</i>	red maple	tree			C				u	2
3 <i>Achillea millefolium</i>	yarrow	herb	A			u		u		1
4 <i>Agalinis maritima</i>	seaside gerardia	herb						u		2
5 <i>Agrostis gigantea</i>	redtop	graminoid	A		C					2
6 <i>Ambrosia artemisiifolia</i>	common ragweed	herb	C					U		2
7 <i>Amelanchier arborea</i>	downy shadbush	shrub			u					1
8 <i>Amelanchier canadensis</i>	oblongleaf shadbush	shrub			u					1
9 <i>Anagallis arvensis</i>	pimpernel	herb						u		2
10 <i>Antennaria neglecta</i>	field pussytoes	herb	C							2
11 <i>Anthoxanthum odoratum</i>	sweet vernal grass	graminoid	A	u	C					1
12 <i>Apios americana</i>	common groundnut	vine						u		2
13 <i>Apocynum androsaemifolium</i>	spreading dogbane	herb	U	u					u	1
14 <i>Aronia arbutifolia</i>	red chokeberry	shrub			C	c	C		c	1
15 <i>Asclepias amplexicaulis</i>	blunt-leaved milkweed	herb	u	u						2
16 <i>Asclepias syriaca</i>	common milkweed	herb	u							1
17 <i>Asclepias tuberosa</i>	butterflyweed	herb	U				u			1
18 <i>Aster dumosus</i>	bushy aster	herb			C					2
19 <i>Aster novi-belgii</i>	new york aster	herb				C	A			2
20 <i>Aster patens</i>	late purple aster	herb	u							2
21 <i>Aster paternus</i>	toothed white-topped aster	herb	C	u						1,2
22 <i>Aster tenuifolius</i>	large salt-marsh aster	herb						C		2
23 <i>Aster undulatus</i>	wavy-leaved aster	herb	U							2
24 <i>Atriplex patula</i>	orach	herb						u		2
25 <i>Baccharis halimifolia</i>	groundsel tree	shrub				A	C			1,2
26 <i>Bidens connata</i>	swamp beggar ticks	herb							u	2
27 <i>Calyptegia sepium</i>	hedge bindweed	vine			C		C	U		2
28 <i>Capsella bursa-pastoris</i>	shepherd's purse	herb	u							1
29 <i>Carex pensylvanica</i>	pennsylvania sedge	graminoid	C			A				2
30 <i>Carex scoparia</i>	broom sedge	graminoid	u							2
31 <i>Carex species</i>	wide-leaved sedge	graminoid				C				2
32 <i>Carex swanii</i>	swan's sedge	graminoid	U							2
33 <i>Celastrus orbiculatus</i>	oriental bittersweet	vine		u		A	u		u	1
34 <i>Centaurea maculosa</i>	spotted knapweed	herb	u							1
35 <i>Carastium vulgatum</i>	mouse-ear chickweed	herb	u							1
36 <i>Chenopodium rubrum</i>	coast blite	herb						u		2
37 <i>Chimaphila maculata</i>	striped wintergreen	herb							u	1
38 <i>Chrysanthemum leucanthemum</i>	ox-eye daisy	herb	C				u			1
39 <i>Chrysopsis falcata</i>	sickle-leaved golden aster	herb	u							2
40 <i>Cichorium intybus</i>	chicory	herb	u							1
41 <i>Cirsium horridulum</i>	yellow thistle	herb	u					u		1
42 <i>Cirsium vulgare</i>	bull thistle	herb					u			2
43 <i>Clethra alnifolia</i>	sweet pepperbush	shrub				C			a	1
44 <i>Comptonia peregrina</i>	sweetfern	shrub	u							2
45 <i>Conyza canadensis</i>	horseweed	herb	C							2
46 <i>Cyperus filiculmis</i>	sand flatsedge	graminoid	C							2
47 <i>Cyperus strigosus</i>	straw-colored flatsedge	graminoid		u						2
48 <i>Dactylis glomerata</i>	orchard grass	graminoid	C	u						1
49 <i>Daucus carota</i>	Queen Anne's lace	herb	C				u			1
50 <i>Decodon verticillatus</i>	water willow	herb							u	1
51 <i>Dianthus armeria</i>	deptford pink	herb	u							1
52 <i>Digitaria sanguinalis</i>	northern crabgrass	graminoid	U							2
53 <i>Distichlis spicata</i>	spikegrass	graminoid						C		1
54 <i>Elaeagnus umbellata</i>	autumn-olive	shrub	U			C	u			1
55 <i>Eleocharis species</i>	a spike-rush	graminoid						U		2
56 <i>Epilobium species</i>	a willow-herb	herb							u	2
57 <i>Eragrostis spectabilis</i>	purple love grass	graminoid	C							2
58 <i>Erechthites hieracifolia</i>	pilewort	herb	u				u	u		2
59 <i>Erigeron strigosus</i>	lesser daisy fleabane	herb	u							1
60 <i>Eupatorium hyssopifolium</i>	hyssop-leaved boneset	herb	A	A			u	U		1,2
61 <i>Eupatorium perfoliatum</i>	boneset	herb						u		2
62 <i>Euphorbia supina</i>	milk purslane	herb	U							2
63 <i>Euthamia graminifolia</i>	lance-leaved goldenrod	herb	U				C	U		2
64 <i>Euthamia tenuifolia</i>	slender-leaved goldenrod	herb	C	A			A	U		1

scientific name	common name	morph	Community Type *							
			old field	switchgrass meadow	highbush blue-berry shrubland	blue-rose shrubland	groundsel tree-shrubland	salt marsh	pond edge	oak-pine woodland survey**
65 <i>Festuca rubra</i>	red fescue	graminoid	C	A	A	A	C			1, 2
66 <i>Fragaria virginiana</i>	wild strawberry	herb	C							1
67 <i>Galium species</i>	a bedstraw	herb		u					u	1
68 <i>Gaylussacia baccata</i>	black huckleberry	shrub			C					2
69 <i>Gnaphalium obtusifolium</i>	sweet everlasting	herb	C					U		1
70 <i>Heracleum lanatum</i>	cow parsnip	herb						u		1, 2
71 <i>Hieracium species</i>	hawkweed species	herb	A							1
72 <i>Holcus lanatus</i>	velvet grass	graminoid	A	C	C	C	U			1
73 <i>Hydrocotyle umbellata</i>	water pennywort	herb							u	2
74 <i>Hypericum gentianoides</i>	orange grass	herb	u							1
75 <i>Hypericum mutilum</i>	dwarf St. Johnswort	herb							u	2
76 <i>Hypericum perforatum</i>	common St. Johnswort	herb	C	C			u			1
77 <i>Hypochoeris radicata</i>	cat's ear	herb	A	u						1, 2
78 <i>Ilex verticillata</i>	winterberry	shrub			A				a	1
79 <i>Iris prismatica</i>	slender blue flag	herb							u	1
80 <i>Iva frutescens</i>	marsh elder	herb						C		1
81 <i>Juncus effusus</i>	soft rush	graminoid							c	1
82 <i>Juncus gerardii</i>	black rush	graminoid					C	C		1, 2
83 <i>Juncus tenuis var. dichotomus</i>	path rush	graminoid	A	C	u			U		1, 2
84 <i>Juniperus virginiana</i>	eastern red cedar	shrub	U	u			u			1
85 <i>Lactuca canadensis</i>	wild lettuce	herb	U					u		2
86 <i>Lathyrus palustris</i>	marsh vetchling	herb						u		1
87 <i>Lechea maritima</i>	beach pinweed	herb	U							2
88 <i>Lemna minor</i>	duckweed	herb							u	1
89 <i>Lespedeza capitata</i>	round-headed bush clover	herb	C	C						1, 2
90 <i>Ligustrum vulgare</i>	common privet	shrub					u			3
91 <i>Limonium carolinianum</i>	sea lavender	herb						C		1
92 <i>Linaris canadensis</i>	blue toadflax	herb	u					u		1
93 <i>Lonicera japonica</i>	japanese honeysuckle	vine		u			u			1
94 <i>Luzula bulbosa</i>	bulbous woodrush	graminoid					u			1
95 <i>Luzula multiflora</i>	common woodrush	graminoid							u	1, 2
96 <i>Lycopus uniflorus</i>	northern bugleweed	herb					C		c	1, 2
97 <i>Lysimachia terrestris</i>	swamp candles	herb					C		u	2
98 <i>Maianthemum canadense</i>	canada mayflower	herb	U							a
99 <i>Medicago lupulina</i>	black medick	herb	u							1
100 <i>Myrica pensylvanica</i>	bayberry	shrub	U	C		A		U		1, 2
101 <i>Nyssa sylvatica</i>	beetlebung	tree							c	1
102 <i>Oenothera fruticosa</i>	sundrops	herb	C	u					u	2
103 <i>Onoclea sensibilis</i>	sensitive fern	fern							u	1
104 <i>Osmunda cinnamomea</i>	cinnamon fern	fern			C*					1
105 <i>Oxalis stricta</i>	yellow wood sorrel	herb	U							2
106 <i>Panicum clandestinum</i>	deer-tongue grass	graminoid	C	u			u			1
107 <i>Panicum lanuginosum</i>	panic grass	graminoid	C					U		2
108 <i>Panicum virgatum</i>	switchgrass	graminoid	C	A			A	U		1, 2
109 <i>Parthenocissus quinquefolia</i>	virginia creeper	vine			A		A	u		2
110 <i>Paspalum setaceum</i>	bead grass	graminoid	C							2
111 <i>Phleum pratense</i>	timothy	graminoid	C				u			1
112 <i>Phragmites australis</i>	common reed	graminoid					C	U	u	1
113 <i>Pinus rigida</i>	pitch pine	tree	C		C		u			c
114 <i>Plantago lanceolata</i>	english plantain	herb	C	u						1
115 <i>Plantago major</i>	common plantain	herb	u							1
116 <i>Plantago maritima ssp. juncoidea</i>	seaside plantain	herb						u		1
117 <i>Pluchea odorata</i>	saltmarsh fleabane	herb						u		2
118 <i>Poa annua</i>	annual bluegrass	graminoid	U					U		2
119 <i>Polygala nuttallii</i>	nuttall's milkwort	herb	u							2
120 <i>Polygala polygama</i>	racemed milkwort	herb	C	u						1
121 <i>Polygonum hydropiper</i>	common smartweed	herb							c	2
122 <i>Polygonum lapathifolium</i>	nodding smartweed	herb						u		2
123 <i>Polygonum pennsylvanicum</i>	pink knotweed	herb						u		2
124 <i>Polygonum persicaria</i>	lady's thumb	herb	u							2
125 <i>Polygonum sagittatum</i>	arrow-leaved tearthumb	herb					C	U	u	2
126 <i>Polygonum scandens</i>	climbing false buckwheat	vine					C			2
127 <i>Potentilla canadensis</i>	dwarf cinquefoil	herb	A	A						1, 2
128 <i>Potentilla simplex</i>	common cinquefoil	herb	u							1
129 <i>Proserpinaca palustris</i>	mermaid weed	herb							u	2
130 <i>Prunella vulgaris</i>	heal-all	herb	u							1
131 <i>Prunus maritima</i>	beach plum	shrub	U					u		1

scientific name	common name	morph	Community Type *								survey**
			old field	switchgrass meadow	highbush blueberry shrubland	groundsel tree-rose shrubland	salt marsh	pond edge	oak-pine woodland		
132 <i>Prunus serotina</i>	black cherry	tree	C	C	A						1
133 <i>Quercus alba</i>	white oak	tree	C		C						2
134 <i>Quercus stellata</i>	post oak	tree				u					1
135 <i>Quercus velutina</i>	black oak	tree	C	C	A	u			a		1
136 <i>Ranunculus acris</i>	tall buttercup	herb	u								1
137 <i>Raphanus raphanistrum</i>	wild radish	herb	u								1
138 <i>Rhododendron viscosum</i>	swamp azalea	shrub			C			c			1
139 <i>Rhus copallinum</i>	shining sumac	shrub	C		C	u		U			1,2
140 <i>Rhus glabra</i>	smooth sumac	shrub	U	u							1
141 <i>Rosa carolina</i>	pasture rose	shrub		C	C	u					2
142 <i>Rosa multiflora</i>	multiflora rose	shrub				u					1
143 <i>Rosa palustris</i>	swamp rose	shrub				C		U	u		1
144 <i>Rosa virginiana</i>	virginia rose	shrub	C	u	u	A		U			1
145 <i>Rubus allegheniensis</i>	common blackberry	vine		C				u			2
146 <i>Rubus flagellaris</i>	prickly dewberry	vine	A	A	A			U			1,2
147 <i>Rumex acetosella</i>	field sorrel	herb	A	u				U		u	1
148 <i>Rumex crispus</i>	curled dock	herb	u					u			1
149 <i>Salicomyia europea</i>	slender glasswort	herb						A			1
150 <i>Salix species</i>	a willow	shrub							u		2
151 <i>Sambucus canadensis</i>	common elder	shrub							u		1
152 <i>Sassafras albidum</i>	sassafras	tree		C		u					1
153 <i>Schizachyrium scoparium</i>	little bluestem	graminoid	A	A				U			1,2
154 <i>Scirpus americanus</i>	olney threesquare	graminoid						U	u		1,2
155 <i>Setaria geniculata</i>	bristly foxtail	graminoid		u		C		u			2
156 <i>Sisyrinchium angustifolium</i>	stout blue-eyed grass	herb	u								1
157 <i>Sisyrinchium fuscatum</i>	sandplain blue-eyed grass	herb	U								2
158 <i>Smilacina stellata</i>	starry soloman's-seal	herb								c	1
159 <i>Smilax rotundifolia</i>	common greenbrier	vine		u	C	C			c		1
160 <i>Solidago canadensis var. scabra</i>	tall goldenrod	herb	C	u	C						1,2
161 <i>Solidago nemoralis</i>	gray goldenrod	herb	C								2
162 <i>Solidago odora</i>	sweet goldenrod	herb	u		C						1
163 <i>Solidago rugosa</i>	rough-stemmed goldenrod	herb	A	C	A		C		c	a	1,2
164 <i>Solidago sempervirens</i>	seaside goldenrod	herb					A	C			1
165 <i>Sonchus arvensis</i>	field sow-thistle	herb	u								1
166 <i>Spartina alterniflora</i>	saltwater cordgrass	graminoid						A			1
167 <i>Spartina patens</i>	salt meadow cordgrass	graminoid						A			1
168 <i>Spartina pectinata</i>	freshwater cordgrass	graminoid				C		U	u		1,2
169 <i>Spergularia marina</i>	salt-marsh sand-spurrey	herb						u			2
170 <i>Spergularia rubra</i>	sand spurrey	herb	U								2
171 <i>Spiranthes cernua</i>	nodding ladies' tresses	herb	u								2
172 <i>Spiranthes tuberosa</i>	little ladies' tresses	herb	u								2
173 <i>Stellaria graminea</i>	lesser stitchwort	herb	u								1
174 <i>Strophostyles helvola</i>	trailing wild bean	vine				u		U			2
175 <i>Suaeda linearis</i>	tall sea blite	herb						u			2
176 <i>Tanacetum vulgare</i>	tansy	herb	u								2
177 <i>Taraxacum officinale</i>	common dandelion	herb		u							1
178 <i>Teucrium canadense</i>	american germander	herb					A	C			1,2
179 <i>Thelypteris palustris</i>	marsh fern	ferm			C			U	a		1,2
180 <i>Toxicodendron radicans</i>	poison ivy	vine/shrub	C	A	A		A	C	c	u	1,2
181 <i>Triadenum virginicum</i>	marsh St. Johnswort	herb						U	a		2
182 <i>Trichostema dichotomum</i>	blue curfs	herb	u								2
183 <i>Trifolium borealis</i>	starflower	herb								c	1
184 <i>Trifolium arvense</i>	rabbit-foot clover	herb	u								1
185 <i>Trifolium campestre</i>	low hop clover	herb	u								1
186 <i>Trifolium pratense</i>	red clover	herb	u								1
187 <i>Trifolium repens</i>	white clover	herb					u				1
188 <i>Triglochin maritimum</i>	common arrow-grass	herb						u			2
189 <i>Tripsacum dactyloides</i>	eastern gama-grass	graminoid						u			2
190 <i>Typha angustifolia</i>	narrow-leaved cattail	herb						U	u		1,2
191 <i>Uvularia sessilifolia</i>	wild oats	herb									1
192 <i>Vaccinium angustifolium</i>	lowbush blueberry	shrub	U	u			u				1
193 <i>Vaccinium corymbosum</i>	highbush blueberry	shrub		C	C			u	c		1
194 <i>Verbascum thapsus</i>	common mullein	herb	u								1
195 <i>Verbena hastata</i>	common vervain	herb			u		C				1
196 <i>Veronica arvensis</i>	corn speedwell	herb	u								1
197 <i>Viburnum dentatum</i>	southern arrowwood	shrub		u	A		u				1
198 <i>Viburnum recognitum</i>	northern arrowwood	shrub	U	C							2

scientific name	common name	morph	Community Type *							
			old field	switchgrass meadow	highbush blueberry shrubland	groundsel tree-rose shrubland	marsh	pond edge	oak-pine woodland survey**	
199 <i>Vicia angustifolia</i>	narrow-leaved vetch	herb	u							1
200 <i>Vicia cracca</i>	cow vetch	herb	u							1
201 <i>Vicia tetrasperma</i>	slender vetch	herb	u							1
202 <i>Viola sagittata</i>	arrowleaf violet	herb	u							2
203 <i>Vitis labrusca</i>	fox grape	vine							u	1
Total # of abundant species			13	8	11	11	3	4	4	
Total # of common species			33	16	21	16	10	10	4	
Total # of uncommon species			64	25	5	29	51	25	7	
# species unique to community			51	3	4	7	21	17	5	
Total number of species			110	49	37	56	64	39	15	
% of total species			54 %	24 %	18 %	28 %	32 %	19 %	7 %	

* A=abundant (frequency of occurrence greater than 50 %), C=common (frequency of occurrence 20 % or greater, but less than or equal to 50 %), U=uncommon (frequency of occurrence <20 %), a=abundant (seen on property but not detected in survey), c=common (seen on property but not detected in survey), u=uncommon (seen on property but not detected in survey).

** Survey:

- 1 = spring & summer 1996 ongoing MVLBC vegetation inventory (WM), 5/2 - 8/2
 - 2 = late summer 1996 MVLBC vegetation survey (DW, WM), 8/14 - 9/3
 - 3 = spring 1997 ongoing MVLBC vegetation inventory (JP), 3/27
- DW = David Warren, JP = John Potter, WM = Wendy Malpass

The **old field** covers 3.5 acres, or 24% of the property's total area, and occurs on Carver soil. It is an herbaceous grassland, varying in composition depending on local moisture conditions. Nearer to the pond, it has a greater cover of herbs and shrubs, whereas the drier, sandy soils of the southern side are covered mostly by grasses and herbs characteristic of grasslands occurring on the outwash plain. Part of the area was previously used as a baseball diamond, and is covered largely by spotted knapweed (*Centaurea maculosa*) and deptford pink (*Dianthus armeria*). The area has a recent history of mowing, which has prevented the invasion of woody shrubs and sapling trees. Dominant species include redbud (*Agrostis gigantea*), panic grass (*Panicum lanuginosum*), little bluestem (*Schizachyrium scoparium*), dwarf cinquefoil (*Potentilla canadensis*), red fescue (*Festuca rubra*), pennsylvania sedge (*Carex pensylvanica*), rough-stemmed goldenrod (*Solidago rugosa*), cat's ear (*Hypochoeris radicata*), prickly dewberry (*Rubus flagellaris*), path rush (*Juncus tenuis* var. *dichotomus*), purple love grass (*Eragrostis spectabilis*), yarrow (*Achillea millefolium*), switchgrass (*Panicum virgatum*), field sorrel (*Rumex acetosella*), virginia rose (*Rosa virginiana*), sweet vernal grass (*Anthoxanthum odoratum*), hyssop-leaved boneset (*Eupatorium hyssopifolium*), velvetgrass (*Holcus lanatus*), and poison ivy (*Toxicodendron radicans*). Other common species include shining sumac (*Rhus copallinum*), wild strawberry (*Fragaria virginiana*), slender-leaved goldenrod (*Euthamia tenuifolia*), white oak (*Q. alba*) seedlings, toothed white-topped aster (*Aster paternus*), tall goldenrod (*Solidago canadensis* var. *scabra*), timothy (*Phleum pratense*), black oak (*Quercus velutina*) seedlings, black cherry (*Prunus serotina*), pitch pine (*Pinus rigida*), ox-eye daisy (*Chrysanthemum leucanthemum*), gray goldenrod (*Solidago nemoralis*), common St. Johnswort (*Hypericum perforatum*), english plantain (*Plantago lanceolata*), orchard grass (*Dactylis glomerata*), sweet everlasting (*Gnaphalium obtusifolium*), sand flatsedge (*Cyperus filiculmis*), and common ragweed (*Ambrosia artemisiifolia*). Others present but less common include field

pussytoes (*Antennaria neglecta*), horseweed (*Conyza canadensis*), Queen Anne's lace (*Daucus carota*), round-headed bush-clover (*Lespedeza capitata*), sundrops (*Oenothera fruticosa*), deer-tongue grass (*Panicum clandestinum*), bead grass (*Paspalum setaceum*), and racemed milkwort (*Polygala polygama*). Interesting but uncommon plants occurring here include spreading dogbane (*Apocynum androsaemifolium*), blunt-leaved milkweed (*Asclepias amplexicaulis*), butterflyweed (*Asclepias tuberosa*), sickle-leaved golden aster (*Chrysopsis falcata*), yellow thistle (*Cirsium horridulum*), beach pinweed (*Lechea maritima*), nuttall's milkwort (*Polygala nuttallii*), stout and sandplain blue-eyed grass (*Sisyrinchium angustifolium* and *S. fuscatum*), little ladies' tresses (*Spiranthes tuberosa*), blue curls (*Trichostema dichotomum*), rabbit-foot clover (*Trifolium arvense*), and arrowleaf violet (*Viola sagittata*).

The **high-bush blueberry shrubland** covers 1.4 acres, or 10% of the property's total area, and also occurs on Carver and Pawcatuck soils. This cover type occurs mostly around the pond and on the upland edges of the salt marsh and groundsel-virginia rose shrubland, where the soils are above the influence of nearby brackish waters. Dominant shrubs, sapling trees, and vines are highbush blueberry (*Vaccinium corymbosum*), black oak, black cherry, poison ivy, winterberry (*Ilex verticillata*), and oriental bittersweet (*Celastrus orbiculatus*), with average percent covers of 33, 33, 10, 10, 13, and 15 %, respectively. Other common shrubs, vines and saplings trees are autumn-olive (*Elaeagnus umbellata*), virginia creeper (*Parthenocissus quinquefolia*), southern arrowwood (*Viburnum dentatum*), red maple (*Acer rubrum*), red chokeberry (*Aronia arbutifolia*), downy and oblongleaf shadbushes (*Amelanchier arborea* and *A. canadensis*), sweet pepperbush (*Clethra alnifolia*), black huckleberry (*Gaylussacia baccata*), pitch pine and white oak saplings, swamp azalea (*Rhododendron viscosum*), shining sumac, pasture rose (*Rosa carolina*), and common greenbrier (*Smilax rotundifolia*). The sparse herbaceous and graminoid groundcover is dominated by prickly dewberry, red fescue, rough-stemmed goldenrod and pennsylvania sedge. In wetter areas cinnamon and marsh ferns (*Osmunda cinnamomea* and *Thelypteris palustris*) are common. Less common but present in the groundcover are redtop, sweet vernal grass, new york aster (*Aster novi-belgii*), wide-leaved sedge (*Carex* species), velvetgrass, tall goldenrod, and sweet goldenrod (*Solidago odora*).

The **switchgrass meadow** covers 1.1 acres, or 8% of the property's total area, and occurs on Carver soil. Most species present here are also present in the old field. However, this grassland has a much lower diversity and is characterized by the dominant growth of tall tussocks of switchgrass, with a low, dense growth of red fescue covering the ground in between. Abundant grasses and herbs that grow in between tussocks include hyssop-leaved boneset, slender-leaved goldenrod, dwarf cinquefoil, prickly dewberry, little bluestem, and poison ivy. Other common groundcover species are rough-stemmed goldenrod, path rush, velvet grass, bushy aster (*Aster dumosus*), round-headed bush-clover, and common St. Johnswort. Shrubs that are colonizing the edges of this grassland in

small patches include highbush blueberry, bayberry, sassafras saplings (*Sassafras albidum*), common blackberry (*Rubus allegheniensis*), pasture rose, northern arrowwood (*Viburnum recognitum*), red chokeberry, and black oak, black cherry, and eastern red cedar seedlings. Interesting but uncommon plants occurring here include intermediate dogbane, blunt-leaved milkweed, straw-colored flatsedge (*Cyperus strigosus*), sundrops, racemed milkwort, smooth sumac (*Rhus glabra*), and bristly foxtail (*Setaria geniculata*).

The **oak-pine woodland** covers 0.7 acres, or 5% of the property and occurs on Carver soil. The small oak stand in the old field is a quarter of an acre in area, with an open canopy of mature 50-year old trees. The old field is surrounded by an extensive pitch pine-oak woodland to the west, of which only half an acre is on the property. This area was sparsely wooded in 1938 (DCHS, 1938). Some of the standing pines on the property edge may be 60 years in age, but most are younger. Fourteen plant species were noted on the property in this community type. The small wooded stand in the old field has a tree canopy dominated by white oak and a sparse, low shrub layer of black huckleberry. A dense herbaceous and grassy layer had mostly Pennsylvania sedge, Canada mayflower, white oak seedlings, rough-stemmed goldenrod, starry soloman's seal (*Smilacina stellata*), and starflower (*Trientalis borealis*). Present but uncommon are red maple seedlings, swan's sedge (*Carex swanii*), and common woodrush (*Luzula multiflora*). Woodlands surrounding the property are dominated by pitch pine, with a sparse understory of black huckleberry, striped wintergreen (*Chimaphila maculata*), field sorrel, and poison ivy.

The **pond and pond edge** covers 0.4 acres, or 3% of the property's total area, and occurs on Pawcatuck soil. The northern and eastern pond shorelines are surrounded by shrubland, while the western shore has an open wet meadow with many emergent aquatic plants along the shore. For a description of the shrubland bordering the pond, see the high-bush blueberry shrubland section above. Dominant species in the wet meadow include marsh fern, marsh St. Johnswort (*Triadenum virginicum*), soft rush (*Juncus effusus*), northern bugleweed (*Lycopus uniflorus*), common smartweed (*Polygonum hydropiper*), rough-stemmed goldenrod, and poison ivy. Other less common species include swamp beggar ticks (*Bidens connata*), water willow (*Decodon verticillatus*), a willow-herb (*Epilobium* species), a bedstraw (*Galium* species), water pennywort (*Hydrocotyle umbellata*), dwarf St. Johnswort (*Hypericum mutilum*), slender blue flag iris (*Iris prismatica*), swamp candles (*Lysimachia terrestris*), sensitive fern (*Onoclea sensibilis*), common reed, nodding and pink smartweed (*Polygonum lapathifolium* and *P. pennsylvanicum*), arrow-leaved tearthumb (*Polygonum sagittatum*), mermaid weed (*Proserpinaca palustris*), common elder (*Sambucus canadensis*), olney threesquare, freshwater cordgrass (*Spartina pectinata*), and narrow-leaved cattail (*Typha angustifolia*).

The **salt marsh** vegetation community covers 4.2 acres, or 29% of the property's total area, and occurs on Pawcatuck soil. The high salt marsh is composed of

water and salt-tolerant grasses and herbs growing on a layer of marsh peat, which is formed by the deposition of sediments and the accumulation of dead and decaying marsh grasses. Shrubs rim the less frequently flooded upland edge of the marsh and are found in small patches on the elevated dredge spoils lining the dredge channels in the marsh. This salt marsh has a relatively high species diversity, with forty-one different species identified in this grassland. This is due to the influence of freshwater in the marsh, creating places where brackish waters exist that favor less salt tolerant species. Four species - salt meadow cordgrass (*Spartina patens*), saltwater cordgrass (*Spartina alterniflora*), spike grass (*Distichlis spicata*), and slender glasswort (*Salicornia europea*) - constitute nearly all of the biomass of this community, with an average total cover of 83%. Salt meadow cordgrass occurs on average in densities of twenty-seven hundred stems per square meter. Other common grasses and herbs that withstand a regular tidal cycle of saltwater inundation include black rush (*Juncus gerardii*), marsh elder (*Iva frutescens*), large salt-marsh aster (*Aster tenuifolius*), sea lavender (*Limonium carolinianum*), seaside goldenrod (*Solidago sempervirens*), and groundsel tree (*Baccharis halimifolia*). Interesting but uncommon plants occurring here include seaside gerardia (*Agalinis maritima*), saltmarsh fleabane (*Pluchea odorata*), bristly foxtail, and common arrow-grass (*Triglochin maritimum*). Present in the brackish marsh are red fescue, olney threesquare (*Scirpus americanus*), freshwater cordgrass, poison ivy, marsh fern (*Thelypteris palustris*), narrow-leaved cattail, a spike rush (*Eleocharis* species), american germander (*Teucrium canadense*), marsh vetchling (*Lathyrus palustris*), trailing wild bean (*Strophostyles helvola*), yellow thistle, wild lettuce, common reed, arrow-leaved tearthumb, and marsh St. Johnswort. A narrow band of salt marsh edges the Sengekontacket shoreline and is dominated by salt meadow cordgrass, black rush, and spike grass. Other less common plants include orach (*Atriplex patula*), coast blite (*Chenopodium rubrum*), seaside plantain (*Plantago maritima* ssp. *juncooides*), curled dock (*Rumex crispus*), salt-marsh sand-spurrey (*Spergularia marina*), tall sea blite (*Suaeda linearis*), and a rare plant.

The **groundsel tree-virginia rose shrubland** covers three acres, or 21% of the property's total area, and occurs on Carver soil. This shrubland is found between the salt marsh and higher, upland elevations. It is affected by periodic flooding, storm-wrack deposition, and occasional die-back of shrubs from coastal storms. In places the shrub growth is dense with a sparse understory, but most of this community has an open shrub canopy with an average cover of 73%, and dense graminoid, herbaceous and vine growth as groundcover. The dominant shrub species here are poison ivy, groundsel tree, Virginia rose, and bayberry. Less common but present are red chokeberry, swamp rose (*Rosa palustris*), autumn-olive, eastern red cedar (*Juniperus virginiana*), and southern arrowwood. Dominant understory grasses, herbs and vines in decreasing order of abundance are red fescue, freshwater cordgrass, black rush, slender-leaved goldenrod, switchgrass, American germander, velvet grass, common greenbrier, New York aster, Virginia creeper, seaside goldenrod, common reed, hedge bindweed, lance-leaved goldenrod, arrow-leaved tearthumb, northern bugleweed, common vervain

(*Verbena hastata*), rough-stemmed goldenrod, swamp candles, climbing false buckwheat, and bristly foxtail. Less common but present in the groundsel tree-Virginia rose shrubland are yarrow, bull thistle (*Cirsium vulgare*), pilewort (*Erechtites hieracifolia*), hyssop-leaved boneset, cow parsnip (*Heracleum lanatum*), deer-tongue grass, beach plum (*Prunus maritima*), shining sumac, pasture rose, sassafras saplings, and trailing wild bean. Additionally, there is a small stand of pitch pines near the shoreline, just north of the roadway.

The aster family (Asteraceae) has the highest diversity of any family on the property with thirty-eight species, including the common plants yarrow, new york aster, groundsel tree, hyssop-leaved boneset, slender-leaved goldenrod, cat's ear, and rough-stemmed goldenrod, and the less common bushy aster, late purple aster (*Aster patens*), swamp beggar ticks, wild lettuce, saltmarsh fleabane, and field sow-thistle. Another highly diverse family of the groundcover layer is the grass family (Poaceae) with twenty-one species, including roadside plants such as purple lovegrass (*Eragrostis spectabilis*) and muhlenberg's paspalum (*Paspalum setaceum* var. *muhlenbergii*), as well as the grassland species little bluestem (*Schizachyrium scoparium*) and switchgrass (*Panicum virgatum*). Perhaps the most interesting plant on the property is a rare plant. It is a distant ancestor of domesticated corn (maize), and is cultivated as a hybrid with corn in midwestern states. This grass is found in only a few places in Massachusetts and is an endangered species in the commonwealth. Six other plants are of interest in that they are the first of their species to be discovered on a land bank property. These are spreading dogbane (*Apocynum androsaemifolium*), marsh vetchling (*Lathyrus palustris*), trailing wild bean (*Strophostyles helvola*), nodding smartweed (*Polygonum lapathifolium*), common arrow-grass (*Triglochin maritimum*), and a rare plant.

Thirty-two families, or fifty-four percent of all plant families on the property, are represented by a single species. While there are thirty-two monotypic families, there are six families that together represent one hundred and one species or fifty percent of the total. These are the aster family (38 species), the grass family (21 species), the rose family (Rosaceae, 14 species), the pea family (Fabaceae, 12 species), the sedge family (Cyperaceae, 8 species), and the smartweed family (Polygonaceae, 8 species). A taxonomic list of vascular plants is provided as Appendix B, arranged alphabetically within each division by family name and then genus and species.

2. Wildlife Habitat

a. Habitat Features

old field and switchgrass meadow: These are grasslands with scattered shrubs and tree seedlings invading around the edges. The grasses, herbs, vines, and low shrub thickets 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 low shrubs and vines provide forage for reptiles, birds, and mammals; shrubland-woodland ecotone on the edge of the oak-pitch pine woodland provides perching sites and cover for nesting and foraging amphibians, reptiles, birds and mammals.

oak-pitch pine woodland: The small oak stand in the old field and the pitch pine-oak woodland on the property's north and west boundaries have an open canopy of mature trees which provide nesting and roosting habitat; mast-bearing trees (white and black oak) which provide fall forage; cavities in dead tree limbs and trunks 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.

pond and pond edge: The bordering pond shrubland is dominated by shrubs from three to fifteen feet tall, and has seasonally saturated soils. Its dense shrub and vine cover provide roosts, forage, and nesting habitat for amphibians, reptiles, birds, and mammals. The grassy wet meadow provides sunning for reptiles, and ample forage and cover for reptiles, birds and mammals. The pond has no inlet or outlet, but is recharged through rainfall, which maintains water in the pond much of the year. This steady source of standing fresh water provides habitat for breeding, larval development, foraging, and growth of aquatic invertebrates and amphibians and foraging habitat for predatory amphibians, reptiles, birds, and mammals.

salt marsh and groundsel tree-Virginia rose shrubland: 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 scattered stunted trees (eastern red cedars, pitch pines, and sassafras) provide perches and cover for predatory birds.

Sengekontacket Pond: This 690-acre coastal salt pond has two permanently maintained channels connecting the pond to Nantucket Sound, through which saltwater enters with each tidal cycle (TOB, 1996). The property's shoreline varies from a narrow beach rimmed by a fringing salt marsh to the north to a more extensive salt marsh with no beach to the south. This shoreline provides habitat for foraging invertebrates, fish, birds, and mammals. A few islands covered with grasses and shrubs occur within a half mile of the preserve's shoreline, including Little Gravel, Big Gravel, and Brush Island. These provide nesting habitat for gulls, terns, shorebirds, and waterfowl that forage on this property's shore and marshes.

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 grassland habitat of either the **old field** or **switchgrass meadow** in May include a ladybird beetle (F. Coccinellidae), American copper butterfly (*Lycaena phlaeas americana*), cabbage white butterfly (*Pieris rapae*), and bumblebees (*Megabombus pennsylvanicus*). Insects observed here in July and August include the common green darner (*Anax junius*), common wood nymph (*Cercyonis pegala*), painted lady (*Vanessa cardui*), american lady (*Vanessa virginiensis*), pearl crescent (*Phyciodes tharos*), eastern tiger swallowtail (*Papilio glaucus*), mosquitos (F. Culicidae), and bumblebees.

Aquatic invertebrates that have suitable habitat in the small **pond** as well as in the fringing shrubland and sedge meadow 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. Adult damselflies and dragonflies were abundant around the margins of the small pond, as well as over the pond itself. Damselflies observed in July include a bluet (*Enallagma cf. cyathigerum*), hovering over and alighting on emergent vegetation along the pond edge, and many individuals of an unknown bluet species (*Enallagma* species), ovipositing on emergent aquatic plants. Two large and showy dragonflies observed patrolling the pondshore in early to mid-July include the whitetail (*Libellula lydia*) and tenspot (*L. pulchella*). These Odonates rely upon fresh water bodies as feeding larvae and, once they have emerged from the water and metamorphosed into flying adults, have very specific habitat associations with emergent aquatic plants or shoreline sedges, rushes, and grasses, using them as landing platforms during courtship and foraging (Miliotis, 1995).

Dog ticks (*Dermacentor variabilis*), small green and red striped grasshoppers (Orthoptera), and bumblebees were common along the edges of the **saltmarsh** in late May. Adult dragonflies and damselflies were abundant around the margins of Sengekontacket Pond, as well as in freshwater pools that collected after rainfall on the old roadbed at the marsh edge. Although odonates rely primarily 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, and find ample prey in the mosquitoes and flies living in saltmarshes. Damselflies and dragonflies observed here in July include an unknown bluet

species, whitetails, a calico pennant (*Celithemis elisa*), and a few saltmarsh dragonflies (*Erythrodiplax berenice*). Saltmarsh mosquitoes (*Aedes* spp.) were abundant in August, as were green-head flies (*Tabanus* spp.) in July and August.

Although no comprehensive survey of marine invertebrates has been performed, marine invertebrates regularly observed by Felix Neck Wildlife Sanctuary staff while wading, snorkeling and seining along the **Sengekontacket Pond** shoreline and in shallow waters include the northern rock barnacle (*Balanus balanoides*), common slipper shell (*Crepidula fornicata*), common periwinkle (*Littorina littorea*), oyster drill (*Urosalpinx cinerea*), salt-marsh snail (*Melampus bidentatus*), mud snail (*Nassarius obsoletus*), channeled and knobbed whelks (*Busycon canaliculatum* and *B. carica*), ribbed mussel (*Gaukensia demissus*), jingle shell (*Anomia simplex*), common razor clam (*Ensis directus*), Morton's egg cockle (*Laevicardium mortonii*), bay scallop (*Aequipecten irradians*), soft-shelled clam (*Mya arenaria*), quahog (*Mercenaria mercenaria*), moon jelly (*Aurelia aurita*), lion's mane (*Cyanea capillata*), common northern comb jelly (*Bolinopsis infundibulum*), clam worm (*Nereis* spp.), beach fleas (*Talorchestia* spp.), shore and grass shrimp (*Palaemonetes* spp. and *Hippolyte* spp.), horseshoe crab (*Limulus polyphemus*), long and flat-clawed hermit crabs (*Pagurus longicarpus* and *P. pollicaris*), fiddler crab (*Uca pugnax*), black-fingered mud crab (*Panopeus* spp.), common spider crab (*Libinia emarginata*), lady crab (*Ovalipes ocellatus*), and green crab (*Carcinus maenas*) (Mohrman, 1996).

c. Fish

Estuarine and marine fishes observed at the edge of the salt marsh and in shallow waters along the **Sengekontacket Pond** shoreline across Major's Cove from the preserve include the common mummichog (*Fundulus heteroclitus*), striped killifish (*F. majalis*), Atlantic silverside (*Menidia menidia*), sheepshead minnow (*Cyprinodon variegatus*), northern pipefish (*Syngnathus fuscus*), American eel (*Anguilla rostrata*), winter flounder (*Pseudopleuronectes americanus*), and stickleback (*Gasterosteus* species) (Mohrman, 1996). Fishes that occur in this region in salt marshes and brackish waters but have not been documented here also include the white perch (*Morone americanus*) and northern puffer (*Sphoeroides maculatus*). Fishes which inhabit shallow inshore waters and are likely to enter Sengekontacket 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*), and oyster toadfish (*Opsanus tau*) (Robins and Ray, 1986). Further surveys of the fishes found in the salt marsh and adjacent shallow waters of Sengekontacket Pond could be conducted using seines and snorkeling observations.

d. Amphibians

Table 3 details the ten amphibian species that find suitable habitat for breeding, foraging, or wintering at the Pecoy Point Preserve (after DeGraaf and Rudis,

1987). None of these species have been observed on the preserve to date.

Table 3. Amphibian Habitat at Pecoy Point Preserve, Oak Bluffs, MA

Amphibian Species		oak-pine woodland	old field & switchgrass meadow	pond & shrubland	salt marsh & groundsel-rose shrubland
spotted salamander	<i>Ambystoma maculatum</i>	nonbr		breed*	
four-toed salamander	<i>Hemidactylium scutatum</i>	breed, nonbr		breed	
redback salamander	<i>Plethodon cinereus</i>	breed, nonbr			breed
red-spotted newt	<i>Notophthalmus v. viridescens</i>	nonbr		breed	
eastern American toad	<i>Bufo a. americanus</i>	nonbr	nonbr, forag	breed	
fowler's toad	<i>Bufo woodhousii fowleri</i>	nonbr	nonbr, forag	breed*	
northern spring peeper	<i>Pseudacris c. crucifer</i>	nonbr		breed*	
eastern spadefoot	<i>Scaphiopus h. holbrookii</i>	nonbr	nonbr, forag		
green frog	<i>Rana clamitans melanota</i>			breed	
pickerel frog	<i>Rana palustris</i>	breed		breed*	

Note: breed = breeding, forag = foraging, nonbr = nonbreeding. An asterisk (*) denotes a preferred habitat. **Bold** denotes a species observed on the preserve.

Although the **salt marsh** at Pecoy Point 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. Survey techniques that could be used to verify the presence of any amphibian species at the preserve include visual sampling, the use of pit fall traps and straight-line drift fences (Heyer et al., 1994).

e. Reptiles

Table 4 describes the eleven reptilian species which find suitable habitat for breeding, foraging, or wintering at Pecoy Point Preserve (after DeGraaf and Rudis, 1987). Of these, only the northern black racer has been seen on the preserve.

Table 4. Reptile Habitat at Pecoy Point Preserve, Oak Bluffs

Reptile Species		oak-pine woodland	old field & switchgrass meadow	pond & shrubland	salt marsh & groundsel-rose shrubland
common snapping turtle	<i>Chelydra s. serpentina</i>	breed	breed	nonbr*	breed, nonbr
painted turtle	<i>Chrysemys picta</i>		breed	nonbr	nonbr
spotted turtle	<i>Clemmys guttata</i>		breed	breed*, nonbr	breed
eastern box turtle	<i>Terrapene c. carolina</i>	breed*, nonbr	breed, nonbr	breed, nonbr	
northern black racer	<i>Coluber c. constrictor</i>	breed*, nonbr	breed*, nonbr	breed, nonbr	breed, nonbr
northern ringneck snake	<i>Diadophis punctatus edwardsii</i>	breed, nonbr			breed (shack)
eastern milk snake	<i>Lampropeltis t. triangulum</i>	breed, nonbr	breed, non		breed*, nonbr*
smooth green snake	<i>Opheodrys vernalis</i>	breed, nonbr	breed*, non	breed	
northern redbelly snake	<i>Storeria o. occipitamaculata</i>	breed*, nonbr		breed, nonbr	breed, nonbr (shack)
eastern ribbon snake	<i>Thamnophis s. sauritus</i>	breed, nonbr		breed, nonbr*	
eastern garter snake	<i>Thamnophis s. sirtalis</i>	breed, nonbr	breed, nonbr	nonbr	breed, nonbr (shack)

Note: breed = breeding, nonbr = nonbreeding. An asterisk (*) denotes a preferred habitat. **Bold** denotes a species observed on the preserve.

The **salt marsh** provides suitable breeding habitat for two species, and nonbreeding habitat for two species (DeGraaf and Rudis, 1987; see table 4). The old shack that stands on the upland edge of the marsh provides cover as part of nonbreeding habitat for four snake species, and breeding habitat for these and an additional species (DeGraaf and Rudis, 1987; Klemens, 1993). The eastern milk

snake actually prefers buildings for breeding (DeGraaf and Rudis, 1987; see table 4). Only the northern black racer has been observed on the preserve to date. A large individual was observed basking in the sun on the edge of the road through the salt marsh in late May. 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).

f. Birds

A survey of the birds occurring in the preserve's habitats was conducted on twenty visits to the property from February 13, 1996, to December 11, 1996. These visits recorded the presence of both resident birds and occasional migrants during the winter (13 February - 28 March), spring migration (15 April - 22 May), breeding season (11 June - 2 August), and late fall migration (4 October - 11 December). Birds were sampled from three-point count survey locations as well as an observation point on the shore of Sengekontacket Pond. Survey point one encompasses an old field, a small oak woodland, the edges of a larger pine-oak woodland, and the southern shoreline of a 0.4 - acre freshwater pond with fringing shrub swamp and sedge meadow. Survey point two encompasses a switchgrass meadow and fringing shrublands. Survey point three encompasses groundsel tree-virginia rose shrubland and salt marsh habitat. These are shown on the **Avian Inventory Map**.

Table 5. Seasonal Changes in Numbers of Bird Species at Pecoy Point Preserve

Season	old field	switchgrass meadow	high salt marsh	Sengekontacket Pond	Total
Winter 96	25	14	9	10	31
Spring 96	30	26	20	13	49
Summer 96	22	22	24	8	35
Fall 96	17	16	14	8	29
Total Species	42	37	34	18	62

Pecoy Point Preserve supports a relatively large number of bird species for its size. Sixty-two species were found. Table 5 summarizes the changes in the numbers of bird species observed by season for the four 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 6 lists all of the bird species observed from the two survey locations in upland habitats, their seasonal residency patterns, and abundance within each season. It does not discriminate by habitat. Birds found in the old field and switchgrass

meadow are included in the survey of birds of upland habitats (see table 6). Of the forty-nine species detected in upland habitats, thirty species were detected at both survey points one and two.

Table 6. Seasonal Abundance of Birds in Upland Habitats, Pecoy Point Preserve, Oak Bluffs, MA*

Bird Species	Winter	Spring Migration	Summer	Fall Migration
Winter Residents				
bufflehead	uncommon			
red-breasted nuthatch	uncommon			
brown creeper	uncommon			
northern shrike		uncommon		
yellow-rumped warbler	uncommon			common
dark-eyed junco	uncommon			
white-throated sparrow				uncommon
Spring/ Fall Migrants				
spotted sandpiper				uncommon
cedar waxwing		uncommon		uncommon
chipping sparrow		uncommon		uncommon
Year-round Residents				
canada goose	uncommon			
mallard	uncommon		uncommon	
ring-billed gull				uncommon
herring gull	uncommon	uncommon	uncommon	uncommon
great black-backed gull	uncommon	uncommon	uncommon	
red-tailed hawk	uncommon	uncommon		uncommon
northern bobwhite			occasional	
ring-necked pheasant	occasional	common	common	
mourning dove	uncommon	occasional	common	uncommon

Bird Species	Winter	Spring Migration	Summer	Fall Migration
belted kingfisher		uncommon		
northern flicker	uncommon	uncommon	common	uncommon
blue jay	common	common	common	common
american crow	common	common	common	common
black-capped chickadee	common	common	common	common
white-breasted nuthatch	occasional	uncommon		
carolina wren			uncommon	uncommon
american robin	uncommon	common	occasional	occasional
northern mockingbird	common	common		uncommon
european starling	uncommon	uncommon	common	common
northern cardinal	occasional	common	common	
rufous-sided towhee		common	uncommon	
song sparrow	common	common	common	common
savannah sparrow		uncommon		
common grackle	occasional	common	common	uncommon
brown-headed cowbird		common	occasional	
american goldfinch	common	common	common	common
house finch	common	common	uncommon	
Summer Residents				
green-backed heron		uncommon		
osprey		uncommon	uncommon	
black-billed cuckoo		uncommon		
eastern kingbird		uncommon	occasional	
great crested flycatcher		uncommon		
tree swallow		common	common	
barn swallow			common	
gray catbird		occasional	common	uncommon

Bird Species	Winter	Spring Migration	Summer	Fall Migration
yellow warbler		occasional	occasional	
common yellowthroat		occasional	common	
red-winged blackbird	occasional	common	common	
northern oriole		uncommon		

* "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.

Five of the twelve species detected only at survey point one were found in the small **oak woodland** or bordering pine woodland. These are black-billed cuckoo, brown creeper, white-breasted nuthatch, red-breasted nuthatch, and northern oriole. 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 "outbreak" years.

Four of the twelve species detected solely at survey point one were observed in the **old field**. These are ring-billed gull, eastern kingbird, dark-eyed junco, and savannah sparrow. In addition to the birds observed during the survey, a juvenile red-tailed hawk (*Buteo jamaicensis*) was regularly observed foraging over the old field in August of 1996.

Three of the twelve species detected solely at survey point one were observed on the **pond** or pond edge. These are bufflehead, mallard, and spotted sandpiper.

Seven species were detected solely at survey point two, in the **switchgrass meadow**. These are green-backed heron, Canada goose, northern bobwhite, belted kingfisher, great-crested flycatcher, northern shrike, and white-throated sparrow.

Thirty-four species of birds were observed at survey point three in the **salt marsh** and **groundsel tree-Virginia rose shrubland**. Table 7 lists all of the bird species detected in this coastal habitat, their seasonal residency patterns and abundance within each season.

**Table 7. Seasonal Abundance of Marsh Birds, Pecoy Point Preserve,
Oak Bluffs, MA***

Bird Species	Winter	Spring Migration	Summer	Fall Migration
Winter Residents				
yellow-rumped warbler				common
Spring/Fall Migrants				
greater yellowlegs				uncommon
Year-round Residents				
canada goose			uncommon	
herring gull	uncommon		uncommon	uncommon
great black-backed gull		uncommon	uncommon	
red-tailed hawk	uncommon			
northern bobwhite		uncommon	uncommon	
ring-necked pheasant	uncommon	uncommon		
mourning dove		uncommon	uncommon	
belted kingfisher			uncommon	uncommon
northern flicker			uncommon	uncommon
hairy woodpecker		uncommon		
tree swallow		uncommon	occasional	
barn swallow			occasional	
blue jay	occasional	common	uncommon	common
american crow	common	occasional	common	common
black-capped chickadee	uncommon	common	uncommon	common
carolina wren				occasional
american robin			uncommon	uncommon
gray catbird		uncommon	common	
northern mockingbird	uncommon	occasional		

Bird Species	Winter	Spring Migration	Summer	Fall Migration
european starling			uncommon	uncommon
yellow warbler		uncommon	uncommon	
common yellowthroat		occasional	occasional	
northern cardinal	occasional	uncommon	occasional	
rufous-sided towhee		uncommon	occasional	
sharp-tailed sparrow		uncommon	occasional	
song sparrow		common	common	common
brown-headed cowbird			uncommon	
common grackle			uncommon	
american goldfinch	occasional	common	common	uncommon
Summer Residents				
double-crested cormorant				uncommon
least tern		uncommon		
red-winged blackbird		occasional		uncommon

* "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.

Eighteen species of birds were observed from an observation point overlooking the waters of **Sengekontacket Pond**. Table 8 lists all of the bird species detected in the coastal pond, their seasonal residency patterns and abundance within each season.

Table 8. Seasonal Abundance of Water Birds, Pecoy Point Preserve, Oak Bluffs, MA*

Bird Species	Winter	Spring Migration	Summer	Fall Migration
Winter Residents				
common loon	common			
common eider	occasional			
red-breasted merganser	common	occasional		occasional

Bird Species	Winter	Spring Migration	Summer	Fall Migration
bufflehead	uncommon	uncommon		occasional
common goldeneye	common			
Spring or Fall Migrants				
red-throated loon		uncommon		
Year-round Residents				
canada goose	uncommon	common	occasional	uncommon
mallard		uncommon		
american black duck	occasional	uncommon	uncommon	common
herring gull	common	common	common	occasional
great black-backed gull	common	common	common	
belted kingfisher				uncommon
american crow	uncommon	occasional	common	uncommon
Summer Residents				
double-crested cormorant		occasional	common	uncommon
green-backed heron			uncommon	
american oystercatcher		uncommon		
common tern		uncommon	uncommon	
least tern		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.

The **Wildlife Map** identifies species of wildlife observed in each habitat during the four seasons of the year. Of the birds detected on the preserve, only those that were occasional or common in occurrence in each habitat are listed on the map; uncommon species are not listed here, but are shown in tables 6, 7, and 8, above. Those species seen in spring months (late March to late May) include spring migrants as well as summer residents that are just beginning to return to local breeding grounds from southern wintering areas. Those species seen in fall months (early October to early December) include fall migrants as well as local summer residents that have not yet begun southerly migrations.

The avian fauna at Pecoy Point Preserve has species representing twenty-six different families. A complete checklist of birds is provided as Appendix C. The

families with the most members are the Emberizidae (warblers and sparrows) with fifteen species, the Anatidae (swans, geese, and ducks) with seven species, and the Laridae (gulls and terns) with five species.

g. Mammals

Table 9 describes the mammalian species which find suitable habitat for breeding, foraging, or wintering at Pecoy Point Preserve (after DeGraaf and Rudis, 1987).

Table 9. Mammal Habitat at Pecoy Point Preserve, Oak Bluffs

Mammal Species		oak-pine woodland	old field & switchgrass meadow	pond & shrubland	salt marsh & groundsel- rose shrubland
masked shrew	<i>Sorex cinereus</i>	br, for, win	br, for, win	br, for, win	br, for, win
northern short-tailed shrew	<i>Blarina brevicauda</i>	br, for, win	br, for, win	br, for, win	br, for, win
keen's myotis	<i>Myotis keenii</i>	br, rst	for	for	br* (shack), for
little brown myotis	<i>Myotis lucifugus</i>	br, rst	for	for	br* (shack), for
red bat	<i>Lasiurus borealis</i>	br, rst	for	for	for
hoary bat	<i>Lasiurus cinereus</i>	br, rst*	for	for	for
big brown bat	<i>Eptesicus fuscus</i>	br, rst	for	for	br*, rst* (shack), for
eastern pipistrelle	<i>Pipistrellus subflavus</i>	br, rst	for	for	br*, rst* (shack), for
silver-haired bat	<i>Lasionycteris noctivagans</i>	br, rst	for	for	br*, rst* (shack), for
eastern cottontail	<i>Sylvilagus floridanus</i>		br*, for, win*	br*, for, win	win (shack), br, for
eastern chipmunk	<i>Tamias striatus</i>	br, for, win	br, for		
eastern gray squirrel	<i>Sciurus carolinensis</i>	br*, for*, win*			br (shack)
white-footed mouse	<i>Peromyscus leucopus</i>	br*, for*, win*	br*, for*, win*	br, for, win	br*, for*, win* (shack)
meadow vole	<i>Microtus pennsylvanicus</i>		br*, for*, win*	br, for, win	br, for, win
muskrat	<i>Ondatra zibethicus</i>			br, for, win	br, for, win
norway rat	<i>Rattus norvegicus</i>		for, win		br*, for*, win* (shack)
house mouse	<i>Mus musculus</i>		br, for, win		br*, for*, win* (shack)

Mammal Species		oak-pine woodland	old field & switchgrass meadow	pond & shrubland	salt marsh & groundsel-rose shrubland
meadow-jumping mouse	<i>Zapus hudsonius</i>	win	br*, for*, win*	br*, for*, win	br, for
woodland jumping mouse	<i>Napaeozapus insignis</i>	br, for, win	br*, for*, win*	br, for, win	
domestic dog	<i>Canis familiaris</i>				win
domestic cat	<i>Felis catus</i>				
raccoon	<i>Procyon lotor</i>	br, for, win	for	for*, win	br, win (shack), for
striped skunk	<i>Mephitis mephitis</i>	br, for, win	br, for, win*	for	for
river otter	<i>Lutra canadensis</i>	br, for, win		br, for, win	br, for, win
white-tailed deer	<i>Odocoileus virginianus</i>	br, for	br, for	br, for	br, for

Note: br = breeding, for = foraging, rst = roosting, win = wintering. An asterisk (*) denotes a preferred habitat. **Bold** denotes a species observed on the preserve.

The **old field** and **switchgrass meadow** provide suitable breeding habitat for eleven mammal species, with an additional nine species having suitable foraging habitat in these grasslands. Of these twenty species, ten may also winter here (DeGraaf and Rudis, 1987; see table 9). To date, signs of six species have been observed here. Eastern cottontail scat was abundant in the switchgrass meadow in all seasons and tracks were seen on wet days in the fall. Cottontail scat was also common in the old field in the summer. Meadow vole tunnels were present in the old field just after a snow melt in mid-March. Signs of meadow voles were seen in April in the bark gnawed off the stems of autumn olives on the edge of the switchgrass meadow. White-tailed deer beds were common in the switchgrass meadow in spring and fall, and deer browse was noted on sapling red cedars in April. White-tailed deer beds were noted in the old field in the summer. Scat from a domestic dog was observed in the switchgrass in the fall, and tracks in the muddy road bed indicated that a dog frequented the area, and a domestic cat was observed hunting in the old field on several occasions.

The **pond** provides suitable foraging habitat for nineteen species of mammal. Of these, ten species breed or winter in this habitat type, two species prefer to breed here (eastern cottontail and meadow-jumping mouse), and two species prefer to forage in this habitat type (meadow-jumping mouse and raccoon) (DeGraaf and Rudis, 1987; see table 9). Bats find favorable foraging habitat over the pond and nearby marsh, but roosting or denning sites (i.e. trees and buildings) are not common on the preserve. Signs of two species have been observed near the pond. Meadow vole activity was observed in February in the gnawed stems of shrubs near the pond. Reports were made that both adult and young river otters were

observed in the area between the pond and the salt marsh in January 1996 (Stibolt, 1996). A small path was worn through the shrubland along the embankment into the marsh. A river otter slide was seen in late March on the south side of the pond. This was actively used when snow was on the ground and after it had melted.

The **salt marsh** provides suitable habitat for twenty-two species of mammal (DeGraaf and Rudis, 1987; see table 9). Of these, eleven are attracted to breed, forage, or winter in the shack that remains in this habitat. Of the remaining eleven species, ten forage in the marsh and eight mammals breed in this habitat (see table 9). Again, good quality habitat is available for foraging bats, but not for roosting or denning. Signs of five species have been observed here. Eastern cottontail scat was abundant in the marsh in May through August. A meadow vole was flushed out of the marsh while inventorying vegetation in mid-August. A white-tailed deer fawn was startled off the road and into the marsh in early July, and deer tracks were frequently seen in the mud on the edge of the salt marsh along the shoreline in the fall months. The skull of a muskrat was found along the edge of the salt marsh, and burrows were observed in the side of the bank edging the northern-most marsh. Domestic dog tracks were frequent in the muddy road through the marsh in the fall.

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 for a description that helps encompass the full range of biological diversity.

According to the Commonwealth's Natural Heritage and Endangered Species Program, Pecoy Point Preserve is not currently recognized as a "priority habitat of state-listed rare species." The following state-listed rare species are documented for the town of Oak Bluffs in habitats similar to those at Pecoy Point Preserve ("*" = found on a nearby property):

common name	scientific name	protection status
rare flora and fauna	[Redacted]	

Land bank staff paid particular attention to looking for these species during the inventory of the property.

common name	scientific name	protection status
rare plants	[Redacted]	

Of the two species of rare plants listed as occurring in similar habitats in Oak Bluffs, only one of those rare plants is present at the preserve. This plant occurs in the dry, sandy soils occurring on the eastern edge of the old field. It co-exists with little bluestem, purple love grass, beach pinweed, bead grass, and little ladies'

tresses. This species is also found at nearby Trade Wind Fields Preserve and at the Felix Neck Wildlife Sanctuary. Although not at Pecoy Point, another rare plant is present in the dry, open grasslands of the nearby Trade Wind Fields Preserve and at the Felix Neck Wildlife Sanctuary. Suitable habitat is present here for this plant, but none were observed.

Two additional state-listed plants occur on the property. One state-listed plant is very similar morphologically to its congener yellow foxtail (*Setaria glauca*), and is easily confused with this species (MNHESP, 1985a). In a recent study of the genetic diversity of four *Setaria* weed species, Wang et al. (1995) found that these two species are more closely related than either were to other congeners, although a considerable amount of diversity in structure occurs within each species which makes species separation difficult. Their study was originally of three *Setaria* species, not including *S. geniculata*. Upon obtaining 169 plant specimens from around the world, it was discovered that twenty-four of these were *S. geniculata* mistakenly identified as *S. glauca*. These cryptically similar species can be distinguished genetically, using allozyme analysis; however, this provides no relief to the field biologist. Although they originate from different continents, the ranges of the species have been expanded by human trade in the last three hundred years, so that the Eurasian *S. glauca* now commonly co-occurs with the American *S. geniculata*. One rare plant occurs here at the northern edge of its native North American range, which extends from the Massachusetts coast south to Texas, and west to Kansas and California (Wang et al., 1995). The knotty rhizomes present in the perennial *S. geniculata* prove to be the best characteristic for separating these two species morphologically. Also, *S. geniculata* are found in moist places and salt marshes, while *S. glauca* are found in cultivated and disturbed soils (Gleason and Cronquist, 1991; MNHESP, 1985b). *Setaria* spp. are found on this property in a band that covers both cultivated and disturbed soils as well as the higher edge of the salt marsh. It is associated with *Panicum virgatum* and *Festuca rubra*, and thousands of individuals are estimated to occur here. A lone individual was counted in a survey plot in the groundsel tree-virginia rose shrubland, bordering the salt marsh. Specimens investigated along the roadside, where it borders the marsh, were *S. geniculata*. The lone individual counted in a survey plot in the groundsel tree-virginia rose shrubland was most likely *S. geniculata*, based upon habitat, but whether the plants present on the road edge in the old field are also *S. geniculata* has not yet been determined. This rare plant is found at ten sites in three towns on Martha's Vineyard, viz., Edgartown, Tisbury, and Chilmark. However, no sites are previously known for Oak Bluffs.

The third state-listed plant species was observed at the preserve. It was found in flower in August. About a dozen culms (stems), ranging in height from four to six feet, were growing in an old wrackline on the two-foot-high sandy embankment, along with *Spartina pectinata*, *Teucrium canadense*, *Baccharis halimifolia*, *Festuca rubra*, *Toxicodendron radicans*, and *Rosa virginiana*. This plant is distinctive in its morphology; the male and female spikes occur separately on the same plant, as occurs in cultivated corn. This species readily hybridizes with corn (*Zea mays*), and

was thought to be the progenitor of North American corn two decades ago. With recent refinements in genetic techniques, the South American teosinte (*Zea diploperennis*) is now considered to be corn's closest wild ancestor, with one rare plant being relegated to the position of distant ancestor (Mangelsdorf, 1986). Regardless, this plant is only found in a few locations in Massachusetts, and has not previously been known from Dukes County (Somers, 1997). This species is also near the northern extent of its North American range (Gleason and Cronquist, 1991), which extends from Massachusetts west to Nebraska, and south to Texas and tropical South America (Gleason and Cronquist, 1991; Hitchcock, 1971). It seems to prefer wet places, being found at other Massachusetts sites on the gravelly or sandy shores of a river and a coastal pond, with the nearest known population occurring in Bristol County (Somers, 1997).

In addition to the Massachusetts-listed rare species discussed above, nine plant species that are known from five or fewer sites on Martha's Vineyard occur at the preserve. These are coast blite (*Chenopodium rubrum*), marsh vetchling (*Lathyrus palustris*), bulbous woodrush (*Luzula bulbosa*), black medick (*Medicago lupulina*), sundrops (*Oenothera fruticosa*), nodding ladies' tresses (*Spiranthes cernua*), trailing wild bean (*Strophostyles helvola*), common arrow-grass (*Triglochin maritimum*), and common vervain (*Verbena hastata*).

Two rare invertebrates have not been observed at the preserve. Suitable habitat for the first rare invertebrate is present in the oak-pitch pine woodland (Covell, 1984), but no individuals have been observed. The second rare invertebrate is found in open, sandy or grass-free areas at Katama Plains, Edgartown (Braker, 1987), and has been reported to occur at Trade Wind Fields Preserve, Oak Bluffs. This rare invertebrate is described as a sandplain grassland species found in open, nonvegetated areas such as the sandy ecotonal edges of pine forests, and as living in association with bearberry (*Arctostaphylos uva-ursi*), with which it is cryptic (BEC, 1988). Suitable habitat for this invertebrate does not occur here, and bearberry is not found at the preserve.

There is the food plant of an additional state-listed invertebrate on the property. Although the species has not been reported for Oak Bluffs, there is suitable habitat at Pecoy Point. The food plant is the only host plant for this rare invertebrate. It is an invertebrate found on the coastal plain along the upland edges of permanent water bodies (MNHESP, 1990). This rare invertebrate commonly has unstable local populations that go extinct and then re-colonize depending on the proximity of other sites of the food plant.

A rare reptile species has not been observed on the property. Suitable breeding and foraging habitat exist on the property, including brushy fields, thickets, and tidal brackish marsh (MNHESP, 1994a). It is unlikely that these reptiles are found at Pecoy Point Preserve due to the residential nature of the surrounding neighborhood. Additionally, land bank staff have never observed this species in coastal areas on the island.

A rare bird species was observed foraging on Sengekontacket Pond off Pecoy Point Preserve's shoreline during the last two weeks of May. A pair was also seen flying over the salt marsh in late May, where suitable foraging habitat is present in its tidal creek and ditches (MNHESP, 1988a). Although suitable nesting habitat is not present here, a small least tern colony is located about a half mile south, on Joseph A. Sylvia State Beach, Oak Bluffs. 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. Another rare bird species was observed foraging on Sengekontacket Pond off Pecoy Point Preserve's shoreline from mid-May until late July, and nest in the salt marsh on Haystack Island, about a mile to the south (Culbert, 1997). Although suitable nesting habitat exists for this tern in the marshes of Pecoy Point, it is unlikely that this species would ever nest successfully here, with the ubiquitous presence of ground predators such as striped skunks, raccoons, domestic dogs, and domestic cats (MNHESP, 1985b). Although a third rare bird species is known to feed along the eastern shoreline of Sengekontacket Pond at State Beach (Culbert, 1997), they were not seen foraging off the Pecoy Point shoreline, and do not breed in the vicinity (MNHESP, 1988b). This species may use this shoreline for foraging in the future, as they are present nearby.

The following state-listed rare species are documented at the nearby Felix Neck Wildlife Sanctuary in similar habitats to those at Pecoy Point Preserve:

common name	scientific name	protection status
rare species	[Redacted]	

Two rare invertebrates are found in oak and pine forests, although one prefers pitch pine-scrub oak barrens habitat (MNHESP, n.d.a; MNHESP, n.d.b.), which is not found at Pecoy Point Preserve. This rare invertebrate uses various species of oak for feeding in the larval stage (Covell, 1984; MNHESP, n.d.b.). Pecoy Point Preserve provides less than an acre of suitable habitat for these species, although larger areas of habitat are found off the preserve, immediately adjacent to the west. A third rare invertebrate feeds on milkweeds in its larval stage (Covell, 1984). Although the preserve hosts three milkweed species, they are all uncommon here and would provide a very scattered food source. The preserve presently provides a low-quality habitat for this moth.

Although a rare reptile species has not been observed at Pecoy Point, suitable habitat is present in the pond and its shoreline (MNHESP, 1994b). This is a small, cryptic species that may have gone unnoticed along the densely vegetated pondshore. A pair of breeding rare birds live on conservation land nearby. They would not be expected to breed at the preserve, as no structure exists that would provide suitable nesting habitat (MNHESP, 1995). Although these rare birds have not been seen at Pecoy Point Preserve, ample foraging habitat exists here in the salt marsh and old agricultural field.

C. Cultural Characteristics

1. Land History

The land that is now Pecoy Point Preserve is mentioned in a deed dated September 1689 (Deeds, 1/88). Ezekiel, "Indian of Sanchakantacket" -- with the consent of Mr. Sam Sachim -- quitclaimed "a small neck of land called pokoi-an" to Azaaick Norton. Matthew Mayhew witnessed the signing of the deed along with Thomas Sitam, and in it are mentioned a number of other parcels on Sengekontacket Neck. Some of the other parcels refer to a cart path going to the neck, a ditch by a sawpit, Tacknash's field (spelled Tuckanasn), and a pine swamp.

Ezekiel, the grantor, was also known as Pauknossimum or as Ezekiel Pauknossimum according to other early deeds - in particular, one in which he sold land to Isaac Norton's younger brother Joseph on Sengekontacket Neck (Deeds, 4/119). Historian Banks claimed that Pecoy Point was called so after Pauknossimum, but that the name Pecoy was also derived from the Algonquin word "pohqu-auk" which means "open land," or "land naturally fit and clear for cultivation. (Banks, 1966)" Sam was the sachem of Sengekontacket in at least the period from 1660 to 1690 (Banks, 1966). He was also known as Wampamag, Wabamuck, and Samuel, son of Autumsquum, and seems to have consented to the sale of other land at Major's Cove by Thomas Sisseton to Isaac Norton's father Nicholas, although the deed is not recorded (Banks, 1966).

Wampamag was the leader or overseer of numerous smaller groups of Wampanoags living on Akeshkeppe Neck (now Oak Bluffs - the land between Lagoon Pond and Sengekontacket). These smaller groups were in turn associated with men like Ezekiel Pauknossimum, Thomas Sisseton, John Tacknash, Maquaine, and possibly Thomas Sitam. They had arable land on Sengekontacket Neck that was no doubt in various stages of fertility when the sons of the early settlers at Great Harbour (Edgartown) started looking for farms of their own in the 1680's and 90's. Any cleared land was a desirable target for purchase from the Wampanoags.

Isaac Norton also purchased land from Maquaine in the Pecoy Point area in October 1685 (Deeds, 3/25). It was ten acres of land "including the old field where I said Maquain formerly lived, and the land adjacent...said land lying by the side of the meadow at Sanchacantaukot [*sic*]." This may have been exhausted crop land that Maquaine had given up on and was happy to sell to Norton "in consideration of an Iron pot and other goods to me already payed." Then again, Maquaine may have regretted the inevitable push of the Nortons onto the Neck. With the outsiders moving in and taking cleared land as their permanent outfield, that land would not be available to Maquaine at the end of the fallow. Not only that, as the Mayhews claimed ownership of the woodlands as commonty for the settlement ("New Purchase," c. 1653), it became difficult or impossible for Wampanoag farmers to clear new land for personal use. An agricultural system that developed over centuries and supported as many as thirty people per square mile was severely disrupted by the influx of English people who brought with them not only

free-ranging cattle and iron pots, but plague and smallpox (Salisbury, 1982).

Isaac Norton (1641-1723) was the eldest son of Nicholas Norton (c.1610-1690) who emigrated to Weymouth around 1635 from Somersetshire, England (Banks, 1966). Historian Banks placed Nicholas Norton's origin at the hamlet of White Lackington, where the family occupation was tanning leather (Banks, 1966). Norton brought his families' trade with him when he re-settled from Weymouth to the Mayhew settlement on Martha's Vineyard in 1659. The town granted him a forty-acre lot north of the Great Swamp (*aka*. Beetle Swamp) and use of the ponds in that vicinity (including "Ox Pond") for tanning leather.

Leather was a key component of material life in seventeenth- and eighteenth-century Edgartown. Imported cloth was beyond the means of most settlers, as were looms and spinning wheels (Russell, 1982). This left few choices among which leather was paramount. The agricultural system was largely pastoral, so the raw material, the hides, were readily available. The technology, though not advanced to the industrial and chemical level of the large production areas of the eighteenth and nineteenth century (e.g., Roxbury, Brighton, and Woburn), was adequate to produce the leather coats, breeches, and aprons that the Edgartown farmers needed. Cattle slaughter was often an ancillary service provided by the village tanner. Once the hides were cut, they were preserved through a process of soaking in tannic acid, which was available in the abundant oak bark surrounding the settlement. The oak bark was typically ground up in a small mill and then put in the pits or ponds with the hides. When the hides were pulled out of the tannic bath, tallow (i.e., fat) was worked back into the leather to keep it from being too brittle (Donahue, 1997).

By 1684, Nicholas Norton had purchased additional land at Major's Cove including a meadow and a small brook running into the cove from a marsh (Banks, 1966). He put a dam on the brook and built a small mill for grinding oak bark. It is not certain whether the entire tanning operation was moved up to this area, or whether Norton brought the processed tanbark back down to Beetle Swamp. Historian Banks states that Nicholas Norton kept his homestead in the main settlement, and it was up to his sons Isaac and Joseph to settle Sengekontacket Neck (Banks, 1966).

Isaac Norton was the second settler to the Neck after Joseph Daggett who lived to the north, at the head of Sengekontacket Pond. Sometime after 1685, Norton built a house near W'Quahti-pog Pond, now known as Fresh Pond (Banks, 1966). Pecoy Point was part of the Norton farm for the next 240 years and six generations of Nortons. The farm consisted of 150 to 200 acres going from the County Road out to Sengekontacket, but also including lands as far away as Felix Neck and Squash Meadow. The homestead was near a fresh water source for the stock. There were most likely tilled lands at the top of the ridge to the north and north-east of Fresh Pond, as well as out by Pecoy Point. The infields near the homestead would receive the bulk of the manure, while the outfields by Pecoy Point would be

manured by livestock droppings left during temporary pasturing. The salt marshes provided winter fodder, and the woodland across County Road provided fuel and construction materials.

Salt marshes played an important role in the agricultural system for at least the first two or three generations of Norton farmers. In the late seventeenth and eighteenth centuries, natural meadows alleviated the inherent bottleneck of winter fodder shortages that was typical of early American farming. This was solved somewhat in the eighteenth century through the introduction of sown English hay grasses. The Norton farmers probably opened up additional tilled land as the timothy, redtop, and orchard grass were introduced to the island, but salt marshes were still cut right into the nineteenth century as supplemental forage and bedding material. Henry Thoreau described a scene of haying on the freshwater meadows along the Concord River in 1854 that might have been similar to many summer days at Pecoy Point in the eighteenth and nineteenth centuries:

I find that we are now in the midst of the meadow-haying season, and almost every meadow or section of a meadow had its band of half a dozen mowers and rakers, either bending to their manly work with regular and graceful motion or resting in the shade, while the boys are turning the grass in the sun. I passed as many as sixty or a hundred men thus at work today. They stick up a twig with the leaves on, on the river's brink, as a guide for the mowers, that they may not exceed the owner's bounds. I hear their scythes cronching the coarse weeds by the river's brink as I row near. The horse or oxen stand near at hand in the shade on the firm land, waiting to draw home a load anon. I see a platoon of three or four mowers, one behind the other, diagonally advancing with regular sweeps across the broad meadow and ever and anon standing to whet their scythes. Or else, having made several bouts, they are resting in the shade on the edge of the firm land. In one place I see one sturdy mower stretched on the ground amid his oxen in the shade of an oak, trying to sleep; or I see one wending far inland with a jug to some well-known spring. (Thoreau, 1962).

Isaac Norton sold his farm to his son Isaac (1680-1759) in 1713 (Deeds, 3/197). The father died ten years later with a large herd including 14 cattle, 50 sheep, 3 hogs, 16 goats, and a mare which presumably were kept with the son's animals (Probate, 1/49). There is little easily obtained information about the second Isaac Norton. He married Millicent Cheney of Roxbury around 1718 and had six children (Banks, 1966). His youngest son, Henry, died at the age of 26, and is buried in the old Farm Neck cemetery that lies about 1,500 feet northwest of the preserve. His oldest two sons, Isaac (the third) and Stephen, were bachelors who lived in the east side of the house for most of the eighteenth century, and his third son, Shubael, married and raised a family in the west side of the house (Banks, 1966). Historian Banks places this house just to the north-east of Fresh Pond, and refers to it as the "House of the five Isaacs," although quick research could only find a fourth Isaac (Shubael's son, 1771-1843) who ever could have lived there.

Shubael Norton's sons, Isaac, Henry Cheney, and Bays inherited part of the farm

from their uncle Isaac (Probate, 1/550) before 1798, and the rest from their father early in the nineteenth century (Probate, 1/603a). By 1815, Henry Cheney had apparently purchased sole ownership of the farm from his older and younger brothers (Deeds, 21/51). Included in the transfer was “a tract of meadow known by the name of Pocoy.” This was the first mention of the place “Pecoy” in any deed or probate record found, since 1689.

Henry Cheney Norton (~1765-1819) purchased other meadow and woodlot in the Farm Neck amounting to at least five other parcels in the late eighteenth and early nineteenth centuries (Deeds, grantee books). These included meadows to the north of Pocoy Point and a woodlot near where the Edgartown Road meets County Road. By the time he died, he was a wealthy man with real estate worth over \$2,000 (Probate, 1/603). His lands included: the homestead land, an orchard, an old field to the northward of the house, Slink meadow, Zack lot, Pocoy meadow, Saquinich, Scrubby Neck, Farm woodlot, and a Plain lot. The Pocoy meadow was valued higher than any of the other parcels and made up 25% of the entire estate. This suggests that the Pocoy parcel included both meadows mowed for hay and arable land. Among Henry Norton’s other possessions, as recorded in the 1823 inventory of his estate, were: one pair of oxen, two cows, 22 sheep, an oxcart, yoke, harrow, oxchain, axe and grindstone, two beds, a desk, chests, drawers, chairs, tables, looking glass, andirons, saddle, bridle, and halter (though no horse), and other household utensils (Probate, 1/603). His will left everything to his wife Rebecca, son Constant, and five daughters Rebecca, Charlotte, Hope, Fanny, and Lydia.

Constant Norton took over half of the farm, with his mother Rebecca running the other half. In the 1850 census, both Constant and Rebecca are listed as heads of households, living in the same dwelling (Pease, 1850). Constant had 20 acres of improved land and 30 acres of unimproved pasture land, while Rebecca had 50 acres improved and 40 acres unimproved. Constant had one cow, two cattle, and a swine, while his mother had twelve sheep. The household grew 10 bushels of rye, 80 bushels of corn, 33 bushels of oats, 100 bushels of potatoes, 8 bushels of barley, 7 tons of hay, \$5 worth of orchard products, and \$10 worth of home-made manufactures. This supported eleven people in the dwelling, including Constant’s younger sister Fanny, his wife and three children, two sisters-in-law and some nieces and a nephew. There is evidence that the homestead was no longer on the north-east side of Fresh Pond at this time, but around on the south-west side of it, out by County Road (Probate, D2/1023).

Rebecca Norton died in 1857 and was buried in the Farm Neck cemetery. Most of her acreage went to Constant, but in 1872, Fanny Norton sold “a piece of land situated at a place called Pocoy, adjoining Sangongontucket [*sic*] Pond,” of around an acre to Constant Norton (Deeds, 51/148). With the 120 dollars and 16 1/4 cents that she received, Fanny proceeded to buy land at East Chop and Bellevue Heights in the following year. Constant Norton was a strongly independent man described so in his daughter’s 1942 obituary: “he cast the first Democratic vote in the county when he voted for Andrew Jackson for the presidency in 1828. Since this was the

only Democratic ballot, one Edgartown selectman suggested that Mr. Norton withdraw it. He not only refused to do so, but when there was some doubt about the vote a little later, he went before a magistrate and took oath that he had cast the ballot (VG, 1942).” No record of Constant Norton’s death was found, although it was probably late in the 1870s.

There is a gap from the time of Constant Norton’s death until a transfer that resulted from a petition to partition dated 1918 (Deeds, 150/1). Constant had three children: Henry Cheney, Lucinda, and Anne (DCHS, n.d.). The partition included nine parcels that had been in the Constant Norton estate. Part of the Pecoy land went to Lucinda (St. John) and part went to Constant’s grandson Henry Franklin Norton (son of Henry Cheney Norton). It is not clear if the land continued to be used by the Norton family at this time or whether it idled. A 1938 photograph shows trees coming in on the uplands away from the pond, but still relatively open land near the meadows with two hayfields on the point (DCHS, 1938). The area on the north side of Fresh Pond shows considerable impact from stock watering.

Henry Franklin Norton sold numerous parcels including land at Pecoy Point to Rollo D. Wigglesworth of Oak Bluffs in 1919 (Deeds, 150/219). Wigglesworth in turn sold the Pecoy land to William Marinelli in 1922 (Deeds, 159/64). The following year, in 1923, Norton sold an additional four acres in the area to Marinelli (Deeds, 157/344). William Marinelli farmed the area, as is apparent from the 1938 photographs that show hayfields out on the point and on the mainland field by the small pond and extensive wood-pasture to the northwest (DCHS, 1938). Charles D. Marinelli inherited the farm from his father, when he died (Probate, D6/2876). Charles and Deolinda Gladys Marinelli sold the place to the Pocoy Point Realty Trust (Fred M. Condon and Alan J. Schweikert, trustees) in 1980 (Deeds, 374/886). The Realty Trust subdivided the area and finally at the end of 1995, Fred Condon sold fourteen acres to the land bank (Deeds, 667/518).

2. Areas of Planning Concern or Jurisdiction

Portions of the property are subject to the Massachusetts Wetlands Protection Act (MGL 131, 40) and the Oak Bluffs General Wetlands Bylaw 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 review by the Martha's Vineyard Commission for certain activities if they are performed within the coastal district which is 200 feet from the shoreline of Sengekontacket Pond. The parcel is also in the Sengekontacket District of Critical Planning Concern.

3. Abutters

There are ten lots that are within 200 feet of Pecoy Point Preserve. These lots are shown on the **Abutters Map**. Below is a list of these abutters according to

the Town of Oak Bluffs tax assessors and to land bank records (RPC, 1996).

Table 10. Abutters to Pecoy Point Preserve, Oak Bluffs, MA

Map	Lot(s)	Name	Address
43	46 47	F & N Inc. (Fred M. Condon)	175 Patterson Ave., Midland Park, NJ 07432
44	26.1	F & N Inc. (Fred M. Condon)	175 Patterson Ave., Midland Park, NJ 07432
43	52	Farm Neck Association, Inc.	P.O. Box 1656, Oak Bluffs, MA 02557
44	4 6	Farm Neck Association, Inc.	P.O. Box 1656, Oak Bluffs, MA 02557
43	49	Kay M. McCord	4328 Overhill Dr., Dallas, TX 75205
47	3	Owner Unknown	
47	2	David & Ellen M. Richardson	RFD 475 RR, Edgartown, MA 02539
44	5	Hans & Alma Stibolt	P.O. Box 1104, Edgartown, MA 02539
48	93	Robert A. Yurkus	P.O. Box 1361, Oak Bluffs, MA 02557

4. Existing Use and Infrastructure

Pecoy Point Preserve has been used in the recent past as a neighborhood hiking area, a private baseball field, a private sports court, and as an access to Sengekontacket Pond. There is an existing road and recreational facilities on the property. The **Existing Use Map** identifies fourteen significant locations or features on the property.

1. *Driveway off Pulpit Rock Road* - the driveway to the property is an eight-foot wide dirt driveway that starts approximately 0.2 miles in from County Road. It is the fourth right, just after Ice Pond Lane and just before Brush Island Lane.

2. *Road to Sengekontacket Pond* - this 450-foot road leads from the driveway, through the field, across the marsh, and out to the point where an undeveloped boat slide exists. The road is eight-feet wide and has had sand surface material applied to it in the past. The causeway across the salt marsh has no culverts.

3. *Small Pond* - a small, unnamed pond (approximately 16,900 square feet) lies at the north-east boundary of the property. It appears to be an old stock-watering pond.

4. *Old Baseball Field* - this 19,500 square foot field includes a sand pitcher's mound and infield. There is an irrigation system installed under the grass and an electrical box near-by controls the pumps and timers.

5. *Sports Court* - this 29 x 61.5-foot sports court is constructed of a ten-inch slab of concrete and appears to be less than ten years old.
6. *Boat Slide* - the undeveloped boat slide at the end of the Road to Sengekontacket is approximately 1,500 square feet in size and is characterized by a large mud hole (700 square feet and ten inches deep) that limits its utility. It looks like native gravel has been applied to the area in the past.
7. *Old Foundation of Small Cottage* - a 14 x 16-foot foundation with a 12-foot-high chimney sits at this location. Associated with it are the remains of two small out-buildings. The construction is modern as evidenced by the concrete mortar and concrete bricks. There is a lot of debris around the locus including abandoned machinery and a water tank.
8. *Shell Piles* - there are several piles of scallop shells covering approximately 1,200 square feet in an area off-site, about 100 feet north of the small pond. They are apparently left from 20th century shellfish activities.
9. *Mosquito Ditches* - the salt marsh has 610 feet of secondary ditches leading to tidal creeks. These are probably c. 1930 ditches put in for mosquito control.
10. *Farm Machinery* - there are six pieces of old farm machinery left just off-site in the upper field including a John Deere plow and cultivator, and a McCormick sickle-bar mower.
11. *Shoreline* - the shoreline along Sengekontacket Pond is gravelly and immediately adjacent to eroding peat and salt marsh in many places. There are numerous fist-sized rocks in the low intertidal zone and seaweed is prevalent. Some small patches of sand do occur, but the area is not ideal for laying out a beach blanket.
12. *Bleeding Water Main* - an eight-inch water main was installed to service a subdivision that was never built on the Preserve (there are mains underground on portions of the property). The Oak Bluffs Water District has been bleeding this main since 1979 in order to keep carcinogens from building up in the pipe. The Water District is exploring the possibility of shutting down this main, since the subdivision will now not appear (Kenney, 1997).
13. *Well* - a five-inch well stands at this location, and may be connected to the irrigation system under the old baseball field.
14. *Boulder Piles* - there are boulder piles in various parts of the property, but especially in the north-west corner. These have been recently unearthed. Five larger piles were estimated to be the following sizes: 1,350; 480; 280 96; and 64 cubic feet (2,270 cubic feet total).

Staff has observed people from the surrounding neighborhood walking dogs on the property on about ten percent of visits. Solitary walkers and people driving down to park at the point were also noted on several occasions. There are remains of shotgun shells of various ages in many places on the property. The Oak Bluffs shellfish department uses the point to maintain aquaculture rafts in Sengekontacket Pond. Last year they cultured twenty-four quahog rafts and several scallop spawning cages. Activities done from the shore of the Preserve include putting seed in the rafts and deploying them in June and July; and screening out seed from the rafts in September and October (Madeiros, 1996). The Division of Marine Fisheries also uses the point for conducting on-going water quality testing of Sengekontacket Pond (Johnson, 1997).

5. Views

Some of the views from this property are spectacular. Sengekontacket Pond is visible from many parts of the property, as is Beach Road, Nantucket Sound, and Cape Poge Elbow in the distance. Views from the point include Major's Cove and Felix Neck across the water. Felix Neck is a wildlife sanctuary and therefore provides a high-quality view of undeveloped coastal woodlands. Interior views of quality include that of the small pond, the old upland field and a copse of oak trees within it, the switchgrass meadow, and the salt marshes. These are shown on the **View Management Map**. Views are deteriorated by near-by houses to the west and south, and are potentially threatened by future development on neighboring lots. The **View Management Map** includes screening areas that are important to focus on for the improvement of overall view quality on the property.

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

Pecoy Point Preserve has a gradient of coastal plain communities ranging from upland woodlands and a freshwater pond to lowland thickets and salt marshes with a view of a barrier beach across a salt pond. This range accounts for the relatively high plant and animal species diversity on the property. With 203 plants in seven communities and 62 birds, the property compares to the similarly-sized Gay Head Cliffs Preserve (16.3 acres) that has 130 plants in three communities and 47 birds, the Middle Ridge Preserve (7.0 acres) that has 57 plants in two communities and 42 birds, the Fulling Mill Brook Preserve (49.6 acres) that has 150 plants in five communities and 68 birds, and the Farm Pond Preserve (27.2 acres) that has 182 plants in five communities and 58 birds. Pecoy Point ranks as one of the most diverse land bank properties studied to date.

Of the seven plant communities on the property, the old field contributes much to overall plant diversity. Although only accounting for one-quarter of the area of the preserve, the old field has more than 50% of all plant species. There are remnant hay and pasture grasses such as red top, timothy, red fescue, orchard grass, velvet grass, and others mixed in with numerous perennial herbs such as wild strawberry, queen anne's lace, and several goldenrods. Surveys showed a consistently large number of species in 10.4 square foot plots, often in the range of 35-40 species. In comparison to the old fields at near-by Farm Pond Preserve, those at Pecoy Point appear to lack open sandy areas and the annual plants associated with them. There was no ryegrass or poverty grass found at Pecoy Point, but there were several vetches and ubiquitous cat's ear which suggests both a different past land-use and plant colonization dynamic.

There were also differences between the salt marshes at Farm Pond and at Pecoy Point. Although both preserves have the same number of species in their respective salt marshes (41), the Pecoy Point marsh is lower and has more evident salt influence. There is lots of slender glasswort in big pan areas that are covered by saltwater cordgrass (*S. alterniflora*) - as opposed to Farm Pond where the only low marsh is along the ditches.

The other interesting grassland at Pecoy Point Preserve is the switchgrass meadow. This community type is seen fairly infrequently on the island, especially at the eastern end. There are other virtually pure stands of switchgrass at the upper

ends of many of the coves in the south shore great ponds. The head of Tississa Pond at Sepiessa Point Reservation comes to mind. These south shore switchgrass meadows are usually on Pompton sandy loam, an Aquic Dystrochrept. The meadow at Pecoy Point is on Carver soil, a Typic Udipsamment. This indicates a hydrologic situation in which an unconfined aquifer of fresh groundwater is riding as a lens above heavier salt water. As the volume of the fresh water aquifer and the extent of salt water intrusion changes, the water table in the switchgrass meadow fluctuates. This fluctuation may discourage other grasses from germinating and thriving in the spring. Warm season grasses like switchgrass (and freshwater cordgrass which is common in the surrounding groundsel tree-rose shrubland) are dormant in the spring and survive high water tables and flooding relatively well.

Many of the most interesting plants growing on the upland edge of the salt marsh are grasses and herbs that compete for space with various shrubs and trees. These include plants such as the freshwater cordgrass, eastern gama-grass, trailing wild bean, bristly foxtail, and marsh vetchling. With the decline of agricultural land-uses and with the protective measures of the Wetlands Protection Act, forested and shrub wetland communities seem to be gradually replacing the open, grassy and herbaceous wetlands where these plants once thrived. It is known that remnant swards of these transitional zone grasses and herbs are uncommon, and patches are now only interspersed with groundsel-tree, arrowwood, Virginia rose, and the like.

The fresh water pond on the preserve is important habitat that supports considerable wildlife activity at a range of trophic levels. There are many dragonflies and damselflies around the pond in summer months. The fresh water serves to concentrate avian species and large numbers of individuals. Some of the birds associated directly with this fresh water component are red-winged blackbirds, spotted sandpipers, yellow warblers, and common yellowthroats. Mammals using the pond to some degree include muskrats, river otters, and white-tailed deer. It is curious that no amphibians were seen or heard in the area. The small pond may be an isolated fresh water pocket that has yet to be colonized by spring peepers or pickerel frogs, or more clandestine species such as fowler's toads and spotted salamanders may already inhabit the area, but remained undetected in our surveys. Other fresh water ponds within a mile of the preserve include Fresh Pond (which may be stocked with fish), five small ponds at the head of Major's Cove, Dodger's Hole, a couple of ponds at Felix Neck, several ponds on the Farm Neck golf course, and possibly some vernal pools in depressions on the other side of County Road. The pond also appears to be excellent habitat for spotted turtle, though none were seen. These are easy to miss because they frequently tunnel into the mud.

Pecoy Point Preserve teems with birds all the time. There are numerous species as well as numerous individuals. In fact, most species that are found on the island can be found here. The only exceptions appear to be several birds that rely on

large interior woodland tracts and those that are not typically associated with coastal areas. Yellow warblers and goldfinches are noticeably abundant during the breeding season, as are american crows at all times. The crows are very aggressive, and often pursue herring gulls and red-tailed hawks, when not scavenging around the pond and along the marsh. The winter abundance of birds is relatively high due to the presence of plants with seeds and fruit that persist beyond the growing season. Many of the year-round species are omnivorous ground-feeders like sparrows and flickers. A northern shrike was seen over the switchgrass meadow in winter

Two species that had perfect habitat but were not found on the preserve were blue-winged warblers and eastern bluebirds. The amount of saplings bordering old fields leads you to expect both of these species, but they may be absent due to some coastal effect such as wind exposure. Tree swallows and barn swallows, on the other hand, were abundant during the summer at the preserve. The barn swallows were probably nesting in near-by garage structures, while the tree swallows are likely from the large colonies in artificial cavities at Felix Neck Wildlife Sanctuary across Major's Cove. The amount of swallows moving in from surrounding habitat suggests that artificial breeding enhancement on the site is not necessary or desirable.

Bird movement up and down Major's Cove was common with many species including blue jay, red-winged blackbird, robin, crow, and belted kingfisher. Many of these species will also move across the Cove to and from Felix Neck. The topographic position and vegetative matrix at Pecoy Point may also influence fallout of migrating warblers. With similar shoreline of salt marsh, open fields, and lowland shrub thickets for approximately three-quarters of a mile to the north along Sengekontacket Pond and with a linear feature like Major's Cove, it is likely that fall migrant warblers will push down Major's Cove or across to Felix Neck to fallout in wooded stands in these areas. This type of behavior is seen in similar areas such as at the head of the Lagoon and on North Neck.

Some of the important mammals to consider when thinking about this property are muskrats and river otters. Muskrats appear to be common in the area. A small stand of cattails provides nutritionally excellent food and the banks of Pawcatuck soil along the edge of the salt marsh are good for dens. Although home ranges vary tremendously, 4.2 acres of salt marsh could have as many as twenty-three muskrat territories (DeGraaf and Rudis, 1987). Considerable population migrations are likely between the salt marsh habitat at Pecoy Point and that further along the Sengekontacket shoreline. River otters also use the preserve from time to time as part of a much wider territory. It seems natural to think of a pair or two of Sengekontacket otters with a home range that runs from Farm Pond to Eel Pond - a distance of only five or six miles. These individuals may well range as far as Chappaquiddick in order to get enough food. Travel overland for the 2.5 miles from Major's Cove to Wintucket Cove is not inconceivable, as is the 2 miles from Sengekontacket to the Lagoon. Resident otters may also travel around to the North

Shore as well. Dispersing young certainly take these routes. Otters occasionally use regular routes within their territory, but these are often altered by such things as frozen water, the presence of other otters, a female in heat, or abundant food found elsewhere (Stokes, 1986). This mammal is considered fairly tolerant of human presence, so the increasing pressure of residential development along the Sengekontacket shoreline may not impact their populations significantly.

Residential development is a concern for other species of wildlife, however. Though not as dense as the area around Farm Pond, Pecoy Point is very definitely in a residential neighborhood. The density of domestic dogs and cats on the preserve is high, and has an impact on species such as meadow voles and other small mammals, low-nesting songbirds such as common yellowthroats and song sparrows, as well as cottontail rabbits and white-tailed deer. Wildlife feeding at near-by feeders may also play a role in the population densities of several species including black-capped chickadees, blue jays, northern cardinals, and even ring-necked pheasants. Other potentially deleterious effects of adjacent homes are caused by night-time lighting, general noise, and consistent human presence.

Of the 1,612 acres of land within one mile of the preserve, a total of 532.5 acres or 33% are in permanent conservation. There is some linkage between the conservation areas, as the Farm Neck Association lands abut Pecoy Point Preserve. However, residential housing breaks up the landscape in the numerous, near-by, large subdivisions. Wildlife movement continues unimpeded for many species despite the houses, although certain habitat requirements may be reduced and general disturbance is increased.

2. Natural Resource Concerns

The land bank management team has identified four areas of greatest natural resource concern for the property. These are disturbance to wetland vegetation and water quality, loss of rare plant habitat, 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 to wetland vegetation and water quality - the wetlands on the property include coastal shoreline, lowland thickets, salt marsh, and a small, freshwater pond. The occasional trampling of pondshore vegetation will not have serious consequences, but repeated trampling may lead to increased erosion, changes in water quality, loss of wildlife habitat, and aesthetic decline. Loss of water quality will in itself reduce the amount of wildlife habitat for water dependent species and those dependent in turn on them.

loss of rare plant habitat - twelve plant species on this preserve were identified in the inventory as rare for the region or locally unusual. These are sandplain blue-eyed grass, eastern gama grass, bristly foxtail, coast blite, marsh vetchling, bulbous woodrush, black medick, sundrops, nodding ladies' tresses, trailing wild bean, common arrow-grass, and common vervain. Several of these grasses and

herbs are susceptible to woody plant competition, though not all. Some may be limited due to dispersal mechanisms such as infrequency of a combination of high tides and available seed source. They may also lack ready seed beds of disturbed ground.

invasive plant species - several plants on the preserve are potentially invasive. These include spotted knapweed, common reed, pitch pine, oriental bittersweet, and poison ivy. These plants can outcompete desirable vegetation and lead to lower quality wildlife habitat for desirable animals.

predation by domestic animals - domestic dogs and cats were seen frequently on the property. There are 129 dwellings and 201 lots within a half-mile of the property, so the impact from domestic animals has the potential to increase. Direct control measures are socially difficult to implement, but leashing, impoundment, and fines may be a way to reduce predation of wildlife on the preserve.

3. Sociological Context

Pecoy Point Preserve is located in a medium-density, residential neighborhood (zoning district R-3, minimum lot size 60,000 square feet). In the area of land within one-half mile of the property, there are 201 parcels and 129 houses. This is a density of 2.2 acres per house (283 total acres).

According to the Martha's Vineyard Commission's *1994 Data Report*, 38.5% of Oak Bluff's houses were occupied by year-round residents in 1990 with an average of 2.26 people per household (MVC, 1994). Multiplying this out, there are an estimated 112 people living year-round within easy walking distance (half-mile) of Pecoy Point Preserve. Twenty-six of these people are under 20 years old, and twenty-one of them are over 65 years old, extrapolating from 1990 MVC demographic data. The seasonal housing stock was 49.2% of the total in 1990 with no estimate of people per dwelling. Dividing the number of seasonal residents by the number of seasonal housing units in 1990, there are an average of 5.8 people per unit. This would compute to an estimated 365 summer residents within easy walking distance of the property.

There are ten other conservation or park areas within one mile of Pecoy Point Preserve. Four of these totaling 307 acres are open to the public and the other six totaling 225.5 acres are without general public access (but may be open to certain private groups of people). Pecoy Point Preserve is a desirable conservation destination because of its diversity of habitats, its attractive views, and its proximity to Sengekontacket Pond. Based on past experience with similar public conservation areas such as Wilfrid's Pond Preserve, Chilmark Pond Preserve, Sepiessa Point Reservation, and Poucha Pond Reservation, land bank staff estimates that use of the area will be modest. From October to June, it is expected that use for walking, nature study, and shellfishing will be in the range of zero to eight people per day for an average stay of thirty minutes. From July to September, it is expected that use for walking, nature study, fishing, and boating will be in the

range of ten to twenty-five people per day for an average stay of sixty minutes. This calculates to a total seasonal visitation of approximately 1,610 people-visits, and an off-seasonal visitation of approximately 1,092 people-visits. This is an estimated total of 2,700 visits per year for a total duration of approximately 2,150 hours. These figures will vary due to any number of factors including things such as the ultimate decision on what conservation uses will be acceptable, the size of the trailhead, the amount of media coverage of the property, the word-of-mouth promotion of the area, and visitors' satisfaction with their experience of the preserve.

4. Neighborhood Concerns

Land bank staff has corresponded with several neighbors to the property. Near-by property owners are an important source of information for the land bank. A draft management plan was mailed to every abutter and to other interested people for comment. The town advisory board members held a public hearing in order to accept comment from others - the minutes of which are included below as appendix D. The following list is an attempt to characterize the 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 accidentally wander off the public area onto private land. Sometimes, they will do so intentionally out of curiosity or the wish for a longer walk. Occasionally on high-profile recreational areas, trespassing will occur through crowding on the public land. At a place like Pecoy Point Preserve, trespassing might be manifested as walking or driving down a private driveway, illegal parking, or walking along private shoreline. These types of trespass can be dealt with using a variety of methods including limited but well-marked parking areas, low-key advertising of the property, well-maintained signage, and easily understood maps.

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. This problem can be handled with limits to the amount of parking and signage advising people of the quiet nature expected from patrons of conservation land.

difficulty finding the property - to reach Pecoy Point Preserve, people will have to drive 0.2 miles down Pulpit Rock Road and 0.2 miles down the driveway. There are several opportunities for wrong turns, but these can be managed through the use of signage.

disruptive nighttime use - a conservation area like Pecoy Point Preserve may attract nighttime users. Impact to the neighborhood would include potential increased noise levels at night, light pollution from vehicle headlights, and trespassing. These problems can be minimized with nighttime visits from staff,

signs and other outreach to the fishing and star-gazing community, and working cooperatively with the Oak Bluffs Police Department.

appearance of the property - neighbors will be concerned that the conservation area remain attractive and continue to fit in with the character of the neighborhood. It could look like a mess if trash was left on the property or if vehicle parking were left uncontrolled. These problems can be dealt with through regular staff visits and carefully planned parking solutions.

theft of shellfish - the Oak Bluffs shellfish department maintains an aquaculture project off the shore from the preserve. There is some concern that easy, well-known public, vehicular access to the point may lead to increased theft of shellfish at night. This problem could be handled by installing lockable gates and by relying on staff patrols.

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 shared-use management that seeks to provide a mix of public benefits ranging from low-impact recreation and aesthetics to wildlife and watershed protection.

Shared-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 fulfillment of these public needs. The process of finding this balance is the essence of natural resource conservation.

2. Preliminary Goals at Purchase for Pecoy Point Preserve

The land bank commissioners and the Oak Bluffs town advisory board members voted to adopt the following preliminary management goals on November 27, 1995 and November 30, 1995, respectively:

nature conservation goals

1. Conduct biological survey of property to serve as base for formulation of management objectives;
2. Identify rare and endangered species, if any, and create plan to protect and encourage their populations;
3. Identify other interesting and unique species, if any, and create plan to

protect and encourage their populations.

aesthetic goals

1. Screen out, to the extent not otherwise prohibited by view easements, off-premises houses;
2. Remove sports court, as property can be used only for passive recreation;
3. Study possibility of expanding views of the on-premises seasonal pond, the Sengekontacket Pond and Cape Poge by mowing and cutting brush, shrubs and trees;
4. Study possibility of enhancing switchgrass field by removal of invasive species.

recreational goals

1. Permit and enhance low-impact passive recreation, viz., hiking, picnicking, swimming, kayaking/canoeing, if consistent with nature conservation goals;
2. Permit and enhance primary production activities, viz., fishing, fowling, bow-hunting, if consistent with nature conservation goals;
3. Link property to existing land bank and other conservation lands with foot-and-hoof trails;
4. Study siting of trailheads, viz., the creation of an entrance trailhead (capacity of up to six vehicles) and a possible shore-area trailhead (capacity of up to five vehicles);
5. Study siting of trail system for hiking and nature observation;
6. Study possible need for road improvements and installation of boat slide for motorboats (for shellfish and/or other uses).

administrative goals

1. Oversee and police land on regular basis using existing staff in order to maintain the property as an attractive conservation area;
2. Complete management plan by May of 1997.

3. Additional Opportunities

Several opportunities for use of the preserve have occurred to the land bank commissioners, Oak Bluffs town advisory board members, or land bank management staff. This section examines the advantages of, drawbacks of, and possible mitigations that would allow for each opportunity. This section is not intended as a recommendation for or against any of the possibilities; agreed upon intentions are presented in the final part of the plan entitled Land Management Planning.

bird-watching - From a bird-watcher's perspective, the most desirable area on the preserve may be the small fresh water pond. This area concentrates both numbers of species and numbers of individual birds.

boating - the opportunity for access for recreational boating in Sengekontacket Pond is provided at other points on the pond. A developed, publicly-accessible boat ramp for trailered boats is soon to be constructed off Beach Road on the other side of the pond near the little bridge (Madeiros, 1996). Nevertheless, demand is likely to exist for a boat slide on the west side of the pond for kayaks, canoes, and windsurfers. This would give immediate access to Majors Cove.

fishing - fishing in Sengekontacket Pond for finfish or shellfish is a distinct possibility as soft-shell clams, quahogs, striped bass, and herring inhabit the pond. The actual fishing use will be overseen by the town, not the land bank. For shellfish harvesters without boats, the preserve offers a unique opportunity for fishing the west side of the pond. There are as many as 300 noncommercial shellfish permit holders in Oak Bluffs each year. Demand for access to the pond through this property for shellfishing is likely to be significant, but could be controlled through limitations on parking and through cooperation with the Oak Bluffs shellfish department on timing of the opening of certain areas of the pond. The current cost of a shellfish permit is \$25 for residents and \$125 for non-residents (Madeiros, 1996). Large amounts of use of the shore frontage along the Pond could potentially result in an adverse impact to vegetation and water quality.

hiking trails - the property is too small to develop hikes of any significant length on the site itself. A small loop trail of approximately one-half mile is possible with the construction of a boardwalk. With view enhancement and wildlife habitat management, this could become a high-quality nature trail open to hikers, bicyclists, and horseback riders. There is the possibility that the property could someday be linked to the Trade Wind Fields Preserve as part of a town-wide trail system. The drawbacks of opening the trail system to bicycles and horses are minimal due to the mild slopes on the preserve, but there does exist the possibility of user-user conflicts.

hunting - adequate game species have been observed on or near the property (e.g., white-tailed deer, cottontail rabbit, Canada goose, mallard, and American black duck). Hunting with firearms would have to be managed carefully given the proximity to private residences. Allowing deer hunting may result in game pursuit conflicts due to the small size of the conservation area. The potential for conflicts with recreational users and fishermen also exists as it does on many land bank hunting properties.

picnicking - people may want to bring food to the preserve as part of their viewing, fishing, or hiking activities. There are potential negative impacts from picnics such as attraction of undesirable wildlife species and aesthetic degradation due to littering. These can be mitigated by posting explanatory signs and by patrolling for litter on a regular basis.

swimming - the shoreline along Sengekontacket Pond is not overly attractive to swimming due to the lack of sand and the presence of fist-sized rocks, seaweed, algae, and eroding peat. Some interest may exist for wading and snorkeling off Pecoy Point. Negative impacts, if any, could be controlled by the size of the trailhead and its distance from the shore.

viewsheds - there are several existing or potential prime views on the property as shown on the **View Management Map**. They include on-site views of the meadows and the small pond, and off-site views of Sengekontacket Pond, the wooded shoreline of Felix Neck Wildlife Sanctuary, Beach Road, Nantucket Sound, and Cape Poge.

III. 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, Recreation and Aesthetics, Natural Products, Community Interaction, and Land 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.

A. Nature Conservation

Goal: Provide long-term protection to a variety of plants, animals, and functioning ecological processes that are characteristic of the Sengekontacket Pond watershed.

Objective 1: maintain several types of plant communities, ranging from low salt marsh and switchgrass meadow to highbush blueberry shrubland and oak-pine woodland.

Strategies:

- A. Maintain grass-dominated communities in the "meadow" areas as shown on the **Site Management Map**. Do so with regular mowing or brushcutting, including in-season treatments for woody plant control, if needed.
- B. Allow shrub- and tree-dominated communities 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 the milkweeds (*Asclepias* sp.), coast blite (*Chenopodium rubrum*), water willow (*Decodon verticillatus*), marsh vetchling (*Lathyrus palustris*), bulbous woodrush (*Luzula bulbosa*), black medick (*Medicago lupulina*), sundrops (*Oenothera fruticosa*), cinnamon fern (*Osmunda cinnam omea*), switchgrass (*Panicum virgatum*), sassafras (*Sassafras albidum*), starry solomon's seal (*Smilacina stellata*), ladies' tresses orchids (*Spiranthes* sp.), trailing wild bean (*Strophostyles helvola*), common arrow-grass (*Triglochin maritimum*), narrow-leaved cattail (*Typha angustifolia*), common vervain (*Verbena hastata*), and several rare plants.

Strategies:

- A. Create and maintain habitat for selected species where consistent with other management objectives, including such activities as removing competing vegetation and preparing near-by seed beds.
- B. Assist in the propagation of selected species where consistent with other management objectives; for state-listed plants, do so only with the guidance and approval of the Natural Heritage and Endangered Species Program.
- C. Provide information about favorite plants on sign-boards.

Objective 3: Discourage invasive, undesirable plants including but not limited to oriental bittersweet (*Celastrus orbiculatus*), spotted knapweed (*Centaurea maculosa*), autumn olive (*Elaeagnus umbellata*), multiflora rose (*Rosa multiflora*), and poison ivy (*Toxicodendron radicans*).

Strategies:

- A. Gradually reduce populations of undesirable plants by cutting or digging them out.
- B. For spotted knapweed and other grassland invasive species, use smother crops of buckwheat (*Polygonum scandens*), clover (*Trifolium* sp.), oats (*Avena sativa*), or rye (*Secale cereale*), where such practice does not threaten populations of desirable plants.
- 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 and maintain good water quality by avoiding associated siltation.

Strategies:

- A. Prevent unauthorized pedestrian or vehicular trail access to the shore of the small pond and of Sengekontaktet Pond and install attractive signs and fencing, as needed.
- B. Prevent the storage of boats directly on pondshore vegetation.
- C. Work with abutting landowners, as needed, to avoid changes in the water level of the small pond due to the use of private wells.

Objective 5: Specifically encourage favorite wildlife species including but not limited to red-winged blackbird (*Agelaius phoeniceus*), spotted turtle (*Clemmys guttata*), northern black racer (*Coluber c. constrictor*), yellow warbler (*Dendroica phoeniceus*), northern oriole (*Icterus galbula*), northern shrike (*Lanius excubitor*), muskrat (*Ondatra zibethicus*), tree swallow (*Tachycineta bicolor*), and barn owl (*Tyto alba*).

Strategies:

- A. Provide artificial perching opportunities for northern black racers to sun themselves along the edge of the salt marsh.
- B. Maintain open meadows in the areas as shown on the **Site Management Map** to favor many of these species.
- C. Create or increase, where feasible, thickets of willow (*Salix* sp.) and common elder (*Sambucus canadensis*) to favor nesting yellow warblers and others.
- D. Cultivate patches of common sunflower (*Helianthus annuus*) in portions of the old field to feed red-winged blackbirds, bobwhites (*Colinus virginianus*), eastern meadowlarks (*Sturnella magna*), white-crowned sparrows (*Zonotrichia leucophrys*), and others.
- E. Create and maintain patches of aspen-poplar (*Populus tremuloides*), when consistent with other management goals, to serve as supplemental forage for wintering northern shrikes.
- F. Maintain some patches of bayberry (*Myrica pensylvanica*) in meadow areas to help extend the foraging season for species such as tree swallow.
- G. Maintain and expand, where feasible, stands of narrow-leaved cattail (*Typha angustifolia*) to benefit muskrats.
- H. Explore the possibility of introducing a population of spotted turtle to the small pond, and do so after obtaining any necessary permits, if feasible.
- I. Prohibit leashless dogs and cats from the property during the period from April 15 to August 15, and explore options for controlling stray pets, striped skunk, raccoon, and other predators of ground-nesting birds, and implement, as needed.
- J. Provide information about wildlife on sign boards.

B. Recreation and Aesthetics

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

Objective 1: Construct and maintain a trailhead that will accommodate up to six vehicles at any one time.

Strategies:

- A. Maintain all dirt roads on or associated with the property by occasional

grading and application of additional amounts of a sand-based, surface material, as needed.

- B. Provide parking at a trailhead located approximately as shown on the **Site Management Map** to allow up to six vehicles access to the property. Construct the trailhead by removing vegetation, scraping organics, and applying a sand-based, surface material. This trailhead will not exceed 2,100 square feet in size.
- C. Provide a bicycle rack at the trailhead that will hold up to six bicycles.
- D. Construct a sign station at the trailhead to provide information to people about the rules of the preserve.
- E. Have the trailhead comply with the universal access guidelines as presented in the land bank's Universal Access Plan, including the provision of at least two universally accessible parking spaces.

Objective 2: Construct and maintain a boat slide, boat drop-off point, and parking area near Major's Cove in the general location shown on the Site Management Map.

Strategies:

- A. Provide a drop-off point located approximately as shown on the **Site Management Map** to allow access to Sengekontacket Pond. Prevent vehicles from proceeding beyond the drop-off with attractive logs and split-rail fencing and use shrubs to screen the area from view of the Pond and Beach Road.
- B. Rely on the distance from the drop-off to Sengekontacket Pond (~50 feet) to limit both the number, size, and type of boats using the area.
- C. Maintain the road from the drop-off to the boat slide; repair the large mud puddle currently existing there.
- D. Prohibit all overnight storage, including boats and outhaul anchors.
- E. Prohibit boat landings on vegetated shorelines; allow short-term boat storage during the day on unvegetated beach shorelines.
- F. Install a lockable gate on the road to the drop-off located as shown on the **Site Management Map**, and allow land bank staff the discretion to lock the gate as needed to prevent nighttime access to the pond.
- G. Have the drop-off and boat slide area comply with the universal access guidelines as presented in the land bank's Universal Access Plan.

Objective 3: Construct and maintain a recreational trail system on the property.

Strategies:

- A. Maintain a trail in the location as approximately shown on the **Site Management Map**. Trail corridors (except for existing dirt roads) 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. Construct a boardwalk across the salt marsh in the location as shown on the **Site Management Map**.
- C. Allow land bank staff the discretion to move trails or create additional trails, as needed.
- D. Allow bicycle use of the trails at the discretion of land bank staff.
- E. Install small wooden benches in the locations as shown on the **Site Management Map** at the discretion of the land bank staff.
- F. Have the trail system comply with the universal access guidelines as presented in the land bank's Universal Access Plan.

Objective 4: Maintain attractive views of the small pond, of Sengekontacket Pond and points beyond, and of the meadows on the property from various points.

Strategies:

- A. Maintain the majority of vegetation in the "meadow" areas, as shown on the **Site Management Map**, at or below three feet in height.
- B. Use vegetative screening to block undesirable view elements (e.g., neighboring residential development) and create view channels of desirable elements, as shown on the **View Management Map**.

Objective 5: 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.

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 trash, junk, and other unsightly waste that has been dumped on the property in the past, including the remains of a small cottage near the shore of Sengekontacket Pond.
- B. Maintain a "carry in-carry out" policy for litter, and police the area regularly with existing land bank staff to keep the property free of trash.

Objective 7: Remove the existing sports court and baseball diamond from the preserve.

Strategies:

- A. Excavate or remove the constructed elements of the sports court and baseball diamond including an associated electrical box, irrigation system, and well.
- B. Place the concrete remains of the sports court along with several of the boulder piles on the property into two excavated areas of approximately 2,000 cu. ft. each, located north-west of the Road to Sengekontacket Pond.

- C. Restore the disturbed areas by bringing in loam from off-site, grading it to fit the landscape, and seeding it with rye or other cover crops chosen to facilitate natural re-vegetation of the site.

Objective 8: Construct and maintain recreational facilities on the preserve so that they comply with the land bank's Universal Access Plan for a moderately developed area.

Strategies:

- A. Consider the following items to be primary elements or spaces on the preserve (in parentheses are the distances from the trailhead): the trailhead itself (0 feet); a view of Nantucket Sound and Cape Poge (20 feet); a view of the meadows on the property (20 feet); a view of the small pond on the property (20 feet); the boardwalk crossing the salt marsh (620 feet); the drop-off area (1,250 feet); the boat slide and the shore of Sengekontacket Pond (1,450 feet).

Objective 9: Continue working to secure a trail link that connects the preserve with the Trade Wind Fields Preserve, the State Forest, and the Cross-Oak Bluffs trail.

C. Natural Products

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 "no hunting" 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.
- D. Otherwise follow the general land bank hunting policy on the property.

Objective 2: Allow access across the property for finfishing and shell fishing in Sengekontacket 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.
- B. Provide parking near Major's Cove for those who are fishing and shellfishing, as shown on the Site Management Map. Initially provide parking for two vehicles. Allow, but do not encourage, parking for two additional vehicles to be created alongside the access road in the location shown as "provisional parking" on the **Site Management Map**.
- C. Work in cooperation with the Oak Bluffs shellfish department to implement a shellfishing strategy that does not overwhelm the access facilities of the

preserve.

- D. Allow, but do not encourage, fishing in the small pond on the preserve, in order to limit unauthorized trails to the pondshore.

Objective 3: Allow the Oak Bluffs shellfish department to use the boat slide area for aquaculture-related activities at the discretion of the land bank staff.

Strategies:

- A. Allow the Oak Bluffs shellfish department vehicular access to the boat slide for maintenance of shellfish rafts and cages that it keeps in Majors Cove.
- B. Allow maintenance activities to be conducted from the point, at the discretion of the land bank staff, but only if such activities have been found to comply with all applicable laws including the Wetlands Protection Act and Oak Bluffs Wetlands Bylaw, and with the nature conservation goals of this plan.

Objective 4: 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 meadows and salt marshes on the property. Such proposals will be in the form of a long-term, farm management plan that addresses likely impacts to nature conservation and recreation/aesthetic 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.

D. 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 driveway on Pulpit Rock Road.
- C. Limit trespass onto neighboring lands by leaving vegetative screens between recreational trails and near-by houses. Install split-rail fencing as shown on the **Site Management Map**. 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. Install a sign-station at the trailhead and at the drop-off for posting

information about the plants, animals, and natural processes occurring on the property.

- B. Make this management plan with its natural resource inventory available to educators at the Oak Bluffs school.
- C. Keep copies of this management plan at the land bank office and send a copy to the Oak Bluffs library for public use.

E. 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 major management actions taken and for any observed natural event of significance, 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 December 22, 1995 and recorded in the Dukes County Registry of Deeds on December 29, 1995 in Book 667, Page 518;
2. View Easement dated December 22, 1995 and recorded in the Dukes County Registry of Deeds on December 29, 1995 in Book 667, Page 516;
3. Vegetation Management/Conservation Easement & Covenant dated December 22, 1995 and recorded in the Dukes County Registry of Deeds on December 29, 1995 in Book 667, Page 521.

667 518

DEED

FRED M. CONDON, Trustee of Pecooy Point Realty Trust, u/d/t dated June 27, 1980 and recorded in the Dukes County Registry of Deeds in Book 374, Page 877, of 175 Paterson Avenue, Midland Park, New Jersey,

In consideration of SEVEN HUNDRED SEVENTY-FIVE THOUSAND (\$775,000.00) DOLLARS

grant to MARTHA'S VINEYARD LAND BANK COMMISSION, a corporate body politic, with a principal office at Upper Main Street, P.O. Box 2057, Edgartown, Massachusetts 02539,

with QUITCLAIM COVENANTS

The land in Oak Bluffs, County of Dukes County, Commonwealth of Massachusetts, more particularly bounded and described as follows:

Being Lot No. 2 on a certain plan of land entitled "Plan of Land in Oak Bluffs, Mass. prepared for FRED M. CONDON, TRUSTEE of POCOY POINT REALTY TRUST Scale: 1"=50' December 13, 1995 Schofield, Barbini & Hoehn, Inc. Civil Engineers & Land Surveyors 97 State Road, P.O. Box 339, Vineyard Haven, MA 02568" recorded in the Dukes County Registry of Deeds as Oak Bluffs Case File No. 321 to which plan reference is hereby made for a more particular description (the "Plan"). Said Lot No. 2 consists of 14.29 acres, more or less, according to said Plan.

The premises are conveyed together with the appurtenant perpetual right and easement to use, together with members of the general public and Grantee's agents and representatives, the "ACCESS EASEMENT - 20 FT WIDE" shown on said plan as passing over Lot No. 1 on the Plan for all purposes for which streets and ways may now or hereafter be used in the Town of Oak Bluffs.

The premises are conveyed subject to and together with the benefit of all easements, restrictions and rights of way of record, and together with the following covenant by Grantor:

By acceptance of this deed, Grantee, its successors and assigns, covenants with the Grantor, its heirs, successors or assigns, as owner of Lot 1 on the Plan, that the premises hereby conveyed shall be used only for those purposes permitted under the now current enabling statute of the Martha's Vineyard Land Bank Commission.

The Grantor hereby covenants, on behalf of itself, and its successors and assigns, with the Grantee and with its successors in title with respect to the premises hereby conveyed, that:

1. Any structure constructed on Lot No. 1 shown on the Plan shall not exceed 3,600 square feet of living space, shall not exceed 28' in height, and, in the case of any 2 story portion of any structure thereon, shall have a roof pitch of 9 in 12, unless otherwise mutually agreed in a writing duly signed by Grantor and Grantee. No structure shall be constructed which features a flat roof or a substantially flat roof line.
2. The Grantor shall not sell, transfer or convey Lot No. 1 shown on the Plan to any person or entity unless (a) the Grantor has received a bona fide offer to purchase the same, (b) the Grantee has received from the Grantor written notice stating the name and address of the offeror, the property involved, the consideration, and

Property address: Off - Ripit Road Road, Oak Bluffs MA

DEEDS REC 08
DUKES
12/29/95
FAX 3534.00
CASH 3534.00
6437A000 16:24
EXCISE TAX

MARTHA'S VINEYARD LAND BANK FEE

1
 PAID: \$
 EXEMPT. \$ 0
17974 12/29/95

867 519

the terms and conditions of said offer, and containing an offer by the Grantor to sell Lot No. 1 to the Grantee at the same price and on the same terms and conditions, and (c) the Grantee shall not, within thirty (30) days after receipt of such notice, have given to the Grantor written notice of its election to purchase the same in accordance with said offer. The Grantor shall provide to the Grantee such reasonable evidence as the Grantee may require to satisfy itself as to the bona fide nature of the offer. In the event that the Grantee shall so elect to purchase, the Deed shall be delivered and the consideration paid at the Dukes County Registry of Deeds at 1:00 o'clock P.M. on the sixtieth (60) day after the date of the giving of such notice of election to purchase; except that in the event that the offer calls for a closing later than said sixtieth (60) day after the giving of the notice of election to purchase, the Grantee shall be obligated to close only on such later date. In the event that such notice of election to purchase is not given within the time above specified, or after such notice is given, the Grantee defaults in not completing such purchase, then the Grantor shall be free thereafter, without further notice or approval, to sell and convey Lot No. 1 to the offeror named in the Grantor's notice, at a price not lower than, and on other terms not more advantageous to the offeror than those specified in the offer, but the Grantor shall not sell or convey Lot No. 1 to any other person or entity or at any lower price without again offering the same to the Grantee in the manner aforesaid. While the failure of the Grantee to give a timely notice of election to purchase shall be deemed to constitute its approval of a subsequent transfer of said interest to the offeror as specified above, the Grantee shall nevertheless execute and deliver to the Grantor, upon request, a written waiver in recordable form of its rights with respect to that particular transfer.

However, this grant of a right of first refusal shall not apply to any transfer or conveyance in mortgage to a mortgagee or to sales or other proceedings pursuant to foreclosure thereof, or to any transfers pursuant to any proceedings under any bankruptcy or insolvency law, or to any transfer or conveyance to any person, or an immediate family member of such person, holding an equitable or legal interest of the said Peconic Point Realty Trust or subsequent heirs, successors or assigns.

This grant shall be in full force and effect until the earlier of the expiration of twenty years from the date hereof, or the release of this grant by the Grantee.

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For Grantor's title, see deed of Charles D. Marinelli and Deolinda Gladys Marinelli dated June 27, 1980 recorded in the Dukes County Registry of Deeds in Book 374, Page 886.

EXECUTED as a sealed instrument this 22nd day of December, 1995.

Fred M. Condon
Its Trustee

STATE OF NEW JERSEY York

County of New York County, ss.

December 22, 1995

Then personally appeared the above-named Fred M. Condon, and acknowledged the foregoing instrument to be his free act and deed as Trustee, before me

Demian Akhan
Notary Public
My Commission Expires: 10/2/97

DEMIAN AKHAN
Notary Public, State of New York
No. 01AK3049199
Qualified in New York County
Commission Expires Oct. 2, 1997

Edgartown, Mass. Dec. 29 1995
at 3 o'clock and 18 minutes P M
received and entered with Dukes County Deeds
book 667 page 518

Attest: Diane E. Powers
Register

N:\u001199\deeds\mvb.doc

557 516

VIEW EASEMENT

FRED M. CONDON, Trustee of PecoY Point Realty Trust, u/d/t dated June 27, 1980 and recorded in the Dukes County Registry of Deeds in Book 374, Page 877, of 175 Paterson Avenue, Midland Park, New Jersey 07432 ("Grantor") does hereby grant to CARLENE J. GATTING and her successors in title, of 1256 Windsor Avenue, Windsor, Connecticut 06095 ("Grantee")

the following perpetual, appurtenant easement to benefit Farm Neck Lot I-4 shown on a plan entitled "Plan of Land in Oak Bluffs, Mass. prepared for Farm Neck Associates, Scale: 1"=250' February 20, 1979 Schofield Brothers, Inc. Registered Engineers and Land Surveyors State Road, Vineyard Haven, MA", filed in the Dukes County Registry of Deeds as Oak Bluffs Case File No. 84.

An easement for view over and across that portion of Lot No. 2 delineated as "VIEW EASEMENT" on a certain plan of land entitled "Plan of Land in Oak Bluffs, Mass. prepared for FRED M. CONDON, TRUSTEE of POCOY POINT REALTY TRUST Scale: 1"=50' December 13, 1995 Schofield, Barbini & Hoehn, Inc. Civil Engineers & Land Surveyors 97 State Road, P.O. Box 339, Vineyard Haven, MA 02568" recorded in the Dukes County Registry of Deeds as Oak Bluffs Case File No. 321 to which plan reference is hereby made for a more particular description (the "Plan") for the purpose of preserving and enhancing views of Sengekontacket Pond, by managing and controlling the growth of the vegetation located on those portions of the Property marked as "Management Area A", "Management Area B", and "Management Area C" on Oak Bluffs Case File No. 321 (the "Management Areas"), including, without limitation, the right to cut, trim and prune the tops of said trees and shrubs to the extent necessary to prevent them from exceeding the following feet above ground level within the following Management Areas:

<u>management area</u>	<u>maximum height of trees and shrubs</u>
A	6 feet
B	4 feet
C	12 feet

The Grantee shall have a right of access to the "VIEW EASEMENT" area at any and all reasonable times in order to promote or protect the above-described purpose of the easement hereby granted.

587 517

Executed as a sealed instrument on this 22nd day of December, 1995.

[Signature]
Fred M. Condon
Trustee as aforesaid

STATE OF NEW ~~JERSEY~~ York

New York County, ss.

December 22, 1995

Then personally appeared the above-named Fred M. Condon, Trustee as aforesaid, and acknowledged the foregoing instrument to be his free act and deed as Trustee of Peccoy Point Realty Trust, before me

Demian Akhan
Notary Public
My Commission Expires: 10/2/97



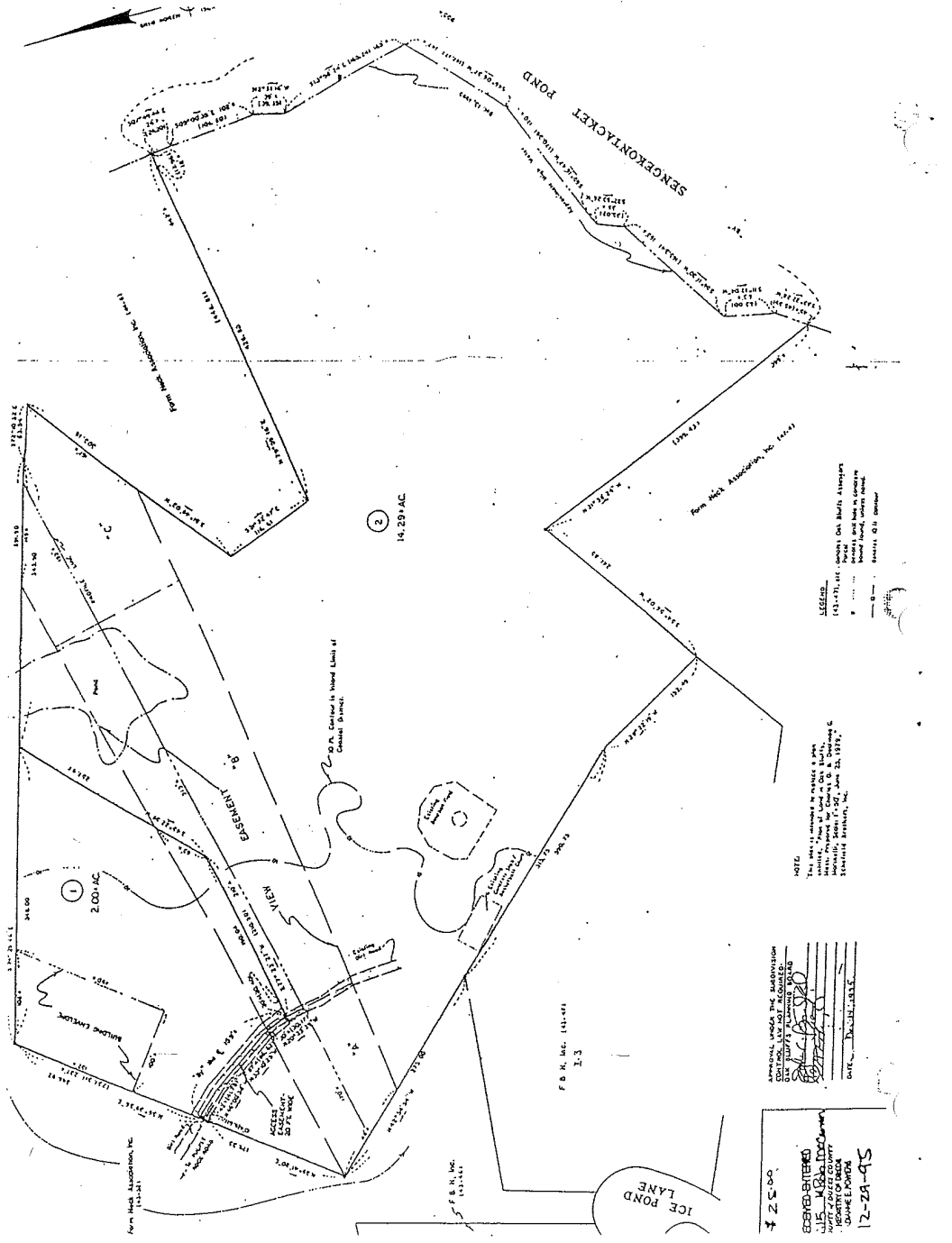
DEMIAN AKHAN
Notary Public, State of New York
No. 01AK5043199
Qualified in New York County
Commission Expires Oct. 2, 1997

Received on December 29 1995
at 3 o'clock and 17 minutes P M
received and entered with Dutchess County Deeds
book 4667 page 516

Attest:
Janet E. Powers
Register

N:\1995\12\22\h\condon.vs

RECORDED & INDEXED
DIVISION OF RECORDS
RECORDS OF DEEDS
COUNTY OF DUTCHESS
NEW YORK



LEGEND

- Sengkontacket Pond
- Ice Pond Lane
- General Management
- Sewerage
- Water
- Road
- Fence
- Boundary of General District
- Boundary of Conservation District
- Boundary of State Park
- Boundary of State Forest

NOTE

This map is prepared in accordance with the plan of the State of New Jersey, Department of Environmental Protection, dated June 24, 1978, and is subject to the provisions of the State Park Act, N.J.A.C. 17:27, and the State Forest Act, N.J.A.C. 17:28. The map is prepared by the State of New Jersey, Department of Environmental Protection, State Park Act, N.J.A.C. 17:27, and the State Forest Act, N.J.A.C. 17:28.

APPROVAL UNDER THE SUPERVISION OF THE STATE ENGINEER

DATE: 12-28-12

BY: [Signature]

GENERAL SUPERVISOR

STATE OF NEW JERSEY

DEPARTMENT OF ENVIRONMENTAL PROTECTION

STATE PARK ACT, N.J.A.C. 17:27

STATE FOREST ACT, N.J.A.C. 17:28

12-28-12

2687 521

VEGETATION MANAGEMENT/
CONSERVATION EASEMENT & COVENANT

WHEREAS, the undersigned, FRED M. CONDON, Trustee of PecoY Point Realty Trust, u/d/t dated June 27, 1980 and recorded in the Dukes County Registry of Deeds in Book 374, Page 877, of 175 Paterson Avenue, Midland Park, NJ 07432 hereinafter referred to as the "Declarant", is the owner of a certain parcel of land in Oak Bluffs, Dukes County, Massachusetts, shown as Lot No. 1 on a plan entitled "Plan of Land in Oak Bluffs, Mass. Prepared for FRED M. CONDON, TRUSTEE of POCOY POINT REALTY TRUST Scale 1"=50' December 13, 1995 Schofield, Barbini & Hoehn, Inc." recorded in the Dukes County Registry of Deeds as Oak Bluffs Case File No. 321 ("Lot No. 1")

WHEREAS the Declarant is desirous of preserving the character of the aforesaid land, including its natural beauty, to the extent practicable and in accordance with the provisions of this instrument, by the imposition of covenants, restrictions and easements affecting Lot No. 1; and

WHEREAS the Declarant is desirous of granting, as gifts, certain rights and easements in and to said Lot No. 1 to the MARTHA'S VINEYARD LAND BANK COMMISSION, a corporate body politic with a principal address of Upper Main Street, P.O. Box 2057, Edgartown, MA 02539 (the "Commission") for the purposes of conservation;

NOW THEREFORE, the Declarant, by the execution and recording of this instrument in the Dukes County Registry of Deeds, do hereby subject the aforesaid Lot No. 1 to the provisions of this Vegetation Management/Conservation Easement and Covenant (the "Easement") and declare for itself and its successors in title with respect to said land that Lot No. 1 shall be and is subject to this Easement, effective upon the recording of this Easement in the Dukes County Registry of Deeds.

The Declarant hereby creates, declares, and grants the following easement in favor of the Commission and its successors in title with respect to Lot 2, also shown on the Plan:

EASEMENT

An easement over and across all portions of Lot No. 1 except the "BUILDING ENVELOPE" and the "Green Belt" as described in Covenant (a) hereof for the purpose of preserving and enhancing the landscape by managing and controlling the growth of vegetation located within Lot No. 1. Specifically, the Commission shall have the right, with respect to all portions of Lot No. 1 except the BUILDING ENVELOPE, and said Green Belt, to:

- (1) Cut, trim, and/or prune all trees and shrubs, in the Commission's sole discretion;
- (2) Plant trees and other vegetation on Lot No. 1, but no closer than forty-five feet from the building envelope, in part to screen structures built in the BUILDING ENVELOPE from view provided that such plantings do not

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obstruct the Declarant's view of State Beach and Cape Pogue. It is understood that the following-described area shall be maintained as a meadow and that the Commission shall not plant trees therein:

All of that area of Lot No. 1 which is easterly of the "Building Envelope" and northerly of a straight extension of the "100' ±" line of the "Building Envelope".

- (3) Mow as deemed desirable to encourage a diversity of ecological habitats.

The Commission shall have a right of access at any and all reasonable times in order to promote or protect the above-described purpose of the easement hereby granted.

COVENANTS

The Declarant hereby covenants, on behalf of itself, its heirs, successors, and assigns, with the Commission and with its successors in title with respect to Lot 2 on the Plan that:

- (a) Any structure constructed, or improvement to be made on or to Lot No. 1 shall be contained within the "BUILDING ENVELOPE" shown on the Plan, with the exception of one single-lane driveway, which shall connect the BUILDING ENVELOPE and the dirt road shown on the Plan by the shortest means possible. A thirty foot wide green belt band around the building envelope may be used for use as a lawn or garden. The area outside the BUILDING ENVELOPE and green belt band shall remain in a natural state, to wit, it shall not be improved for use as a lawn, garden or parking area, or the like; and no personal property of any kind or nature shall be stored thereon.
- (b) Any structure constructed in the BUILDING ENVELOPE on Lot No. 1 shall not exceed 3,600 square feet of living space, shall not exceed 28' in height, and, in the case of a 2-story portion of any structure thereon, shall have a roof pitch of 9 in 12, unless otherwise mutually agreed in a writing signed by the Declarant and the Commission. No structure shall be constructed which features a flat, or substantially flat, roof line.
- (c) The Declarant shall not conduct any of the activities described in the Easement above on any part of Lot No. 1, except the Building Envelope and Green Belt described in Covenant (a) hereof and provide further that Declarant may mow as reasonably necessary to preserve current views of State Beach and Cape Pogue from Lot No. 1.

The covenants hereby imposed and the right and easement hereby granted are imposed and granted upon the express condition that such covenants and easement (hereinafter collectively referred to

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as "rights") shall be appurtenant to Lot No. 2.

For title of grantors, see deed dated June 27, 1980 and recorded in the Dukes County Registry of Deeds in Book 374, Page 886.

Witness my hand and seal this 22nd day of December, 1995.

[Signature]
Fred M. Condon,
Trustee as aforesaid

STATE OF NEW JERSEY *York*

County of *New York* County, ss.

December 22, 1995

Then personally appeared the above-named Fred M. Condon, and acknowledged the foregoing instrument to be his free act and deed and the free act and deed of the PecoY Point Realty Trust, before me

Demian Akhan
Notary Public
My Commission Expires: 10/2/97



DEMIAN AKHAN
Notary Public, State of New York
No. 01AK5049199
Qualified in New York County
Commission Expires Oct. 2, 1997

Edgartown, Mass. December 29 1995
at 3 o'clock and 19 minutes P.M.
received and entered with Dukes County Deeds
book *617* page *521*

Attest: *Jeanne E. Powers*
Register

RECEIVED-EMERGED
NOTARY PUBLIC
DEMIAN AKHAN
10/2/97

Appendix B: Flora of Pecoy Point Preserve, Oak Bluffs, MA**Division Bryophyta (Mosses and Liverworts)****Polytrichaceae**

Polytrichum juniperinum haircap moss

Division Polypodiophyta (Ferns)**Aspleniaceae (Spleenwort Family)**

Thelypteris palustris marsh fern

Onocleaceae (Sensitive fern Family)

Onoclea sensibilis sensitive fern

Osmundaceae (Royal fern Family)

Osmunda cinnamomea cinnamon 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 rubrum red maple

Anacardiaceae (Cashew Family)

Rhus copallinum shining sumac
Rhus glabra smooth sumac
Toxicodendron radicans poison ivy

Apiaceae (Carrot Family)

Daucus carota Queen Anne's lace
Heracleum lanatum cow parsnip
Hydrocotyle umbellata water pennywort

Apocynaceae (Dogbane Family)

Apocynum medium intermediate dogbane

Aquifoliaceae (Holly Family)

Ilex verticillata winterberry

Asclepiadaceae (Milkweed Family)

Asclepias amplexicaulis blunt-leaved milkweed

Asclepias syriaca common milkweed
Asclepias tuberosa butterflyweed

Asteraceae (Aster Family)

Achillea millefolium yarrow
Ambrosia artemisiifolia common ragweed
Antennaria neglecta field pussytoes
Aster dumosus bushy aster
Aster novi-belgii new york aster
Aster patens late purple aster
Aster paternus toothed white-topped aster
Aster tenuifolius large salt-marsh aster
Aster undulatus wavy-leaved aster
Baccharis halimifolia groundsel tree
Bidens connata swamp beggar ticks
Centaurea maculosa spotted knapweed
Chrysanthemum leucanthemum ox-eye daisy
Chrysopsis falcata sickle-leaved golden aster
Cichorium intybus chicory
Cirsium horridulum yellow thistle
Cirsium vulgare bull thistle
Conyza canadensis horseweed
Erechtites hieracifolia pilewort
Erigeron strigosus lesser daisy fleabane
Eupatorium hyssopifolium hyssop-leaved boneset
Eupatorium perfoliatum boneset
Euthamia graminifolia lance-leaved goldenrod
Euthamia tenuifolia slender-leaved goldenrod
Gnaphalium obtusifolium sweet everlasting
Hieracium species hawkweed species
Hypochoeris radicata cat's ear
Iva frutescens marsh elder
Lactuca canadensis wild lettuce
Pluchea odorata saltmarsh fleabane
Solidago canadensis var. scabra tall goldenrod
Solidago nemoralis gray goldenrod
Solidago odora sweet goldenrod
Solidago rugosa rough-stemmed goldenrod
Solidago sempervirens seaside goldenrod
Sonchus arvensis field sow-thistle
Tanacetum vulgare tansy
Taraxacum officinale common dandelion

Brassicaceae (Mustard Family)

Capsella bursa-pastoris shepherd's purse
Raphanus raphanistrum wild radish

Caprifoliaceae (Honeysuckle Family)

Lonicera japonica japanese honeysuckle
Sambucus canadensis common elder
Viburnum dentatum southern arrowwood
Viburnum recognitum northern arrowwood

Caryophyllaceae (Pink Family)

Cerastium vulgatum mouse-ear chickweed

<i>Dianthus armeria</i>	deptford pink
<i>Spergularia marina</i>	salt-marsh sand-spurrey
<i>Spergularia rubra</i>	sand spurrey
<i>Stellaria graminea</i>	lesser stitchwort
Celastraceae (Staff-tree Family)	
<i>Celastrus orbiculatus</i>	oriental bittersweet
Chenopodiaceae (Goosefoot Family)	
<i>Atriplex patula</i>	orach
<i>Chenopodium rubrum</i>	coast blite
<i>Salicornia europaea</i>	slender glasswort
<i>Suaeda linearis</i>	tall sea blite
Cistaceae (Rock-rose Family)	
<i>Lechea maritima</i>	beach pinweed
Clethraceae (Clethra Family)	
<i>Clethra alnifolia</i>	sweet pepperbush
Clusiaceae (Mangosteen Family)	
<i>Hypericum gentianoides</i>	orange grass
<i>Hypericum mutilum</i>	dwarf St. Johnswort
<i>Hypericum perforatum</i>	common St. Johnswort
<i>Triadenum virginicum</i>	marsh St. Johnswort
Convolvulaceae (Morning-glory Family)	
<i>Calystegia sepium</i>	hedge bindweed
Cornaceae (Dogwood Family)	
<i>Nyssa sylvatica</i>	beetlebung
Cyperaceae (Sedge Family)	
<i>Carex pennsylvanica</i>	pennsylvania sedge
<i>Carex scoparia</i>	broom sedge
<i>Carex species</i>	wide-leaved sedge
<i>Carex swanii</i>	swan's sedge
<i>Cyperus filiculmis</i>	sand flatsedge
<i>Cyperus strigosus</i>	straw-colored flatsedge
<i>Eleocharis species</i>	spike-rush
<i>Scirpus americanus</i>	olney threesquare
Elaeagnaceae (Oleaster Family)	
<i>Elaeagnus umbellata</i>	autumn-olive
Ericaceae (Heath Family)	
<i>Gaylussacia baccata</i>	black huckleberry
<i>Rhododendron viscosum</i>	swamp azalea
<i>Vaccinium angustifolium</i>	lowbush blueberry
<i>Vaccinium corymbosum</i>	highbush blueberry
Euphorbiaceae (Spurge Family)	
<i>Euphorbia supina</i>	milk purslane

Fabaceae (Pea Family)

<i>Apios americana</i>	common groundnut
<i>Lathyrus palustris</i>	marsh vetchling
<i>Lespedeza capitata</i>	round-headed bush clover
<i>Medicago lupulina</i>	black medick
<i>Strophostyles helvola</i>	trailing wild bean
<i>Trifolium arvense</i>	rabbit-foot clover
<i>Trifolium campestre</i>	low hop clover
<i>Trifolium pratense</i>	red clover
<i>Trifolium repens</i>	white clover
<i>Vicia angustifolia</i>	narrow-leaved vetch
<i>Vicia cracca</i>	cow vetch
<i>Vicia tetrasperma</i>	slender vetch

Fagaceae (Beech Family)

<i>Quercus alba</i>	white oak
<i>Quercus stellata</i>	post oak
<i>Quercus velutina</i>	black oak

Haloragaceae (Water-milfoil Family)

<i>Proserpinaca palustris</i>	mermaid weed
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Iridaceae (Iris Family)

<i>Iris prismatica</i>	slender blue flag
<i>Sisyrinchium angustifolium</i>	stout blue-eyed grass
[Redacted]	rare plant

Juncaceae (Rush Family)

<i>Juncus effusus</i>	soft rush
<i>Juncus gerardii</i>	black rush
<i>Juncus tenuis var. dichotomus</i>	path rush
<i>Luzula bulbosa</i>	bulbous woodrush
<i>Luzula multiflora</i>	common woodrush

Juncaginaceae (Arrow-grass Family)

<i>Triglochin maritimum</i>	common arrow-grass
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Lamiaceae (Mint Family)

<i>Lycopus uniflorus</i>	northern bugleweed
<i>Prunella vulgaris</i>	heal-all
<i>Teucrium canadense</i>	american germander
<i>Trichostema dichotomum</i>	blue curls

Lauraceae (Laurel Family)

<i>Sassafras albidum</i>	sassafras
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Lemnaceae (Duckweed Family)

<i>Lemna minor</i>	duckweed
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Liliaceae (Lily Family)

<i>Maianthemum canadense</i>	canada mayflower
<i>Smilacina stellata</i>	starry soloman's-seal
<i>Uvularia sessilifolia</i>	wild oats

Lythraceae (Loosestrife Family)

Decodon verticillatus water willow

Myricaceae (Bayberry Family)

Comptonia peregrina sweetfern
Myrica pensylvanica bayberry

Oleaceae (Olive Family)

Ligustrum vulgare common privet

Onagraceae (Evening-primrose Family)

Epilobium species a willow-herb
Oenothera fruticosa sundrops

Orchidaceae (Orchis Family)

Spiranthes cernua nodding ladies' tresses
Spiranthes tuberosa little ladies' tresses

Oxalidaceae (Wood sorrel Family)

Oxalis stricta yellow wood sorrel

Plantaginaceae (Plantain Family)

Plantago lanceolata english plantain
Plantago major common plantain
Plantago maritima ssp. *juncooides* seaside plantain

Plumbaginaceae (Leadwort Family)

Limonium carolinianum sea lavender

Poaceae (Grass Family)

Agrostis gigantea redtop
Anthoxanthum odoratum sweet vernal grass
Dactylis glomerata orchard grass
Digitaria sanguinalis northern crabgrass
Distichlis spicata spikegrass
Eragrostis spectabilis purple love grass
Festuca rubra red fescue
Holcus lanatus velvet grass
Panicum clandestinum deer-tongue grass
Panicum lanuginosum panic grass
Panicum virgatum switchgrass
Paspalum setaceum bead grass
Phleum pratense timothy
Phragmites australis common reed
Poa annua annual bluegrass
Schizachyrium scoparium little bluestem
[Redacted] rare plant
Spartina alterniflora saltwater cordgrass
Spartina patens salt meadow cordgrass
Spartina pectinata freshwater cordgrass
[Redacted] rare plant

Polygalaceae (Milkwort Family)

Polygala nuttallii nuttall's milkwort
Polygala polygama racemed milkwort

Polygonaceae (Smartweed Family)

<i>Polygonum hydropiper</i>	common smartweed
<i>Polygonum lapathifolium</i>	nodding smartweed
<i>Polygonum pensylvanicum</i>	pink knotweed
<i>Polygonum persicaria</i>	lady's thumb
<i>Polygonum sagittatum</i>	arrow-leaved tearthumb
<i>Polygonum scandens</i>	climbing false buckwheat
<i>Rumex acetosella</i>	field sorrel
<i>Rumex crispus</i>	curled dock

Primulaceae (Primrose Family)

<i>Anagallis arvensis</i>	pimpernel
<i>Lysimachia terrestris</i>	swamp candles
<i>Trientalis borealis</i>	starflower

Pyrolaceae (Shinleaf Family)

<i>Chimaphila maculata</i>	striped wintergreen
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Ranunculaceae (Buttercup Family)

<i>Ranunculus acris</i>	tall buttercup
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Rosaceae (Rose Family)

<i>Amelanchier arborea</i>	downy shadbush
<i>Amelanchier canadensis</i>	oblongleaf shadbush
<i>Aronia arbutifolia</i>	red chokeberry
<i>Fragaria virginiana</i>	wild strawberry
<i>Potentilla canadensis</i>	dwarf cinquefoil
<i>Potentilla simplex</i>	common cinquefoil
<i>Prunus maritima</i>	beach plum
<i>Prunus serotina</i>	black cherry
<i>Rosa carolina</i>	pasture rose
<i>Rosa multiflora</i>	multiflora rose
<i>Rosa palustris</i>	swamp rose
<i>Rosa virginiana</i>	virginia rose
<i>Rubus allegheniensis</i>	common blackberry
<i>Rubus flagellaris</i>	prickly dewberry

Rubiaceae (Madder Family)

<i>Galium</i> species	a bedstraw
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Salicaceae (Willow Family)

<i>Salix</i> species	a willow
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Scrophulariaceae (Figwort Family)

<i>Agalinis maritima</i>	seaside gerardia
<i>Linaria canadensis</i>	blue toadflax
<i>Verbascum thapsis</i>	common mullein
<i>Veronica arvensis</i>	corn speedwell

Smilacaceae (Catbrier Family)

<i>Smilax rotundifolia</i>	common greenbrier
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Typhaceae (Cat-tail Family)

<i>Typha angustifolia</i>	narrow-leaved cattail
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Verbenaceae (Vervain Family)

Verbena hastata common vervain

Violaceae (Violet Family)

Viola sagittata arrowleaf violet

Vitaceae (Grape Family)

Parthenocissus quinquefolia virginia creeper
Vitis labrusca fox grape

Appendix C: Checklist of Bird Species at Pecoy Point Preserve**Family Gaviidae (loons)**

common loon *Gavia immer*
 red-throated loon *Gavia stellata*

Foraging Guild*

w:** piscivore, ocean diver
 w: piscivore, ocean diver

Family Phalacrocoracidae (cormorants)

double-crested cormorant *Phalacrocorax auritus*

s: piscivore, water diver

Family Ardeidae (herons)

green-backed heron *Butorides striatus*

s/w: carnivore, water ambusher

Family Anatidae (swans, geese, and ducks)

canada goose *Branta canadensis*
 mallard *Anas platyrhynchos*

s/w: herbivore, ground grazer

american black duck *Anas rubripes*
 common eider *Somateria mollissima*
 common goldeneye *Bucephala clangula*
 bufflehead *Bucephala albeola*
 red-breasted merganser *Mergus serrator*

s: granivore, water forager
 w: omnivore, water forager
 s/w: omnivore, water forager
 s/w: carnivore, bottom forager
 w: omnivore, bottom forager
 w: omnivore, bottom forager
 w: piscivore, water diver

Family Haematopodidae (oystercatchers)

american oystercatcher *Haematopus palliatus*

m: carnivore, ground prober

Family Scolopacidae (sandpipers)

greater yellowlegs *Tringa melanoleuca*
 spotted sandpiper *Actitis macularia*

m: carnivore, ground prober
 m: omnivore, ground gleaner

Family Laridae (gulls and terns)

ring-billed gull *Larus delawarensis*
 herring gull *Larus argentatus*
 great black-backed gull *Larus marinus*
 rare bird [Redacted]
 rare bird [Redacted]

s/w: omnivore, scavenger
 s/w: carnivore, coastal scavenger
 s/w: carnivore, coastal scavenger

Family Accipitridae (hawks and eagles)

red-tailed hawk *Buteo jamaicensis*
 osprey *Pandion haliaetus*

s/w: carnivore, ground pouncer
 s: piscivore, water foot-plunger

Family Phasianidae (grouse)

northern bobwhite *Colinus virginianus*
 ring-necked pheasant *Phasianus colchicus*

s/w: omnivore, ground gleaner
 s/w: omnivore, ground gleaner

Family Columbidae (pigeons and doves)

mourning dove *Zenaida macroura*

s/w: granivore, ground gleaner

Family Cuculidae (cuckoos)

black-billed cuckoo *Coccyzus erythrophthalmus*

s: insectivore, lower canopy gleaner

Family Alcedinidae (kingfishers)

belted kingfisher *Ceryle alcyon*

s/w: piscivore, water plunger

Family Picidae (woodpeckers)northern flicker *Colaptes auratus*

s: insectivore, ground gleaner

hairy woodpecker *Picoides villosus*

w: omnivore, ground gleaner

s/w: insectivore, bark gleaner

Family Tyrannidae (tyrant flycatchers)eastern kingbird *Tyrannus tyrannus*

s: insectivore, air sallier

great crested flycatcher *Myiarchus crinitus*

s: insectivore, air sallier

Family Hirundinidae (swallows)tree swallow *Tachycineta bicolor*

s: insectivore, air screener

barn swallow *Hirundo rustica*

s: insectivore, air screener

Family Corvidae (jays and crows)blue jay *Cyanocitta cristata*

s/w: omnivore, ground gleaner

american crow *Corvus brachyrhynchos*

s/w: omnivore, ground gleaner

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

s: insectivore, lower canopy gleaner

w: omnivore, lower canopy gleaner

Family Certhiidae (creepers)brown creeper *Certhia americana*

w: insectivore, bark gleaner

Family Sittidae (nuthatches)white-breasted nuthatch *Sitta carolinensis*

s/w: insectivore, bark gleaner

red-breasted nuthatch *Sitta canadensis*

w: insectivore, bark gleaner

Family Troglodytidae (wrens)carolina wren *Thryothorus ludovicianus*

s/w: insectivore, lower canopy gleaner

Family Muscicapidae (thrushes)american robin *Turdus migratorius*

s/w: omnivore, ground gleaner

Family Laniidae (shrikes)northern shrike *Lanius excubitor*

w: carnivore, ground pouncer

Family Mimidae (mimic thrushes)gray catbird *Dumetella carolinensis*

s: omnivore, ground gleaner

northern mockingbird *Mimus polyglottos*

s: omnivore, ground gleaner

w: frugivore, lower canopy gleaner

Family Bombycillidae (waxwings)cedar waxwing *Bombycilla cedrorum*

s/w: frugivore, upper canopy gleaner

Family Sturnidae (starlings)european starling *Sturnus vulgaris*

s/w: omnivore, ground gleaner

Family Emberizidae (warblers and sparrows)yellow-rumped warbler *Dendroica coronata*

w: omnivore, lower canopy gleaner

yellow warbler *Dendroica petechia*

s: insectivore, lower canopy gleaner

common yellowthroat *Geothlypis trichas*

s: insectivore, lower canopy gleaner

northern cardinal *Cardinalis cardinalis*

s: omnivore, ground gleaner

w: granivore, ground gleaner

rufous-sided towhee	<i>Pipilo erythrophthalmus</i>	s: omnivore, ground gleaner
sharp-tailed sparrow	<i>Ammodramus caudacutus</i>	s: insectivore, ground gleaner
savannah sparrow	<i>Passerculus sandwichensis</i>	omnivore, ground gleaner
song sparrow	<i>Melospiza melodia</i>	s: omnivore, ground gleaner w: granivore, ground gleaner
chipping sparrow	<i>Spizella passerina</i>	s: omnivore, ground gleaner
dark-eyed junco	<i>Junco hyemalis</i>	w: granivore, ground gleaner
white-throated sparrow	<i>Zonotrichia albicollis</i>	w: granivore, ground gleaner
red-winged blackbird	<i>Agelaius phoeniceus</i>	s: omnivore, ground gleaner
brown-headed cowbird	<i>Molothrus ater</i>	s: omnivore, ground gleaner w: granivore, ground gleaner
common grackle	<i>Quiscalus quiscula</i>	s: omnivore, ground gleaner
northern oriole	<i>Icterus galbula</i>	s: omnivore, upper canopy gleaner

Family Fringillidae (finches)

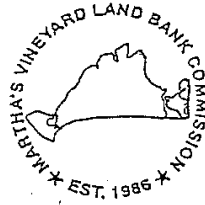
american goldfinch	<i>Carduelis tristis</i>	s: omnivore, ground gleaner w: granivore, ground gleaner
house finch	<i>Carpodacus mexicanus</i>	s: omnivore, ground gleaner w: granivore, ground gleaner

* Sources: DeGraaf & Rudis (1987) and Ehrlich, Dobkin & Wheye (1988).

** m = foraging guild during spring or fall migration, s = foraging guild during summer (breeding season), w = foraging guild during winter (or nonbreeding seasons).

Appendix D: Public Hearing

The Oak Bluffs town advisory board conducted a public hearing on the draft land management plan for Pecoy Point Preserve on September 23, 1997 at the Oak Bluffs School. The following text is a copy of the approved minutes from that meeting:



Martha's Vineyard Land Bank Commission

OAK BLUFFS TOWN ADVISORY BOARD

MINUTES
REGULAR SESSION
MEETING OF SEPTEMBER 23, 1997

Elementary School. Oak Bluffs, Massachusetts

CALL TO ORDER: 5:15 pm

BOARD MEMBERS PRESENT AT CALL TO ORDER

Judith Bates, Melanie Bilodeau, Richard Coutinho, Nancy Penn,
Elizabeth Talbot

BOARD MEMBERS ABSENT AT CALL TO ORDER

Elizabeth Dolan

LAND BANK COMMISSIONERS PRESENT AT CALL TO ORDER

Priscilla Sylvia

STAFF PRESENT AT CALL TO ORDER

James Lengyel, John Potter, William Veno

PUBLIC HEARINGS

1. Agency Administration: Annual Public Input Session

The Board conducted a public input session, held annually in September and October. The following members of the public were present for the following discussion: Douglas Dorchester, Michael Kemley, Eulalie Regan, Peter Regan, Richard Toole and others. Mrs. Penn opened the meeting for comment.

Richard Toole urged the land bank to conserve the Webb's Camping Area for conservation and campground use; he stated that it was a beautiful property and that the campground business was very professionally run.

Douglas Dorchester stated that he represented the Lagoon Pond Association and that the Webb's Camping Area was important to the health of the Lagoon Pond. He stated that one option was for the land bank to conserve the property

Pecoy Point Preserve Management Plan
November 20, 2000

Minutes, Oak Bluffs T&E Regular Session, 09-23-97

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and to allow the Town of Oak Bluffs to manage the campground. He urged the land bank to seek someone with "the genius of Brendan O'Neill [of the Vineyard Conservation Society]" to organize a plan to protect this land.

Eulalie Regan and Peter Regan echoed the previous comments about Webb's Camping Area.

Michael Kemley questioned whether there was a future for the Beach Road between Oak Bluffs and Edgartown or whether it would someday be eroded away. Ms. Talbot urged him to attend an upcoming joint meeting of the county's barrier beach taskforce and the Friends of Sengenkontacket in order to learn more about what is being considered.

Richard Toole stated that he believed the land bank was doing a great job -- "as good as the National Park Service did when it used to have money."

Mr. Lengyel stated that the Commission was seeking comment on its interpretation of the "m" exemption; he summarized the various details relating to this matter. Mr. Coutinho stated that the law should be read as it plainly reads, i.e., that neither spouse can have owned property in order to qualify for the exemption.

Hearing no other comment, Mrs. Penn closed the public input session.

2. Pecoy Point Preserve (off the Fulbit Rock Road)

The Board conducted a public hearing on this property's draft management plan. The following members of the public were present for the hearing: Fenton Burke, Margaret Burke, Joseph Forns, Bette Fullem, Robert Fullem, David Grunder, Charles Harff, Marion Harff, Edward Lacey, Nancy Lacey, Shirley Schrade, Alma Stibolt, Hans Stibolt, Elaine Wilson, Wilfred Wilson.

Land bank land superintendent John Potter and ecologist Wendy Malpass were present to present the draft plan. Mr. Potter and Ms. Malpass described in detail the species inventory, inventory analysis and proposed management strategies. Mrs. Penn opened the hearing for comment.

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Nancy Lacey questioned whether the existing road to the Sengkontacket Pond would have to be widened. Mr. Potter replied that it would not be necessary because it should be adequate for the purposes contemplated in the plan.

Elaine Wilson questioned whether picnic tables would be erected. Mr. Potter stated that they would not.

Marion Harff questioned how the land would be policed. Mr. Potter stated that fencing and signs would be used to keep people off particularly sensitive areas. Staff would regularly spot-check the property and the staff presence would be increased as necessary if problems were to develop.

Charles Harff questioned how the land bank could keep the public from possibly exceeding parking limits. Mr. Potter stated that this problem had been avoided elsewhere by supervision by the land management staff and that he expected this strategy to work again here.

Michael Kemley questioned the hours during which the property would be open to the public. Mr. Potter stated that it would be dawn to dusk.

Joseph Forns stated that he was representing the Water-view Association; he reported that he believed that he believed the property to be "beautiful and isolated" and, further, that it would be very different to manage from the other land bank properties. He asked whether the land bank would maintain the Pulpit Rock Road; Mr. Potter stated that the land bank would maintain the driveway from the Pulpit Rock Road to the Sengkontacket Pond and would be pleased to contribute to a Pulpit Rock Road homeowners association for the maintenance of that particular road. Mr. Forns asked whether the land bank might decline to install a drop-off at the pond in favor of using a dolly. He further asked whether the land bank would ever lock the gate which it is intending to erect at this property's entrance; Mr. Potter responded that the gate was to be a psychological barrier but that it could be locked if necessary.

Hans Stibolt stated that he was opposed to any hunting use here, as the neighborhood was too residential; he stated that hunting had previously been allowed here and

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that it was a most unpleasant experience for him and his family as neighbors.

David Grunder, identifying himself as the deputy shellfish constable for the Town of Oak Bluffs, stated that he had encountered a lot of public interest in the opening of this property. He stated that the shellfish department was very encouraged and was intending to seed the area of the Majors Cove just off the property. He stated that he believed that the use of a dolly rather than a drop-off would be difficult for older people. He also stated that he believed that the land bank property would probably be popular for the first one or two years -- as a novelty -- but that use would then sharply drop off.

Charles Harff questioned how the boat slide would be constructed. Mr. Potter stated that no formal construction would occur; hardener or gravel would be installed, to supplement that which is already largely there.

Fenton Burke stated that he shared Mr. Stibolt's concern about hunting and stated that he believed that it was inconsistent to allow hunting at Pecoy Point when the Felix Neck Wildlife Preserve was located on the opposite side of the Majors Cove.

Shirley Schrade stated that she wished to have hunting be banned on the property.

Robert Fullem stated that the Farm Neck Association echoed the hunting and access concerns previously raised.

Hearing no other comment, Mrs. Penn closed the public hearing.

NEW BUSINESS

1. Pecoy Point Preserve (off the Pulpit Rock Road)
By a motion made and seconded, the Board voted unanimously to leave the record open for one month in order to allow additional public comment on this property's management plan. The Board will next meet on October 28th and may take action on the plan at that time.

EXECUTIVE SESSION

By a motion made and seconded, the Board voted unanimously in a roll call vote to enter executive session for the purpose of discussing land acquisition negotiations and not to return to regular session. 7:15 pm.

Appendix E: Approval letter from the Executive Office of Environmental Affairs



*The Commonwealth of Massachusetts
Executive Office of Environmental Affairs
100 Cambridge Street, Boston, 02202*

WILLIAM F. WELD
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TRUDY COXE
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Tel: (617) 727-9800
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December 12, 1997

John Potter, Land Superintendent
Martha's Vineyard Land Bank Commission
P.O. Box 2057
Edgartown, Massachusetts 02539

Dear John:

Thank you for your letter of November 4, 1997, in which you request my approval of the Martha's Vineyard Land Bank Commission land management plan for the Pecoy Point Preserve in Oak Bluffs.

This thorough management plan has been reviewed by the Executive Office of Environmental Affairs (EOEA) and its agencies. Under the provisions of Section 6 of Chapter 736 of the Acts of 1985, and I hereby approve this management plan, subject to your receipt of any other applicable federal, state, or local approvals.

Cordially,



Trudy Coxé

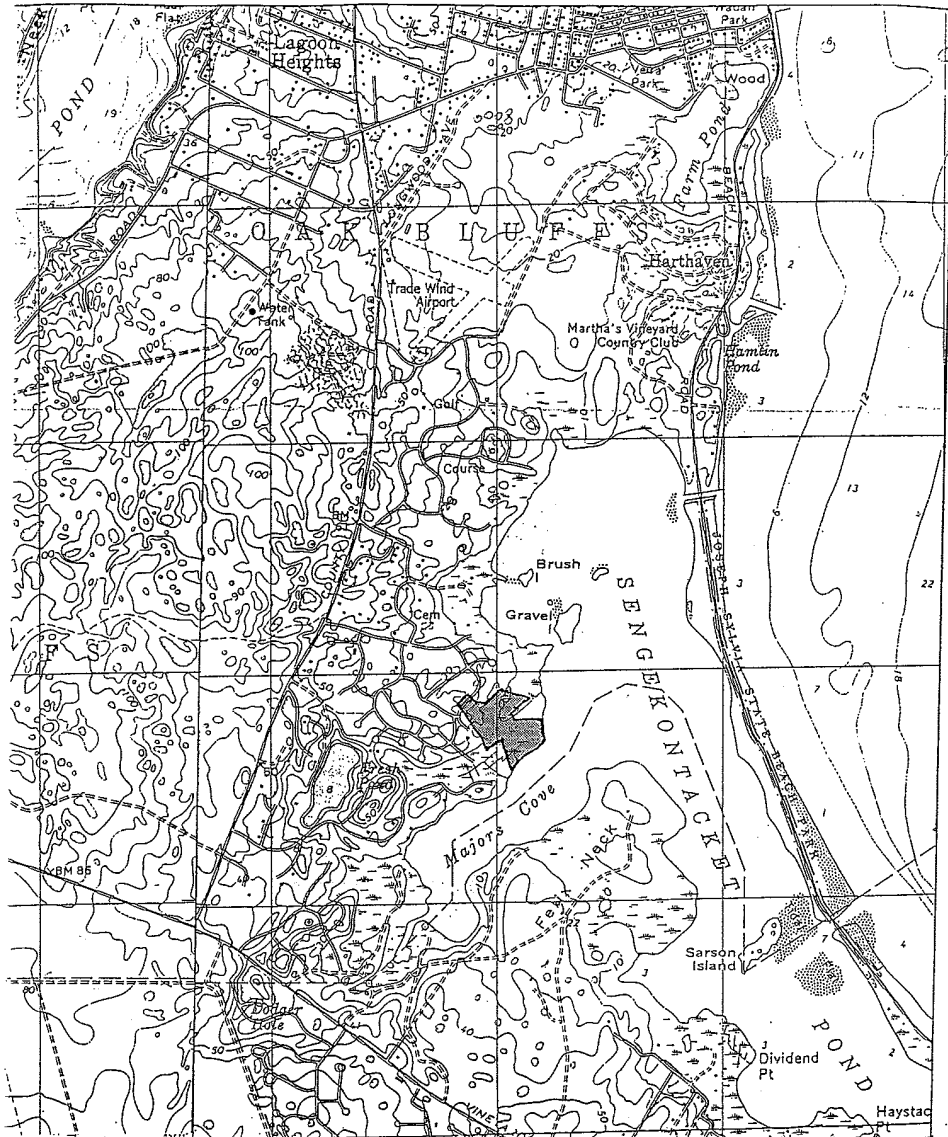
Appendix F: List of Maps

The maps listed below are included in this Appendix and references in the respective sections of text:

1. Locus Map I;
2. Locus Map II;
3. Aerial Photographs 15-22; 15-21; 14-24; and 14-22;
4. Base Map;
5. Survey Map;
6. Survey Map (detail);
7. Geology Map;
8. Topography Map;
9. Soils Map;
10. Hydrology Map;
11. Vegetation Communities Map;
12. Avian Inventory Map;
13. Wildlife Map;
14. Abutters Map;
15. Existing Use Map;
16. View Management Map; and
17. Site Management Map.

Map 1: Locus Map 1

Pecoy Point Preserve, Oak Bluffs, MA



Pecoy Point Preserve
Oak Bluffs, MA - 15.0 acres

Scale 1:25,000
1"=2083' on 8.5"x11"

LOCUS MAP I

prepared by M.V. Land Bank Commission from U.S.G.S. Edgartown quadrangle (January 1997)



Map 2: Locus Map 2 Pecoy Point Preserve, Oak Bluffs, MA

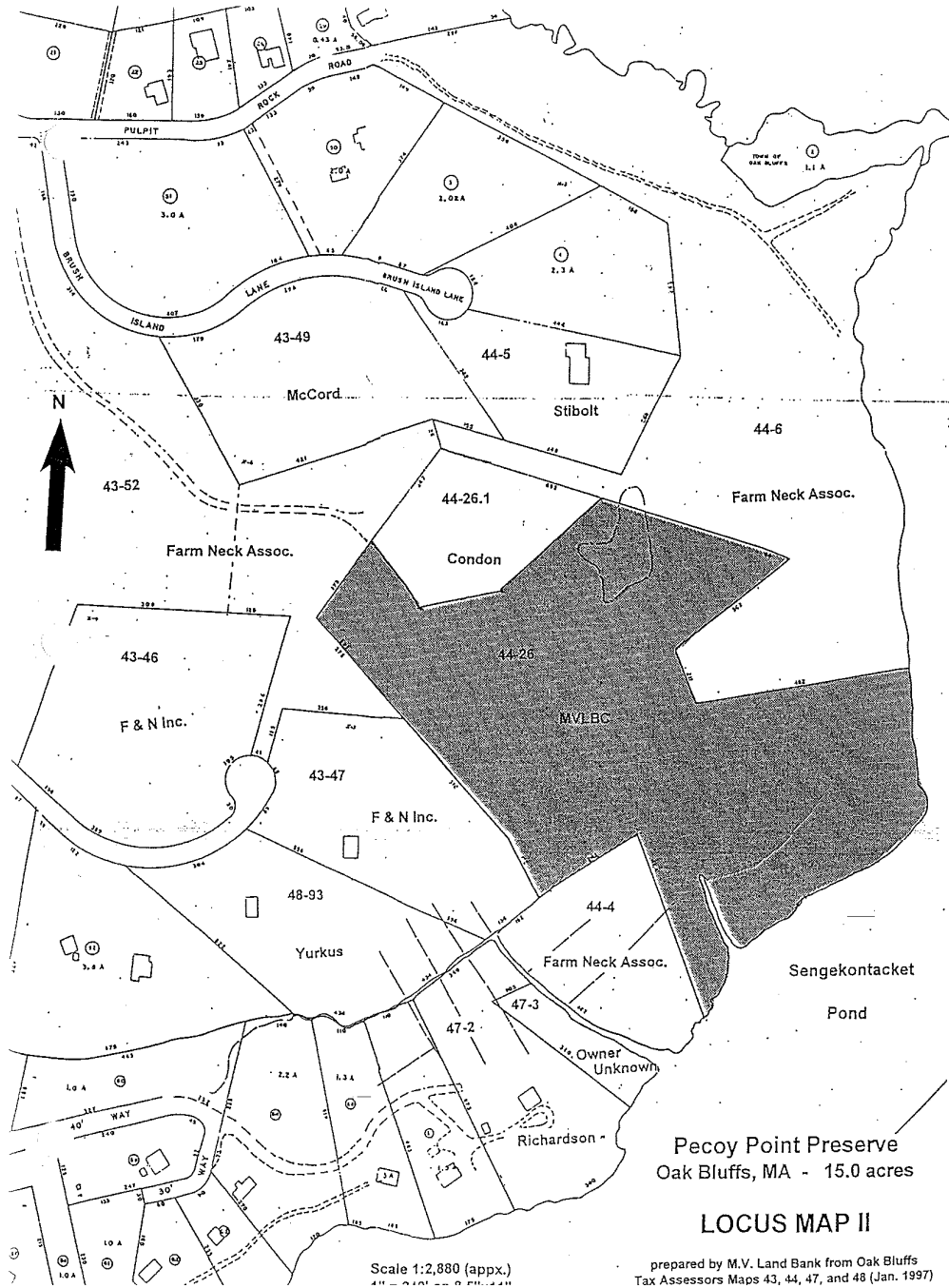
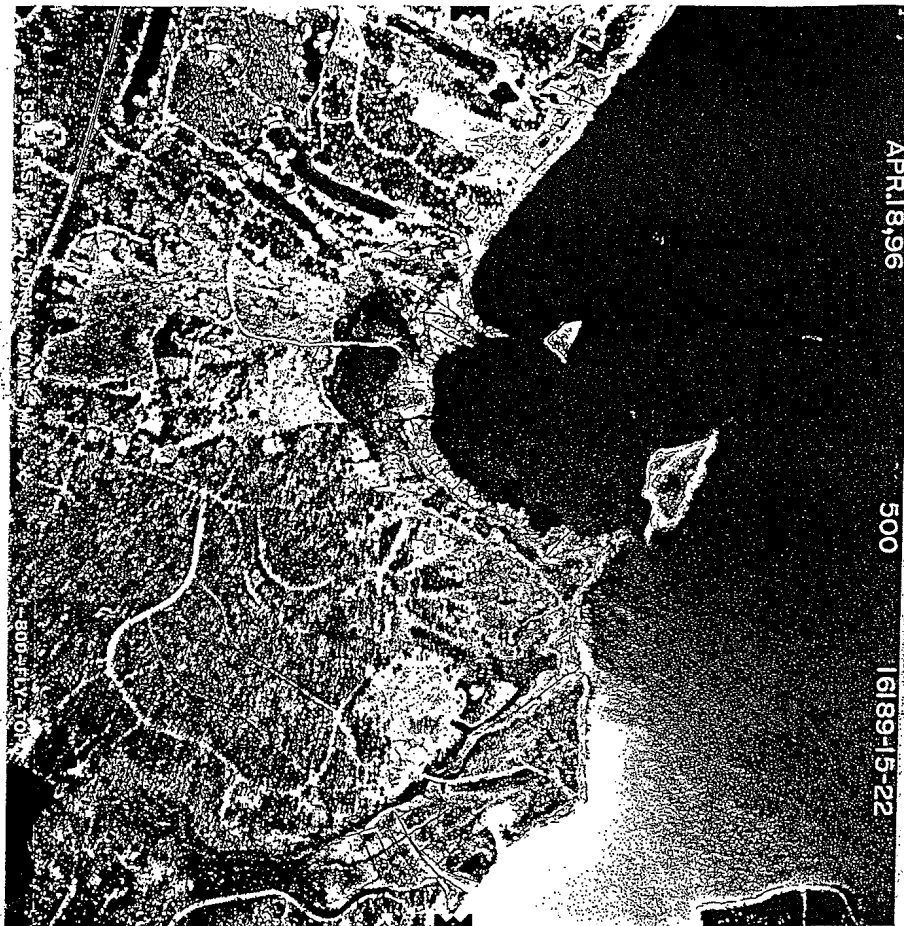


Figure 1: Aerial Photograph 1 Pecoy Point Preserve, Oak Bluffs, MA



Pecoy Point Preserve
Oak Bluffs, MA - 15.0 acres

AERIAL PHOTOGRAPH 1

N



Scale 1:6,000
1"=500' on 8.5"x11"

Figure 2: Aerial Photograph 2 Pecoy Point Preserve, Oak Bluffs, MA



Pecoy Point Preserve
Oak Bluffs, MA - 15.0 acres

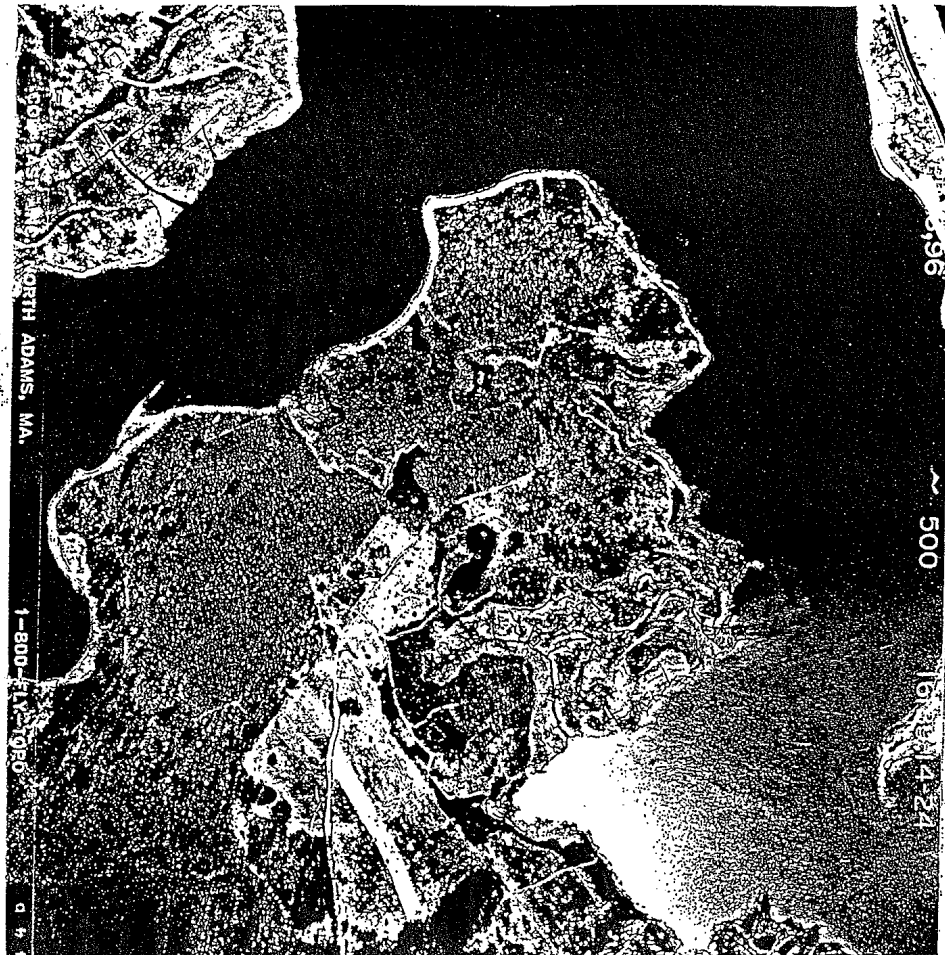
AERIAL PHOTOGRAPH 2

N



Scale 1:6,000
1"=500' on 8.5"x11"

Figure 3: Aerial Photograph 3 Pecoy Point Preserve, Oak Bluffs, MA



Pecoy Point Preserve
Oak Bluffs, MA - 15.0 acres

AERIAL PHOTOGRAPH 3

N



Scale 1:6,000
1"=500' on 8.5"x11"

Figure 4: Aerial Photograph 4 Pecoy Point Preserve, Oak Bluffs, MA



Pecoy Point Preserve
Oak Bluffs, MA - 15.0 acres

AERIAL PHOTOGRAPH 4

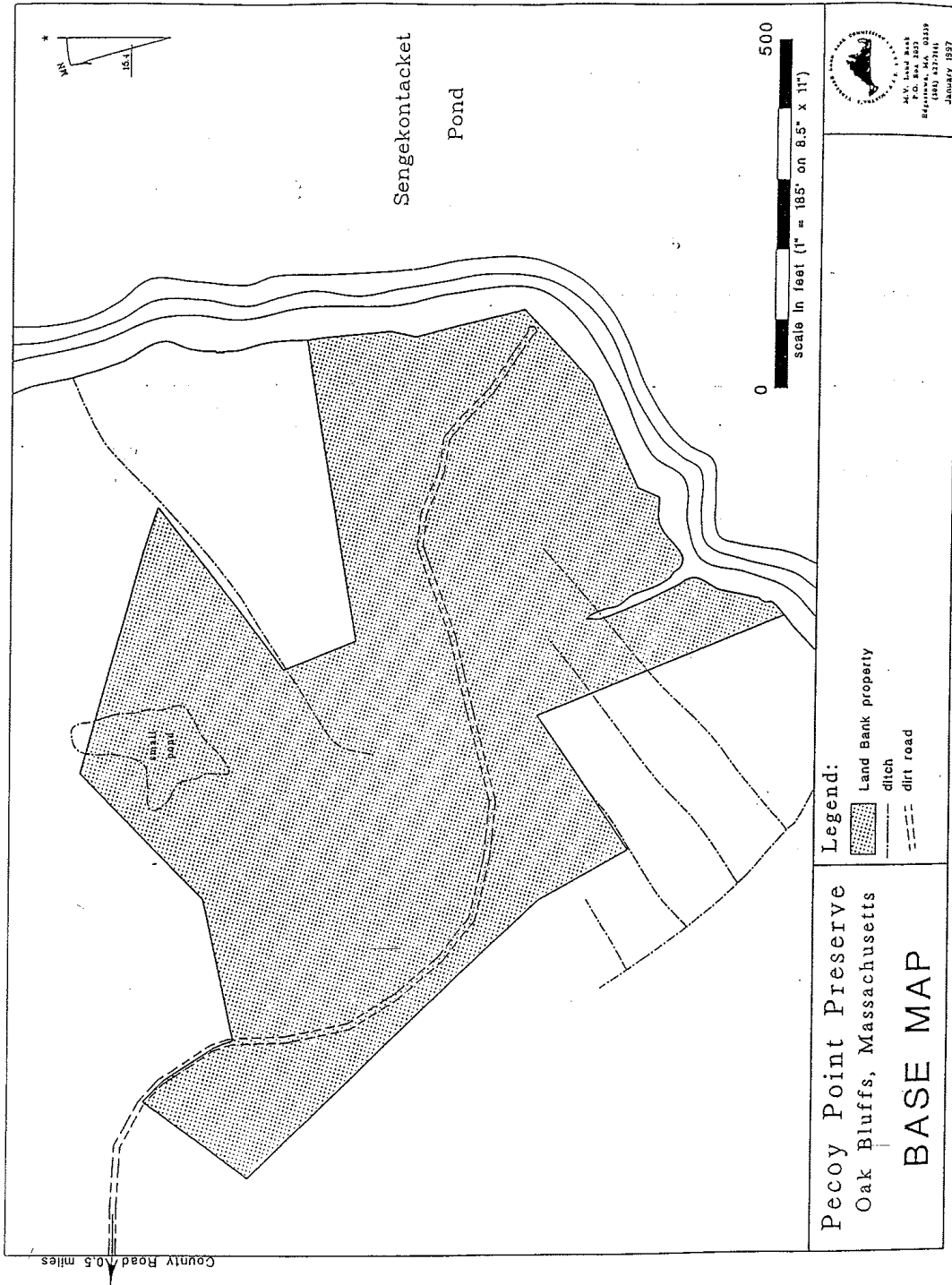
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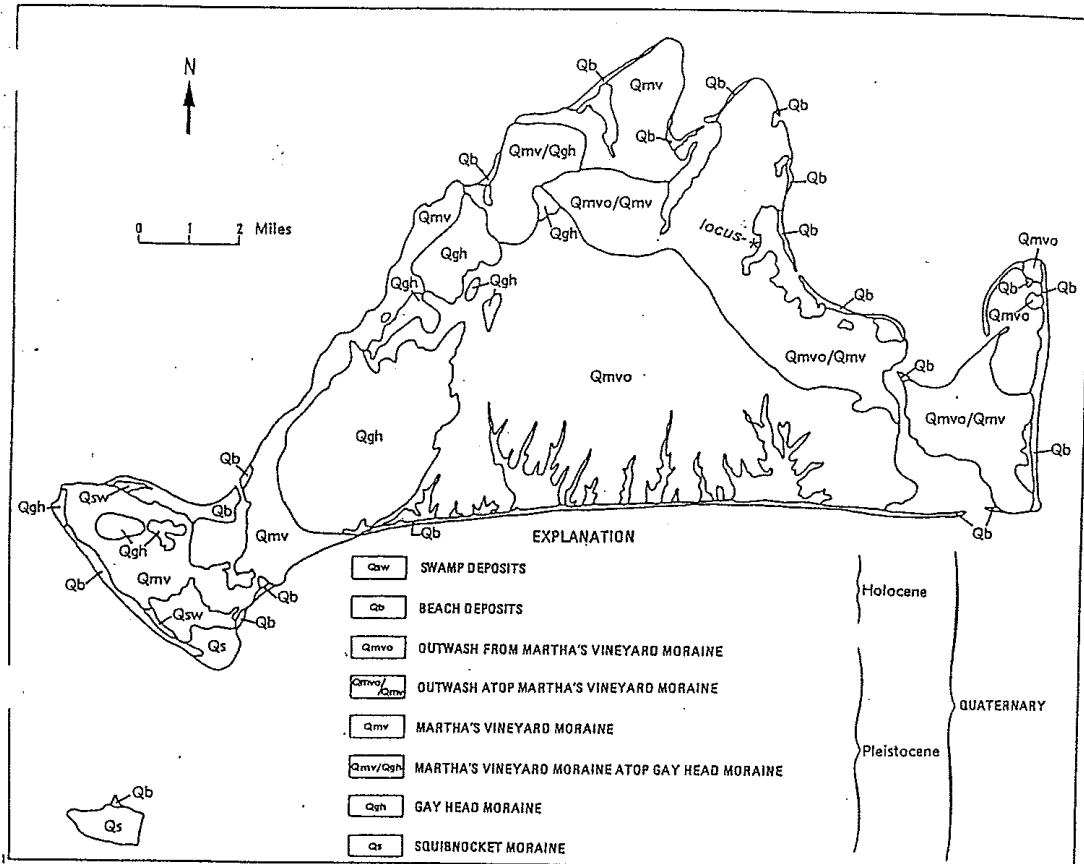
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Map 3: Base Map

Pecoy Point Preserve, Oak Bluffs, MA



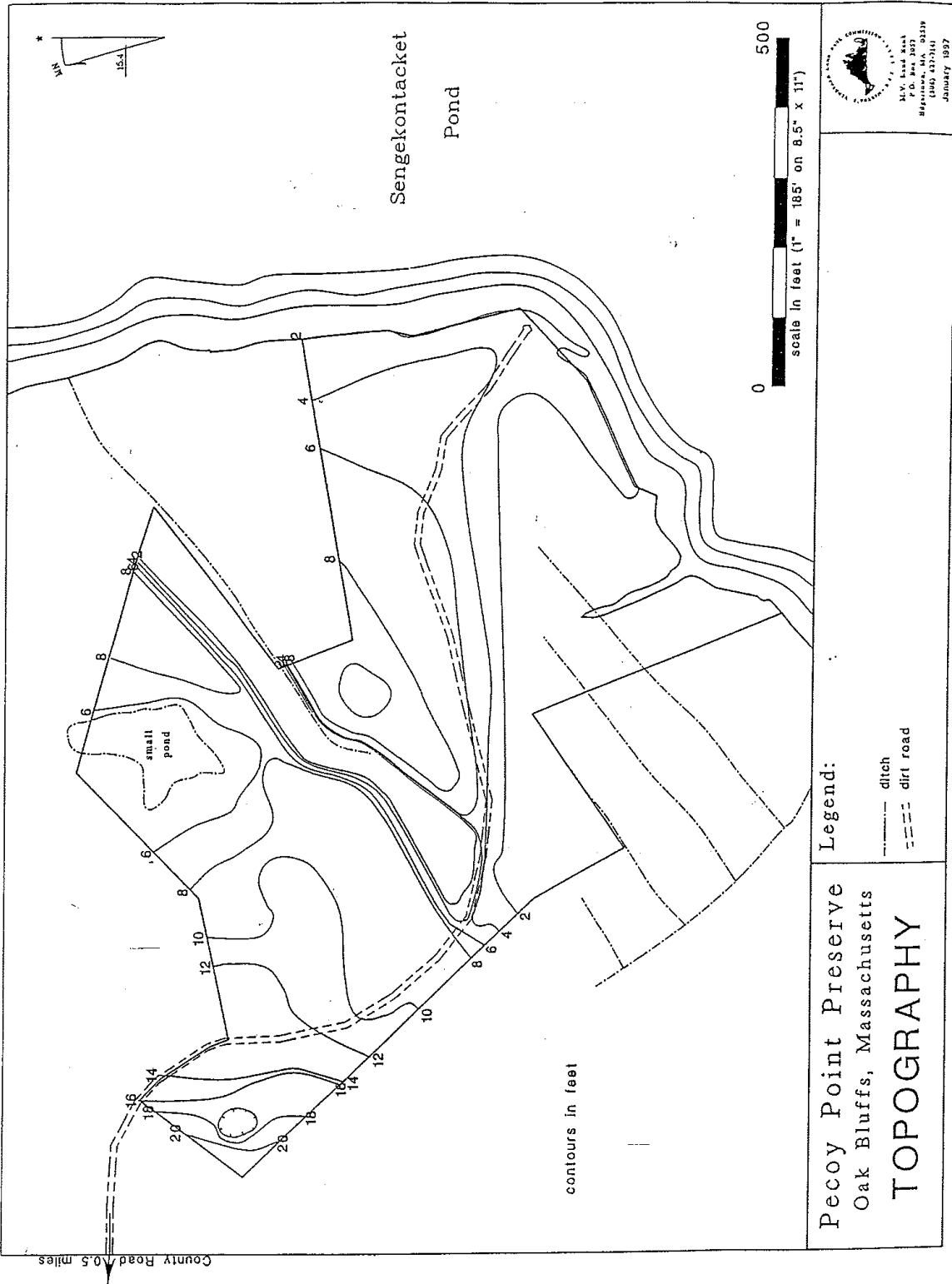
Map 6: Geology Map
Pecoy Point Preserve, Oak Bluffs, MA



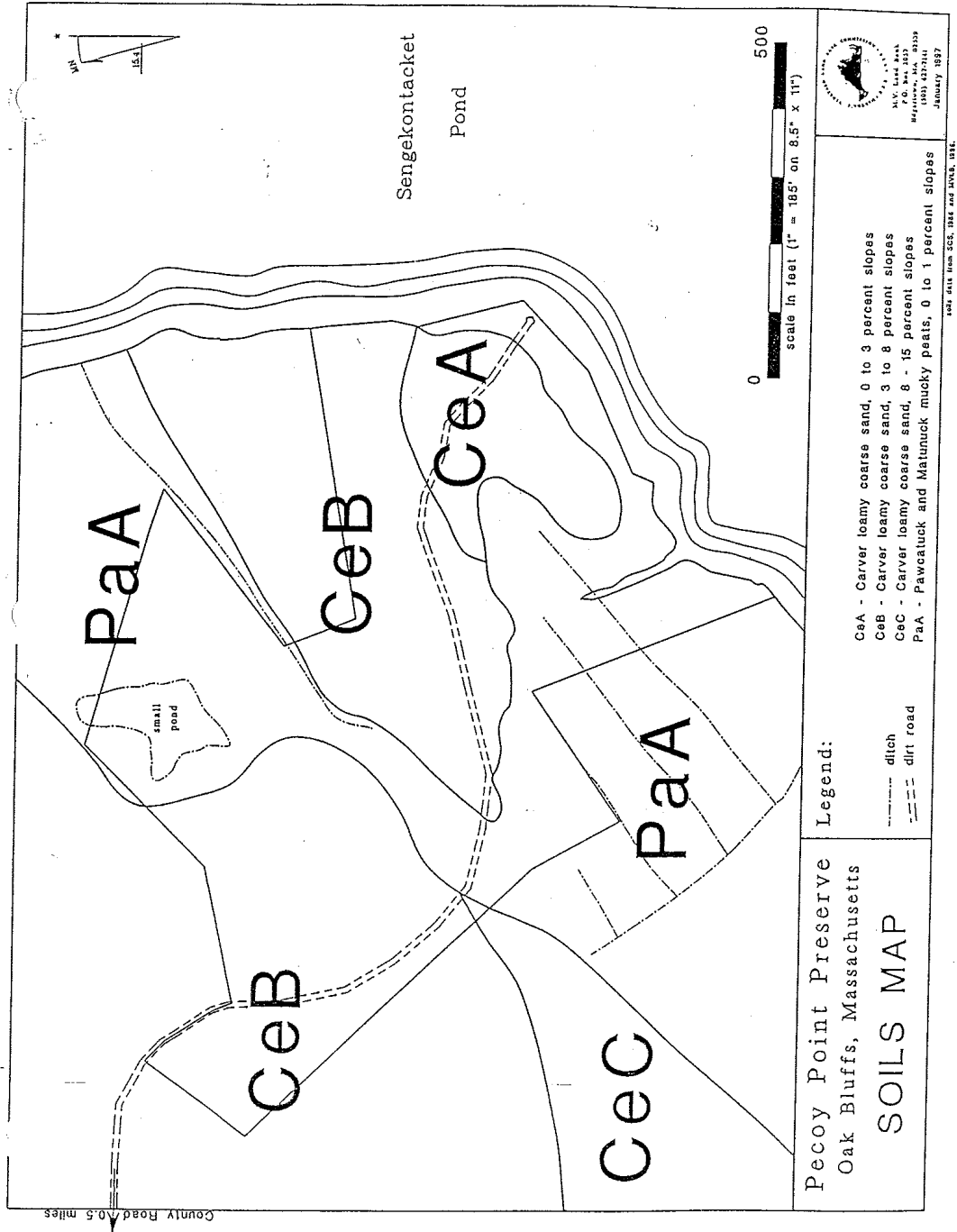
Pecoy Point Preserve
 Oak Bluffs, MA - 15.0 acres

GEOLOGY MAP

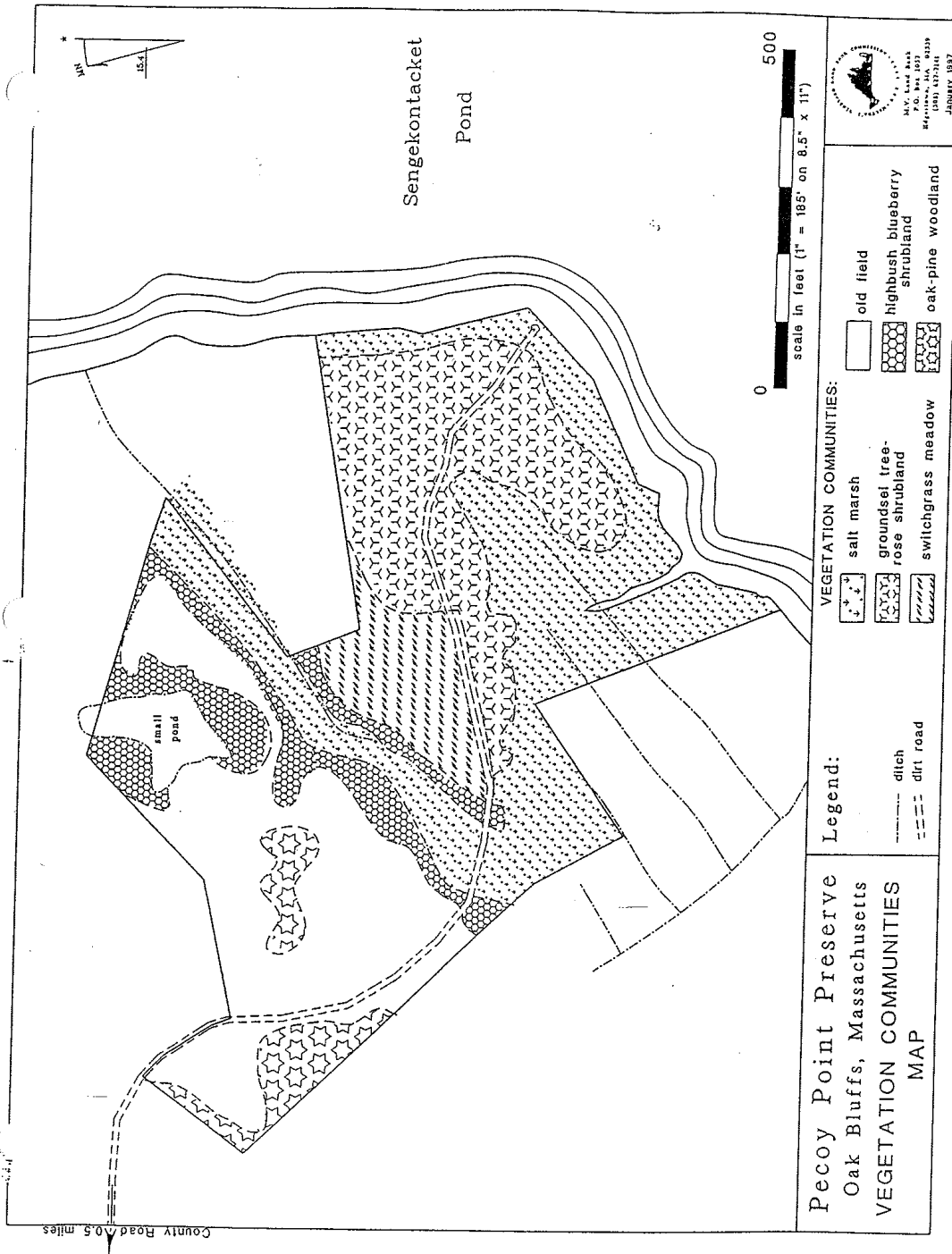
Map 7: Topography Map Pecoy Point Preserve, Oak Bluffs, MA



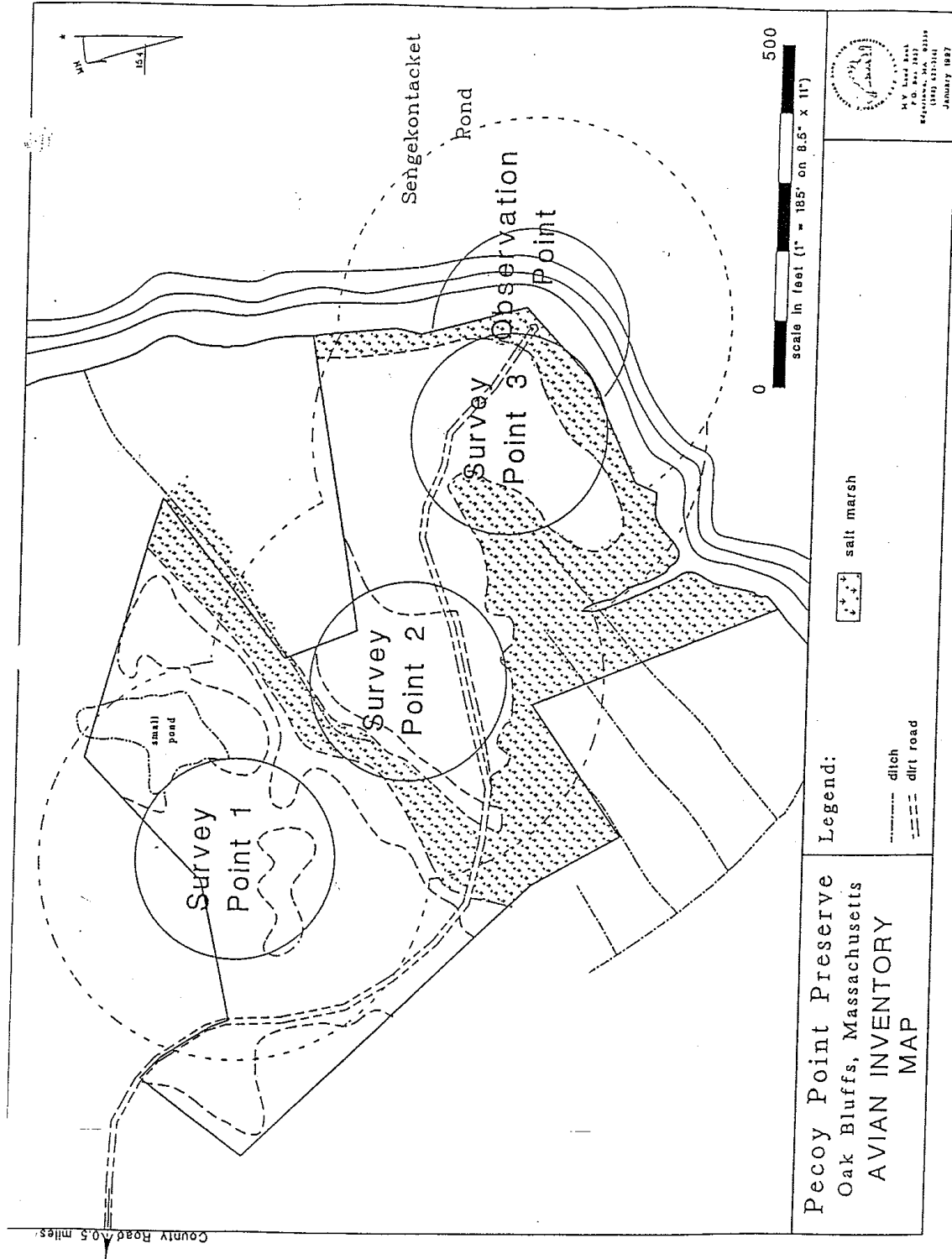
Map 8: Soils Map
Pecoy Point Preserve, Oak Bluffs, MA



Map 10: Vegetation Communities Map
Pecoy Point Preserve, Oak Bluffs, MA

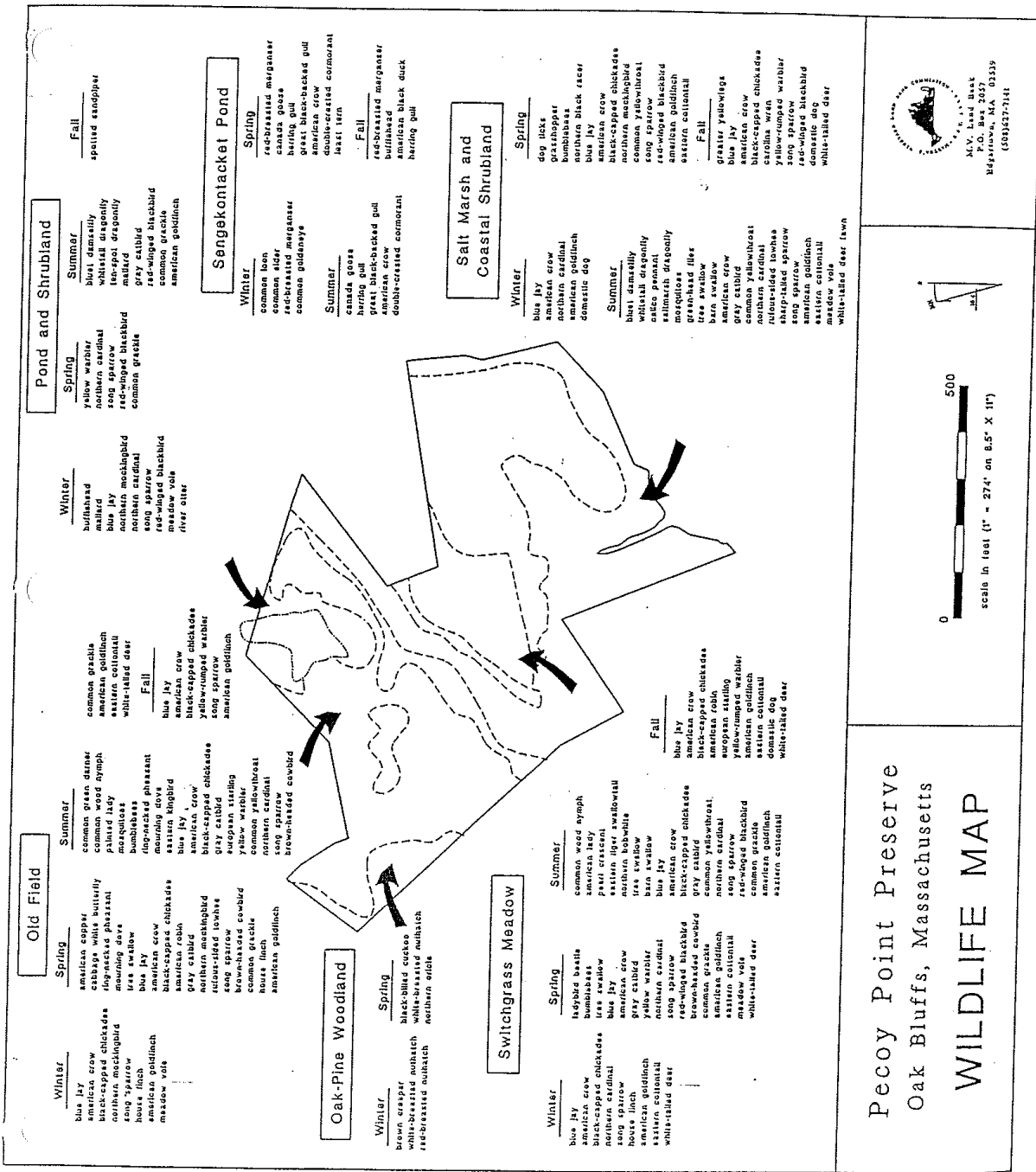


Map 11: Avian Inventory Map Pecoy Point Preserve, Oak Bluffs, MA



Map 12: Wildlife Map

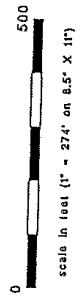
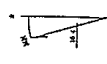
Pecoy Point Preserve, Oak Bluffs, MA



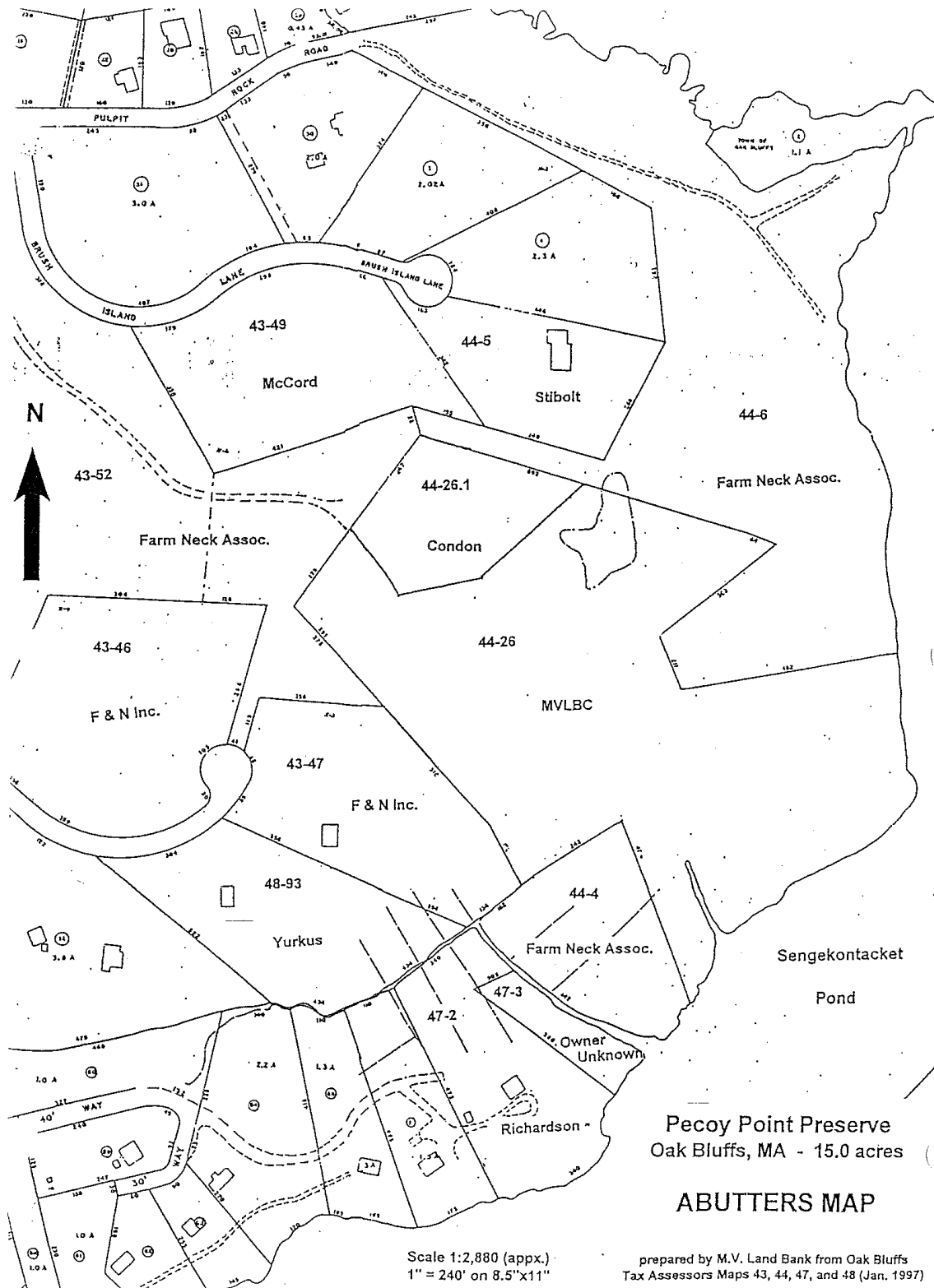
Pecoy Point Preserve
Oak Bluffs, Massachusetts
WILDLIFE MAP



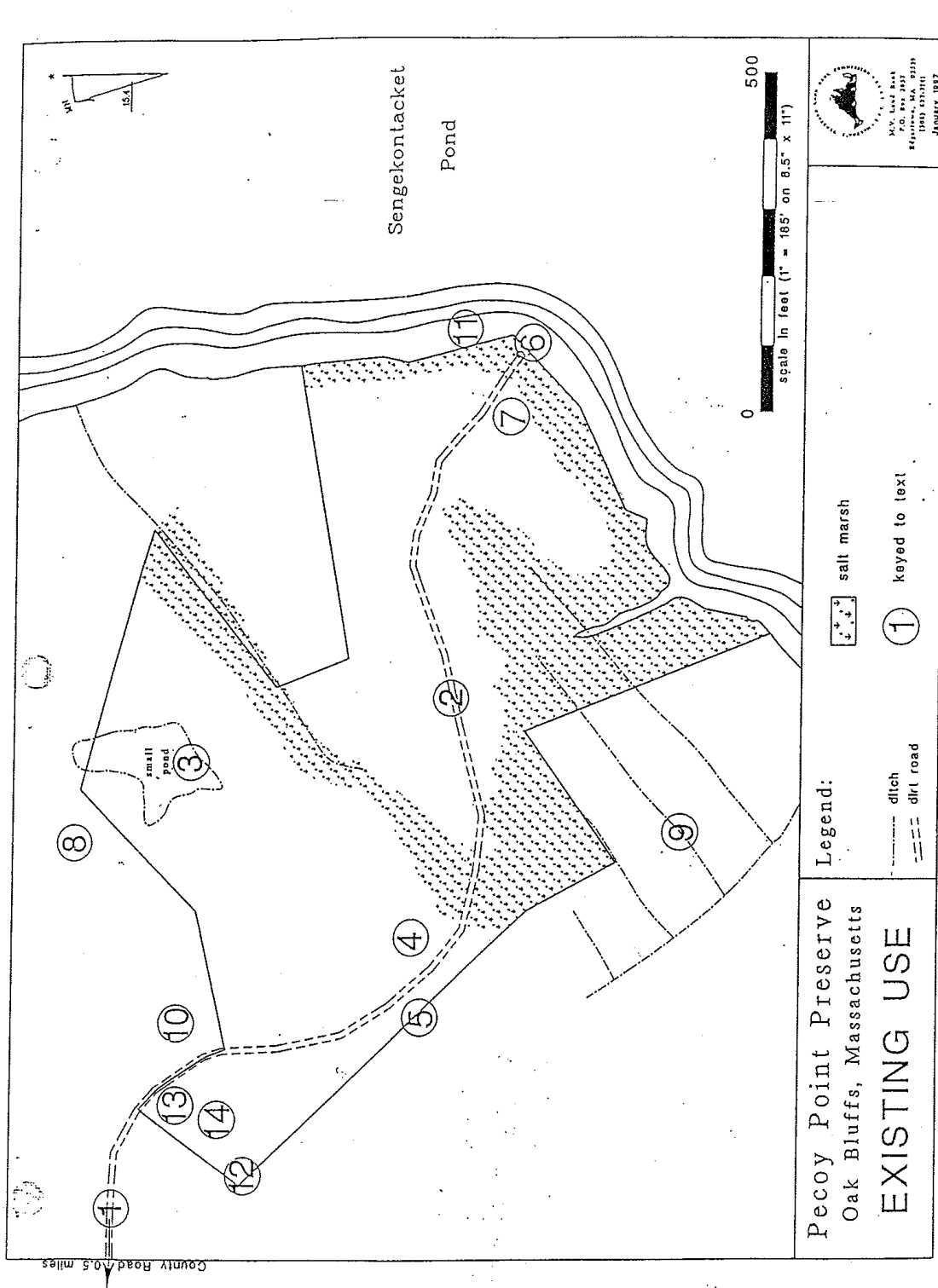
MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION
100 WATER STREET
SOUTH BOSTON, MA 02125
(617) 725-3300



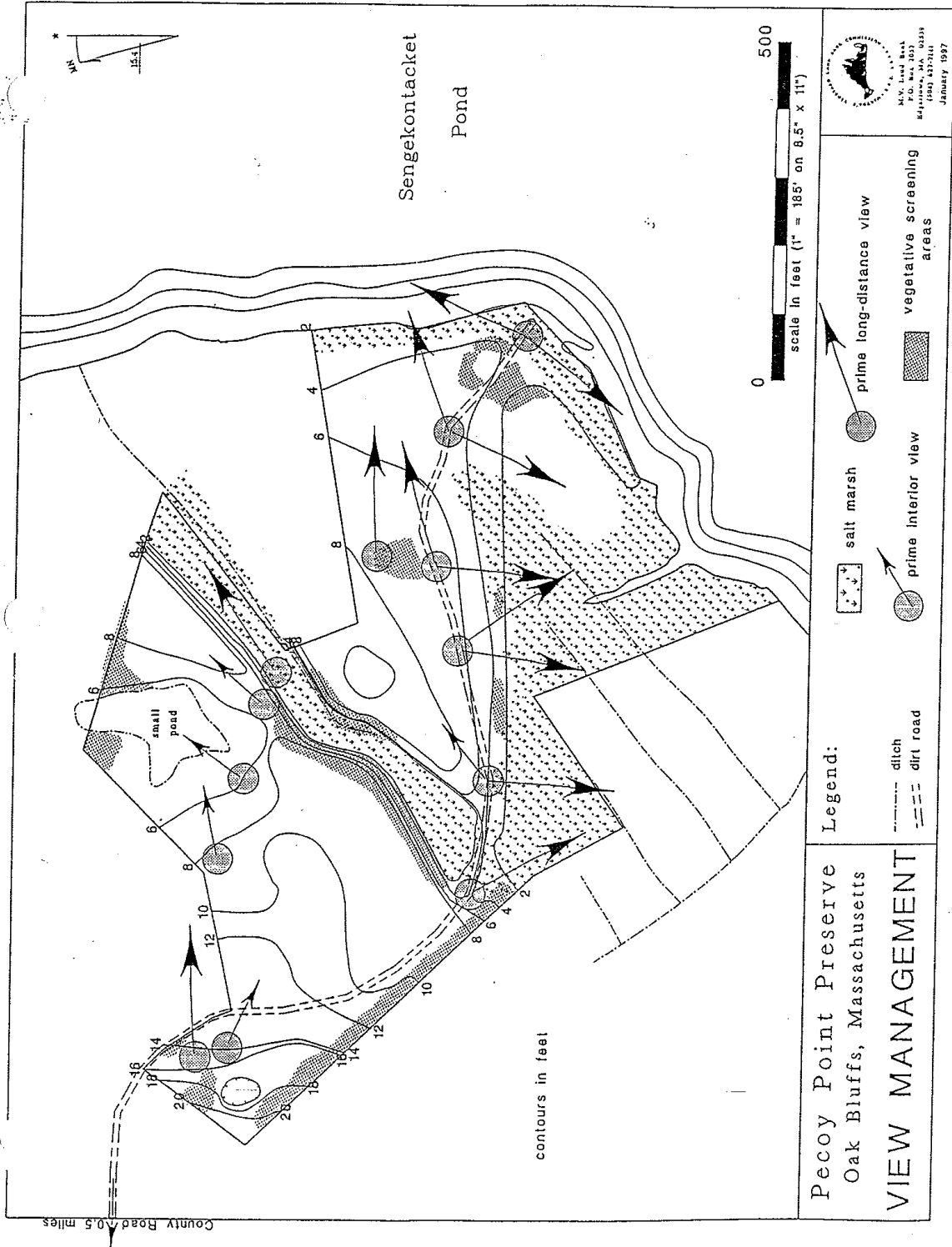
Map 13: Abutters Map Pecoy Point Preserve, Oak Bluffs, MA



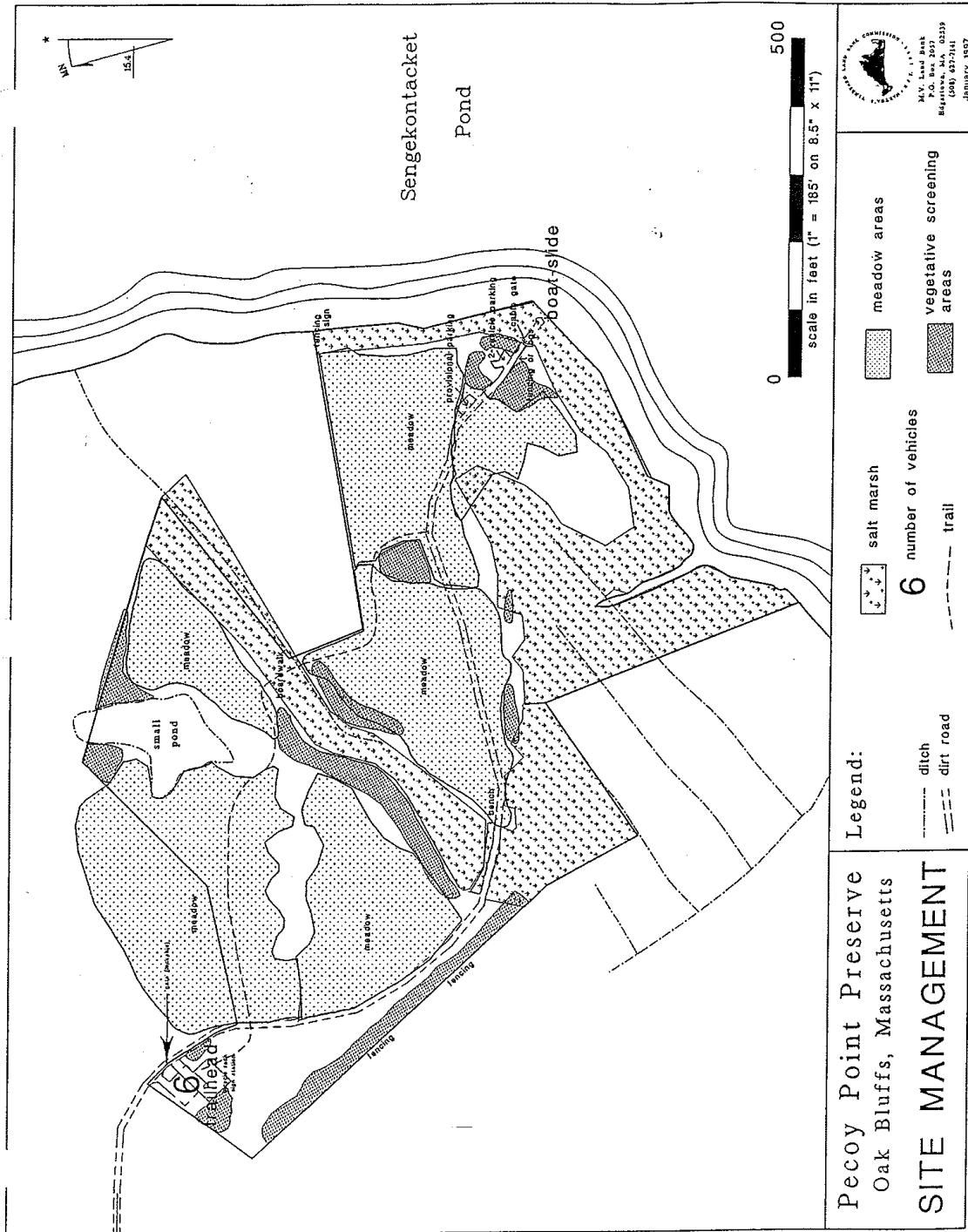
Map 14: Existing Use Map Pecoy Point Preserve, Oak Bluffs, MA



Map 15: View Management Map Pecoy Point Preserve, Oak Bluffs, MA



Map 16: Site Management Map
Pecoy Point Preserve, Oak Bluffs, MA



Appendix G: Approval of amendment letter from the Executive Office of Environmental Affairs



The Commonwealth of Massachusetts
Executive Office of Environmental Affairs
 251 Causeway Street, Suite 900
 Boston, MA 02114-2119

ARGEO PAUL CELLUCCI
 GOVERNOR

JANE SWIFT
 LIEUTENANT GOVERNOR

BOB DURAND
 SECRETARY

Tel. (617) 626-1000
 Fax (617) 626-1181
<http://www.mass.gov/ea/eaenvir>

December 21, 2000

Adam R. Moore, Land Superintendent
 Martha's Vineyard Land Bank Commission
 P.O. Box 2057
 Edgartown, MA 02539

Dear Mr. Moore:

Thank you for sending me copies of the amendments to management plan for Pecoy Point Preserve, located in the Town of Oak Bluffs. This letter is to inform you that I have reviewed and approved the amendments to the management plan for Pecoy Point Preserve.

To satisfy the requirements of Chapter 736 of the Acts of 1985, my staff has reviewed the amendments. I have determined that this plan is in the interest of conservation. The amendments to the management plan will allow for greater access to the preserve for low-impact recreation activities such as hiking, bird watching and boating without compromising the environmental quality of the preserve. If you have any further questions regarding this review, please contact Ole Amundsen, Land Policy Coordinator, at (617) 626-1178. My approval of this management plan does not affect the ability of state agencies to comment on the more detailed plans filed as part of a Notice of Intent in the implementation of this management plan.

Again, please accept my congratulations on another well-prepared management plan.

Very truly yours,

Bob Durand