

Grand Trace Conservation Area

Ten-Year Area Management Plan

FY 2018-2027





Wildlife Division Chief

21 MARCH 2018
Date

OVERVIEW

- **Official Area Name:** Grand Trace Conservation Area, #7938
- **Year of Initial Acquisition:** 1979
- **Acreage:** 1,526 acres
- **County:** Harrison
- **Division with Administrative Responsibility:** Wildlife
- **Division with Maintenance Responsibility:** Wildlife
- **Statements of Purpose:**

A. Strategic Direction

Grand Trace Conservation Area (CA) is managed to provide the public with quality outdoor recreational opportunities; and fish, forest, and wildlife habitats representative of the Central Dissected Till Plains Physiographic Area. Management emphasis is placed on developing habitat that supports early-successional grassland and open woodland wildlife species. Species of priority concern include bobwhite quail and grassland songbirds such as dickcissel, bobolink, grasshopper sparrow, and Bell's vireo. Other species of management consideration include white-tailed deer, eastern wild turkey, mourning dove, and eastern cottontail rabbit.

B. Desired Future Condition

The desired future condition of Grand Trace CA is to convert existing non-cropped open lands to a diverse planted native grassland/savanna complex and suitable forested areas to diverse woodland communities.

C. Federal Aid Statement

This area, or a portion thereof, was acquired with Pittman-Robertson Wildlife Restoration funds to restore and manage wildlife, conserve and restore suitable wildlife habitat and provide public access for hunting or other wildlife-oriented recreation.

GENERAL INFORMATION AND CONDITIONS

I. Special Considerations:

- A. **Priority Areas:** Within the boundaries of the Grand River Grasslands Grassland/Prairie/Savanna Conservation Opportunity Area, Grand River Grasslands Priority Geography.
- B. **Natural Areas:** None

II. Important Natural Features and Resources:

- A. **Species of Conservation Concern:** Species of conservation concern are not known from this site, but are found in the surrounding area. Area managers should consult annually with the natural history biologist.

B. Caves: None

C. Springs: None

D. Other: Grand Trace CA is in the Central Dissected Till Plains, Grand River Hills Subsection, Upper Grand River Prairie/Woodland Hills Landtype Association.

Historically, this landtype association was upland tallgrass prairie on divides that graded into oak savannas and woodlands in more dissected land (Nigh & Schroeder, 2002).

III. Existing Infrastructure:

- Four parking lots
- Two fishable ponds (3.2 acres total)
- One primitive campground with four individual campsites
- Approximately 5.5 miles of field access trails
- Nineteen wildlife watering holes

IV. Area Restrictions and Limitations:

A. Deed Restrictions or Ownership Considerations: None

B. Federal Interests: Uses of land acquired with federal funds may not interfere with the purpose for which it was acquired. Federal funds may also 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: No known cultural resources.

E. Endangered Species: Endangered species are not known from this site, but are found in the surrounding area. Area managers should consult annually with the natural history biologist.

F. Boundary Issues: Establishing accurate and identifiable boundary markers is a priority for this property.

MANAGEMENT CONSIDERATIONS

V. Terrestrial Resource Management Considerations

Over the past 80 years much of the open land cover was converted to non-native cool-season grasses and legumes, such as orchard grass, timothy, smooth brome, clover and more recently, tall fescue. Tall fescue has greatly reduced cover suitability for early-successional ground-dwelling wildlife species. In addition to the invasion of tall fescue, undesirable woody vegetation, such as honey locust, autumn olive, and Osage orange have encroached into once open areas, reducing the value of these areas to wildlife.

Forest and woodland management may be limited due to a high concentration of undesirable species, including honey locust, shingle oak, elm, and Osage orange in many of the wooded areas.

Challenges and Opportunities:

- 1) The Grand Trace CA is within the boundaries of the Grand River Grassland – Grassland/Prairie/Savanna Conservation Opportunity Areas. This will provide additional opportunities to manage for diverse native grassland and woodland plant communities.
- 2) Manage herbaceous and forested cover on Grand Trace CA to improve habitat.

Management Objective 1: Convert old field units to native grassland and improve savanna units to benefit wildlife species dependent upon native grassland and early-successional habitats.

Strategy 1: Decrease undesirable herbaceous cover by prescribed fire and herbicide applications. (Wildlife)

Strategy 2: Increase native herbaceous cover. (Wildlife)

Strategy 3: Decrease undesirable woody cover by tree removal, prescribed fire, and herbicide treatment. (Wildlife, Forestry)

Management Objective 2: Create and maintain open woodland plant communities. Develop management recommendations for select forested stands in cooperation with Forestry Division.

Strategy 1: Opportunistically manage woodland units for low basal area (less than 60 ft²/acre) and a diverse native herbaceous component. (Wildlife, Forestry)

Strategy 2: Forested stands not identified for woodland restoration will be managed using both even and uneven-aged silviculture. (Wildlife, Forestry)

Management Objective 3: Improve habitat for white-tailed deer.

Strategy 1: Create and maintain quality year-round forage for deer. (Wildlife)

VI. Aquatic Resource Management Considerations:

Management of aquatic resources on Grand Trace CA is focused on the two fishable ponds on the area and maintaining healthy riparian habitat along the area's intermittent streams.

Challenges and Opportunities:

- 1) The two fishable ponds on Grand Trace CA have easy access and good fish habitat, and thus have potential for high-quality fisheries.
- 2) Nineteen wildlife watering holes intentionally do not support sportfish populations, because they serve as important areas for amphibians, reptiles, aquatic invertebrates, and wetland plants. In addition, they provide dispersed water sources for terrestrial wildlife species. Many were created as grade controls for soil erosion, while others are old ponds that have become shallow and overgrown with trees. Species supported by these wildlife watering holes have not been formally inventoried.
- 3) Stream resources on the area are mainly limited to small intermittent drainages. There are no fisheries maintained in them, but like the wildlife watering holes, they serve as habitat for amphibians, reptiles, aquatic invertebrates, and wetland plants. Riparian corridors are mostly contiguous and of sufficient width to provide good bank stability, flood abatement, diverse wildlife habitat, and wildlife travel corridors.

Management Objective 1: Manage ponds that are easily accessible by the public and capable of supporting fish.

Strategy 1: Stock channel catfish every three to five years in ponds managed for fishing. Higher stocking rates (i.e., 30+ fish/acre) may be applied to ponds with easy access and heavy angling pressure. (Fisheries)

Strategy 2: Manage aquatic and pond-side vegetation to allow shore angling by limiting sediment and nutrient inputs, mowing, and when needed, targeted aquatic-herbicide applications. Promote beneficial aquatic plants, where appropriate and when possible, through seeding and transplants. (Fisheries)

Strategy 3: Through regular mowing or clearing, maintain pond dams devoid of trees and shrubs to minimize potential for leaking and associated negative impacts to fish habitat. (Fisheries, Wildlife)

Strategy 4: Control muskrat and beaver populations in fish ponds, where burrowing creates significant threat to the integrity of the dam or safety hazards on the dam. (Fisheries, Wildlife)

Strategy 5: Add at least one brush pile to each manageable pond, where cover is limited (i.e., no other brush piles or very limited submerged vegetation). Brush piles should be replaced, as needed, due to natural breakdown and loss of effectiveness over time. (Fisheries)

Management Objective 2: Protect and enhance stream corridors to improve water quality, promote stable stream banks, provide flood abatement, and increase habitat diversity.

Strategy 1: Evaluate buffer widths and conditions and provide recommendations to the area manager. Additional evaluations should be repeated every five years to account for changes in land management and area boundaries. (Fisheries)

Strategy 2: Maintain and/or establish 100-foot or wider vegetated buffers, pursuant to Missouri Department of Conservation (Department) guidelines (2009), on both sides of permanent and intermittent streams. Use a diversity of suitable trees and shrub species, as needed. Herbaceous vegetation is suitable for buffers along streams with channels that are not deeply incised. (Wildlife, Fisheries)

VII. Public Use Management Considerations

The primary public use on Grand Trace CA is deer and turkey hunting. Area ponds not near roads or parking lots receive low fishing pressure.

Challenges and Opportunities:

- 1) Grand Trace CA is managed primarily for upland wildlife species.
- 2) Primitive camping is allowed at one campground on the area. This area is used heavily during deer and turkey seasons with lighter use during summer holidays.
- 3) Deer hunting on Grand Trace CA is currently limited to the use of only archery and firearms any-deer permits to maintain stable to increasing deer densities.

Management Objective 1: Manage Grand Trace CA to provide quality hunting opportunities for white-tailed deer, eastern wild turkey, and small-game (e.g., rabbits, quail, squirrel, etc.). This will be accomplished while maintaining public use opportunities for other activities such as mushroom hunting, bird watching, and sightseeing.

Strategy 1: Annually review area regulations, particularly as they relate to deer hunting. (Wildlife, Protection)

Strategy 2: Maintain interior service roads to provide easy and unrestricted foot traffic by area users. (Wildlife)

Management Objective 2: Manage campgrounds to invite public use.

Strategy 1: Conduct routine litter patrols to keep the campground clean. (Wildlife)

Strategy 2: Work with other Department staff to ensure the gravel camping sites are kept in good repair. (Wildlife)

VIII. Administrative Considerations:

Grand Trace CA is within the Grand River Grasslands Grassland/Prairie/Savanna Conservation Opportunity Area, which may result in additional administrative duties pertaining to project development, management emphasis, land acquisition, reporting, etc.

Challenges and Opportunities:

- 1) The Grand Trace CA is bordered by approximately 0.1 miles of state Highway F and approximately 1.7 miles of county roads. Additional administrative duties may result from working with state and local Harrison County governments in maintaining these road right of ways.
- 2) There are approximately 0.6 miles of Department owned gravel roads on the Grand Trace CA. Continued maintenance of these graveled access roads is important for providing quality public access.
- 3) There are approximately 9 miles of shared boundaries between the Department and neighboring landowners.

Management Objective 1: Maintain Department-owned graveled public access roads and parking lots.

Strategy 1: Continually evaluate condition of roads and parking lots on area and repair when necessary. (Wildlife, Design and Development)

Management Objective 2: Work with neighboring landowners to ensure the maintenance of adequate boundary fencing.

Strategy 1: Maintain a good relationship with neighboring landowners by allowing open communication to reduce and eliminate trespass issues as they occur.

Lands Proposed for Acquisition:

When available, adjacent land may be considered for acquisition from willing sellers. Tracts that improve area access, provide public use opportunities, contain unique natural communities and/or species of conservation concern, or meet other Department priorities, as identified in the annual Department land acquisition priorities, may be considered.

MANAGEMENT TIMETABLE

Strategies are considered ongoing unless listed in the following table:

	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27
Aquatic Resource Management										
<i>Objective 1</i>										
Strategy 1		X			X					
<i>Objective 2</i>										
Strategy 1					X					

APPENDICES

Area Background:

The Department initially purchased Grand Trace Conservation Area (CA) in 1979. The area is rich in Native American history. Native American hunting camps were common here and trails crisscrossed this wild and beautiful country. One main trail, the Grand Trace Trail, connected the small seasonal villages of the area with the St. Louis trading center, located at the confluence of the Missouri and Mississippi rivers.

Because of its size, diversity and location, Grand Trace CA is managed for a wide range of wildlife species. Management activities on the area include prescribed burning, native prairie restoration, woodland thinning, and food plots.

Current Land and Water Types:

Land/Water Type	Acres	Feet	% of Area
Woodland	553		36
Forest	348		22
Savanna	335		22
Old Field	286		19
Ponds	4		<1
Total	1,526		100
Stream Frontage		11,600	

Public Input Summary:

The draft Grand Trace Conservation Area Management Plan was available for a public comment period July 1–31, 2017. The Missouri Department of Conservation received comments from two respondents (Appendix A). The Grand Trace Conservation Area Planning Team carefully reviewed and considered these ideas as they finalized this document. A brief summary of public input themes, including how they were incorporated or why they were not, can be found below. Rather than respond to each individual comment, comments are grouped into general themes and are addressed collectively.

Department responses to themes and issues identified through the Grand Trace Conservation Area Management Plan public comment period.

Suggests allowing horseback riding and developing a 10-12 mile multi-use trail system.

The establishment of a multi-use trail would increase area maintenance and enforcement requirements such as erosion control, litter patrols, unauthorized trail use, and the potential spread and/ or introduction of invasive plant species. There are currently five conservation areas in the

Northwest Region that have multi-use trails allowing equestrian use (Riverbreaks CA, Honey Creek CA, Bonanza CA, Bunch Hollow CA, and Poosey CA). In addition, Crowder State Park (Missouri Department of Natural Resources) and Mozingo Lake (owned by the City of Maryville) have horse trails open to public use. Given that there are currently seven other public multi-use trails allowing equestrian use within the Northwest Region, and the increase in maintenance and enforcement that a new trail would require, the planning team does not recommend developing an equestrian trail on Grand Trace CA.

References:

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

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

Maps:

Figure 1: Area Map

Figure 2: Grand Trace CA Cover Types

Figure 3: Grand River Grassland – Grassland Prairie Savanna Conservation Opportunity Areas

Figure 4: Grand Trace CA Fishable Ponds

Additional Appendices:

Appendix A: Grand Trace Conservation Area Management Plan Public Comments

Figure 1: Area Map

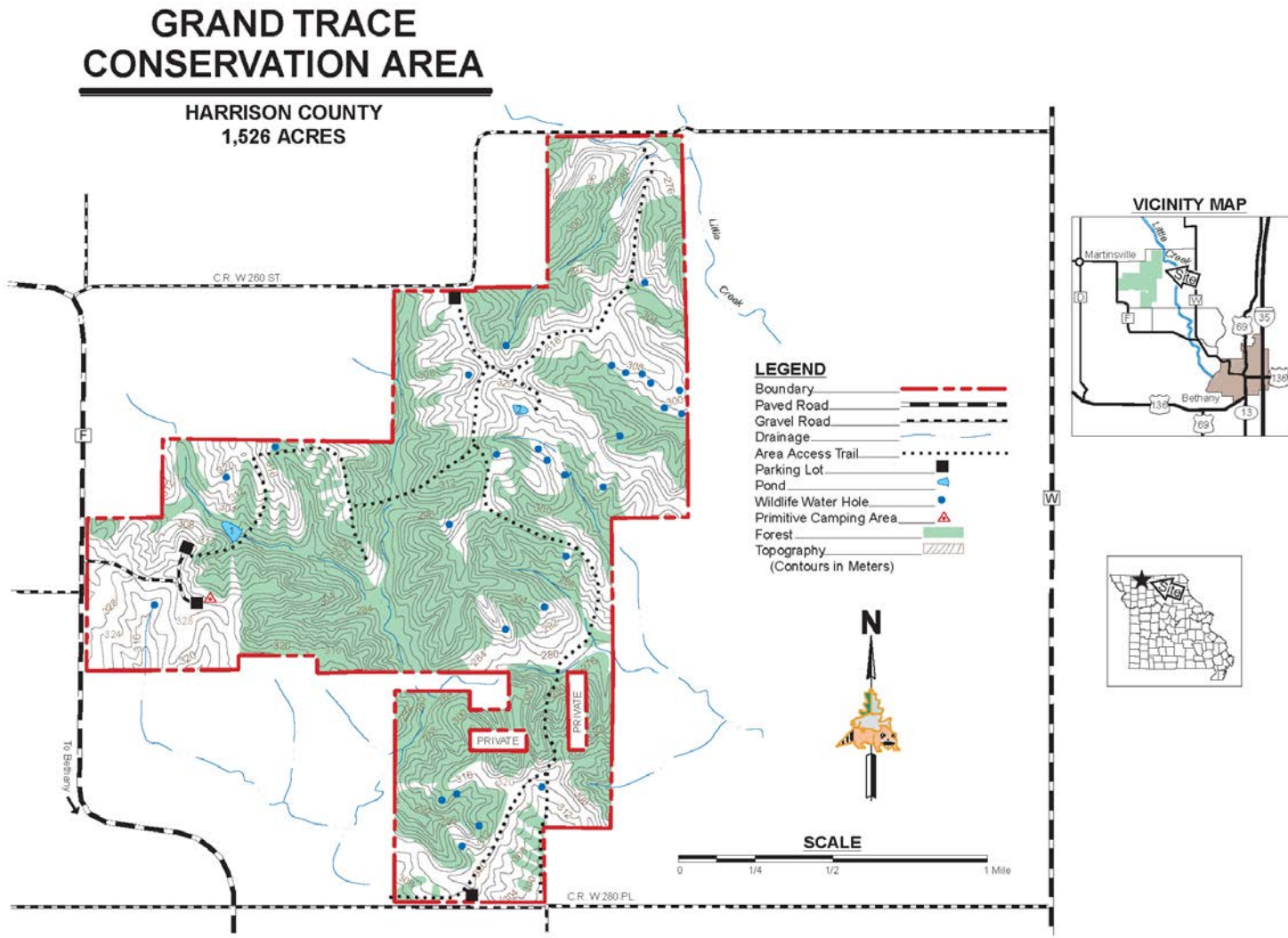


Figure 2: Grand Trace CA Cover Types

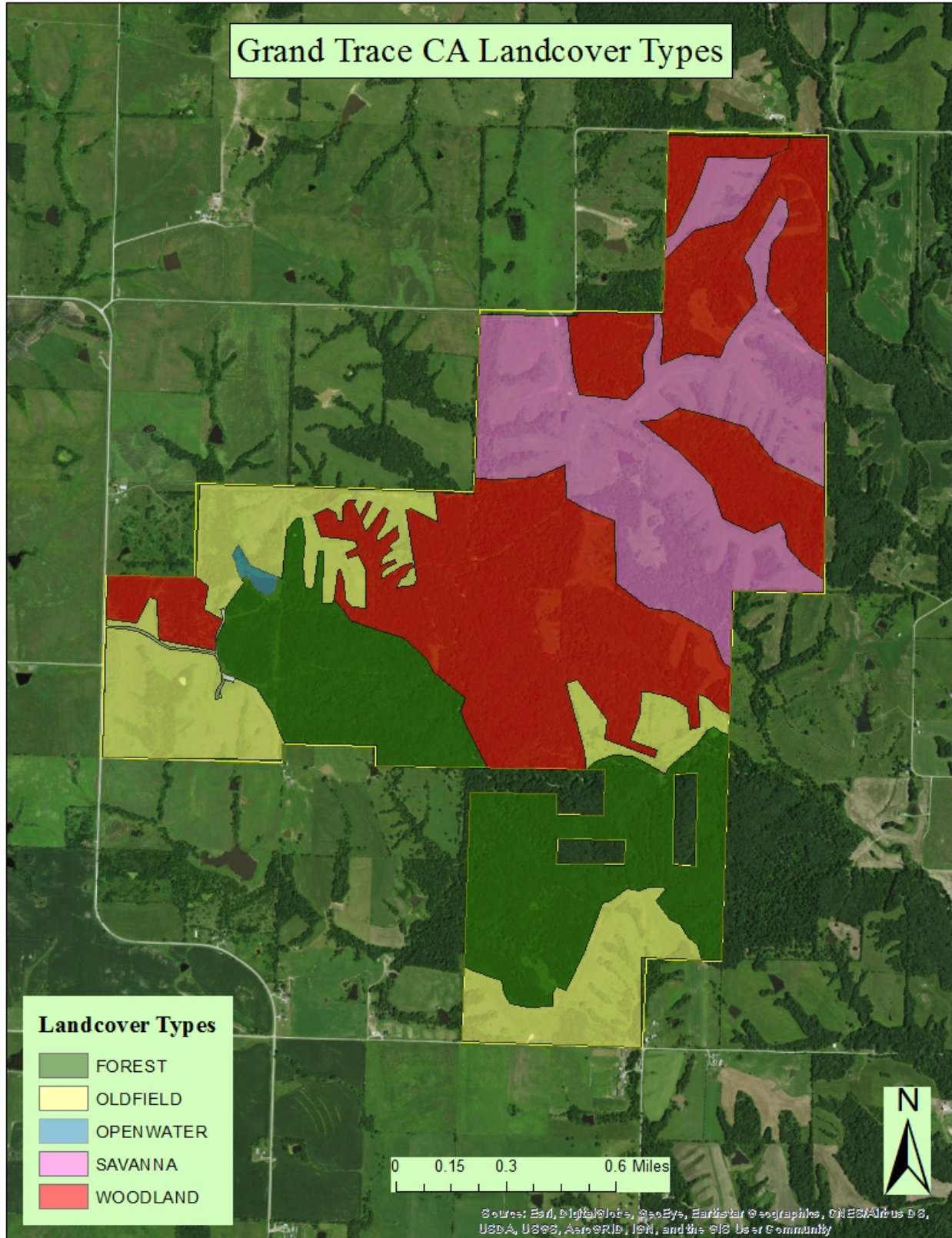


Figure 3: Grand River Grassland - Grassland/Prairie/Savanna Conservation Opportunity Area

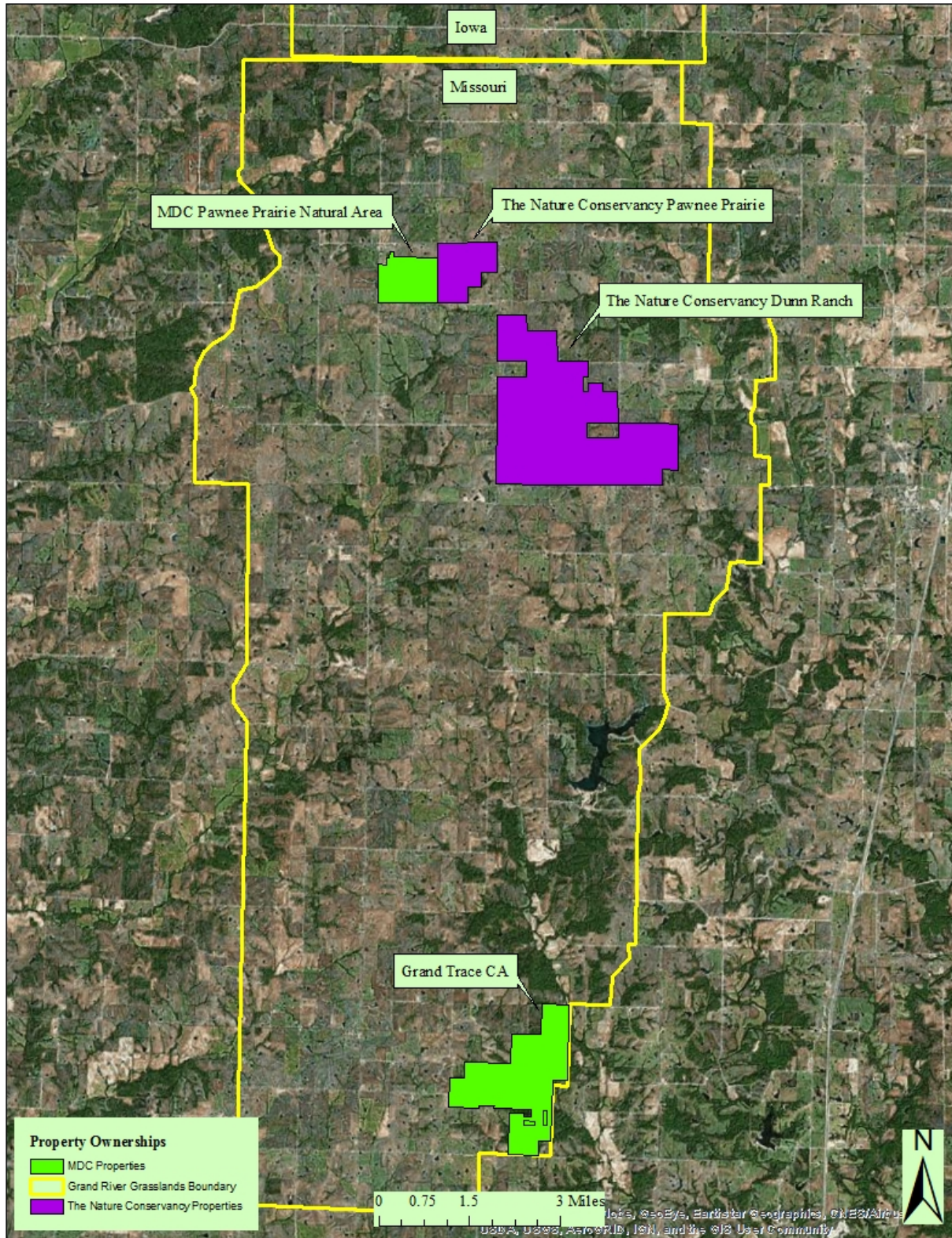
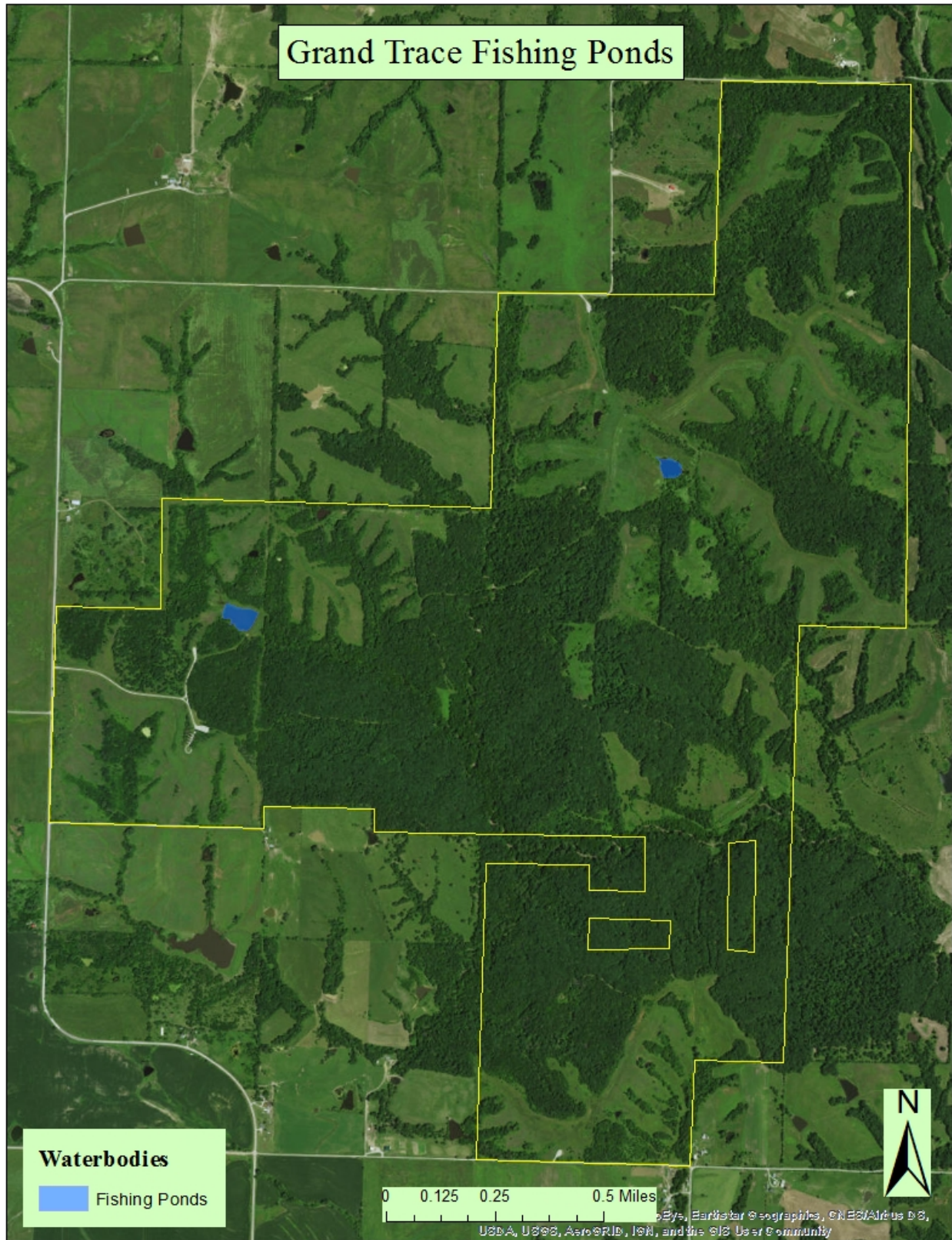


Figure 4: Grand Trace CA Fishable Ponds



Appendix A: Grand Trace Conservation Area Management Plan Public Comments

Received during public comment period (July 1–31, 2017):

I WOULD LOVE TO HAVE ACCESS TO GRAND TRACE FOR TRAIL RIDING WITH MY HORSES!

First, thank you for the opportunity to comment on the Grand Trace CA Draft Management Plan. Equestrian trail riders in Harrison County and adjoining counties are underserved with respect to public land riding opportunities. In fact the nearest MDC land which allows equestrian use is Poosey CA; Poosey is 50 miles from Grand Trace, even farther from northern Harrison County. Crowder State Park, near Trenton, is over 40 miles from Grand Trace, and only 8.6 miles of trails are available. To address this lack of opportunity Grand Trace CA is on a priority list of Conservation Areas recommended for multi-use trail development in the 2015 “Expanding Public Land Multi-Use Trails in Missouri” proposal by Back Country Horsemen of Missouri. This is consistent with the purpose of providing outdoor recreation opportunities as stated in the draft plan Statement of Purpose, Strategic Direction, and it is consistent with the mission of MDC—“to facilitate and provide opportunity for all citizens to use, enjoy, and learn about these (fish, forest, and wildlife) resources.” I wish to make the point that equestrian access would greatly enhance opportunity for citizens not currently well served by Grand Trace CA: elderly persons, small children, and persons with physical challenges that make walking any distance difficult or impossible.

Grand Trace CA exhibits most desirable characteristics for development of a multi-use trail system. The CA is of adequate size for development of a minimum of 10-12 miles of trails. Topography and landscape (predominantly upland), a variety of cover types, and a minimum of conflicting uses also represent positive features. The location, off Missouri Route F, would provide safe and convenient access to the CA via hard surface roads.

BCHMO offers our services (availability of volunteers permitting) to help decide on the best location and then clear and mark the trails. We further offer to assist the Area Manager to develop a partnership with local trail users to assist with development and maintenance with the trails and associated infrastructure.

Thank you again for the opportunity to comment.