



NCNHDE-13081

October 15, 2020

Robert Zarzecki
Soil & Environmental Consultants, PA
8412 Falls of Neuse Road, Suite 104
Raleigh, NC 27615
RE: HERNDON FARMS; 13862

Dear Robert Zarzecki:

The North Carolina Natural Heritage Program (NCNHP) appreciates the opportunity to provide information about natural heritage resources for the project referenced above.

A query of the NCNHP database indicates that there are records for rare species, important natural communities, natural areas, and/or conservation/managed areas within the proposed project boundary. These results are presented in the attached 'Documented Occurrences' tables and map.

The attached 'Potential Occurrences' table summarizes rare species and natural communities that have been documented within a one-mile radius of the property boundary. The proximity of these records suggests that these natural heritage elements may potentially be present in the project area if suitable habitat exists. Tables of natural areas and conservation/managed areas within a one-mile radius of the project area, if any, are also included in this report.

If a Federally-listed species is documented within the project area or indicated within a one-mile radius of the project area, the NCNHP recommends contacting the US Fish and Wildlife Service (USFWS) for guidance. Contact information for USFWS offices in North Carolina is found here: <https://www.fws.gov/offices/Directory/ListOffices.cfm?statecode=37>.

Please note that natural heritage element data are maintained for the purposes of conservation planning, project review, and scientific research, and are not intended for use as the primary criteria for regulatory decisions. Information provided by the NCNHP database may not be published without prior written notification to the NCNHP, and the NCNHP must be credited as an information source in these publications. Maps of NCNHP data may not be redistributed without permission.

Also please note that the NC Natural Heritage Program may follow this letter with additional correspondence if a Dedicated Nature Preserve, Registered Heritage Area, Clean Water Management Trust Fund easement, or an occurrence of a Federally-listed species is documented near the project area.

If you have questions regarding the information provided in this letter or need additional assistance, please contact Rodney A. Butler at rodney.butler@ncdcr.gov or 919-707-8603.

Sincerely,
NC Natural Heritage Program

Natural Heritage Element Occurrences, Natural Areas, and Managed Areas Intersecting the Project Area
 HERNDON FARMS
 Project No. 13862
 October 15, 2020
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Element Occurrences Documented Within Project Area

Taxonomic Group	EO ID	Scientific Name	Common Name	Last Observation Date	Element Occurrence Rank	Accuracy	Federal Status	State Status	Global Rank	State Rank
Natural Community	25454	Dry-Mesic Oak--Hickory Forest (Piedmont Subtype)	---	2014-10-09	C	2-High	---	---	G4G5	S4

Natural Areas Documented Within Project Area

Site Name	Representational Rating	Collective Rating
Bennett Mountain	R5 (General)	C5 (General)

No Managed Areas Documented within the Project Area

Definitions and an explanation of status designations and codes can be found at <https://ncnhde.natureserve.org/help>. Data query generated on October 15, 2020; source: NCNHP, Q3 July 2020. Please resubmit your information request if more than one year elapses before project initiation as new information is continually added to the NCNHP database.

Natural Heritage Element Occurrences, Natural Areas, and Managed Areas Within a One-mile Radius of the Project Area
 HERNDON FARMS
 Project No. 13862
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Element Occurrences Documented Within a One-mile Radius of the Project Area

Taxonomic Group	EO ID	Scientific Name	Common Name	Last Observation Date	Element Occurrence Rank	Accuracy	Federal Status	State Status	Global Rank	State Rank
Crustacean	25541	Cambarus davidi	Carolina Ladle Crayfish	2007-03-14	E	3-Medium	---	Significantly Rare	G3	S3
Natural Community	25454	Dry-Mesic Oak--Hickory Forest (Piedmont Subtype)	---	2014-10-09	C	2-High	---	---	G4G5	S4
Natural Community	37049	Low Elevation Seep (Floodplain Subtype)	---	2014-10-09	C	2-High	---	---	G4	S2
Natural Community	25574	Mesic Mixed Hardwood Forest (Piedmont Subtype)	---	2006	C	2-High	---	---	G3G4	S4
Natural Community	37048	Mesic Mixed Hardwood Forest (Piedmont Subtype)	---	2014-10-09	C	2-High	---	---	G3G4	S4
Natural Community	37051	Piedmont/Mountain Semipermanent Impoundment (Open Water Subtype)	---	2014-10-09	C	2-High	---	---	G4G5	S4
Natural Community	37050	Piedmont/Mountain Semipermanent Impoundment (Piedmont Marsh Subtype)	---	2014-10-09	B	2-High	---	---	G4?	S4
Vascular Plant	10956	Thermopsis mollis	Appalachian Golden-banner	1958-05-04	H	4-Low	---	Special Concern Vulnerable	G3G4	S2

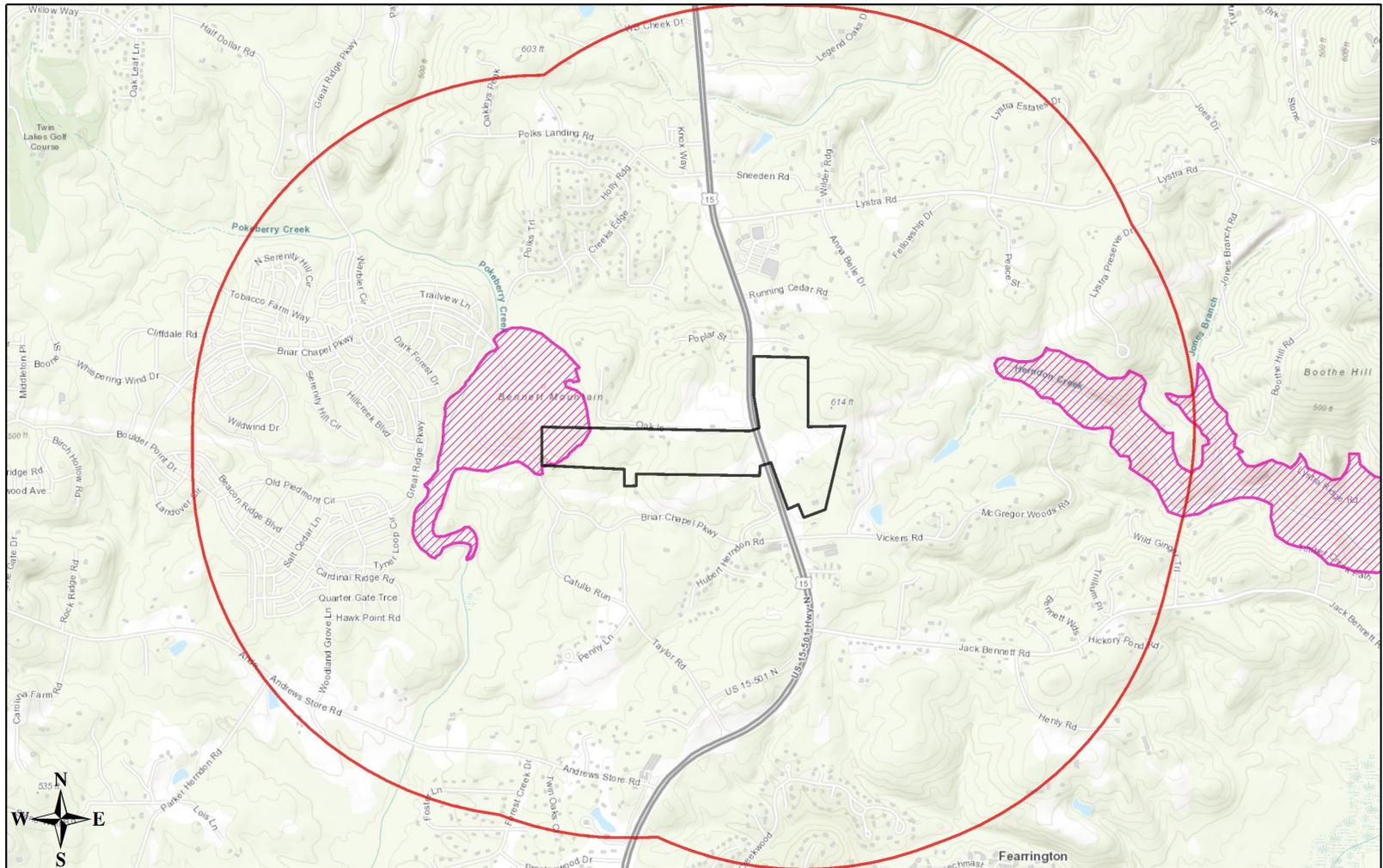
Natural Areas Documented Within a One-mile Radius of the Project Area

Site Name	Representational Rating	Collective Rating
Bennett Mountain	R5 (General)	C5 (General)
Herndon Creek Ravine	R5 (General)	C5 (General)

No Managed Areas are Documented Within a One-mile Radius of the Project Area

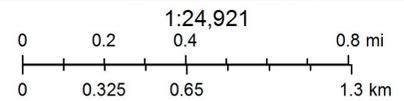
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-  Project Boundary
-  Buffered Project Boundary
-  NHP Natural Area (NHNA)



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

Scientific Name	Common Name	NC Status	Federal Status	County Status	Habitat Comment
Alasmidonta undulata	Triangle Floater	T	none	Current	Roanoke, Chowan, Tar, Neuse, Cape Fear drainages
Alasmidonta varicosa	Brook Floater	E	none	Current	Cape Fear drainage, also along Blue Ridge escarpment of Catawba and Yadkin-Pee Dee drainages
Ambloplites cavifrons	Roanoke Bass	SR	none	Current	streams in Neuse and Tar systems
Ammodramus savannarum	Grasshopper Sparrow	W1,W5	none	Current	pastures and other grasslands [breeding season only]
Anacamptodon splachnoides	Knothole Moss	W7	none	Historical	bark of trees
Anhinga anhinga	Anhinga	W2	none	Current	wooded lakes or ponds, or open swamps (for nesting) [breeding evidence only]
Baptisia albescens	Thin-pod White Wild Indigo	W1	none	Historical	open woodlands, clearings
Basic Mesic Forest (Piedmont Subtype)			none	Current	null
Cambarus davidi	Carolina Ladle Crayfish	SR	none	Current	Neuse and Cape Fear drainages (endemic to North Carolina)
Carex vestita	Velvet Sedge	SC-H	none	Historical	low woods
Catocala illecta	Magdalen Underwing	W3	none	Current	habitats not known
Choroterpes basalis	a mayfly	SR	none	Historical	Waccamaw River, Drowning Creek, Bear Creek, Lanes Creek, UT Laurens Creek, Dutchmans Creek
Clemmys guttata	Spotted Turtle	W1	none	Current	shallow water of pools, marshes, wet pastures and other smaller wetlands
Collinsonia tuberosa	Piedmont Horsebalm	SC-V	none	Current	rich hardwood forests
Corallorhiza odontorhiza	Autumn Coral-root	W1	none	Historical	forests
Cryphaea ravenelii	A Thread Cedar Moss	W7	none	Historical	on bark of trees
Dicentra cucullaria	Dutchman's Breeches	W6	none	Historical	rich, moist forests
Dichantheium annulum	Ringed Witch Grass	SR-P	none	Historical	dry sandy or rocky open woods and borders of thickets
Dirca palustris	Leatherwood	W1	none	Historical	rich woods, either alluvial or over mafic or calcareous rocks
Dry Basic Oak--Hickory Forest			none	Current	null
Dry Oak--Hickory Forest (Piedmont Subtype)			none	Current	null
Dry-Mesic Basic Oak--Hickory Forest (Piedmont Subtype)			none	Current	null
Dry-Mesic Oak--Hickory Forest (Piedmont Subtype)			none	Current	null
Echinacea purpurea	Purple Coneflower	SC-V	none	Current	open woods and clearings
Elliptio cistellaeformis	Box Spike	W3,W5	none	Current	Neuse, Lumber, Pee Dee drainages; Lake Waccamaw
Elliptio congaraea	Carolina Slabshell	W2,W5	none	Current	drainages north to the White Oak drainage
Elliptio producta	Atlantic Spike	W3,W5	none	Current	many Atlantic drainages; very difficult to identify
Elliptio roanokensis	Roanoke Slabshell	SC	none	Current	Roanoke, Tar, Neuse, White Oak, Cape Fear, Lumber, and Yadkin-Pee Dee drainages
Enemion biternatum	Eastern Isopyrum	SC-V	none	Historical	rich bottomlands, levees, and lower slopes
Etheostoma collis	Carolina Darter	SC	none	Current	Roanoke, Tar, Neuse, Cape Fear, Yadkin-Pee Dee, and Catawba drainages
Etheostoma flabellare	Fantail Darter	W5	none	Current	Cape Fear, Neuse, and Tar drainage populations have limited distribution; Pee Dee, Roanoke, New, and French Broad populations stable
Eupatorium altissimum	Tall Boneset	W1	none	Current	woodlands, openings, and old fields over mafic rocks
Eurybia spectabilis	Showy Aster	SR-O	none	Current	pine barrens and woodland borders
Floodplain Pool			none	Current	null
Fothergilla major	Large Witch-alder	SR-T	none	Current	dry ridgetop or bluff forests, seepage wetlands, and Piedmont longleaf pine forests
Funaria serrata	A Cord Moss	W7	none	Historical	on soil of disturbed places, near streams or ditches
Fusconaia masoni	Atlantic Pigtoe	E	PT	Current	Roanoke, Tar, Neuse, Cape Fear, Yadkin-Pee Dee drainages
Gillenia stipulata	Indian Physic	T	none	Historical	forests and open woods, mainly over mafic rocks
Gomphurus dilatatus	Blackwater Clubtail	W3	none	Current	rivers

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Gomphurus septima	Septima's Clubtail	SR	none	Current	rocky rivers
Haliaeetus leucocephalus	Bald Eagle	T	BGPA	Current	mature forests near large bodies of water (nesting); rivers, lakes, and sounds (foraging) [breeding evidence only]
Hemidactylum scutatum	Four-toed Salamander	SC	none	Current	pools, bogs, and other wetlands in hardwood forests
Hesperia leonardus	Leonard's Skipper	W2	none	Current	wooded borders and openings, brushy fields; host plants -- grasses
Hexastylis lewisii	Lewis's Heartleaf	W1	none	Current	mesic mixed hardwood forests, streamhead pocosin ecotones
Hubbellia marginifera	Pine Katydid	W3	none	Current	pinewoods
Hylogomphus apomyius	Banner Clubtail	W3	none	Current	spring-fed streams
Isoetes virginica	Virginia Quillwort	SR-L	none	Historical	upland depression swamp forests, clayey soils
Juncus brachycarpus	Whiteroot Rush	W7	none	Historical	wet sandy soil
Krigia biflora var. biflora	Two-flower Dwarf-dandelion	W7	none	Historical	rich mesic woods
Lampsilis cariosa	Yellow Lampmussel	E	none	Current	Chowan, Roanoke, Neuse, Tar, Cape Fear, Lumber, Yadkin-Pee Dee drainages
Lampsilis radiata	Eastern Lampmussel Chameleon	T	none	Current	Chowan, Roanoke, Tar, Neuse, Cape Fear, Yadkin-Pee Dee drainages
Lampsilis sp. 2	Lampmussel	SR	none	Current	Tar, Neuse, Cape Fear, and Yadkin-Pee Dee drainages
Lampsilis splendida	Rayed Pink Fatmucket	SR, SC,	none	Current	Lake Waccamaw and Waccamaw River, Yadkin-Pee Dee River
Lanius ludovicianus	Loggerhead Shrike	W2	none	Current	fields and pastures [breeding season only]
Leersia lenticularis	Catchfly Cutgrass	SR-P	none	Current	low woods
Ligumia nasuta	Eastern Pondmussel	T	none	Current	Chowan, Roanoke, Neuse, Tar, Cape Fear, and Yadkin-Pee Dee drainages
Lindera subcoriacea	Bog Spicebush	SR-T	none	Current	streamhead pocosins, white cedar swamps, seepage slopes
Lophodytes cucullatus	Hooded Merganser	W3	none	Current	lakes and ponds, with dead trees for nesting [breeding evidence only]
Low Elevation Seep (Floodplain Subtype)			none	Current	null
Low Elevation Seep (Typic Subtype)			none	Current	null
Lytrosis permagnaria	A Geometrid Moth	SR	none	Current	apparently in mixed forests
Mesic Mixed Hardwood Forest (Piedmont Subtype)			none	Current	null
Mixed Moisture Hardpan Forest			none	Current	null
Monotropsis odorata	Sweet Pinesap	SC-V	none	Current	dry forests and bluffs
Moxostoma sp. 3 (syn. Moxostoma sp. cf. erythrurum)	Carolina Redhorse	T	none	Current	Cape Fear and Pee Dee drainages
Mustela frenata	Long-tailed Weasel	W3	none	Current	forests, brushy areas sedgy wetlands, including sandhill seeps, pocosin ecotones, and drained beaver ponds in the Sandhills, low pocosins in the northeast Coastal Plain, and v
Neonympha helicta	Helicta Satyr Cinnamon	SR	none	Historical	plants -- sedges
Neurocordulia virginienis	Shadowdragon	W3	none	Current	large rivers
Notropis mekistocholas	Cape Fear Shiner	E	E	Current	Cape Fear drainage (endemic to North Carolina)
Ophisaurus attenuatus	Slender Glass Lizard	SR	none	Historical	old fields, wooded edges, open woods
Paectes nubifera	Clouded Paectes Moth	W3	none	Current	no habitat information
Paspalum fluitans	Horsetail Crown Grass	SR-P	none	Historical	drawdown riverbanks and seepage areas in swamp forests
Perimyotis subflavus	Tricolored Bat	SR	none	Current	roosts in clumps of leaves (mainly in summer), caves, rock crevices, and other dark and sheltered places
Peucaea aestivalis	Bachman's Sparrow	SC	none	Historical	open longleaf pine forests, old fields [breeding evidence only]
Phacelia covillei	Buttercup Phacelia Double-crested	SR-T	none	Current	bottomlands, rich lower slopes
Phalacrocorax auritus	Cormorant	SR	none	Historical	lakes with scattered trees, coastal sand bars (nesting) [breeding evidence only]
Phanogomphus quadricolor	Rapids Clubtail	SR	none	Historical	rocky rivers
Picoides borealis	Red-cockaded Woodpecker	E	E	Historical	mature open pine forests, mainly in longleaf pine [breeding evidence only]

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Piedmont Alluvial Forest			none	Current	null
Piedmont Basic Glade (Typic Subtype)			none	Current	null
Piedmont Boggy Streamhead			none	Current	null
Piedmont Bottomland Forest (High Subtype)			none	Current	null
Piedmont Bottomland Forest (Typic Low Subtype)			none	Current	null
Piedmont Cliff (Acidic Subtype)			none	Current	null
Piedmont Headwater Stream Forest (Typic Subtype)			none	Current	null
Piedmont Levee Forest (Typic Subtype)			none	Current	null
Piedmont Monadnock Forest (Typic Subtype)			none	Current	null
Piedmont Swamp Forest			none	Current	null
Piedmont/Coastal Plain Heath Bluff			none	Current	null
Piedmont/Mountain Semipermanent Impoundment (Open Water Subtype)			none	Current	null
Piedmont/Mountain Semipermanent Impoundment (Piedmont Marsh Subtype)			none	Current	null
Piedmont/Mountain Semipermanent Impoundment (Shrub Subtype)			none	Current	null
Pinus strobus	Eastern White Pine	W6	none	Historical	dry to moist woods and old fields
Plagiochila undata	A Liverwort	W7	none	Historical	on rocks or bark
Pontia protodice	Checkered White	SR	none	Current	fields, pastures; host plants -- mustard species (Family Brassicaceae)
Ptilimnium nodosum	Harperella	E	E	Current	rocky riverbeds
Quercus muehlenbergii	Chinquapin Oak	W1	none	Current	calcareous forsts and bluffs
Quercus palustris	Pin Oak	W1	none	Historical	swamps
Rallus elegans	King Rail	W1,W3	none	Current	fresh to slightly brackish marshes [breeding evidence only]
Rocky Bar and Shore (Mixed Bar Subtype)			none	Current	null
Rocky Bar and Shore (Southern Wild Rice Subtype)			none	Current	null
Rocky Bar and Shore (Water Willow Subtype)			none	Current	null
Schoenoplectus pungens	Three-square Bulrush	W6	none	Historical	marshes and rocky river bottoms
Sciurus niger	Eastern Fox Squirrel	W2	none	Current	open forests, mainly longleaf pine/scrub oak
Scutellaria nervosa	Veined Skullcap	E	none	Historical	alluvial forests
Scutellaria ovata ssp. bracteata	A Heartleaf Skullcap	W7	none	Historical	rich woods on circumneutral soil
Sium suave	Hemlock Water-parsnip	W6	none	Historical	fresh or brachish marshes, swamps and creek margins
Somatochlora georgiana	Coppery Emerald	SR	none	Historical	creeks and other slow-moving acidic streams, in forested areas
Somatogyrus virginicus	Panhandle Pebblesnail	SR	none	Current	Eno River
Sphingicampa bicolor	Honey Locust Moth	W3	none	Current	on honey locust (Gleditsia)
Sphingicampa bisecta	Bisected Honey Locust Moth	SR	none	Current	habitats with honey locust (Gleditsia)
Strophitus undulatus	Creeper	T	none	Current	Roanoke, Tar, Neuse, Cape Fear, Yadkin-Pee Dee, Catawba, Broad, and French Broad drainages
Thermopsis mollis	Appalachian Golden-banner	SC-V	none	Historical	dry ridges and open woodlands
Thorybes confusus	Confused Cloudywing	W3	none	Current	dry woodland borders and openings, brushy fields; host plants -- legumes
Thuidium allenii	Fernmoss	W7	none	Historical	on soil, logs, exposed roots, and tree bases in swamps, often just above water line
Toxolasma pullus	Savannah Lilliput	E	none	Current	Cape Fear, Lumber, and Yadkin-Pee Dee drainages
Trifolium reflexum	Buffalo Clover	T	none	Historical	open woods and clearings
Upland Depression Swamp Forest			none	Current	null
Upland Pool (Typic Piedmont Subtype)			none	Current	null
Villosa constricta	Notched Rainbow	T	none	Current	Roanoke, Tar, Neuse, Yadkin-Pee Dee, and Catawba drainages

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Villosa delumbis	Eastern Creekshell	SR	none	Current	Cape Fear, Lumber, Yadkin-Pee Dee, and Catawba drainages
Villosa vaughaniana	Carolina Creekshell	E	none	Current	Cape Fear, Yadkin-Pee Dee, and Catawba drainages (endemic to North Carolina and adjacent South Carolina)
Virginia valeriae	Smooth Earthsnake	W2	none	Current	deciduous or mixed woods, usually in mesic soils
Waterbird Colony			none	Current	null
Xeric Hardpan Forest (Acidic Hardpan Subtype)			none	Current	null
Xeric Hardpan Forest (Basic Hardpan Subtype)			none	Current	null

* Federally Listed Species