Botanical Inventory & Property Reconnaissance

Westconnaug Meadows

George Washington Highway

Clayville (Scituate), Rhode Island

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25 July 2005

Mr. Christopher Modisette, Chair
Town of Scituate, RI Conservation Commission
195 Danielson Pike
P.O. Box 328
North Scituate, Rhode Island 02857

Subject: Botanical Inventory - Westconnaug Meadows

Dear Mr. Modisette:

As requested, I have completed a botanical inventory and general reconnaissance in the Westconnaug Meadows woodland on George Washington Highway in the Clayville section of Scituate (Figure 1). This letter presents a summary of my findings, and includes information on the location of wetlands and vernal pools on the property. My qualifications include over fourteen years of experience in the practice of environmental science and field biology in southern New England. I am certified as a Professional Wetland Scientist by the Society of Wetland Scientists, registered as a Wetland Scientist with the Rhode Island Association of Wetland Scientists, and I am a Professional Member of the Society of Soil Scientists of Southern New England.

The subject property is approximately 60-acres in size and is located on the eastern side of George Washington Highway approximately one-half mile south of the intersection of the highway with Knight Hill Road (Figure 1). The property is described as Assessor Plat 51, Lot 102 and a portion of Lot 54. The frontage portion of the property (Lot 54) currently houses the Town of Scituate Animal Shelter and contains a baseball playing field and an historic cemetery.

Available soils mapping from the Soil Survey of Rhode Island[1] and the RIGIS database (Figure 2) indicate the property is located in an area of the Canton-Charlton-Sutton soil association. These soils are nearly level to moderately steep, typically well drained to moderately well drained, and formed in loamy glacial till derived from crystalline rocks[2]. They are located in areas of glaciated uplands dominated by deep soils with a friable substratum. The predominant upland soil type on the property is mapped as well drained, very rocky Canton and Charlton fine sandy loam (mapping unit CeC). The predominant wetland soil mapped on-site is the poorly drained to very poorly drained, extremely stony Ridgebury, Whitman, and Leicester fine sandy loam (mapping unit Rf). Moderately well drained Sutton (SuB) and Woodbridge (WrB) fine

[1] Rector, D.D. 1981. Soil Survey of Rhode Island. USDA Soil Conservation Service, in cooperation with the RI Agricultural Experiment Station. 200 pp. + 155 plates.
[2] Wright, W.R., and E.H. Sautter. 1988. Soils of Rhode Island Landscapes. University of Rhode Island Agricultural Experiment Station Bulletin No. 429. 42 p. + Map.

sandy loams form a border or transition zone to wetland soils on the central and southern portion of the property.

My site observations reveal the soils mapping is generally accurate, with the exception of a portion of the Ridgebury Whitman and Leicester boundary locations. Specifically, the boundary of the central Rf mapping unit extends northwesterly around the perimeter of the playing field towards the road (Compares Figures 2 and 3).

I performed field work on this property on 15 June 2004, 23 July 2004, 18 April 2005, and 8 June 2005. During this time, I completed a general reconnaissance of the property (to include identification of noteworthy geologic and wetland habitat features) and recorded all vascular plant species that I observed. The location of vernal pools, approximate boundaries of wetland areas, and other property features are mapped on 1997 aerial photography in Figure 3.

The property is predominantly forested and supports areas of mixed forest and upland oak community (Figure 4). The mixed forest is dominated by a mixture of oaks (*Quercus rubra*, *Q. alba*), white pine (*Pinus strobus*), and red maple (*Acer rubrum*). Characteristic herbaceous species in this forest type include Canada mayflower (*Maianthemum canadense*), clubmosses (*Lycopodium obscurum*, *L. digitatum*, *L. clavatum*), starflower (*Trientalis borealis*), and sedges such as *Carex swanii* and *C. debilis* var. *rudgei*, and *C. arctata*. Shrubs are generally sparse and include Northern arrowwood (*Viburnum recognitum*), highbush blueberry (*Vaccinium corymbosum*) and dangleberry (*Gaylussacia frondosa*). Natural regeneration of understory white pine is substantial in a large part of this community.

The remainder of the property contains an extensive area of upland oak forest (*Quercus coccinea*, typ.) with an understory of black huckleberry (*Gaylussacia baccata*). Other species representative of this community type include lowbush blueberry (*Vaccinium angustifolium*), hillside blueberry (*Vaccinium pallidum*), bracken fern (*Pteridium aquilinum*), scrub oak (*Quercus ilicifolia*), and sedges such as *Carex lucorum* and *C. pennsylvanicum*.

To the rear of the property, an array of ridges is formed from ledge outcrops trending southwest to northeast (~ 215^{o} Magnetic). In a few places, the rock outcrop exposures create a mesic ravine-type assemblage with such species as pignut hickory (*Carya glabra*), hazel (*Corylus cornuta*), yellow birch (*Betula allegheniensis*), spicebush (*Lindera benzoin*), maple-leaved Viburnum (*Viburnum acerifolium*), and rock polypody (*Polypodium vulgare*). Also of interest is a large boulder perched on other stones along the trail loop atop the ridge in this vicinity (Figure 5).

Although the above-described upland oak community is generally characteristic of these ridge landforms, a large number of "rock chestnut oak" (*Quercus prinus*) are found in the vicinity of Vernal Pool 3. The chestnut oak community type is not common and is found almost exclusively in these habitats (i.e., ledge outcrops and shallow depth to bedrock). Other representative species found in the chestnut oak community include American chestnut (*Castanea dentata*), witch hazel (*Hamamelis virginiana*), and wild sarsaparilla (*Aralia nudicaulis*).

A large hardwood (*Acer rubrum*) swamp is located in the central portion of the property to the east of the playing fields. The interior portion of this wetland supports areas of > 50 percent dominance of shrubs such as highbush blueberry (*Vaccinium corymbosum*), sweet pepperbush (*Clethra alnifolia*) and winterberry (*Ilex verticillata*). The perimeter of this wetland includes such plants as black gum (*Nyssa sylvatica*), mountain holly (*Nemopanthus mucronatus*), witch hazel (*Hamamelis virginiana*), New York fern (*Thelypteris noveboracensis*), and cinnamon fern (*Osmunda cinnamomea*).

Task 1.0 Botanical Inventory

A total of 135 vascular plant taxa were observed on site, representing 50 different plant families (Table 1). In terms of the number of different species represented, the grass family (*Poaceae*) is the most common plant family on the property with 11 species present. Following in order of abundance are the the sedges (*Cyperaceae*), the heath family (*Ericaceae*), the rose family (*Rosaceae*), and the beech family (*Fagaceae*), each with 9 species present. In terms of biomass, it is estimated that the *Fagaceae* would predominate on the property due to the widespread presence of oaks. The following table provides the relative distribution of the different life forms observed:

Life Form	# Taxa	Percentage
Trees	30	0.22
Lianas	7	0.05
Shrubs	27	0.20
Herbaceous	35	0.26
Grasses	11	0.08
Sedges and Rushes	9	0.07
Ferns etc.	16	0.12

It is interesting to note that most of the native taxa of oaks are represented on the property. These include white oak (*Quercus alba*), swamp white oak (*Q. bicolor*), scarlet oak (*Q. coccinea*), scrub oak (*Q. ilicifolia*), chestnut oak (*Q. prinus*), red oak (*Q. rubra*), and black oak (*Q. velutina*)[3]. The clubmosses (*Lycopodium* spp.) are also well represented with 4 taxa present (L. *clavatum*, L. *digitatum*, L. *obscurum*, and L. *tristachyum*). The presence of numerous ferns and their allies is reflective of the large area of closed-canopy forest.

Task 2.0 Vernal Pool Reconnaissance

Three vernal pool communities were identified on the property (Figure 3). These are located toward the rear, southeastern portion of the property and form a hydrologically-connected series

[3] The other native oak taxa are pin oak (*Quercus palustris*), chinquapin oak (*Q. prinoides*), and post oak (*Q. stellata*). English oak (*Quercus robur*), which is common in the vicinity of Narragansett Bay, is not native to the State.

of small basins. The flow through these basins trends northeasterly into a red maple swamp community bounded by rock outcroppings. These pools exhibit a seasonally flooded hydrologic regime (Figures 6, 7, and 8) to a maximum depth of more than 24-inches. The substrate of these pools is comprised of darkened leaf litter (Pools 1 and 2) or leaf litter and *Sphagnum* sp. moss (Pool 3). Vernal Pools 1 and 2 are dominated by emergent shrubs (*Vaccinium corymbosum* or *Ilex verticillata*) but also include swamp white oak (*Quercus bicolor*), red maple (*Acer rubrum*), sweet pepperbush (*Clethra alnifolia*) and greenbrier (*Smilax rotundifolia*). Vernal Pool 3 occurs as a mosaic of mossy beds within forested wetland.

The herpetofauna observed in these pools include wood frog (*Rana sylvatica*), green frog (*Rana clamitans melanota*), pickerel frog (*Rana palustris*), American toad (*Bufo americanus*), and a male spotted turtle (*Clemmys guttata*). Abundant juvenile wood frogs were observed throughout the wetland containing Vernal Pool 3 on 23 July 2004. Additionally, these pools were documented to function as amphibian breeding habitat for spotted salamander (*Ambystoma maculatum*) and wood frog (Figure 9). It is likely the large, centrally-located red maple swamp on the property functions as amphibian breeding habitat as well.

The invertebrate fauna observed in these pools (April 2005) included water striders (family *Gerridae*), water mites (Order *Acariformes*), black flies (family *Simuliidae*), mosquito (familiy *Culicidae*) larvae and caddisfly (Order *Trichoptera*) cases. Additional seasonal investigations would likely reveal numerous other invertebrate taxa.

Other amphibians that should be anticipated in or around these wetlands include spring peeper (*Pseudacris crucifer*), gray treefrog (*Hyla versicolor*), Fowler's toad (*Bufo woodhousii fowleri*), red-backed salamander (*Plethodon cinereus*), and possibly the four-toed salamander (*Hemidactylum scutatum*) in association with the *Sphagnum* sp. moss areas of Vernal Pool 3. Other vertebrates (facultative species) to be expected in this environment include the meadow vole (*Microtus pennsylvanicus*), raccoon (*Procyon lotor*), mink (*Mustela vison*) and other mustelids, various shrews (e.g., *Blarina brevicauda*, *Sorex cinereus*, *S. fumeus*) and possibly the red-backed vole (*Clethrionomys gapperi*).

Task 3.0 Management Recommendations

As we had discussed, one of the objectives of my fieldwork was to provide management recommendations of a general nature to inform potential future stewardship activities on the property. As time and finances allow, and most importantly to be consistent with the owner's objectives, the following recommendations are provided:

- Further botanical survey of seasonal and/or ephemeral species (e.g., *Viola*, *Solidago*, *Aster*) will provide documentation of additional plant species present. Among the graminoids (i.e., grasses, sedges, and rushes), additional fieldwork focused on the genera *Panicum* and *Dichanthelium* (panic grasses) and *Carex* (sedges) is recommended.
- Presently, very few invasive plant species are observed toward the rear portion of the property. In the future the presence or spread of these pests, especially shrub species,

should be monitored. Of particular importance are such species as buckthorn (*Rhamnus frangula*), autumn olive (*Elaeagnus umbellata*), barberry (*Berberis thunbergii*), and multiflora rose (*Rosa multiflora*).

- Further seasonal investigations within the vernal pool communities is recommended to ascertain, quantify and document the amount of amphibian breeding activity from year to year. Determination of baseline conditions is necessary in order to be able to track a trend or discern a change in faunal assemblages.
- Further detail on the invertebrate fauna (e.g., *Insecta*) present in association with the vernal pool communities is also recommended.
- These vernal pools have potentially high value as an educational resource for nearby schools. Local science educators should be made aware of their presence. Several publications are available to facilitate primary and secondary educational activities in this type of wetland[4].
- The chestnut oak community and associated rock outcrop community in the vicinity of Vernal Pool 3 is fairly representative of this community type and worthy of preservation/perpetuation.

Thank you for providing us the opportunity to work with you on this property. Please do not hesitate to contact me at (401) 647-3835 if you have any questions or wish to discuss these findings, or if you require any additional information.

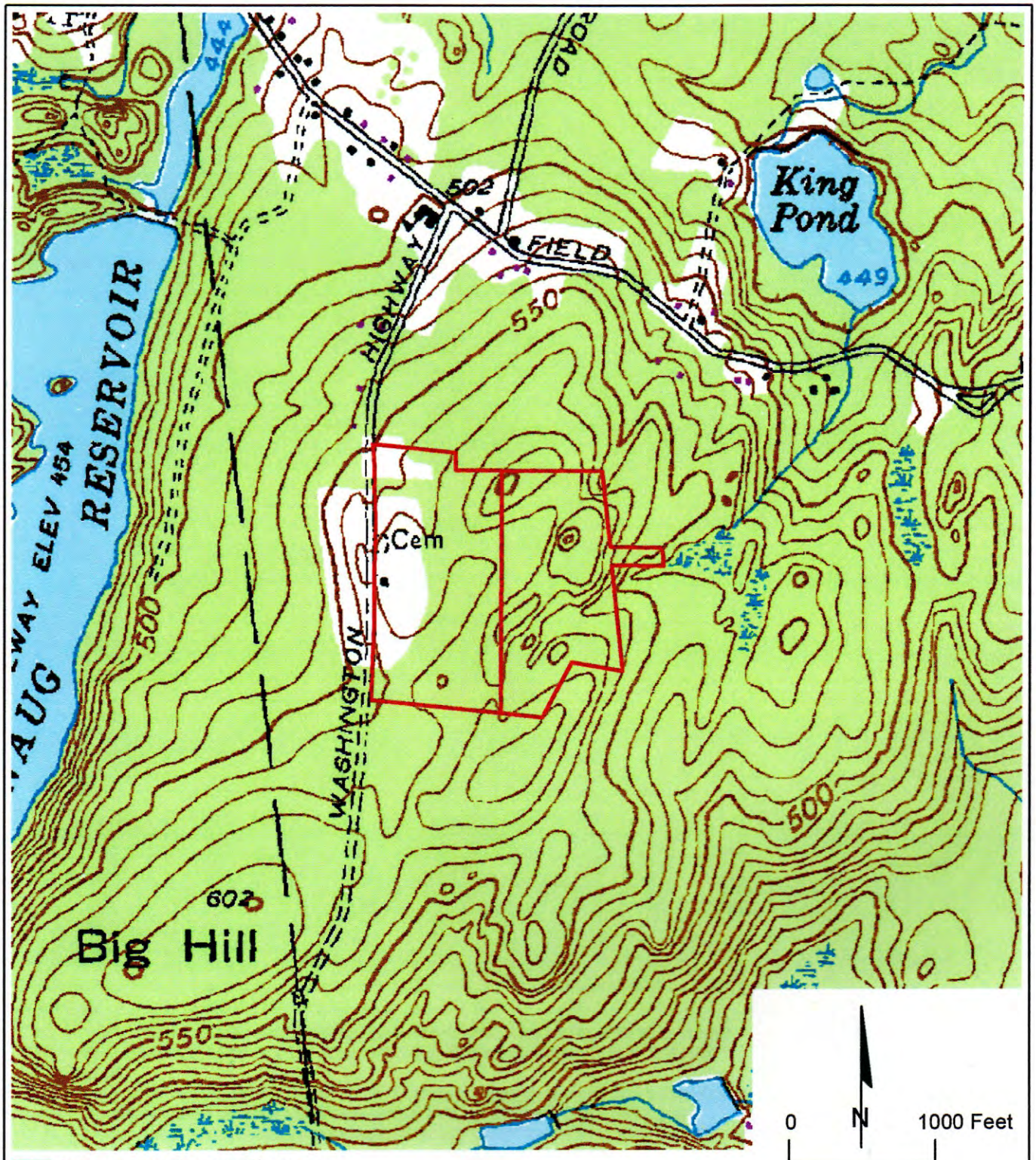
Sincerely yours,
MASON & ASSOCIATES, INC.

Peter T. Lockwood, P.W.S.
Associate and Senior Environmental Scientist

Attachments: Figure 1. Project Area Location
Figure 2. USDA Soils Mapping
Figure 3. Aerial Photograph
Figure 4. Project Area Photographs
Figure 5. Project Area Photographs
Figure 6. Project Area Photographs
Figure 7. Project Area Photographs
Figure 8. Project Area Photographs
Figure 9. Project Area Photographs

Table 1. Preliminary List of Vascular Plant Species

[4] See, for example, Kenney, L.P. 1995. Wicked Big Puddles *and* Kenney, L.P. 2000. Diving into Wicked Big Puddles From the Vernal Pool Association, Reading, MA. http://www.vernalpool.org/vernal_1.htm



Approximate Property Boundary

Source: 7.5 minute USGS Topographic Quadrangle: Clayville, RI; 1955, Photorevised 1970, 1975 (From RIGIS)

Westconnaug Meadows
Scituate, Rhode Island

PROJECT AREA LOCATION MAP

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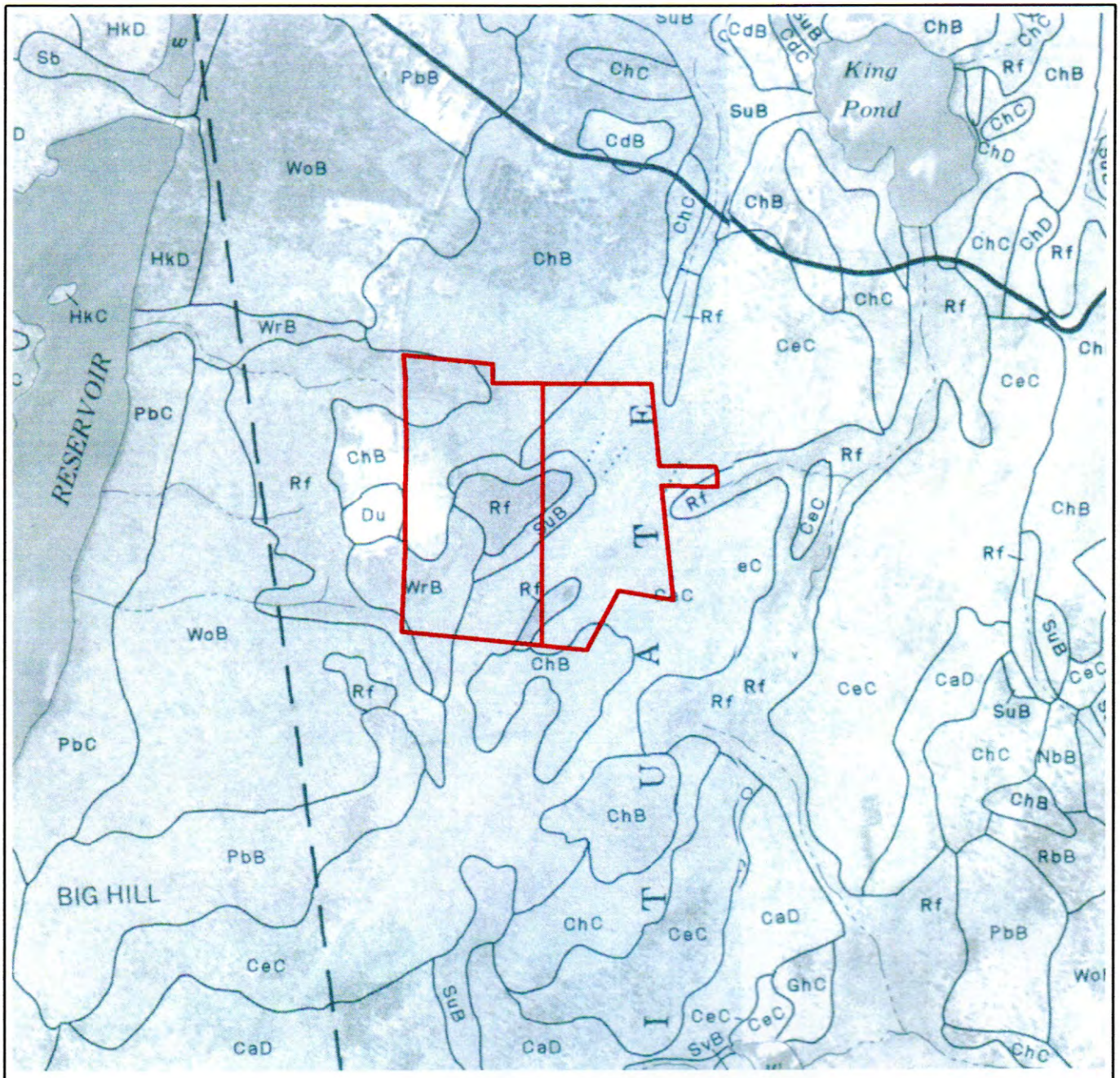
771 Plainfield Pike, North Scituate, Rhode Island 02857

Project No. 040607

Figure 1



Soil Types:

CeC -- Well Drained Canton and Charlton fine sandy loams, very rocky, 3 to 15 % slopes
ChB -- Well Drained Canton and Charlton very stony fine sandy loams, 3 to 8 % slopes
Du -- Dumps
Rf -- Poorly Drained Ridgebury, Whitman, and Leicester extremely stony fine sandy loams
SuB -- Moderately Well Drained Sutton very stony fine sandy loam, 0 to 8 % slopes
WrB -- Moderately Well Drained Woodbridge extremely stony fine sandy loam, 0 to 8 % slopes

Approximate Property Boundary

Short Steep Slope

0 N 1000 Feet

Source: Soil Survey of Rhode Island, Rector 1981 (Aerial Photograph Base 1976)

Westconnaug Meadows
Scituate, Rhode Island

USDA SOILS MAPPING

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Figure 2

Approximate Property Boundary Wetland Streams Footpath

0 N 300 Feet

Source: RIGIS 1997 Orthophotographs, 1:5000 Scale, Mason & Associates Wetland Reconnaissance

Westconnaug Meadows
Scituate, Rhode Island

AERIAL PHOTOGRAPH

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Figure 3

View of Mixed Oak/Pine/Maple Forest Community.

View of Upland Oak/Huckleberry Forest Community.

Westconnaug Meadows
Scituate, Rhode Island

PROJECT AREA PHOTOGRAPHS

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Figure 4

View of Rock Outcropping on Lot 102.

View of Boulder on Trail Loop (See Figure 3).

Westconnaug Meadows Scituate, Rhode Island	**PROJECT AREA PHOTOGRAPHS**
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View of Vernal Pool 1 (23 July 2004).

View of Vernal Pool 1 (18 April 2005).

Westconnaug Meadows
Scituate, Rhode Island

PROJECT AREA PHOTOGRAPHS

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Figure 6

View of Vernal Pool 2 (23 July 2004).
The Arching Tree is a Swamp White Oak (*Quercus bicolor*)

View of Vernal Pool 2 (18 April 2005).

Westconnaug Meadows Scituate, Rhode Island	**PROJECT AREA PHOTOGRAPHS**
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View of a Portion of Vernal Pool 3 (23 July 2004).

View of Flooded Substrate in Vernal Pool 3 (18 April 2005).

Westconnaug Meadows Scituate, Rhode Island	**PROJECT AREA PHOTOGRAPHS**
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Wood Frog (*Rana sylvatica*) Egg Masses in Pools 1 and 3 (18 April 2005).

Spotted Salamander (*Ambystoma maculatum*) Egg Masses in Pools 1 and 2 (18 April 2005).

Spotted Turtle (*Clemmys guttata*) in Pool 1 (18 April 2005).

Westconnaug Meadows Scituate, Rhode Island	**PROJECT AREA PHOTOGRAPHS**
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Table 1. Preliminary List of Vascular Plant Species
Westconnaug Meadows, Scituate, RI

Species Name	Family	Common Name
Acer negundo	*Aceraceae,* the Maple family	box elder
Acer rubrum	*Aceraceae,* the Maple family	red maple, swamp maple
Achillea millefolium	*Asteraceae,* the Aster family	yarrow
Alnus sp.	*Betulaceae,* the Birch family	alder
Amelanchier sp.	*Rosaceae,* the Rose family	shadbush, serviceberry
Anemone quinquefolia	*Ranunculaceae,* the Buttercup family	wood anemone
Anthoxanthum odoratum	*Poaceae,* the Grass family	sweet vernal grass
Apios americana	*Fabaceae* , the Pea or Bean family	common ground-nut
Apocynum androsaemifolium	*Asclepiadaceae,* the Milkweed family	spreading dogbane
Aralia nudicaulis	*Araliaceae* , the Ginseng family	wild sarsaparilla
Arisaema triphyllum	*Araceae* , the Arum family	jack-in-the-pulpit
Artemesia vulgaris	*Asteraceae,* the Aster family	mugwort
Aster divaricatus	*Asteraceae,* the Aster family	common white heart-leaved aster
Athyrium filix-foemina	*Aspleniaceae,* the Spleenwort family	lady fern
Betula alleghaniensis	*Betulaceae,* the Birch family	yellow birch
Betula populifolia	*Betulaceae,* the Birch family	gray birch
Carex albicans var. *emmonsii*	*Cyperaceae,* the Sedge family	Emmon's sedge
Carex argyrantha	*Cyperaceae,* the Sedge family	silvery sedge
Carex debilis var. *rudgei*	*Cyperaceae,* the Sedge family	Rudge's sedge
Carex intumescens	*Cyperaceae,* the Sedge family	bladder sedge
Carex lucorum	*Cyperaceae,* the Sedge family	distant sedge
Carex pensylvanica	*Cyperaceae,* the Sedge family	Pennsylvania sedge
Carex Sect. *Laxiflorae*	*Cyperaceae,* the Sedge family	loose-flowered sedge
Carex stipata	*Cyperaceae,* the Sedge family	crowded sedge
Species Name	Family	Common Name

Species Name	Family	Common Name
Carex swanii	*Cyperaceae,* the Sedge family	Swan's sedge
Carya glabra	*Juglandaceae,* the Walnut family	pignut hickory
Castanea dentata	*Fagaceae,* the Beech family	American chestnut
Celastrus orbiculatus	*Celastraceae* , the Staff-tree family	Asiatic bittersweet
Chimaphila maculata	*Pyrolaceae* , the shinleaf family	spotted wintergreen
Chrysanthemum leucanthemum	*Asteraceae,* the Aster family	ox-eye daisy
Clethra alnifolia	*Clethraceae* , the Pepper-bush family	sweet pepper-bush
Cornus alternifolia	*Cornaceae,* the Dogwood family	alternate-leaved dogwood
Cornus florida	*Cornaceae,* the Dogwood family	flowering dogwood
Cornus sericea [= *C. stolonifera*]	*Cornaceae,* the Dogwood family	red-osier dogwood
Corylus cornuta	*Betulaceae,* the Birch family	beaked hazel-nut
Dactylis glomerata	*Poaceae,* the Grass family	orchard grass
Danthonia compressa	*Poaceae,* the Grass family	poverty oatgrass
Dennstaedtia punctilobula	*Dennstaedtiaceae,* the Bracken family	hay-scented fern
Dryopteris marginalis	*Aspleniaceae,* the Spleenwort family	marginal shield fern
Eleagnus umbellata	*Elaeagnaceae* , the Oleaster family	autumn olive
Elytrigea [=*Agropyron*] *repens*	*Poaceae,* the Grass family	quack-grass, couch-grass
Eupatorium maculatum	*Asteraceae,* the Aster family	spotted joe-pye weed
Fagus grandifolia	*Fagaceae,* the Beech family	American beech
Festuca ovina	*Poaceae,* the Grass family	sheep fescue
Festuca rubra	*Poaceae,* the Grass family	red fescue
Fraxinus americana	*Oleaceeae* , the Olive family	white ash
Fraxinus pennsylvanicus	*Oleaceeae* , the Olive family	green ash
Gaultheria procumbens	*Ericaceae,* the Heath family	wintergreen, checkerberry
Gaylussacia baccata	*Ericaceae,* the Heath family	black huckleberry
Gaylussacia frondosa	*Ericaceae,* the Heath family	dangleberry
Glyceria sp.	*Poaceae,* the Grass family	manna grass
Goodyera pubescens	*Orchidaceae* , the Orchid family	rattlesnake plantain orchid
Hamamelis virginiana	*Hamamelidaceae,* the Witch Hazel family	witch hazel
Houstonia caerula	*Rubiaceae* , the Madder family	bluets

Species Name	Family	Common Name
Ilex verticillata	*Aquifoliaceae* , the Holly family	winterberry
Juniperus virginiana	*Cupressaceae,* the Cypress family	red cedar
Kalmia angustifolia	*Ericaceae,* the Heath family	sheep laurel
Lindera benzoin	*Lauraceae,* the Laurel family	spicebush
Lychnis alba [= *Silene latifolia*]	*Caryophyllaceae,* the Pink family	white campion
Lycopodium clavatum	*Lycopodiaceae* , the Clubmoss family	running pine, wolf's claw clubmoss
Lycopodium digitatum	*Lycopodiaceae* , the Clubmoss family	southern ground-cedar, creeping jenny
Lycopodium obscurum	*Lycopodiaceae* , the Clubmoss family	princess pine, tree clubmoss
Lycopodium tristachyum	*Lycopodiaceae* , the Clubmoss family	wiry ground-cedar
Lyonia ligustrina	*Ericaceae,* the Heath family	male-berry
Lysimachia quadrifolia	*Primulaceae* , the Primrose family	whorled loosestrife
Lysimachia terrestris	*Primulaceae* , the Primrose family	bulbil loosestrife
Maianthemum canadense	*Liliaceae* , the Lily family	Canada mayflower
Medeola virginiana	*Liliaceae* , the Lily family	Indian cucumber root
Melampyrum lineare	*Scrophulariaceae* , the Figwort family	cow wheat
Muhlenbergia frondosa	*Poaceae,* the Grass family	muhly grass
Myrica pensylvanica	*Myricaceae,* the Bayberry family	bayberry
Nemopanthus mucronata	*Aquifoliaceae* , the Holly family	mountain holly
Nyssa sylvatica	*Cornaceae,* the Dogwood family	black gum
Onoclea sensibilis	*Onocleaceae,* the Sensitive Fern family	sensitive fern
Osmunda cinnamomea	*Osmundaceae,* the Royal Fern family	cinnamon fern
Osmunda regalis	*Osmundaceae,* the Royal Fern family	royal fern
Panicum clandestinum	*Poaceae,* the Grass family	deer tongue
Panicum sp.	*Poaceae,* the Grass family	panic grass
Parthenocissus quinquefolia	*Vitaceae* , the Grape family	Virginia creeper
Pinus strobus	*Pinaceae,* the Pine family	Eastern white pine
Plantago lanceolata	*Plantaginaceae* , the Plantain family	English plantain
Plantago major	*Plantaginaceae* , the Plantain family	common plantain
Poa pratensis	*Poaceae,* the Grass family	Kentucky bluegrass
Polygonum cuspidatim	*Polygonaceeae* , the Smartweed family	Japanese knotwood, Mexican bamboo

Species Name	Family	Common Name
Polypodium vulgare	*Polypodiaceae,* the Polypody family	common rock polypody
Polystichum acrostichoides	*Aspleniaceae,* the Spleenwort family	Christmas fern
Populus grandidentata	*Salicaceae,* the Willow family	big-toothed aspen
Populus tremuloides	*Salicaceae,* the Willow family	quaking aspen
Potentilla canadensis	*Rosaceae,* the Rose family	running cinquefoil
Potentilla simplex	*Rosaceae,* the Rose family	old-field cinquefoil
Prenanthes trifoliolata	*Asteraceae,* the Aster family	gall-of-the-earth
Prunus pensylvanica	*Rosaceae,* the Rose family	pin cherry
Prunus serotina	*Rosaceae,* the Rose family	wild black cherry
Pteridium aquilinum	*Dennstaedtiaceae,* the Bracken family	bracken fern
Quercus alba	*Fagaceae,* the Beech family	white oak
Quercus bicolor	*Fagaceae,* the Beech family	swamp white oak
Quercus coccinea	*Fagaceae,* the Beech family	scarlet oak
Quercus ilicifolia	*Fagaceae,* the Beech family	scrub oak, bear oak
Quercus prinus	*Fagaceae,* the Beech family	rock chestnut oak
Quercus rubra	*Fagaceae,* the Beech family	red oak
Quercus velutina	*Fagaceae,* the Beech family	black oak
Rhamnus frangula	*Rhamnaceae* , the Buckthorn family	European buckthorn
Rhododendron viscosum	*Ericaceae,* the Heath family	swamp azalea
Rhus copallinum	*Anacardiaceae,* the Cashew family	winged sumac
Robinia pseudoacacia	*Fabaceae* , the Pea or Bean family	black locust
Rosa multiflora	*Rosaceae,* the Rose family	multiflora rose
Rubus flagellaris	*Rosaceae,* the Rose family	northern dewberry, stout dewberry
Rubus hispidus	*Rosaceae,* the Rose family	swamp dewberry
Rumex acetosella	*Polygonaceae,* the Smartweed family	red sorrel, sheep sorrel
Saponaria officinalis	*Caryophyllaceae,* the Pink family	soapwort, bouncing Bet
Sassafras albidum	*Lauraceae,* the Laurel family	sassafras
Sisyrinchium angustifolium	*Iridaceae* , the Iris family	blue-eyed grass
Smilax glauca	*Smilacaceae* , the Catbrier family	cat brier
Smilax rotundifolia	*Smilacaceae* , the Catbrier family	common green brier, bull brier

Solidago rugosa	*Asteraceae,* the Aster family	rough goldenrod
Spiraea alba [=*Spiraea latifolia*]	*Rosaceae,* the Rose family	meadowsweet
Symplocarpus foetidus	*Araceae* , the Arum family	skunk cabbage
thelypteris noveboracensis	*Aspleniaceae,* the Spleenwort family	New York fern
thelypteris palustris	*Aspleniaceae,* the Spleenwort family	marsh fern
Toxicodendron radicans	*Anacardiaceae,* the Cashew family	poison ivy
Trientalis borealis	*Primulaceae* , the Primrose family	starflower
Trifolium pratense	*Fabaceae* , the Pea or Bean family	red clover
Trifolium repens	*Fabaceae* , the Pea or Bean family	white clover
Tsuga canadensis	*Pinaceae,* the Pine family	Eastern hemlock
Ulmus americana	*Ulmaceae,* the Elm family	American elm
Uvularia sessilifolia	*Liliaceae* , the Lily family	wild oats, sessile-leaved bellwort
Vaccinium angustifolium	*Ericaceae,* the Heath family	common lowbush blueberry
Vaccinium corymbosum	*Ericaceae,* the Heath family	highbush blueberry
Vaccinium pallidum	*Ericaceae,* the Heath family	hillside blueberry
Viburnum acerifolium	*Caprifoliaceae* , the Honeysuckle family	maple-leaved viburnum
Viburnum recognitum	*Caprifoliaceae* , the Honeysuckle family	Northern arrowwood
Vicia sp.	*Fabaceae* , the Pea or Bean family	vetch
Viola sp.	*Violaceae* , the Violet family	violet
Vitis labrusca	*Vitaceae* , the Grape family	fox grape
Woodwardia areolata	*Blechnaceae,* the Deer-fern family	netted chain fern