Tingler Prairie Conservation Area

Ten-Year Area Management Plan

FY 2017-2026

Wildlife Division Chief

2 May 2016

Date

Tingler Prairie Conservation Area Management Plan Approval Page

PLANNING TEAM

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WILDLIFE DIVISION

Wildlife Management Chief

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Signature *Date*

OVERVIEW

- **Official Area Name:** Tingler Prairie Conservation Area, # 8823
- **Year of Initial Acquisition:** 1987
- **Acreage:** 240 acres
- **County:** Howell
- **Division with Administrative Responsibility:** Wildlife
- **Division with Maintenance Responsibility:** Wildlife
- **Statements of Purpose:**
  - **A. Strategic Direction**
    The primary purpose of Tingler Prairie CA is to conserve remnant prairie, marsh and sinkhole pond natural communities within a larger mosaic of prairie plantings and woodlands.
  - **B. Desired Future Condition**
    A mosaic of prairie, wetland and woodland natural communities providing for native plant and animal species and compatible recreational uses.
  - **C. Federal Aid Statement**
    N/A

GENERAL INFORMATION AND CONDITIONS

I. <u>Special Considerations</u>

A. Priority Areas: Tingler Uplands Terrestrial Conservation Opportunity Area, White Ranch Terrestrial Conservation Opportunity Area

B. Natural Areas: Tingler Prairie Natural Area. The entire area is designated as a Natural Area. This natural area conserves rare prairie and wetland natural communities (prairie swale, pond shrub swamp, freshwater marsh, and dry-mesic chert prairie) that support many species of conservation concern.

II. <u>Important Natural Features and Resources</u>

A. Species of Conservation Concern: Species of conservation concern are known from this area. Area Managers should consult the Natural Heritage Database annually and review all management activities with the Natural History Biologist.

B. Caves: None

C. Springs: None

D. Other: 10-acre wet mesic prairie natural community, shallow marsh and 5-acre sinkhole pond

III. Existing Infrastructure

- One parking lot
- One viewing deck/tower
- Four fishless ponds (including 3-acre Tingler Lake)
- Prairie Trail (1 mile)
- Wetland Trail (0.5 miles)
- Woodland Trail (0.5 miles)

IV. Area Restrictions or Limitations

A. **Deed Restrictions or Ownership Considerations:** None

B. **Federal Interest:** Federal funds may be used in the management of this land. Fish and wildlife agencies may not allow recreational activities and related facilities that would interfere with the purpose for which the State is managing the land. Other uses may be acceptable and must be assessed in each specific situation.

C. **Easements:** None

D. **Cultural Resources Findings:** Yes, records kept with Missouri Department of Conservation (Department) Environmental Compliance Specialist. Managers should follow Best Management Practices for Cultural Resources found in the Department Resource Policy Manual.

E. **Endangered Species:** Endangered Species are known from this area. Area Managers should consult the Natural Heritage Database annually and review all management activities with the Natural History Biologist.

F. **Boundary Issues:** None

MANAGEMENT CONSIDERATIONS

V. Terrestrial Resource Management Considerations

Tingler Prairie CA is comprised of grassland and woodland landscapes. These landscapes are managed to provide early successional habitat for upland species.

Challenges and Opportunities:

1) Manage all grasslands and woodlands in an early successional stage while providing bare ground for grassland species.
2) Keep warm-season grass density at a level that is beneficial for multiple species, especially bobwhite quail in the breeding and brood- rearing months.
3) Control exotic and invasive species in grassland and woodland areas.

Management Objective 1: Manage grasslands throughout Tingler Prairie CA in multiple successional stages to provide food and cover for multiple species.

Strategy 1: Break up the area into multiple burn units to provide the early successional habitat needed for bare ground and thicker nesting cover, all in close proximity. Burn areas on a minimum of a three-year rotation. (Wildlife)

Strategy 2: Rotate burn season and frequency to favor either grasses or forbs, depending on the limiting factor in each burn unit. (Wildlife)

Management Objective 2: Manage the woodlands on Tingler Prairie CA to provide early successional habitat (through prescribed fire and/or thinning). Reduce the basal area in units that have a more closed canopy to enhance the native forb and warm-season grass understory that was historically present. Allow timber to grow to larger size classes while maintaining uneven age classes.

Strategy 1: Burn areas that have already had a basal area reduction (i.e., using fire or mechanical techniques) on a minimum three-year rotation and frequency to control leaf litter buildup and undesirable re-sprouting. (Wildlife)

Strategy 2: Areas that historically were open woodlands (based on Ecological Land Types), but are currently a closed canopy, will first be thinned mechanically, if fire has not proven effective. They will be managed the same as existing open woodlands. Prescribed burns will be used as the primary management tool; burns will be conducted on a minimum three-year rotation. (Wildlife)

Management Objective 3: Control exotic invasive species, as possible, in area grasslands and woodlands. The primary invasive exotic plant threats in the area include sericea lespedeza, tall fescue and spotted knapweed.

Strategy 1: Reduce the growth potential of tall fescue and favor warm-season grasses by rotating prescribed burns later into the spring months, in areas where tall fescue has been the most detrimental. Continue to burn early in the fall to provide a higher growth potential for tall fescue and effectively spray fescue with a cool-season grass-specific herbicide when it is more susceptible. (Wildlife)

Strategy 2: Spot spray sericea lespedeza and spotted knapweed with broadleaf specific herbicides seasonally, when it is most effective. (Wildlife)

VI. <u>Aquatic Resource Management Considerations</u>

Challenges and Opportunities:

1) Manage ponds as fishless ponds.
2) Minimize the supply and transport of sediments, gravel or pollutants into downstream areas.

Management Objective 1: Manage all ponds on the areas as fishless.

Strategy 1: Notify Fisheries Division if fish are found by staff. (Wildlife)

Strategy 2: Manage drainage area to the pond with minimal disturbance. (Wildlife)

Strategy 3: Add woody debris for turtles, frogs and salamanders, as needed. (Wildlife)

Management Objective 2: Manage the area in ways that minimize the supply and transport of sediments, gravel or pollutants into downstream areas. Follow "Watershed and Stream Management Guidelines for Land and Waters Managed by Missouri Department of Conservation" (Missouri Department of Conservation, 2009).

Strategy 1: Minimize any adverse impacts to the watershed. Observe protection measures during any disturbance in the riparian zones and around the pond. (Wildlife)

Strategy 2: Use appropriate herbicides when controlling invasive species in the riparian zones and around the ponds. Maintain all existing riparian corridors. (Wildlife)

Strategy 3: Consult Fisheries Division on all work inside the riparian corridors. (Wildlife)

Strategy 4: Control erosion along the road and trail system. (Wildlife)

VII. Public Use Management Considerations

Challenges and Opportunities:

1) Increase educational opportunities at the area.

Management Objective 1: Increase the awareness and success of habitat management on public lands and promote outdoor education.

Strategy 1: Work with the Outreach and Education Division to promote outdoor skills activities while working with the Discover Nature in Schools Program. (Wildlife)

VIII. Administrative Considerations

Challenges and Opportunities:

1) Ensure Department boundaries are marked and visible to public users.

Management Objective 1: Keep current Tingler Prairie CA boundary signs visible and presentable to the public.

Strategy 1: Conduct an annual visual survey of all boundary signs. Replace damaged or missing signs, as needed. (Wildlife)

MANAGEMENT TIMETABLE

All strategies for this management plan are considered ongoing.

APPENDICES

Area Background:
One-half-mile of the South Fork of Spring River meanders through the east side of this 240-acre area. Approximately two-thirds of the area is open, and about 65 acres are classified as woodland.

The Department acquired the property for Tingler Prairie CA in 1987-88, following its purchase from the Mott Davis family by The Nature Conservancy. The area was purchased to preserve a prairie swale, shallow marsh and sinkhole pond (Tingler Lake) natural communities. These areas contain plant species and communities that are rare in Missouri.

Much of the open land was planted to fescue before The Nature Conservancy purchased the tract. Present management techniques include converting the fescue pasture to warm-season grasses and conducting controlled burns to maintain desirable native plant communities.

Area facilities are limited to one parking lot and three maintained trails (the Woodland, Wetland and Prairie Trails.

Current Land and Water Types:

Land/Water Type	**Acres**	**% of Area**
Native Prairie	127	53
Forest and Woodland	80	33
Wetland/Marsh	20	8
Old Field	10	4
Fishless Pond	3	>1
Total	**240**	**100**

Public Input Summary:
The draft Tingler Prairie Conservation Area Management Plan was available for a public comment period February 1-29, 2016. The Missouri Department of Conservation received no comments during this time period

References:
Missouri Department of Conservation. (2009). Watershed and stream management guidelines for lands and waters managed by Missouri Department of Conservation. Jefferson City, Missouri: Missouri Department of Conservation.

Nigh, T. A., & Schroeder, W. A. (2002). *Atlas of Missouri ecoregions*. Jefferson City, Missouri: Missouri Department of Conservation.

Maps:

Figure 1: Area Map
Figure 2: Aerial Map
Figure 3: Topographic Map
Figure 4: Land Cover Type Map

Figure 1: Area Map

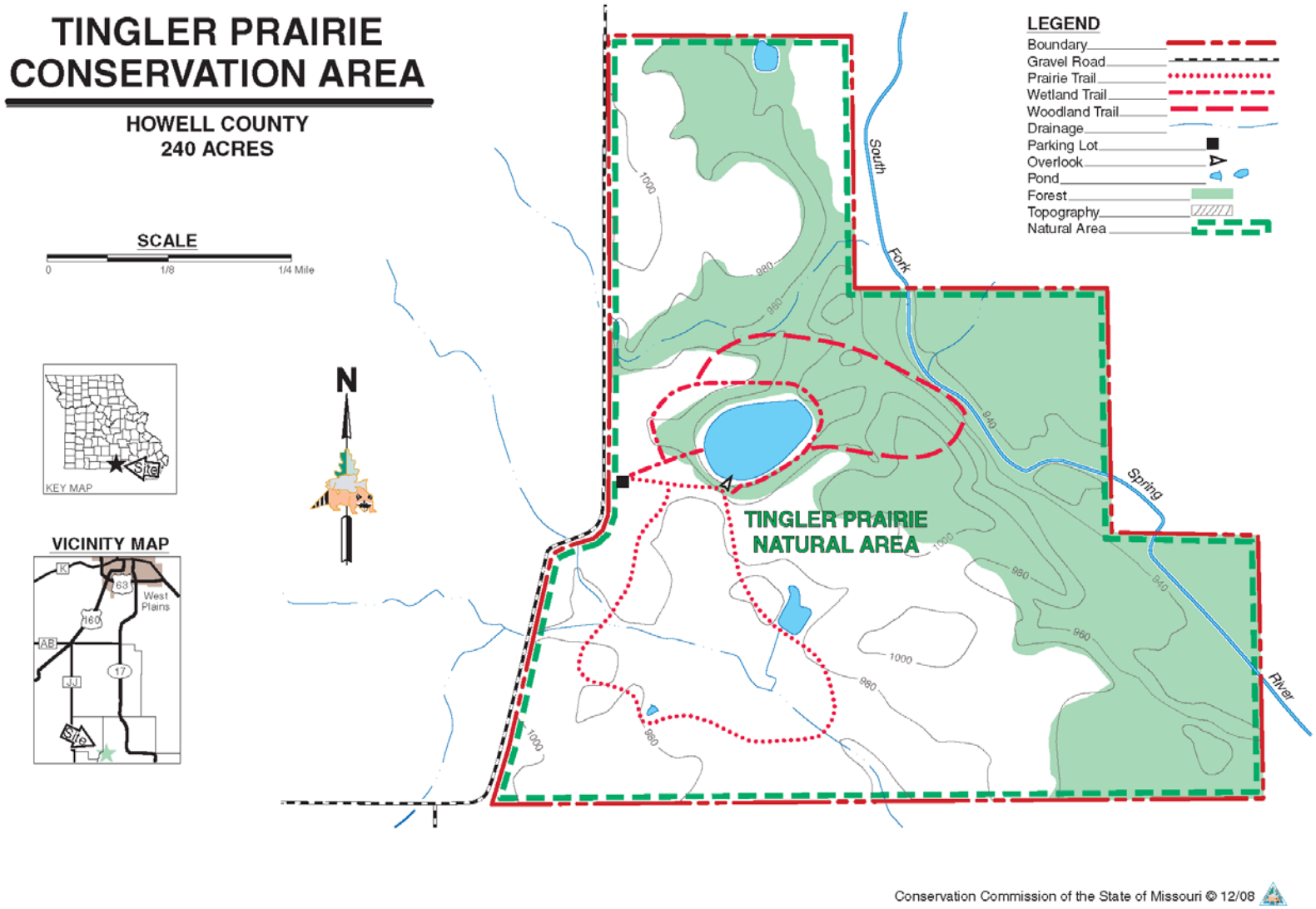

Figure 2: Aerial Map

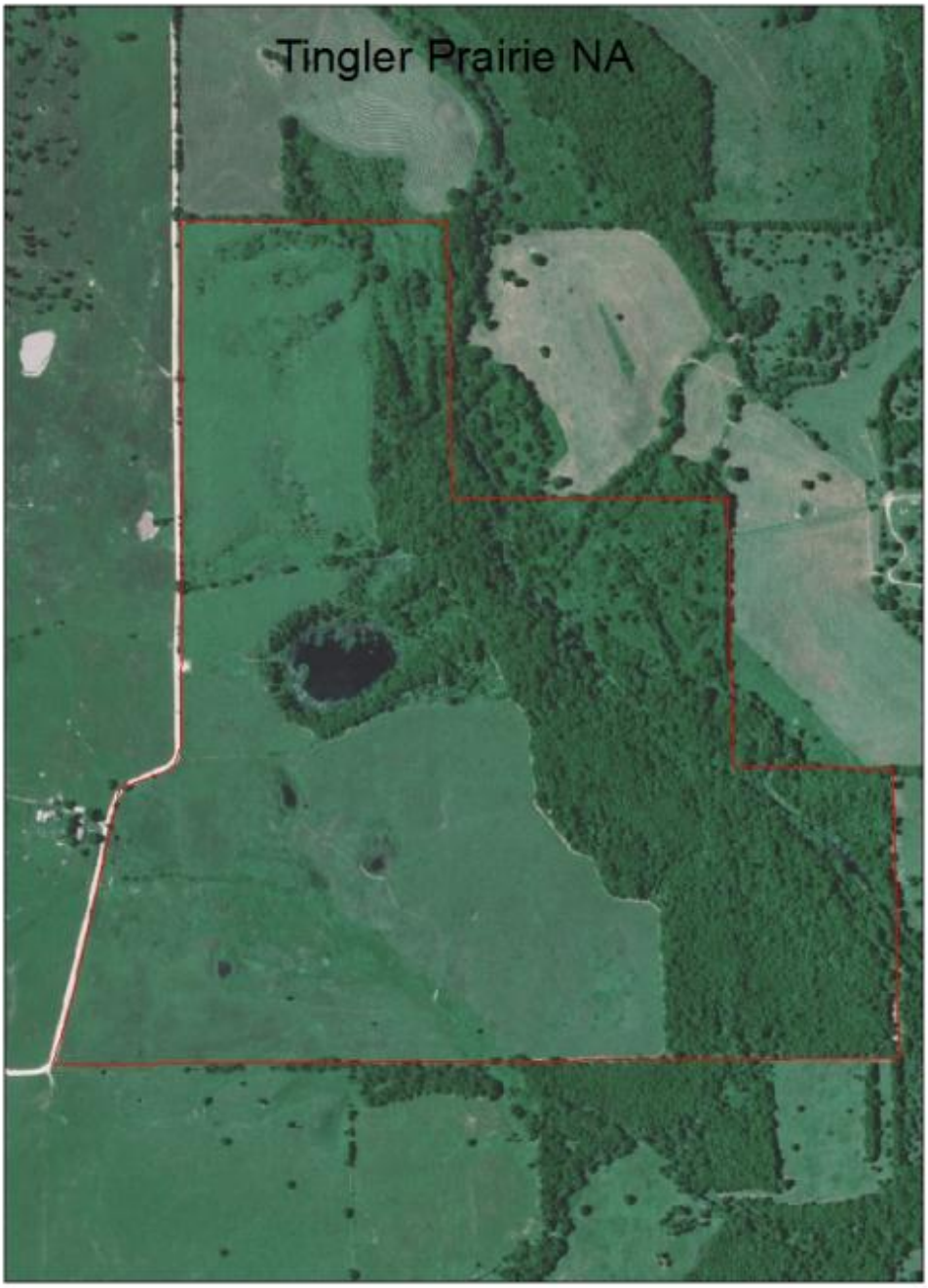

Figure 3: Topographic Map

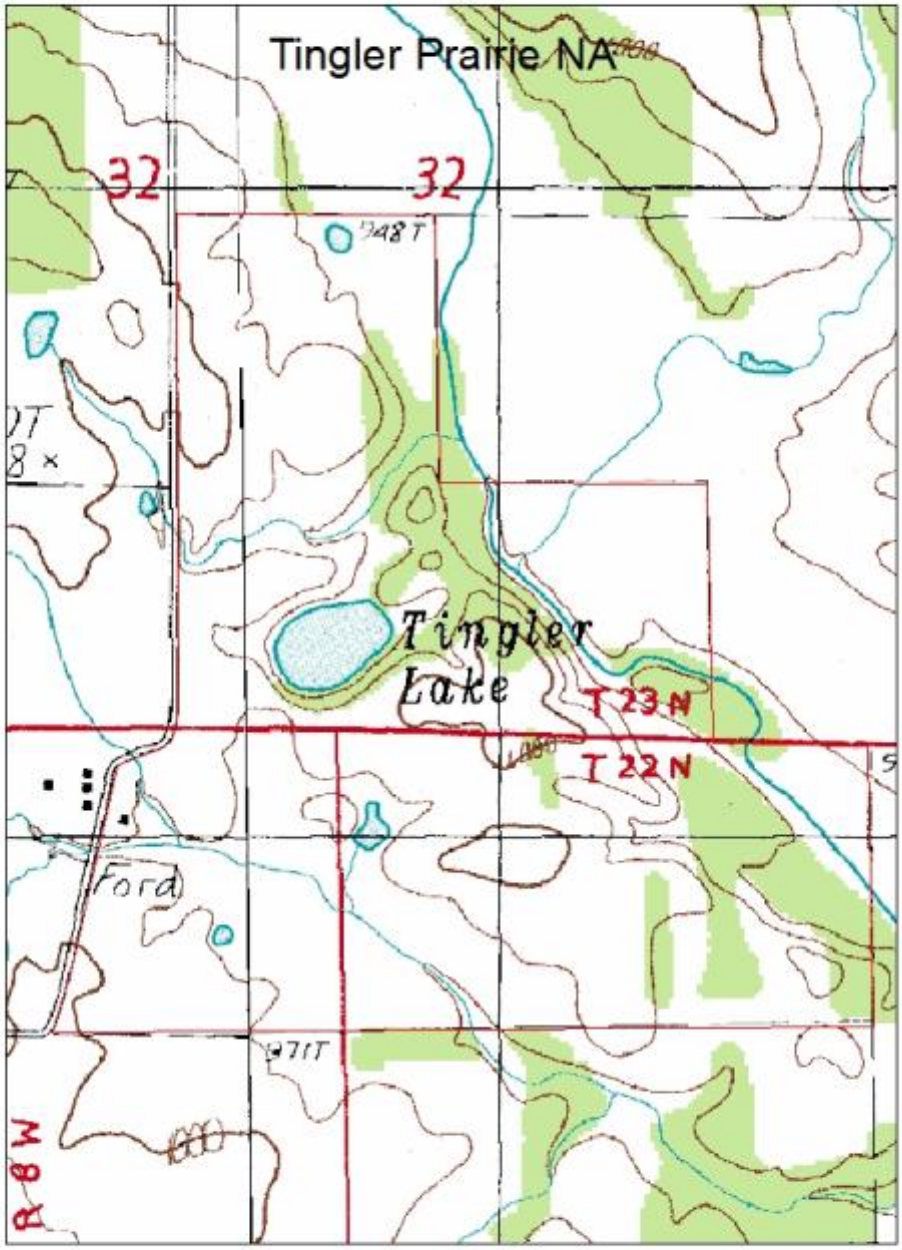
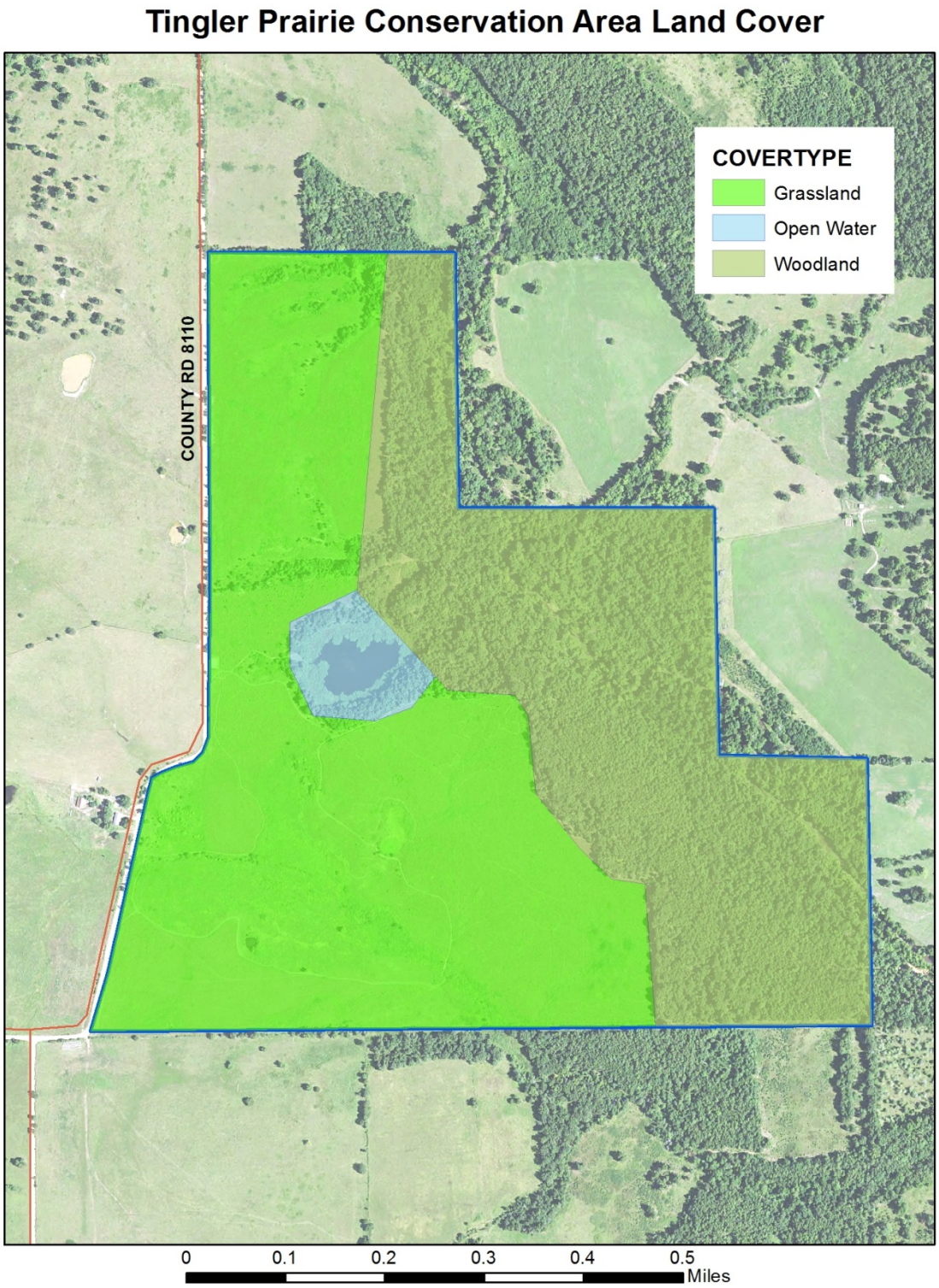
Figure 4: Land Cover Map