Appendix D -
Special Areas:
Status, Trends and Strategies

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Appendix D
Table of Contents

List of Tables

List of Figures

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Appendix D - Special Areas: Status, Trends and Strategies

D.1 Overview

Special areas are areas within the National Forest System designated because of their unique or special characteristics. This forest plan recognizes 19 special areas on the National Forests in Mississippi that are currently designated by statute or through prior administrative processes. Another 20 potential special areas distributed across 7 districts have been proposed for evaluation and possible future designation as botanical areas, research natural areas.

D.2 Designated Special Areas

The designated special areas on the National Forests in Mississippi include a variety of distinctive settings with exceptional or uncommon botanical, scenic, research, wilderness, recreational, or archaeological values. Special areas contribute a variety of desired conditions including providing sites for native ecosystems, habitats for species diversity, refuge areas for aquatic and terrestrial wildlife and threatened and endangered species, mid-sized to large patches of old growth forest communities, experimental sites for vegetation management practices, unique recreational opportunities, and desirable scenic conditions. Designating and managing these areas for their special characteristics contribute to our strategy for moving toward desired conditions. Specific guidance for managing the various categories of special areas are identified in Forest Service policies and directives, national requirements, or individual management plans.

Some designated special areas are mature examples of desired ecosystems and serve as some of the best locations of mid-sized or larger expanses of old growth conditions on the National Forests in Mississippi. Designated botanical special areas are generally good representatives of native ecological systems such as longleaf pines, floodplain hardwoods, prairies, or southern mesophytic forests. These sites provide habitats for threatened and endangered, sensitive and locally rare species as well as habitat for an array of characteristic and popular demand species. Other locations such as the two designated wilderness areas are also protected, and monitored to preserve their natural conditions and provide habitat for sustaining a diversity of species.

Desired conditions for healthy and resilient forests are supported by experimental forests and research natural areas that serve as sites for a broad range of studies such as stand management, watershed management, restoration of wildlife and plant populations, maintenance of biological diversity, and effects of disturbances such as climate change. Some special areas are less disturbed than is typical for this region and provide a valuable baseline for monitoring changes in natural conditions on National Forest System lands.

Scenic areas contribute to the desired naturally appearing character of the National Forests in Mississippi, including the old growth loblolly-shortleaf pine forests on the Bienville Pines Scenic Area and the picturesque river setting along the Black Creek Wild and Scenic River. The “Unmanaged Forty” recreational special area is part of the Gavin Auto Tour of southern Mississippi’s pine forests and contributes to recreation management strategies, while the Owl Creek Mounds and the Dowling Bayou archaeological sites protect Indian mounds and village sites and support the desired conditions for cultural resources.

Table D 1 displays a list of existing designated special areas, their sizes, and the district on which they occur. Following the table are brief descriptions of these designated special areas.

Table D 1. Designated special areas of the National Forests in Mississippi

Area Name	Designation	District	Acres
Bienville Pines Scenic Area	Scenic Area	Bienville	189
Harrell Prairie Botanical Area	Botanical Area	Bienville	153
Unmanaged Forty	Recreation Area	Chickasawhay	41
Tiger Creek Botanical Area	Botanical Area	Chickasawhay	375
Red Hills Botanical Area	Botanical Area	De Soto	194
Harrison Experimental Forest	Experimental Forest	De Soto	4066
Black Creek Wild & Scenic River	National Scenic River	De Soto	21 miles
Black Creek Corridor	Scenic Area	De Soto	9,149
Harrison Research Natural Area	Research Natural Area	De Soto	113
Black Creek Wilderness Area	Wilderness Area	De Soto	5,052
Leaf River Wilderness Area	Wilderness Area	De Soto	994
Dowling Bayou Archaeological Site	Archaeological Area	Delta	10
Red Gum Research Natural Area	Research Natural Area	Delta	40
Overcup Oak-Water Hickory Research Natural Area	Research Natural Area	Delta	40
Green Ash – Sugarberry Research Natural Area	Research Natural Area	Delta	67
Tallahatchie Experimental Forest	Experimental Forest	Holly Springs	3,502
Owl Creek Mounds Archaeological Site	Archaeological Area	Tombigbee	29
Noxubee Crest Research Natural Area	Research Natural Area	Tombigbee	552
Chuquatonchee Bluffs Research Natural Area	Research Natural Area	Tombigbee	218

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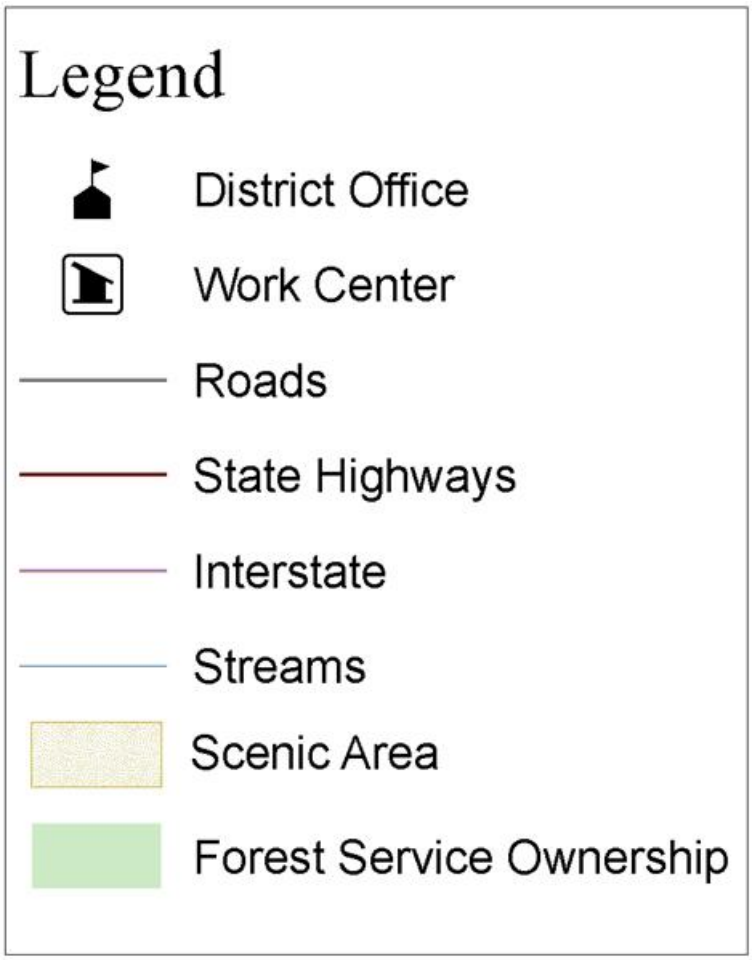
D.2.1 Bienville Pines Scenic Area (Bienville National Forest):

The Bienville Pines Scenic Area is a designated national natural landmark and was established to showcase the original old-growth loblolly pine – shortleaf pine forest that was typical of the area before logging. The mill owner kept the site from being logged as a monument to what was, and it was passed on to the Forest Service intact. The Bienville Pines Scenic Area continues to provide visitors the opportunity to witness trees that were once part of the original forest before logging and to witness the effects of change as these old trees are dying of natural causes and being replaced.



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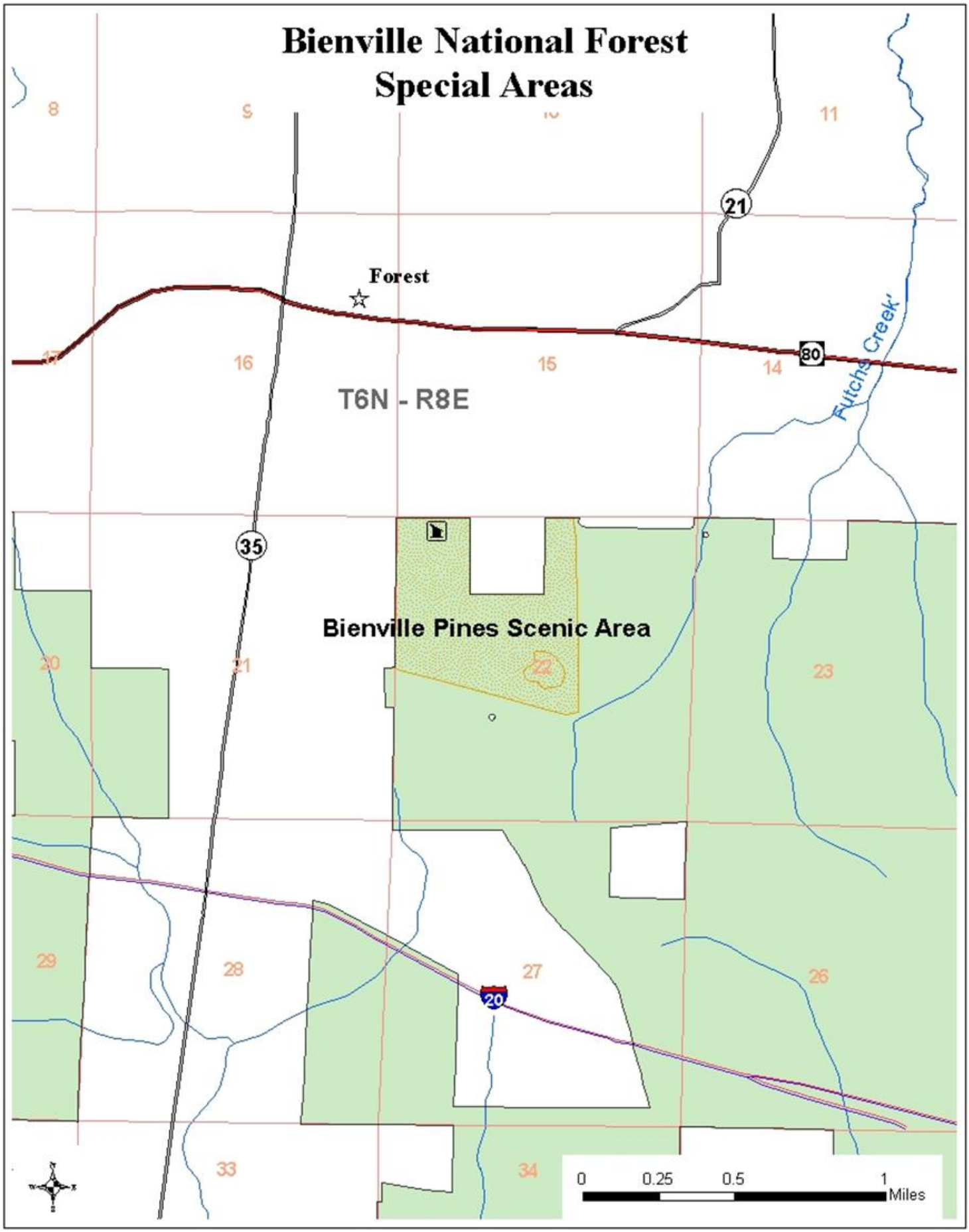
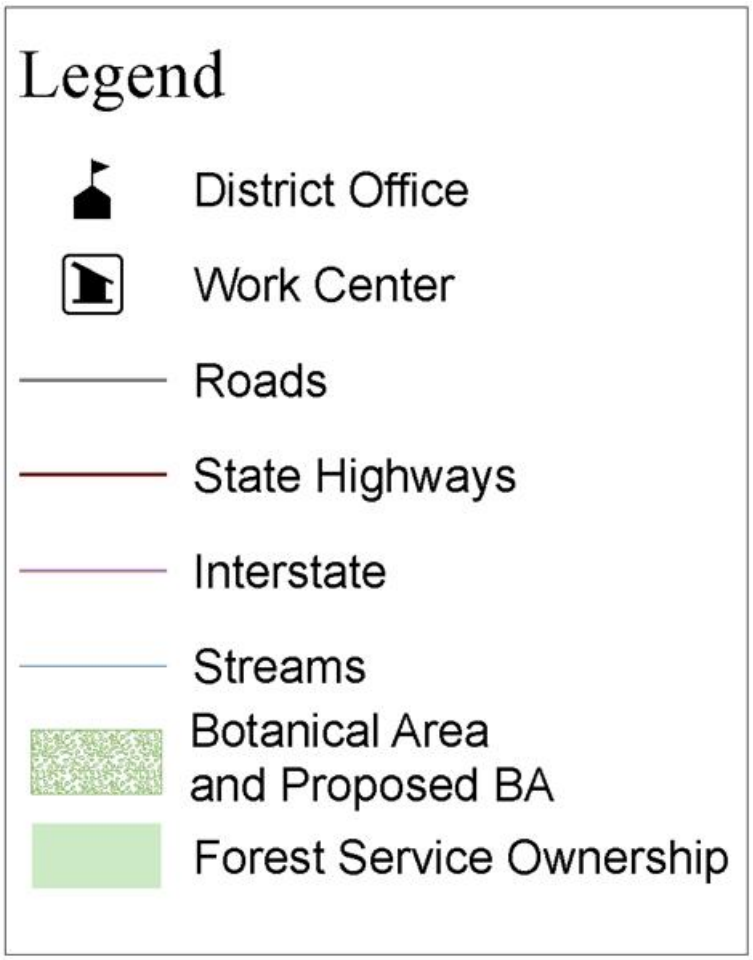


Figure D 1. Map of Bienville Pines Scenic Area

D.2.2 Harrell Prairie Botanical Area (Bienville National Forest):

Harrell Prairie Hill comprises the largest and best example of native tall grass prairie from the Jackson prairie and is designated as a national natural landmark. It has been the focus of restoration work dating back to the mid-1980s and is further along in restoration than any other known relict of this type in Mississippi. The Jackson prairie is healthy and provides the necessary habitat conditions to support a full array of native prairie species such as indiangrass, bluestem grasses, rosinweeds, prairie-clovers, yellow-puffs, prairie cone-flowers, and others.



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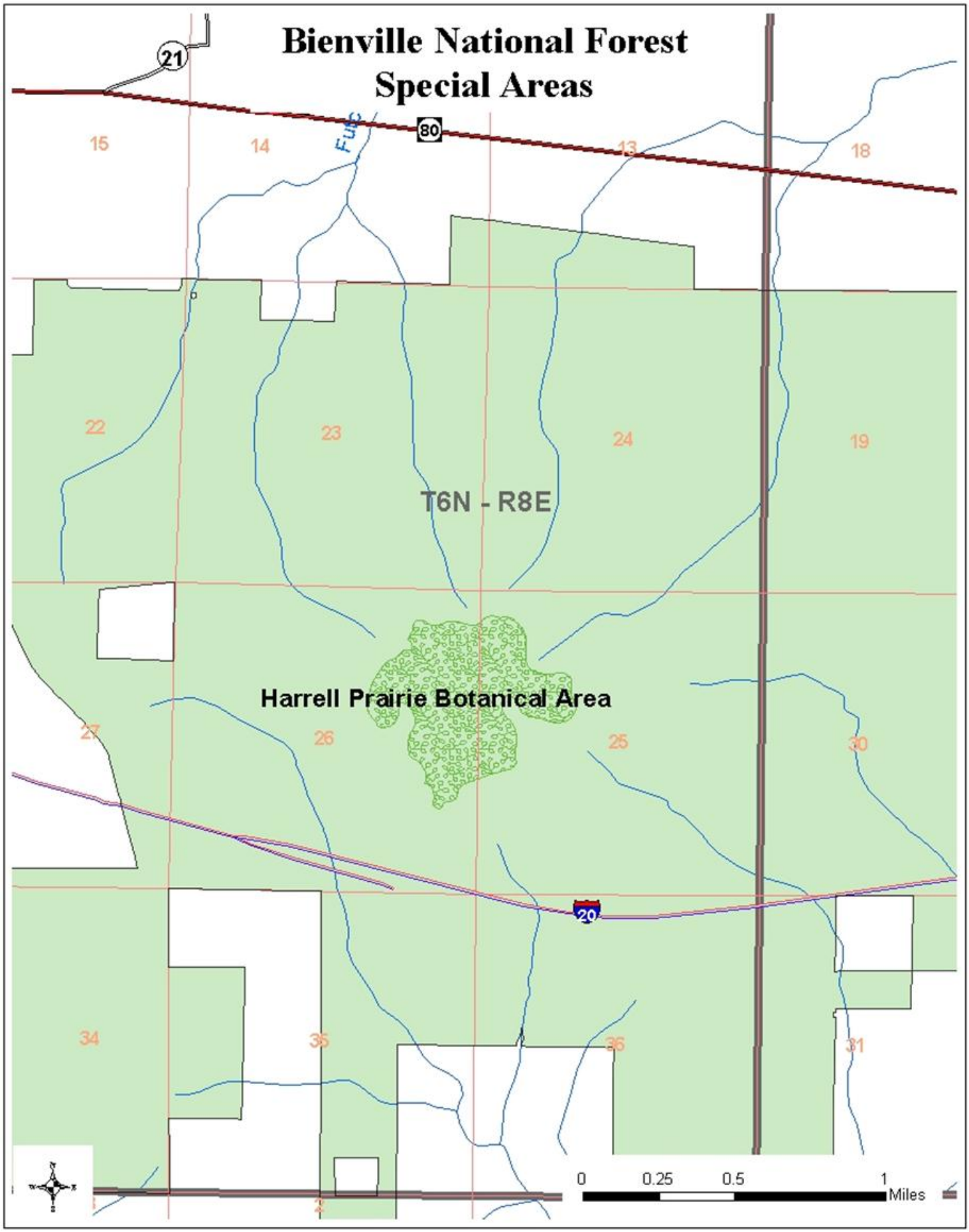
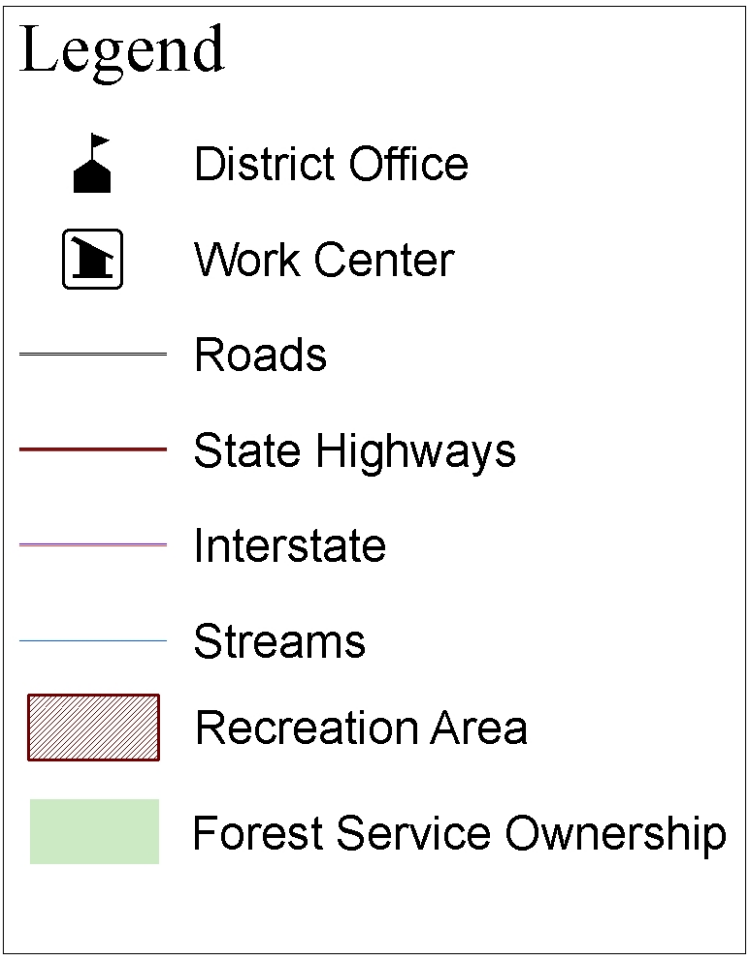


Figure D 2. Map of Harrell Prairie Botanical Area

D.2.3 Unmanaged Forty Recreation Area (Chickasawhay Ranger District, De Soto National Forest):

The “Unmanaged Forty” is part of the 1935 Gavin Slash Pine Plantation and has been withdrawn from timber and fire management activities by forest supervisors since 1945. It is part of the Gavin auto tour. This auto tour uses interpretive signs to inform visitors about south Mississippi's beautiful pine forests, and the practices used to manage these renewable resources. Sites along the 11-mile tour include mature pine timber; natural and artificial regeneration areas; game forage plots; prescribed burn areas; and this unmanaged 40 acres of timber. This site continues to be managed so that scenic and recreational experiences for visitors are maintained or improved.



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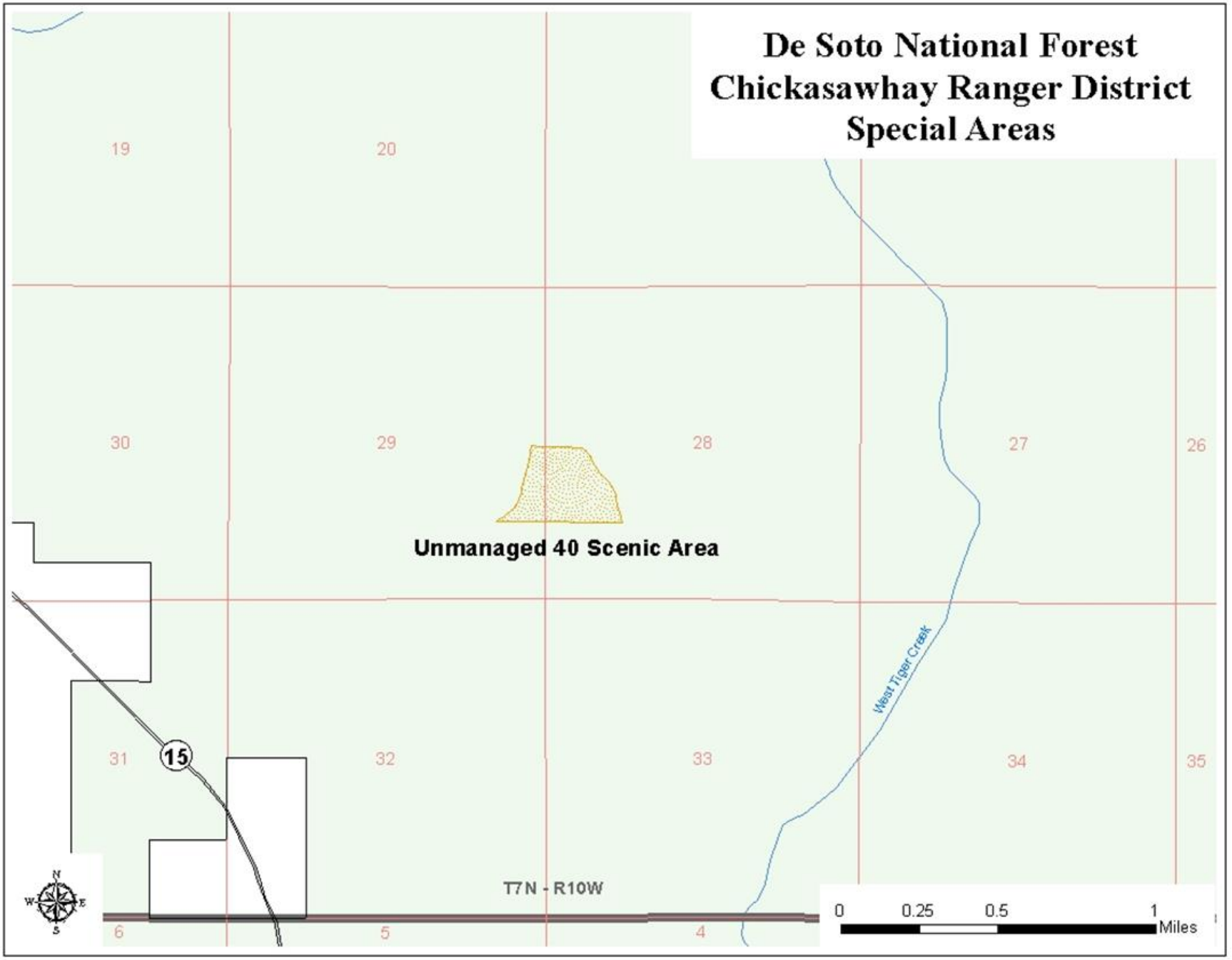
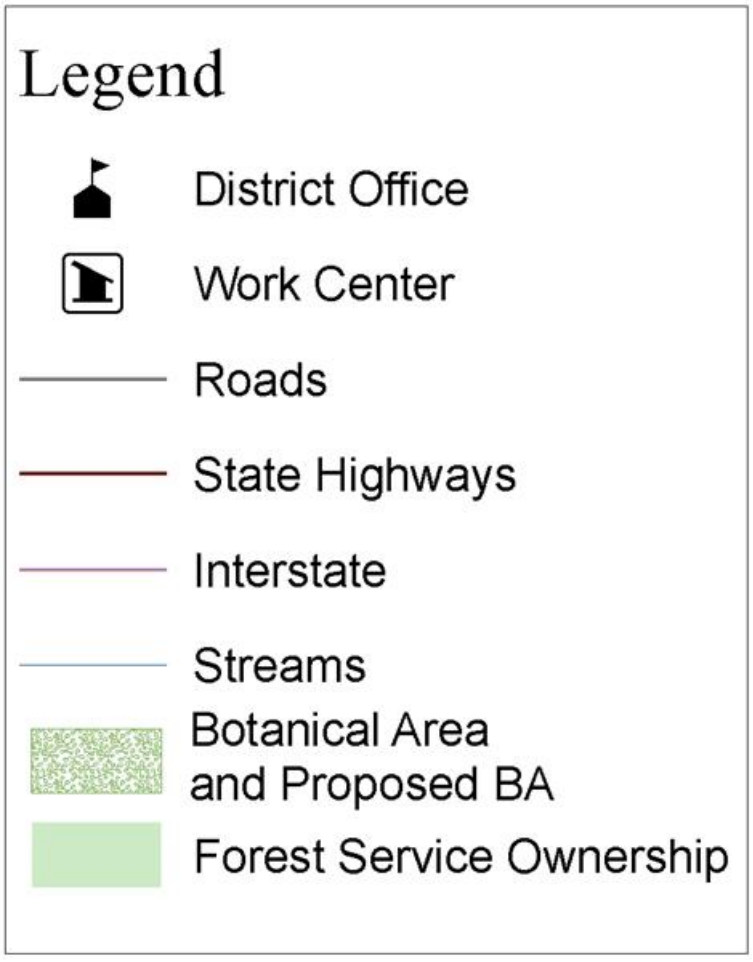


Figure D 3. Map of Unmanaged 40 Recreation Area

D.2.4 Tiger Creek Botanical Area (Chickasawhay Ranger District, De Soto National Forest):

This site is located on a minor stream bottom. Dominant species are white oak, Southern magnolia and loblolly pine. As an undisturbed representation of a floodplain forest ecological community, the area serves as an area in which natural biological diversity is conserved. This area was located, delineated and moved through the designation process by the district staff as a replacement for Thompson Creek Bottom Botanical Study Area listed in the 1985 forest plan for the National Forests in Mississippi. This was done because there were not good records on the intended location of the Thompson Creek Bottom Botanical Study Area. It was also evident the Thompson Creek location had been damaged by wind.



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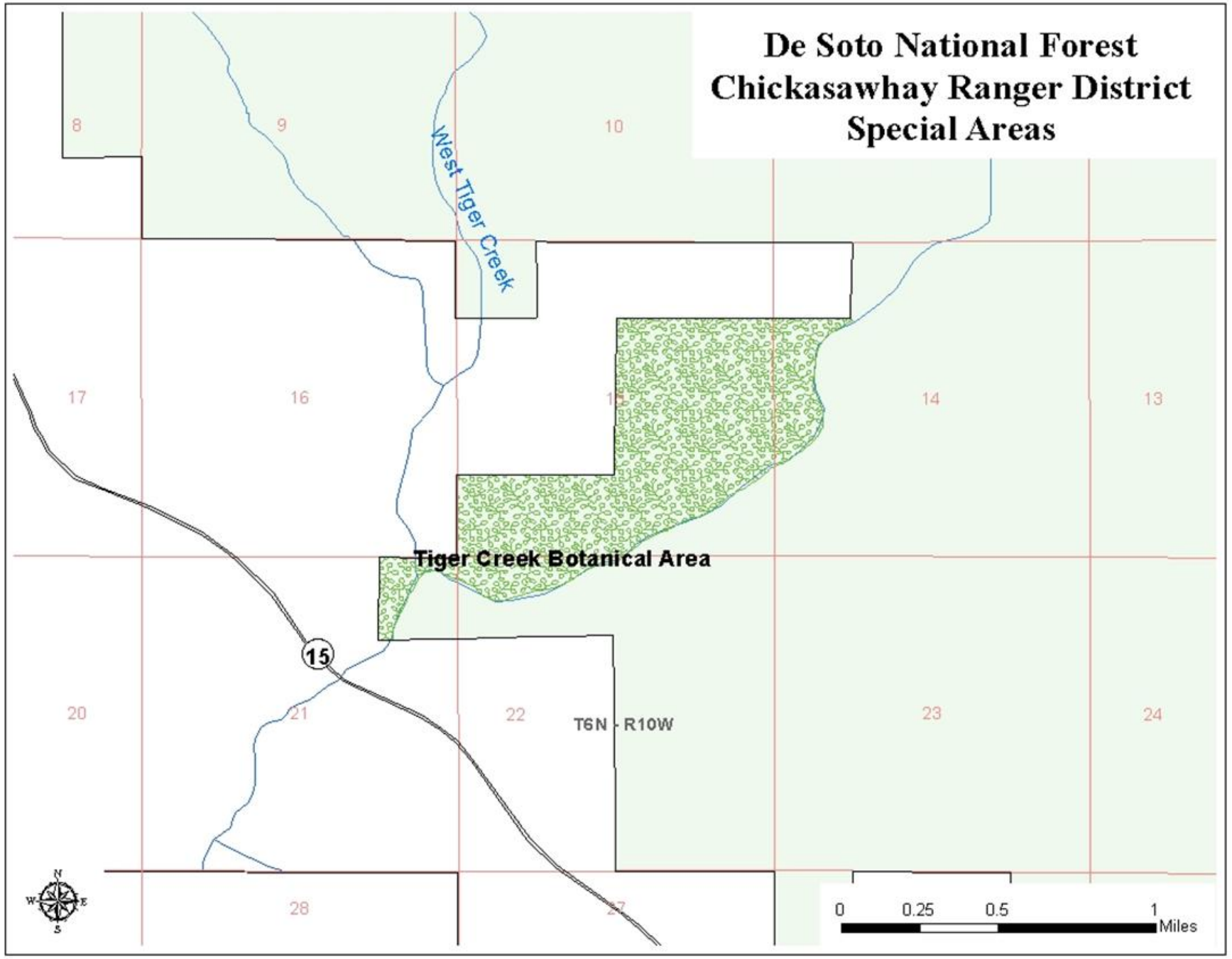
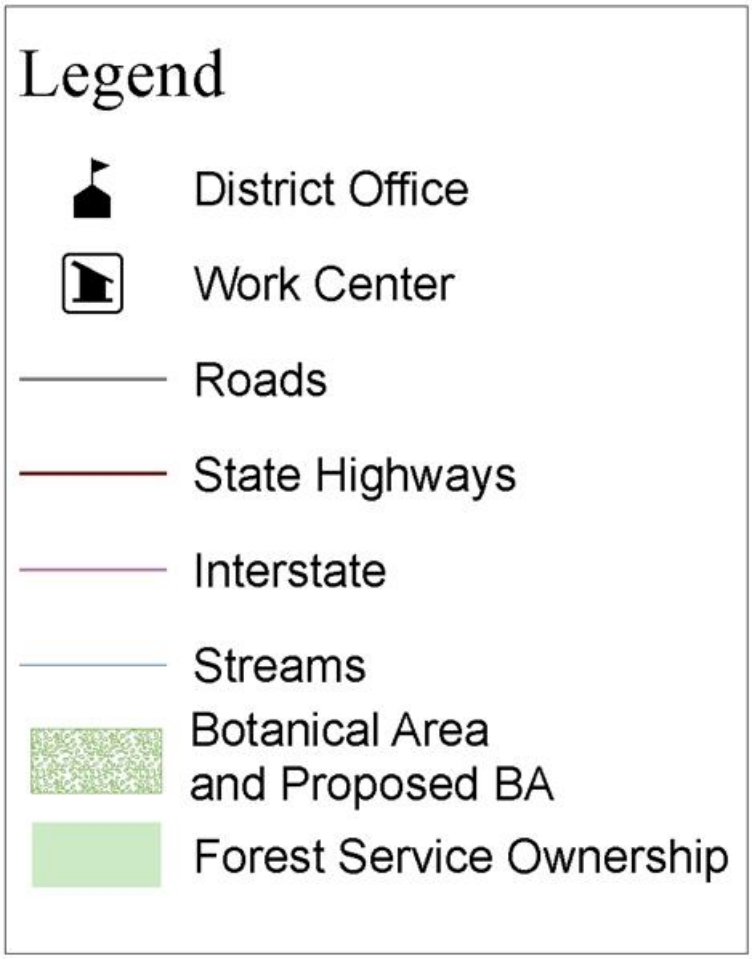


Figure D 4. Map of Tiger Creek Botanical Area

D.2.5 Red Hills Botanical Area (De Soto Ranger District, De Soto National Forest):

The Red Hills are an area of deeply dissected terrain overlooking Black Creek. The ridge tops, moist slopes, and ravines support a rich flora typical of the forest commonly called “beech-magnolia.” The southern mesophytic forest is intact and the hydrologic function of associated springs and seeps is intact.



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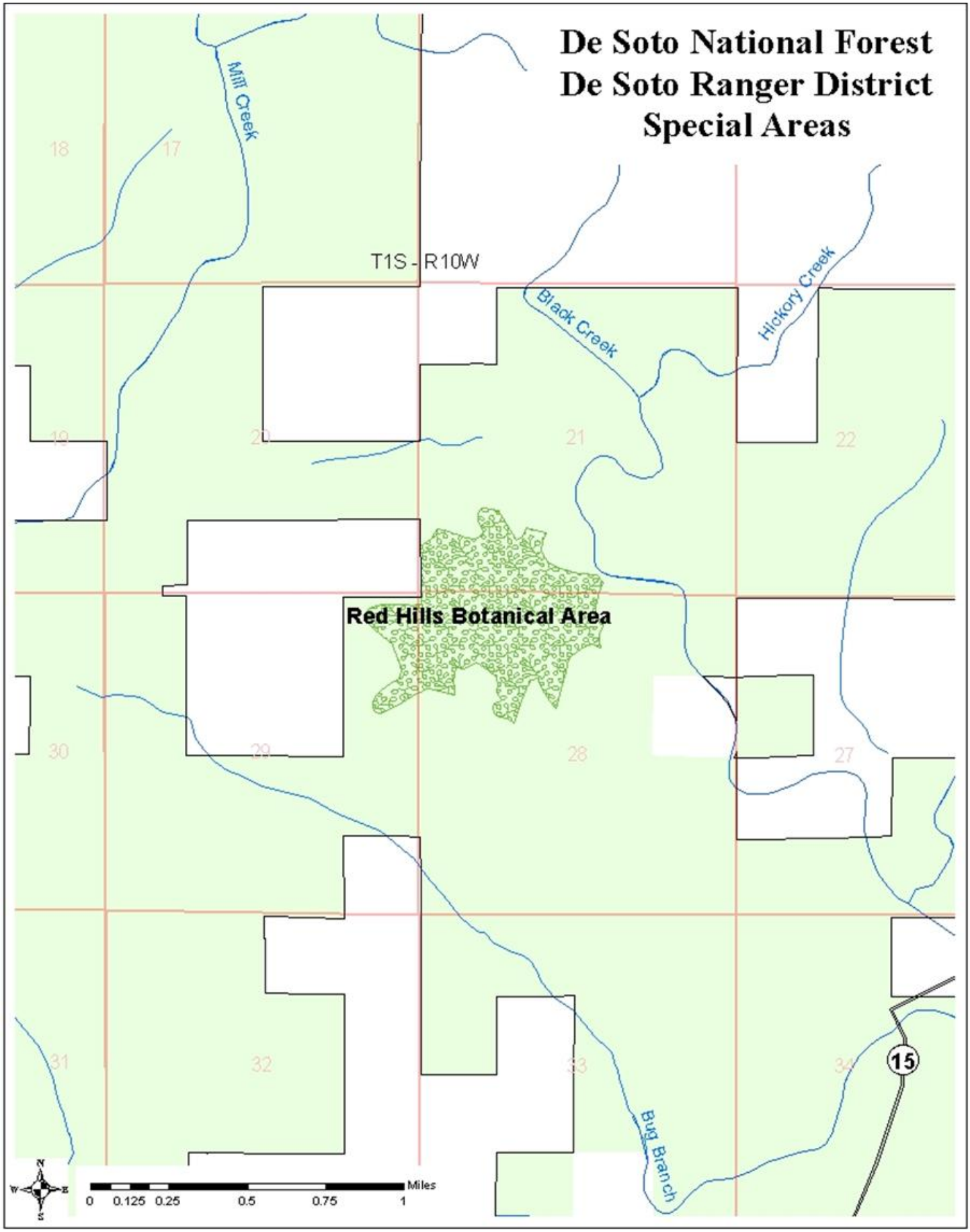
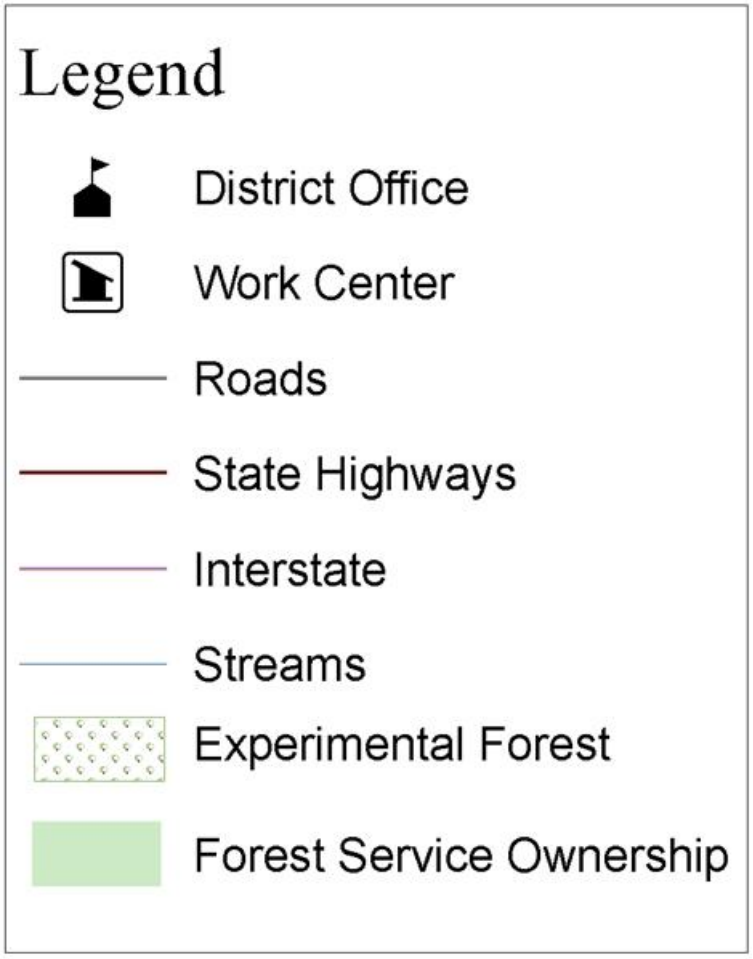


Figure D 5. Map of Red Hills Botanical Area

D.2.6 Harrison Experimental Forest (De Soto Ranger District, De Soto National Forest):

Scientists in Forest Service research work units use the Harrison Experimental Forest as a site for their studies and demonstration projects in conjunction with the National Forests in Mississippi and the De Soto Ranger District. Among the experiments conducted on this forest are studies on stand management and regeneration; restoration of wildlife and plant populations; watershed management; and the effects of pollution, climate change, and timber harvest.



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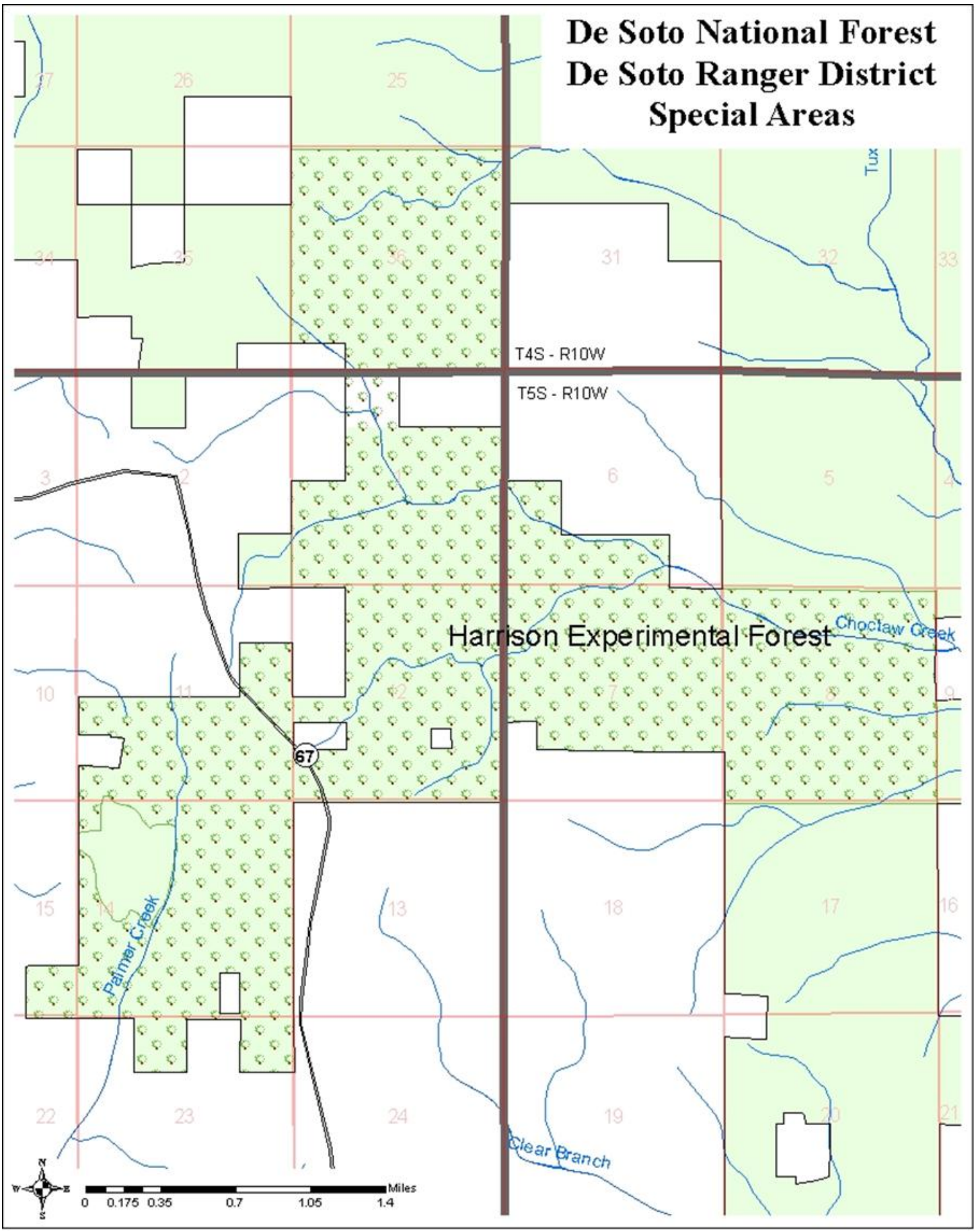
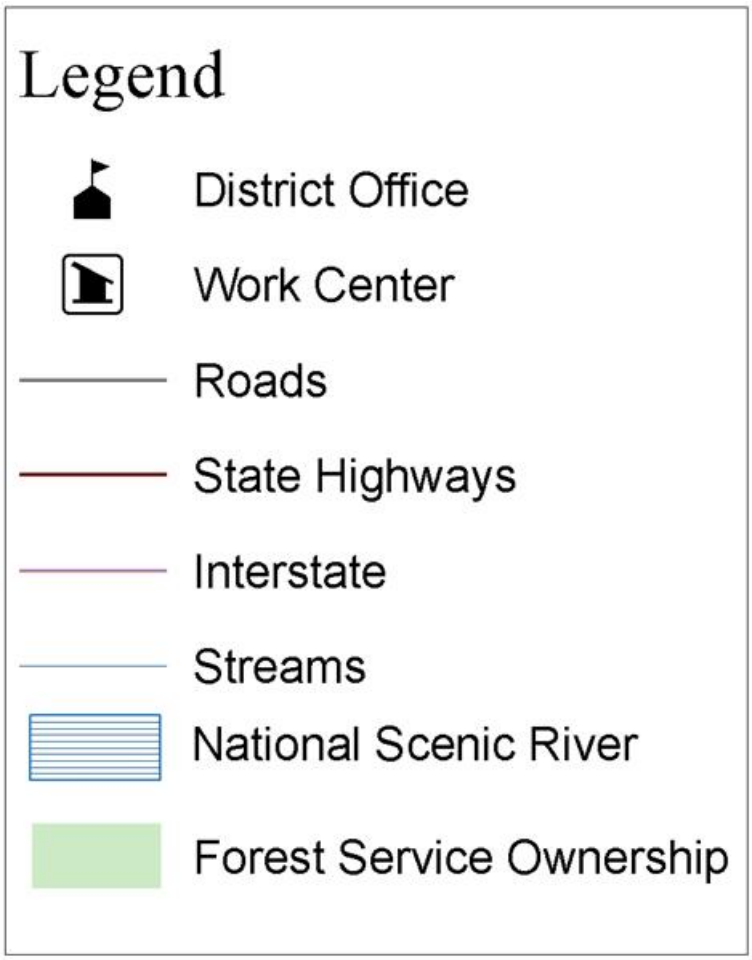


Figure D 6. Map of Harrison Experimental Forest

D.2.7 Black Creek Wild and Scenic River (De Soto Ranger District, De Soto National Forest):

Black Creek is the only congressionally designated wild and scenic river in the state. It is a tributary of the Pascagoula River, which flows into the Gulf of Mexico. Twenty-one miles of Black Creek within the De Soto Ranger District (between Moody's Landing and Fairley Bridge Landing) are designated in a scenic classification. Generally, Black Creek has been described as having outstanding scenery due to the highly varied terrain, wide sandbars, overhanging vegetation and steep bluffs. Moss-covered banks and colorful vertical bluffs add to the picturesque setting. Little evidence of man is noticeable along the designated river except where Highway 29 crosses near Janice Landing. The outstandingly remarkable values (ORVs) are the scenery and recreational attributes which make the river corridor a popular destination for canoeing, fishing, and other water based recreation. Black Creek is also potential habitat for the federally threatened Gulf sturgeon. A system of trails provides access along the Black Creek corridor. The Black Creek Trail is a designated national recreation trail.

A total of 41 miles of Black Creek were studied for wild and scenic river suitability and only 21 miles were deemed eligible and hence became the congressionally designated Black Creek Wild and Scenic River in 1986. The density of private land in these un-designated sections of the creek was a key issue in why these segments were not included in the congressional designation. As lands are acquired within the designated or un-designated portions of Black Creek they will be evaluated for annexation and expanding the scenic river corridor.



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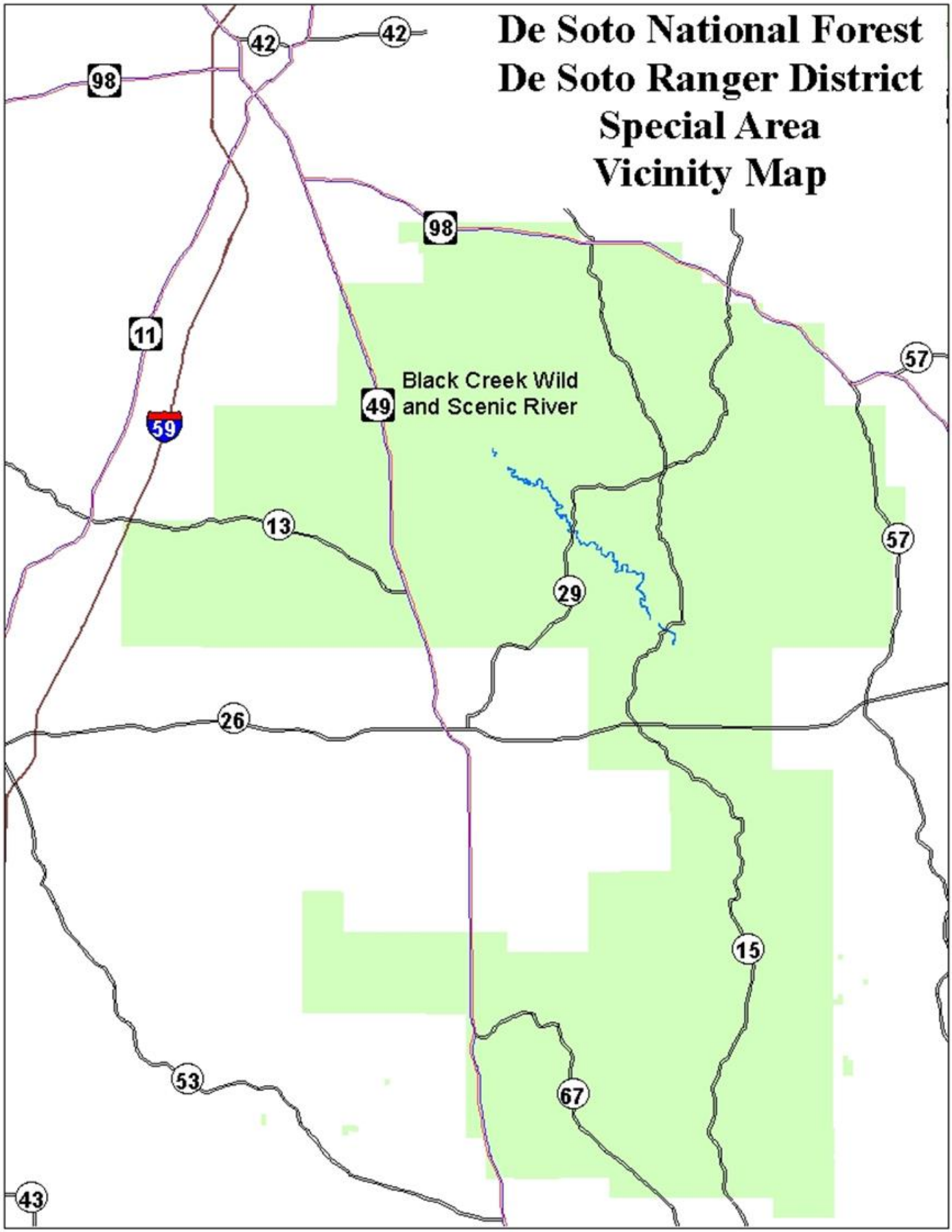

Figure D 7. Vicinity map for the Black Creek Wild and Scenic River

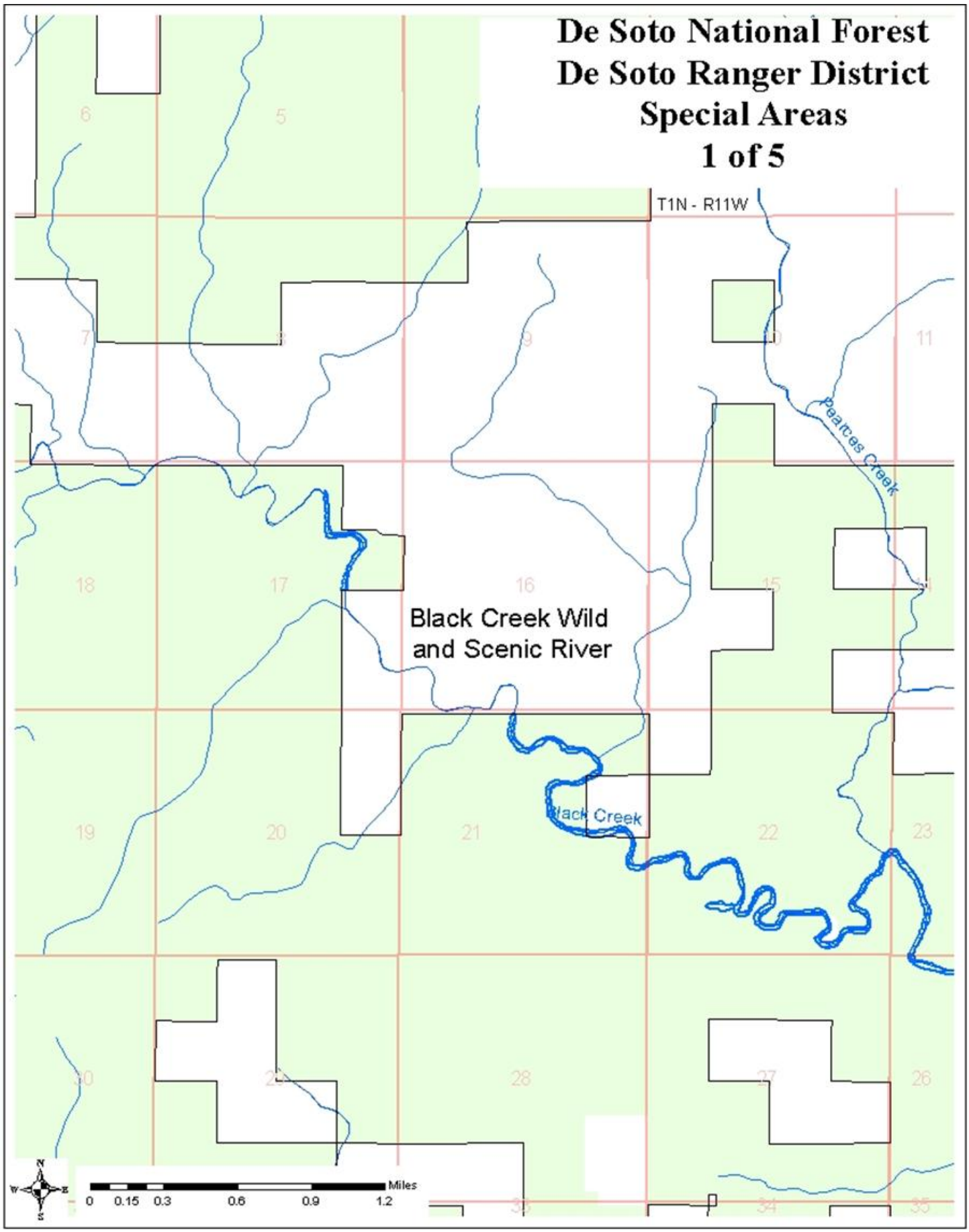

Figure D 8. Black Creek Wild and Scenic River map 1 of 5

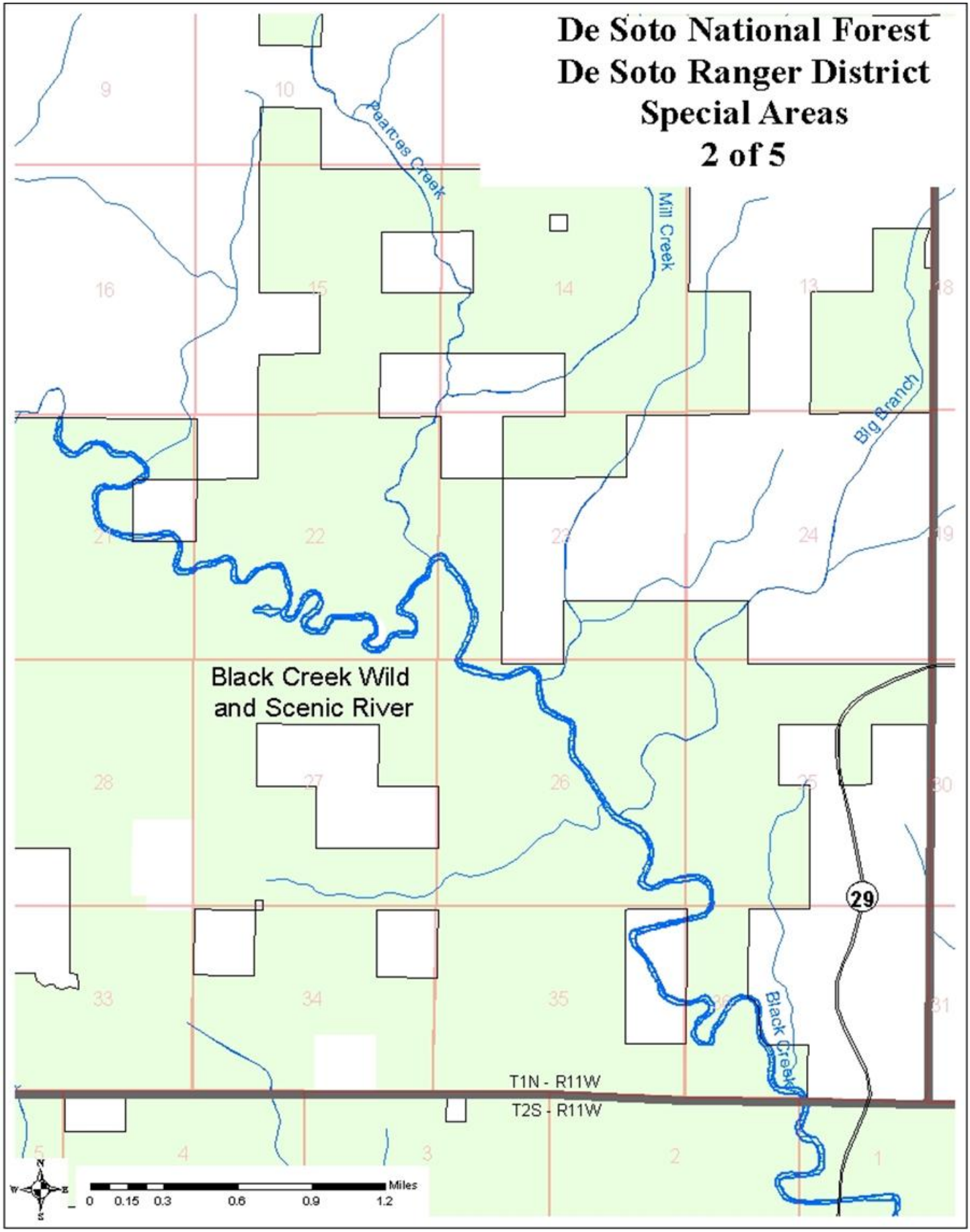

Figure D 9. Black Creek Wild and Scenic River map 2 of 5

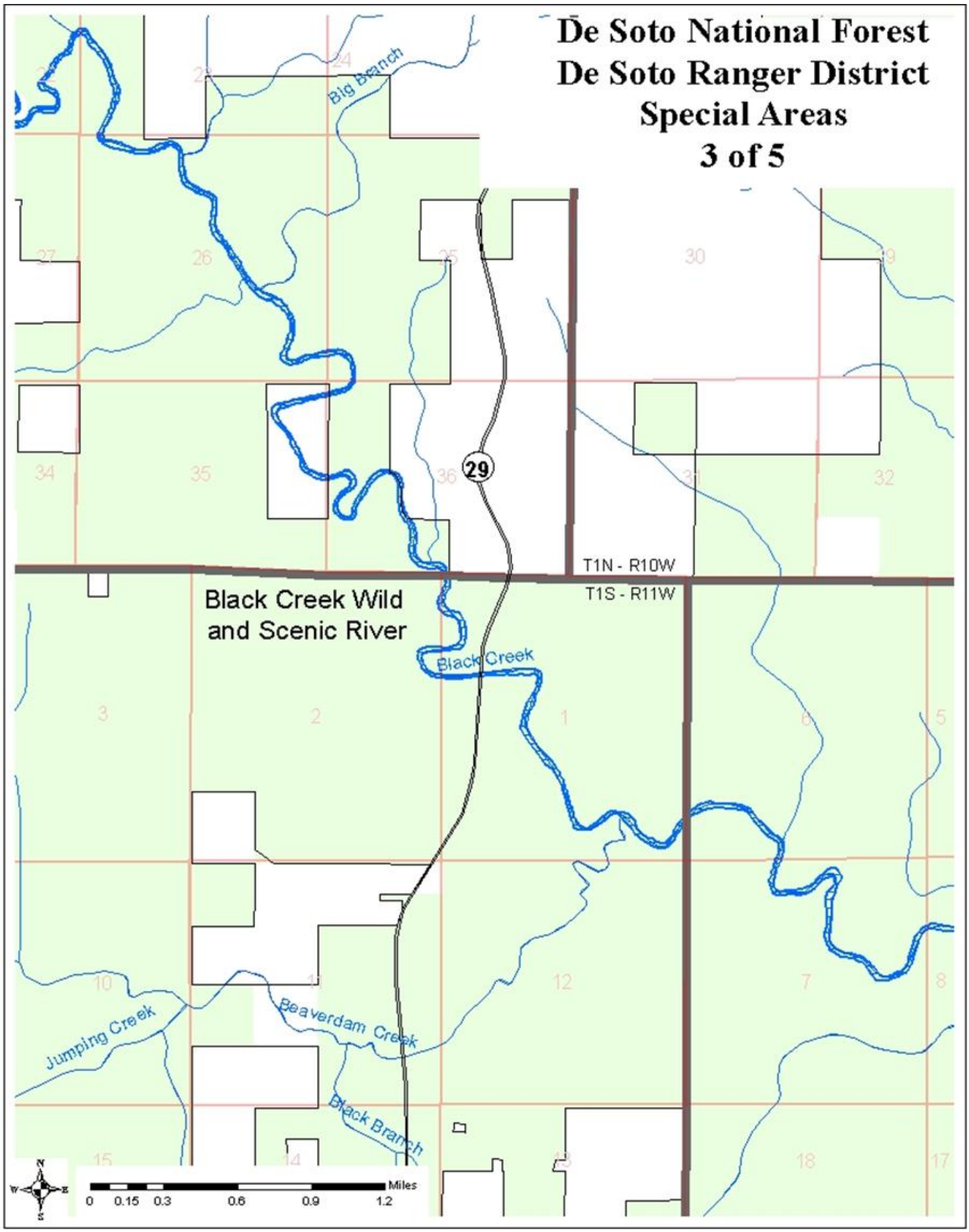

Figure D 10. Black Creek Wild and Scenic River map 3 of 5

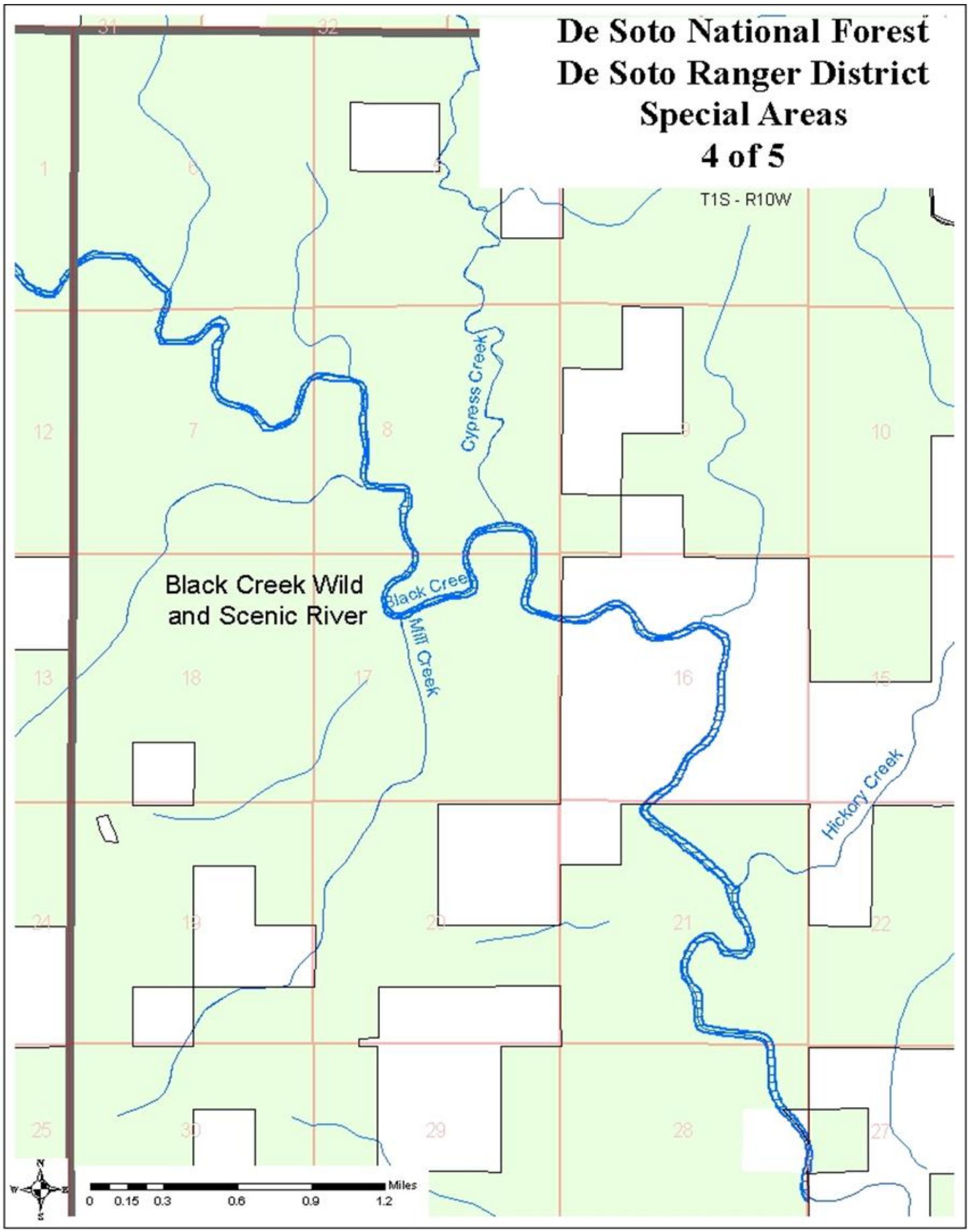

Figure D 11. Black Creek Wild and Scenic River map 4 of 5

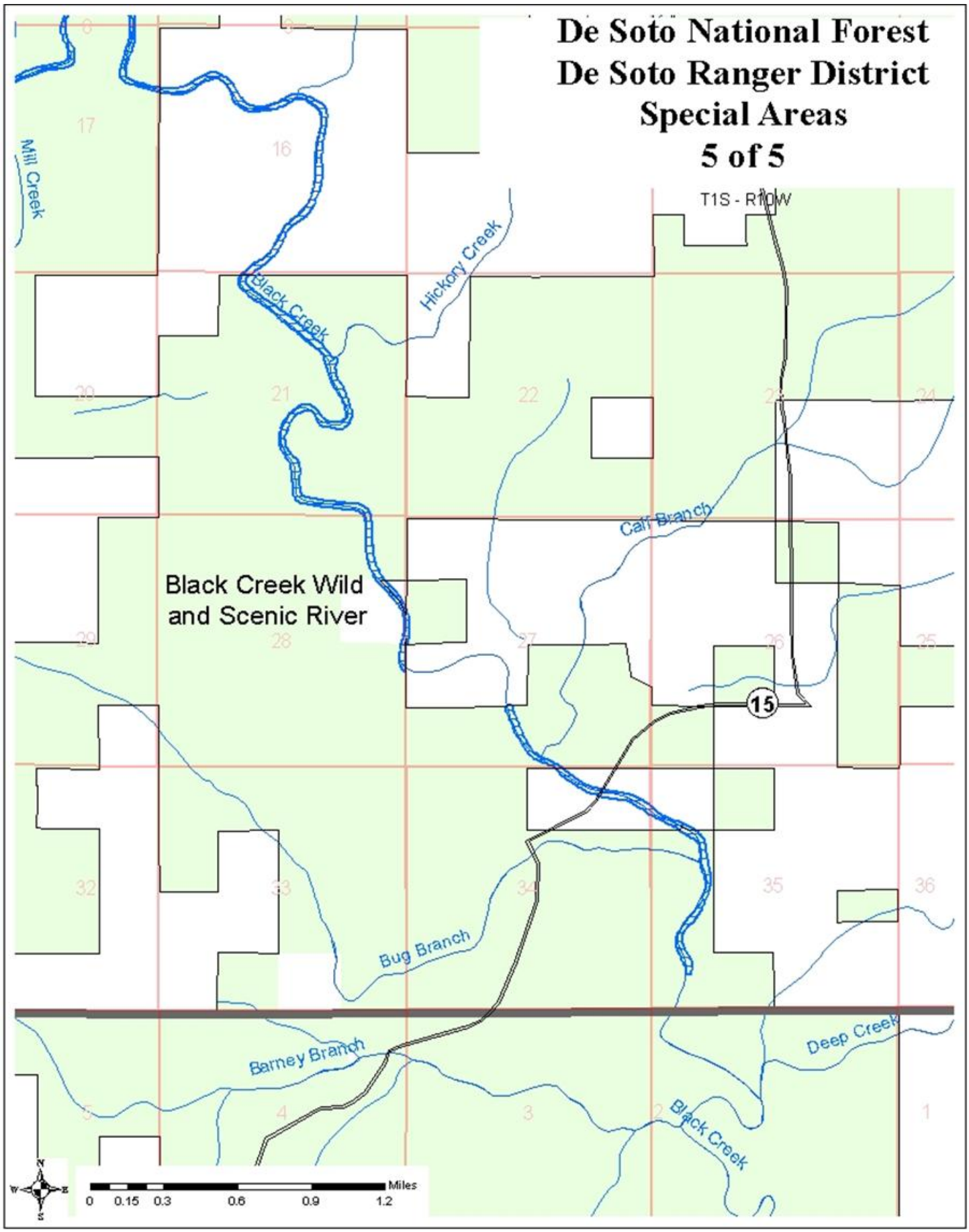

Figure D 12. Black Creek Wild and Scenic River map 5 of 5

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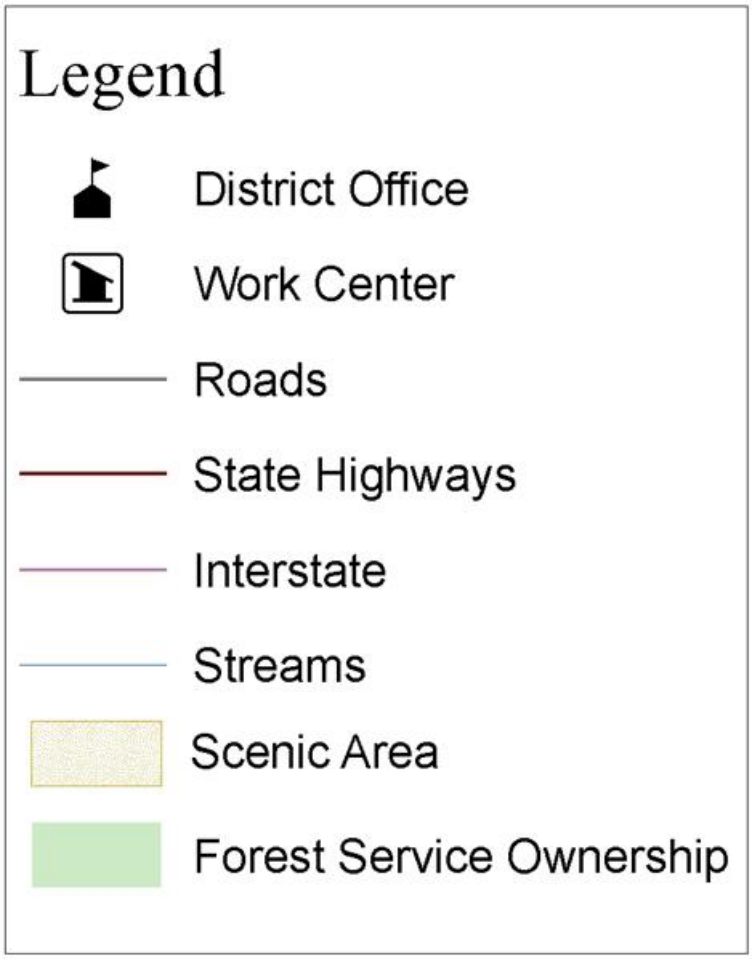
D.2.8 Black Creek Corridor (De Soto Ranger District, De Soto National Forest):

This area consists of a ¼-mile wide corridor on either side of Black Creek, beginning at the Big Creek landing and ending at Alexander Bridge; a distance of about 41 miles. It includes the Black Creek Scenic River and all portions of the corridor are managed the same as the scenic river section.



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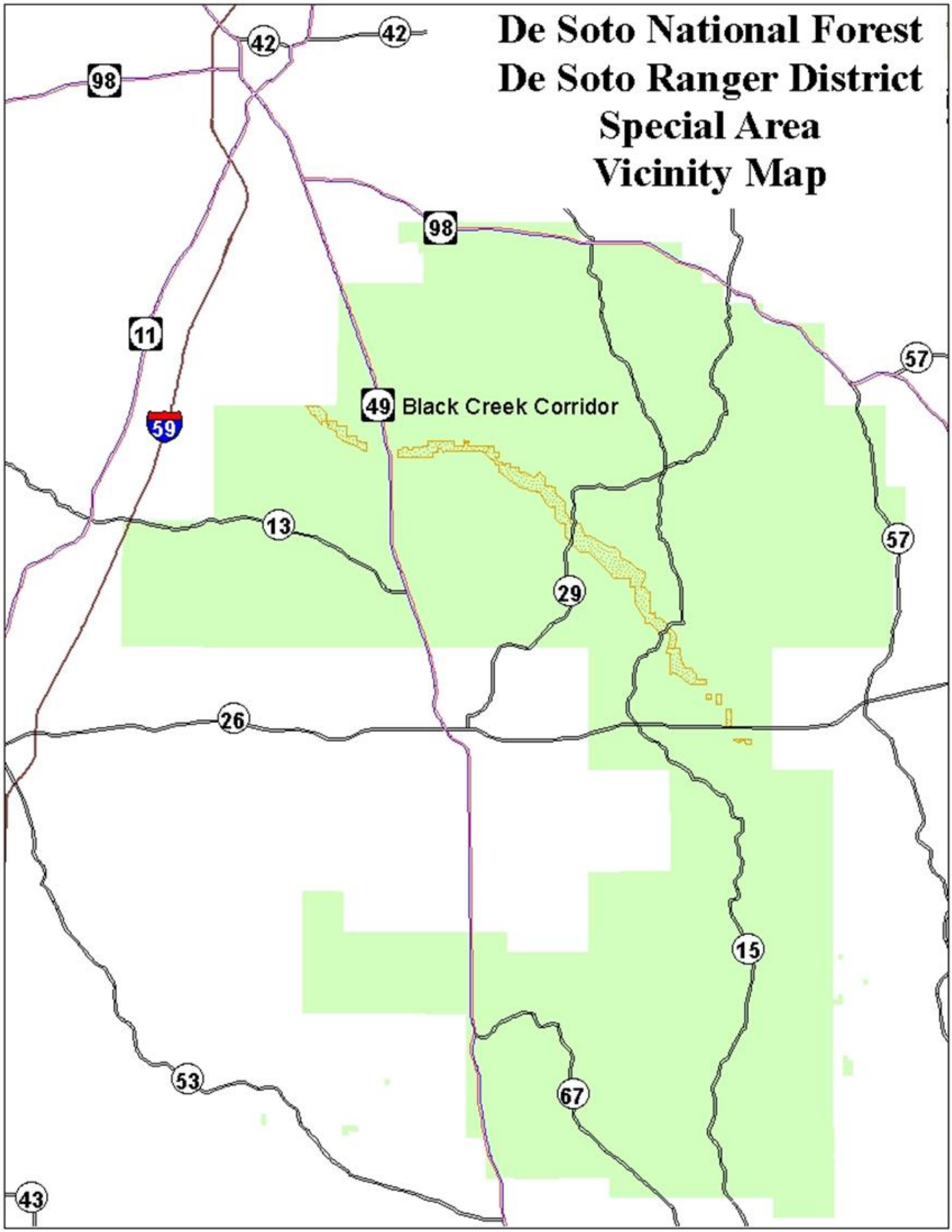


Figure D 13. Vicinity map of the Black Creek Scenic Corridor

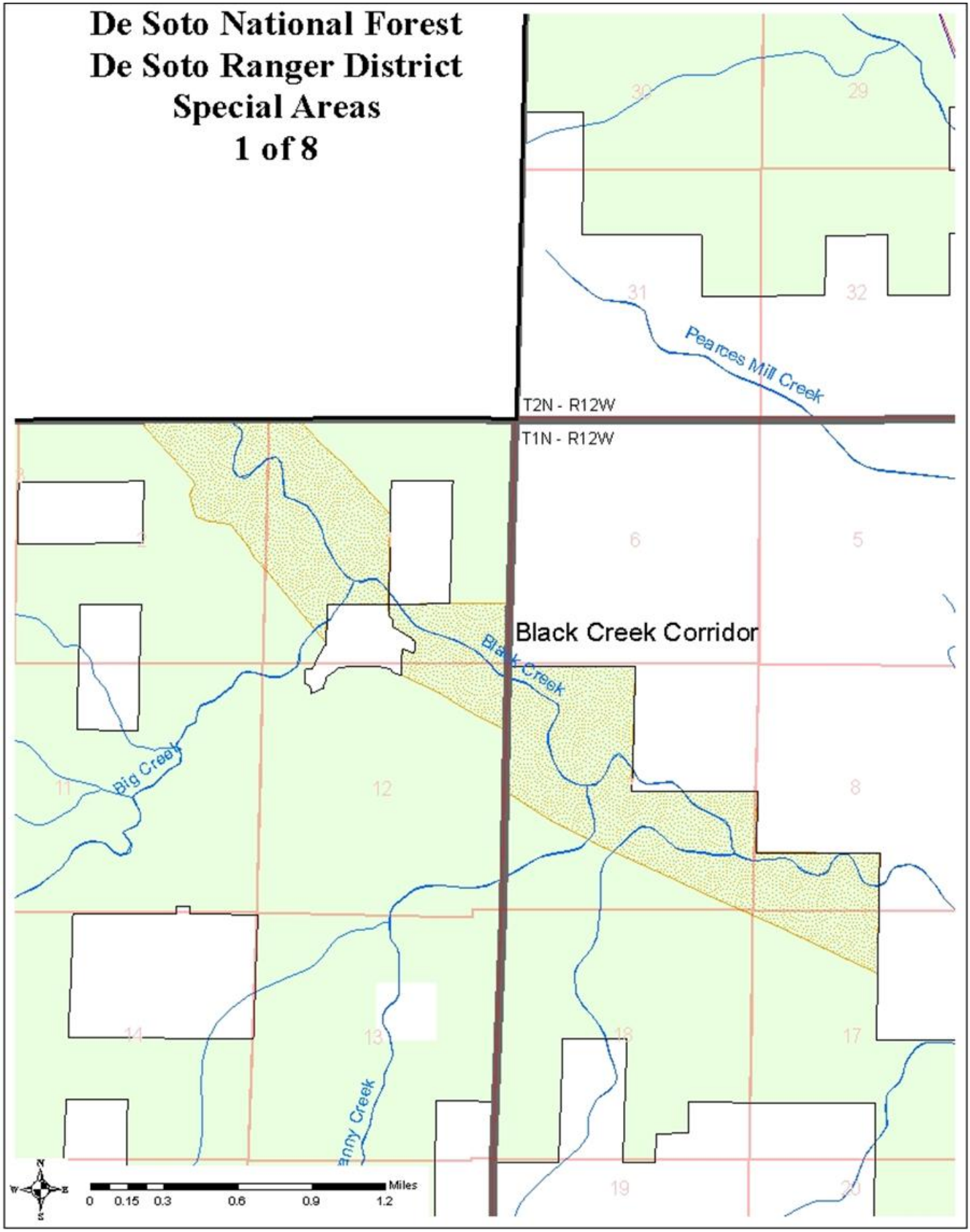


Figure D 14. Black Creek scenic corridor map 1 of 8

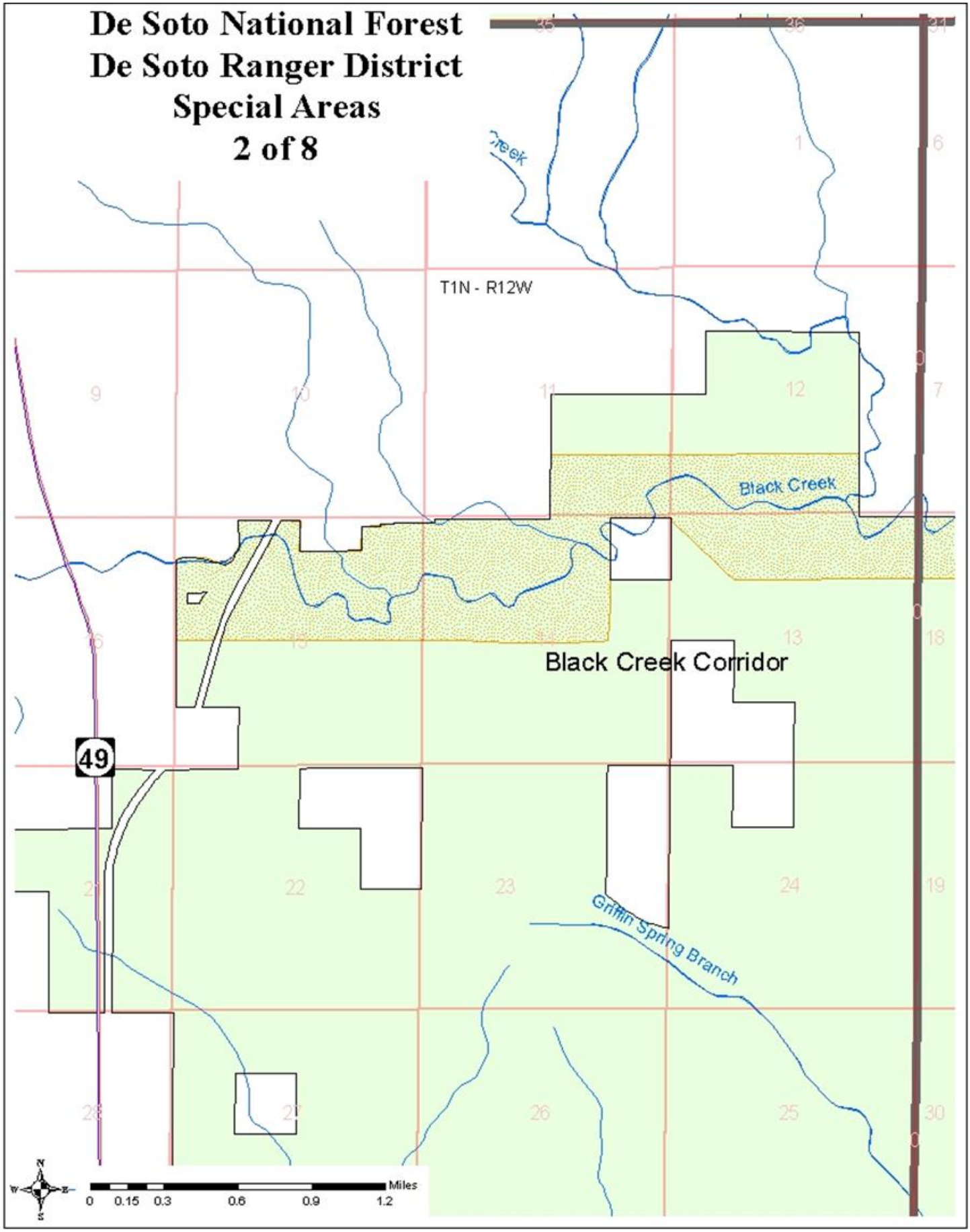


Figure D 15. Black Creek scenic corridor map 2 of 8

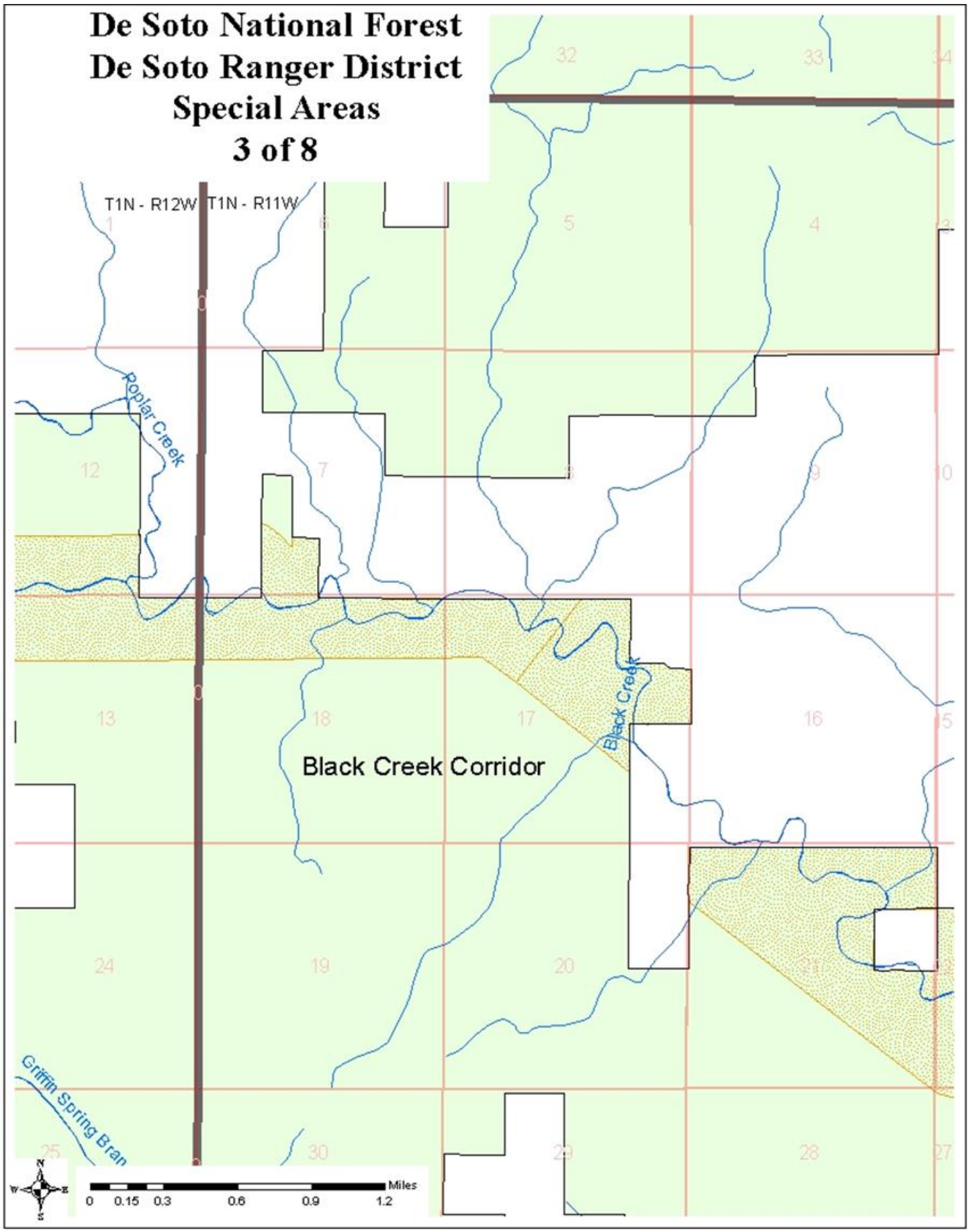
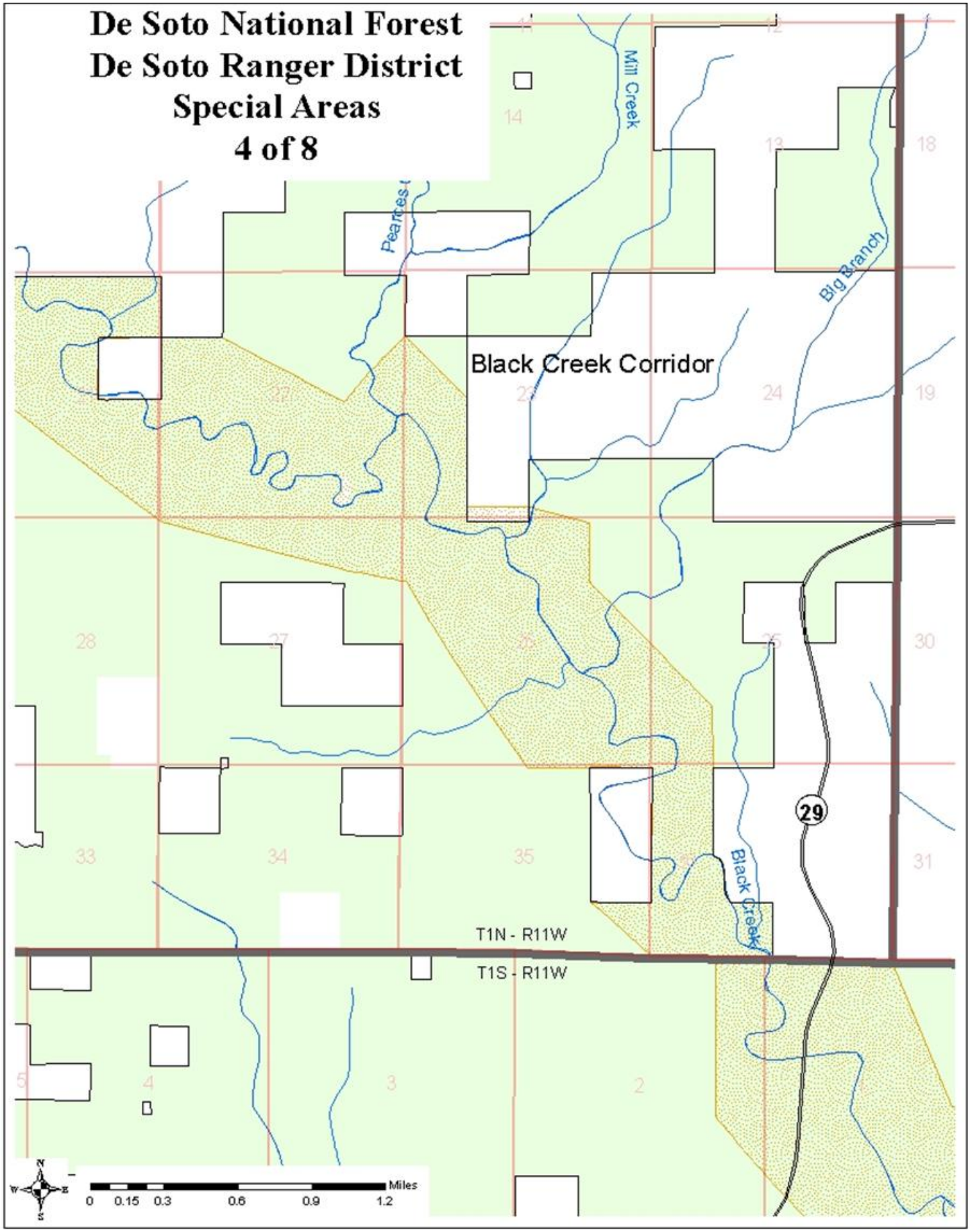


Figure D 16. Black Creek scenic corridor map 3 of 8



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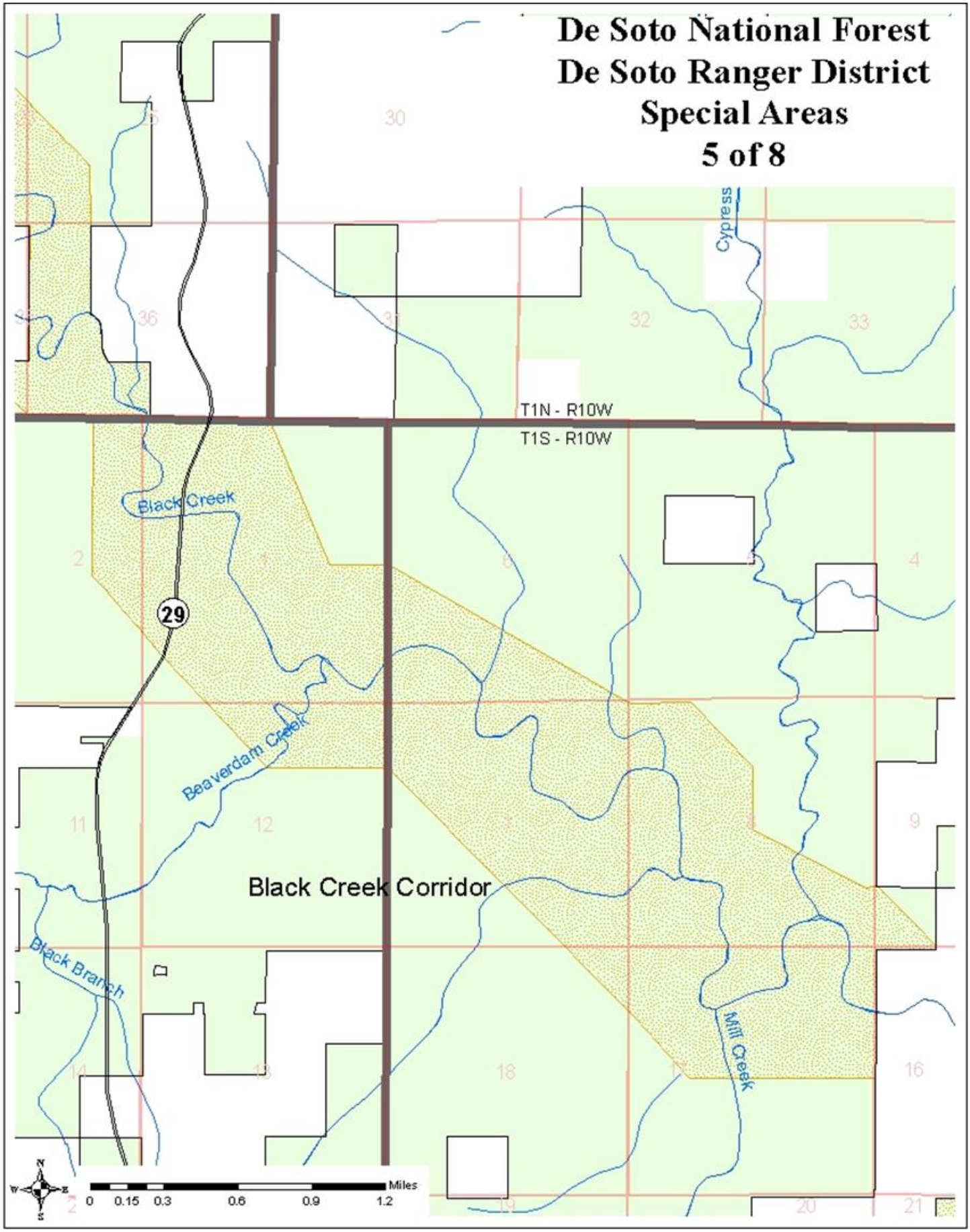

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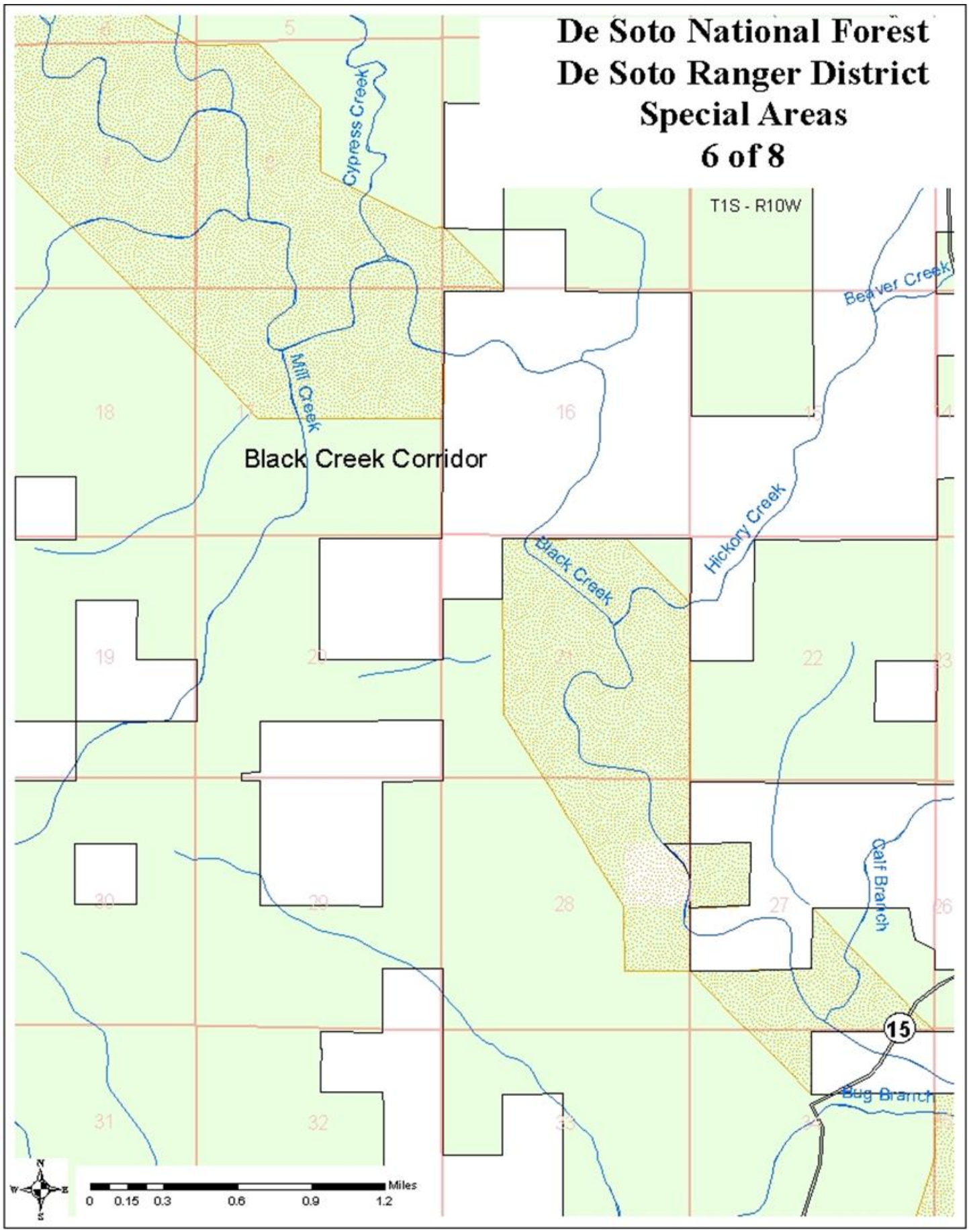


Figure D 19. Black Creek scenic corridor map 6 of 8

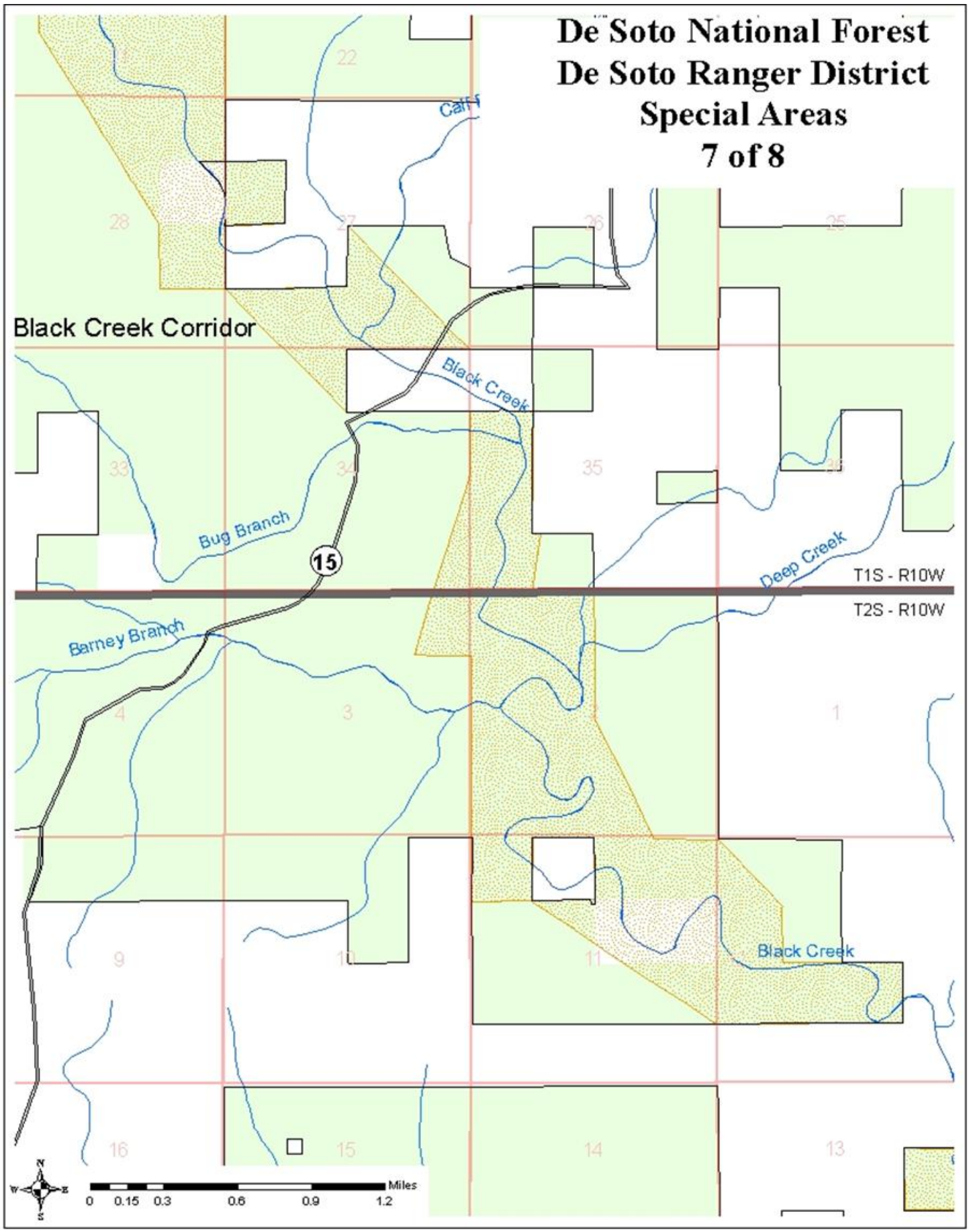


Figure D 20. Black Creek scenic corridor map 7 of 8

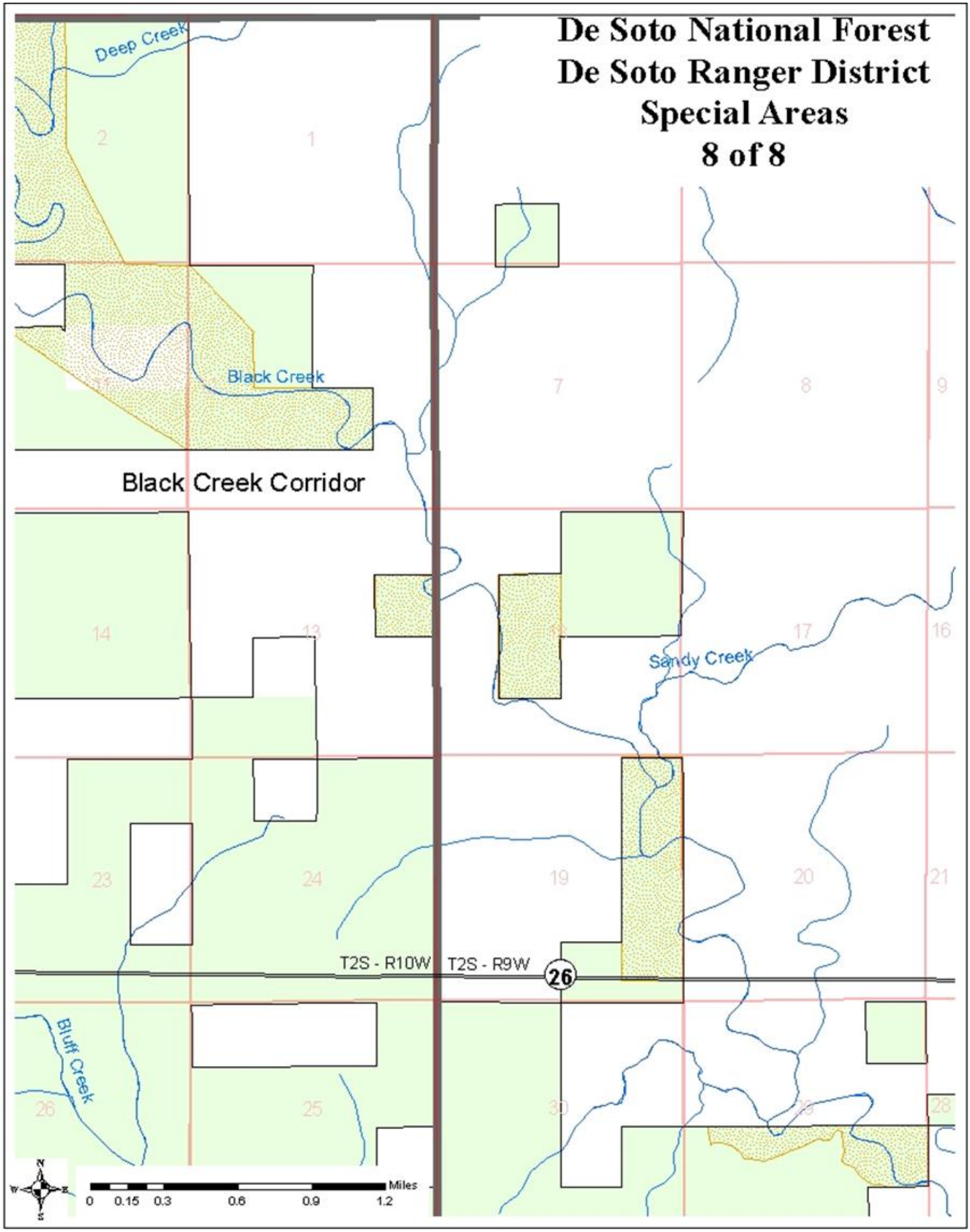
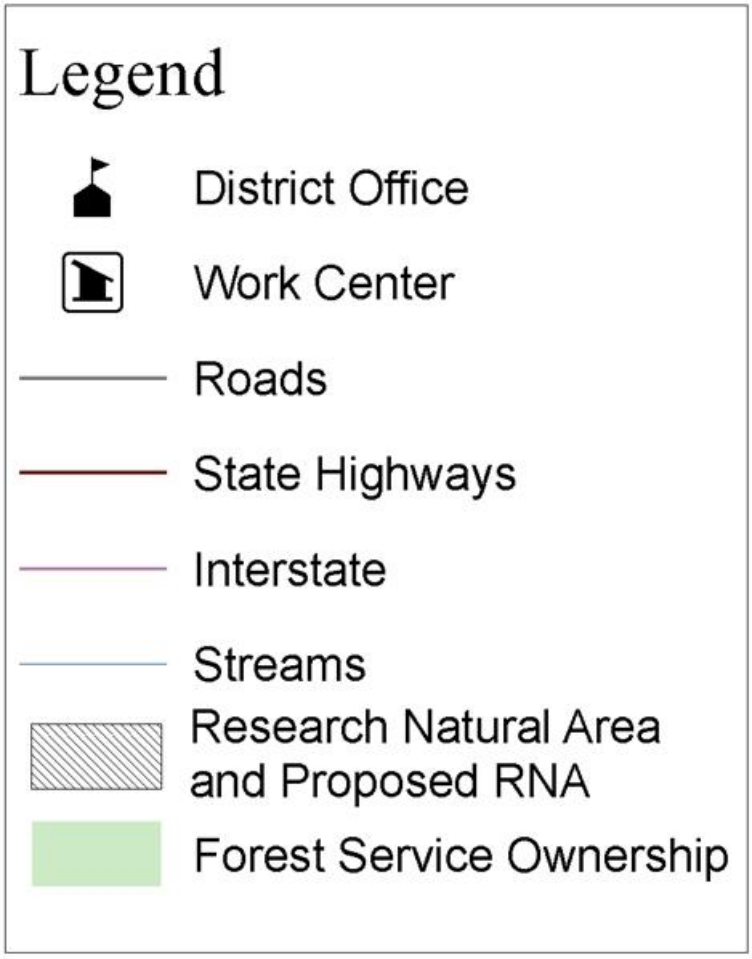


Figure D 21. Black Creek scenic corridor map 8 of 8

D.2.9 Harrison Research Natural Area (De Soto Ranger District, De Soto National Forest):

This area (part of the Harrison Experimental Forest) contains an extensive and high quality xeric longleaf pine forest with saw palmetto and other characteristic species. The sand ridge is surrounded by more typical mesic longleaf forest and several drainages. This xeric sandhill community remains a healthy example of its type. As an established research natural area, this area provides undisturbed base line areas to monitor changes in natural conditions associated with management of similar areas. As an undisturbed representation of an ecological community it serves as an area in which natural biological diversity is conserved.



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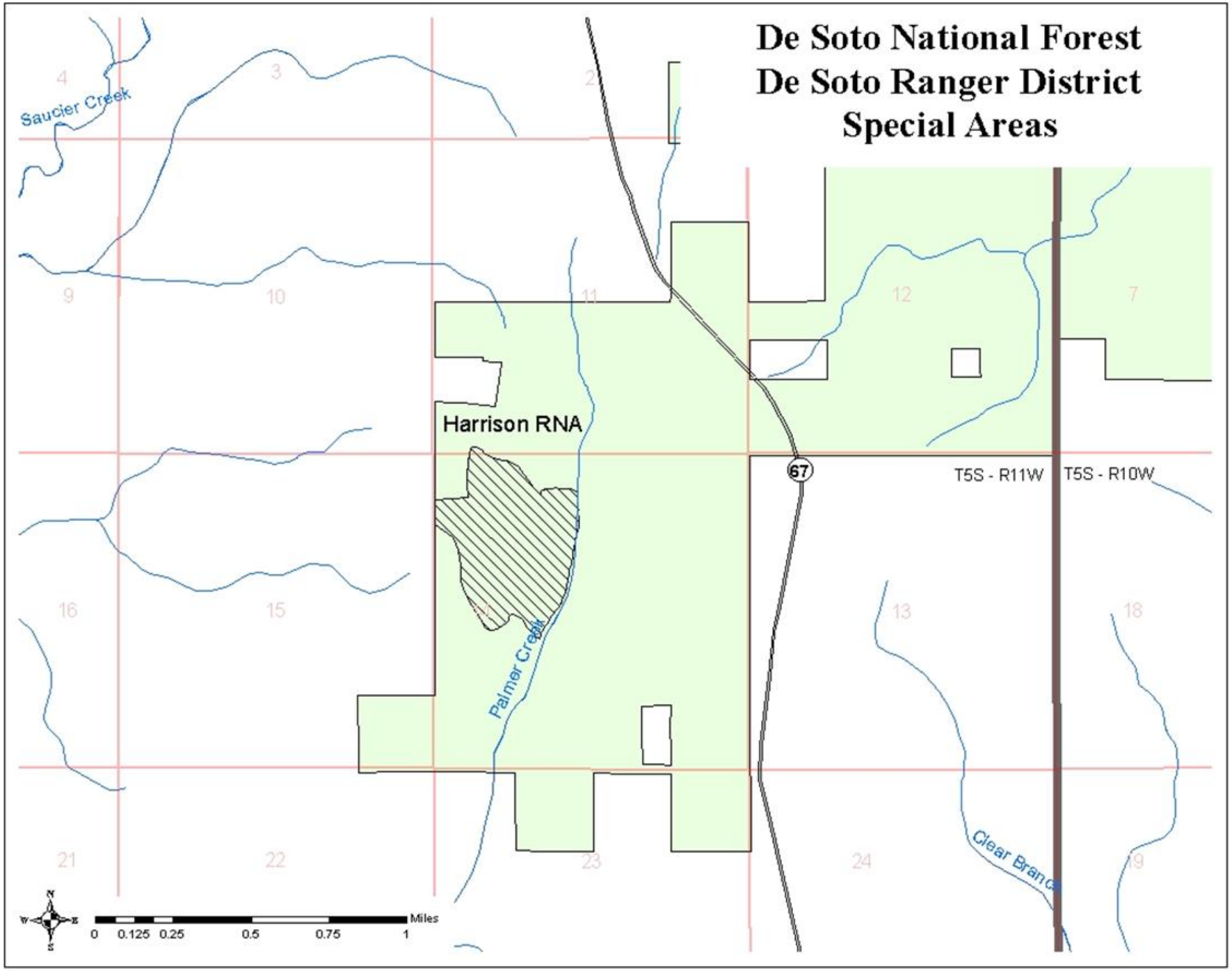
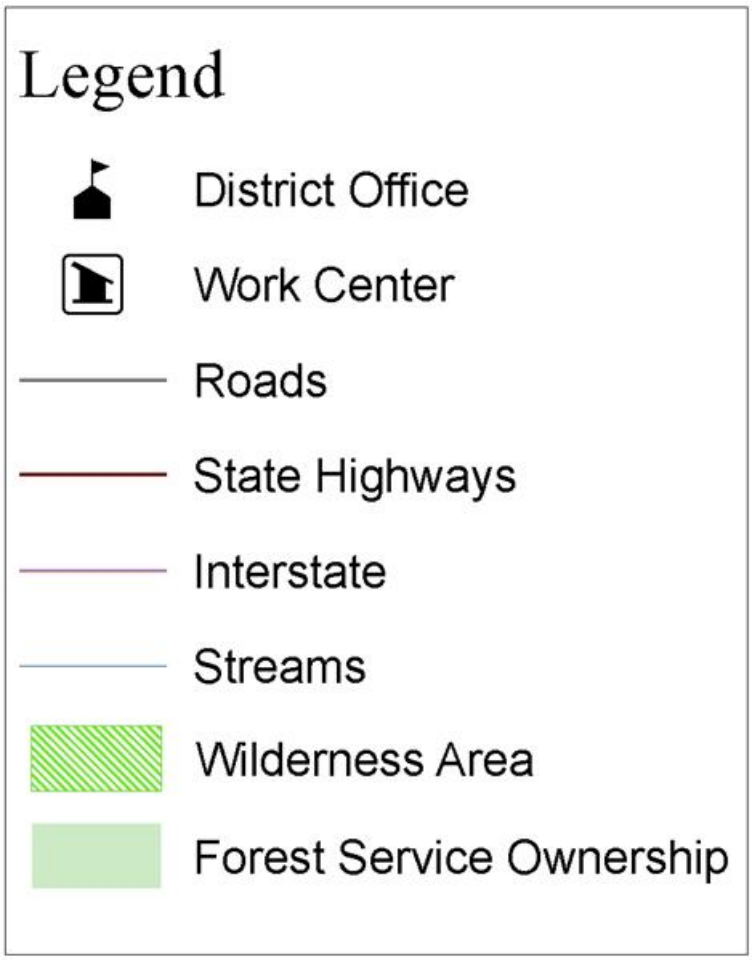


Figure D 22. Map of Harrison Research Natural Area

D.2.10 Black Creek Wilderness Area (De Soto Ranger District, De Soto National Forest):

The Black Creek Wilderness (5,052 acres) is named after its dominant feature—Black Creek, which bisects the wilderness, creating a large hardwood floodplain containing oxbow lakes and stands of sweet gum, loblolly pine, spruce pine, willow oak, bald cypress, sweet bay and red maple. Under provisions of the Clean Air Act, this wilderness is classified as a Class II area, the same as all other National Forest System land in Mississippi.

Most of the Black Creek Wilderness occupies part of the broad valley of Black Creek. Relief is fairly gentle with elevations ranging from 100 to 130 feet above sea level within the creek valley, and up to 270 feet above sea level on the adjoining uplands. This area is predominately pine and pine hardwood, with hardwoods along the drainages. The Black Creek Wilderness is potential habitat for the federally endangered Louisiana black bear. The only development in the area is the Black Creek Trail; no other facilities are provided. This area offers semi-primitive recreation opportunities and moderate levels of solitude.



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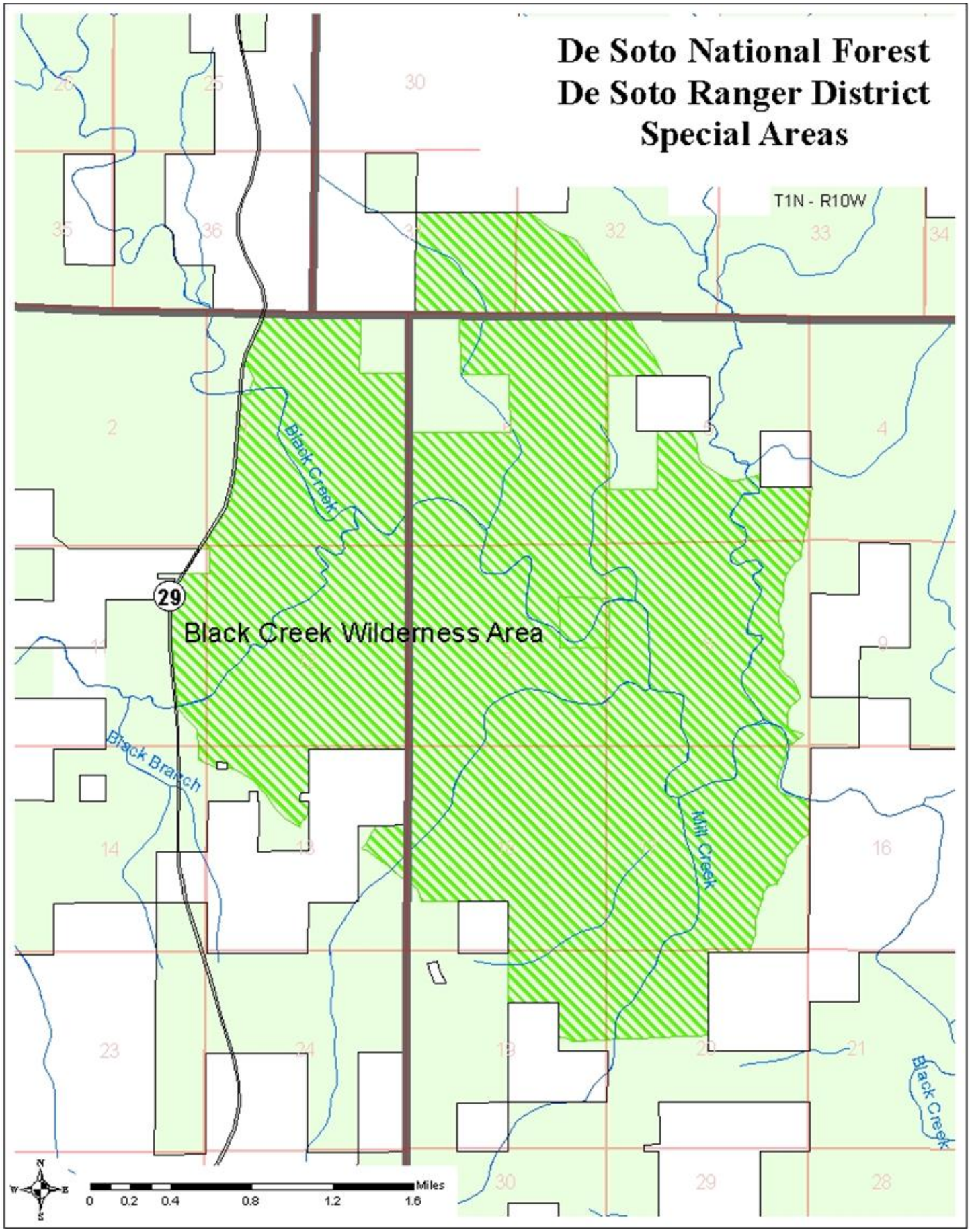
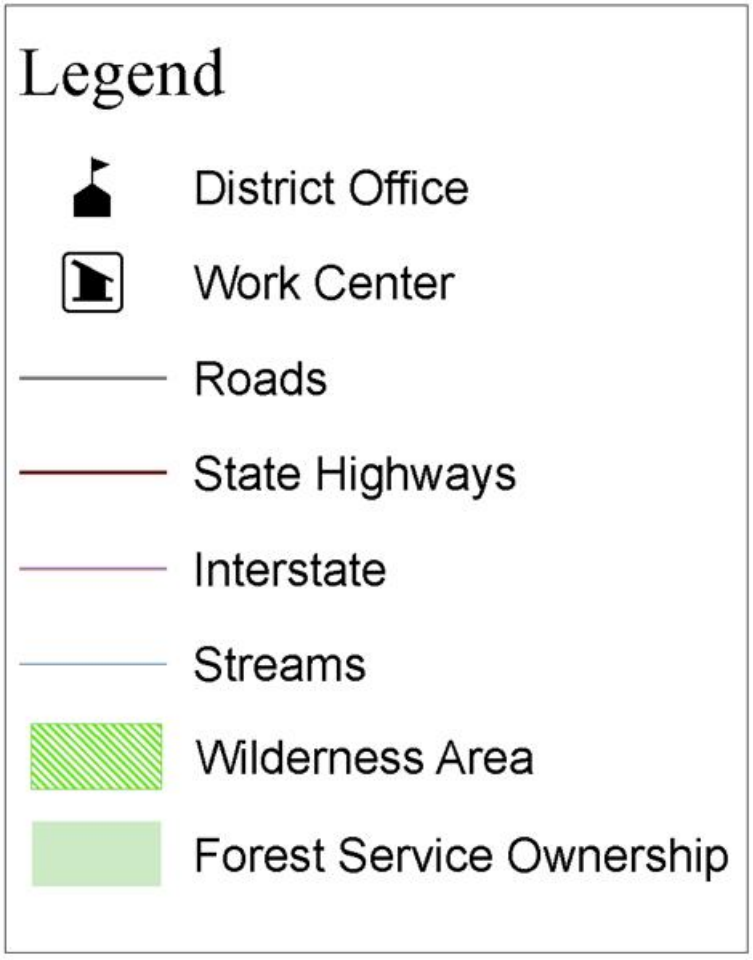


Figure D 23. Map of Black Creek Wilderness Area

D.2.11 Leaf Wilderness Area (De Soto Ranger District, De Soto National Forest):

The Leaf Wilderness (994 acres) lies almost entirely on the floodplain of the west-to-east flowing Leaf River. Except for a small upland area on the extreme western edge of the wilderness, the area primarily consists of meandering sloughs, oxbow lakes and level terrain with spruce-pine forest or oak-gum-cypress river bottom types. The upland is covered in loblolly and shortleaf pines. Elevations average 50 feet mean sea level. The Leaf Wilderness Area offers semi-primitive recreation opportunities and moderate levels of solitude.

Black Creek Wilderness and Leaf Wilderness are the only two designated wilderness areas in the National Forests in Mississippi. Both the Black Creek and Leaf Wilderness Areas (along with the Black Creek Wild and Scenic River Corridor) were studied in depth during an extensive "limits of acceptable change" analysis completed in April 1994.



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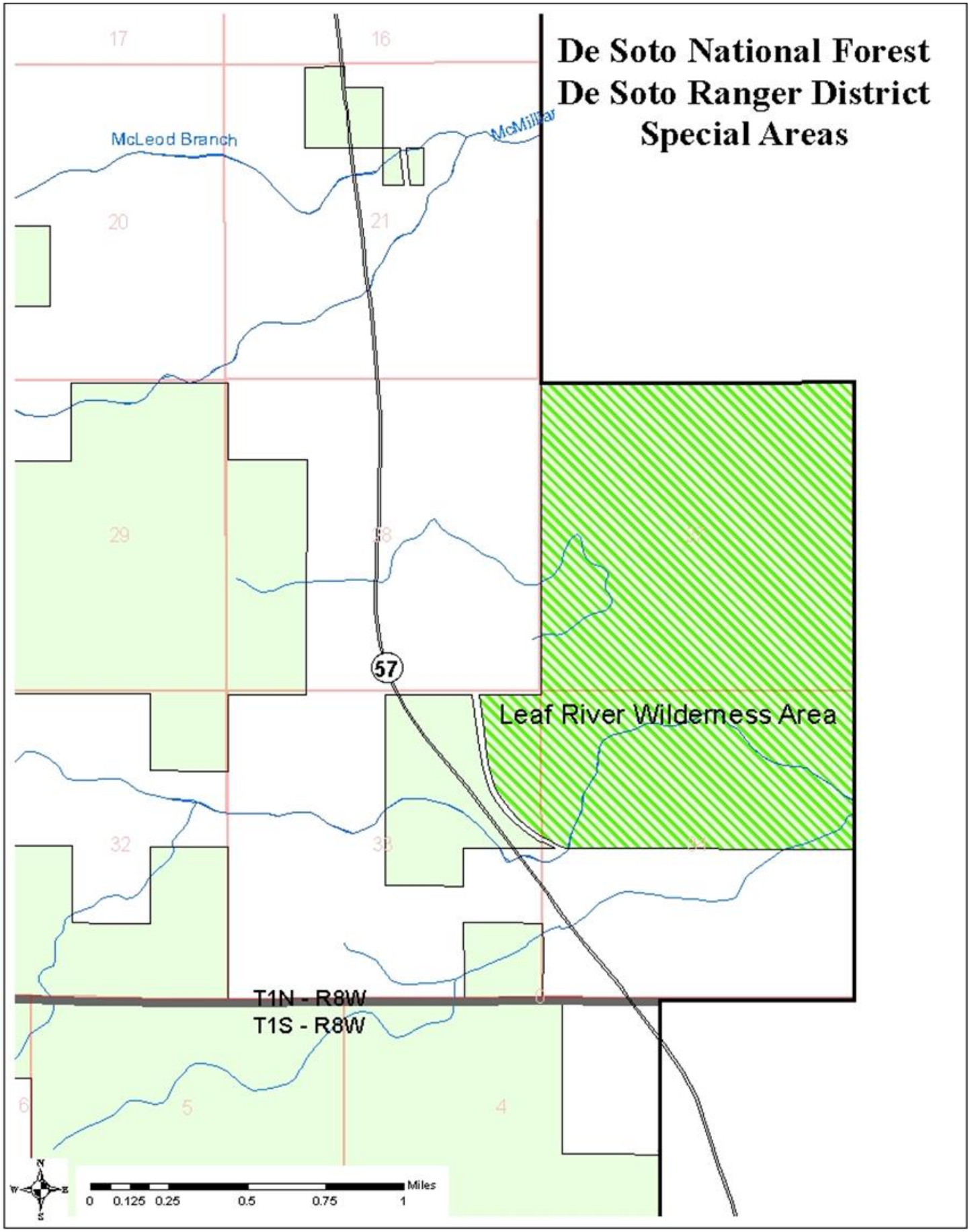
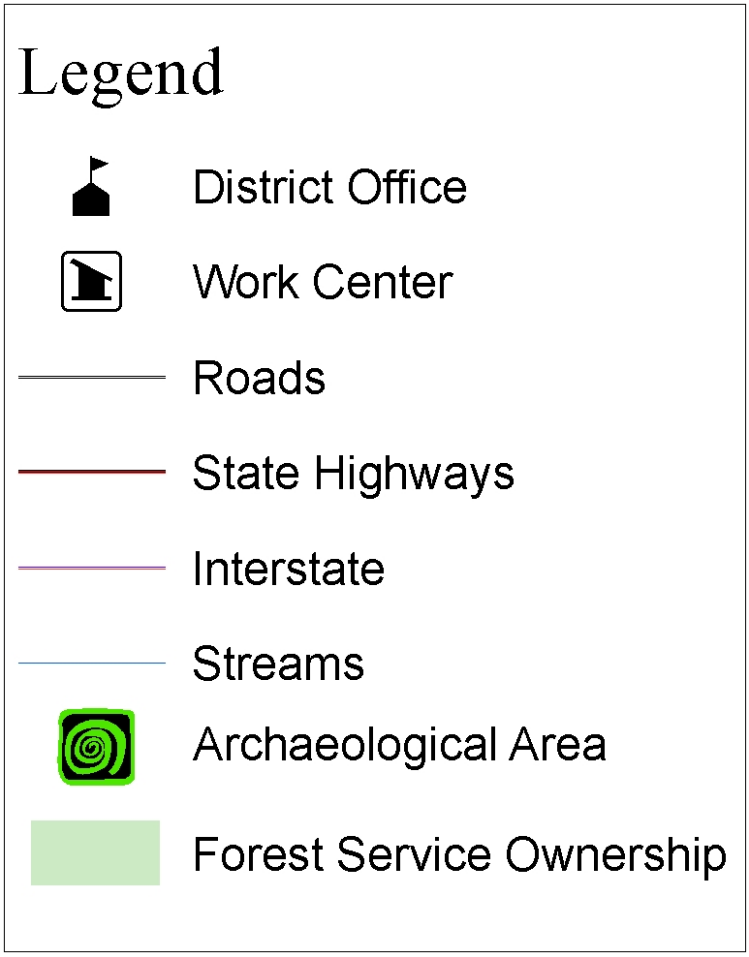


Figure D 24. Map of Leaf Wilderness Area

D.2.12 Dowling Bayou Archaeological Site (Delta National Forest):

Dowling Bayou Archaeological Site is an Indian mound and village site on the Delta National Forest. It dates from the late woodland period (A.D. 800) and is a classic example of the mounds of this period. The cultural resources are protected and available for research.



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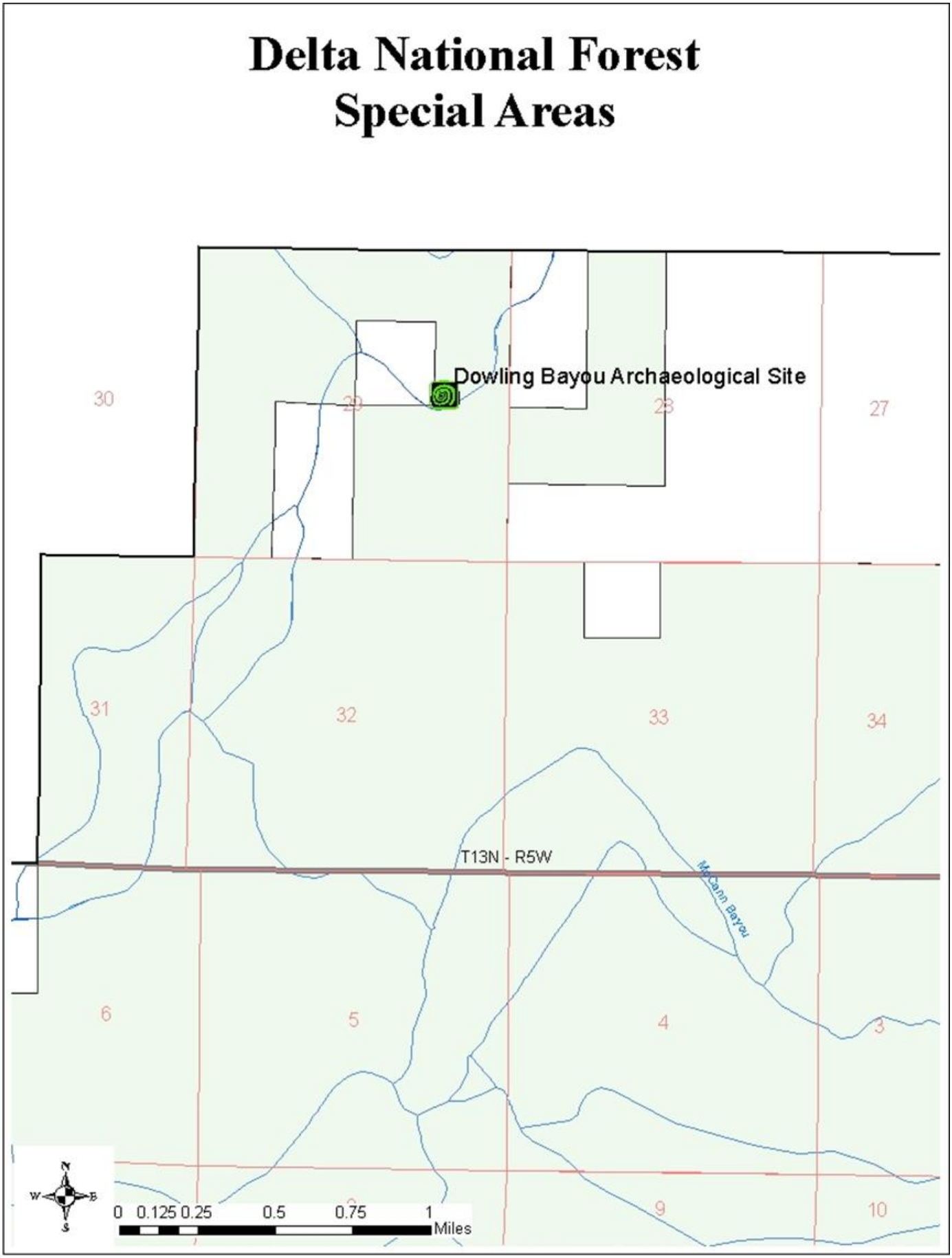
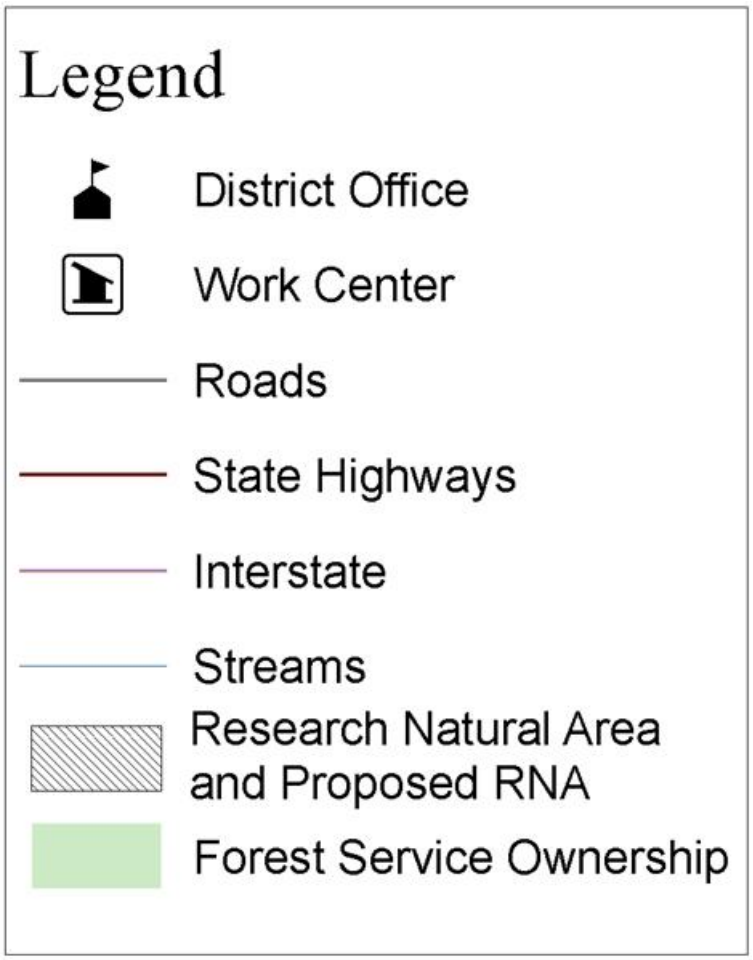


Figure D 25. Map of Dowling Bayou Archaeological Site

D.2.13 Red Gum Research Natural Area (Delta National Forest):

The Red Gum Research Natural Area is a stand of huge sweet gum trees, some of them over 300 years old. This is a “ridge bottom” delta forest with dense understory of dwarf palmetto and switchcane. This relatively undisturbed Mississippi River Delta bottomland hardwood forest has never been logged.

This example of Mississippi River bottomland hardwood forest is intact and properly functioning hydrologically. As an established research natural area, this area provides undisturbed base line sites on which to monitor changes in natural conditions associated with management of similar areas. As an undisturbed representation of an ecological community it serves as an area in which natural biological diversity is conserved.



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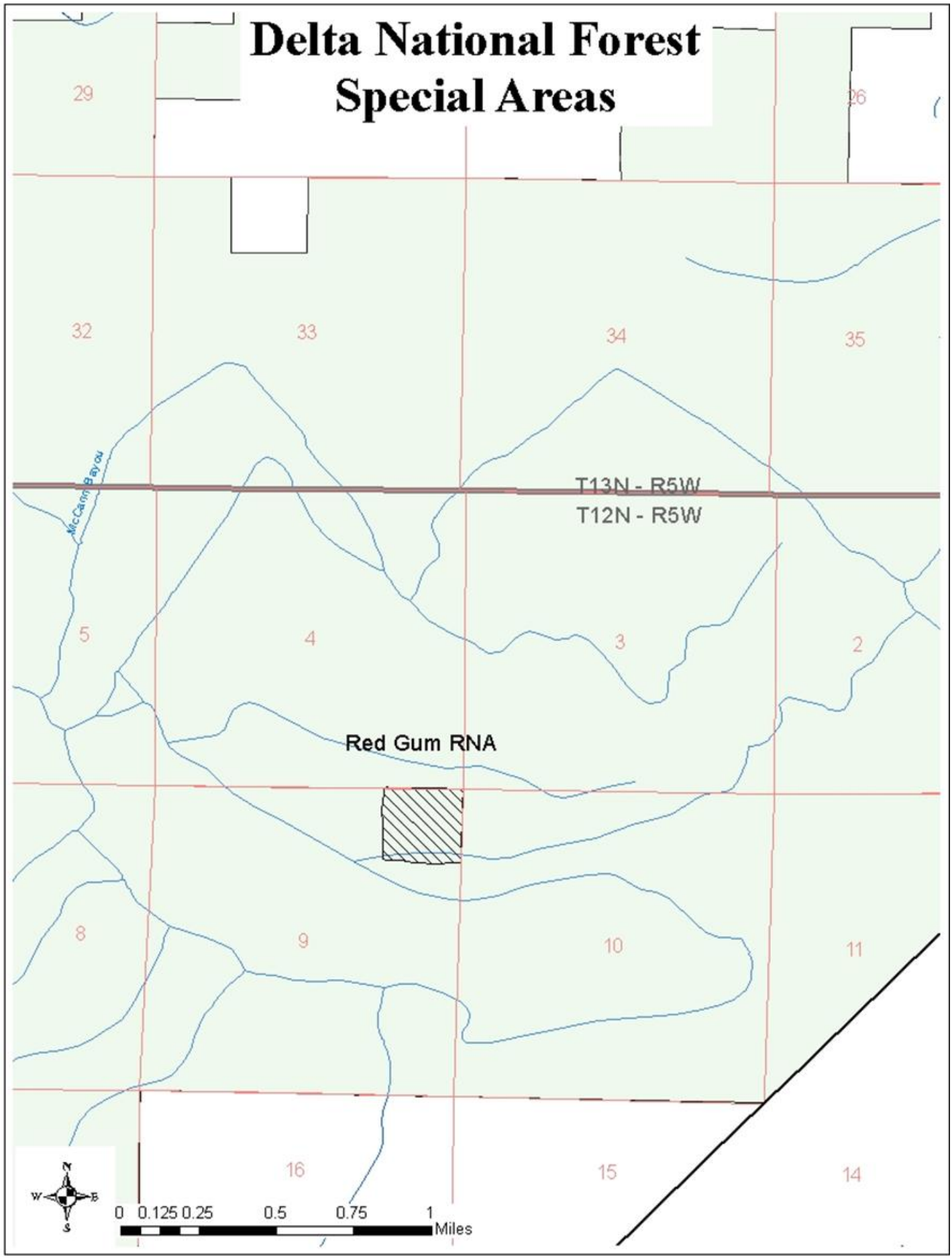
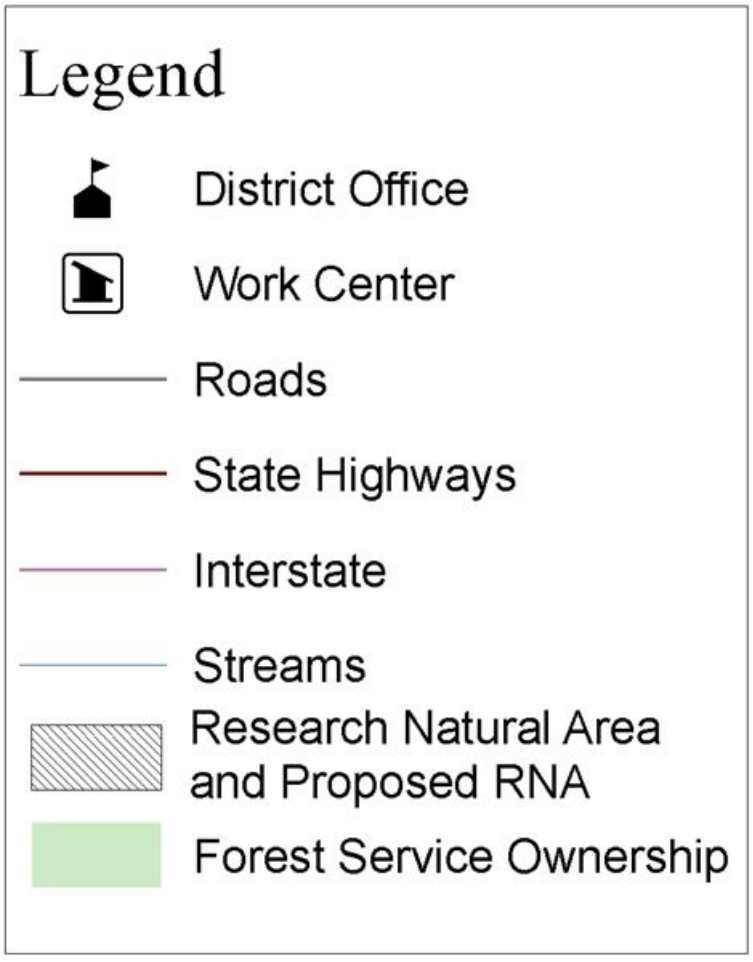


Figure D 26. Map of Redgum Research Natural Area

D.2.14 Overcup Oak – Water Hickory Research Natural Area (Delta National Forest):

The Overcup Oak – Water Hickory Research Natural Area is remnant of virgin bottomland forest in the Mississippi River Delta Region. The forest is dominated by large overcup oaks and water hickories estimated to be about 200 years old. This example of Mississippi River bottomland hardwood forest is intact and properly functioning hydrologically. As an established research natural area, this area provides undisturbed base line sites on which to monitor changes in natural conditions associated with management of similar areas. As an undisturbed representation of an ecological community it serves as an area in which natural biological diversity is conserved.



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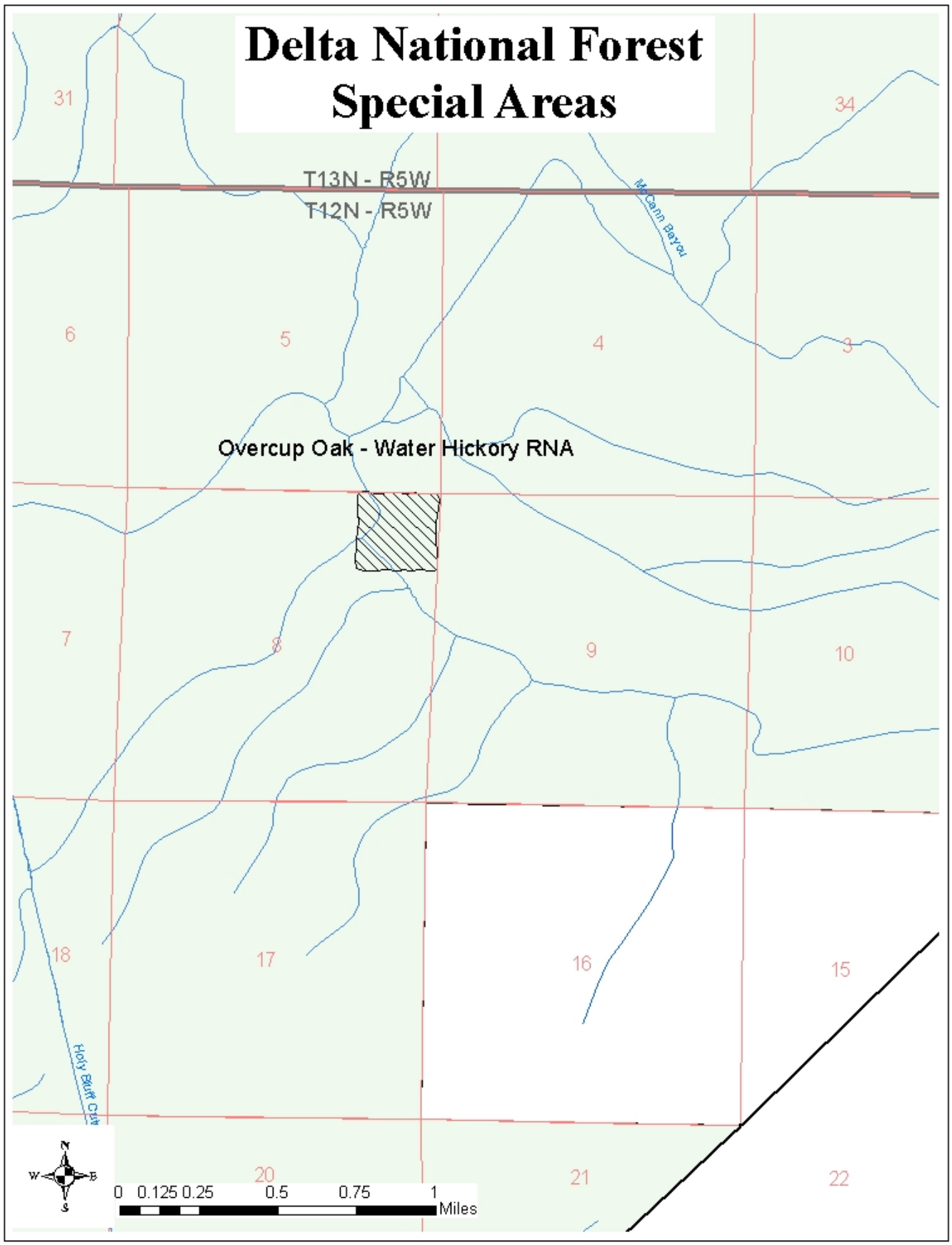
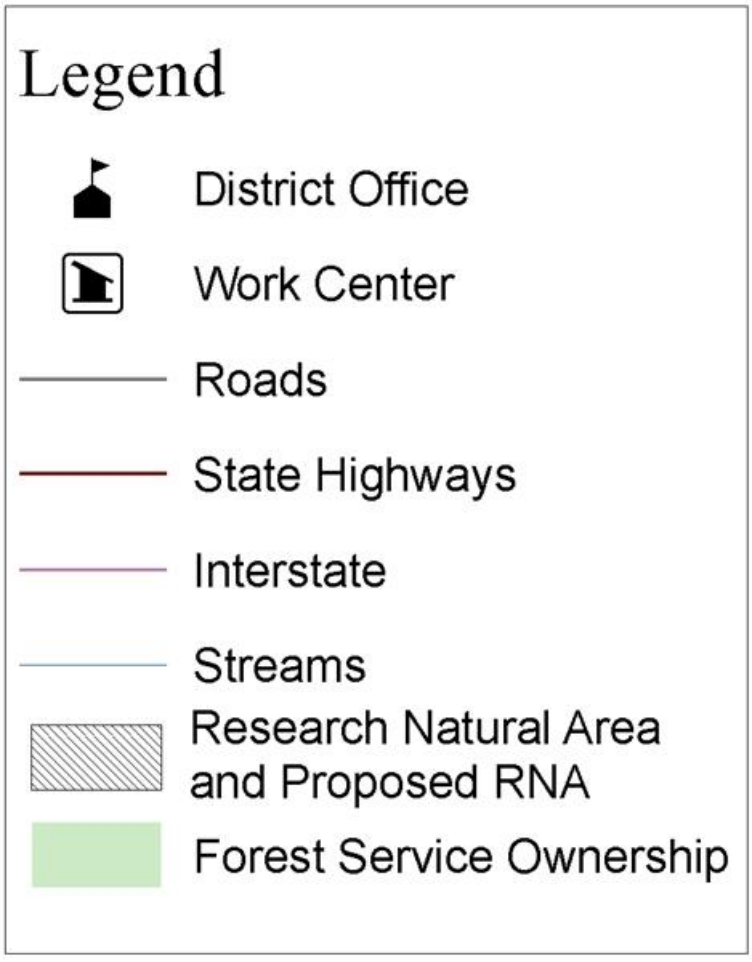


Figure D 27. Map of Overcup Oak - Water Hickory Research Natural Area

D.2.15 Green Ash – Sugarberry Research Natural Area (Delta National Forest):

The Green Ash – Sugarberry Research Natural Area is a remnant of the virgin bottomland hardwood forest that once covered the Mississippi River Delta. The research natural area has huge green ash trees that are in excess of 250 years old. This example of Mississippi River bottomland hardwood forest is intact and properly functioning hydrologically. As an established research natural area, this area provides undisturbed base line sites on which to monitor changes in natural conditions associated with management of similar areas. As an undisturbed representation of an ecological community it serves as an area in which natural biological diversity is conserved.



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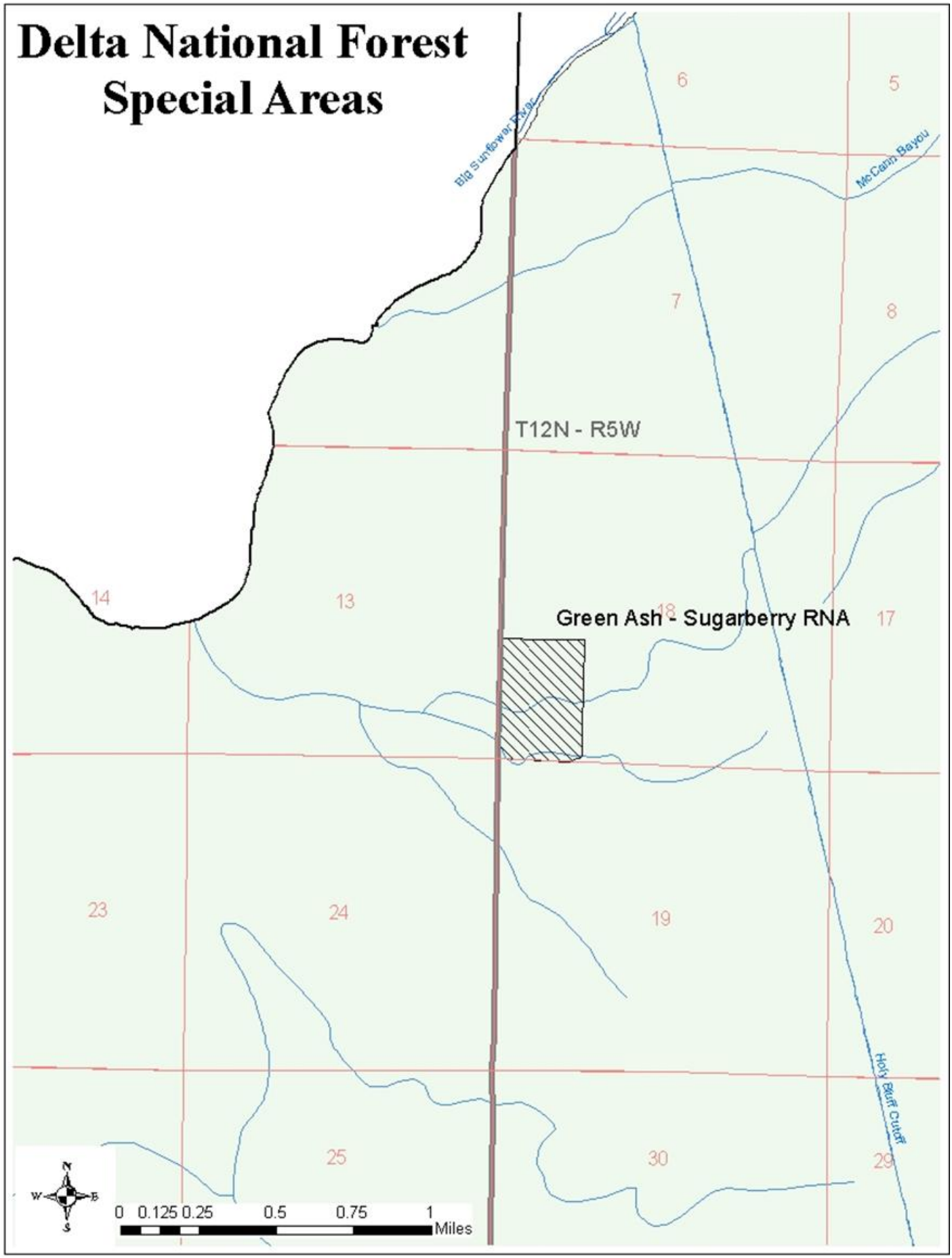
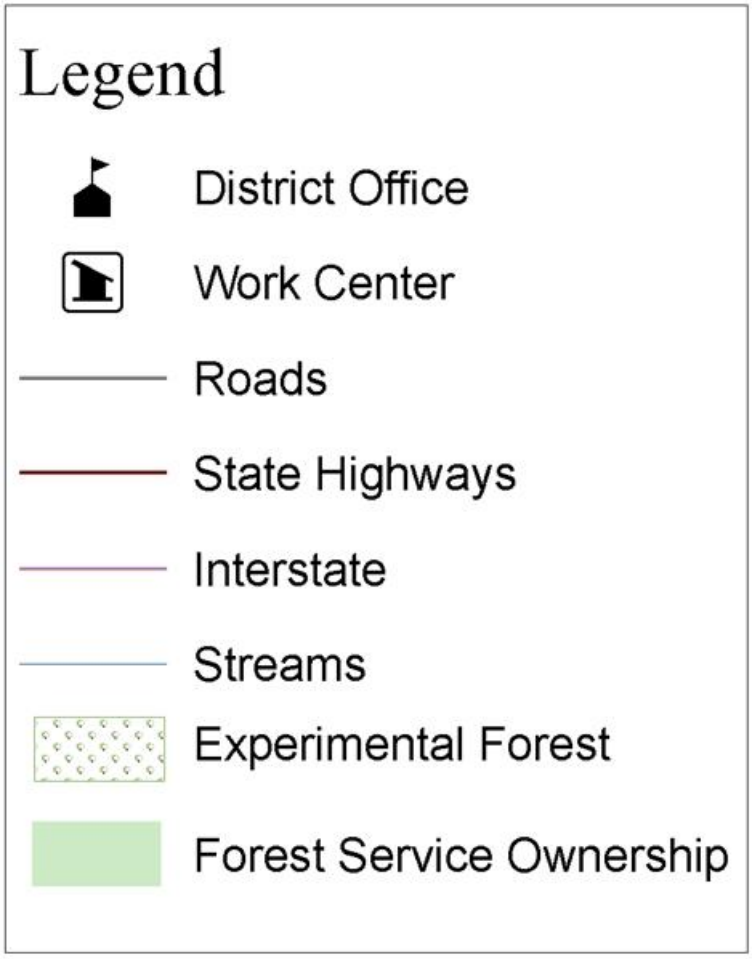


Figure D 28. Map of Green Ash – Sugarberry Research Natural Area

D.2.16 Tallahatchie Experimental Forest (Holly Springs National Forest):

Scientists in research work units use the Tallahatchie Experimental Forest as a site for their studies and demonstration projects in conjunction with the National Forests in Mississippi. Among the experiments conducted on these forests are studies on stand management and regeneration; restoration of wildlife and plant populations; watershed management; and the effects of pollution, climate change, and timber harvest.



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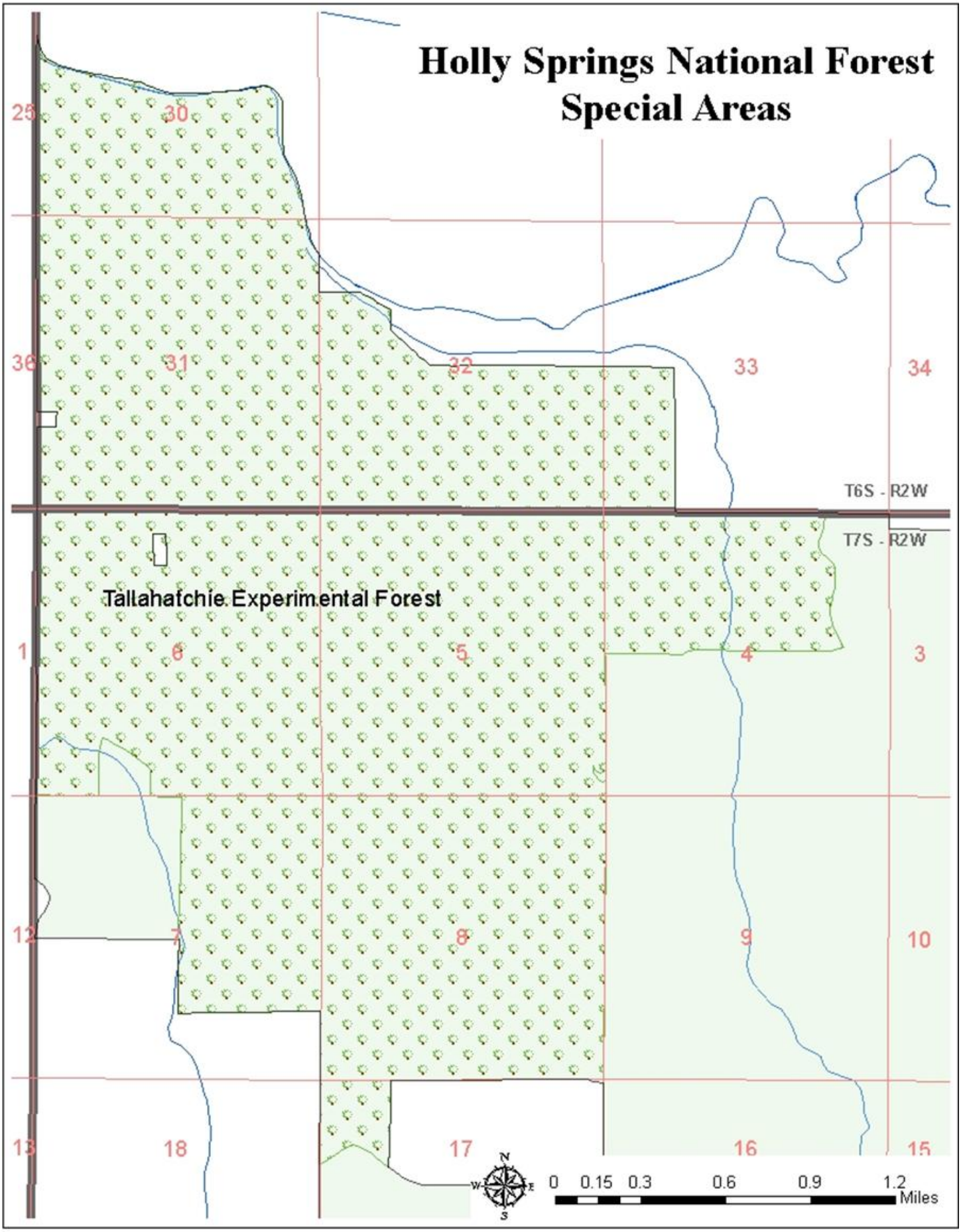
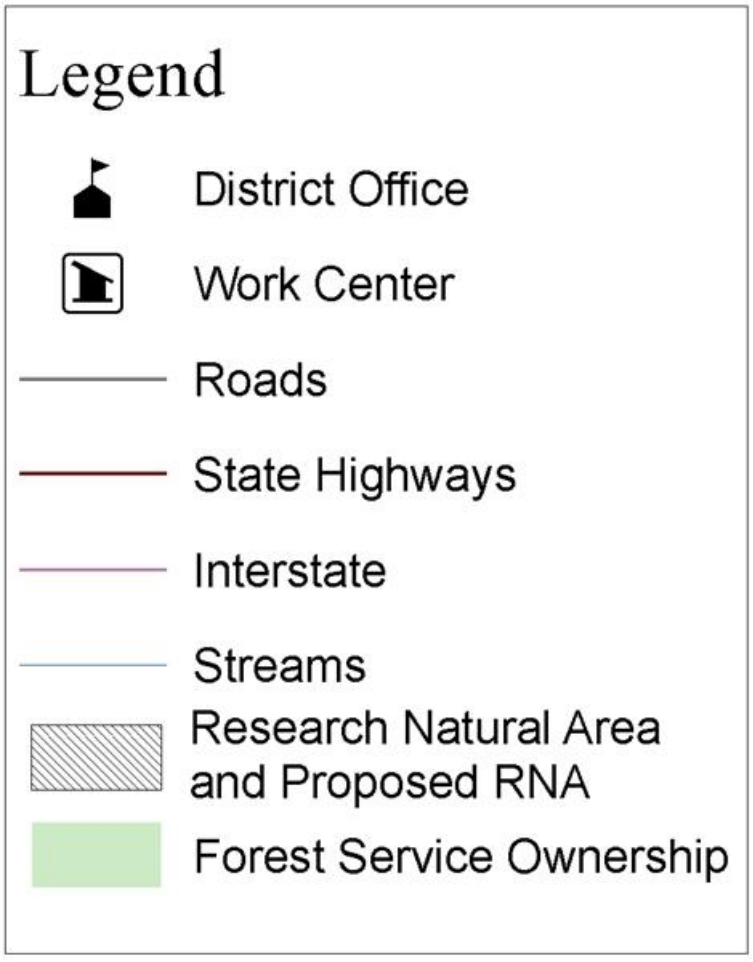


Figure D 29. Map of Tallahatchie Experimental Forest

D.2.17 Noxubee Crest Research Natural Area (Tombigbee National Forest):

The Noxubee Crest Research Natural Area encompasses the headwaters of a branch of the Little Noxubee River. Much of the uplands are old field areas that were abandoned in the 1930s, but the steep side slopes and creek bottoms contain fine examples of 120+ year-old shortleaf pine-oak-hickory forest. Noxubee Crest continues to provide habitat for wooded spring seep and dry-mesic mixed oak forest. Hydrological function of associated seeps and springs is intact. As a research natural area, this area provides undisturbed base line sites on which to monitor changes in natural conditions associated with management of similar areas. As an undisturbed representation of an ecological community it serves as an area in which natural biological diversity is conserved.



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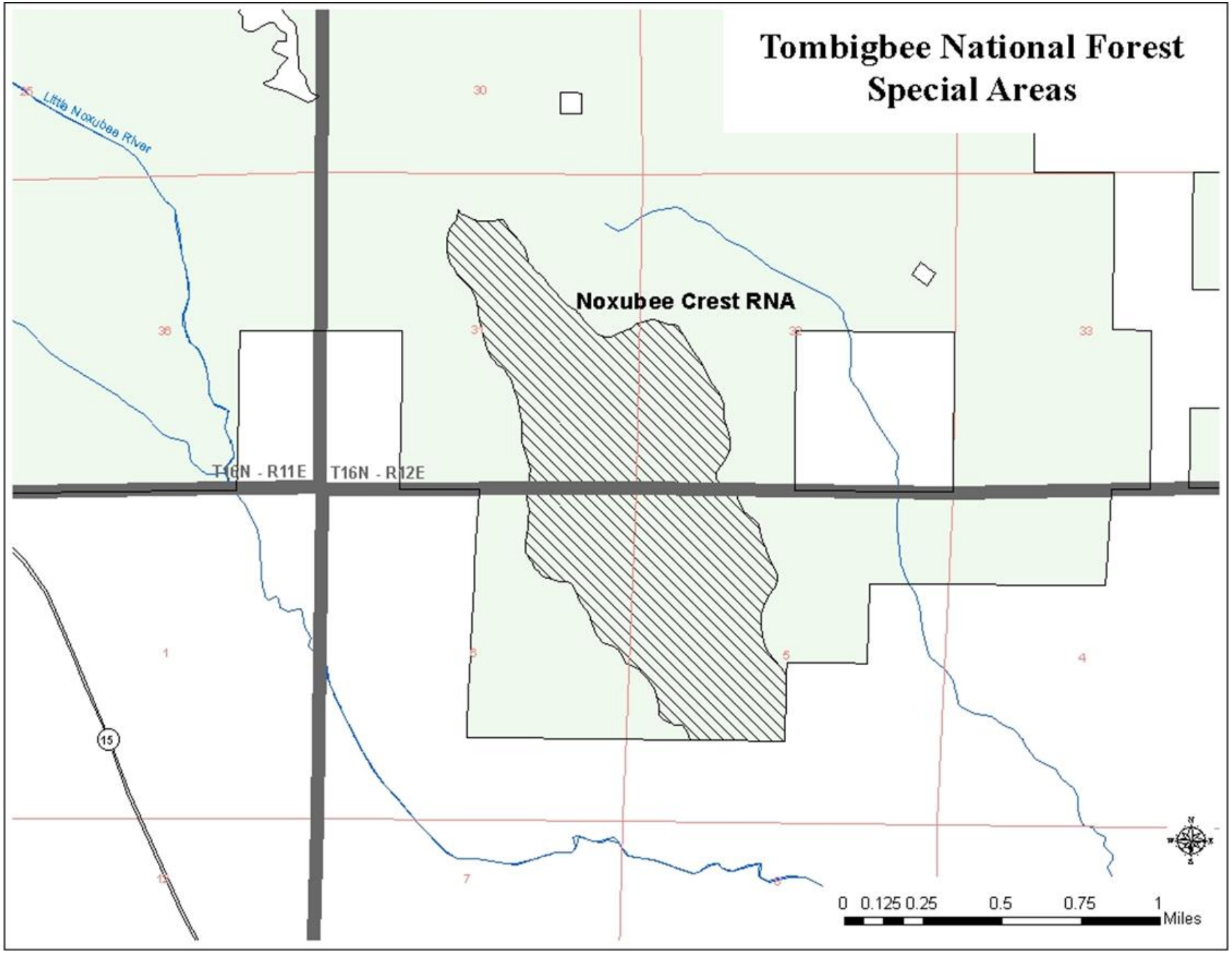
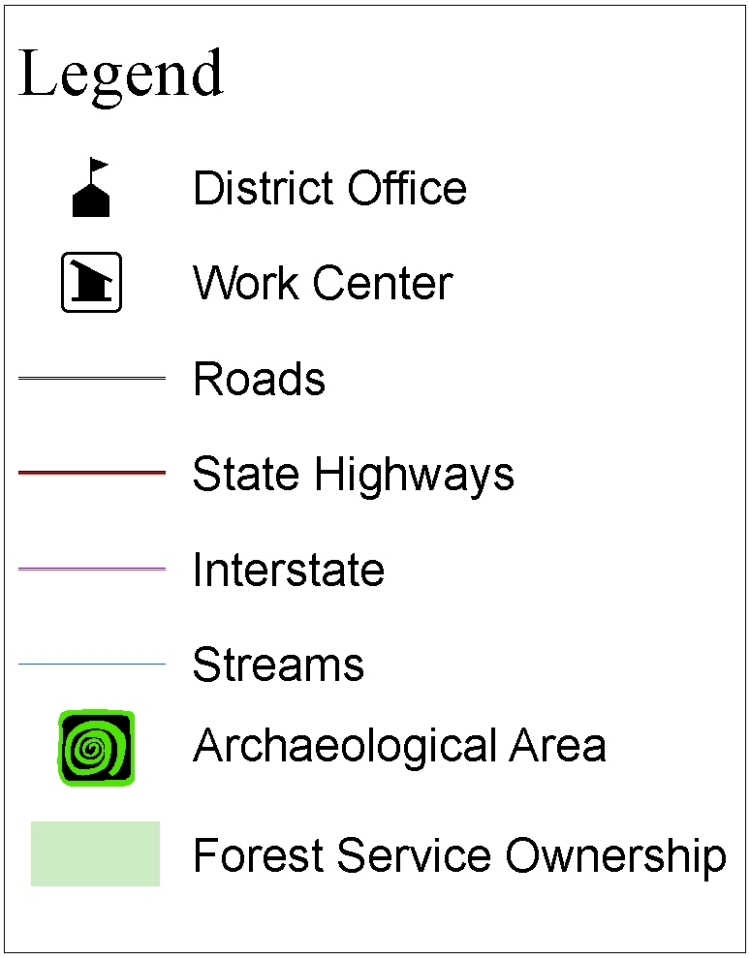


Figure D 30. Map of Noxubee Crest Research Natural Area

D.2.18 Owl Creek Mounds Archaeological Site (Tombigbee National Forest):

Owl Creek Mounds Archaeological Site is an Indian mound and village site on the Tombigbee National Forest. It dates from the late woodland period (A.D. 800) and is a classic example of the mounds of this period. This site is listed on the National Register of Historic Places. The cultural resources are protected and available for research.



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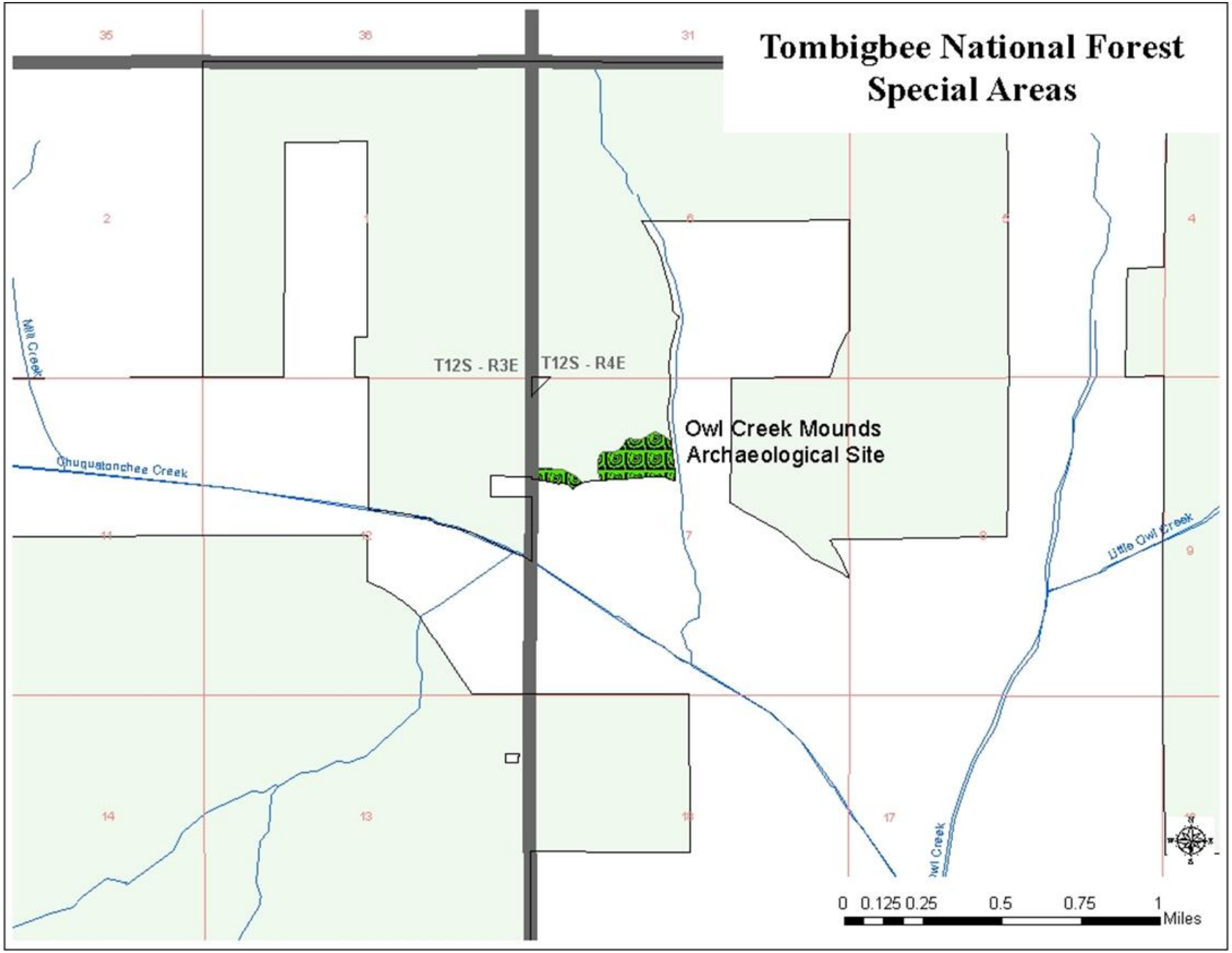
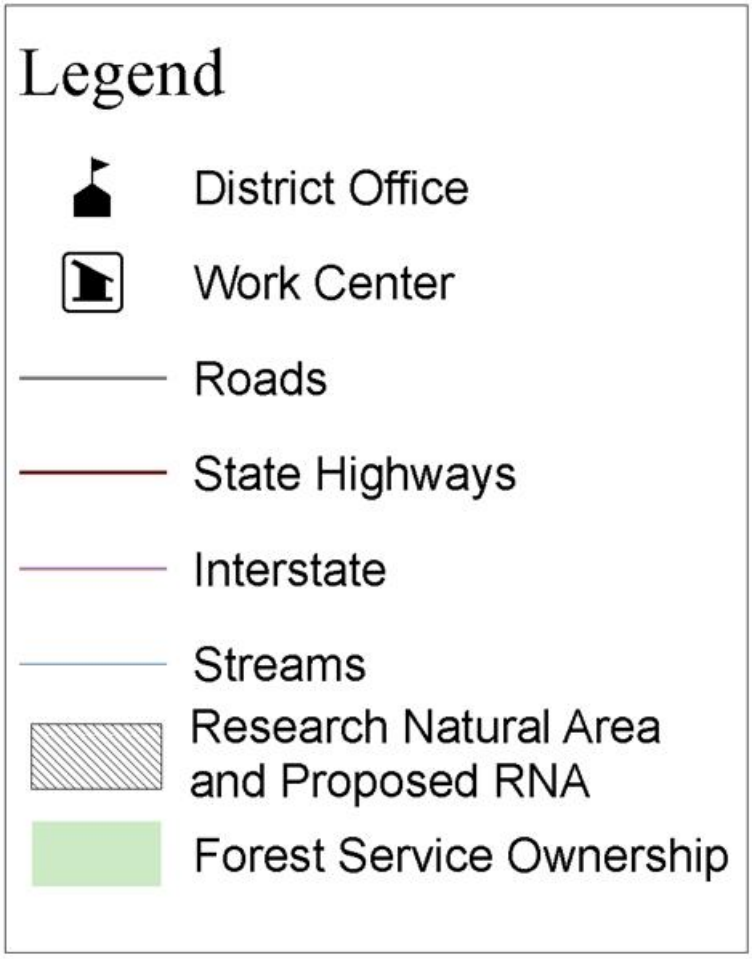


Figure D 31. Map of Owl Creek Mounds Archaeological Site

D.2.19 Chuquatonchee Bluffs Research Natural Area (Tombigbee National Forest):

This bluff area is on a steep north-facing mesic slope overlooking the floodplain of Chuquatonchee Creek. This is an old-growth Pontotoc ridge forest. Aerial photographs dated 1937 show trees in the area with large crowns. The area supports a rich flora.

The bluff area continues to support healthy examples of the Pontotoc ridge forest type. Hydrological function of associated seeps and springs is intact. As a research natural area, this area provides undisturbed base line sites on which to monitor changes in natural conditions associated with management of similar areas. As an undisturbed representation of an ecological community it serves as an area in which natural biological diversity is conserved.



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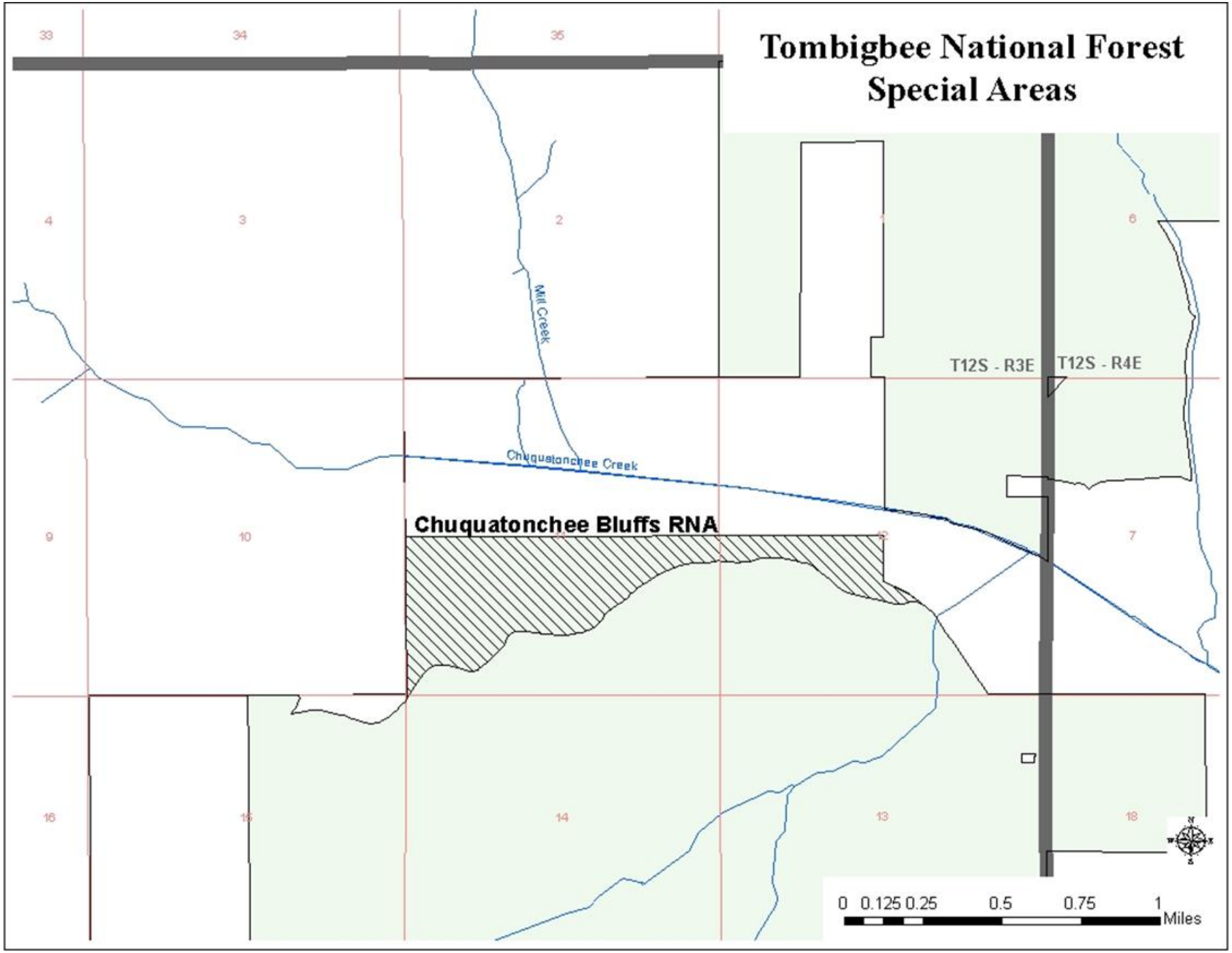

Figure D 32. Map of Chuquatonchee Bluffs Research Natural Area

D.3 Proposed New Special Areas

In addition to the previously designated areas listed above, the National Forests in Mississippi also contain a number of distinctive locations that have been evaluated and proposed for special area designation. As shown in Table D 2, 20 proposed areas located across the 7 ranger districts have been identified for evaluation and designation as botanical areas, research natural areas, or other appropriate administrative designations. These proposed special areas have been managed for their identified special characteristics and are at various stages of consideration and study for special area designation. The final designations will occur through the forest plan revision process. One area has been reviewed and determined to not meet criteria for designation as a botanical area. A second area proposed for research natural area designation has been dropped from further special area consideration. See detailed descriptions of individual proposed areas listed below in Singleton Prairie Table D 2. These descriptions contain rationale for dropping two areas from special area consideration.

Table D 2 identifies the proposed special areas, their recommended designations, district in which the area is located, and the size of the proposed area.

Table D 2. Proposed new special areas of the National Forests in Mississippi

Area Name As Proposed	Area Designation Recommendation	District	Acres
Singleton Prairie Botanical Area	Drop Consideration	Bienville	80
Nutmeg Hickory Research Natural Area	Research Natural Area	Bienville	307
Laurel Oak Research Natural Area	Botanical Area	Chickasawhay	277
Railroad Creek Titi Botanical Area	Botanical Area	De Soto	451
Little Florida Botanical Area	Botanical Area	De Soto	121
Pitcher Plant Botanical Area	Botanical Area	De Soto	251
Buttercup Flat Botanical Area	Botanical Area	De Soto	164
Loblolly Bay Research Natural Area	Botanical Area	De Soto	93
Ragland Hills Research Natural Area	Botanical Area	De Soto	237
Granny Creek Bay Research Natural Area	Research Natural Area	De Soto	127
Wyatt Hills Botanical Area	Botanical Area	De Soto	100
Cypress Bayou Botanical Area	Botanical Area	Delta	262
LA-2 Botanical Area C117S17	Botanical Area	Holly Springs	12
LA-6 Botanical Area C122S	Botanical Area	Holly Springs	158
Lee Creek Research Natural Area	Drop Consideration	Holly Springs	186
Sandy Creek Research Natural Area / Botanical Area	Botanical Area	Homochitto	300
Shagbark Hickory Botanical Area	Botanical Area	Tombigbee	109
Choctaw #4 Botanical Area	Botanical Area	Tombigbee	45
Prairie Mount Research Natural Area	Botanical Area	Tombigbee	370
Bogue Cully Research Natural Area	Botanical Area	Tombigbee	500

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D.3.1 Proposed Singleton Prairie Botanical Area (Bienville National Forest):

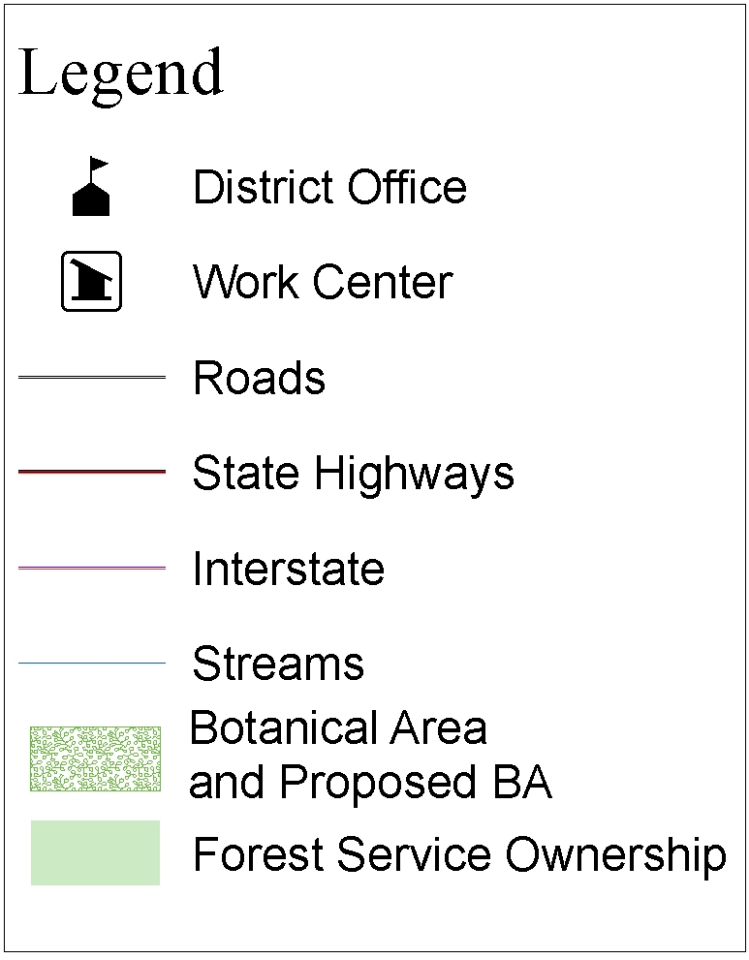
Singleton Prairie is a relict Jackson prairie, proposed under the 1985 forest plan as an area to be studied for potential botanical area designation. Prairies are greatly reduced from its historical acreage due to land conversion in the past to agricultural and forestry uses. Restored prairie furnishes habitat for typical plant and animal species once more common in this region of Mississippi. The Jackson prairie provides the necessary habitat conditions to support a full array of native prairie species such as indiangrass, bluestem grasses, rosinweeds, prairie-clovers, yellow-puffs, prairie cone-flowers, and others.

Field inspections and reviews have been completed. On the ground observations, indicate that Singleton prairie is less than 6 acres, instead of the 80 acres listed in 1985 forest plan. Currently the existing prairie opening is less than one acre. The 1989, Mississippi Museum of Nature Sciences' final report titled Bienville National Forest Prairie Survey indicate that Singleton Prairie was ranked one of the poorest examples of Bienville prairies (48 out 54 – 11th percentile). The report also stated that Singleton Prairie was a "…disturbed prairie with less than complete assemblage of prairie species, still restorable to prairie but with major efforts to manage and possibly many years for results. May also require seeding to replace species apparently "missing"."

Restoration and continued maintenance would be an additional concern due to the absence of reliable access. Management access is hindered due to wetlands and Hontokalo Creek.

Singleton Prairie should be protected in a manner consistent with other prairie; however, it should not rise to the level of a botanical area. Botanical areas should be one of our better examples of rare communities, rather than one of our poorer examples. Also, since a botanical area has a recreational function, FSM 2372.4 dictates that public use will be encouraged up to a level that does not encroach on the special values for which the area was established. In other words, public access should be a consideration when multiples sites are available for designation. Singleton Prairie Botanical Study Area has neither a high ranking, when compared to other prairies, or reasonable access for management or the public.

Singleton Prairie has been dropped from further consideration.



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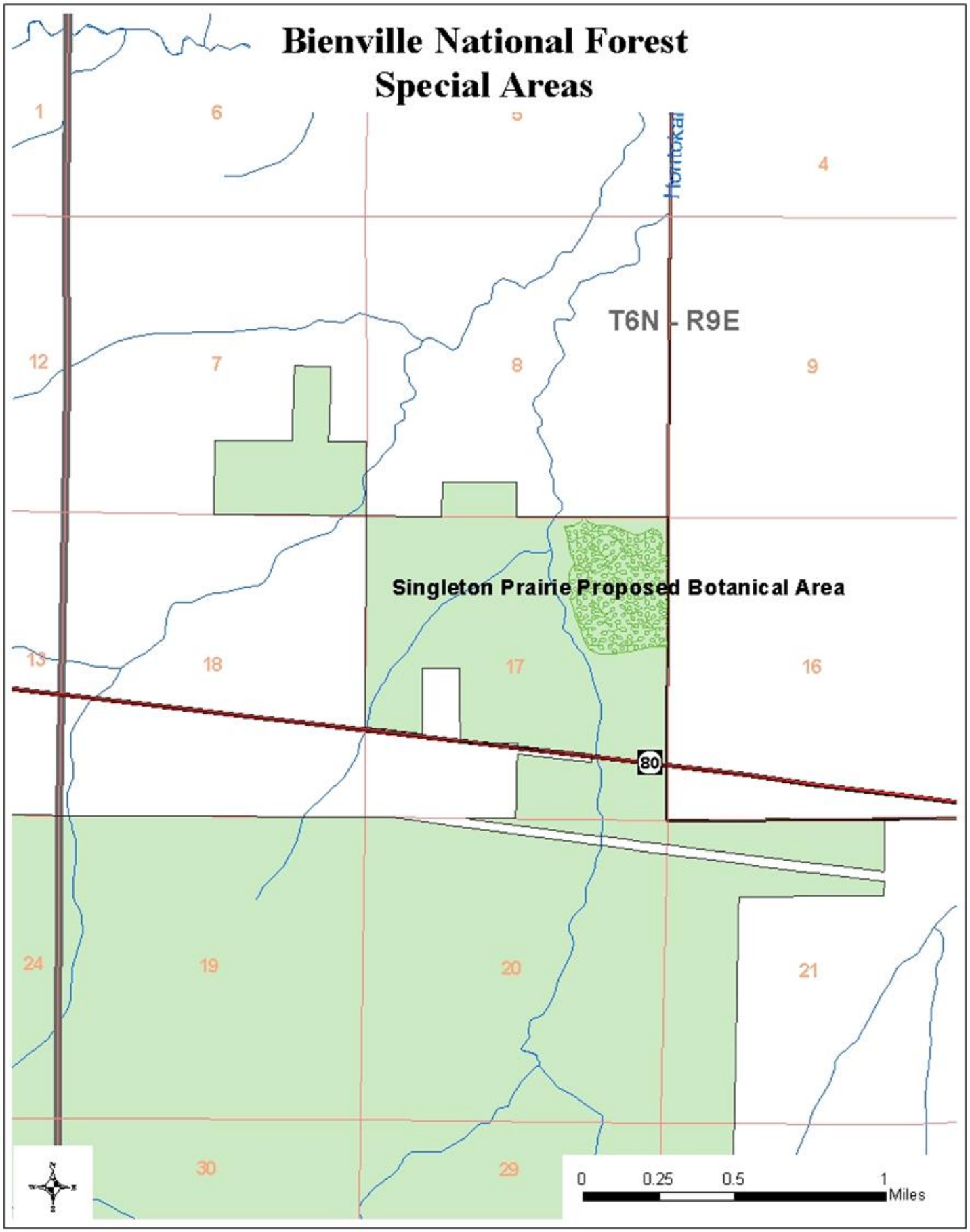
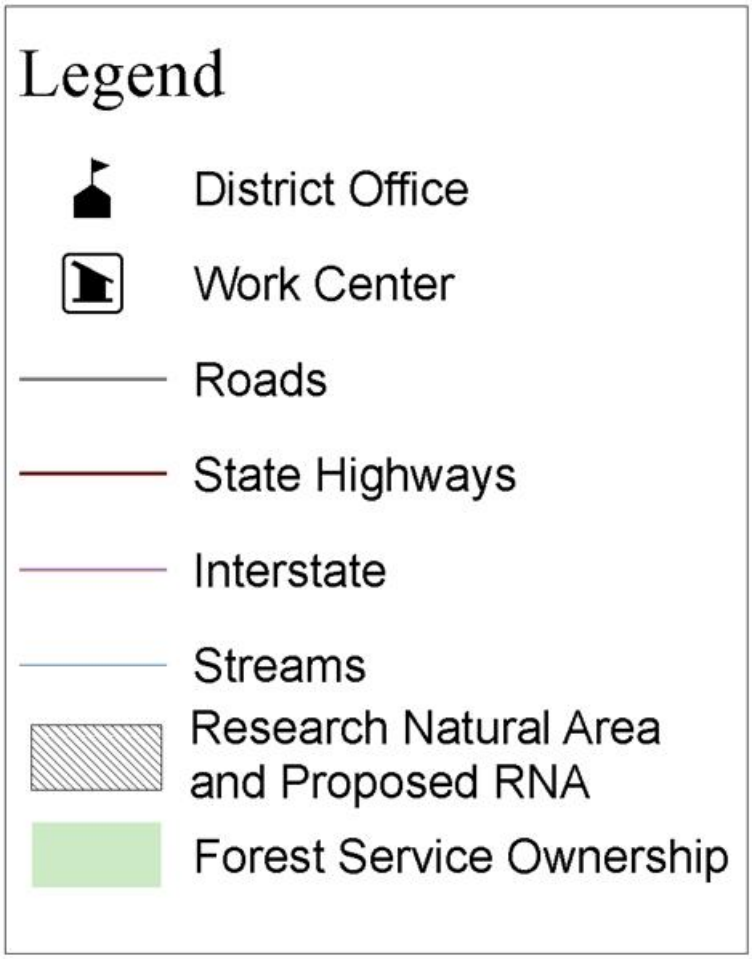


Figure D 33. Map of proposed Singleton Prairie Botanical Area

D.3.2 Proposed Nutmeg Hickory Research Natural Area (Bienville National Forest):

This calcareous variant of floodplain forest ecological system was proposed for establishment as a research natural area. It is a mature wet-mesic floodplain forest dominated by mature specimens of native prairie forest species such as nutmeg hickory, Durand oak, and big shellbark hickory. As a research natural area, this area provides undisturbed base line areas to monitor changes in natural conditions associated with management of similar areas and serves as an area in which natural biological diversity is conserved. The nomination and evaluation process has been completed for this research natural area. Further, a decision to dedicate this area as a research natural area was made on September 22, 2003 by the regional forester. However, final public notification was not completed previously. This area is being formally designated through this forest plan revision.



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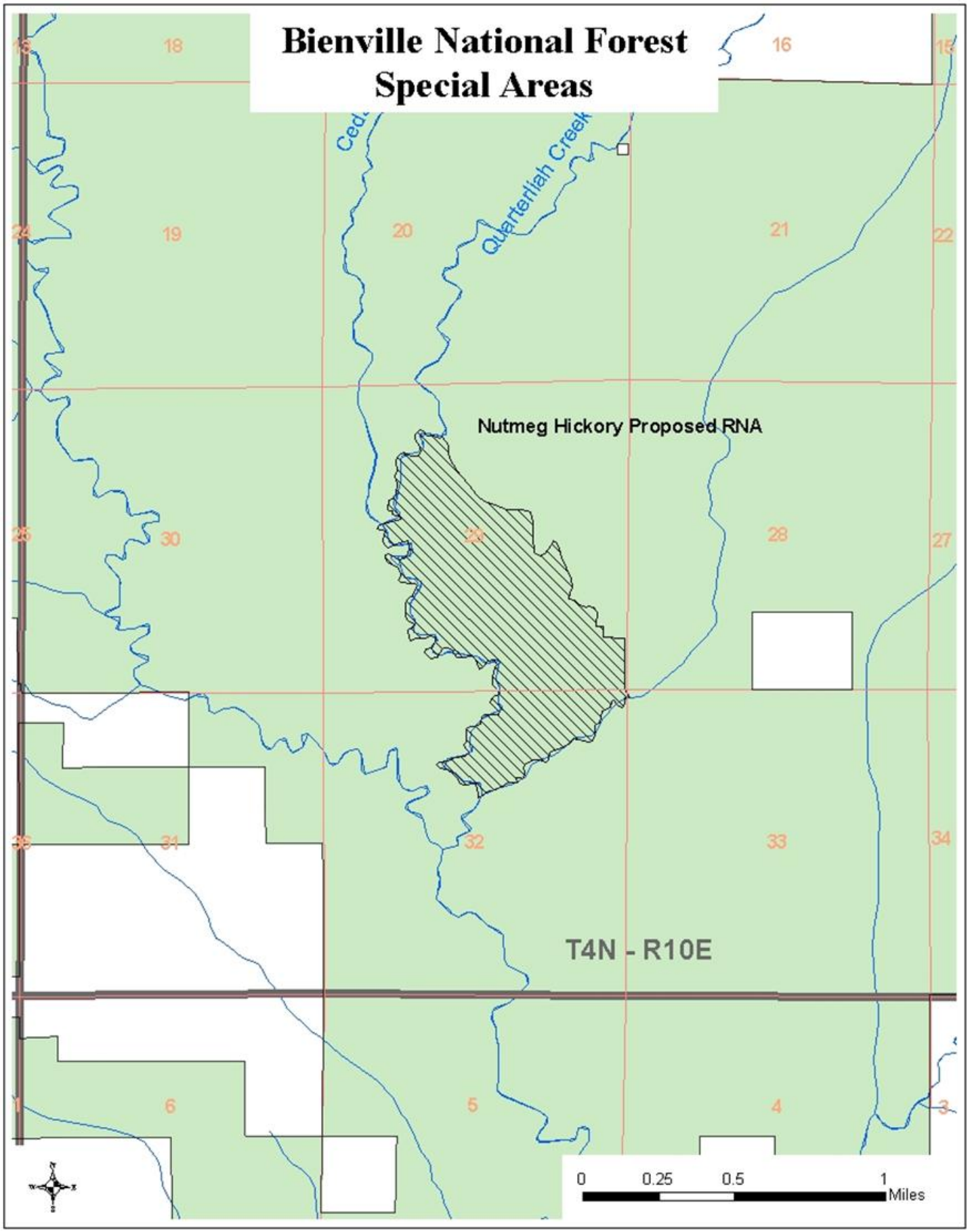
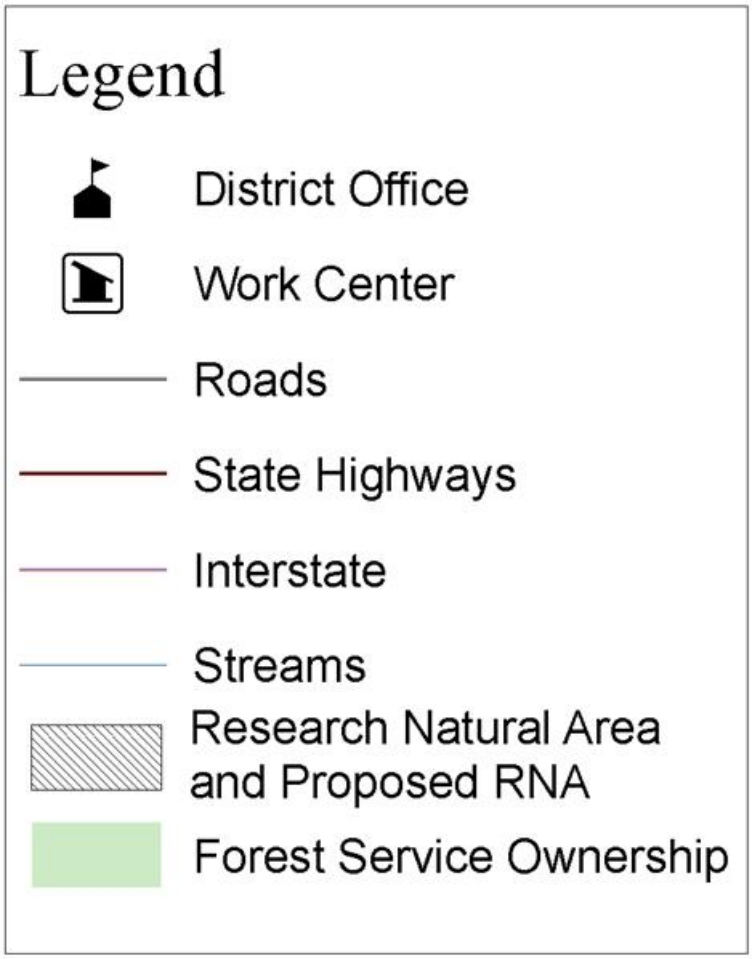


Figure D 34. Map of proposed Nutmeg Hickory Research Natural Area

D.3.3 Proposed Laurel Oak Botanical Area (Chickasawhay Ranger District, De Soto National Forest):

This area was originally proposed by district staff for research natural area designation. The botanical area designation was chosen as the best way to provide special area status for this area. As a botanical area, this area provides undisturbed base line area to monitor changes in natural conditions associated with management of similar areas and serves as an area in which natural biological diversity is conserved. The area is a minor stream bottom with stands predominated by laurel oak and loblolly pine.



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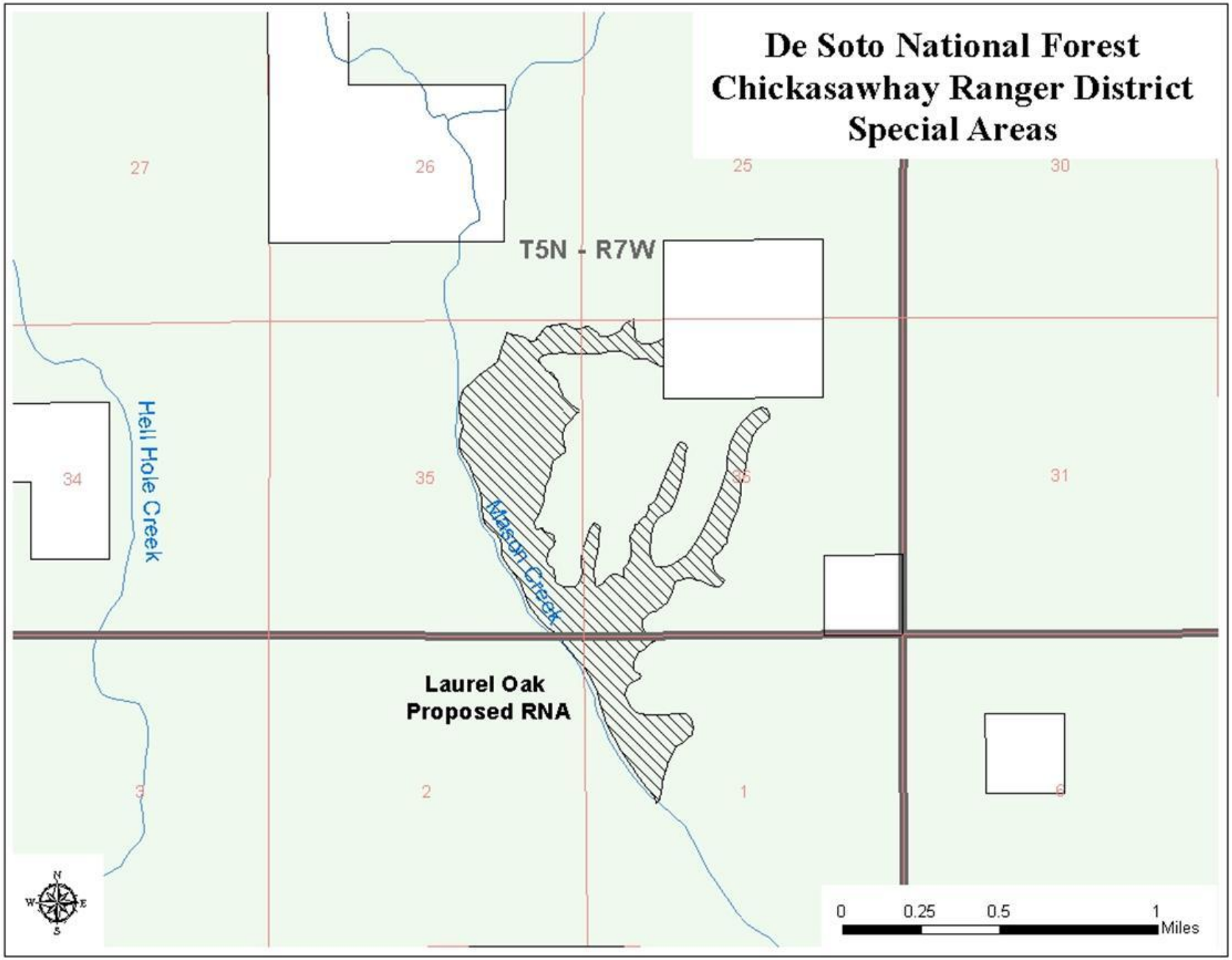
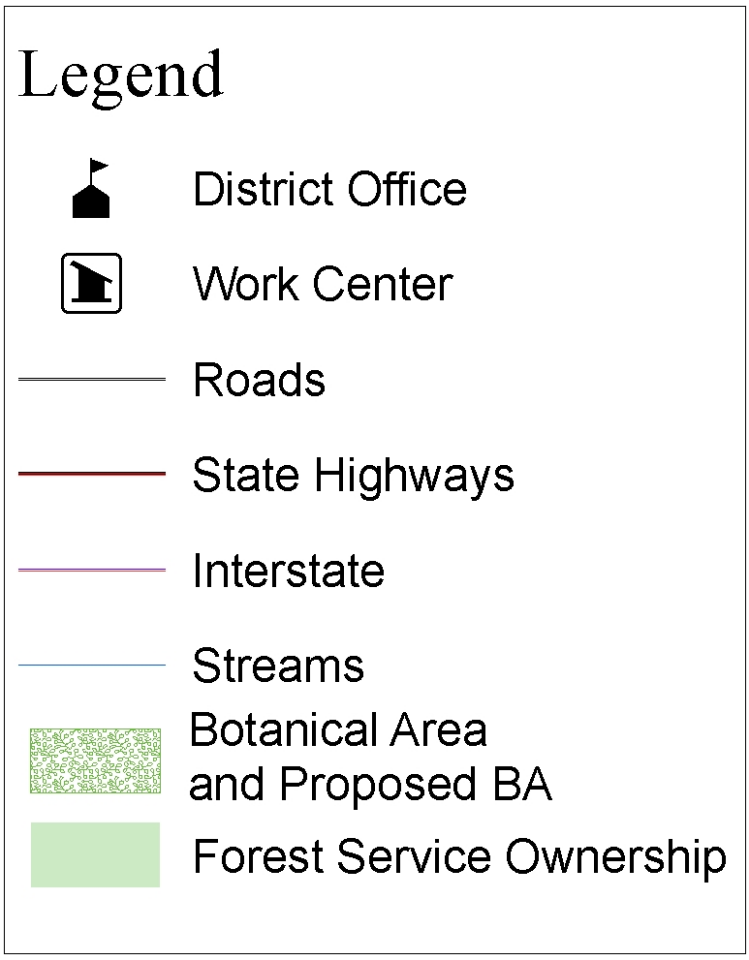


Figure D 35. Map of proposed Laurel Oak Research Natural Area - Botanical Area

D.3.4 Proposed Railroad Creek Titi Botanical Area (De Soto Ranger District, De Soto National Forest):

This botanical area includes an impressive and extensive stand of 30-foot tall, 4- to 7-inch diameter buckwheat trees beneath a slash pine dominated swamp forest along a black water creek. Swamp titi is also present but is not dominant. This area provides an undisturbed base line to monitor changes in natural conditions associated with management of similar areas and serves as an area in which natural biological diversity is conserved.



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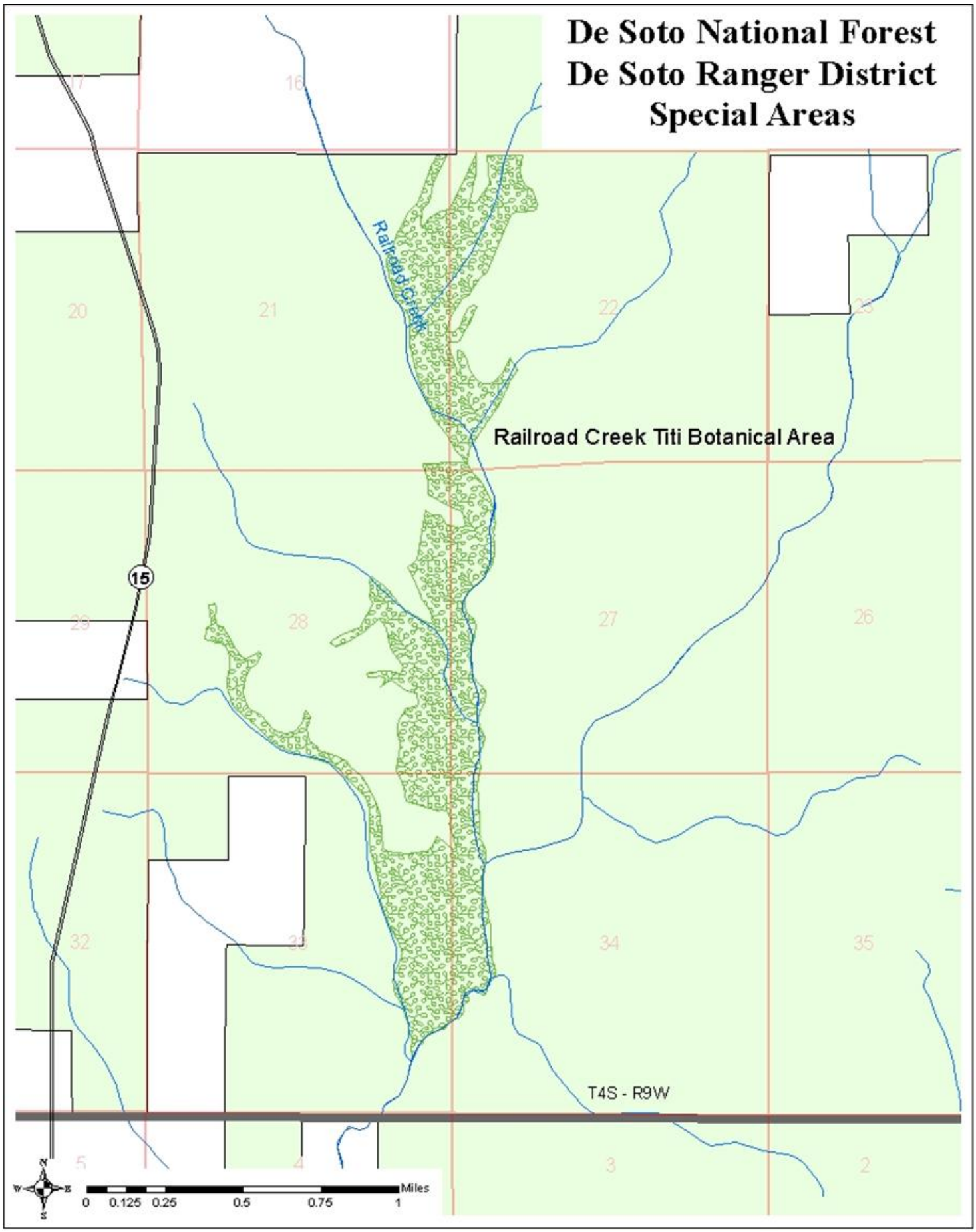
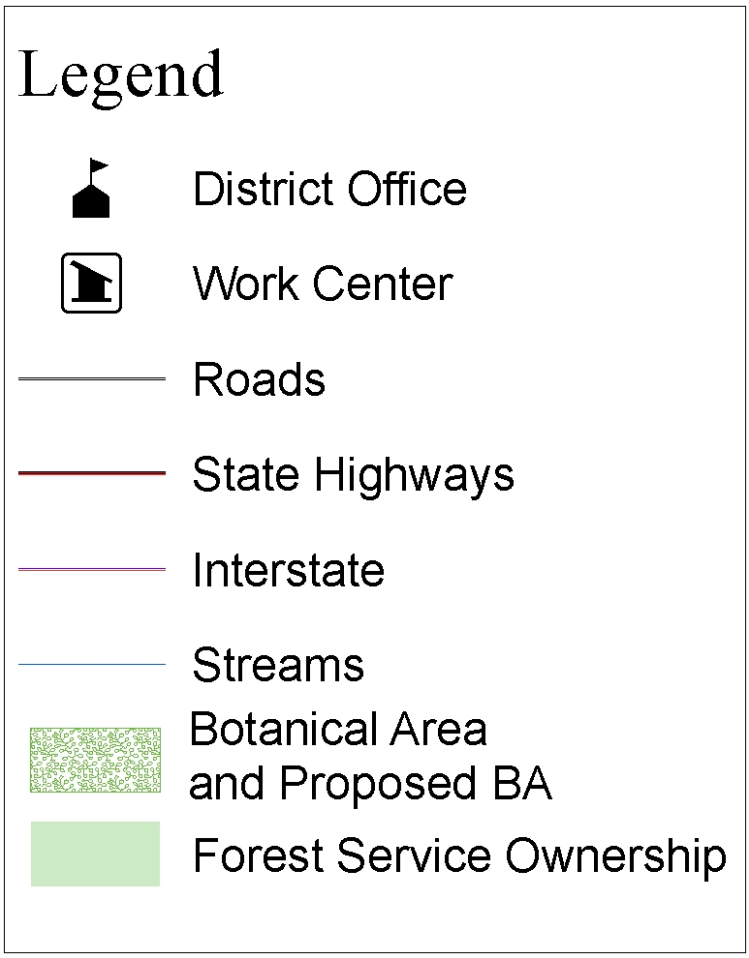


Figure D 36. Map of proposed Railroad Creek Titi Botanical Area

D.3.5 Proposed Little Florida Botanical Area (De Soto Ranger District, De Soto National Forest):

Little Florida contains the most extensive and highest quality xeric sandhill community with longleaf pine forest, saw palmetto, and other characteristic species remaining in Mississippi. Several plant species such as scarlet basil and littleleaf milkpea reach the western limits of their range at this site. The sand ridge is surrounded by more typical mesic longleaf forest and several drainages.



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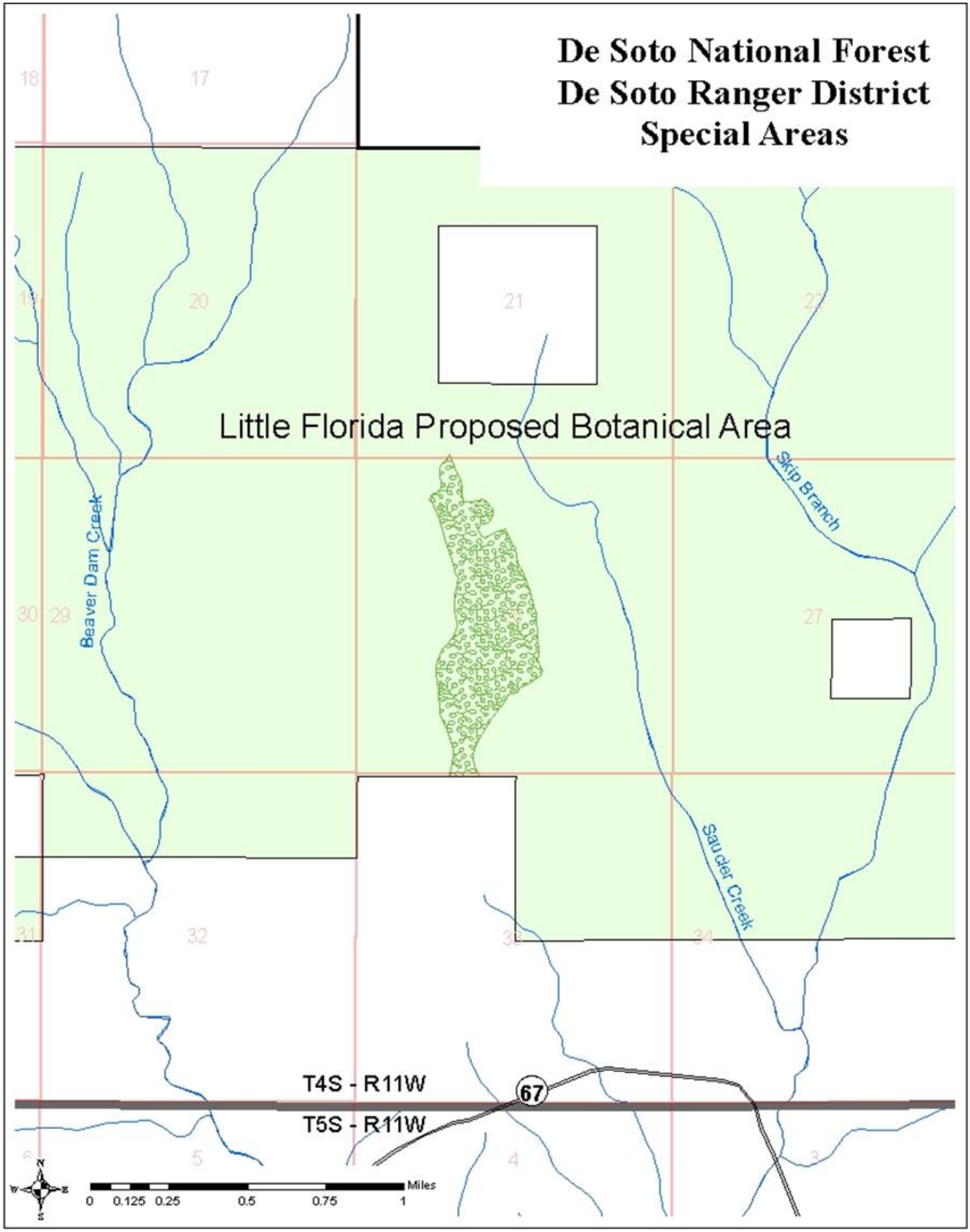
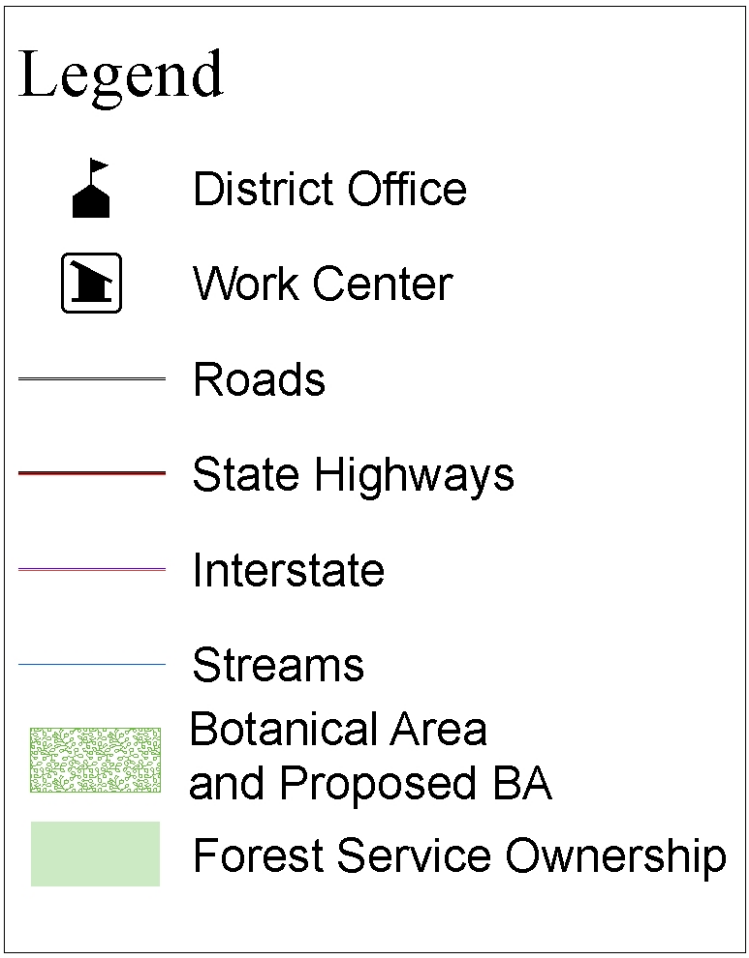


Figure D 37. Map of proposed Little Florida Botanical Area

D.3.6 Proposed Pitcher Plant Botanical Area (De Soto Ranger District, De Soto National Forest):

The Pitcher Plant Botanical Area consists of three distinct and rather unique quaking bogs in relatively close proximity to each other. Vegetation in these bogs floats on top of a saturated layer of peat which overlays an impervious sand layer 2 meters or more below the surface. This botanical area provides habitat for a variety of bog species as well as more common and diagnostic members of this ecosystem including pitcher plants, sundews, grasses and sedges.



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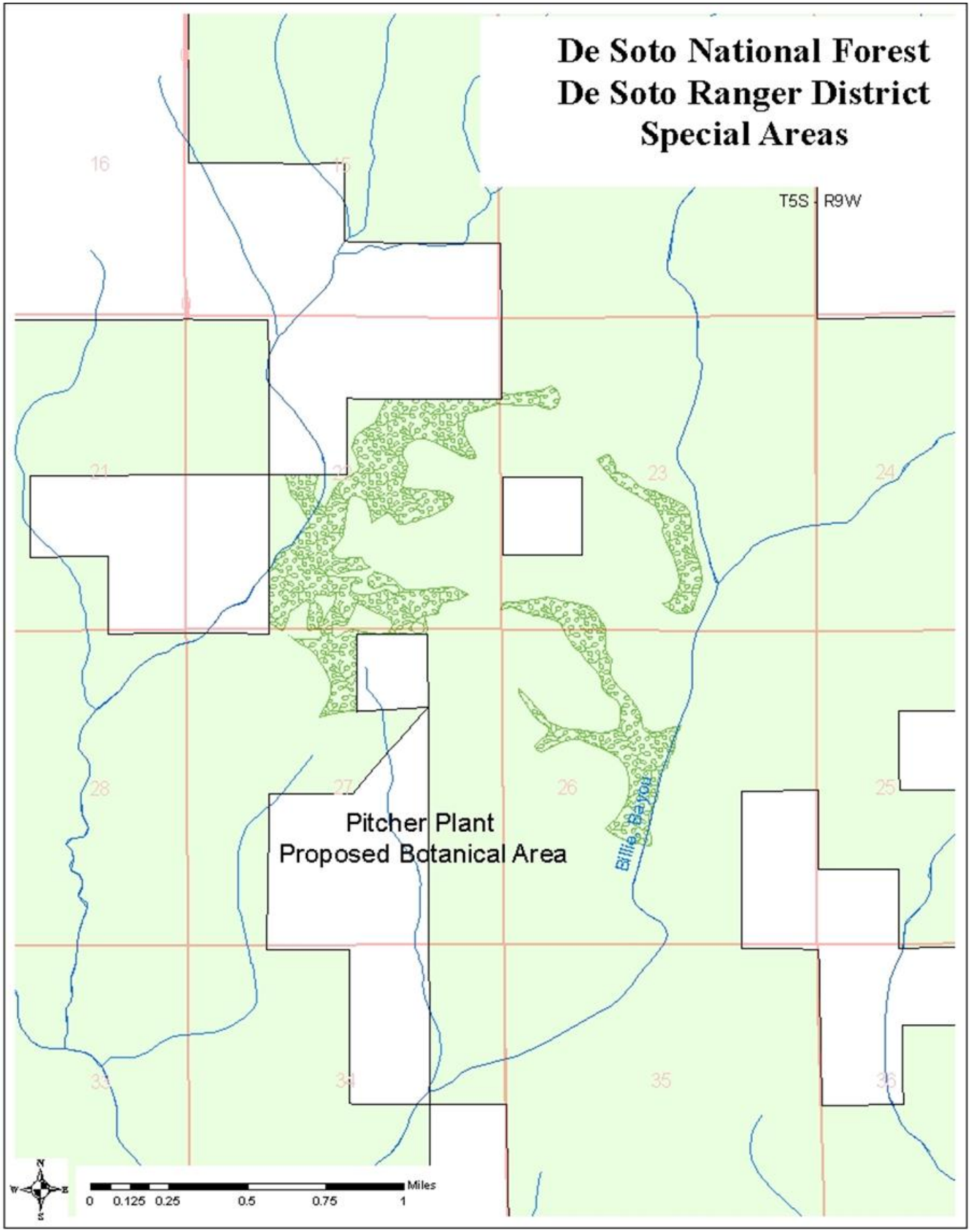
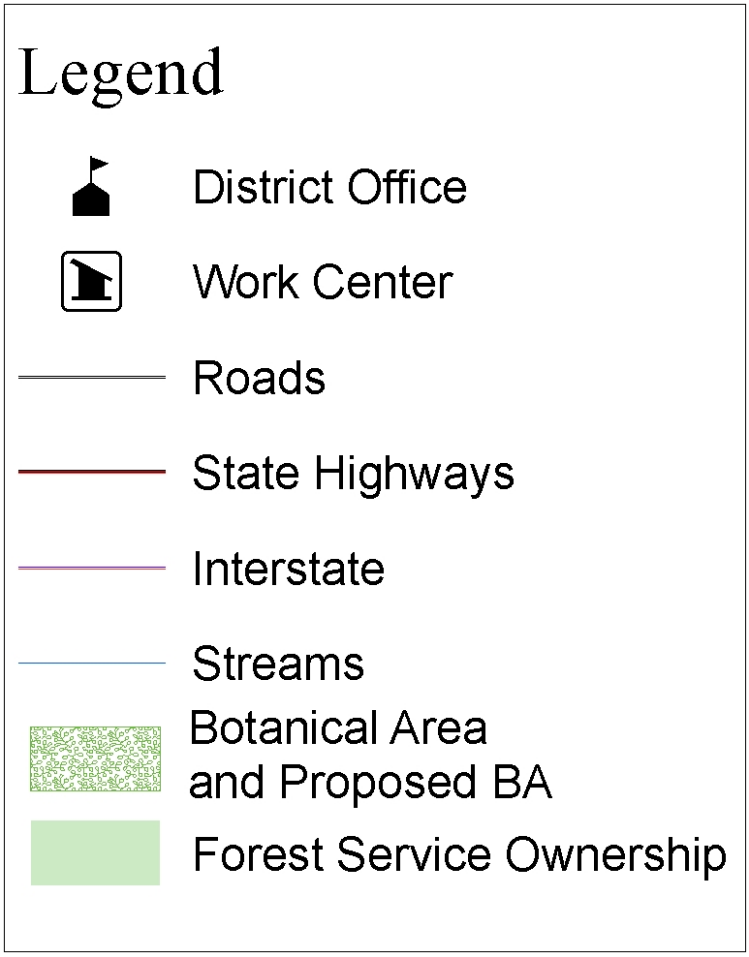


Figure D 38. Map of proposed Pitcher Plant Botanical Area

D.3.7 Proposed Buttercup Flat Botanical Area (De Soto Ranger District, De Soto National Forest):

The Buttercup Flat Botanical Area consists of a scenic pitcher plant savanna along State Highway 26. The savanna is intact hydrologically and provides habitat for a wide variety of common and diagnostic members of this system including pitcher plants, sundews, grasses, and sedges.



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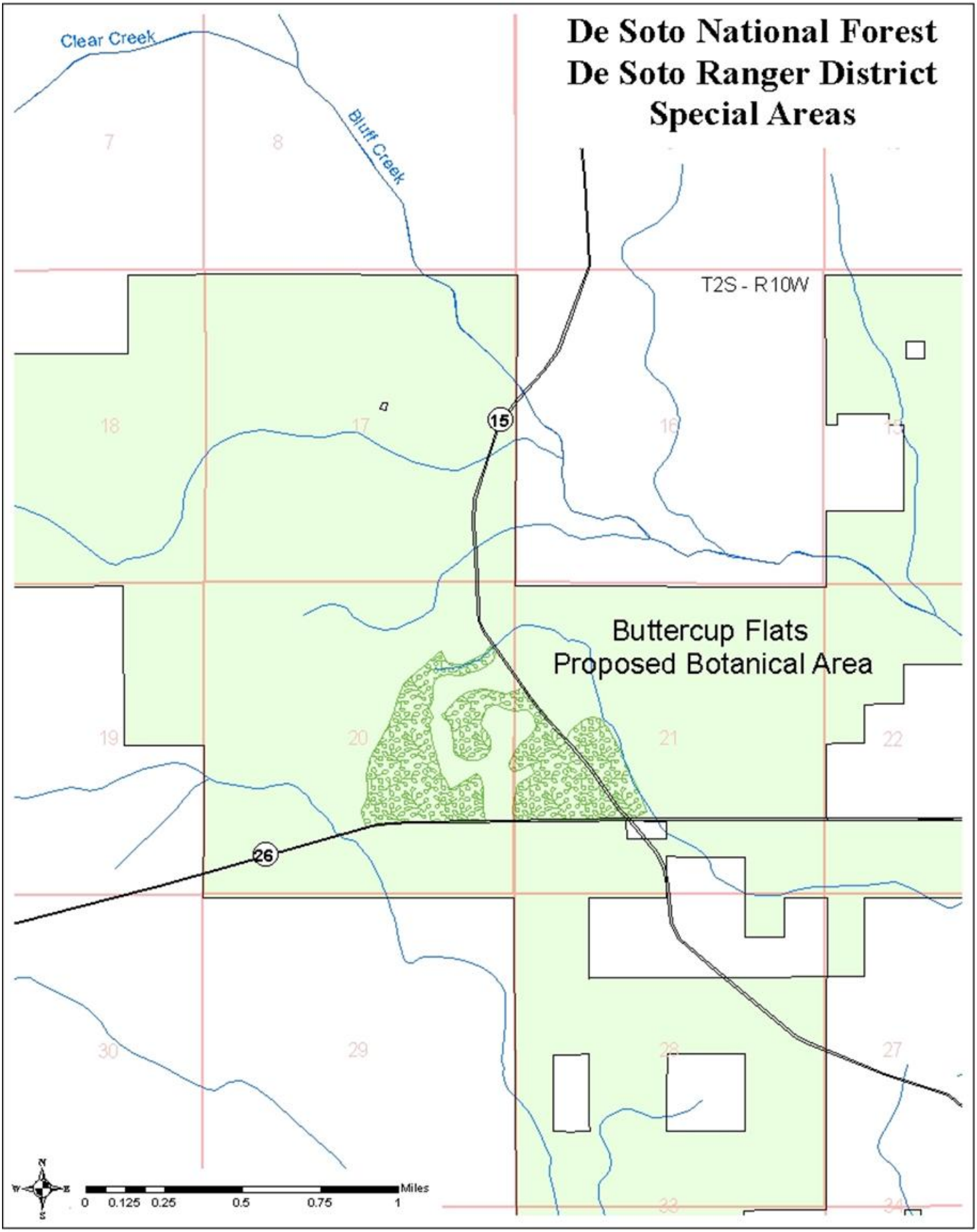
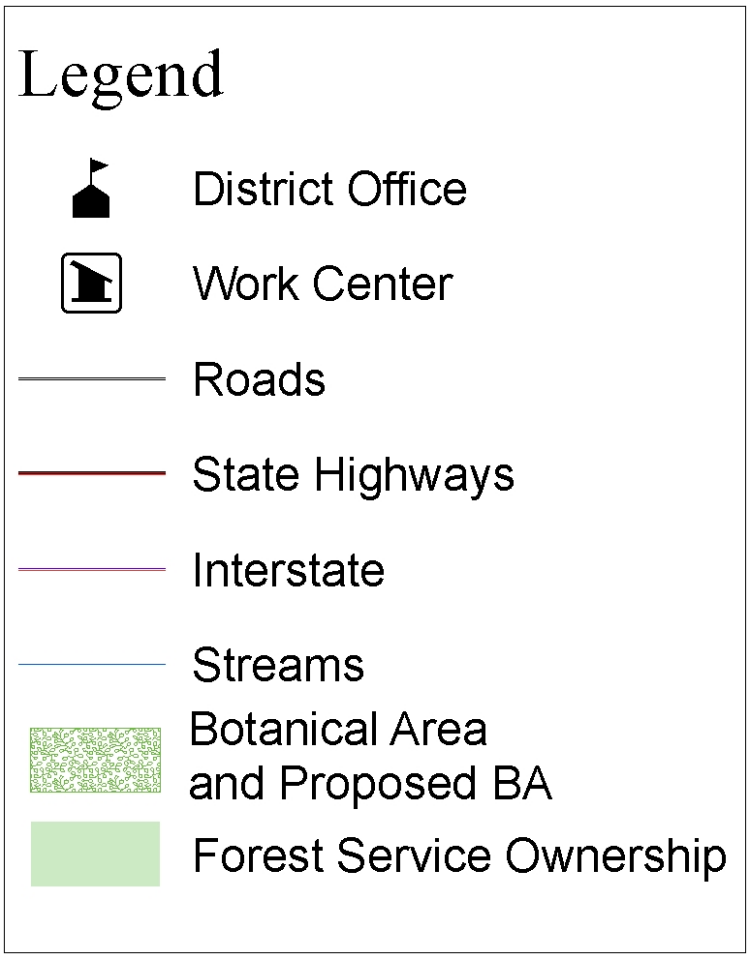


Figure D 39. Map of Proposed Buttercup Flats Botanical Area

D.3.8 Proposed Loblolly Bay Botanical Area (De Soto Ranger District, De Soto National Forest):

This botanical area is a classic bayhead community with sweetbay, swamp gum and slash pine as common dominants with yellow poplar, red maple, and water oak less common. Loblolly bay is present here in good numbers. The bayhead community provides habitat for the uncommon loblolly bay. Gopher tortoises live on the adjacent uplands which support longleaf pine.



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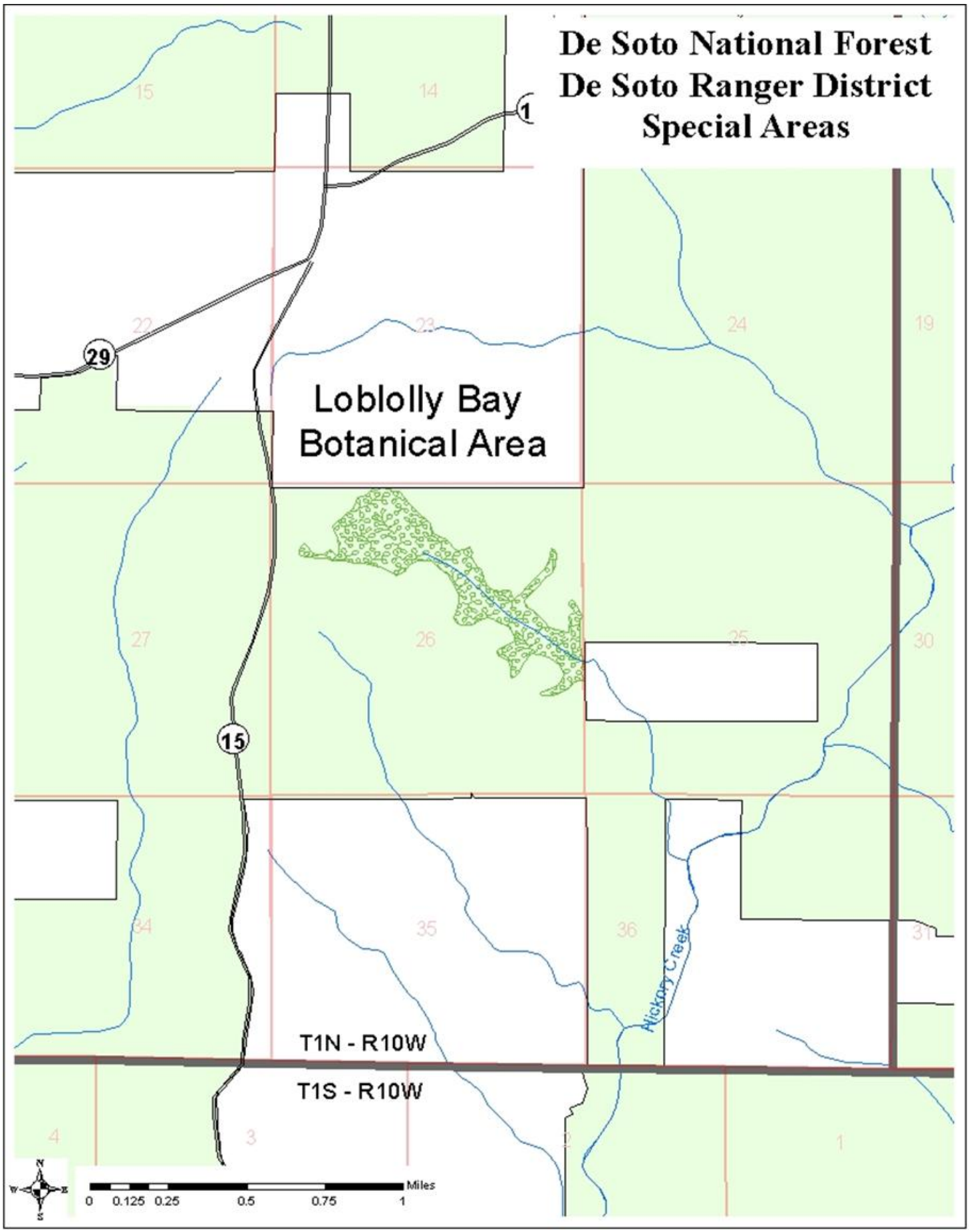
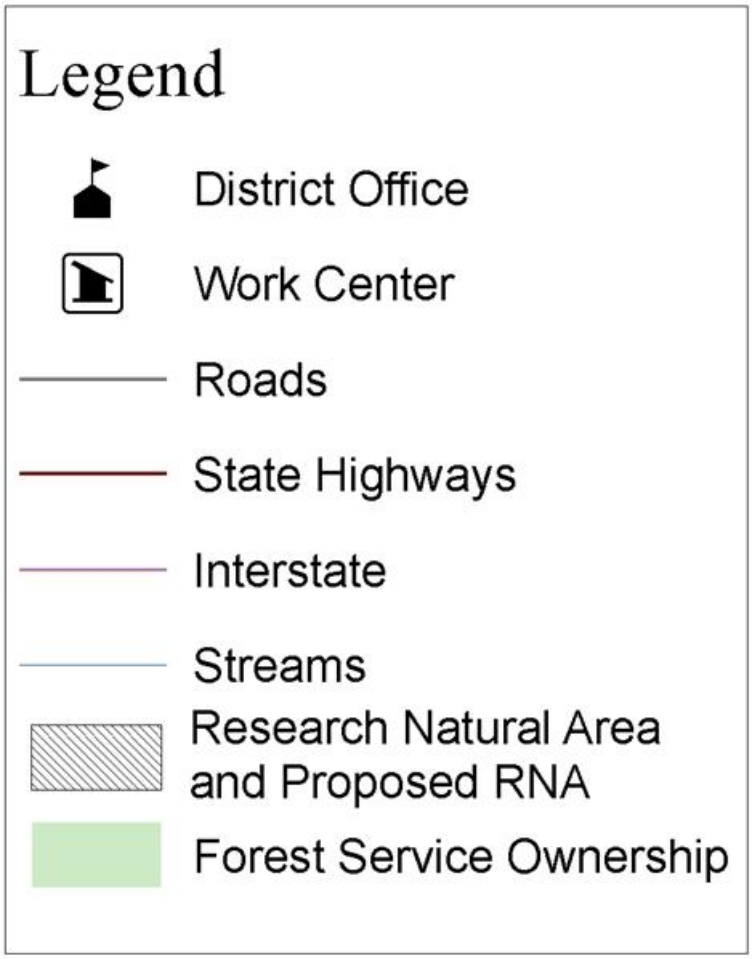


Figure D 40. Map of proposed Loblolly Bay Botanical Area

D.3.9 Proposed Ragland Hills Botanical Area (De Soto Ranger District, De Soto National Forest):

This area was originally proposed by district staff for research natural area designation. The botanical area designation was chosen as the best way to provide special area status for this area. The Ragland Hills Area is a classic southern mesophytic forest in deeply dissected ravines separated by well drained ridgetops which support longleaf pine. National Forest System lands are flanked by land owned by the University of Southern Mississippi and the Mississippi National Guard. Together these three publicly owned tracts offer opportunity for a multi-agency natural area preserve. The endemic big-leaf witch-hazel has recently been described from this community. As a proposed botanical area, this area provides an undisturbed base line site on which to monitor changes in natural conditions associated with management of similar areas and serves as an area in which natural biological diversity is conserved.



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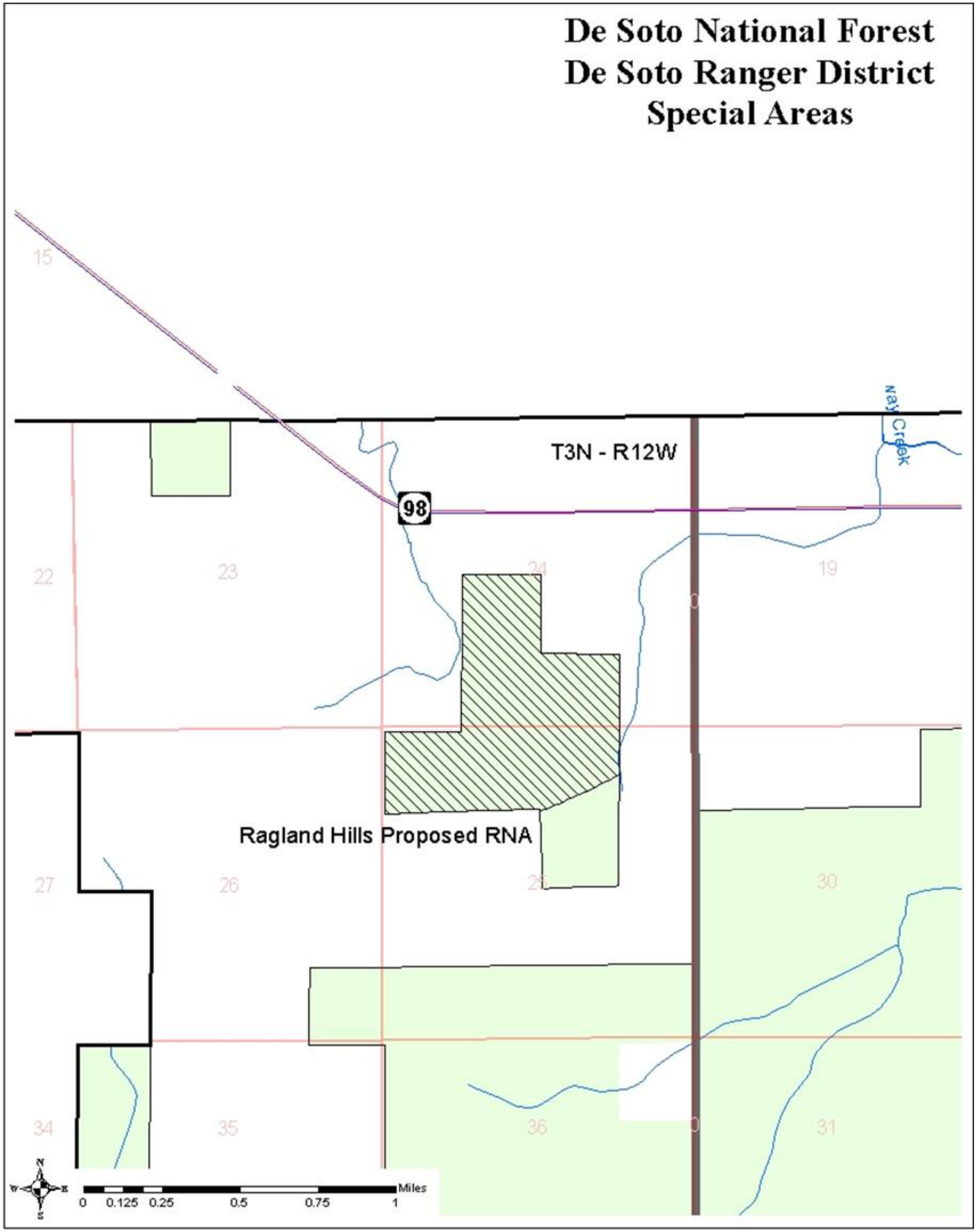
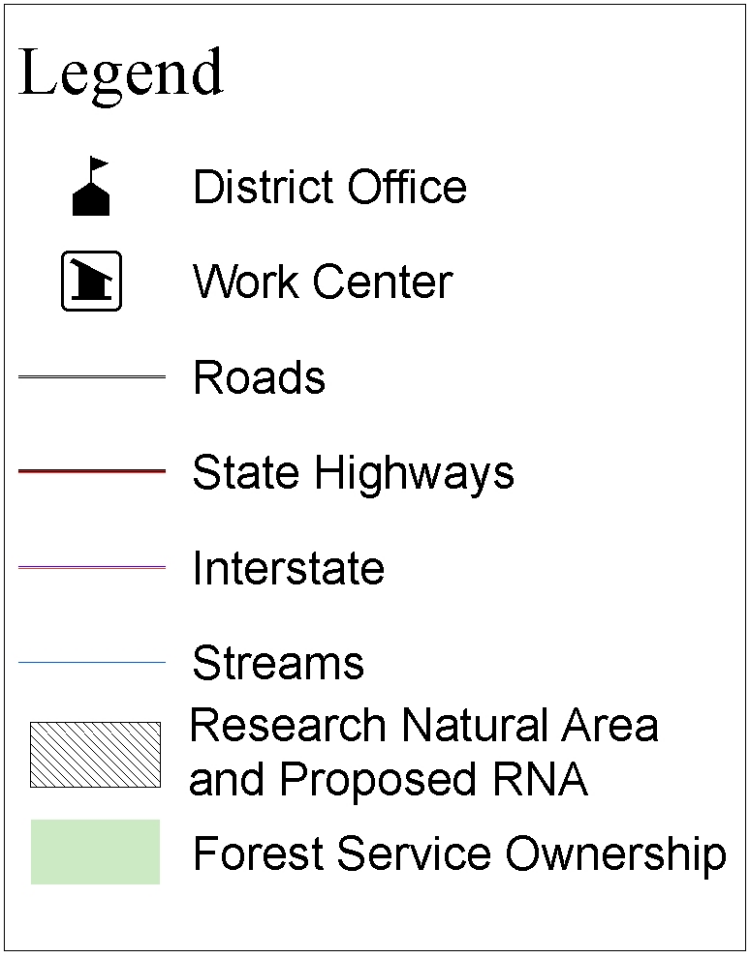


Figure D 41. Map of proposed Ragland Hills Research Natural Area - Botanical Area

D.3.10 Proposed Granny Creek Bay Research Natural Area (De Soto Ranger District, De Soto National Forest):

Granny Creek Bay is a large spring seep and associated seepage swamp of exceptional quality. It has been the focus of research conducted by biologists with the University of Southern Mississippi and the Mississippi Natural Heritage Program. As a research natural area, this area provides undisturbed base line areas to monitor changes in natural conditions associated with management of similar areas and serves as an area to conserve natural biological diversity. The nomination and evaluation process has been completed for this research natural area. Further, a decision to dedicate this area as a research natural area was made on March 26, 2002 by the regional forester. However, final public notification was not completed previously. This area is being formally designated through this forest plan revision.



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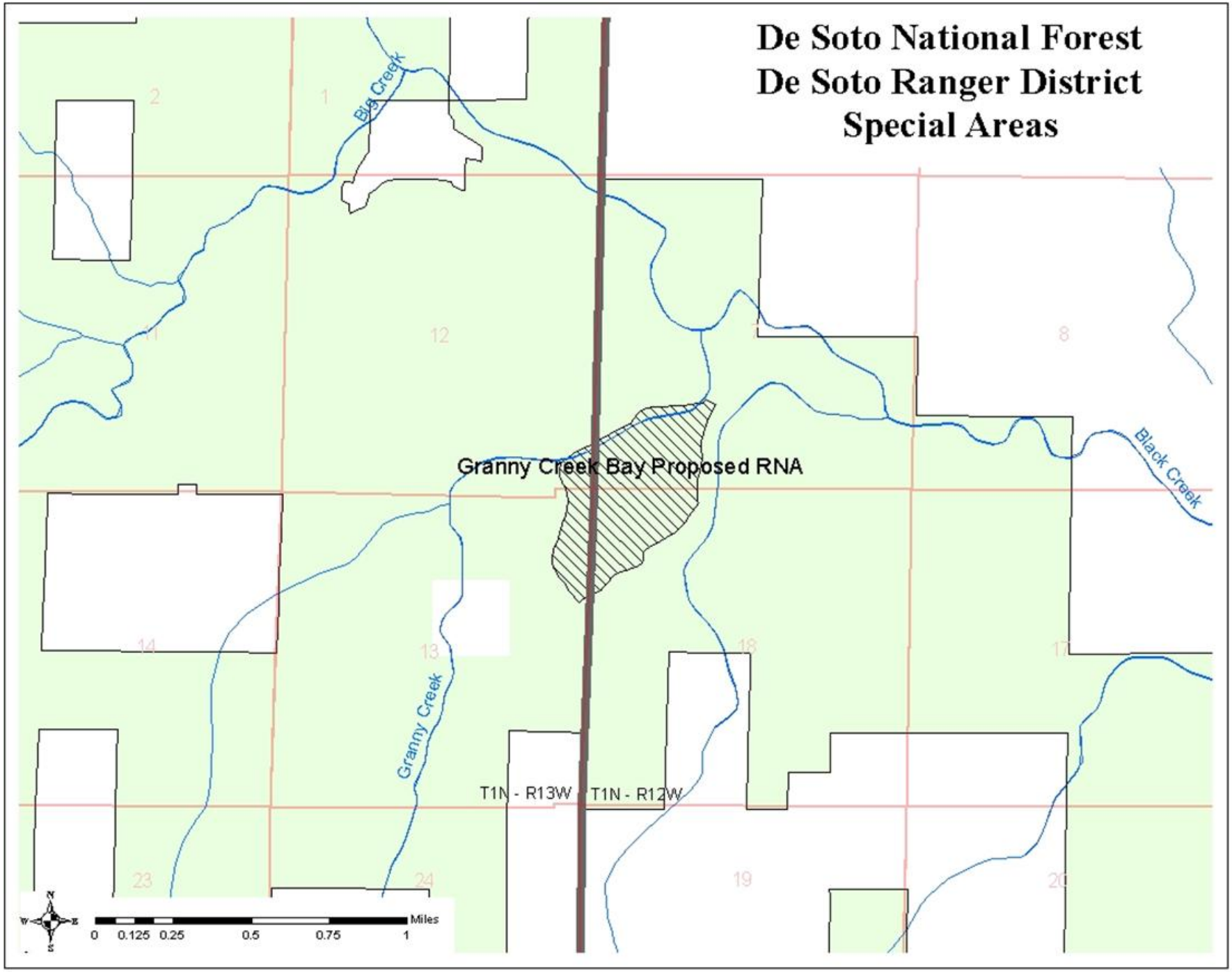
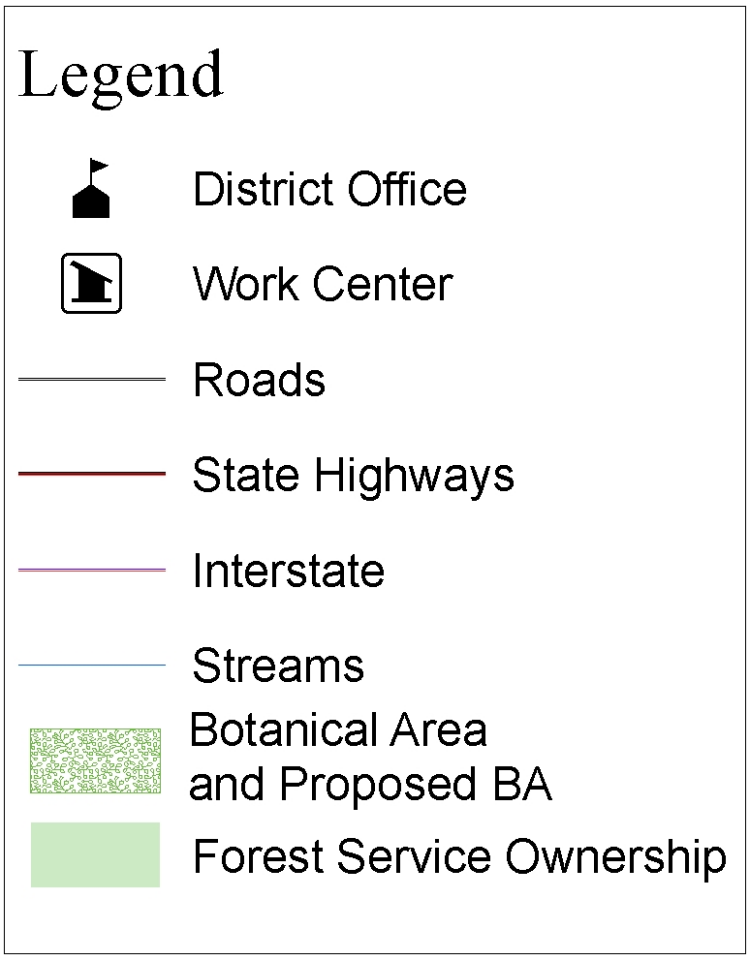


Figure D 42. Map of proposed Granny Creek Bay Research Natural Area

D.3.11 Proposed Wyatt Hills Botanical Area (De Soto Ranger District, De Soto National Forest):

The Wyatt Hills is an area of locally high topographic relief deeply dissected into narrow ridges, ravines, and bottomland forests along small creeks. It is notable for its woody plant diversity. Over 70 species of trees, shrubs and woody vines have been recorded, including 7 species of oak, 5 species of magnolia, 4 pines, 4 hollies, 4 blueberries, and 3 cat-briers. Florida anisetree is by far the most common shrub on slopes, with mountain laurel thickets along the ridge crests.



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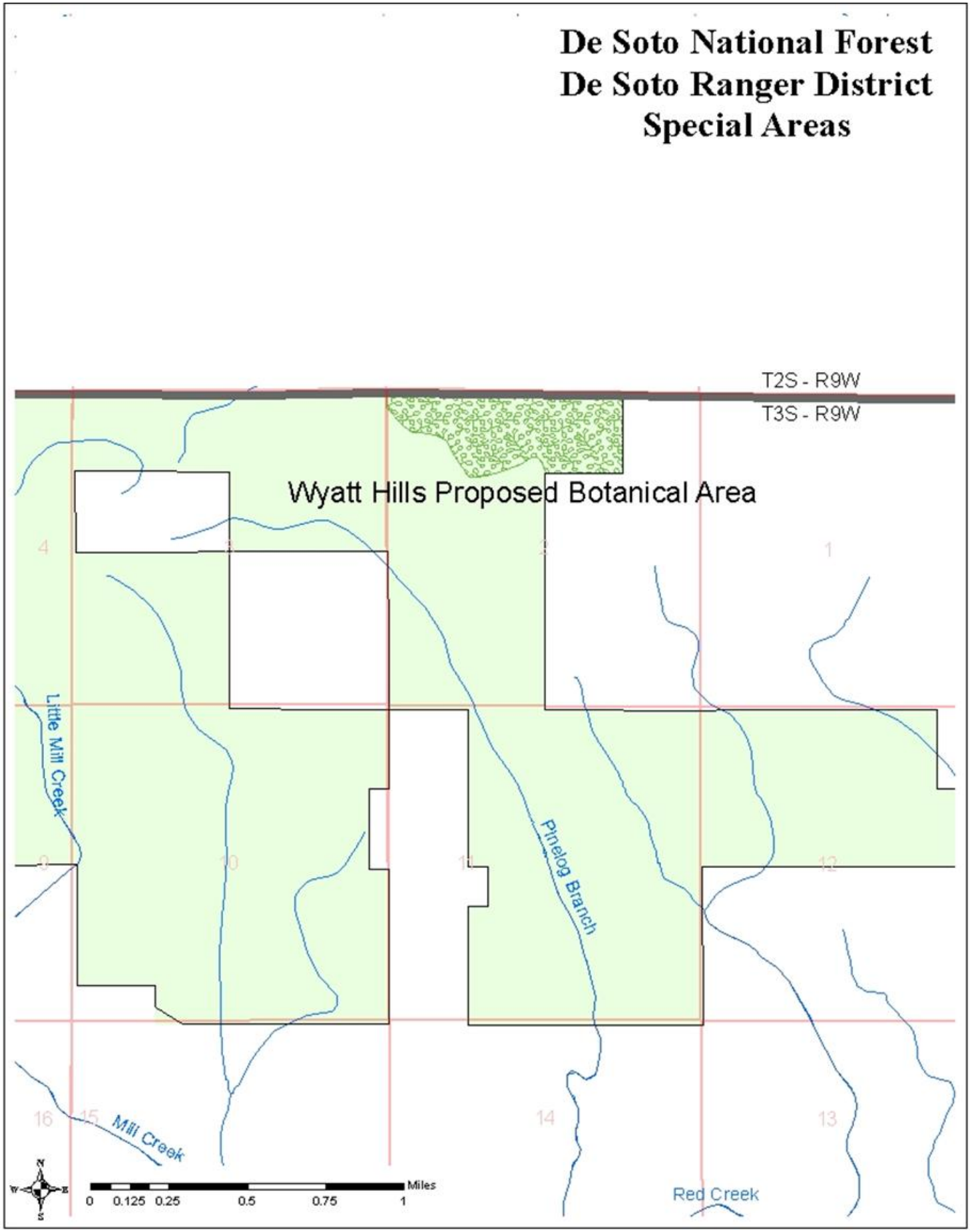
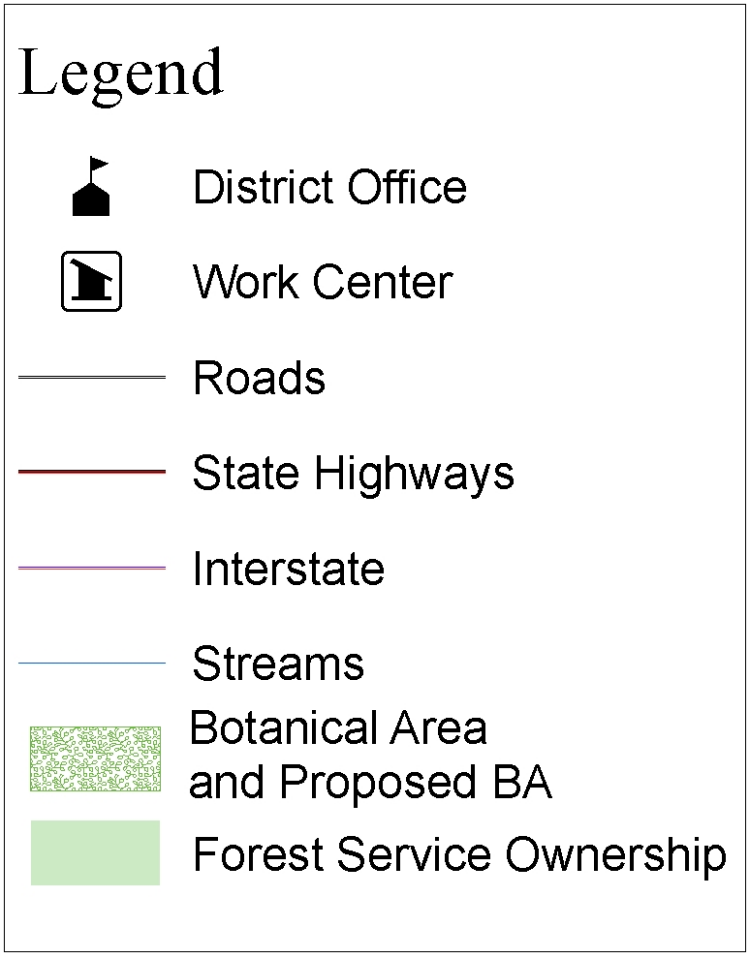


Figure D 43. Map of proposed Wyatt Hills Botanical Area

D.3.12 Proposed Cypress Bayou Botanical Area (Delta National Forest):

The Cypress Bayou Botanical Area is a tract of old growth delta bottomland hardwood forest dominated by overcup oak. Timber was established on the stand in 1874 and has not been cut since. Other dominant trees include green ash, sugarberry, bitter pecan, Nuttall oak and sweetgum.



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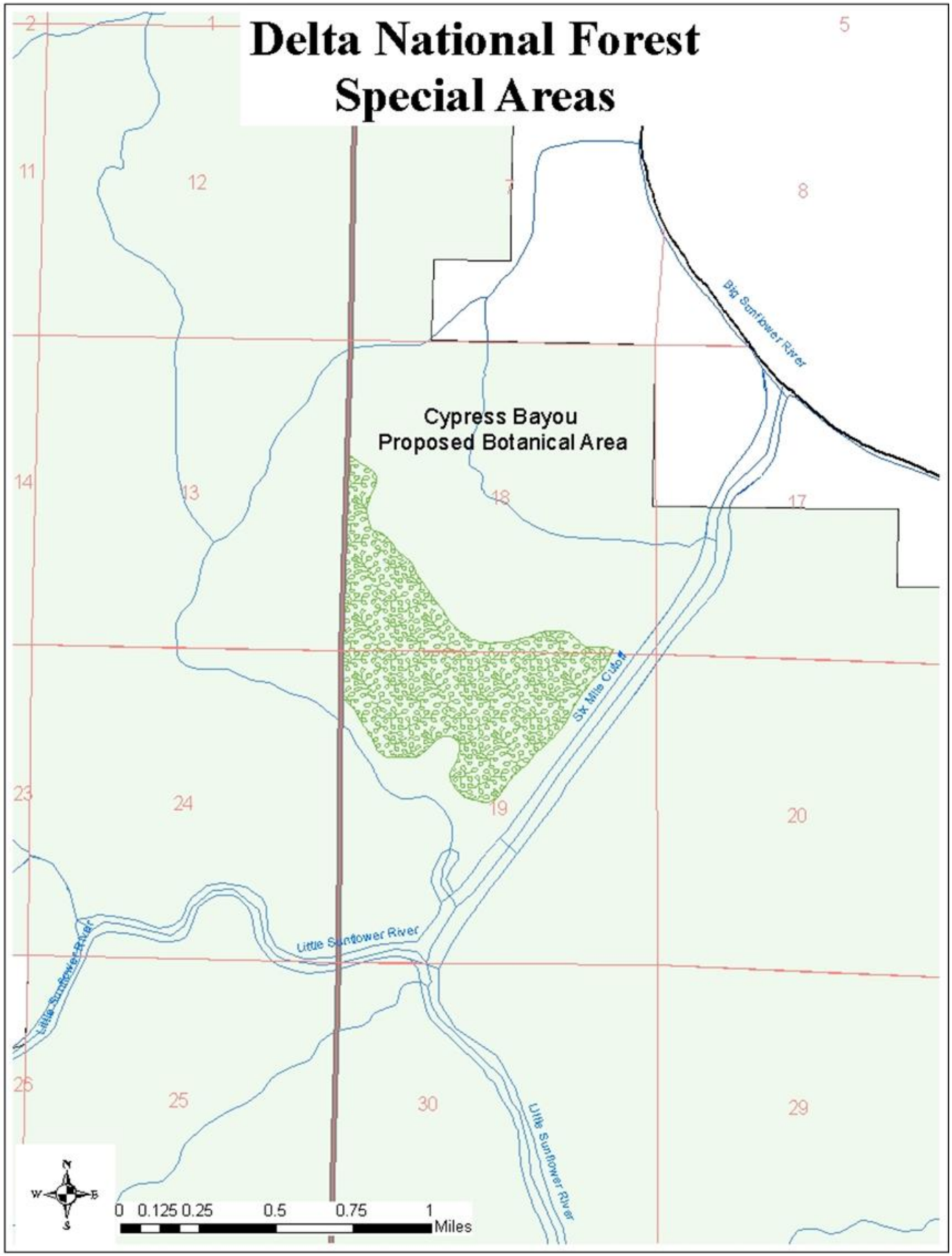
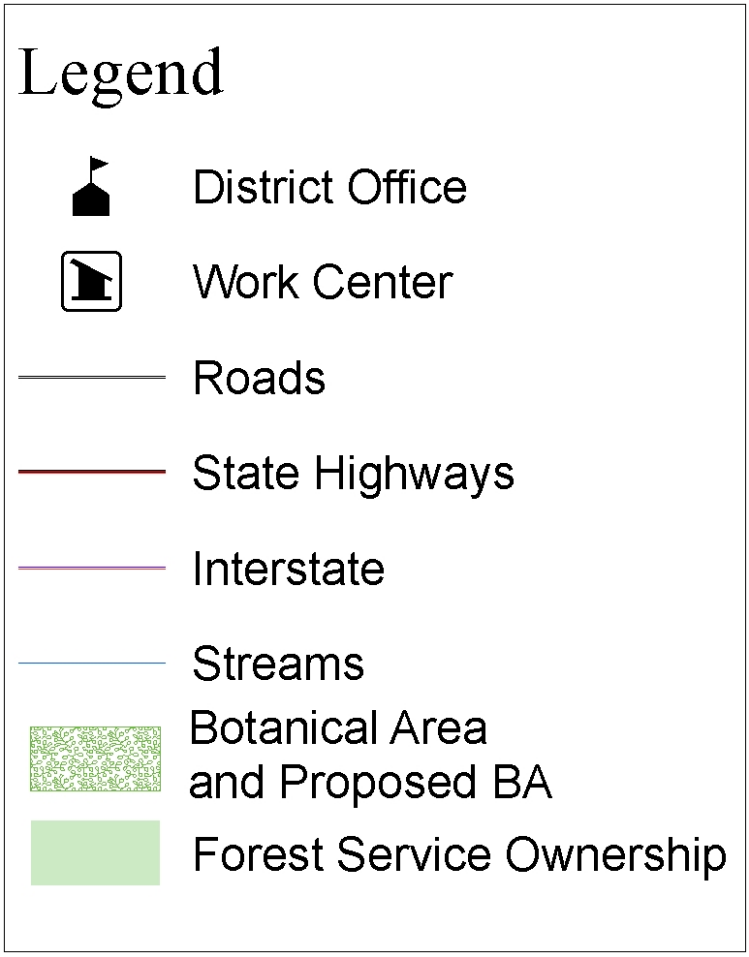


Figure D 44. Map of proposed Cypress Bayou Botanical Area

D.3.13 Proposed LA-2 Botanical Area (Holly Springs National Forest):

This is an area of old-growth hardwood forest in steep topography (Compartment 117, Stand 17) that was identified as being one of the best remaining areas of old-growth forest in Mississippi's lignite belt during a 1980s evaluation done by Dr. Frank Miller at Mississippi State University's remote sensing laboratory under contract to Mississippi Natural Heritage Program. The character of the area has changed significantly since its nomination due to flooding caused by beavers and subsequent tree mortality.



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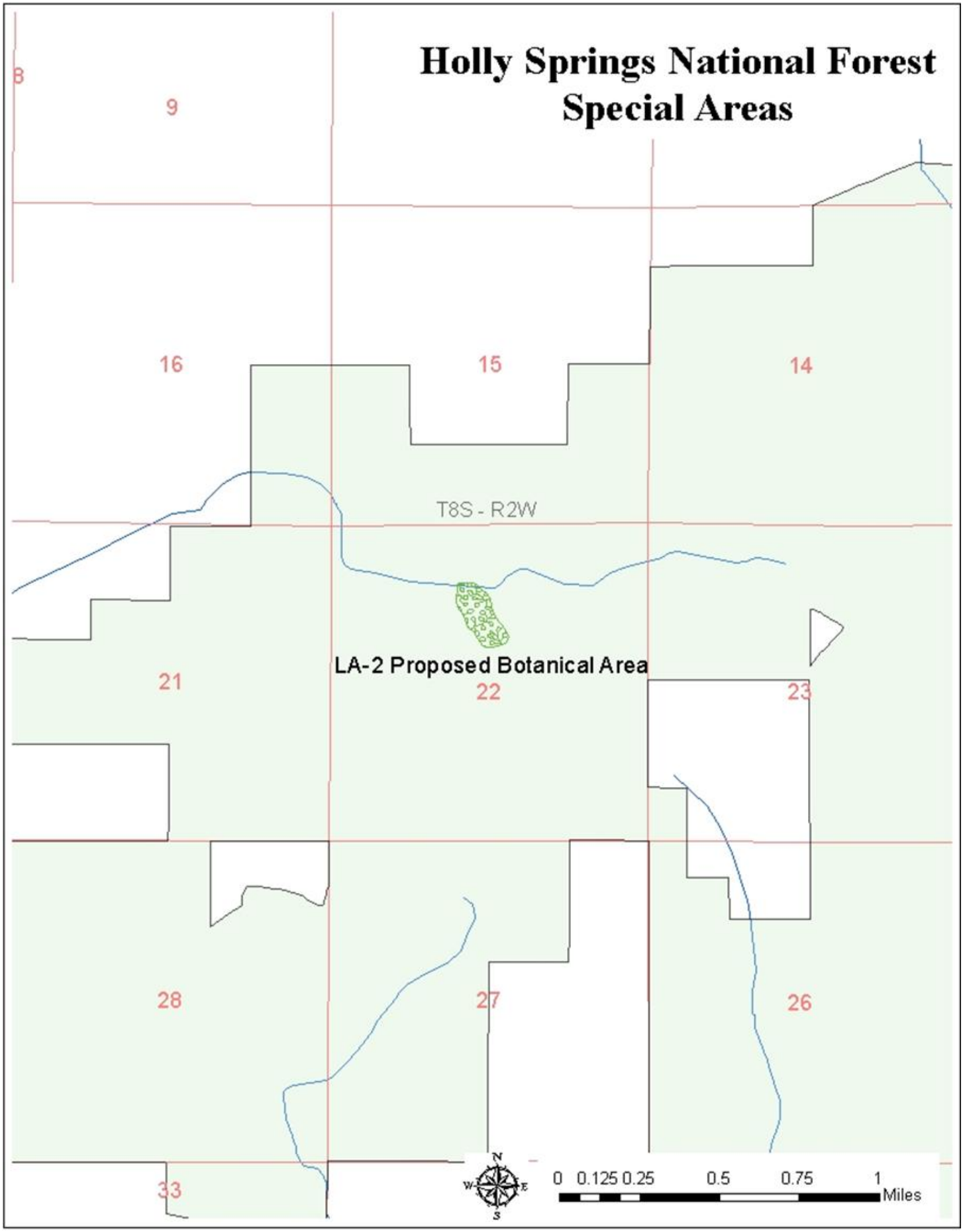
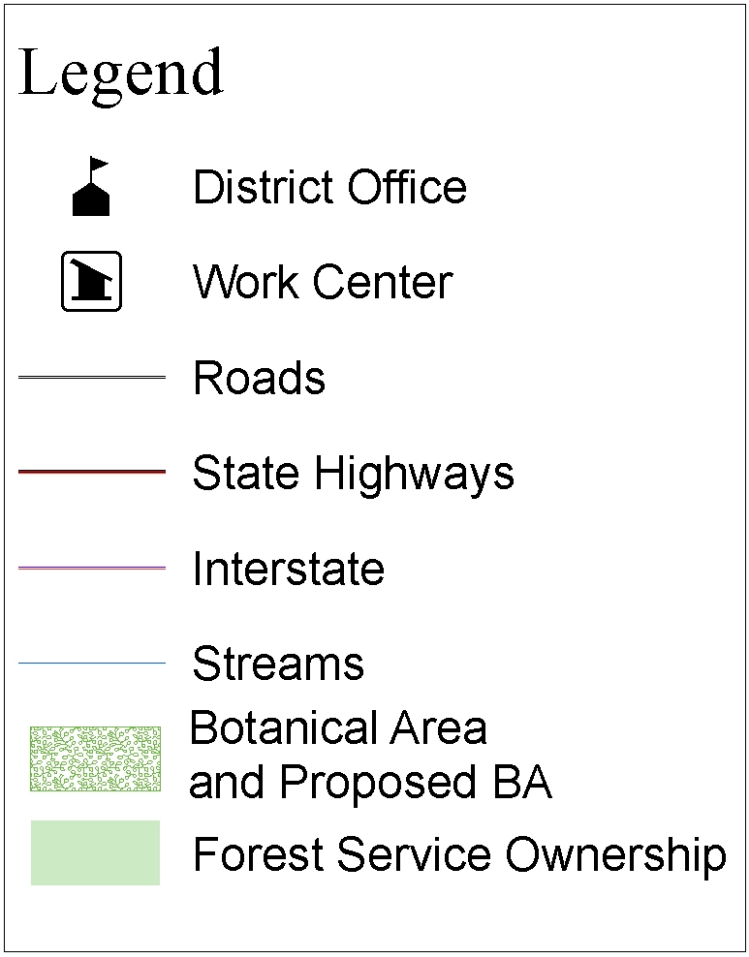


Figure D 45. Map of proposed LA-2 Botanical Area

D.3.14 Proposed LA-6 Botanical Area (Holly Springs National Forest):

This is an area of old-growth hardwood forest in steep topography that was identified as being one of the best remaining areas of old-growth forest in Mississippi's lignite belt during a 1980s evaluation done by Dr. Frank Miller at Mississippi State University's remote sensing laboratory under contract to Mississippi Natural Heritage Program.



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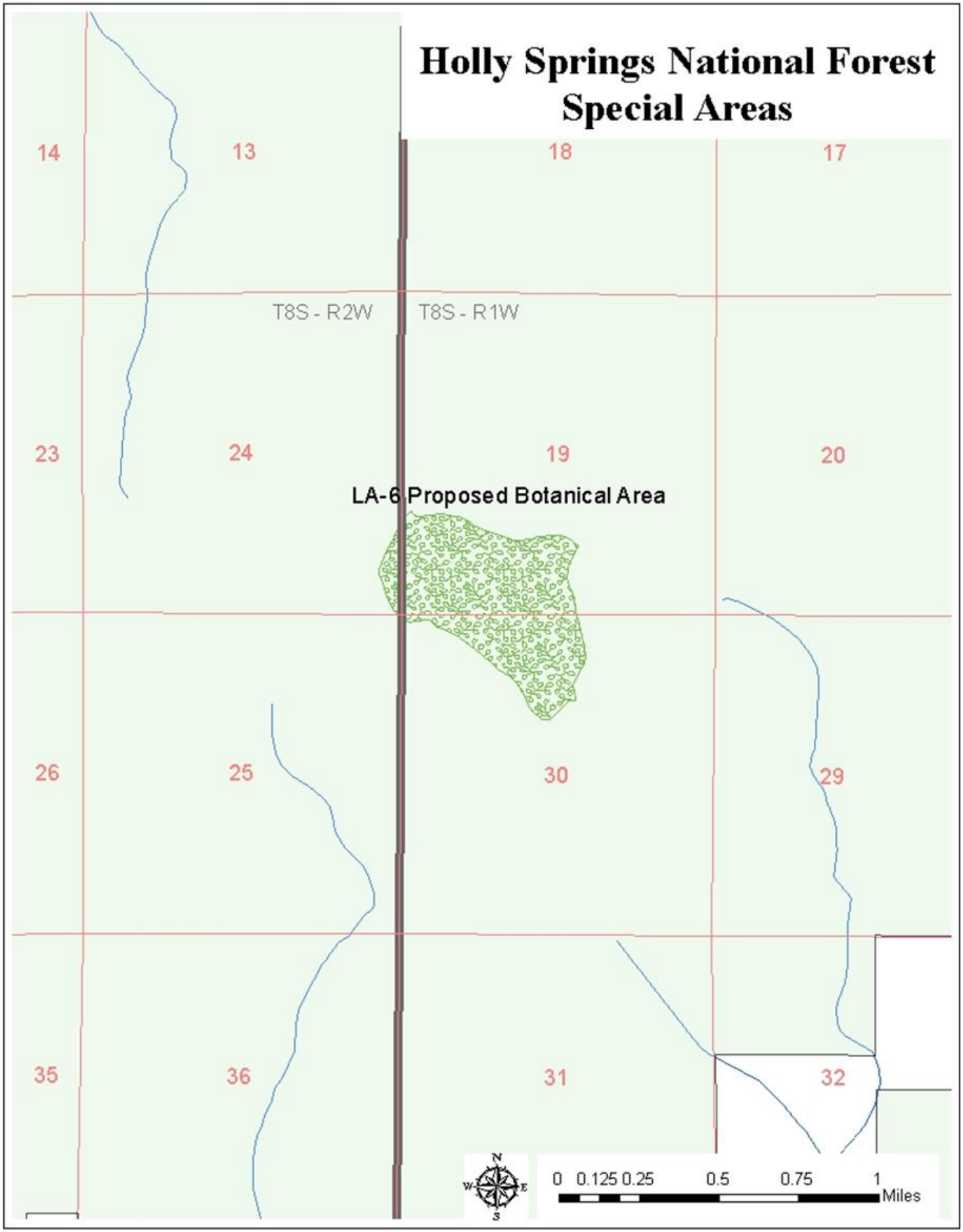
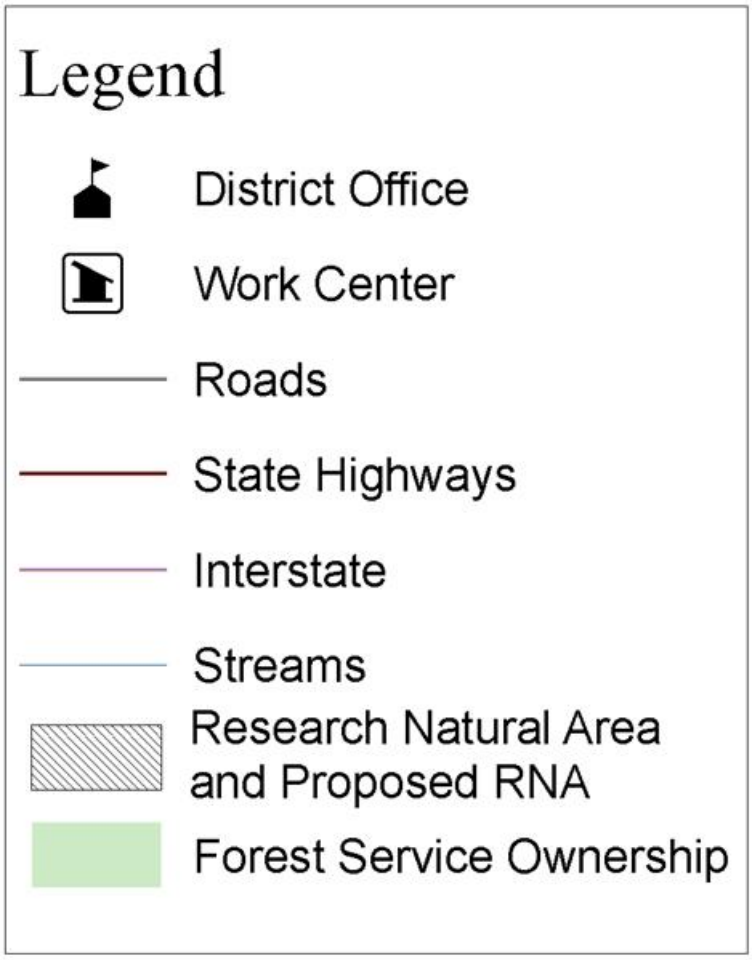


Figure D 46. Map of proposed LA-6 Botanical Area

D.3.15 Proposed Lee Creek Research Natural Area (Holly Springs National Forest):

This area was nominated for inclusion in the research natural area designation because of an approximately 10 acre area of undisturbed back water cypress which is very rare. Because of the small size of the cypress stand additional area from the alluvial floodplain adjacent to Lee Creek to the adjacent mixed shortleaf upland hardwood stand above the cypress stand was included to both buffer the cypress stand and provide research natural area representation of both minor stream bottom hardwoods and upland pine hardwood forest types in the research natural area system. The head cutting condition of Lee Creek was a negative issue found with field review of the site. But, it was determined the site should continue through the designation process. Subsequently the entire area was demolished by tornado. The damage included nearly complete breakage of all the cypress stems in the core area of interest. The area was salvaged and reforested following the storm damage. Because of the changed condition this area has been dropped from research natural area consideration.



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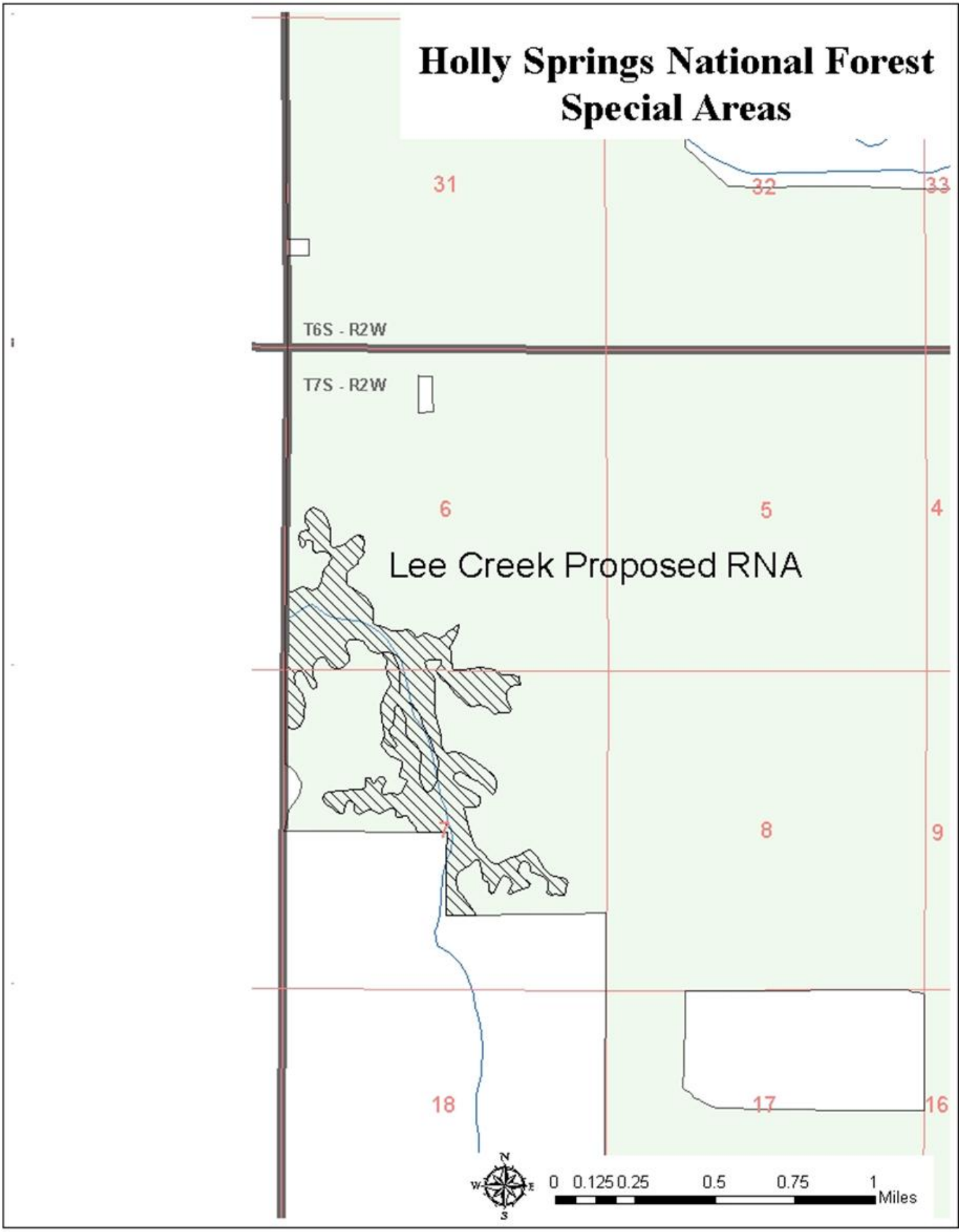
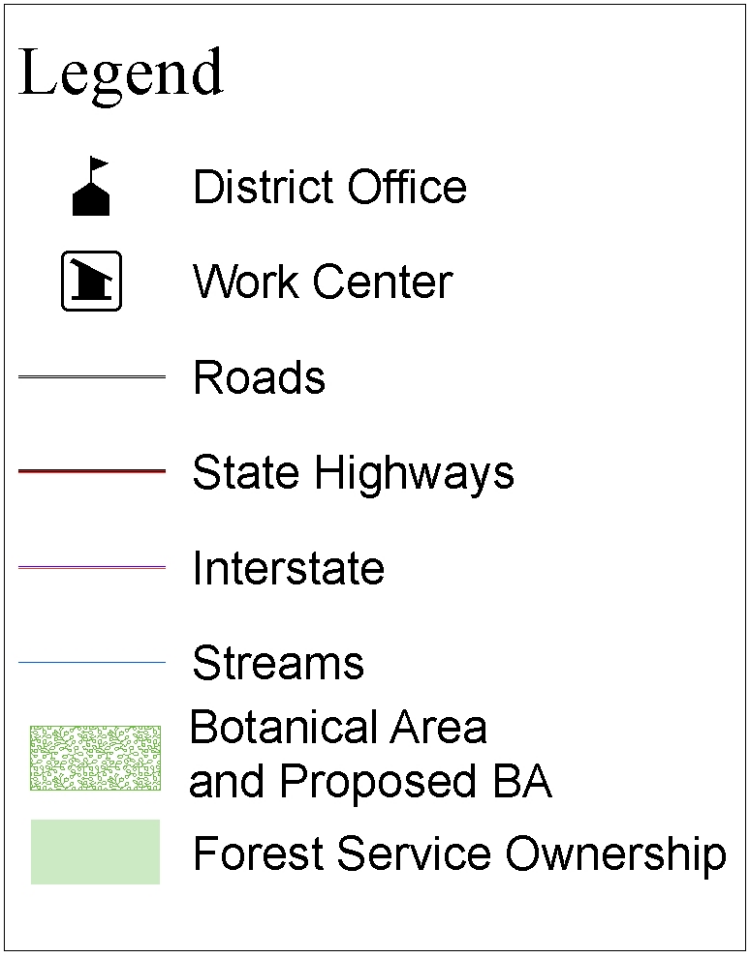


Figure D 47. Map of proposed Lee Creek Research Natural Area

D.3.16 Proposed Sandy Creek Botanical Area (Homochitto National Forest):

This is an area of mesic to dry mesic loessal forest. Dominant species are various hardwoods with scattered loblolly pine that are dropping out of the stand as the stand ages. The stand is about 70 years old. As a proposed botanical area, this area provides undisturbed base line sites on which to monitor changes in natural conditions associated with management of similar areas and serves as an area in which natural biological diversity is conserved. This area is within the area of Sandy Creek studied through the Rare II process. This area was proposed by district staff for research natural area designation after the initial Rare II consideration. The botanical area designation was chosen as the best way to provide special area status for this area.



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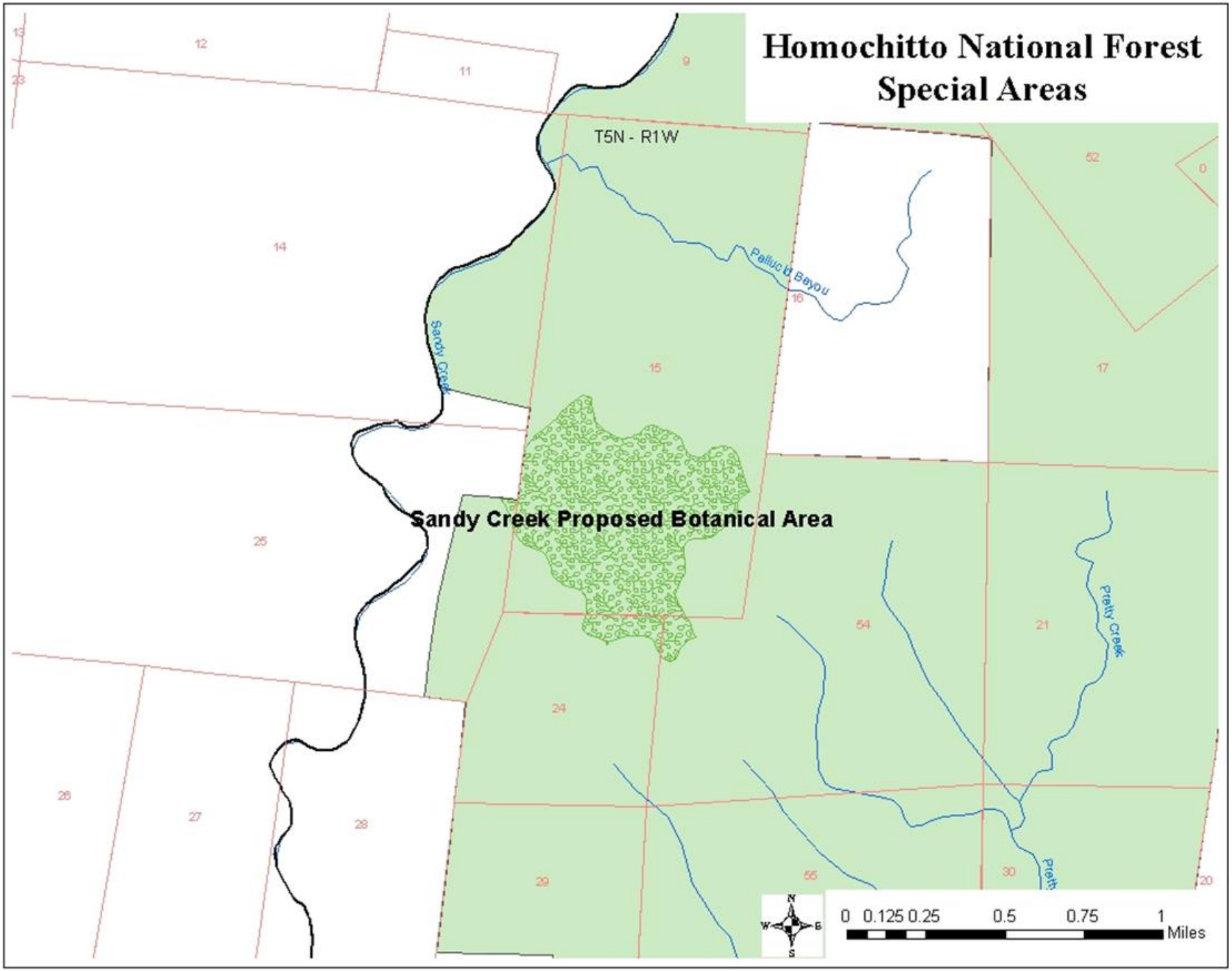
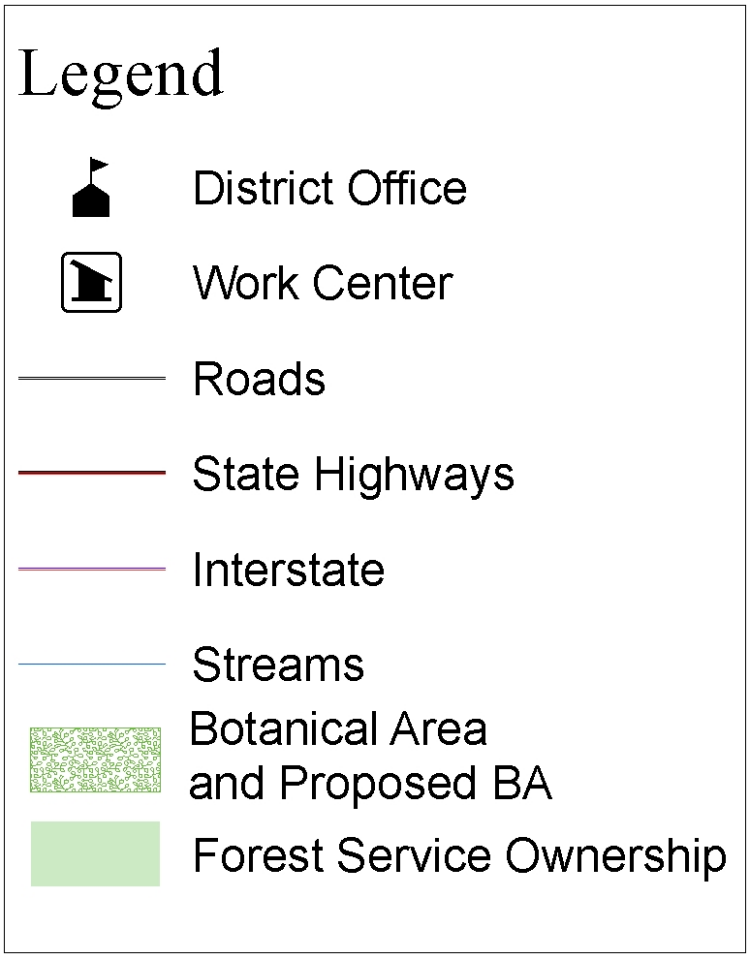


Figure D 48. Map of proposed Sandy Creek Botanical Area

D.3.17 Proposed Shagbark Hickory Botanical Area (Tombigbee National Forest):

The Shagbark Hickory Botanical Area is an area of mesic hardwood in steep highly dissected terrain that had been utilized as outdoor classroom for many years by professors and students of Mississippi State University. This area provides educational opportunities as an outdoor classroom for future students and professors.



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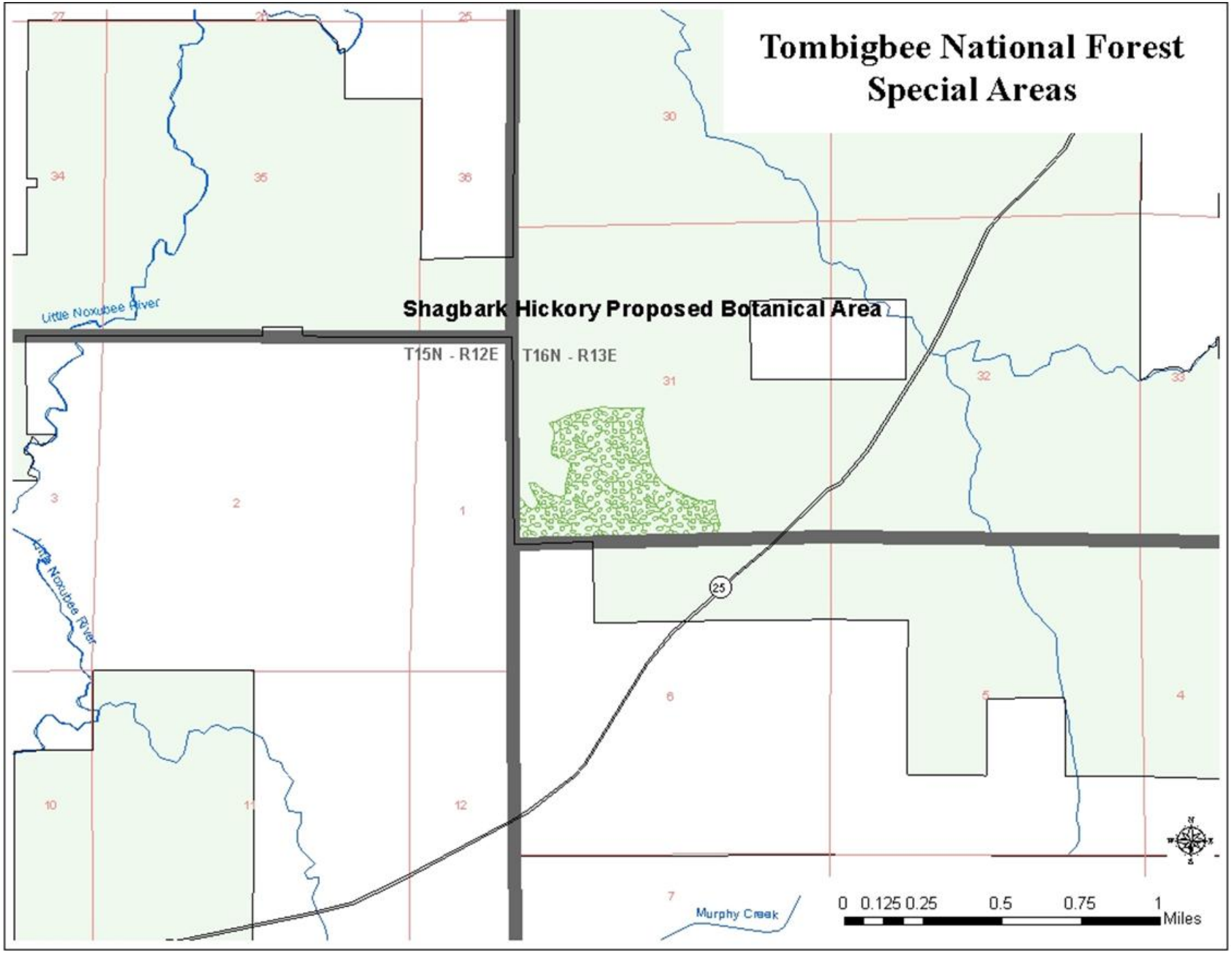
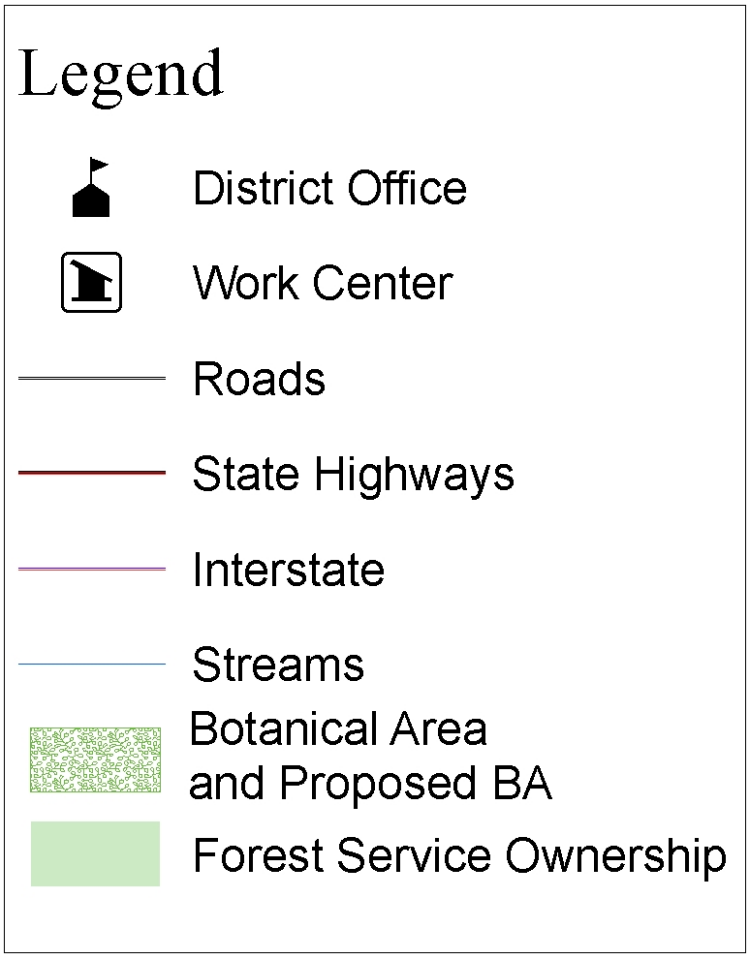


Figure D 49. Map of proposed Shagbark Hickory Botanical Area

D.3.18 Proposed Choctaw #4 Botanical Area (Tombigbee National Forest):

This is an area of old growth hardwood forest in steep topography that was identified as being one of the best remaining areas of old-growth forest in Mississippi's lignite belt during a 1980s evaluation done by Dr. Frank Miller at Mississippi State University's remote sensing laboratory under contract to Mississippi Natural Heritage Program.



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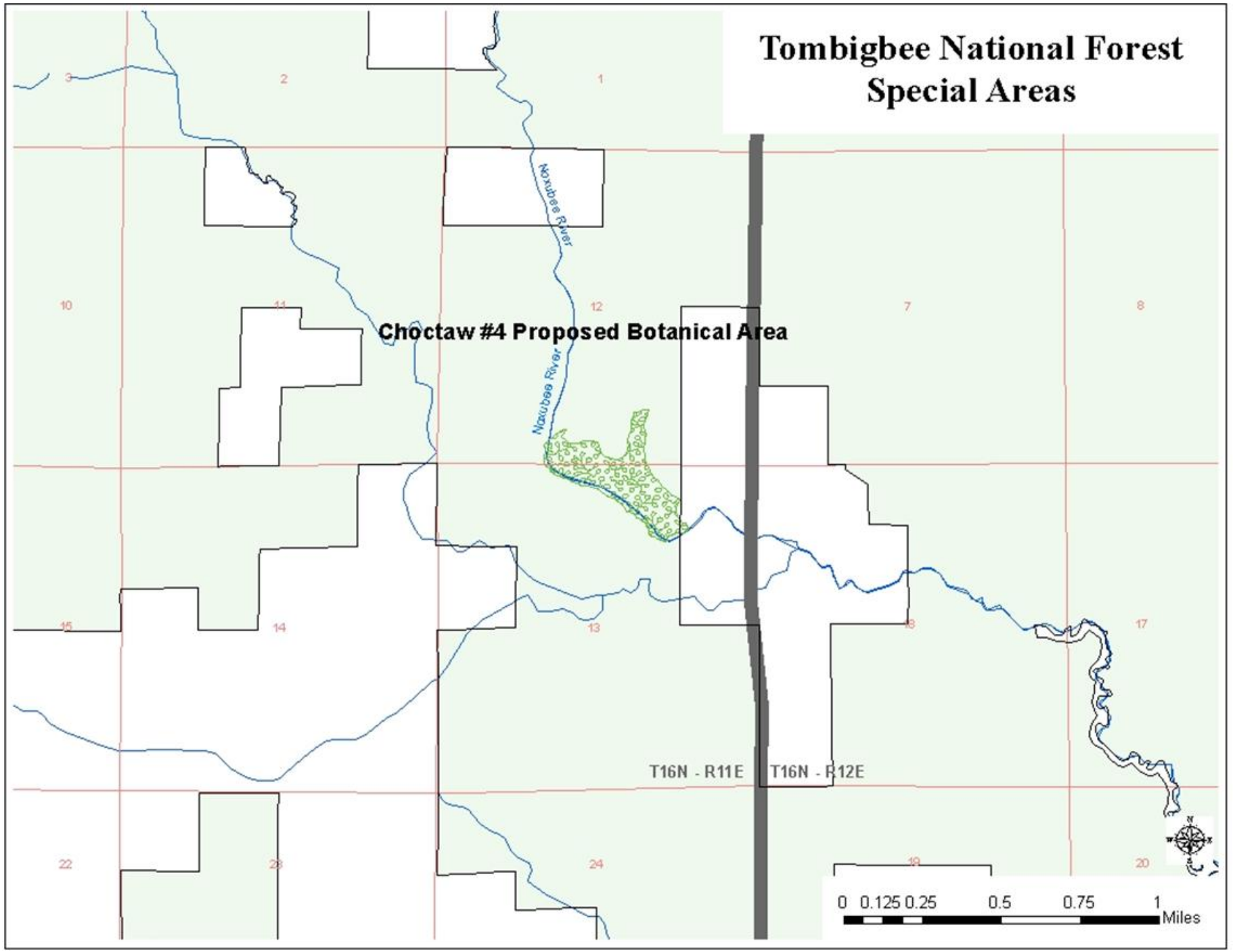
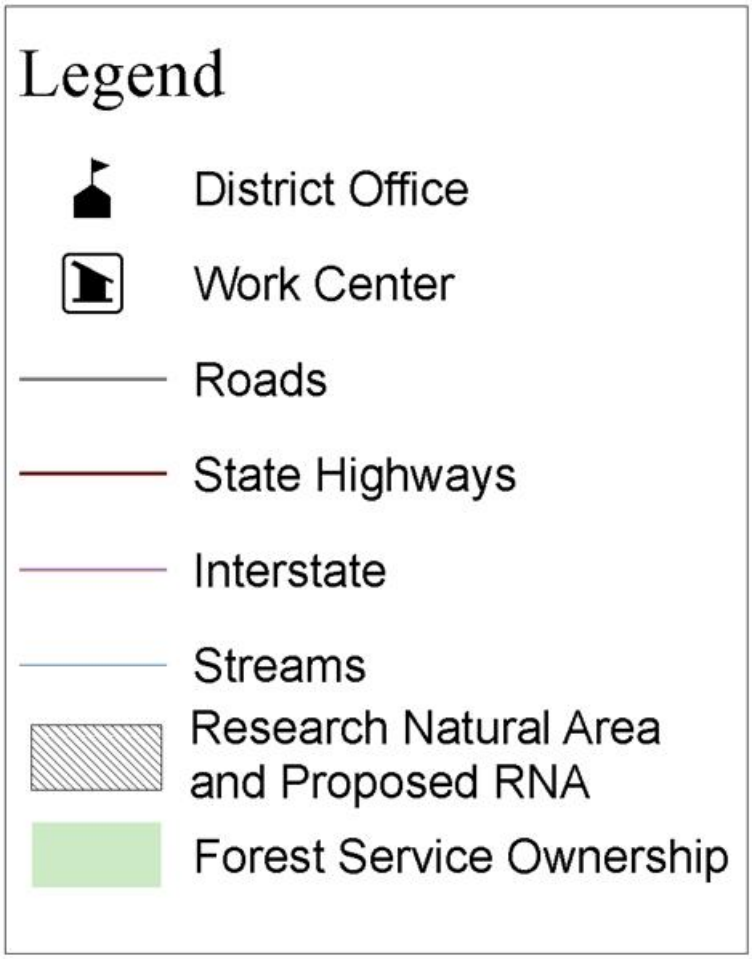


Figure D 50. Map of proposed Choctaw #4 Botanical Area

D.3.19 Proposed Prairie Mount Botanical Area (Tombigbee National Forest):

This area was originally proposed by district staff for research natural area designation. The botanical area designation was chosen as the best way to provide special area status for this area. The Prairie Mount Botanical Area represents a good example of the native tall grass prairie from the black belt region. The black belt prairie provides the necessary habitat conditions to support a full array of native prairie species such as indiangrass, bluestem grasses, rosinweeds, prairie-clovers, yellow-puffs, prairie cone-flowers, and others. As a proposed botanical area, this area provides undisturbed base line sites on which to monitor changes in natural conditions associated with management of similar areas and serves as an area in which natural biological diversity is conserved.



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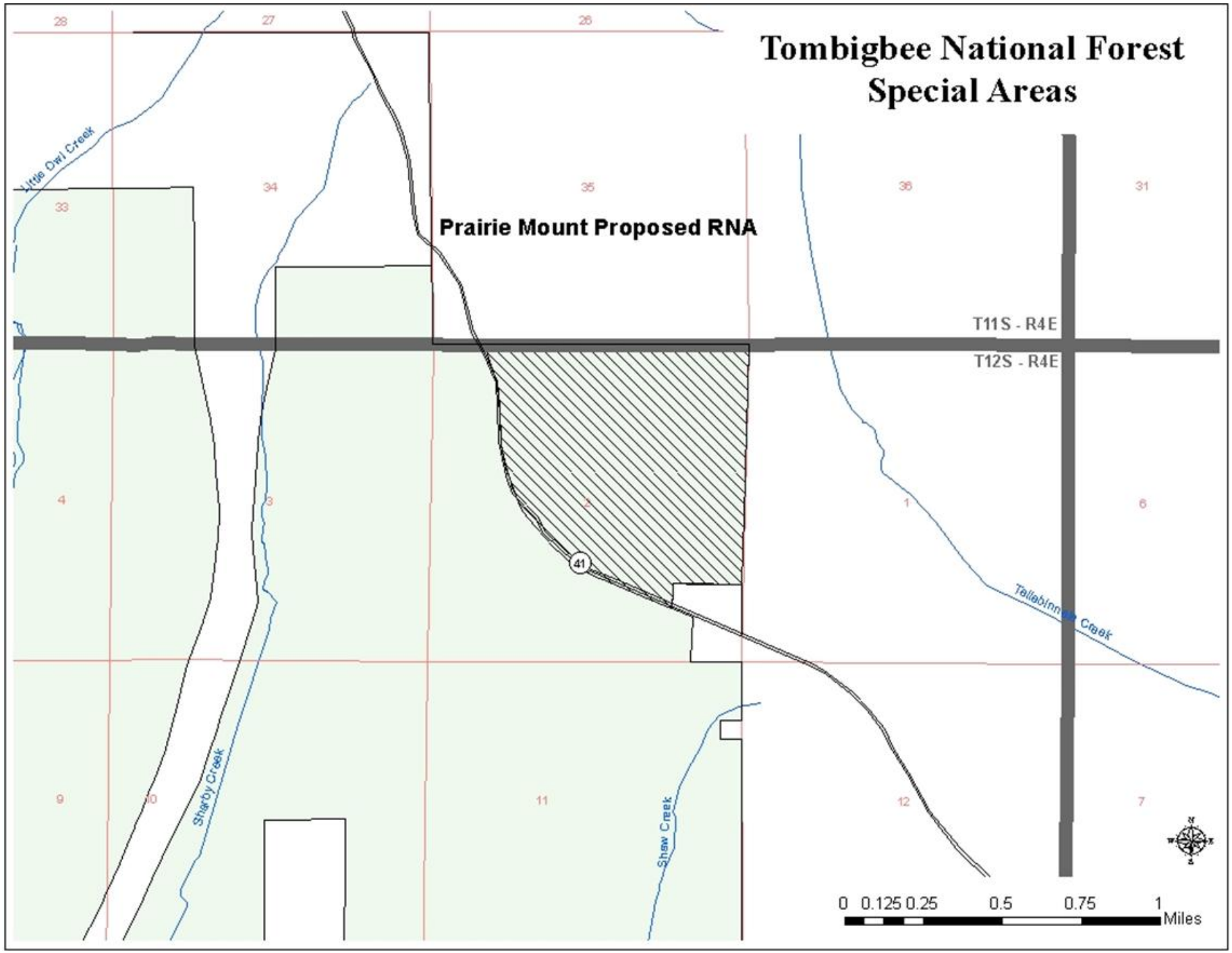
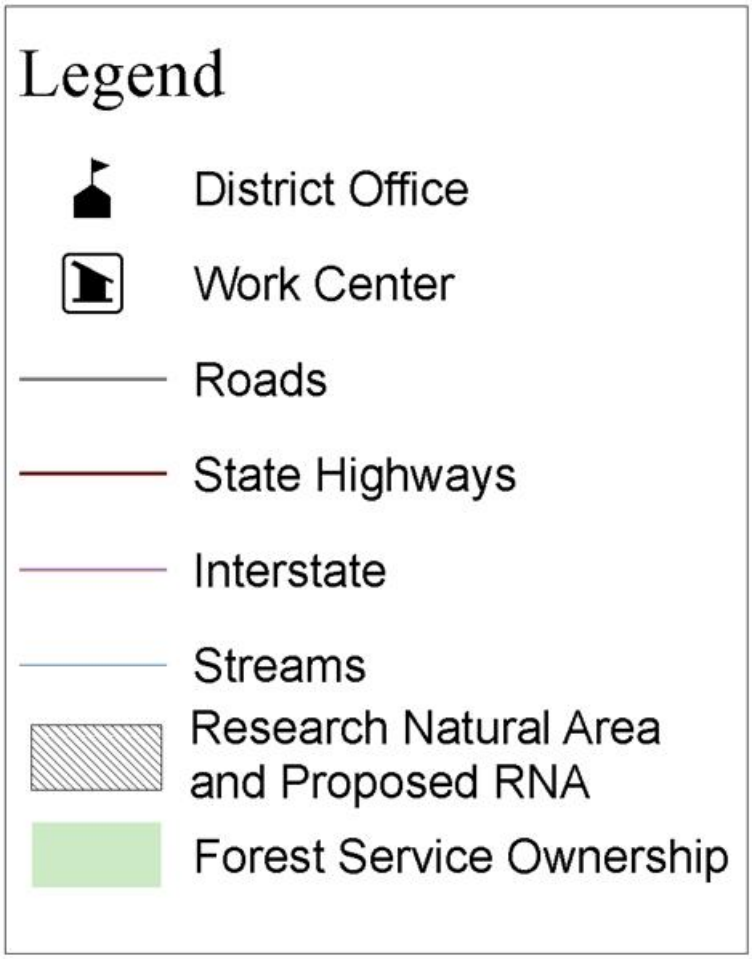


Figure D 51. Map of proposed Prairie Mount Research Natural Area - Botanical Area

D.3.20 Proposed Bogue Cully Botanical Area (Tombigbee National Forest):

This area was originally proposed by district staff for research natural area designation. The botanical area designation was chosen as the best way to provide special area status for this area. The Bogue Cully Research Natural Area represents a good example of the native tall grass prairie from the black belt region. The black belt prairie provides the necessary habitat conditions to support a full array of native prairie species such as Indian grass, bluestem grasses, rosinweeds, prairie-clovers, yellow-puffs, prairie cone-flowers, and others. As a proposed botanical area, this area provides undisturbed base line sites on which to monitor changes in natural conditions associated with management of similar areas and serves as an area in which natural biological diversity is conserved.



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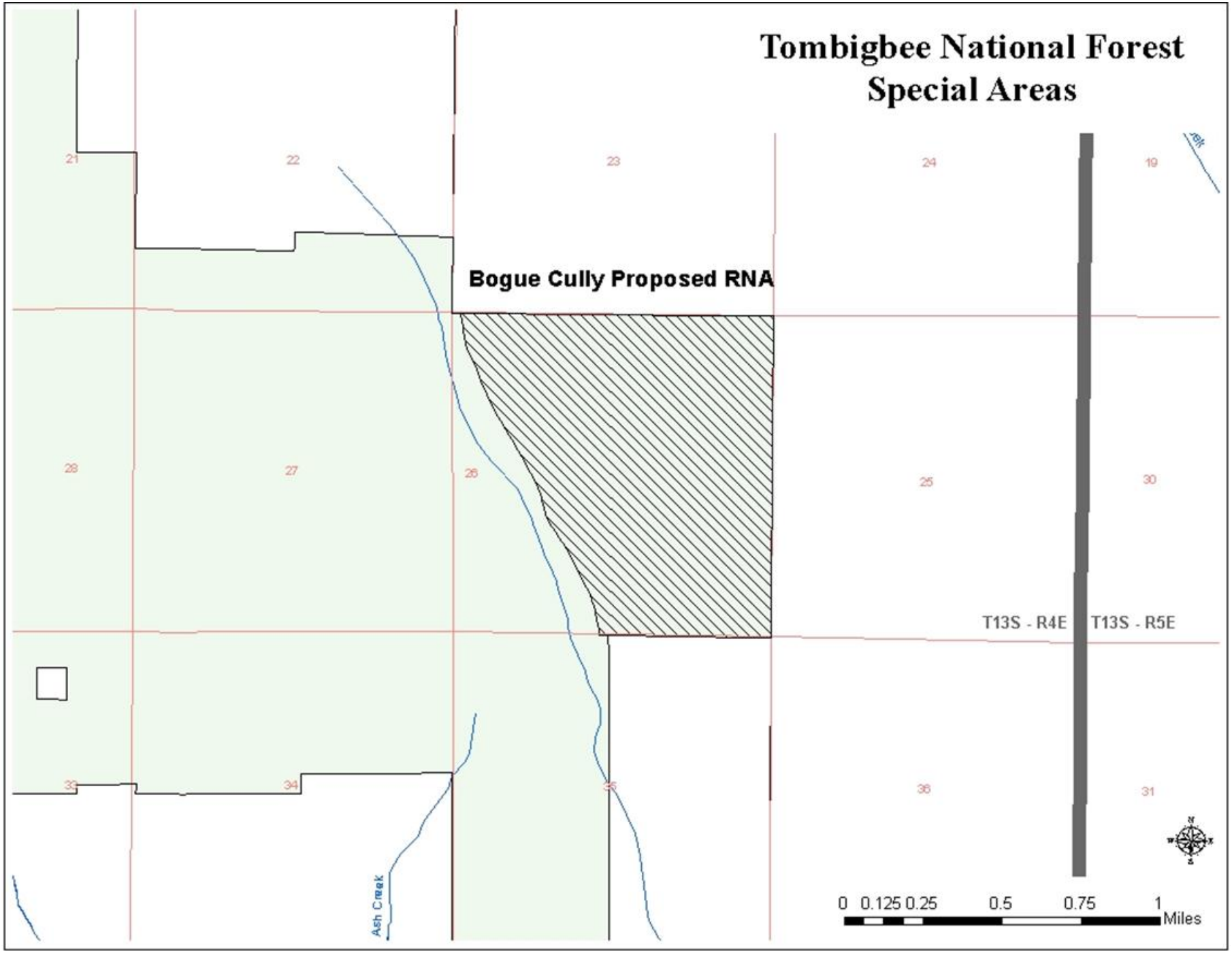

Figure D 52. Map of proposed Bogue Cully Research Natural Area - Botanical Area

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