

**CONSERVATION EASEMENT
BASELINE DOCUMENTATION REPORT
BARKER-MABRY
GRUNDY COUNTY, TENNESSEE
10-22-18**



Prepared by
Lead Author
Tom Howe, Biologist
Foothills Land Conservancy, Rockford, Tennessee

BASELINE DOCUMENT REPORT

BARKER-MABRY

CONSERVATION EASEMENT

Baseline data for Conservation Easement granted by John V. Barker et al in Grundy County, Tennessee, to Foothills Land Conservancy.

Prepared by:



**Lead Author: Tom Howe, Biologist
Foothills Land Conservancy**



**Document Development: Meredith Clebsch, Land Director
Foothills Land Conservancy**

Contributing Authors

Meredith Clebsch – supervised development of document.

Shelby Lyn Sanders – field work, document review and photos

Matthew Moore – field work, document review and photos

(See Preparer Qualifications below)

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PROJECT BRIEF

Size: Approximately 333.41 acres

Location: Grundy County, TN

USGS Quad: Collins

Elevation: c. 1,760' – 1,845' above mean sea level

Watershed: HUC 8: Collins River (05130107), HUC 12: Collins River Upper (051301070303)

Level IV Ecoregions: Cumberland Plateau #68a

The Barker-Mabry property (henceforth “the Property”) consists of approximately 333.41 acres of upland forest, fields and pine plantations in Gruelti-Laager, Grundy County, TN. It is north of County Highway 108 along Taylor Road. Round Mountain Creek crosses the Property west of Taylor Road and forms the boundary along its northwest side. Another creek flows through the eastern half. Both flow north to south and feed the Collins River within the abutting Savage Gulf State Natural Area.

The Property is being preserved for its open space, the State Wildlife Action Plan (SWAP) Allegheny-Cumberland Dry Oak Forest and Woodland, the Cumberland Seepage Forest, and the protection of the relatively natural habitat corridor for the wildlife, many Neotropical breeding birds and the rich plant life and GCN (Greatest Conservation Need) species it potentially supports. It is within several recognized priority conservation areas including the Tennessee State Wildlife Action Plan (SWAP) as indicated by purple in the map below (Fig. 1, NatureServe 2018a).

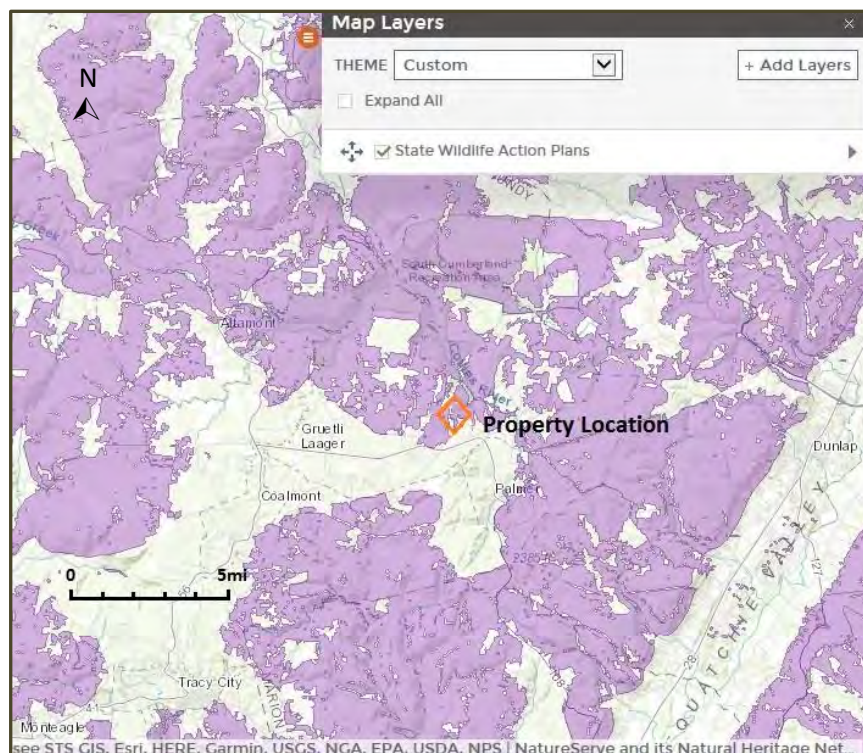


Figure 1 SWAP Priority Area in purple

BACKGROUND INFORMATION

OWNER ACKNOWLEDGEMENT OF CONDITION

This inventory is an accurate representation of the Protected Property at the time of the conveyance of the easement.

Date 10/22/2018

For the Grantors:

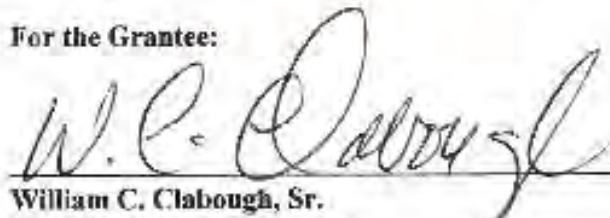

John V. Barker


Chris Barker


Don Mabry


Glenda Mabry

For the Grantee:


William C. Clabough, Sr.
Foothills Land Conservancy

OWNER INFORMATION

Attn: Don Mabry
1197 DeWitt Drive
Lenoir City, TN 37772

PURPOSE AND SUMMARY OF CONSERVATION EASEMENT PROVISIONS

It is the purpose of this Easement to assure that the Property will be retained forever in its current natural, scenic, forested, and/or open land condition and to prevent any use of the Property that will impair or interfere with the Conservation Values of the Property, subject only to the terms and provisions set forth herein. Grantor intends that this Easement will allow the use of the Property for such activities that are not inconsistent with the purposes of this Easement, including, without limitation, those involving agricultural and forest management, fire management and control, wildlife habitat improvement, hiking, and other private recreational uses that are not inconsistent with the purposes of this Easement.

Sections 3 and 4 of the Conservation Easement (CE) document contain the major provisions. The CE is attached herein as Exhibit A.

SIGNIFICANCE OF THE PROPERTY

The Foothills Land Conservancy Corporate Mission

The Foothills Land Conservancy is a tax-exempt, non-profit land conservation organization. Article V, Section 1 of the Foothills Land Conservancy Charter of Incorporation states that its purpose and objectives are to “work with public agencies, preservation and conservation-oriented organizations, property owners, and the interested public to encourage the preservation of natural and productive lands which contribute to the unique character and heritage of the foothills of the Great Smoky Mountains. The corporation will work to protect, preserve or enhance the land, water, geological, biological, historical, architectural, archeological, cultural or scenic resources of the foothills area and productive values of such lands in a manner consistent with its purpose and the purposes reflected in Tennessee Code Annotated, Section 64-9-301 et seq. (now 66-9-301 et seq.) and in conformance with Section 501c(3) of the Internal Revenue Code.” Section 3 further states the Conservancy is “to acquire, through gift, sale or other lawful means, interests in real property as necessary and convenient to protect such characteristics, which may include but are not limited to agricultural productivity, ecological integrity, historic characters, or managed public access.” This easement meets the purpose of the organization by conserving land, watershed, forestry, ecological and historical values.

Tennessee Agricultural, Forestry and Open Space Resource Preservation Act

Tennessee Code Annotated 67-5-1002 states, “The general assembly finds that: (1) The existence of much agricultural, open space and forest lands is threatened by pressure from urbanization, scattered residential and commercial development, and the system of property taxation (2) The preservation of open space in or near urban areas contributes to: (A) The use, enjoyment and economic value of surrounding residential, commercial, industrial or public lands; (B) The conservation of natural resources, water, air, and wildlife; (C) The planning and preservation of and open condition for the general welfare; (D) A relief from the monotony of continued urban sprawls; and (E) An opportunity for the study and enjoyment of natural areas by urban and suburban resident.” This conservation easement serves the open space, habitat protection, watershed protection, and offset of development pressure needs of the state of Tennessee.

Tennessee Conservation Easement Act of 1981

Tennessee Code Annotated 66-0-302 states, “It is the finding of the general assembly that the protection of the state’s land, water, geological, biological, historical, architectural, archaeological, cultural, and scenic resources is desirable for the purposes of maintaining and preserving the state’s natural and cultural heritage, and for assuring the maintenance of the state’s natural and social diversity and health, and for encouraging the wise management of productive farm and forest land.” This conservation easement is pursuant to that act.

**FOOTHILLS LAND CONSERVANCY BOARD OF DIRECTOR'S RESOLUTION
ACCEPTING CONSERVATION EASEMENT**

Date: 10/11/2018

The Board of Directors of the Foothills Land Conservancy, a private non-profit corporation, hereby authorizes the acceptance of a conservation easement if offered from John V. Barker et al, Grundy County, Tennessee

Madge Cleveland
Madge Cleveland, President

Mark Jendrick
Mark Jendrick, Secretary

MINUTES OF MEETING AT WHICH THE EASEMENT WAS ACCEPTED

(excerpted)

Minutes of the Meeting of the Board of Directors of the Foothills Land Conservancy October 11, 2018, at the offices of FLC, 3402 Andy Harris Road – Rockford, TN 37853

Notice of the October 2018 meeting, agenda and the September 2018 minutes were distributed on October 4, 2018. The financials ending 9-30-2018 were provided during the Board Meeting. The following members were in attendance at the October 11, 2018 meeting: Dan Barnett, Madge Cleveland, Jenny Hines, Craig Jarvis, David Long, Billy Minser, Mike Parish, Steve Polte, John Proffitt, Sara Fortune Rose, John Wilbanks, and David Zandstra. Members not in attendance were Sherry Browder and Mark King. Non-voting Recording Secretary, Mark Jendrek, was in attendance. The members in attendance during the meeting's discussion and voting constituted a quorum. FLC staff members, Bill Clabough, Meredith Clebsch, and Elise Eustace were present.

Call to Order

President, Madge Cleveland, called the meeting to order at 6:02pm.

Committee as a Whole - Land Protection Committee

At 6:09pm a motion was made by David Long for FLC's Board of Directors to go into session as a Committee as a Whole for the Land Protection Committee in order to review potential conservation easement and fee simple projects. This motion was seconded by Mike Parish. The motion carried.

Meredith Clebsch reviewed a PowerPoint of the 7 conservation easement projects for final approval and 6 conservation easement projects for pre-approval, which included:

Approval	Project	County	State	~Acres	New House sites	Scenic	Nat Res	Open Space	Agric
FINAL	Barker/Mabry	Grundy	TN	333.41	3	✓	✓	✓	✓

Billy Minser made the motion for The Committee as a Whole to recommend to the full Board Final approval of the following projects, if offered and subject to any changes being made: Nolen Lake, LLC, Barker/Mabry, Channel Pointe Reserve, LLC, Fredonia Mountain Reserve, LLC, Greenwood/Wolter, Monteagle Mountain Lake Reserve, LLC, and Monteagle Mountain Reserve, LLC. It was seconded by John Proffitt. David Long recused himself from voting. The motion passed.

Land Protection Committee

Mike Parish led the land protection committee report. Land Protection Committee made the motion to accept for final approval the 7 conservation easement projects of Nolen Lake, LLC, Barker/Mabry, Channel Pointe Reserve, LLC, Fredonia Mountain Reserve, LLC, Greenwood/Wolter, Monteagle Mountain Lake Reserve, LLC, and Monteagle Mountain Reserve, LLC, if offered and subject to any changes being made and the pre-approval of 6 conservation easement projects of Tensaw Creek, LLC, Eton Materials, LLC, Cypress Creek Resources, LLC, Cedar Creek, LLC, Joe Don House, and Oakley-Clark Range if offered and subject to any changes being made. Dan Barnett seconded the motion. David Long recused himself from voting. The motion carried.

The Committee as a Whole adjourned at 6:41pm and went back into the Board Meeting.

RECITALS
from BARKER-MABRY
CONSERVATION EASEMENT
(from CE of 10-18-2018)

(any reference to “Exhibits” in this section refers to the CE document)

WHEREAS, Grantor is the owner in fee simple of real property containing approximately three hundred thirty-three and 41/100 (333.41) acres located in Grundy County, Tennessee, more particularly described in Exhibit "A" attached hereto and incorporated herein by this reference (the "Property") and depicted on the survey attached hereto as Exhibit "B" over which Grantor wishes to grant Grantee a conservation easement; and

WHEREAS, the Property is visible from public roadways (including from Taylor Road, 55th Avenue, and Coffelt Town Road), thus protection of the Property preserves a natural scenic view to travelers along 55th Avenue accessing Savage Gulf State Natural Area's ("SNA") Collins Gulf access point as well as the general public; and

WHEREAS, the Property's north boundary abuts the 15,590 acre Savage Gulf Class II Natural-Scientific SNA for approximately two-thirds (2/3) of a mile, and preservation of the Property will serve as a buffer to protect the integrity of this SNA, which is described by the Tennessee Department of Environment & Conservation ("TDEC") as one of Tennessee's most scenic wilderness areas; and

WHEREAS, the Property contributes to the ecological viability of the area in the vicinity of Round Mountain Creek, Collins River and the Collins River watershed (collectively, the "Wildlife Areas"); and

WHEREAS, the Property contains the Mixed Mesophytic forest type, which is classified as "Globally Outstanding", has a conservation status classification of "Critically Endangered," and is considered by a number of conservation organizations such as The Nature Conservancy ("TNC") and the World Wildlife Fund ("WWF") to be one of the most biologically rich regions on Earth, has experienced increased development which has resulted in fragmentation and degradation of the area's rich forests and pure streams, and protection of the Property helps preserve this ecologically important forest type on the Property; and

WHEREAS, the Property is located in an area which has a high degree of green infrastructure connectivity with surrounding forests based on the Morphological Spatial Pattern Analysis ("MPSA") from the Environmental Protection Agency, and protection of the Property contributes to the overall health of the ecosystem whose large connected tracts of forest support biota which fragmented forests will not; and

WHEREAS, the Property is located in a region identified as being above average in resilience, and protection of the Property can act as a refuge for flora and fauna through what is expected to be an extended and unpredictable change in climate and helps promote landscape diversity and connectedness which are critical elements for persistence of species during a changing

climate; and

WHEREAS, the Property and nearby areas were targeted by the Tennessee Heritage Conservation Trust Fund Act of 2005 as conservation areas of interest that should be preserved to protect the state's physical, cultural, archeological, historical and environmental resources, and protection of the Property furthers the goals of such preservation efforts; and

WHEREAS, the Property was deemed by both the Tennessee Forest Legacy Program and the Tennessee Heritage Conservation Trust Fund Act as being among important private forestlands that are threatened by conversion to non-forest uses and in need of protection, and protection of the Property against conversion to non-forest uses furthers the goals of such preservation efforts; and

WHEREAS, the Property is within TNC's Mid-Cumberland Gorges terrestrial priority conservation area, and such conservation area includes three (3) forest communities in need of protection, including Dry Oak Forest and Mesophytic Forest which are found on the Property, and may support target species including one (1) endangered mammal and another mammal in need of management; two (2) endangered plant species, one (1) threatened and one (1) species of special concern; and a suite of neo-tropical migratory bird species; and

WHEREAS, the Property contains habitat which has been deemed a very high conservation priority in the Cumberland Plateau Ecoregion by the Tennessee State Wildlife Action Plan ("TN SWAP"), namely the Allegheny-Cumberland Dry Oak Forest and Woodland, and protection of the Property will ensure this habitat remains, support terrestrial and aquatic resources within the region, and further support the goals of the TN SWAP; and

WHEREAS, the Property contains a rare plant community along the north boundary of the Property known as Cumberland Seepage Forest, which is a state ranked S2S3, rare to very rare in Tennessee and is recognized by the Tennessee Forestry Association as a plant community of concern in Tennessee, and protection of the Property helps preserve this rare plant community and related habitats; and

WHEREAS, the Property and its forest habitats may be suitable for over one hundred (100) species of greatest conservation need according to the TN SWAP, including species of bats the U.S. Fish and Wildlife Service declares are in dire need of protection as they are susceptible to the white-nose syndrome which is decimating bat populations, and protection of the Property and its habitats will help such species remain, support terrestrial and aquatic resources within the region, and further uphold the goals of the TN SWAP and TNC's Ecoregion Plan; and

WHEREAS, the Property is quite diverse in total vascular plants with one hundred and sixty-eight (168) vascular plant species observed during a June 2018 site visit, including twenty-nine (29) tree species, as well as thirty-one (31) birds, eight (8) butterflies, six (6) dragonflies and two (2) mammals, including the state-ranked Diana Fritillary butterfly species which is ranked S3 in Tennessee (rare to uncommon); and

WHEREAS, the Property is located within five (5) miles of twenty-three (23) rare, threatened and endangered species of plants, animals and one plant community (Cumberland

Seepage Forest) reported by TDEC, and the seepage forest on the Property is the habitat in which two (2) of such threatened plants live and could be found there at the proper seasons, namely the white fringeless orchid (*Plantanthera integrilabia*) and spinulose shield fern (*Dryopteris carthusiana*), and protection of the Property may preserve habitat beneficial to such imperiled species; and

WHEREAS, three (3) species of conservation concern in Tennessee, as recognized by the Appalachian Mountains Joint Venture, were observed on the Property during a June 2018 site visit, including the Wood Thrush (*Hylocichla mustelina*) and the Prairie Warbler (*Setophaga discolor*), which are in the “very highest” concern category and also recognized as species of greatest conservation need in the TN SWAP, and the Hooded Warbler (*Setophaga citrina*), which is of “high concern;” and

WHEREAS, twenty-three (23) species of Neotropical migrant birds were observed on the Property during a June 2018 site visit, and the deciduous forest, forest road edges and woodland openings on the Property may provide prime breeding and migration habitats for such Neotropical migratory birds, which are protected under the Neotropical Bird Conservation Act of 2000, and protection of the Property and its forest habitats preserve a habitat pool for migration and breeding, which is a priority for conservation of populations of Neotropical and many other songbirds which are in decline; and

WHEREAS, the Property is located within the TNC’s Collins River aquatic priority conservation area, which includes species targeted for protection including three (3) fish, one (1) crayfish, one (1) dragonfly, four (4) mussels, and two (2) snails as well as four (4) aquatic systems recommended for protection, and protection of the Property will help protect the water quality and biodiversity in such priority area; and

WHEREAS, the Property’s forests are rated by the TN SWAP with a medium to very high priority upstream of aquatic habitats within a critical watershed for freshwater species, and protection of the Property may help conserve the biodiversity in the ecoregion; and

WHEREAS, the Property is located in Grundy County, Tennessee, which, according to the TDEC, is the home of thirty-five (35) endangered and threatened plant and animal species, plus twenty-eight (28) additional species of special concern, including seven (7) species rank endangered at the federal level, that could be benefitted by the preservation of the Property and its natural habitats; and

WHEREAS, protection of the Property could impact ten (10) federally-listed endangered and threatened species according to the U.S. Fish and Wildlife Service; and

WHEREAS, the Property is located in an area which has seen housing density approximately double since the 1970’s, and preservation of the Property will act as a buffer against increasing urbanization, which is one of the major concerns of the Tennessee Wildlife Resources Agency’s Strategic Plan for 2006-2012; and

WHEREAS, the Property will protect a portion of land designated as a USDA Prime

Farmland Soil, which the U.S. Department of Agriculture recognizes as an important resource since the supply of high quality farmland is so limited; and

WHEREAS, protection of the Property prevents additional light pollution, which is important for both human enjoyment of the night sky and landscape as well as for bird migration and protection of moths and other insect species which are the basis of many bird diets; and

WHEREAS, protection of the Property increases the acreage of conserved lands in Grundy County, Tennessee generally and thus helps maintain landscape connectivity in the region, supports continuity of habitat corridors between the Property and other open space lands in the region and minimizes habitat degradation; and

WHEREAS, the Property includes multiple habitat types, water sources and contiguous forested areas which offer generous natural resources for many plant species plus resident and migratory wildlife and fish species; and

WHEREAS, Grantor certifies that the Property possesses ecological, natural, scenic, agricultural, forested, open land, and wildlife and fish habitat values (collectively, "Conservation Values") of great importance to Grantor, the people and visitors of Grundy County and the people and visitors of the State of Tennessee and which further contributes to the national goals to conserve scenery and wildlife for the enjoyment of future generations; and

WHEREAS, Grantor certifies that the Property possesses ecological, natural, agricultural, scenic and other Conservation Values in its present state as a large natural area; and

WHEREAS, the Property remains substantially undeveloped and is contiguous with larger tracts of both forested lands and its preservation is desirable for aesthetic, silvicultural, agricultural, and ecological reasons; and

WHEREAS, the areas around and in the vicinity of the Wildlife Areas in southeastern middle Tennessee, around and in the vicinity of Grundy County, Tennessee and regionally around the metropolitan areas of Chattanooga, Tennessee are rapidly developing regions, and large tracts of natural lands are immediately threatened with residential, commercial and industrial development; and

WHEREAS, the specific Conservation Values of the Property are further documented in an inventory of relevant features of the Property on file at the offices of Grantee ("Baseline Documentation"), which consists of reports, maps, photographs, and other documentation that Grantor certifies provide, collectively, an accurate representation of the Property at the time of this grant, and which is intended to serve as an objective, though nonexclusive, information baseline for monitoring compliance with the terms of this grant; and

WHEREAS, the Conservation Values are of great importance to Grantor, to Grantee and to the people of Tennessee and this nation; and

WHEREAS, Grantor intends that all other Conservation Values of the Property also be

preserved and maintained by prohibiting those land uses on the Property that impair or interfere with them; and

WHEREAS, Grantor further intends, as the owner of the Property, to convey to Grantee the right to preserve and protect the Conservation Values of the Property in perpetuity; and

WHEREAS, Grantee is a publicly supported, tax-exempt nonprofit organization and is a "qualified organization" under Sections 501(c)(3), 170(b)(1)(A)(vi) and 170(h)(3), respectively, of the Internal Revenue Code of 1986, as amended, and the regulations promulgated thereunder (the "Code"), an "eligible donee" within the meaning of Treasury Regulation Section 1.170A-14(c)(1), whose primary purpose is to preserve land, water, air, wildlife, scenic qualities and open space by implementing programs for protecting unique or rare natural areas, water front, stream corridors and watersheds; and

WHEREAS, Grantee has a commitment to protect the Conservation Values of the Property and has the resources to enforce conservation restrictions; and

WHEREAS, preservation of the Property shall serve the following purposes (the "Conservation Purposes"):

(a) Preservation of the Property as a viewshed and open space for the scenic enjoyment of the general public, which will yield a significant public benefit within the meaning of § 170(h)(4)(A)(iii)(I) of the Code;

(b) Preservation of the Property provides for the protection of a significantly relatively natural habitat of fish, wildlife, plants or similar ecosystems within the meaning of § 170(h)(4)(A)(ii) of the Code; and

(c) Preservation of the Property as open space (including farmland and forest land) where such preservation is for the scenic enjoyment to the general public and will yield a significant public benefit and where such preservation is pursuant to a clearly delineated Federal, State or local government conservation policy which provides significant public benefit within the meaning of § 170(h)(4)(A)(iii)(II) of the Code and this Easement will benefit the public by preserving valuable farm and forest resources in the State of Tennessee; and

WHEREAS, this Easement constitutes a "qualified real property interest" as established in § 170(h)(2)(C) of the Code; and

WHEREAS, Grantor and Grantee desire to perpetually conserve the natural, agricultural, silvicultural, scientific, educational, open space and scenic resources of the Property to accomplish the Conservation Purposes and will work together to fulfill the Conservation Purposes; and

WHEREAS, Grantor intends to grant the easement and impose the restrictive covenants on the Property as set forth in this Easement to accomplish the Conservation Purposes.

LEGAL CONDITION

DEED OF CONSERVATION EASEMENT WITH PROPERTY DESCRIPTION

(See Exhibit A)

(Copies will reside in the files of the Donor, the Donee, and the Grundy County, Tennessee Register of Deeds)

CONSERVATION VALUES

The conservation values that make the Barker-Mabry property unique are described below and are detailed in the recitals (the “Whereas” statements) in the Conservation Easement. All field data was gathered on site visits made on 06-20-2018 by Meredith Clebsch, Land Director, Tom Howe, Biologist, Matt Moore, Conservation Assistant and Shelby Lyn Sanders, Wildlife Biologist with the Foothills Land Conservancy.

NATURAL HABITAT

Landscape and Conservation Context

The Barker-Mabry property is in a unique and ecologically important landscape. Per the TN Department of Environment & Conservation (TDEC), it lies within the Cumberland Plateau Ecoregion #68a (TDEC, 2018a). The Property’s north boundary abuts the 15,590 acre Savage Gulf Class II Natural-Scientific State Natural Area (SNA) for approximately two-thirds of a mile. Two creeks, each with its own tributary, flow through the Property from south to north and feed the Collins River inside the SNA which is described by TN Department of Environment & Conservation (TDEC) as one of Tennessee’s most scenic wilderness areas (TDEC, 2018b).

We entered the Property along Taylor Road at the mid-point of its southern boundary. This heads generally northeast through some recently cleared fields to the boundary with Savage Gulf. To the east were mostly uniform oak forests with mesic forest along one major creek. The west side was more mixed with oak forests and young pine forests on the higher ground with extensive mesic forests along the slopes above Round Mountain Creek which forms much of the Property’s western boundary. Coffelt Town Road, which skirts the southern boundary and exits the southwest corner, traverses all the above forest types plus patchy scrubby open areas of ruderal forests.

The general forest type for the region is Mixed Mesophytic, which is considered by a number of conservation organizations such as The Nature Conservancy (TNC) and the World Wildlife Fund (WWF) to be “one of the most biologically rich regions on Earth, rivaling the biodiversity of tropical rainforests” and “has become increasingly attractive to developers of second homes and vacation getaways. The result of development is fragmentation and degradation of the area’s rich forests and pure streams” (Kingsbury, 2018). The distinctiveness of this forest type is classified as Globally Outstanding, and the conservation status is classified as Critically Endangered (WWF, 2018).

The national Morphological Spatial Pattern Analysis, which maps green infrastructure, characterizes much of the Property as having a high degree of connectivity with surrounding forests (Fig. 2, NatureServe, 2018b). This

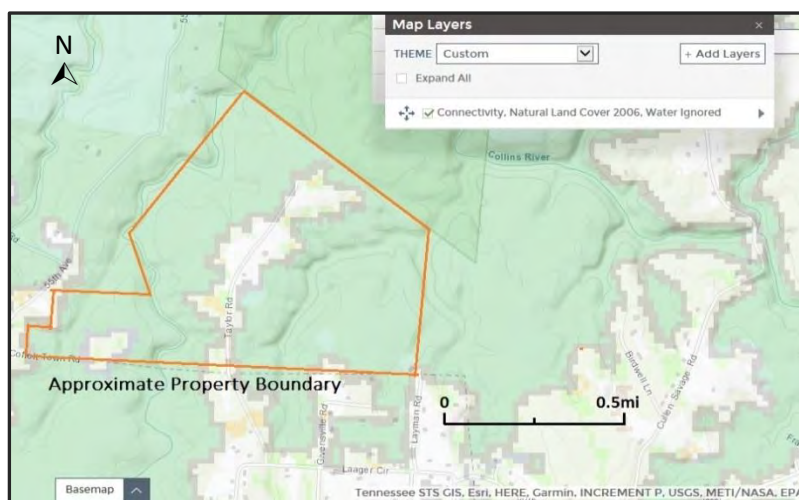


Fig. 2 Forest infrastructure connectivity in green

contributes to the overall health of the ecosystem whose large connected tracts of forest support biota which fragmented forests will not.

Landscape diversity and connectedness are acknowledged as critical elements for the persistence of species during a changing climate. This region has been identified as being above average in resilience, which, if protected, can act as a refuge for flora and fauna through what is expected to be an extended and unpredictable change in climate (Conservation Biology Institute, 2018a). This adds to its potential overall habitat value and ecological importance.

The Property is within the TN SWAP, and The Nature Conservancy's terrestrial and aquatic priority conservation areas. Details will be discussed below under *Habitats & Biodiversity*. Both the Tennessee Forest Legacy Program (Conservation Biology Institute, 2018b) and The Tennessee Heritage Conservation Trust Fund Act of 2005 (Conservation Biology Institute, 2018c) deemed the Property as being among important private forestlands that are threatened by conversion to non-forest uses and in need of protection.

Habitats & Biodiversity

Since fragmentation from logging and development are considered the primary threats to these ecoregions, one of the top priorities of conservation organizations is protecting large interconnected blocks of mature forests in hopes of relieving stress on GCN species. A few of these common stressors might include isolation from habitats and resources needed for life cycle completion (migration, dispersal, recolonization, foraging, mating), and isolation resulting in reduced opportunity for range adjustment in response to changing environmental conditions (TWRA, 2015a).

The Property is within The Nature Conservancy's Mid-Cumberland Gorges terrestrial priority conservation area. Target species this area supports includes: 1 endangered mammal and another in need of management; 2 endangered plants, 1 threatened, and another of special concern; and a suite of neotropical migratory bird species. Three forest communities needing protection are also in this region including Dry Oak Forest and Mesophytic Forest more particularly described below.

The National Land Cover Gap Analysis Land Cover Viewer maps three main forest types on the Property which agree with our findings on the ground (see the Land Use Map in the Maps Section). The Allegheny-Cumberland Dry Oak Forest and Woodland habitat (NatureServe identifier CES202.359) dominates much of the eastern half of the Property. It is classified as being of very high conservation priority by the Tennessee Wildlife Resources Agency's (TWRA) State Wildlife Action Plan (SWAP) (TWRA, 2015b). The SWAP's purpose is to "focus on practical, proactive measures to conserve and restore important lands and waters, curb establishment of invasive species and address other pressing conservation needs" in an effort to maintain and enhance the rich biodiversity of the area (NatureServe, 2018c). Intact natural ecosystems are considered important and valuable resources that this conservation also seeks to protect.

The oak forest is described by NatureServe (2018d) as "dry hardwood forests mainly on acidic soils in the Allegheny and Cumberland Plateaus". The canopy is dominated by chestnut oak (*Quercus montana*), white oak (*Quercus alba*), black oak (*Quercus velutina*), pignut hickory (*Carya glabra*) and black gum

(*Nyssa sylvatica*). The mix of species includes some more mesic elements such as tulip poplar (*Liriodendron tulipifera*) as it intergrades with the mesophytic forest near the drainages.

Next, the South-Central Interior Forest (CES202.887) is located in the drainages and on slopes above them, particularly on the west side above Round Mountain Creek. This forest is described by NatureServe (2018e) as a “high-diversity, predominately deciduous forest on deep and enriched soils...usually in somewhat protected landscape positions such as coves or lower slopes.” This forest on the Property is dominated by white oak (*Quercus alba*), red maple (*Acer rubrum*), tulip poplar (*Liriodendron tulipifera*), red oak (*Quercus rubra*) and umbrella tree (*Magnolia tripetala*).

Predominating in the north, but scattered elsewhere, is the Southern Appalachian Low Mountain Pine Forest (CES202.332). This is dominated by Virginia Pine (*Pinus virginiana*) with lesser amounts of oaks and hickories. There are small remnant stands of planted Loblolly Pine (*Pinus taeda*), but most of the plantations had been cut.

Smaller still, but perhaps the most significant forest on the Property to be conserved by this easement, is an area along the north boundary of Cumberland Seepage Forest (CES202.361). This is a rare plant community, acknowledged by TDEC (2018c) under its NatureServe association name *Acer rubrum* var. *trilobum* - *Nyssa sylvatica* / *Osmunda cinnamomea* - *Carex intumescens* / *Sphagnum lescurii* Seep Forest (CEGL007443). It is state ranked S2S3, rare to very rare in Tennessee. It is also recognized by the Tennessee Forestry Association (2018) as a plant community of concern in Tennessee. Plants characteristic of this habitat are indicated with a † in the Observed Species List table below.

The potential value of the Property’s forests is supported by the TN SWAP’s ranking of preferred, suitable, and marginal preferences that GCN species have for each forest type (TWRA, 2015c). The mesophytic forest is considered preferred habitat for 1 bat, 2 birds, 4 mammals and 6 plant species. It is suitable for an additional 96 GCN species. The dry oak forest is preferred habitat of 2 bats, 2 amphibians, 8 birds, 2 mammals, 2 reptiles and 1 plant, plus it is suitable for an additional 67 GCN species. Included in the lists are species of bats the U.S. Fish and Wildlife Service (USFWS) declares are in dire need of protection as they are susceptible to the white-nose syndrome which is decimating bat populations (USFWS, 2018a). This brings the total known GCN potential for the Property to well over 100 species (see tables below). Protection of these habitats will help these species remain, support terrestrial and aquatic resources within the region, and will further uphold the goals of the Tennessee State Wildlife Action Plan and TNC’s Ecoregion Plan (TNC, 2003).

The Property proved quite diverse in total vascular plants. One hundred and sixty-eight species were found which included 29 tree species. TDEC reports that 23 rare, threatened and endangered species of plants, animals and one plant community (Cumberland Seepage Forest) have been found within five miles of the property (tabulated below). The seepage forest on the Property is the habitat in which two of these threatened plants live and that could be found there at the proper seasons—the white fringeless orchid (*Plantanthera integrilabia*) and spinulose shield fern (*Dryopteris carthusiana*). Invasive plants were not a major contributor to the flora and were found mostly along the

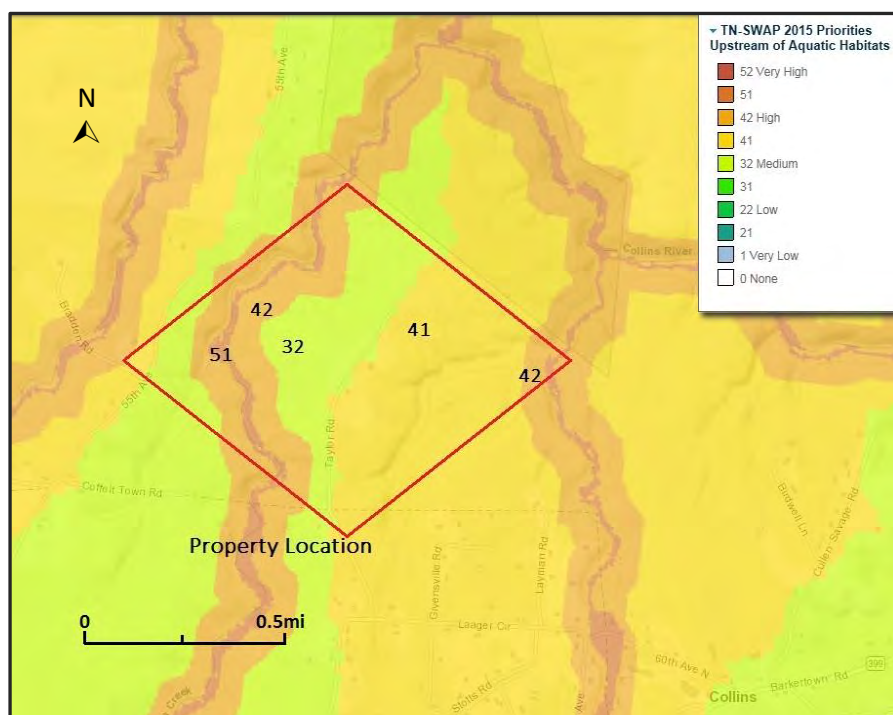


dirt roads. They are indicated in red in the Observed Species List below. The list also includes fauna species consisting of 31 birds, 8 butterflies, 6 dragonflies and 2 mammals. Among the butterflies seen were about a dozen Diana fritillaries. This species is ranked S3 in Tennessee—rare to uncommon.

The Appalachian Mountains Joint Venture (2018), which coordinates and implements all-bird conservation plans within the Appalachian Mountains Bird Conservation Region, recognizes three species we observed on the Property as species of conservation concern in Tennessee. Ranked in the “very highest” concern category are the Wood Thrush (*Hylocichla mustelina*) and the Prairie Warbler (*Setophaga discolor*). Of “high concern” is the Hooded Warbler (*Setophaga citrina*). The first two are also recognized as GCN species in the TN SWAP (TWRA 2015d).

The deciduous forests, forest road edges and woodland openings found on the Property are good quality breeding habitat and migration corridor for the 23 species Neotropical migrants that were seen, whose general populations are known to be in decline (Hall 1984) (North American Bird Conservation Initiative, 2016). These migrants are indicated by orange in the Observed Species List below. Protecting large open space of native hardwood forests provides a habitat pool for breeding insectivorous birds and mast-eating wildlife, and is a priority for their conservation. It also acts as an important buffer to the nearby conservation areas and waterways.

Concerning its aquatic habitat, TNC places the Property within the Collins River aquatic priority conservation area. Species targeted for protection in this area include 3 fish, 1 crayfish, 1 dragonfly, 4 mussels, and 2 snails. Four aquatic systems are also recommended for protection. (NatureServe, 2018f). The TN SWAP also rates the Property’s forests with a medium to very high priority upstream of aquatic habitats (Fig. 3, Conservation Biology Institute, 2018d) within a critical watershed for freshwater species. Such priority areas are so designated by evaluating a number of factors that indicate that if the property is adequately conserved, it has a good probability of preserving the ecoregion’s biodiversity (NatureServe, 2018g).



A potential benefit of this and other conservation easements is the protection of habitat that may help preserve and recover species threatened with extinction. This is the principle goal of the Endangered Species Act of 1973 (NatureServe, 2017h). The U.S. Fish and Wildlife Service (2018b) cites 10 federally-listed endangered and threatened species that could be impacted by activities on the Property. Plus, according to TDEC (2018c), Grundy County is the home of 35 endangered and threatened plant and animal species, plus 28 more of special concern that could be benefited by the preservation of the

Fig. 3 Priorities upstream of aquatic habitat

Property's natural habitats. This includes 7 species ranked endangered at the federal level.

Conservation Management Areas

For the best protection of these resources, two Conservation Management Areas have been designated within the Property (see maps section). Across all management areas, the restrictions set out in the Conservation Easement apply in order to maintain conservation values. Also, the right to improve conservation value, if approved by the land trust, is also provided. Conservation Management Area A covers the majority of the site. It is composed primarily of hardwood forests but also includes several areas currently cleared such as the existing house site and pond dam areas. Forestry management may be conducted following an approved Forest Management Plan, the exercise of all appropriate Best Management Practices, and with notice to and approval by the land trust.

Conservation Management Area B protects all creeks, wetlands and water sources with a 100' buffer to protect their conservation values. Maintaining natural shade with native vegetation near aquatic habitats is important for maintaining cool temperatures for sensitive aquatic fauna. Sedimentation destroys delicate streambed habitats therefore preventing sedimentation in waterways through effective erosion control measures is also critical. Waterways are important conduits for movement of both plant and animal species across the landscape, therefore supporting the increasingly critical need of maintaining landscape continuity and biodiversity. These riparian corridors and wetlands are especially important natural features of the Property. In addition to the general restrictions, Area B is to have no commercial timber harvest or agricultural activities, and no new roads, skid paths, sedimentation impacts, or structures. However, any use of the Property that is actually taking place within a Management Area B as of the date of this easement may be permitted to continue—consult the CE for details.

OPEN SPACE

Keeping the Property as open space will allow it to continue to be enjoyed by residents and travelers along 55th Avenue and Coffelt Town Roads on the Property's west side and Taylor Road to its south. 55th Avenue is the well-used approach to the Savage Gulf SNA's Collins Gulf access point.

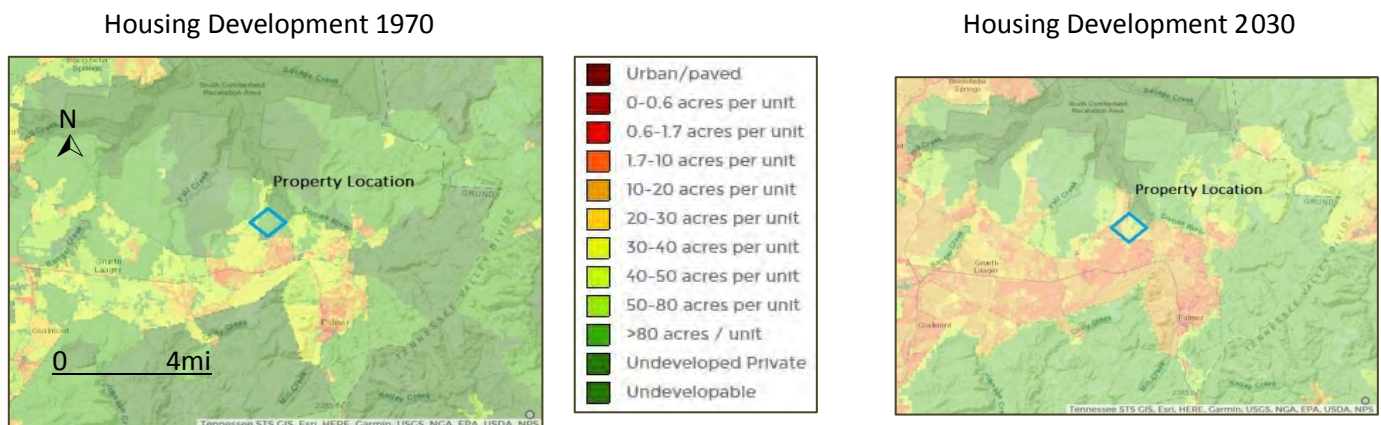


Fig. 4 Housing development comparison

One of the major concerns of the Tennessee Wildlife Resources Agency's Strategic Plan for 2006-2012 was the threat of increasing urbanization of the Cumberland Plateau (TWRA, 2006). As demonstrated by the maps above (Fig. 4, NatureServe, 2018i), housing density around the Property has approximately doubled since the 1970s and has increased considerably more just to the south along County Hwy 108. Preserving the Property will allow it to act as a buffer to this development for the Savage Gulf SNA just to the north. The TN Heritage Conservation Trust Fund Act of 2005 targeted the Property and other nearby areas as conservation areas of interest that should be preserved to protect the state's physical, cultural, archeological, historical and environmental resources.

This easement would limit further development on the Property to three house sites delineated in the maps section, thus preserving for the public's benefit, these resources that is increasingly being lost. The three old buildings remaining within House Site #1 envelope can be removed, but a new house need not be placed on the old footprint.

The absence of development's light pollution is an additional benefit, not only for human enjoyment of the night sky and landscape, but also for many insect species, especially moths, which often are attracted to nightlights only to perish. Moth larvae (caterpillars) and other insects are the basis of the diets of a great many birds, including Neotropical migrants. Protecting the Property will hinder such development and help in protecting the health of these natural resources it supports.

In summary, as an integral component of one of the remaining relatively intact ecosystems of the Cumberland Escarpment, adding permanent protections to the Barker-Mabry property will support the international conservation goals that include minimizing habitat fragmentation of wildlife corridors, and will help maintain healthy and diverse wildlife populations for the future. The Property also serves a vital function as a significant contributor to the ecological viability of the important and unique habitats on the Cumberland Plateau, which may play an important role as a refuge for flora and fauna as climate change plays out. Including this large block of open space in a conservation easement will also offer an important buffer for healthy natural waterways, an increasingly limiting resource in the region, while providing critical opportunities for supporting, in perpetuity, the goal of increased biodiversity in the area. Protecting these conservation values and the scenic vistas of the Property will thus provide valuable services to the general public, both ecologically and economically.

GEOLOGY

The Property is primarily underlain with sandstone and conglomerate of the Crab Orchard Mountains Group (Pco), including Rockcastle Conglomerate, Vandever Formation, Newton Sandstone, Whitwell Shale, and Sewanee Conglomerate (Tennessee Division of Geology, 1966). See Maps section.

SOILS

The following soil types are shown to be found on the Property: Beersheba, Lily loam, and Ramsey loams and Ramsey-Rock outcrop. See Maps section for details. 43.5% of the acreage is considered prime farmland soils. Keeping the Property under easement will protect these from loss due to development.

LAND USE INFORMATION

Forestry and small scale agriculture are the classic historical uses of the Property. Since 2013 an average of 7-15% of the land was used in agriculture (Granular, 2018). Some acreage was put in pine plantations and a few remnant plantations remain. There is no record of mining of the Property, (Trevor Martin, AML Program Manager, TDEC, personal communication, letter below). Access to the Property is permitted only by permission of the land owner at this time.

Tom Howe

From: Trevor Martin <Trevor.Martin@tn.gov>
Sent: Tuesday, July 24, 2018 9:49 AM
To: Tom Howe
Subject: RE: Barker-Marby property Mining Report
Attachments: Barker Mabry Mine Report 7.2018.pdf

Good morning, Tom,

The Barker-Mabry tracts are located in Grundy County on the Collins USGS quad (99-NE). A search of available files found no history of mining on any of the three parcels.

Thank you for your interest in the Tennessee Abandoned Mine Land Program. I hope this information is helpful. Please let me know if you have questions or need additional information.



Trevor Martin | AML Program Manager
Division of Water Resources
Land Reclamation Section
3711 Middlebrook Pike, Knoxville, TN 37921
p. 865-594-5603 c. 865-207-8995
trevor.martin@tn.gov
tn.gov/environment

We value your feedback! Please complete our [customer satisfaction survey](#).

From: Tom Howe [<mailto:thowe@foothillsland.org>]
Sent: Wednesday, July 18, 2018 9:11 AM
To: Trevor Martin
Subject: Barker-Marby property Mining Report

*** This is an EXTERNAL email. Please exercise caution. DO NOT open attachments or click links from unknown senders or unexpected email - STS-Security. ***

Trevor,

We have a new potential easement property, c. 333 acres on three parcels in Grundy County, for which we need an mining report. It is centered at 35.392261, -85.591545 in the Collins USGS quadrangle. Tax map is attached. There are warning signs in the northeast corner about mines being present, although that is just outside our property.

Thank you,

ANTHROPOGENIC FEATURES

Agricultural fields and pine plantations are located along both sides of Taylor Road and at the end of Coffelt Town Road. The only permanent structures on the property, which are mapped in the map section, are two abandoned houses, one 900 square foot, the other somewhat smaller, a 1944 square foot barn and few small sheds. Taylor and Coffelt Town Roads enter the property from the south and west, respectively. They are gravel or old decayed blacktop for a short distance, the remaining in dirt. Each entrance is gated. Secondary roads join Coffelt Town Road from Taylor Road, from Taylor Road east up an unnamed drainage on the east side, and from the end of Taylor Road east to the Property's northeast corner. There is a firebreak the full length of the straight northern border between the Property and the Savage Gulf SNA. Above-ground electrical utilities extend the length of Taylor Road and much of Coffelt Town Road.

FLORA AND FAUNA REPORTS

TN NATURAL HERITAGE DATABASE REPORT ON LISTED SPECIES (found within 5 miles of Property)

Dryopteris carthusiana

TYPE	Vascular Plant
SCIENTIFIC_NAME	Dryopteris carthusiana
COMMON_NAME	Spinulose Shield Fern
GLOBAL_RANK	G5
ST_RANK	S1

Aneides aeneus

TYPE	Vertebrate Animal
SCIENTIFIC_NAME	Aneides aeneus
COMMON_NAME	Green Salamander
GLOBAL_RANK	G3G4
ST_RANK	S3S4

Myotis grisescens

TYPE	Vertebrate Animal
SCIENTIFIC_NAME	Myotis grisescens
COMMON_NAME	Gray Myotis
GLOBAL_RANK	G3
ST_RANK	S2

Lilium philadelphicum

TYPE	Vascular Plant
SCIENTIFIC_NAME	Lilium philadelphicum
COMMON_NAME	Wood Lily
GLOBAL_RANK	G5
ST_RANK	S1

Allium tricoccum

TYPE	Vascular Plant
SCIENTIFIC_NAME	Allium tricoccum
COMMON_NAME	Ramps
GLOBAL_RANK	G5
ST_RANK	S1S2

Ophisaurus attenuatus longicaudus

TYPE	Vertebrate Animal
SCIENTIFIC_NAME	Ophisaurus attenuatus longicaudus
COMMON_NAME	Eastern Slender Glass Lizard
GLOBAL_RANK	G5T5
ST_RANK	S3

Sorex hoyi

TYPE	Vertebrate Animal
SCIENTIFIC_NAME	Sorex hoyi
COMMON_NAME	American Pygmy Shrew
GLOBAL_RANK	G5
ST_RANK	S2

Platanthera integrilabia

TYPE	Vascular Plant
SCIENTIFIC_NAME	Platanthera integrilabia
COMMON_NAME	White Fringeless Orchid
GLOBAL_RANK	G2G3
ST_RANK	S2S3

Pseudognaphalium helleri

TYPE	Vascular Plant
SCIENTIFIC_NAME	Pseudognaphalium helleri
COMMON_NAME	Heller's Catfoot
GLOBAL_RANK	G4G5
ST_RANK	S2

Monotropsis odorata

TYPE	Vascular Plant
SCIENTIFIC_NAME	Monotropsis odorata
COMMON_NAME	Sweet Pinesap
GLOBAL_RANK	G3
ST_RANK	S2

Panax quinquefolius

TYPE	Vascular Plant
SCIENTIFIC_NAME	Panax quinquefolius
COMMON_NAME	American Ginseng
GLOBAL_RANK	G3G4
ST_RANK	S3S4

Radula voluta

TYPE	Nonvascular Plant
SCIENTIFIC_NAME	Radula voluta
COMMON_NAME	A Liverwort
GLOBAL_RANK	G3
ST_RANK	S2

Gaylussacia dumosa

TYPE	Vascular Plant
SCIENTIFIC_NAME	Gaylussacia dumosa
COMMON_NAME	Dwarf Huckleberry
GLOBAL_RANK	G5

ST_RANK	S3
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Woodwardia virginica

TYPE	Vascular Plant
SCIENTIFIC_NAME	Woodwardia virginica
COMMON_NAME	Virginia Chainfern
GLOBAL_RANK	G5
ST_RANK	S2

Paronychia argyrocoma

TYPE	Vascular Plant
SCIENTIFIC_NAME	Paronychia argyrocoma
COMMON_NAME	Silverling
GLOBAL_RANK	G4
ST_RANK	S1S2

Melanthium woodii

TYPE	Vascular Plant
SCIENTIFIC_NAME	Melanthium woodii
COMMON_NAME	Ozark Bunchflower
GLOBAL_RANK	G5
ST_RANK	S1

Carex hitchcockiana

TYPE	Vascular Plant
SCIENTIFIC_NAME	Carex hitchcockiana
COMMON_NAME	Hitchcock's Sedge
GLOBAL_RANK	G5
ST_RANK	S1

Dendroica cerulea

TYPE	Vertebrate Animal
SCIENTIFIC_NAME	Dendroica cerulea
COMMON_NAME	Cerulean Warbler
GLOBAL_RANK	G4
ST_RANK	S3B

Poa saltuensis

TYPE	Vascular Plant
SCIENTIFIC_NAME	Poa saltuensis
COMMON_NAME	Drooping Bluegrass
GLOBAL_RANK	G5
ST_RANK	S1

Pituophis melanoleucus melanoleucus

TYPE	Vertebrate Animal
SCIENTIFIC_NAME	Pituophis melanoleucus melanoleucus
COMMON_NAME	Northern Pinesnake
GLOBAL_RANK	G4T4
ST_RANK	S3

Neotoma magister

TYPE	Vertebrate Animal
SCIENTIFIC_NAME	Neotoma magister
COMMON_NAME	Allegheny Woodrat
GLOBAL_RANK	G3G4
ST_RANK	S3

Marshallia trinervia

TYPE	Vascular Plant
SCIENTIFIC_NAME	Marshallia trinervia

COMMON_NAME	Broad-leaved Barbara's-buttons
GLOBAL_RANK	G3
ST_RANK	S2S3

Acer rubrum var. trilobum - Nyssa sylvatica / Osmunda cinnamomea - Chasmanthium laxum - Carex intumescens / Sphagnum lescurii Forest

TYPE	International Vegetation Classification - Natural
SCIENTIFIC_NAME	Acer rubrum var. trilobum - Nyssa sylvatica / Osmunda cinnamomea - Chasmanthium laxum - Carex intumescens / Sphagnum lescurii Forest
COMMON_NAME	Cumberland Forested Acidic Seep
GLOBAL_RANK	G3?
ST_RANK	S2S3

Vaccinium macrocarpon

TYPE	Vascular Plant
SCIENTIFIC_NAME	Vaccinium macrocarpon
COMMON_NAME	Cranberry
GLOBAL_RANK	G4
ST_RANK	S2

OBSERVED SPECIES LISTS during site visit 6-20-2018 (plants after Weakley, A.S., 2015)
(invasive species in **RED**)

Plants	† = characteristic of Cumberland Seepage Forest	
Genus	Species	Common Name
<i>Acer</i>	<i>rubrum</i>	Red Maple
<i>Acer</i>	<i>rubrum</i> var. <i>trilobum</i>	† Carolina Red Maple
<i>Acer</i>	<i>saccharinum</i>	Silver Maple
<i>Agrimonia</i>	<i>parviflora</i>	Agrimony
<i>Allium</i>	<i>vineale</i>	Wild Garlic
<i>Ambrosia</i>	<i>artemisiifolia</i>	Annual Ragweed
<i>Ambrosia</i>	<i>trifida</i>	Great Ragweed
<i>Amelanchier</i>	<i>laevis</i>	Smooth Serviceberry
<i>Amphicarpaea</i>	<i>bracteata</i>	Hog Peanut
<i>Angelica</i>	<i>venenosa</i>	Hairy Angelica
<i>Aronia</i>	<i>melanocarpa</i>	† Black Chokeberry
<i>Asclepias</i>	<i>tuberosa</i>	Butterfly-weed
<i>Asclepias</i>	<i>variegata</i>	Redring Milkweed
<i>Asplenium</i>	<i>platyneuron</i>	Ebony Spleenwort
<i>Athyrium</i>	<i>asplenoides</i>	† Southern Lady Fern
<i>Betula</i>	<i>lenta</i>	Sweet Birch
<i>Blephilia</i>	<i>ciliata</i>	Wood Mint
<i>Boehmeria</i>	<i>cylindrica</i>	False Nettle
<i>Calycanthus</i>	<i>floridus</i>	Sweetshrub
<i>Carduus</i>	<i>sp.</i>	Thistle
<i>Carex</i>	<i>crinita</i>	† Short-fringed Sedge
<i>Carya</i>	<i>tomentosa</i>	Mockernut Hickory
<i>Cercis</i>	<i>canadensis</i>	Redbud
<i>Chelone</i>	<i>sp.</i>	Turtlehead
<i>Chimaphila</i>	<i>maculata</i>	Pipsissewa
<i>Chionanthus</i>	<i>virginicus</i>	Fringetree
<i>Cicuta</i>	<i>maculata</i>	Spotted Water Hemlock
<i>Cirsium</i>	<i>carolinianum</i>	Soft Thistle
<i>Cladonia</i>	<i>cristatella</i>	British Soldier Lichen
<i>Clitoria</i>	<i>mariana</i>	Butterfly Pea
<i>Convallaria</i>	<i>pseudomajalis</i>	American Lily-of-the-Vallay
<i>Conyza</i>	<i>canadensis</i>	Common Horseweed
<i>Coreopsis</i>	<i>major</i>	Whorled Coreopsis
<i>Cornus</i>	<i>stricta</i> (foemina)	† Southern Swamp Dogwood
<i>Crataegus</i>	<i>intricata</i> var. <i>intricata</i>	Boyton Hawthorn
<i>Crataegus</i>	<i>pruinosa</i>	Frosted Hawthorn
<i>Cuscuta</i>	<i>sp.</i>	Dodder
<i>Danthonia</i>	<i>spicata</i>	Poverty Oat Grass
Daucus	carota	Queen Ann's Lace
<i>Desmodium</i>	<i>sp.</i>	Tick Trefoil
<i>Dianthus</i>	<i>armeria</i> ssp. <i>armeria</i>	Deptford Pink
<i>Dichanthelium</i>	<i>sp.</i>	Panic Grass

<i>Dioscorea</i>	<i>villosa</i>	Wild Yam
<i>Elaeagnus</i>	<i>umbellata</i>	Autumn Olive
<i>Elephantopus</i>	<i>carolinianus</i>	Leafy Elephant's-foot
<i>Erigeron</i>	<i>annuus</i>	Annual Fleabane
<i>Euonymus</i>	<i>alata</i>	Winged Burning Bush
<i>Euonymus</i>	<i>fortunei</i>	Winterberry
<i>Eupatorium</i>	<i>hyssopifolium</i>	Hyssopleaf Eupatorium
<i>Eupatorium</i>	<i>perfoliatum</i>	Boneset
<i>Eupatorium</i>	<i>rotundifolium</i>	Round-leaved Thoroughwort
<i>Euphorbia</i>	<i>corollata</i>	Eastern Flowering Spurge
<i>Eutrochium</i>	<i>fistulosum</i>	Joe Pye Weed
<i>Eutrochium</i>	<i>purpureum</i>	Joe Pye Weed
<i>Fragaria</i>	<i>virginiana</i>	Virginia Strawberry
<i>Frangula</i>	<i>caroliniana</i>	Carolina Buckthorn
<i>Galium</i>	<i>circaezans</i>	Southern Forest Bedstraw
<i>Geranium</i>	<i>carolinianum</i>	Carolina Geranium
<i>Gillenia</i>	<i>trifoliata</i>	Mountain Indian-physic
<i>Goodyera</i>	<i>pubescens</i>	Downy Rattlesnake Plantain
<i>Hamamelis</i>	<i>virginiana</i>	Witch-hazel
<i>Hexastylis</i>	<i>contracta</i>	Mountain Heartleaf
<i>Hieracium</i>	<i>sp.</i>	Hawkweed
<i>Houstonia</i>	<i>caerulea</i>	Azure Bluet
<i>Houstonia</i>	<i>purpurea</i> v. <i>purpurea</i>	Venus's Pride
<i>Hypericum</i>	<i>punctatum</i>	Spotted St. Johnswort
<i>Hypericum</i>	<i>stragulum</i>	Reclining St. Andrew's Cross
<i>Ilex</i>	<i>opaca</i> var. <i>opaca</i>	† American Holly
<i>Impatiens</i>	<i>capensis</i>	Spotted Touch-Me-Not
<i>Juncus</i>	<i>effusus</i>	Soft Rush
<i>Juniperus</i>	<i>virginiana</i>	Red Cedar
<i>Kalmia</i>	<i>latifolia</i>	Mountain Laurel
<i>Lactuca</i>	<i>sp.</i>	Lettuce
<i>Lespedeza</i>	<i>capitata</i>	Roundhead Lespedeza
<i>Lespedeza</i>	<i>sp.</i>	Lespedeza
<i>Leucanthemum</i>	<i>vulgare</i>	Oxeye Daisy
<i>Ligustrum</i>	<i>sinense</i>	Chinese Privet
<i>Liriodendron</i>	<i>tulipifera</i>	† Tulip Poplar
<i>Lobelia</i>	<i>cardinalis</i>	Cardinal Flower
<i>Lonicera</i>	<i>japonica</i>	Japanese Honeysuckle
<i>Lysimachia</i>	<i>quadrifolia</i>	Whorled Yellow Loosestrife
<i>Magnolia</i>	<i>tripetala</i>	Umbrella Magnolia
<i>Medeola</i>	<i>virginiana</i>	Cucumber-root
<i>Melilotus</i>	<i>albus</i>	White Sweetclover
<i>Mimosa</i>	<i>microphylla</i>	Sensitive Plant

<i>Mitchella</i>	<i>repens</i>	Partridge-berry
<i>Monarda</i>	<i>fistulosa</i>	Wild Bergamot
<i>Muscadinia</i>	<i>rotundifolia</i>	Muscadine
<i>Nyssa</i>	<i>sylvatica</i>	† Black Gum
<i>Orbexilum</i>	<i>pedunculatum</i>	Sampson's Snakeroot
<i>Osmunda</i>	<i>spectabilis</i>	† Royal Fern
<i>Osmundastrum</i>	<i>cinnamomeum</i>	† Cinnamon Fern
<i>Oxalis</i>	<i>stricta</i>	Common Yellow Oxalis
<i>Oxydendrum</i>	<i>arboreum</i>	Sourwood
<i>Oxypolis</i>	<i>rigidior</i>	† Cowbane
<i>Packera</i>	<i>sp.</i>	Ragwort
<i>Panicum</i>	<i>sp.</i>	Panic Grass
<i>Parnassia</i>	<i>asarifolia</i>	Kidneyleaf Grass of Parnassus
<i>Parthenium</i>	<i>integrifolium</i> var. <i>integrifolium</i>	Wild Quinine
<i>Parthenocissus</i>	<i>quinquefolia</i>	Virginia Creeper
<i>Phlox</i>	<i>glaberrima</i>	Smooth Phlox
<i>Pinus</i>	<i>echinata</i>	Short-leaf Pine
<i>Pinus</i>	<i>strobus</i>	White Pine
<i>Pinus</i>	<i>virginiana</i>	Virginia Pine
<i>Pityopsis</i>	<i>graminifolia</i> var. <i>graminifolia</i>	Narrowleaf Silkgrass
<i>Plantago</i>	<i>rugelii</i>	Blackseed Plantain
<i>Platanus</i>	<i>occidentalis</i>	Sycamore
<i>Polygala</i>	<i>sanguinea</i>	Purple Milkwort
<i>Polygonatum</i>	<i>biflorum</i>	Small Solomon's-seal
<i>Polystichum</i>	<i>acrostichoides</i>	Christmas Fern
<i>Polytrichum</i>	<i>commune</i>	Haircap Moss
<i>Prunella</i>	<i>vulgaris</i>	Common Self-heal
<i>Prunus</i>	<i>serotina</i>	Black Cherry
<i>Pteridium</i>	<i>aquilinum</i> var. <i>latiusculum</i>	Bracken Fern
<i>Pteridium</i>	<i>latiusculum</i> var. <i>pseudocaudatum</i>	Southern Bracken
<i>Quercus</i>	<i>alba</i>	White Oak
<i>Quercus</i>	<i>falcata</i>	Southern Red Oak
<i>Quercus</i>	<i>pagoda</i>	Cherrybark Oak
<i>Quercus</i>	<i>palustris</i>	Pin Oak
<i>Quercus</i>	<i>stellata</i>	Post Oak
<i>Quercus</i>	<i>velutina</i>	Black Oak
<i>Rhamnus</i>	<i>lanceolata</i>	Lanceleaf Buckthorn
<i>Rhododendron</i>	<i>cumberlandense</i>	Cumberland Azalea
<i>Rhododendron</i>	<i>maximum</i>	† Great Rhododendron
<i>Rhus</i>	<i>copallinum</i> var. <i>copallinum</i>	Winged Sumac
<i>Robinia</i>	<i>pseudoacacia</i>	Black Locust
<i>Rosa</i>	<i>multiflora</i>	Multiflora Rose
<i>Rubus</i>	<i>allegheniensis</i>	Allegheny Blackberry

<i>Rubus</i>	<i>flagellaris</i>	Common Dewberry
<i>Rubus</i>	<i>occidentalis</i>	Wild Black Raspberry
<i>Rubus</i>	<i>pensilvanicus</i>	Southern Blackberry
<i>Rubus</i>	<i>trivialis</i>	Southern Dewberry
<i>Rudbeckia</i>	<i>hirta</i> var. <i>hirta</i>	Black-eyed Susan
<i>Rudbeckia</i>	<i>laciniata</i> var. <i>laciniata</i>	Cutleaf Coneflower
<i>Rumex</i>	<i>crispus</i>	Curly Dock
<i>Salix</i>	<i>nigra</i>	Black Willow
<i>Sambucus</i>	<i>canadensis</i>	Common Elderberry
<i>Sassafras</i>	<i>albidum</i>	Sassafras
<i>Silphium</i>	<i>gatesii</i>	Alabama Rosinweed
<i>Smilax</i>	<i>glauca</i>	Glaucous Greenbrier
<i>Smilax</i>	<i>hispida</i>	Bristly Greenbrier
<i>Smilax</i>	<i>rotundifolia</i>	Common Greenbrier
<i>Solanum</i>	<i>carolinense</i> var. <i>carolinense</i>	Horse-nettle
<i>Solidago</i>	<i>altissima</i>	Tall Goldenrod
<i>Solidago</i>	<i>arguta</i> var. <i>caroliniana</i>	Atlantic Goldenrod
<i>Solidago</i>	<i>gigantea</i>	Giant Goldenrod
<i>Solidago</i>	<i>nemoralis</i>	Gray-stem Goldenrod
<i>Solidago</i>	<i>odora</i>	Sweet Goldenrod
<i>Solidago</i>	<i>rugosa</i> var. <i>aspera</i>	Rough-leaved Goldenrod
<i>Sphagnum</i>	<i>lescurii</i>	† Lescur's Sphagnum
<i>Spiraea</i>	<i>japonica</i>	Japanese Spiraea
<i>Tephrosia</i>	<i>virginiana</i>	Virginia Goat's-rue
<i>Thalictrum</i>	<i>revolutum</i>	Waxy Meadow Rue
<i>Thelypteris</i>	<i>noveboracensis</i>	† New York Fern
<i>Toxicodendron</i>	<i>radicans</i>	Poison Ivy
<i>Trifolium</i>	<i>campestre</i>	Hop Clover
<i>Trifolium</i>	<i>dubium</i>	Low Hop Clover
<i>Trifolium</i>	<i>pratense</i>	Red Clover
<i>Trifolium</i>	<i>repens</i>	White Clover
<i>Tsuga</i>	<i>canadensis</i>	Eastern Hemlock
<i>Ulmus</i>	<i>rubra</i>	Red Elm
<i>Vaccinium</i>	<i>corymbosum</i>	Highbush Blueberry
<i>Viburnum</i>	<i>acerifolium</i>	Mapleleaf Viburnum
<i>Viburnum</i>	<i>dentatum</i>	Arrow-wood
<i>Viola</i>	<i>primulifolia</i>	† Primrose-lvd. Violet
<i>Viola</i>	<i>sagittata</i>	Arrowleaf Violet
<i>Viola</i>	<i>sp.</i>	Violet
<i>Vitis</i>	<i>labrusca</i>	Fox Grape
<i>Wisteria</i>	<i>sinensis</i>	Chinese Wisteria
<i>Xanthorhiza</i>	<i>simplicissima</i>	Yellowroot

Birds (Neotropical Migrants in Orange)	
Turkey Vulture	<i>Cathartes aura</i>
Mourning Dove	<i>Zenaida macroura</i>
Yellow-billed Cuckoo	<i>Coccyzus americanus</i>
Chimney Swift	<i>Chaetura pelagica</i>
Red-headed Woodpecker	<i>Melanerpes erythrocephalus</i>
Eastern Wood-Pewee	<i>Contopus virens</i>
White-eyed Vireo	<i>Vireo griseus</i>
Red-eyed Vireo	<i>Vireo olivaceus</i>
American Crow	<i>Corvus brachyrhynchos</i>
Carolina Chickadee	<i>Poecile carolinensis</i>
Tufted Titmouse	<i>Baeolophus bicolor</i>
White-breasted Nuthatch	<i>Sitta carolinensis</i>
Blue-gray Gnatcatcher	<i>Poliophtila caerulea</i>
Eastern Bluebird	<i>Sialia sialis</i>
Wood Thrush	<i>Hylocichla mustelina</i>
Ovenbird	<i>Seiurus aurocapilla</i>
Common Yellowthroat	<i>Geothlypis trichas</i>
Hooded Warbler	<i>Setophaga citrina</i>
Northern Parula	<i>Setophaga americana</i>
Pine Warbler	<i>Setophaga pinus</i>
Prairie Warbler	<i>Setophaga discolor</i>
Yellow-breasted Chat	<i>Icteria virens</i>
Eastern Towhee	<i>Pipilo erythrophthalmus</i>
Chipping Sparrow	<i>Spizella passerina</i>
Field Sparrow	<i>Spizella pusilla</i>
Scarlet Tanager	<i>Piranga olivacea</i>
Northern Cardinal	<i>Cardinalis cardinalis</i>
Blue Grosbeak	<i>Passerina caerulea</i>
Indigo Bunting	<i>Passerina cyanea</i>
Brown-headed Cowbird	<i>Molothrus ater</i>
American Goldfinch	<i>Carduelis tristis</i>

Dragonflies	
Ebony Jewelwing	<i>Calopteryx maculata</i>
Eastern Pondhawk	<i>Erythemis simplicicollis</i>
Blue Dasher	<i>Pachydiplax longipennis</i>
Common Whitetail	<i>Plathemis lydia</i>
Clamp-tipped Emerald	<i>Somatochlora tenebrosa</i>
Clubtail sp.	
Butterflies	
Northern Cloudywing	<i>Thorybes pylades</i>
Horace's Duskywing	<i>Erynnis horatius</i>
Spicebush Swallowtail	<i>Papilio troilus</i>
Eastern Tailed-Blue	<i>Cupido comyntas</i>
Summer Azure	<i>Celastrina neglecta</i>
Diana Fritillary	<i>Speyeria diana</i>
Great Spangled Fritillary	<i>Speyeria cybele</i>
Red-spotted Purple	<i>Limentis arthemis</i>
Other	
White-tailed Deer	<i>Odocoileus virginianus</i>
Virginia Opossum	<i>Didelphis virginiana</i>
Wolf's Milk Slime Mold	<i>Lycogala epidendrum</i>

HABITAT PREFERENCE OF GCN SPECIES

Habitat Preference of GCN Species			
For the Allegheny-Cumberland Dry Oak Forest and Woodland			
Excerpted from the TN SWAP (TWRA. 2015c)			
SPECIES			PREFERENCE
Amphibians			
<i>Desmognathus</i>	<i>abditus</i>	Cumberland Dusky Salamander	Suitable
<i>Desmognathus</i>	<i>welteri</i>	Black Mountain Salamander	Suitable
Bats			
<i>Corynorhinus</i>	<i>rafinesquii</i>	Rafinesque's Big-eared Bat	Suitable
<i>Myotis</i>	<i>grisescens</i> (WNS)	Gray Bat	Suitable
<i>Myotis</i>	<i>leibii</i> (WNS)	Eastern Small-footed Bat	Suitable
<i>Myotis</i>	<i>lucifugus</i> (WNS)	Little Brown Bat	Preferred
<i>Myotis</i>	<i>septentrionalis</i> (WNS)	Northern Myotis	Suitable
<i>Myotis</i>	<i>sodalis</i> (WNS)	Indiana Bat	Suitable
<i>Perimyotis</i>	<i>subflavus</i>	Tri-colored Bat	Preferred
Birds			
<i>Accipiter</i>	<i>striatus</i>	Sharp-shinned Hawk	Suitable
<i>Aquila</i>	<i>chrysaetos</i>	Golden Eagle	Suitable
<i>Bonasa</i>	<i>umbellus</i>	Ruffed Grouse	Suitable
<i>Caprimulgus</i>	<i>vociferus</i>	Whip-poor-will	Suitable
<i>Helmitheros</i>	<i>vermivorum</i>	Worm-eating Warbler	Suitable
<i>Melanerpes</i>	<i>erythrocephalus</i>	Red-headed Woodpecker	Suitable
<i>Scolopax</i>	<i>minor</i>	American Woodcock	Suitable
<i>Setophaga</i>	<i>caerulescens</i>	Black-throated Blue Warbler	Suitable
<i>Setophaga</i>	<i>cerulea</i>	Cerulean Warbler	Suitable
<i>Setophaga</i>	<i>dominica</i>	Yellow-throated Warbler	Suitable
<i>Vermivora</i>	<i>chrysoptera</i>	Golden-winged Warbler	Suitable
Gastropods			
<i>Anguispira</i>	<i>alabama</i>	Alabama Tigersnail	Suitable
<i>Anguispira</i>	<i>cumberlandiana</i>	Cumberland Tigersnail	Suitable
<i>Glyphyalinia</i>	<i>pentadelphia</i>	Pink	Suitable
<i>Glyphyalinia</i>	<i>rimula</i>	Tongued	Suitable
<i>Helicodiscus</i>	<i>aldrichianus</i>	Burrowing Coil	Suitable
<i>Inflectarius</i>	<i>downieanus</i>	Dwarf Globelet	Suitable
<i>Megapallifera</i>	<i>wetherbyi</i>	Blotchy Mantleslug	Suitable
<i>Mesomphix</i>	<i>rugeli</i>	Wrinkled Button	Suitable
<i>Paravitrea</i>	<i>umbilicaris</i>	Open Supercoil	Suitable
<i>Paravitrea</i>	<i>variabilis</i>	Variable Supercoil	Suitable
<i>Philomycus</i>	<i>sellatus</i>	Alabama Mantleslug	Suitable
<i>Pilsbryna</i>	<i>castanea</i>	Prominent Bud	Suitable

<i>Stenotrema</i>	<i>angellum</i>	Kentucky Slitmouth	Suitable
<i>Stenotrema</i>	<i>calvescens</i>	Chattanooga Slitmouth	Suitable
<i>Stenotrema</i>	<i>edgarianum</i>	Sequatchie Slitmouth	Suitable
<i>Stenotrema</i>	<i>exodon</i>	Alabama Slitmouth	Suitable
<i>Stenotrema</i>	<i>magnafumosum</i>	Appalachian Slitmouth	Suitable
<i>Ventridens</i>	<i>eutropis</i>	Carinate Dome	Suitable
<i>Ventridens</i>	<i>lasmodon</i>	Hollow Dome	Suitable
<i>Xolotrema</i>	<i>obstrictum</i>	Sharp Wedge	Suitable
<i>Zonitoides</i>	<i>lateumbilicatus</i>	Striate Gloss	Suitable
Mammals (not including bats)			
<i>Martes</i>	<i>pennanti</i>	Fisher	Suitable
<i>Neotoma</i>	<i>magister</i>	Allegheny Woodrat	Suitable
<i>Sorex</i>	<i>cinereus</i>	Cinereus Shrew	Suitable
<i>Sorex</i>	<i>dispar</i>	Long-tailed Shrew	Suitable
<i>Sorex</i>	<i>fumeus</i>	Smoky Shrew	Suitable
<i>Spilogale</i>	<i>putorius</i>	Eastern Spotted Skunk	Suitable
Plants			
<i>Botrychium</i>	<i>jenmanii</i>	Alabama Grapefern	Suitable
<i>Calamagrostis</i>	<i>porteri</i>	Porter's Reedgrass	Suitable
<i>Castanea</i>	<i>dentata</i>	American Chestnut	Suitable
<i>Cyperus</i>	<i>plukenetii</i>	Plukenet's Galingale	Suitable
<i>Desmodium</i>	<i>ochroleucum</i>	Creamflower Tick-trefoil	Suitable
<i>Fothergilla</i>	<i>major</i>	Mountain Witch-alder	Suitable
<i>Gelsemium</i>	<i>sempervirens</i>	Yellow Jessamine	Suitable
<i>Hieracium</i>	<i>scabrum</i>	Rough Hawkweed	Suitable
<i>Isotria</i>	<i>medeoloides</i>	Small Whorled Pagonia	Suitable
<i>Lilium</i>	<i>philadelphicum</i>	Wood Lily	Suitable
<i>Lysimachia</i>	<i>fraseri</i>	Fraser's Loosestrife	Suitable
<i>Monotropsis</i>	<i>odorata</i>	Sweet Pinesap	Suitable
<i>Sabatia</i>	<i>capitata</i>	Cumberland Rose Gentian	Suitable
<i>Scutellaria</i>	<i>montana</i>	Large-flowered Skullcap	Suitable
<i>Thermopsis</i>	<i>mollis</i>	Allegheny Mountain Golden Banner	Preferred
<i>Trillium</i>	<i>pusillum</i>	Least Trillium	Suitable
<i>Viola</i>	<i>tripartita</i> var. <i>tripartita</i>	Three-parted Violet	Suitable
Reptiles			
<i>Anolis</i>	<i>carolinensis</i>	Green Anole	Suitable
<i>Crotalus</i>	<i>horridus</i>	Timber Rattlesnake	Preferred
<i>Heterodon</i>	<i>platirhinos</i>	Eastern Hognosed Snake	Suitable
<i>Ophisaurus</i>	<i>attenuatus longicaudus</i>	Eastern Slender Glass Lizard	Suitable
<i>Pituophis</i>	<i>melanoleucus melanoleucus</i>	Northern Pinesnake	Suitable
<i>Terrapene</i>	<i>carolina</i>	Eastern Box Turtle	Suitable

Habitat Preference of GCN Species		
For the South-Central Interior Mesophytic Forest		Hemlock Forest *
Excerpted from the TN SWAP (TWRA, 2015c)		
Amphibians		
<i>Ambystoma texanum</i> (Smallmouth Salamander)	Suitable	
<i>Aneides aeneus</i> (Green Salamander)	Suitable	
<i>Desmognathus welteri</i> (Black Mountain Salamander)	Suitable	
<i>Hemidactylium scutatum</i> (Four-toed Salamander)	Suitable	
<i>Plethodon richmondi</i> (Ravine Salamander)	Suitable	Preferred
<i>Plethodon wehrlei</i> (Wehrle's Salamander)	Suitable	Preferred
<i>Pseudacris brachyphona</i> (Mountain Chorus Frog)	Suitable	
Bats		
<i>Corynorhinus rafinesquii</i> (Rafinesque's Big-eared Bat)	Suitable	
<i>Myotis grisescens</i> (Gray Bat) WNS **	Suitable	
<i>Myotis leibii</i> (Eastern Small-footed Bat) WNS	Suitable	
<i>Myotis lucifugus</i> (Little Brown Bat) WNS	Preferred	
<i>Myotis septentrionalis</i> (Northern Myotis) WNS	Suitable	
<i>Myotis sodalis</i> (Indiana Bat) WNS	Suitable	
<i>Perimyotis subflavus</i> (Tri-colored Bat)	Suitable	
Birds		
<i>Accipiter striatus</i> (Sharp-shinned Hawk)	Suitable	
<i>Aquila chrysaetos</i> (Golden Eagle)	Suitable	
<i>Bonasa umbellus</i> (Ruffed Grouse)	Suitable	Preferred
<i>Caprimulgus vociferus</i> (Whip-poor-will)	Suitable	
<i>Cardellina canadensis</i> (Canada Warbler)	Suitable	
<i>Euphagus carolinus</i> (Rusty Blackbird)	Suitable	
<i>Geothlypis Formosa</i> (Kentucky Warbler)	Suitable	Preferred
<i>Helmitheros vermivorum</i> (Worm-eating Warbler)	Suitable	Preferred
<i>Hylocichla mustelina</i> (Wood Thrush)	Preferred	
<i>Limnothlypis swainsonii</i> (Swainson's Warbler)	Suitable	
<i>Melanerpes erythrocephalus</i> (Red-headed Woodpecker)	Suitable	
<i>Scolopax minor</i> (American Woodcock)	Suitable	
<i>Setophaga caerulescens</i> (Black-throated Blue Warbler)	Suitable	Preferred
<i>Setophaga cerulea</i> (Cerulean Warbler)	Preferred	
<i>Setophaga dominica</i> (Yellow-throated Warbler)	Suitable	
<i>Setophaga fusca</i> (Blackburnian Warbler)	Suitable	
<i>Vermivora chrysoptera</i> (Golden-winged Warbler)	Suitable	
Gastropods		
<i>Anguispira alabama</i> (Alabama Tigersnail)	Suitable	
<i>Anguispira cumberlandiana</i> (Cumberland Tigersnail)	Suitable	
<i>Anguispira picta</i> (Painted Tigersnail)	Suitable	
* where preference is greater		
** WNS = affected by White-nose Syndrome		

<i>Fumonelix wetherbyi</i> (Clifty Covert)	Suitable	
<i>Glyphyalinia pentadelphica</i> (Pink Glyph)	Suitable	
<i>Glyphyalinia rimula</i> (Tongued Glyph)	Suitable	
<i>Helicodiscus aldrichianus</i> (Burrowing Coil)	Suitable	
<i>Helicodiscus hexodon</i> (Toothy Coil)	Suitable	
<i>Inflectarius downieanus</i> (Dwarf Globelet)	Suitable	
<i>Inflectarius smithi</i> (Alabama Shagreen)	Suitable	
<i>Megapallifera wetherbyi</i> (Blotchy Mantleslug)	Suitable	
<i>Mesodon sanus</i> (Squat Globelet)	Suitable	
<i>Mesomphix rugeli</i> (Wrinkled Button)	Suitable	
<i>Paravitrea bellona</i> (Club Supercoil)	Suitable	
<i>Paravitrea calcicola</i> (Pearl Supercoil)	Suitable	
<i>Paravitrea petrophila</i> (Cherokee Supercoil)	Suitable	
<i>Paravitrea subtilis</i> (Slender Supercoil)	Suitable	
<i>Paravitrea tantilla</i> (Teasing Supercoil)	Suitable	
<i>Paravitrea umbilicaris</i> (Open Supercoil)	Suitable	
<i>Paravitrea variabilis</i> (Variable Supercoil)	Suitable	
<i>Philomycus sellatus</i> (Alabama Mantleslug)	Suitable	
<i>Philomycus virginicus</i> (Virginia Mantleslug)	Suitable	
<i>Pilsbryna castanea</i> (Prominent Bud)	Suitable	
<i>Stenotrema angellum</i> (Kentucky Slitmouth)	Suitable	
<i>Stenotrema calvescens</i> (Chattanooga Slitmouth)	Suitable	
<i>Stenotrema edgarianum</i> (Sequatchie Slitmouth)	Suitable	
<i>Stenotrema exodon</i> (Alabama Slitmouth)	Suitable	
<i>Stenotrema magnafumosum</i> (Appalachian Slitmouth)	Suitable	
<i>Stenotrema waldense</i> (Doaks Creek Slitmouth)	Suitable	
<i>Ventridens eutropis</i> (Carinate Dome)	Suitable	
<i>Ventridens lasmodon</i> (Hollow Dome)	Suitable	
<i>Xolotrema obstrictum</i> (Sharp Wedge)	Suitable	
<i>Zonitoides lateumbilicatus</i> (Striate Gloss)	Suitable	
Insects		
<i>Speyeria diana</i> (Diana Fritillary)	Suitable	
Mammal (not including bats)		
<i>Martes pennanti</i> (Fisher)	Suitable	
<i>Napaeozapus insignis</i> (Woodland Jumping Mouse)	Suitable	
<i>Neotoma magister</i> (Allegheny Woodrat)	Suitable	
<i>Ochrotomys nuttalli</i> (Golden Mouse)		Suitable
<i>Parascalops breweri</i> (Hairy-tailed Mole)	Suitable	
<i>Sorex cinereus</i> (Cinereus Shrew)	Suitable	
<i>Sorex dispar</i> (Long-tailed Shrew)	Suitable	
<i>Sorex fumeus</i> (Smoky Shrew)	Suitable	Preferred

<i>Sorex hoyi</i> (American Pygmy Shrew)	Preferred	
<i>Sorex longirostris</i> (Southeastern Shrew)	Preferred	
<i>Spilogale putorius</i> (Eastern Spotted Skunk)	Suitable	Preferred
<i>Synaptomys cooperi</i> (Southern Bog Lemming)	Suitable	
Plants		
<i>Adlumia fungosa</i> (Climbing Fumitory)	Suitable	
<i>Allium burdickii</i> (Narrow-leaf Ramps)	Preferred	
<i>Allium tricoccum</i> (Ramps)	Suitable	
<i>Apios priceana</i> (Price's Potato-bean)	Suitable	
<i>Cardamine flagellifera</i> (Running Bittercress)	Suitable	
<i>Castanea dentata</i> (American Chestnut)	Suitable	
<i>Caulophyllum giganteum</i> (Giant Blue Cohosh)	Suitable	
<i>Chrysogonum virginianum</i> (Green-and-gold)	Preferred	
<i>Cimicifuga rubifolia</i> (Appalachian Bugbane)	Suitable	
<i>Hydrastis canadensis</i> (Goldenseal)	Preferred	
<i>Isotria medeoloides</i> (Small Whorled Pogonia)	Suitable	
<i>Juglans cinerea</i> (Butternut)	Preferred	
<i>Lilium canadense</i> (Canada Lily)	Suitable	
<i>Lilium michiganense</i> (Michigan Lily)	Suitable	
<i>Lysimachia fraseri</i> (Fraser's Loosestrife)	Suitable	
<i>Melanthium woodii</i> (Ozark Bunchflower)	Suitable	
<i>Metzgeria uncigera</i> (Metzgeria)	Suitable	
<i>Neviusia alabamensis</i> (Alabama Snow-wreath)	Suitable	
<i>Panax quinquefolius</i> (American Ginseng)	Preferred	
<i>Scutellaria montana</i> (Large-flowered Skullcap)	Suitable	
<i>Silene ovata</i> (Ovate Catchfly)	Suitable	
<i>Taxus canadensis</i> (American Yew)	Suitable	
<i>Thalictrum coriaceum</i> (Leatherleaf Meadowrue)	Suitable	
<i>Trillium lancifolium</i> (Narrow-leaved Trillium)	Suitable	
<i>Viola tripartita</i> var. <i>tripartita</i> (Three-parted Violet)	Preferred	
Reptiles		
<i>Anolis carolinensis</i> (Green Anole)	Suitable	
<i>Crotalus horridus</i> (Timber Rattlesnake)	Suitable	
<i>Heterodon platirhinos</i> (Eastern Hognosed Snake)	Suitable	
<i>Ophisaurus attenuatus longicaudus</i> (Eastern Slender Glass Lizard)	Suitable	
<i>Pituophis melanoleucus melanoleucus</i> (Northern Pinesnake)	Suitable	
<i>Plestiodon anthracinus</i> (Coal Skink)	Suitable	Preferred
<i>Terrapene carolina</i> (Eastern Box Turtle)	Suitable	
* where preference is greater		
** WNS = affected by White-nose Syndrome		

ARCHAEOLOGICAL REPORT

TN DIVISION of ARCHAEOLOGY LETTER on ARCHAEOLOGY DATABASE

Tom Howe

From: TDOA SiteFile <TDOA.SiteFile@tn.gov>
Sent: Monday, July 16, 2018 10:57 AM
To: Tom Howe
Subject: RE: Don Marby property Archaeological Report

Tom,

There are no recorded archaeological sites within the submitted project area in Grundy County. This area has not been comprehensively surveyed to determine the presence or absence of archaeological sites. There are four archaeological sites within one mile of the submitted project area.

The information provided in this map check does not fulfill compliance requirements under federal regulations such as NEPA or Section 106 of the National Historic Preservation Act nor can it be taken as a recommendation for or against further archaeological investigation. Detailed archaeological background information for project locations can be obtained by contracting with a qualified professional archaeological consultant.

Kind regards,

Satin



Satin B. Platt | Site File Curator
Tennessee Division of Archaeology
1216 Foster Avenue
Cole Building #3
Nashville, TN 37243
p. 615-687-4777
satin.platt@tn.gov
<https://www.tn.gov/environment/program-areas/arch-archaeology.html>

From: Tom Howe [<mailto:thowe@foothillsland.org>]
Sent: Friday, July 13, 2018 3:07 PM
To: TDOA SiteFile
Subject: Don Marby property Archaeological Report

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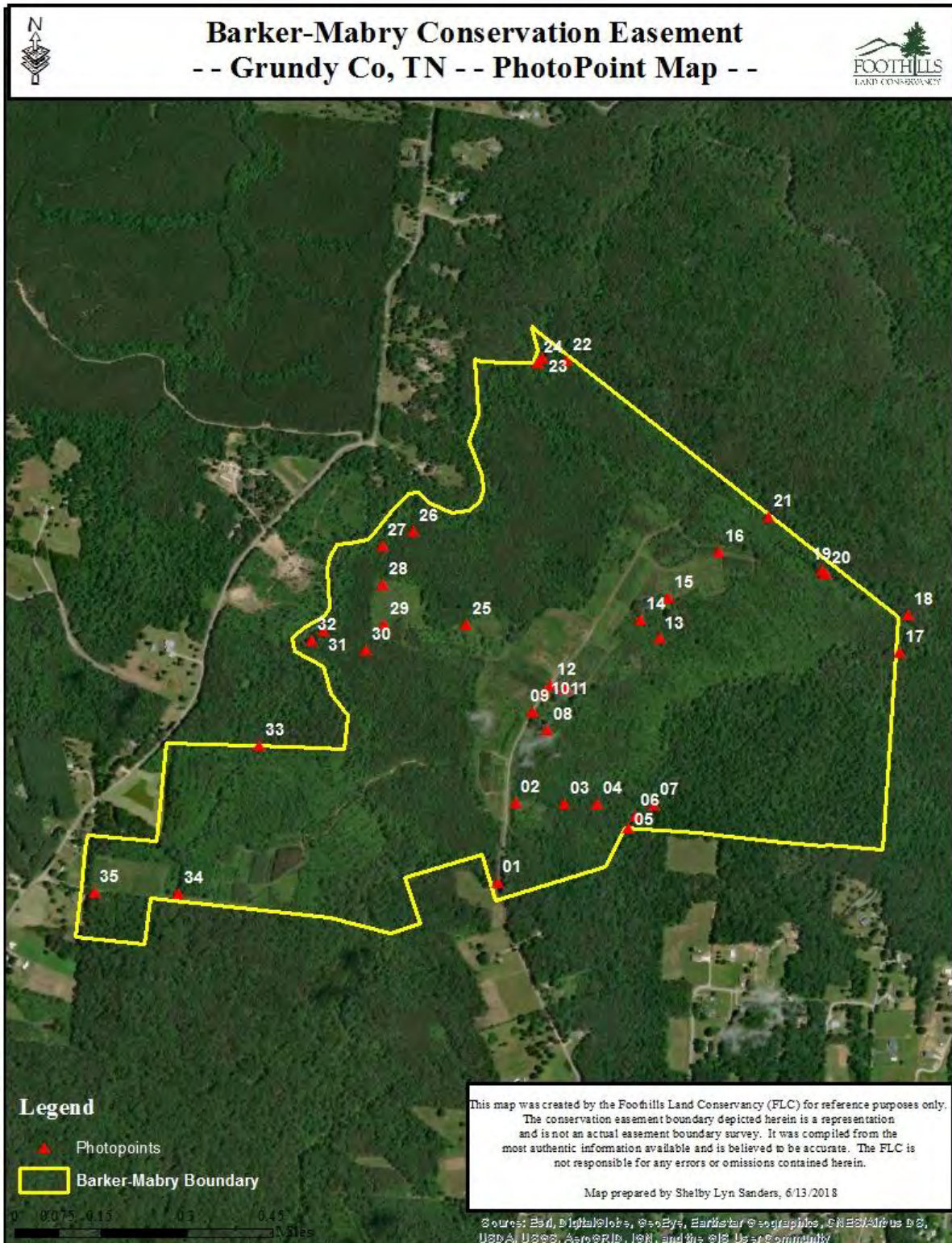
Satin,

We have a new potential easement property, c. 333 acres on three parcels in Grundy County, for which we need an archaeology report. It is centered at 35.392261, -85.591545 in the Collins USGS quadrangle. Tax map is attached.

Thank you,
Tom Howe
Foothills Land Conservancy

PHOTOGRAPHS OF CURRENT SITE CONDITIONS

PHOTO POINT MAP



KEY TO PHOTOGRAPHS

Photo#	File Name	Title	Subject	Latitude	Longitude	Time	Date	Elev	Photo Dir	Descrip
1	IMG_3867.JPG	Barker-Mabry	Cleaning and Boundary Fence Under Utilities	N 35° 23' 17.52"	W 85° 35' 34.56"	11:41:38 AM	6/20/2018	1890 ft	204° SSW	MCiebbsch
2	IMG_3215.JPG	Barker-Mabry	Road Heading East of Taylor Road	N 35° 23' 23.48"	W 85° 35' 32.89"	11:04:14 AM	6/20/2018	1861 ft	90° E	SSanders
3	IMG_3217.JPG	Barker-Mabry	Ferns in Drainage on East Side	N 35° 23' 23.32"	W 85° 35' 28.44"	11:07:37 AM	6/20/2018	1825 ft	322° NW	SSanders
4	IMG_3218.JPG	Barker-Mabry	Allecheny-Cumberland Dry Oak Forest	N 35° 23' 23.34"	W 85° 35' 25.47"	11:08:54 AM	6/20/2018	1841 ft	42° NE	SSanders
5	IMG_3223.JPG	Barker-Mabry	Inside Corner Boundary Marker	N 35° 23' 21.53"	W 85° 35' 22.59"	11:16:05 AM	6/20/2018	1792 ft	88° E	SSanders
6	121503.jpg	Barker-Mabry	Upstream End of Creek on East Side	N 35° 23' 22.47"	W 85° 35' 21.94"	11:14:58 AM	6/20/2018	1792 ft		MMboore
7	122642.jpg	Barker-Mabry	Rocky Slope Above Creek on East Side	N 35° 23' 23.29"	W 85° 35' 20.23"	11:26:40 AM	6/20/2018	1988 ft		MMboore
8	IMG_3872.JPG	Barker-Mabry	Abandoned Buildings	N 35° 23' 28.88"	W 85° 35' 29.98"	12:05:50 PM	6/20/2018	1883 ft	243° WSW	MCiebbsch
9	IMG_3875.JPG	Barker-Mabry	Abandoned Buildings	N 35° 23' 30.16"	W 85° 35' 31.29"	12:07:22 PM	6/20/2018	1891 ft	153° SSE	MCiebbsch
10	IMG_3868.JPG	Barker-Mabry	Abandoned Buildings	N 35° 23' 31.73"	W 85° 35' 30.22"	12:04:39 PM	6/20/2018	1883 ft	66° ENE	MCiebbsch
11	IMG_3869.JPG	Barker-Mabry	Abandoned Buildings	N 35° 23' 31.88"	W 85° 35' 28.33"	12:05:04 PM	6/20/2018	1882 ft	84° E	MCiebbsch
12	IMG_3874.JPG	Barker-Mabry	Utility Lines Along Taylor Road	N 35° 23' 32.17"	W 85° 35' 29.62"	12:06:37 PM	6/20/2018	1890 ft	32° NNE	MCiebbsch
13	114651.jpg	Barker-Mabry	Scrublands	N 35° 23' 35.66"	W 85° 35' 19.77"	10:46:45 AM	6/20/2018	1714 ft		MMboore
14	115509.jpg	Barker-Mabry	So. Appalachian Low Mtn Pine Forest	N 35° 23' 37.04"	W 85° 35' 21.48"	10:55:05 AM	6/20/2018	1751 ft		MMboore
15	113420.jpg	Barker-Mabry	Pasture-Forest Interface	N 35° 23' 38.63"	W 85° 35' 18.92"	10:34:17 AM	6/20/2018	1748 ft		MMboore
16	IMG_3807.JPG	Barker-Mabry	Cleared Fields	N 35° 23' 42.11"	W 85° 35' 14.32"	9:14:35 AM	6/20/2018	1870 ft	259° W	MCiebbsch
17	IMG_3806.JPG	Barker-Mabry	Creek Near Northeast Corner	N 35° 23' 34.56"	W 85° 34' 57.87"	8:53:47 AM	6/20/2018	1787 ft	221° SW	MCiebbsch
18	IMG_3805.JPG	Barker-Mabry	East Corner	N 35° 23' 37.35"	W 85° 34' 57.13"	8:48:07 AM	6/20/2018	1778 ft	99° E	MCiebbsch
19	IMG_3801.JPG	Barker-Mabry	Wetland Along North Boundary	N 35° 23' 40.74"	W 85° 35' 04.93"	8:26:49 AM	6/20/2018	1822 ft	113° ESE	MCiebbsch
20	IMG_3802.JPG	Barker-Mabry	Grass-of Parnassis in Wetland	N 35° 23' 40.44"	W 85° 35' 04.57"	8:29:50 AM	6/20/2018	1823 ft	1° N	MCiebbsch
21	IMG_3799.JPG	Barker-Mabry	Firebreak Between Property and Savage Gulf	N 35° 23' 44.64"	W 85° 35' 09.84"	8:18:26 AM	6/20/2018	1858 ft	129° SE	MCiebbsch
22	IMG_3808.JPG	Barker-Mabry	Savage Gulf Forest Abutting Property	N 35° 23' 56.30"	W 85° 35' 28.19"	9:28:03 AM	6/20/2018	1821 ft	65° ENE	MCiebbsch
23	IMG_3811.JPG	Barker-Mabry	Boundary Marker Pin	N 35° 23' 56.42"	W 85° 35' 30.41"	9:33:27 AM	6/20/2018	1774 ft	120° ESE	MCiebbsch
24	IMG_3812.JPG	Barker-Mabry	Round Mountain Creek on West Boundary	N 35° 23' 56.13"	W 85° 35' 30.83"	9:38:05 AM	6/20/2018	1774 ft	276° W	MCiebbsch
25	IMG_3210.JPG	Barker-Mabry	Recently Cleared Area	N 35° 23' 46.63"	W 85° 35' 37.36"	9:57:26 AM	6/20/2018	1827 ft	222° SW	SSanders
26	IMG_3208.JPG	Barker-Mabry	Patchy Areas of Open Understory	N 35° 23' 43.55"	W 85° 35' 45.03"	9:32:31 AM	6/20/2018	1810 ft	136° SE	SSanders
27	IMG_3207.JPG	Barker-Mabry	Wash Area Coming off Fields	N 35° 23' 42.48"	W 85° 35' 44.96"	9:16:10 AM	6/20/2018	1727 ft	78° ENE	SSanders
28	101613.jpg	Barker-Mabry	Pasture Edge Supporting Many Butterflies	N 35° 23' 39.67"	W 85° 35' 44.89"	9:10:47 AM	6/20/2018	1877 ft		MMboore
29	IMG_3203.JPG	Barker-Mabry	Pasture	N 35° 23' 36.71"	W 85° 35' 44.89"	9:10:47 AM	6/20/2018	1877 ft	6° N	SSanders
30	IMG_3193.JPG	Barker-Mabry	Where Burning of Fields Penetrated the Woods	N 35° 23' 34.79"	W 85° 35' 46.48"	8:34:27 AM	6/20/2018	1856 ft	220° SW	SSanders
31	IMG_3201.JPG	Barker-Mabry	South-Central Interior Mesophytic Forest	N 35° 23' 36.19"	W 85° 35' 50.41"	8:58:48 AM	6/20/2018	1796 ft	30° NNE	SSanders
32	IMG_3200.JPG	Barker-Mabry	Rhododendron Lining Round Mtn Ck	N 35° 23' 35.49"	W 85° 35' 51.48"	8:53:13 AM	6/20/2018	1794 ft	80° E	SSanders
33	IMG_3865.JPG	Barker-Mabry	Where Unnamed Creek Exits Property	N 35° 23' 27.68"	W 85° 35' 56.18"	11:26:29 AM	6/20/2018	1821 ft	227° SW	MCiebbsch
34	IMG_3857.JPG	Barker-Mabry	Upper End of Unnamed Creek	N 35° 23' 16.75"	W 85° 36' 03.62"	10:51:51 AM	6/20/2018	1838 ft	28° NNE	MCiebbsch
35	IMG_3859.JPG	Barker-Mabry	Gate on West End of Coffelt Town Road	N 35° 23' 16.84"	W 85° 36' 11.28"	11:06:04 AM	6/20/2018	1868 ft	287° WNW	MCiebbsch

PHOTOGRAPHS

Barker-Mabry IMG_3867.JPG MClebsch
01 Clearing and Boundary Fence Under Utilities



W 85° 35' 34.56" 1890 ft 6/20/2018
N 35° 23' 17.52" 204° SSW 11:41:38 AM

Barker-Mabry IMG_3215.JPG SSanders
02 Road Heading East of Taylor Road



W 85° 35' 32.89" 1861 ft 6/20/2018
N 35° 23' 23.48" 90° E 11:04:14 AM

Barker-Mabry
03

IMG_3217.JPG
Ferns in Drainage on East Side

SSanders



W 85° 35' 28.44"
N 35° 23' 23.32"

1825 ft
322° NW

6/20/2018
11:07:37 AM

Barker-Mabry
04

IMG_3218.JPG
Allegheny-Cumberland Dry Oak Forest

SSanders



W 85° 35' 25.47"
N 35° 23' 23.34"

1841 ft
42° NE

6/20/2018
11:08:54 AM

Barker-Mabry
05

IMG_3223.JPG
Inside Corner Boundary Marker

SSanders



W 85° 35' 22.59"
N 35° 23' 21.53"

1792 ft
88° E

6/20/2018
11:16:05 AM

Barker-Mabry
06

121503.jpg
Upstream End of Creek on East Side

MMoore



W 85° 35' 21.94"
N 35° 23' 22.47"

1792 ft

6/20/2018
11:14:58 AM

Barker-Mabry
07

122642.jpg
Rocky Slope Above Creek on East Side

MMoore



W 85° 35' 20.23"
N 35° 23' 23.29"

1988 ft

6/20/2018
11:26:40 AM

Barker-Mabry
08

IMG_3872.JPG
Abandoned Buildings

MClebsch



W 85° 35' 29.98"
N 35° 23' 28.88"

1883 ft
243° WSW

6/20/2018
12:05:50 PM

Barker-Mabry
09

IMG_3875.JPG
Abandoned Buildings

MClebsch



W 85° 35' 31.29"
N 35° 23' 30.16"

1891 ft
153° SSE

6/20/2018
12:07:22 PM

Barker-Mabry
10

IMG_3868.JPG
Abandoned Buildings

MClebsch



W 85° 35' 30.22"
N 35° 23' 31.73"

1883 ft
66° ENE

6/20/2018
12:04:39 PM

Barker-Mabry
11

IMG_3869.JPG
Abandoned Buildings

MClebsch



W 85° 35' 28.33"
N 35° 23' 31.88"

1882 ft
84° E

6/20/2018
12:05:04 PM

Barker-Mabry
12

IMG_3874.JPG
Utility Lines Along Taylor Road

MClebsch



W 85° 35' 29.62"
N 35° 23' 32.17"

1890 ft
32° NNE

6/20/2018
12:06:37 PM

Barker-Mabry
13

114651.jpg
Scrublands

MMoore



W 85° 35' 19.77"
N 35° 23' 35.66"

1714 ft

6/20/2018
10:46:45 AM

Barker-Mabry
14

115509.jpg
So. Appalachian Low Mtn Pine Forest

MMoore



W 85° 35' 21.48"
N 35° 23' 37.04"

1751 ft

6/20/2018
10:55:05 AM

Barker-Mabry
15

113420.jpg
Pasture-Forest Interface

MMoore



W 85° 35' 18.92"
N 35° 23' 38.63"

1748 ft

6/20/2018
10:34:17 AM

Barker-Mabry
16

IMG_3807.JPG
Cleared Fields

MClebsch



W 85° 35' 14.32"
N 35° 23' 42.11"

1870 ft
259° W

6/20/2018
9:14:35 AM

Barker-Mabry
17

IMG_3806.JPG
Creek Near Northeast Corner

MClebsch



W 85° 34' 57.87"
N 35° 23' 34.56"

1787 ft
221° SW

6/20/2018
8:53:47 AM

Barker-Mabry
18

IMG_3805.JPG
East Corner

MClebsch



W 85° 34' 57.13"
N 35° 23' 37.35"

1778 ft
99° E

6/20/2018
8:48:07 AM

Barker-Mabry
19

IMG_3801.JPG
Wetland Along North Boundary

MClebsch



W 85° 35' 04.93"
N 35° 23' 40.74"

1822 ft
113° ESE

6/20/2018
8:26:49 AM

Barker-Mabry
20

IMG_3802.JPG
Grass-of Parnassis in Wetland

MClebsch



W 85° 35' 04.57"
N 35° 23' 40.44"

1823 ft
1° N

6/20/2018
8:29:50 AM

Barker-Mabry IMG_3799.JPG MClebsch
 21 Firebreak Between Property and Savage Gulf



W 85° 35' 09.84" 1858 ft 6/20/2018
 N 35° 23' 44.64" 129° SE 8:18:26 AM

Barker-Mabry IMG_3808.JPG MClebsch
 22 Savage Gulf Forest Abutting Property



W 85° 35' 28.19" 1821 ft 6/20/2018
 N 35° 23' 56.30" 65° ENE 9:28:03 AM

Barker-Mabry
23

IMG_3811.JPG
Boundary Marker Pin

MClebsch



W 85° 35' 30.41"
N 35° 23' 56.42"

1771 ft
120° ESE

6/20/2018
9:33:27 AM

Barker-Mabry
24

IMG_3812.JPG
Round Mountain Creek on West Boundary

MClebsch



W 85° 35' 30.83"
N 35° 23' 56.13"

1774 ft
276° W

6/20/2018
9:38:05 AM

Barker-Mabry
25

IMG_3210.JPG
Recently Cleared Area

SSanders



W 85° 35' 37.36"
N 35° 23' 36.63"

1827 ft
222° SW

6/20/2018
9:57:26 AM

Barker-Mabry
26

IMG_3208.JPG
Patchy Areas of Open Understory

SSanders



W 85° 35' 42.22"
N 35° 23' 43.55"

1831 ft
136° SE

6/20/2018
9:39:29 AM

Barker-Mabry
27

IMG_3207.JPG
Wash Area Coming off Fields

SSanders



W 85° 35' 45.03"
N 35° 23' 42.48"

1810 ft
78° ENE

6/20/2018
9:32:31 AM

Barker-Mabry
28

101613.jpg
Pasture Edge Supporting Many Butterflies

MMoore



W 85° 35' 44.96"
N 35° 23' 39.67"

1727 ft

6/20/2018
9:16:10 AM

Barker-Mabry
29

IMG_3203.JPG
Pasture

SSanders



W 85° 35' 44.89"
N 35° 23' 36.71"

1877 ft
6° N

6/20/2018
9:10:47 AM

Barker-Mabry
30

IMG_3193.JPG
Where Burning of Fields Penetrated the Woods

SSanders



W 85° 35' 46.48"
N 35° 23' 34.79"

1856 ft
220° SW

6/20/2018
8:34:27 AM

Barker-Mabry
31

IMG_3201.JPG
South-Central Interior Mesophytic Forest

SSanders



W 85° 35' 50.41"
N 35° 23' 36.19"

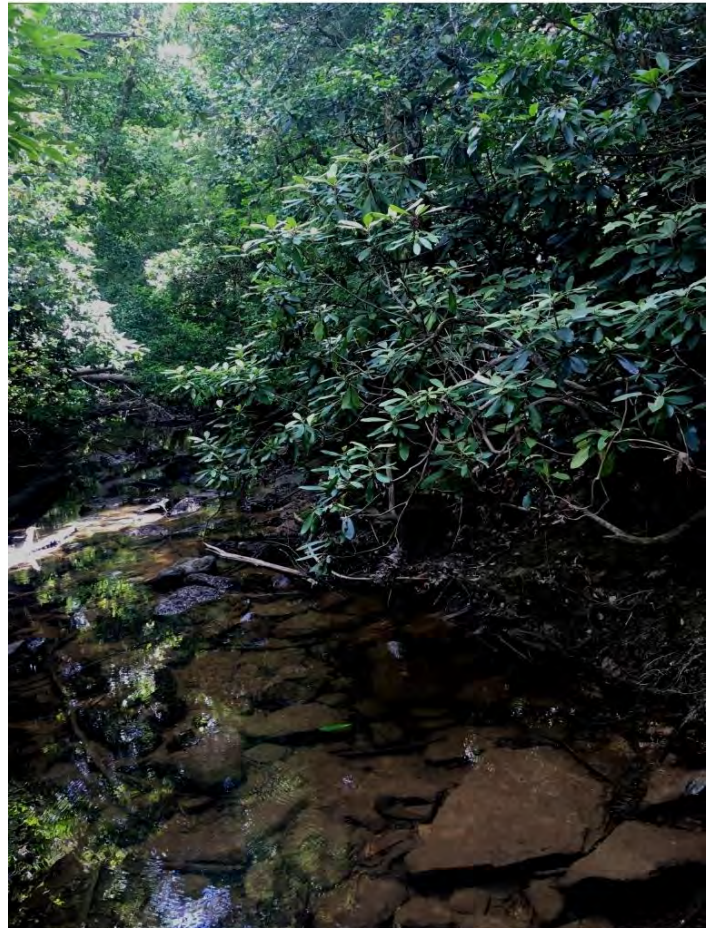
1796 ft
30° NNE

6/20/2018
8:58:48 AM

Barker-Mabry
32

IMG_3200.JPG
Rhododendron Lining Round Mtn Ck

SSanders



W 85° 35' 51.48"
N 35° 23' 35.49"

1794 ft
80° E

6/20/2018
8:53:13 AM

Barker-Mabry
33

IMG_3865.JPG

MClebsch
Where Unnamed Creek Exits Property



W 85° 35' 56.18" 1821 ft 6/20/2018
N 35° 23' 27.68" 227° SW 11:26:29 AM

Barker-Mabry
34

IMG_3857.JPG

MClebsch
Upper End of Unnamed Creek



W 85° 36' 03.62" 1838 ft 6/20/2018
N 35° 23' 16.75" 28° NNE 10:51:51 AM

Barker-Mabry IMG_3859.JPG MClebsch
35 Gate on West End of Coffelt Town Road

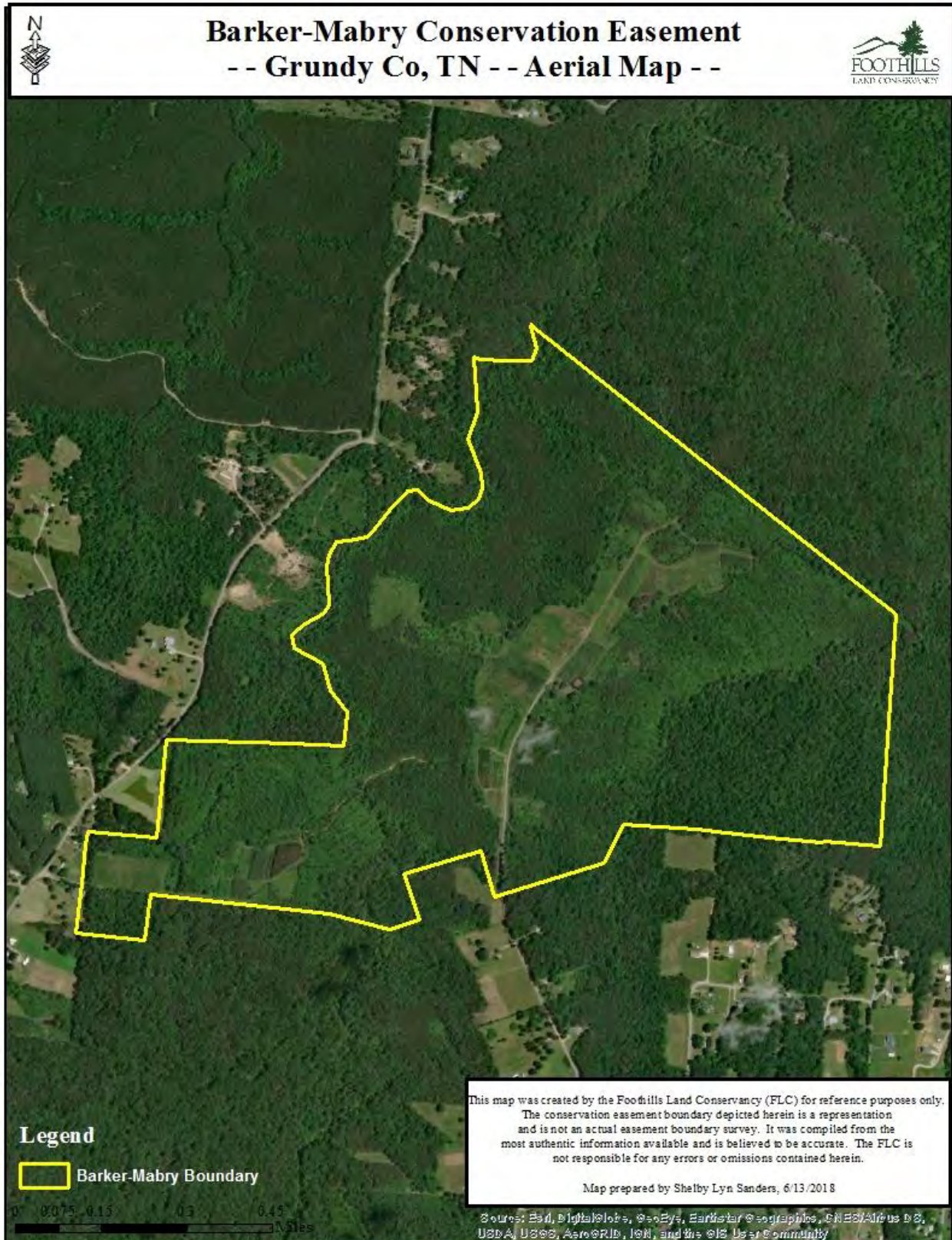


W 85° 36' 11.28" 1868 ft 6/20/2018
N 35° 23' 16.84" 287° WNW 11:06:04 AM

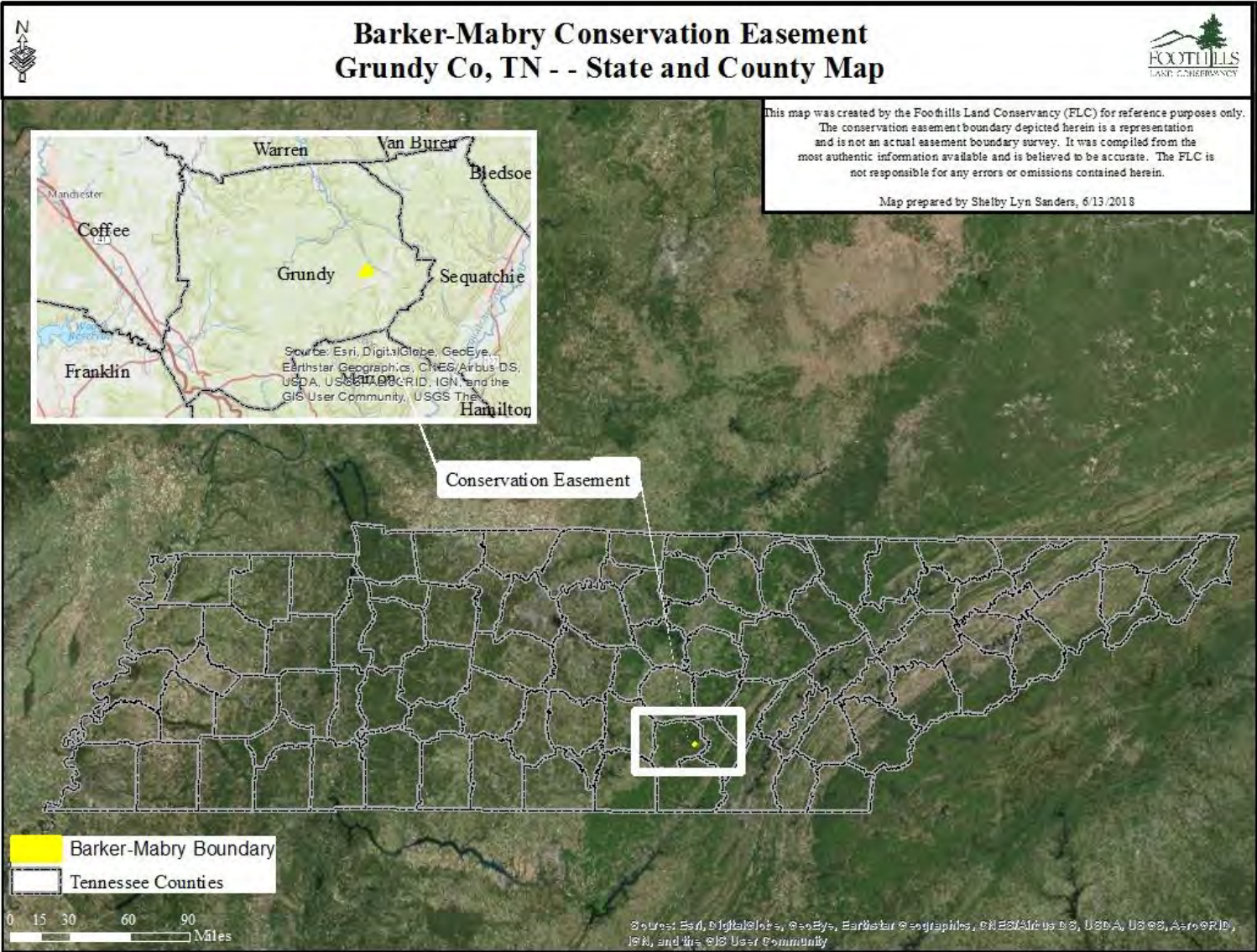
MAPS

- Aerial Photograph with Boundaries
- State and County Map
- USGS Quadrangle Map
- Watershed Map
- Wetlands Map
- Flood Map
- Soils Map with Descriptions
- Prime Agricultural Soils
- Sub-surface Geology and Legend
- Land Use Map
- Survey Drawing
- House Site Drawing
- Conservation Management Areas Map
- Anthropogenic Features Map

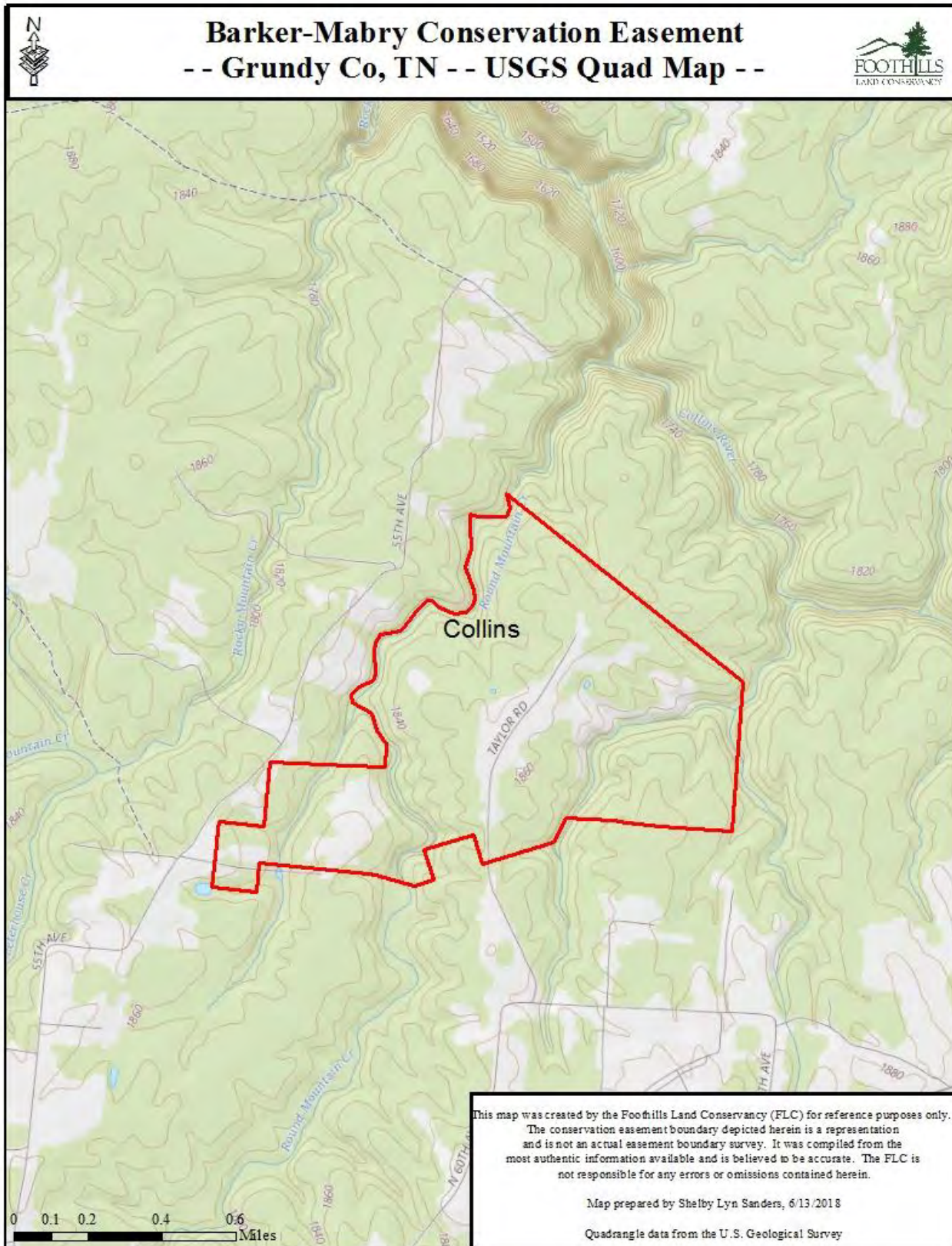
AERIAL PHOTOGRAPH WITH BOUNDARIES



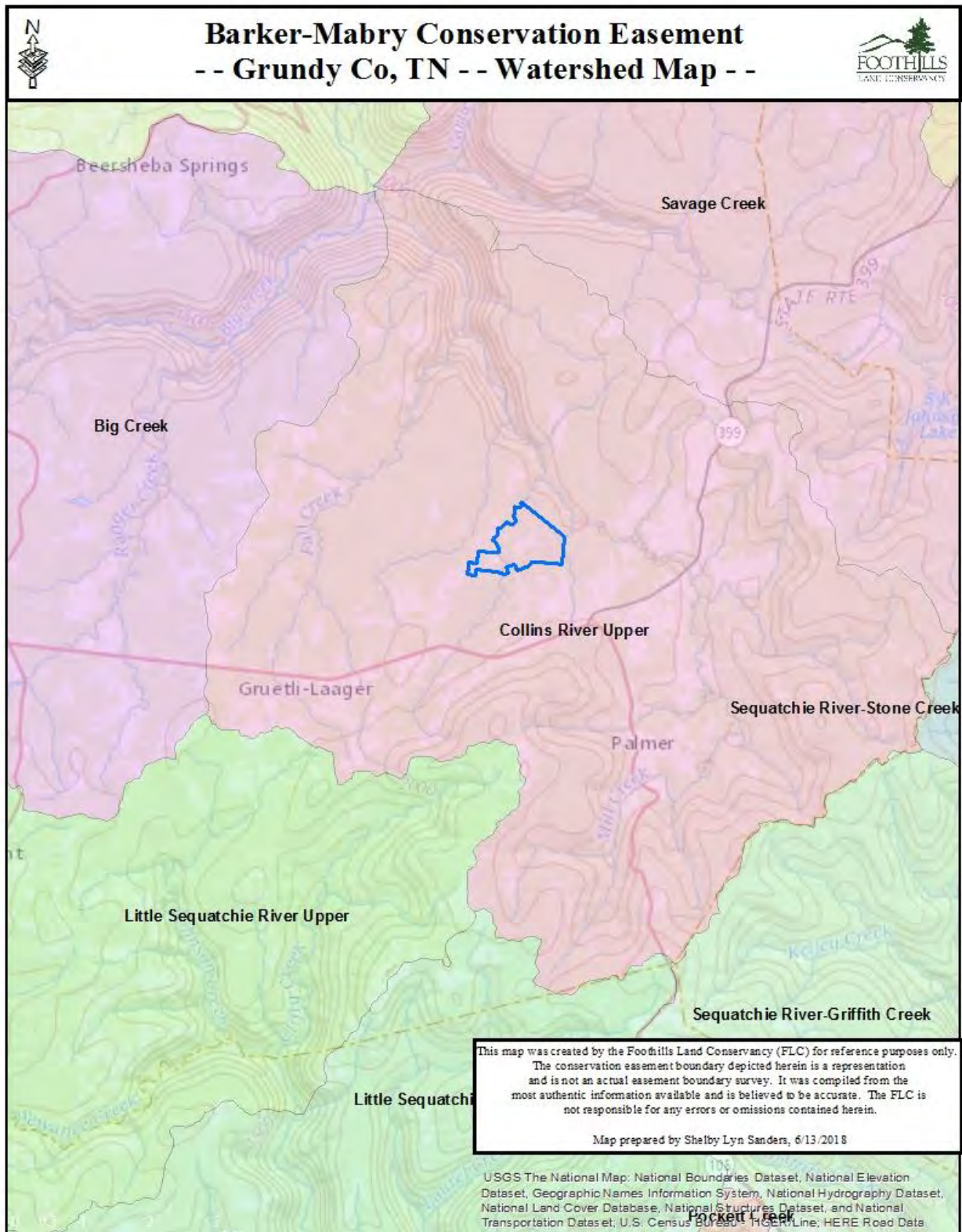
STATE AND COUNTY MAP



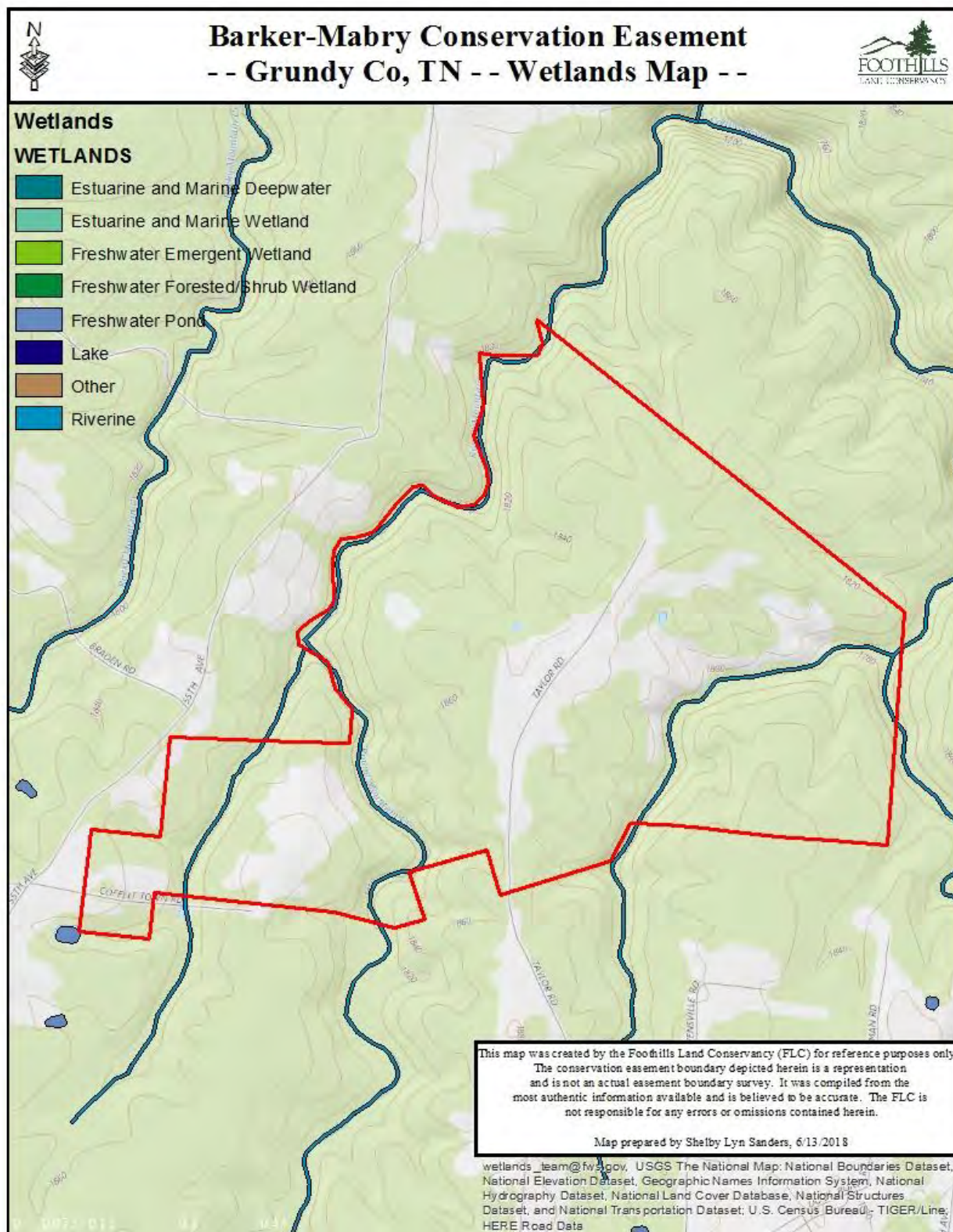
USGS QUADRANGLE MAP



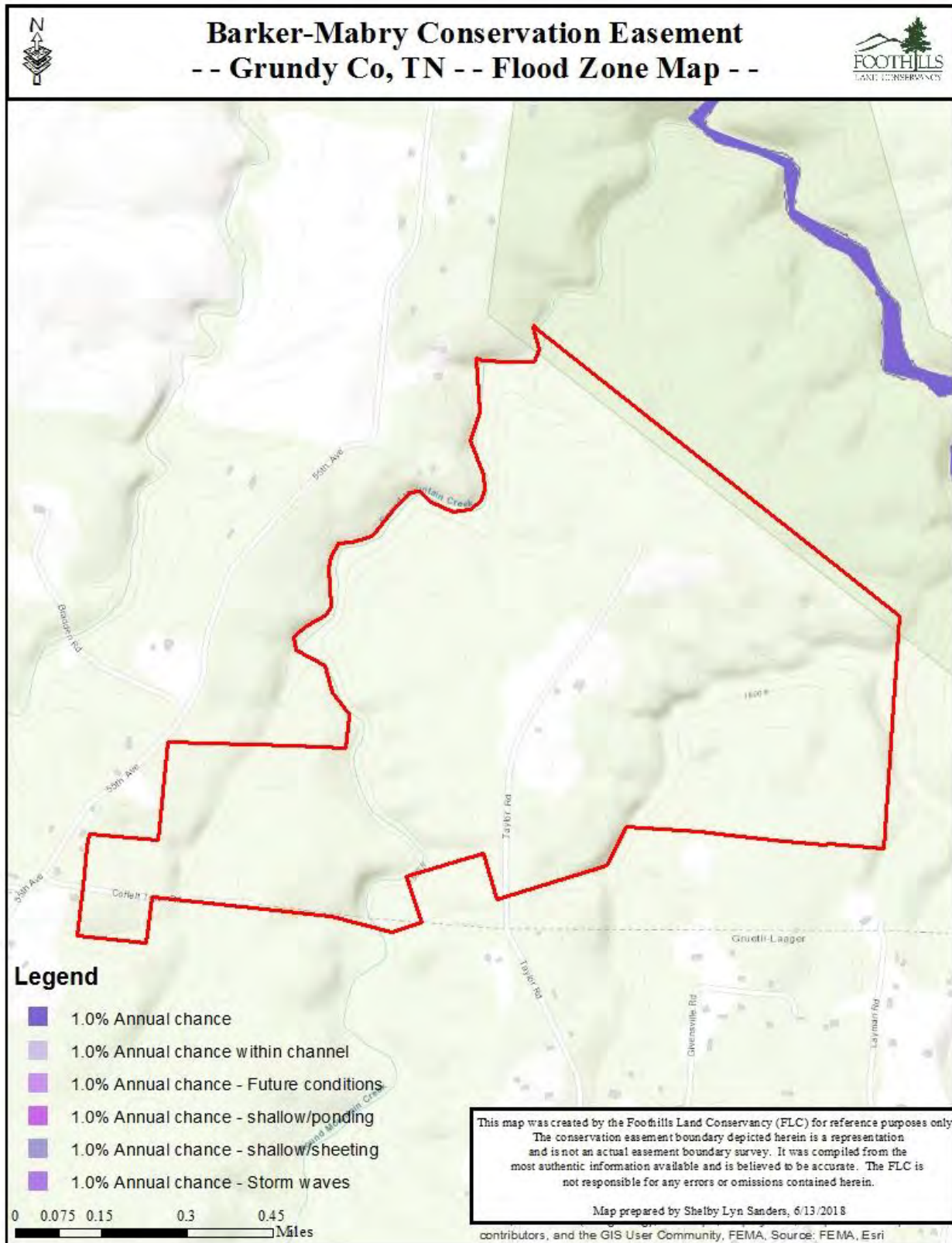
WATERSHED MAP



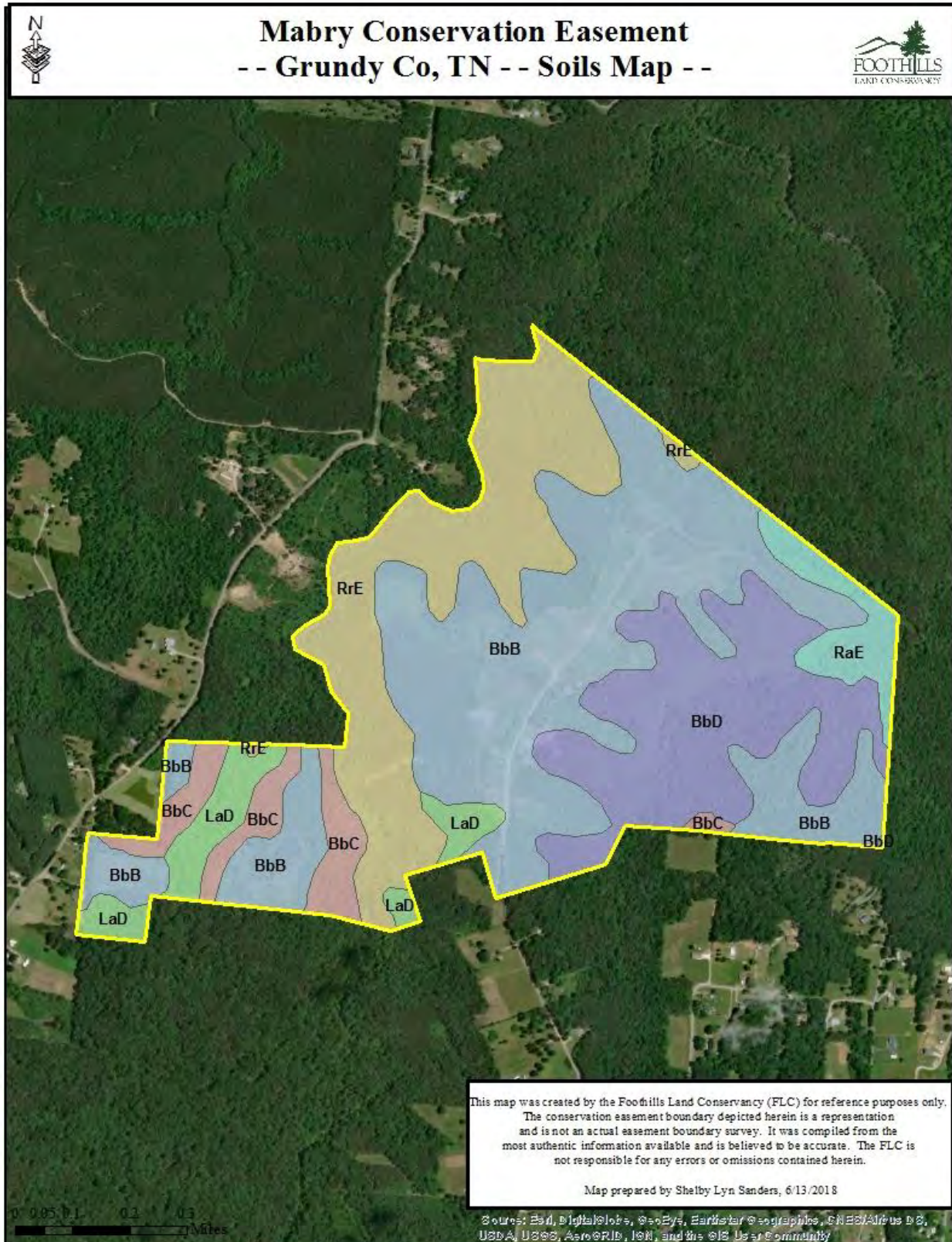
WETLANDS MAP



FLOOD MAP

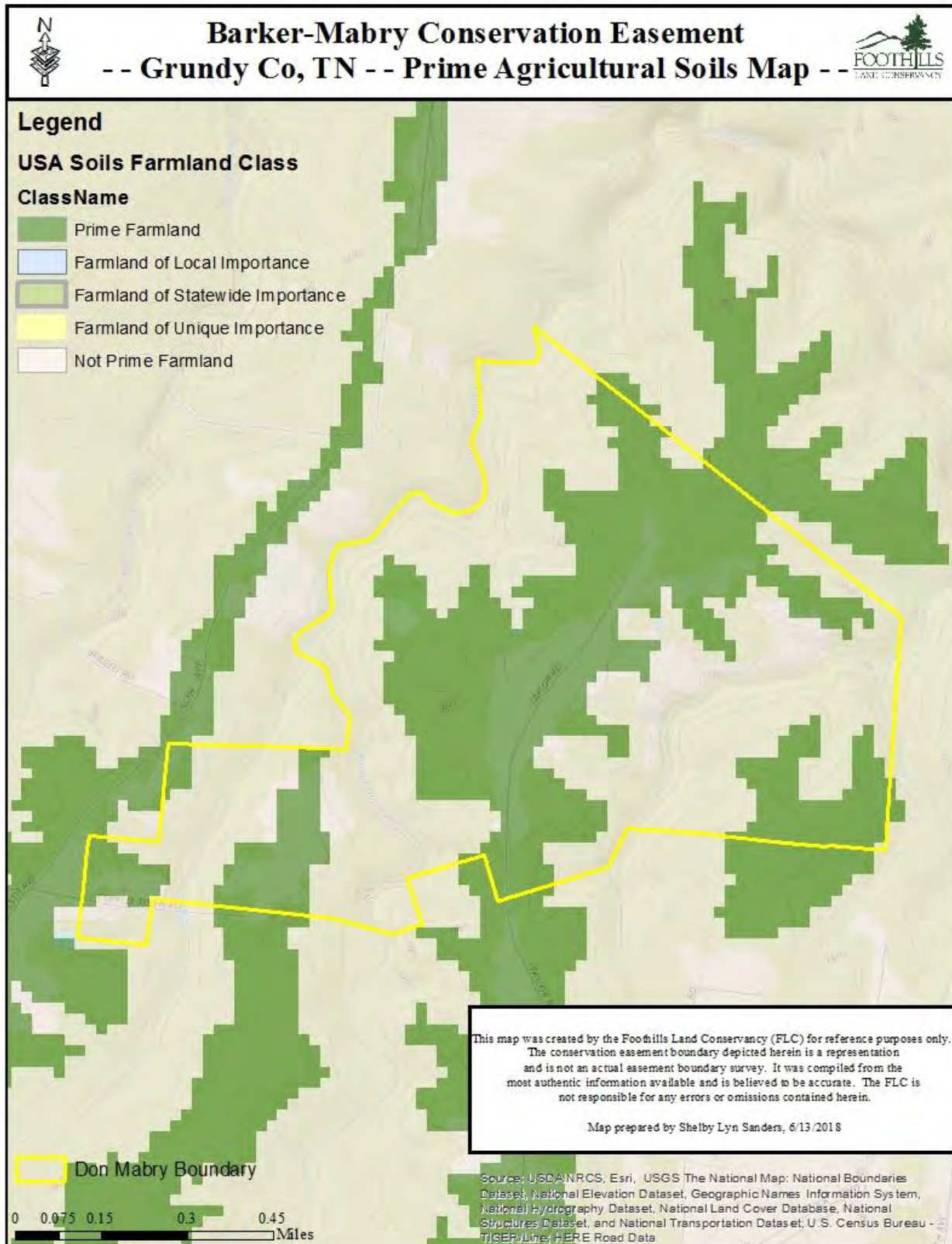


SOILS MAP WITH DESCRIPTIONS

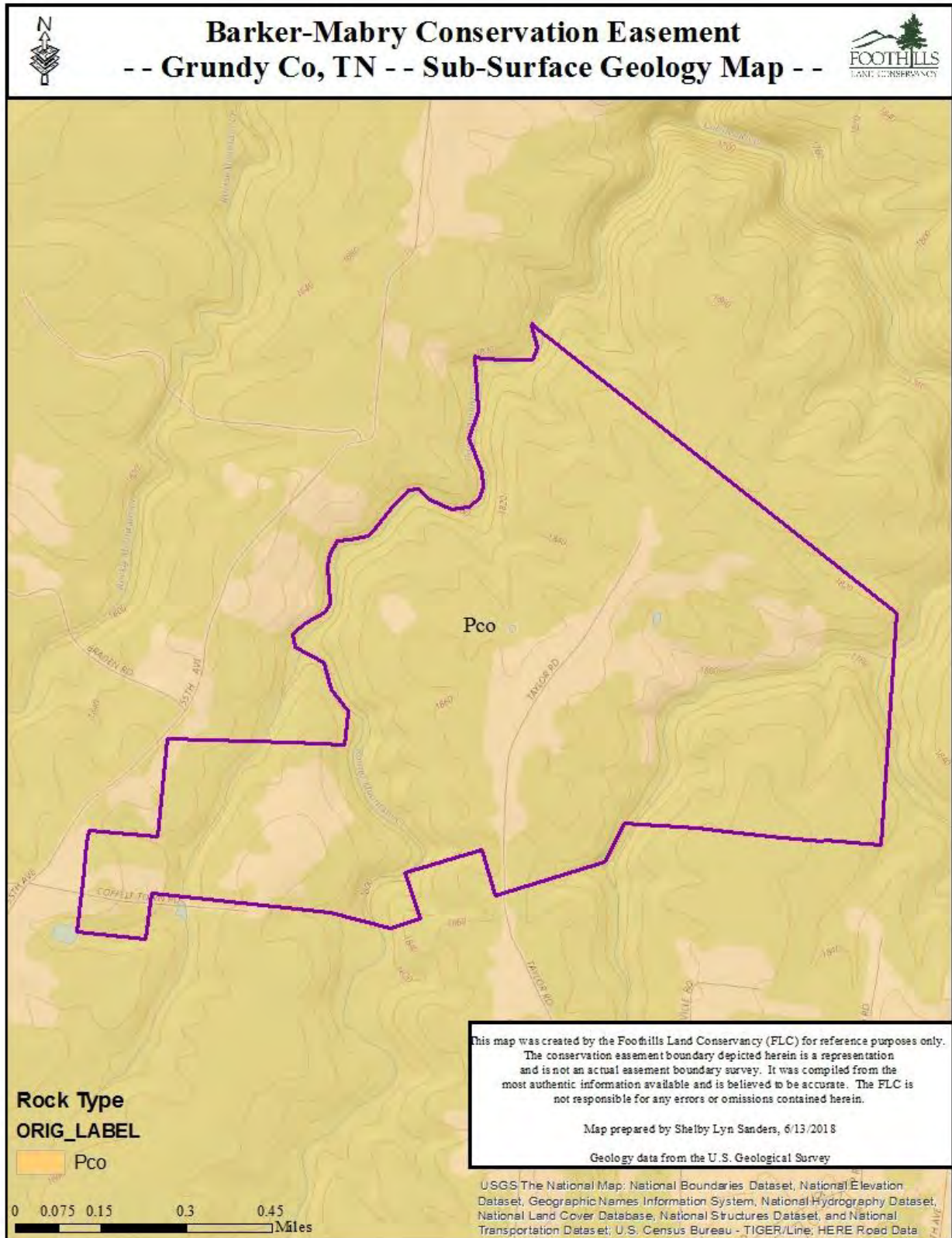


Symbol	Description	Landform	Farmland Status	% of total acreage
BbB	Beersheba loam, 2 to 6 percent slopes	Ridges	All areas are prime farmland	43.5
BbC	Beersheba loam, 6 to 12 percent slopes	Ridges	Not prime farmland	5.8
BbD	Beersheba loam, 12 to 20 percent slopes	Ridges	Not prime farmland	19.7
LaD	Lily loam, 12 to 20 percent slopes	Hillslopes	Not prime farmland	5.2
RaE	Ramsey sandy loam, 15 to 35 percent slopes	Ridges	Not prime farmland	3.7
RrE	Ramsey-Rock outcrop complex, 15 to 40 percent slopes	Ridges	Not prime farmland	22.1

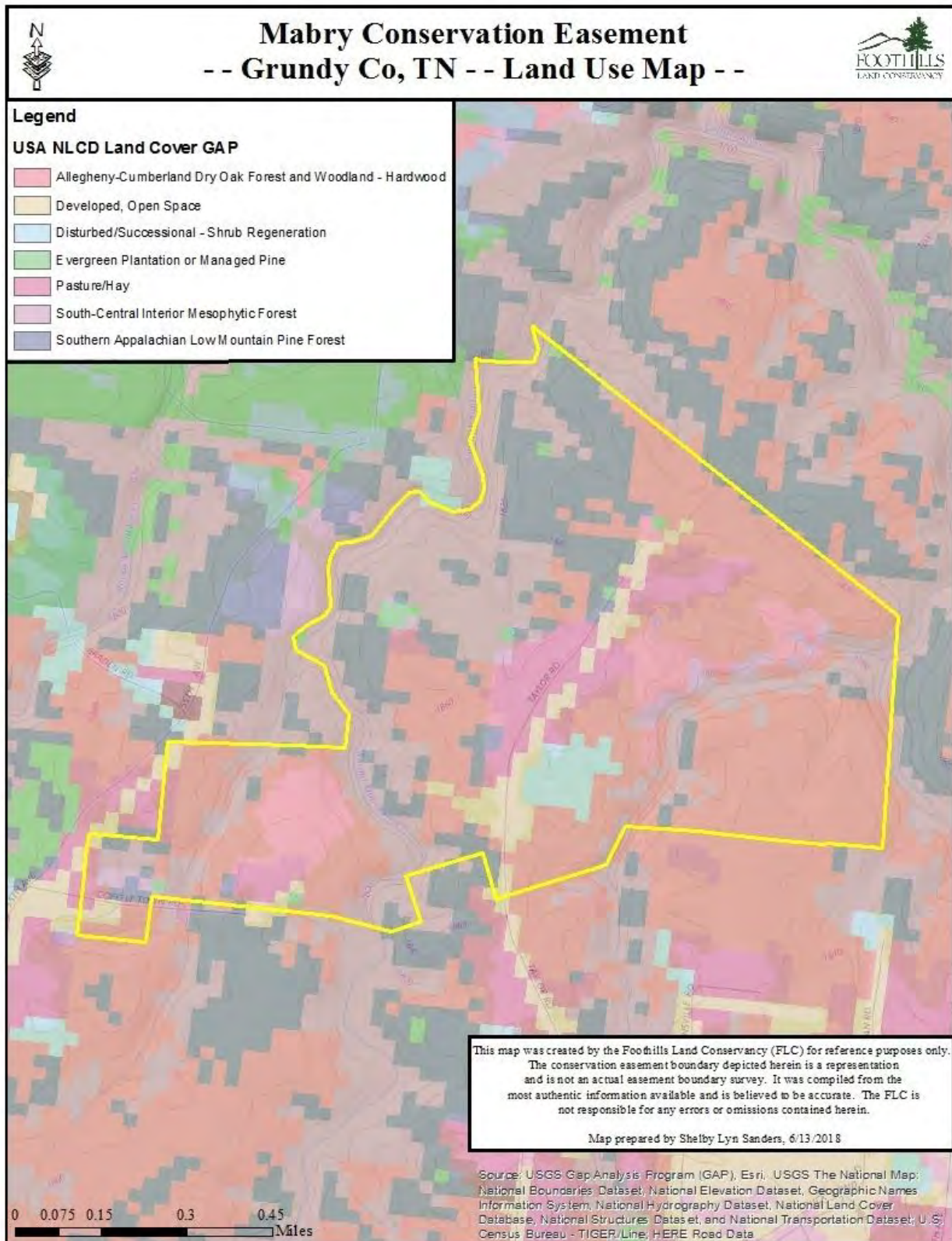
PRIME AGRICULTURAL SOILS



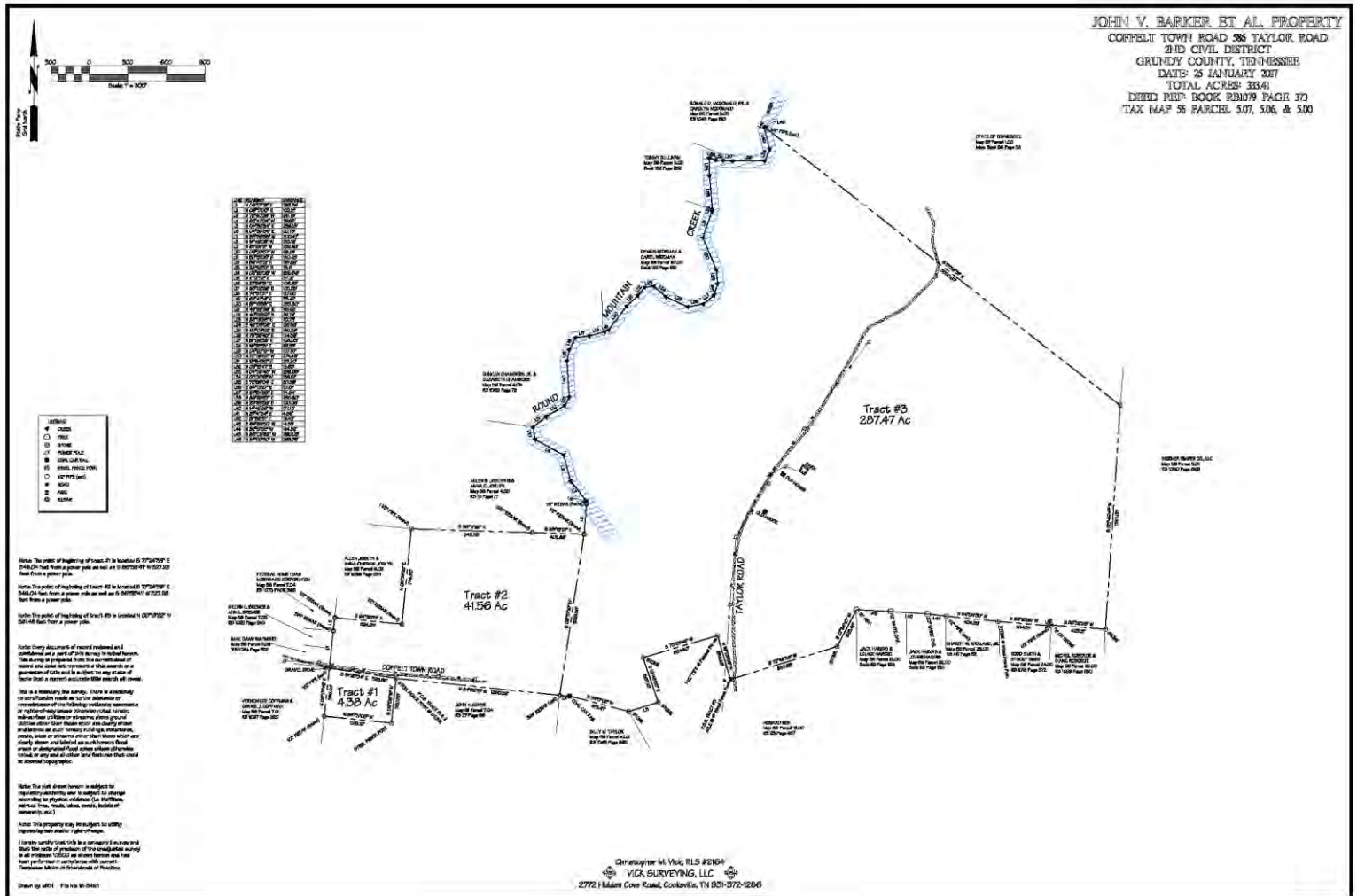
SUB-SURFACE GEOLOGY AND LEGEND



LAND USE MAP

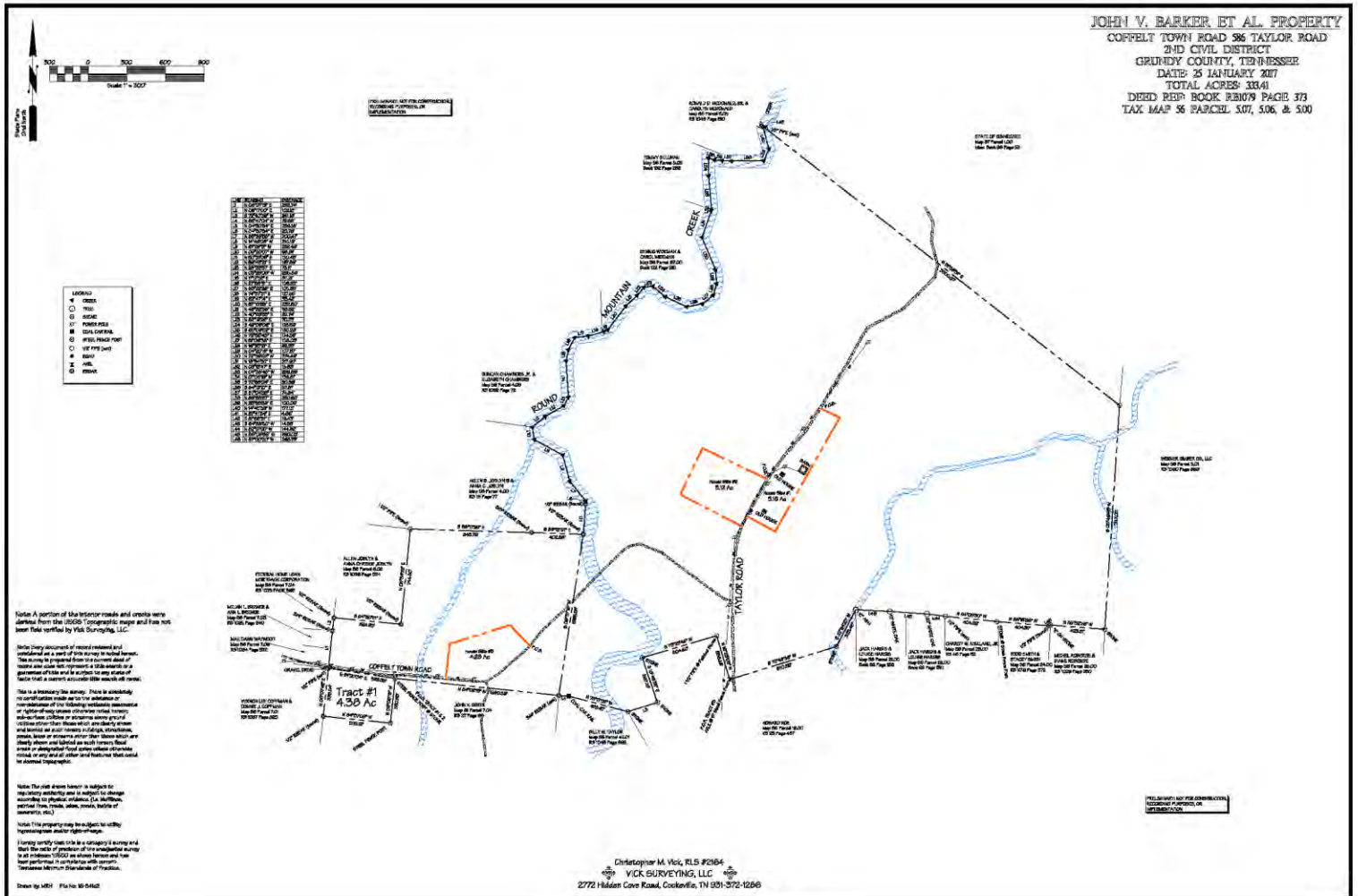


SURVEY DRAWING

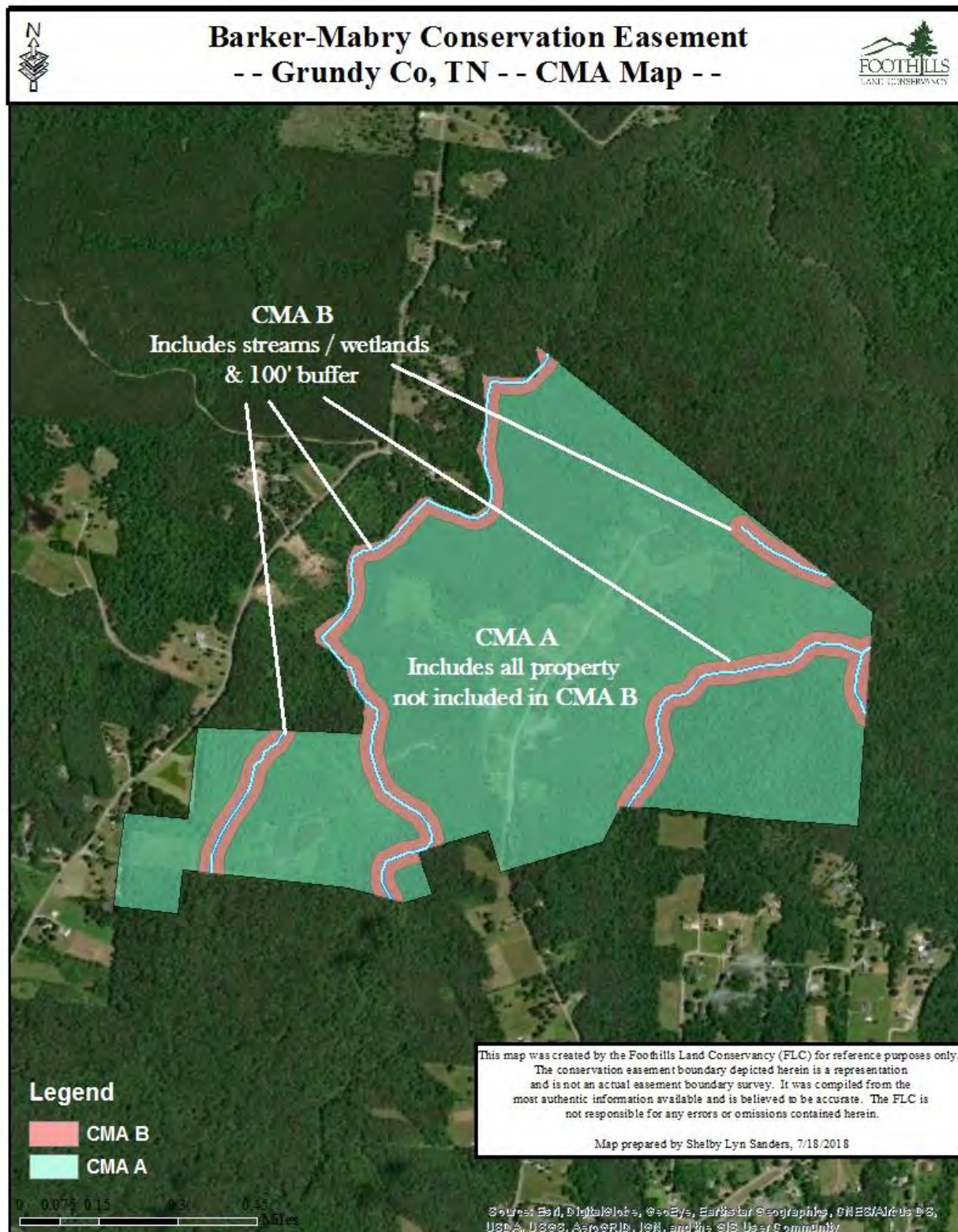


HOUSE SITE DRAWING

(boundaries in orange)



CONSERVATION MANAGEMENT AREAS MAP



ANTHROPOGENIC FEATURES MAP

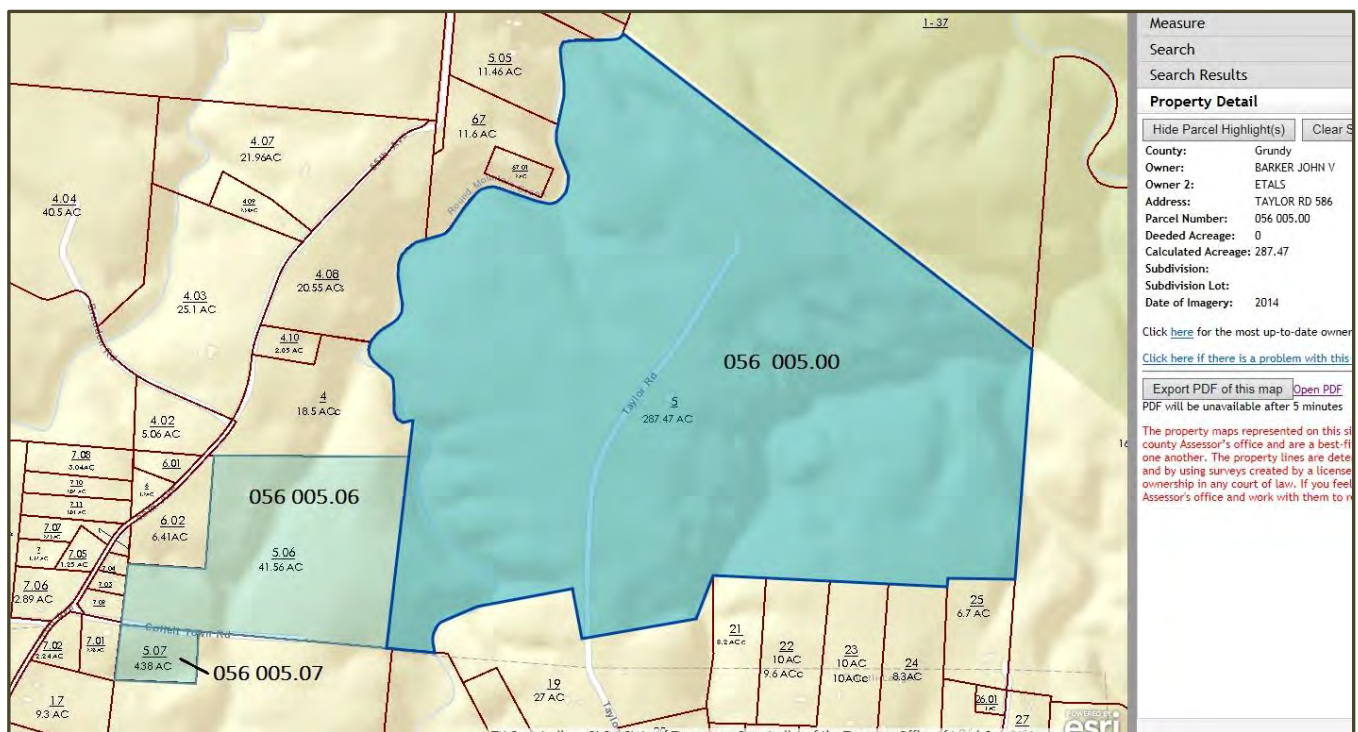


PROPERTY DESCRIPTION

Parcel Maps and Property Data (See Exhibit A)

(Note: Neither Tax Map nor Data Report as yet reflect the boundaries of the proposed easement.)

Grundy County parcels 056 005.00, 056 005.06, 056 005.07 in blue



State of Tennessee **Comptroller of the Treasury**
Real Estate Assessment Data

County Number: 031

County Name: GRUNDY

Tax Year: 2019

Property Owner and Mailing Address

Jan 1 Owner:
 BARKER JOHN V
 ETALS
 PO BOX 55
 DUNLAP, TN 37327

Current Owner:

Property Location

Address: TAYLOR RD 586

Map: 056 **Grp:** **Ctrl Map:** 056 **Parcel:** 005.00 **Pl:** **S/I:** 000

Value Information

Reappraisal Year: 2014

Land Mkt Value:	\$317,500	Land Use Value:	\$174,100
Improvement Value:	\$32,900	Improvement Value:	\$32,900
Total Market Appraisal:	\$350,400	Total Use Appraisal:	\$207,000
		Assessment %:	25
		Assessment:	\$51,750

General Information

Class:	11 - AGRICULTURAL		
City #:	000	City:	
SSD1:	000	SSD2:	000
District:	02	Mkt Area:	R01
# Bldgs:	2	# Mobile Homes:	0
Utilities - Water / Sewer:	11 - INDIVIDUAL / INDIVIDUAL	Utilities - Electricity:	01 - PUBLIC
Utilities - Gas / Gas	00 - NONE	Zoning:	

Type:

Subdivision Data

Subdivision:

Plat Bk: Plat Pg: Block: Lot:

Additional Description

BK WW PG 320

Building Information

Building # 1

Improvement Type:	40 - WAREHOUSE	Stories:	1
Living/Business Sq. Ft.:	1,944		
Foundation:	02 - CONTINUOUS FOOTING	Floor System:	00 - EARTH
Exterior Wall:	07 - CONCRETE BLOCK	Structural Frame:	00 - NONE
Roof Framing:	04 - WOODFRAME/TR USS	Roof Cover/De ck:	00 - CORRUGAT ED METAL
Cabinet/Millwork:	00 - NONE	Floor Finish:	00 - EARTH
Interior Finish:	01 - UNFINISHED	Paint/Dec or:	01 - MINIMUM
Heat and A/C:	0 -	Plumbing Fixtures:	0
Bath Tile:	00 - NONE	Electrical:	02 - BELOW AVERAGE
Shape:	01 - RECTANGULAR DESIGN	Quality:	01 - AVERAGE
Act Yr Built:	1958	Condition :	A - AVERAGE

Building Areas:

Area: 40 Sq Ft: 1,944

Building # 2

Improvement Type:	01 - SINGLE FAMILY	Stories:	1
Living/Business Sq. Ft.:	900		
Foundation:	02 - CONTINUOUS FOOTING	Floor System:	04 - WOOD W/ SUB FLOOR
Exterior Wall:	04 - SIDING AVERAGE	Structural Frame:	00 - NONE
Roof Framing:	02 - GABLE/HIP	Roof Cover/Deck:	00 - CORRUGATED METAL
Cabinet/Millwork:	02 - BELOW AVERAGE	Floor Finish:	11 - CARPET COMBINATION
Interior Finish:	07 - DRYWALL	Paint/Decorator:	02 - BELOW AVERAGE
Heat and A/C:	00 - NONE	Plumbing Fixtures:	3
Bath Tile:	00 - NONE	Electrical:	02 - BELOW AVERAGE
Shape:	01 - RECTANGULAR DESIGN	Quality:	00 - BELOW AVERAGE
Act Yr Built:	1955	Condition :	A - AVERAGE
Building Areas:			
Area:	BAS	Sq Ft:	900
Area:	OPF	Sq Ft:	108
Area:	OPF	Sq Ft:	90

Extra Features

Bldg/Card#	Type	Description	Units
1	ATTACHED SHED	18X54	972

Sale Information

Sale Date	Price	Book	Page	Vac/Imp	Type Instrument	Qualification
03/09/2017		1085	415	IMPROVED	QC	
11/23/2016	\$549,885	1079	373	IMPROVED	WD	P
06/27/1984	\$0	101	335			
05/16/1979	\$0	86	398			
05/18/1960	\$0	93	9			

Land Information

				287.47			
Deed Acres: 0.00	Calc Acres: 0.00	Total Land Units:	Land Type:	62 - WOODLAND 2	Soil Class:	A	Units: 111.30
			Land Type:	46 - ROTATION	Soil Class:	G	Units: 65.97
			Land Type:	62 - WOODLAND 2	Soil Class:	G	Units: 50.00
			Land Type:	62 - WOODLAND 2	Soil Class:	P	Units: 59.20
			Land Type:	04 - IMP SITE	Soil Class:		Units: 1.00

DIRECTIONS TO PROPERTY WITH MAPS

Entry Coordinates: 35.387771, -85.592688

3402 Andy Harris Rd, Rockford, TN 37853 to A031056 01900 00002056, Tennessee - G... Page 1 of 2



3402 Andy Harris Rd, Rockford, TN 37853 to A031056 01900 00002056, Tennessee
Drive 136 miles, 2 h 29 min

3402 Andy Harris Rd

(Rockford) TN 37853

Get on I-140 W in Alcoa from Martin Mill Pike

- | | | |
|---|---|----------------|
| ↑ | 1. Head north on Andy Harris Rd toward Martin Mill Pike | 9 min (5.2 mi) |
| ↩ | 2. Turn left onto Martin Mill Pike | 0.2 mi |
| ↩ | 3. Turn right onto TN-33 N | 3.4 mi |
| ↩ | 4. Turn left onto Williams Mill Rd | 0.3 mi |
| ↩ | 5. Turn right onto S Singleton Station Rd | 0.2 mi |
| ↩ | 6. Turn left onto Cusick Rd | 0.6 mi |
| ↩ | 7. Turn right to merge onto I-140 W | 0.8 mi |
| | | 0.2 mi |

Follow I-140 W and I-40 W to Cox Valley Rd in Crab Orchard

- | | | |
|---|--|------------------|
| ↩ | 8. Merge onto I-140 W | 55 min (60.0 mi) |
| ↑ | 9. Continue onto TN-162 N | 17.9 mi |
| ↩ | 10. Take exit 1D for I-40 W/I-75 S toward Nashville/Chattanooga | 0.1 mi |
| ↩ | 11. Keep left at the fork and merge onto I-40 W/I-75 S | 0.4 mi |
| ↩ | 12. Keep right at the fork to continue on I-40 W, follow signs for Nashville | 7.8 mi |
| ↩ | 13. Take exit 329 toward US-70/Crab Orchard | 38.4 mi |
| ↩ | 14. Turn right onto Market St | 0.3 mi |
| ↩ | 15. Turn left at the 1st cross street onto US-70 W | 0.1 mi |
| | | 1.0 mi |

Follow Cox Valley Rd and TN-68 N to US-127 S

- | | |
|--|-----------------|
| | 11 min (7.7 mi) |
| ➤ 16. Turn left onto Cox Valley Rd | |
| | 1.6 mi |
| ➤ 17. Slight left to stay on Cox Valley Rd | |
| | 1.8 mi |
| ➤ 18. Turn right onto TN-68 N | |
| | 4.3 mi |

Continue on US-127 S to Sequatchie County

- | | |
|--|------------------|
| | 55 min (31.8 mi) |
| ➤ 19. Turn left onto US-127 S | |
| | 23.8 mi |
| ➤ 20. Continue onto US-127 BYP S | |
| | 1.5 mi |
| ➤ 21. Continue onto US-127 S/Main St | |
| ➤ Continue to follow US-127 S | |
| | 17.3 mi |
| ➤ 22. Turn left to merge onto TN-111 N/TN-8 N toward Spencer | |
| | 5.6 mi |

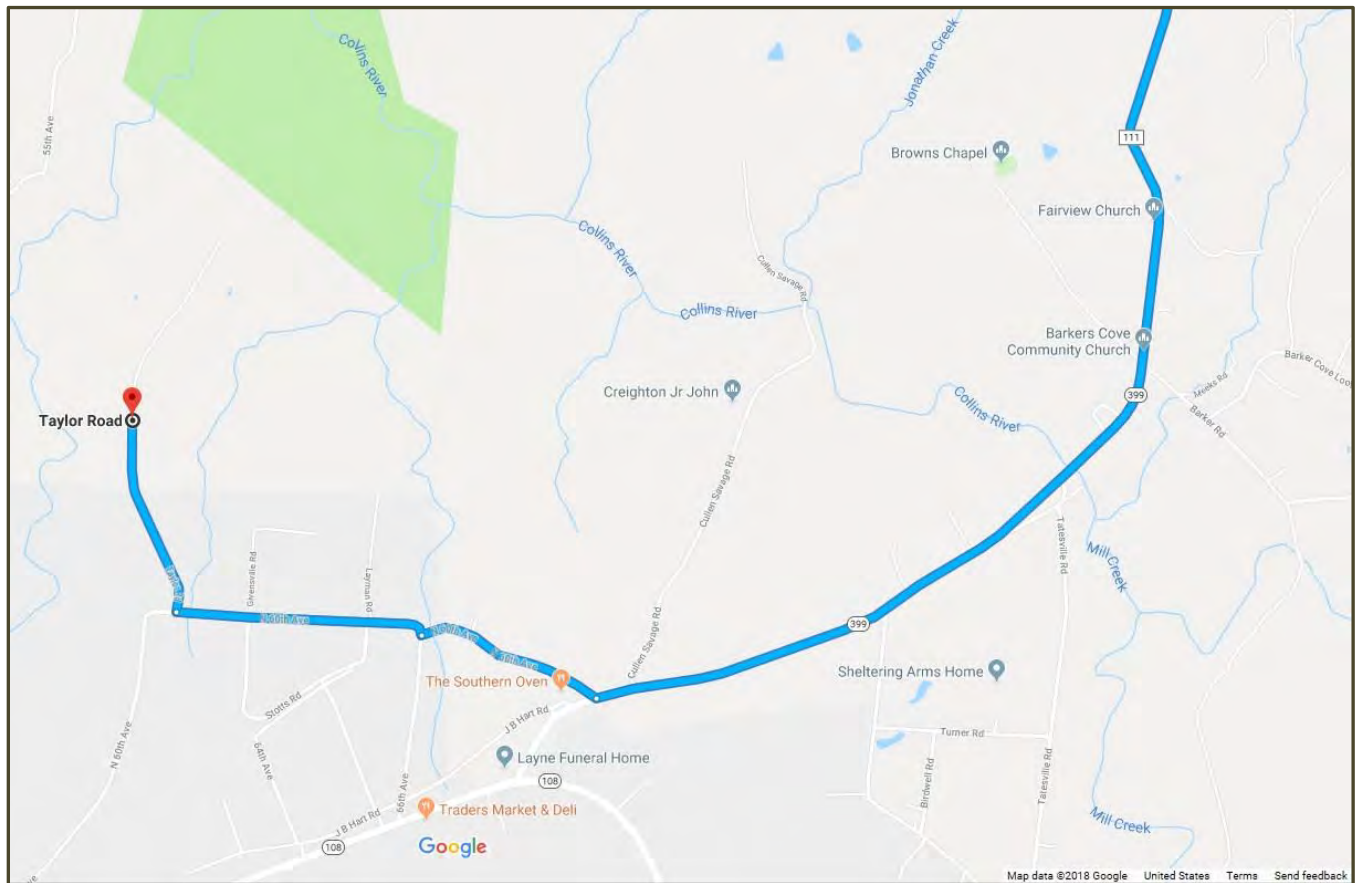
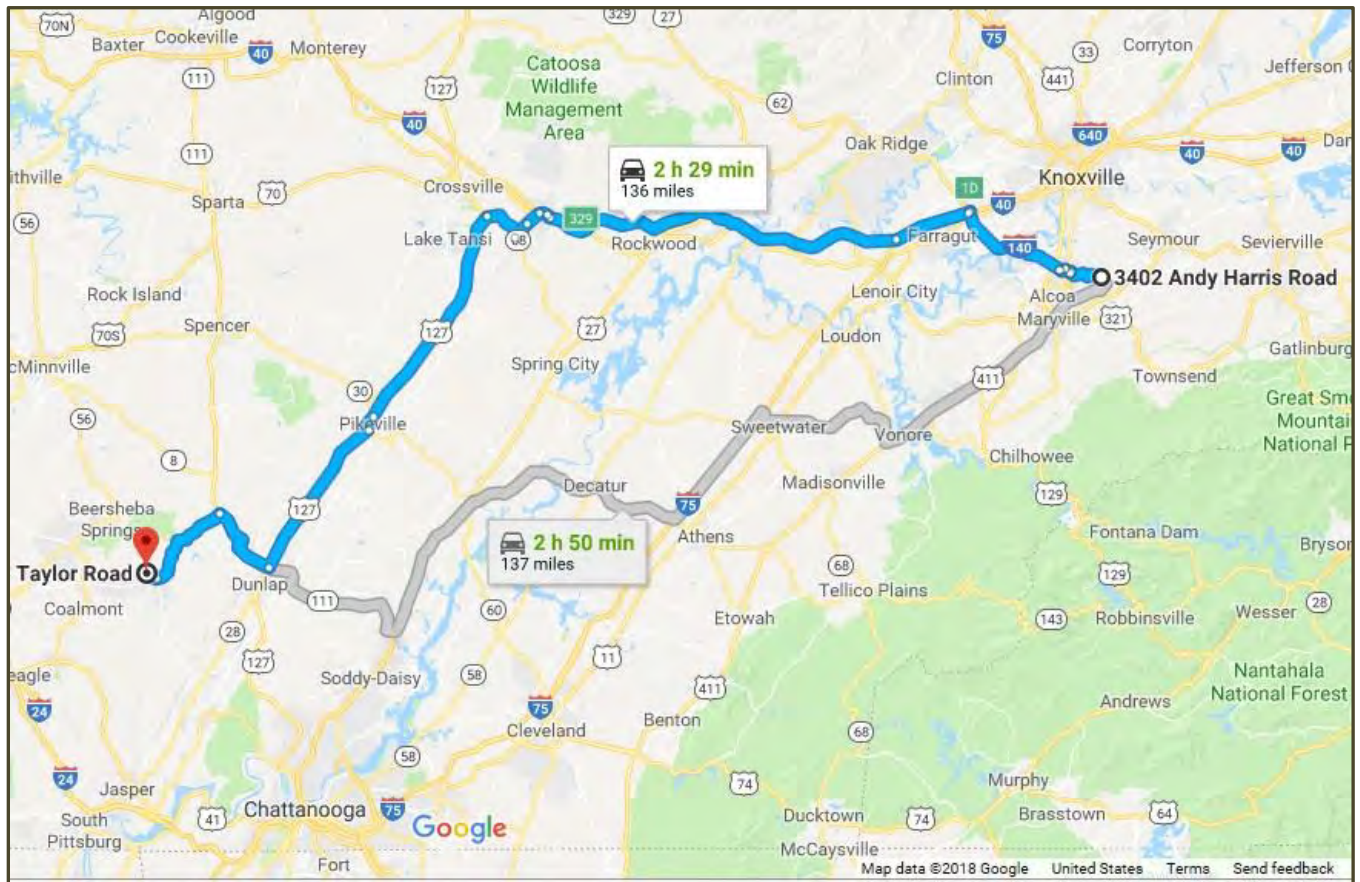
Continue on TN-399 W. Drive to Taylor Rd in Gruetli-Laager

- | | |
|--|------------------|
| | 10 min (11.6 mi) |
| ➤ 23. Turn left onto TN-399 W | |
| | 10.4 mi |
| ➤ 24. Turn right onto N 60th Ave | |
| | 0.4 mi |
| ➤ 25. Turn right to stay on N 60th Ave | |
| | 0.6 mi |
| ➤ 26. Turn right onto Taylor Rd | |
| | 0.9 mi |

A031056 01900 00002056

Tennessee

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.



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PREPARERS' QUALIFICATIONS AND CONTRIBUTIONS

Tom Howe

Tom Howe is a lifelong naturalist especially experienced in the study of vascular plants and birds. He received a B.S. in Biology from Cornell University in 1974 and has worked for the Park Service, et al, as a biological technician and consultant. He resides in east Tennessee where he is the president of the Knoxville Chapter of the TN Ornithological Society and works as a volunteer for the Great Smoky Mountains National Park doing biological inventories. Tom joined Foothills Land Conservancy as a consultant in 2015 and on staff in 2016 preparing baseline document reports and monitoring easement properties. Tom was responsible for preparing and finalizing the document.

Meredith Clebsch

Meredith's formal education includes a BS degree in Animal Science from Clemson University with minors in Horticulture and Wildlife Biology. She also completed a number of graduate and undergraduate level courses at the University of TN in botany, ecology, horticulture and wildlife biology. For 25 years she owned and operated a successful native plant nursery, which included consultation and design services involving considerable field work in plant identification and landscapes interpretation. She has attended many field botany and ecology study classes and assisted in gathering and interpreting data for a number of projects associated with plant ecology.

Much of Meredith's recreational time is spent in outdoor recreation and pursuing nature study. She has worked for Foothills Land Conservancy since 2007, and has been Land Director since 2010, preparing and overseeing development of baseline documentation reports, drafting conservation easements, and monitoring easement properties. At present this includes approximately 200 properties in 7 states totaling nearly 100,000 acres. She has attended the Land Trust Alliance national meeting and training sessions in 2007, 2008, 2013, 2014 and also annual regional land trust meetings.

Meredith supervised the development of the document and contributed field observation and photographs.

Matthew Moore

Matthew studied at Berry College, receiving a B.S. in Biology with a minor in Chemistry in 2006. In 2013 he graduated from the University of Tennessee with a Master of Forestry and a minor in Statistics. Matthew worked for Vermont Youth Conservation Corps leading trail crews, for The Nature Conservancy restoring Mexican spotted owl habitat, and worked three years for the Park Service treating hemlocks, controlling exotic, invasive plants, and managing their GIS data. His free time is spent with his wife and daughter camping, gardening, and identifying plants. Matthew joined Foothills Land Conservancy as a Conservation Assistant in 2017.

Matthew performed field work, document review and contributed photographs.

Shelby Lyn Sanders

Shelby Lyn Sanders joined the Foothills Land Conservancy staff in 2017, assisting both the Executive Director and in the preparation of baseline documentation reports. Shelby graduated from the University of Tennessee—Knoxville in 2015, receiving a B.S. in Wildlife & Fisheries Science with a focus on management. Her background includes work in both Tennessee and Kansas studying the ecology of grassland birds for UT's Center for Native Grassland Management, and she also spent a year working for the Southern Research Station of the USDA Forest Service in conjunction with UT, where she assisted with data collection for various projects assessing growth and competitiveness of upland hardwoods in the Southern Appalachian region.

Shelby performed field work, ,document review, created maps and contributed photographs.

EXHIBITS

(Electronic versions saved as independent files)

A. Conservation Easement

BDR EXHIBIT A
CONSERVATION EASEMENT