

# Baltimore Bend Conservation Area

## 25-Year Area Management Plan FY 2020-2044



Justine Gartner

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**Forestry Division Chief**

7/17/2019

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**Date**

## Baltimore Bend Conservation Area Management Plan Approval Page

### PLANNING TEAM

David Doyle, Resource Forester

Tom Foster, Fisheries Specialist

Joe Coy, Wildlife Management Biologist

Steve Hoel, Private Land Conservationist

Justin Pyburn, Conservation Agent

Cynthia Green, Education Specialist

Krista Noel, Natural History Biologist

Pam Lanigan, Fisheries Regional Supervisor

### KANSAS CITY REGION

RCT Chair

Chris Theis

7/15/2019

\_\_\_\_\_  
*Signature*

\_\_\_\_\_  
*Date*

### FORESTRY DIVISION

Forest Management Chief

John Tuttle

7/18/2019

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*Signature*

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*Date*

## OVERVIEW

- **Official Area Name:** Baltimore Bend Conservation Area, #8620
  - **Year of Initial Acquisition:** 1986
  - **Acreage:** 1,202 acres
  - **County:** Lafayette
  - **Region:** Kansas City
  - **Division with Administrative Responsibility:** Forestry
  - **Division with Maintenance Responsibility:** Forestry
  - **Statements of Purpose:**
    - A. **Strategic Direction**

Manage the forest, wildlife, and aquatic resources with emphasis on wildlife habitat, forest products, and compatible recreation.
    - B. **Desired Future Condition**

The desired future condition of Baltimore Bend Conservation Area (CA) is a healthy forest complex with open grasslands providing improved habitat for a wide range of aquatic and terrestrial species.
- Federal Aid Statement**  
N/A

## GENERAL INFORMATION AND CONDITIONS

- I. **Special Considerations**
  - A. **Priority Areas:** None
  - B. **Natural Areas:** None
- II. **Important Natural Features and Resources**
  - 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. **High-Quality Natural Communities:** None
  - C. **Caves:** None
  - D. **Springs:** None
  - E. **Other:** Loess Cap Ridges are found throughout the property. Loess soil is a very fertile, highly erodible silt loam soil. Loess Cap Ridges can be found along the Missouri River and date back to the last ice age.
- III. **Existing Infrastructure**
  - Five parking lots
  - Four fishless ponds, total 1 acre

- One shed

#### 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:**

- Right of way easements are held by Amoco Pipeline Company, Missouri Pacific Railroad, and State of Missouri (Highway 24 right of way).
- Jeff Campbell, who owns a 17-acre inholding, holds an access easement.
- The Missouri Department of Conservation (MDC) gave four landowners who farmed the bottomlands north of the area a surveyed road easement. The U.S. Fish and Wildlife Service now owns the bottomlands and holds the easements.
- Mineral rights on a portion of the area were deeded in 1912. Due to the depth of soil in this area, it does not appear that mining (primarily coal) would be practical and thus management should not be affected.

**D. Cultural Resources:** Yes, records kept with MDC environmental compliance coordinators. Managers should follow best management practices for cultural resources found in the MDC Resource Policy Manual.

**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:** None

### MANAGEMENT CONSIDERATIONS

#### V. Terrestrial Resource Management Considerations

**Challenges and Opportunities:**

- 1) The 977 acres of forest on Baltimore Bend CA allow for management of natural communities and showcases sustainability and quality forest products.
- 2) Much of the open land habitat is terraced with a complex of native grass and idle agriculture fields. The agriculture fields are disked and planted in cover crop until tree plantings and native grasses are established.
- 3) Invasive plants are an ongoing problem on the area. Autumn olive, sericea lespedeza, and tall fescue are well established in some fields. There are small pockets of bush honeysuckle, burning bush, wild parsnip, and teasel on the area as well.

- 4) Forest management is limited on portions of the area due to steep terrain, highly erodible loess soil, and limited access.
- 5) Several of the forested stands are cloaked with dense vines of raccoon grape. This presents a concern for natural forest regeneration in past and future timber harvests.

**Management Objective 1: Maintain a diverse forest with management emphasis on providing quality wildlife habitat and improving forest health.**

Strategy 1: Inventory forest according to the inventory schedule to develop prescriptions for ecological and silvicultural treatment. Compartment 1 (226 acres with 224 acres forested) will be inventoried in 2020, 2030, and 2040.

Compartment 2 (708 acres with 564 acres forested) will be inventoried in 2025 and 2035. Compartment 3 (220 acres with 209 acres forested) will be inventoried in 2020, 2030, and 2040. (Forestry)

Strategy 2: Monitor forest for invasive vegetation, diseases, and insects. Suppress any infestations that may develop. (Forestry)

Strategy 3: Utilize a variety of sustainable forest management techniques to promote healthy forest and woodland communities including, but not limited to, timber harvesting, timber stand improvement, firewood cutting, salvage cuttings, tree planting, seeding, and prescribed burning. (Forestry)

Strategy 4: Maintain a diversity of timber age classes that will provide both a diversity of wildlife habitat as well as resiliency to living and non-living (fire, weather, and climate) damaging agents. (Forestry)

Strategy 5: Utilize best management practices during forest management, as described in MDC's *Missouri Watershed Protection Practice* manual (MDC, 2014b) and the *Missouri Forest Management Guidelines: Voluntary Recommendations for Well-Managed Forests* (MDC, 2014a). (Forestry)

Strategy 6: Monitor forest regeneration in harvested stands. (Forestry)

Strategy 7: Manage for the next forest in previously harvested stands by conducting timber stand improvement addressing vine control.

**Management Objective 2: Mitigate runoff and erosion.**

Strategy 1: Loess soils are easily erodible and will need to be monitored regularly for any soil loss. (Forestry)

Strategy 2: Implement and maintain beneficial riparian corridor practices, as outlined in MDC's *Watershed and Stream Management Guidelines for Lands and Waters Managed by Missouri Department of Conservation* (MDC, 2009). (Forestry)

Strategy 3: Manage open land according to sound soil conservation principles. (Forestry)

**Management Objective 3: Provide food and cover for wildlife and maintain early successional vegetation for a variety of wildlife species.**

Strategy 1: Evaluate all open land for conversion to permanent cover. (Forestry)

Strategy 2: Utilize open fields for wildlife management. (Forestry)

Strategy 3: Manage early successional old fields and existing stands of planted native grasses and forbs using a variety of management techniques including, but not limited to, prescribed fire, mechanical, and chemical treatments, to maintain diverse vegetative habitats. Rotate management units to provide adequate habitat during management activities. (Forestry)

Strategy 4: Annually monitor and control invasive species, where possible, using management techniques including, but not limited to, prescribed fire, mechanical, and chemical treatments. (Forestry)

**VI. Aquatic Resource Management Considerations:**

**Challenges and Opportunities:**

- 1) There are three large ponds, greater than 1 acre in size, on this area; there are also four smaller ponds of less than 1 acre. While none of these ponds are suitable for a managed fishery since they are all less than 6 feet in depth, they all contain fish
- 2) Many amphibian species will not successfully breed in ponds that have fish in them. The lack of ephemeral or fishless ponds on an area often limits the ability of these species to thrive.
- 3) The forested riparian corridors along the streams are adequate in most places. Very few areas are in need of enhancement.

**Management Objective 1: Maintain pond structures for adequate water retention.**

Strategy 1: Where access allows, control vegetation on pond dams to prevent future damage. (Forestry)

**Management Objective 2: Maintain and protect a healthy watershed by implementing best management practices.**

Strategy 1: Follow *Watershed and Stream Management Guidelines for Lands and Waters Managed by Missouri Department of Conservation* (MDC, 2009) and the MDC Resource Policy Manual to ensure that all management activities adhere to best management practices. (Forestry, Fisheries)

Strategy 2: Document and map key areas in need of riparian corridor enhancement to help reduce streambank erosion, excessive sedimentation, and nutrient loading to the streams. (Fisheries)

Strategy 3: Expand the forested riparian zone where needed by conducting tree/shrub plantings, direct seeding or allowing natural regeneration in identified areas. (Forestry, Fisheries)

**Management Objective 3: Provide suitable pond habitat for amphibians and reptiles.**

Strategy 1: Chemically renovate ponds with unbalanced or undesirable fish communities by FY20. Ponds will be maintained as fishless to promote amphibian, reptile, and/or other wildlife management. (Fisheries)

**VII. Public Use Management Considerations**

**Challenges and Opportunities:**

- 1) This area provides good opportunities to the public for hunting and wildlife viewing near a major metropolitan area.
- 2) Opportunities exist to improve educational opportunities on the area.
- 3) The conservation area consists of two disconnected pieces.

**Management Objective 1: Manage for turkey, deer, quail, rabbit, and squirrel habitat to provide quality hunting opportunities.**

Strategy 1: Continue to manage for natural communities using management techniques including but not limited to prescribed fire, mechanical and chemical methods, and forest thinning. (Forestry)

Strategy 2: Continue to search for and treat invasive species throughout the area. (Forestry)

**Management Objective 2: Improve educational and interpretive opportunities.**

Strategy 1: Include amphibian habitat information on area bulletin boards to educate the public. (Forestry, Fisheries)

Strategy 2: Provide areas for field trips for schools and groups, when not in conflict with hunting seasons or other area users. (Forestry, Outreach and Education)

Strategy 3: Place signage where significant management activity has occurred to inform area users about resource management practices. (Forestry)

Strategy 4: Consider providing demonstration areas of resource management for landowners. (Forestry, Private Land Services)

**Management Objective 3: Cooperatively patrol the area and report unauthorized activities.**

Strategy 1: Regularly patrol and enforce the *Wildlife Code of Missouri*, with emphasis on vandalism, littering, and response to public complaints. (Protection, Forestry)

**Management Objective 4: Inform public about area regulations.**

Strategy 1: Maintain signs according to MDC policy. (Forestry)

Strategy 2: Maintain accurate and timely information on MDC public website.

Review information annually. (Forestry)

**VIII. Administrative Considerations**

**Challenges and Opportunities:**

- 1) The southern portion of this area is only accessible by foot from parking lots on the north end of the property.
- 2) Opportunities exist to improve and maintain area access along previously used access points.
- 3) Neighboring landowners have a high interest in the area and its management.
- 4) The eastern portion of the area includes a four-sided inholding that must be buffered from any management and recreational use.
- 5) The western portion is separated from the eastern portion by approximately 1/8 of a mile or approximately 700 feet.

**Management Objective 1: Maintain area infrastructure at current levels.**

Strategy 1: Maintain area infrastructure in accordance with MDC guidelines. (Forestry)

Strategy 2: Keep roadways, landings, and area access trails open by mowing regularly. (Forestry)

**Management Objective 2: Maintain area boundaries and the “no shooting” zone around the private residence in-holding.**

Strategy 1: Improve and maintain clearly identifiable boundaries through signs and paint to minimize boundary and trespass issues with neighbors. (Forestry)

Strategy 2: Inspect and maintain boundaries on a regular cycle. (Forestry)

Strategy 3: Resolve boundary issues with adjoining landowners as they arise. (Forestry)

Strategy 4: Promote habitat management on neighboring landowner properties. (Private Land Services)



**Management Objective 3: Build good relationships with neighboring landowners.**

Strategy 1: Communicate with neighbors as needed to share planned management activities, changes to infrastructure, and outreach opportunities. (Forestry)

Strategy 2: Maintain an understanding of access agreements with all easement holders. (Forestry)

**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 MDC priorities, as identified in the annual MDC land acquisition priorities, may be considered.



## APPENDICES

### Area Background:

Baltimore Bend Conservation Area (CA) consists of 1,202 acres located 3 miles west of Waverly, Missouri on Highway 24 in Lafayette County. The area lies north of Highway 24 and south of the Missouri River. The Lewis and Clark expedition and the early riverboat traffic of the 1800s were a part of the early area history. One such riverboat was called the Baltimore. The vessel found its final resting place against an island in a bend of the river between Dover and Waverly. Since that time, this island has been called Baltimore Island and the bend in the river called Baltimore Bend.

In November 1986, MDC purchased 453 acres from Ronald L Pfost of Overland Park, Kansas. At the same time, additional acres were purchased, including Phoenix Mutual (262 acres), American Bank of Higginsville (110 acres), and the First National Bank of Carrollton (69.1 acres). In July 1988, 80 acres were purchased from Geraldine Perry of Kansas City, Missouri. In May 1989, 128 acres were purchased from James and Delma Petet of Waverly, Missouri. In July 1996, 90 acres were purchased from Whelma Cramer of Lexington, Missouri. In May 2004, 10 acres were purchased from Matthew and Sherry Thorp of Waverly, Missouri.

### Current Land and Water Types:

Land/Water Type	Acres	% of Area	Miles
Forest and Woodland	977	81	
Grassland	105	9	
Open Land	80	7	
Savanna	30	2	
Impounded Water	5	<1	
Infrastructure (roads and parking lots)	5	<1	
<b>Total</b>	<b>1,202</b>	<b>100</b>	
Stream Frontage (intermittent stream)			4

### Public Input Summary:

The draft Baltimore Bend Conservation Area Management Plan was available for a public comment period May 1-31, 2019. MDC 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, MO: Missouri Department of Conservation.

Missouri Department of Conservation. (2014a). *Missouri forest management guidelines: Voluntary recommendations for well-managed forests*. Jefferson City, MO: Conservation Commission of the State of Missouri.

Missouri Department of Conservation. (2014b). *Missouri watershed protection practice recommended practices for Missouri forests: 2014 management guidelines for maintaining forested watersheds to protect streams*. Jefferson City, MO: Conservation Commission of the State of Missouri.

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: Easement Map

Figure 3: Topographic Map

Figure 4: Forest Compartment Map

Figure 5: Land Cover Map

Figure 1: Area Map

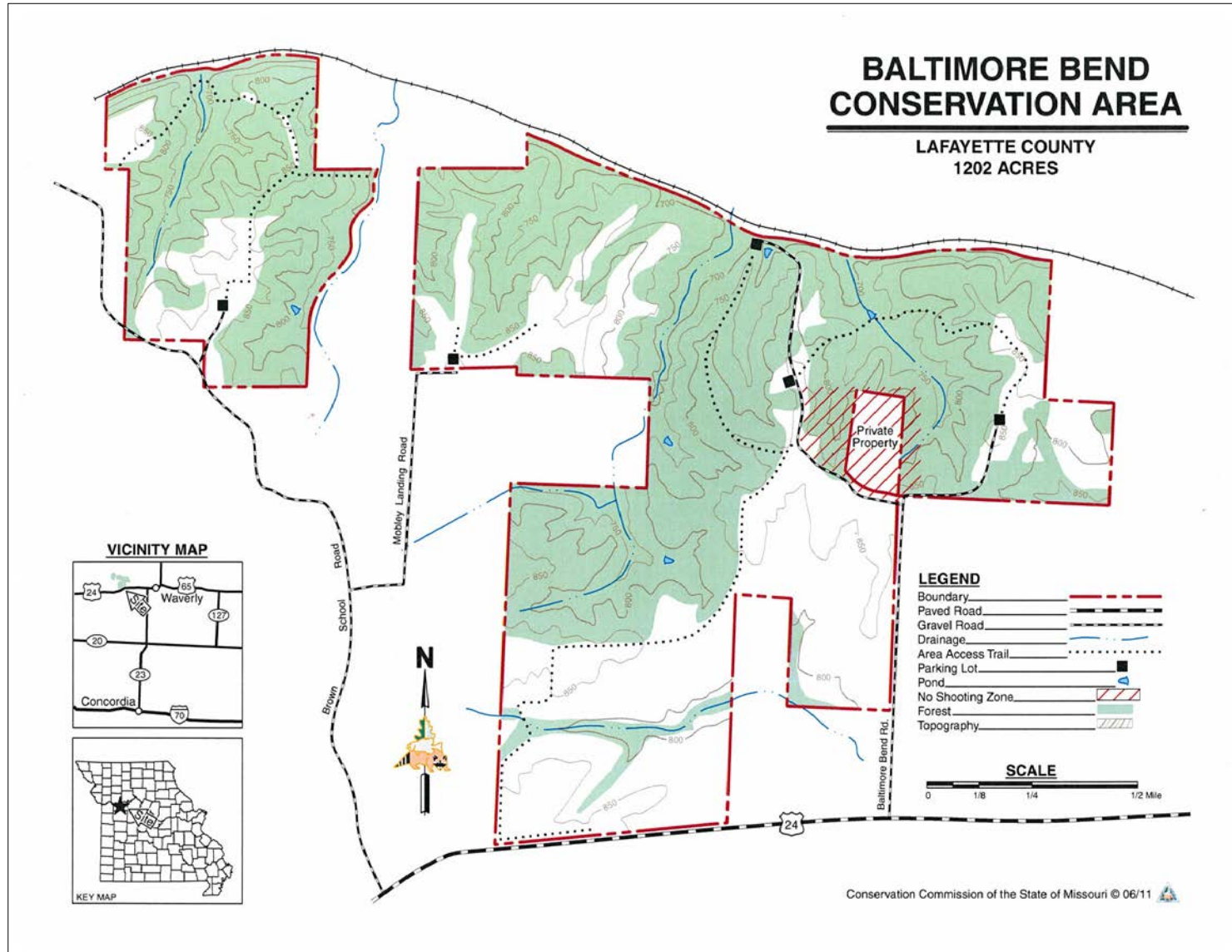


Figure 2: Easement Map

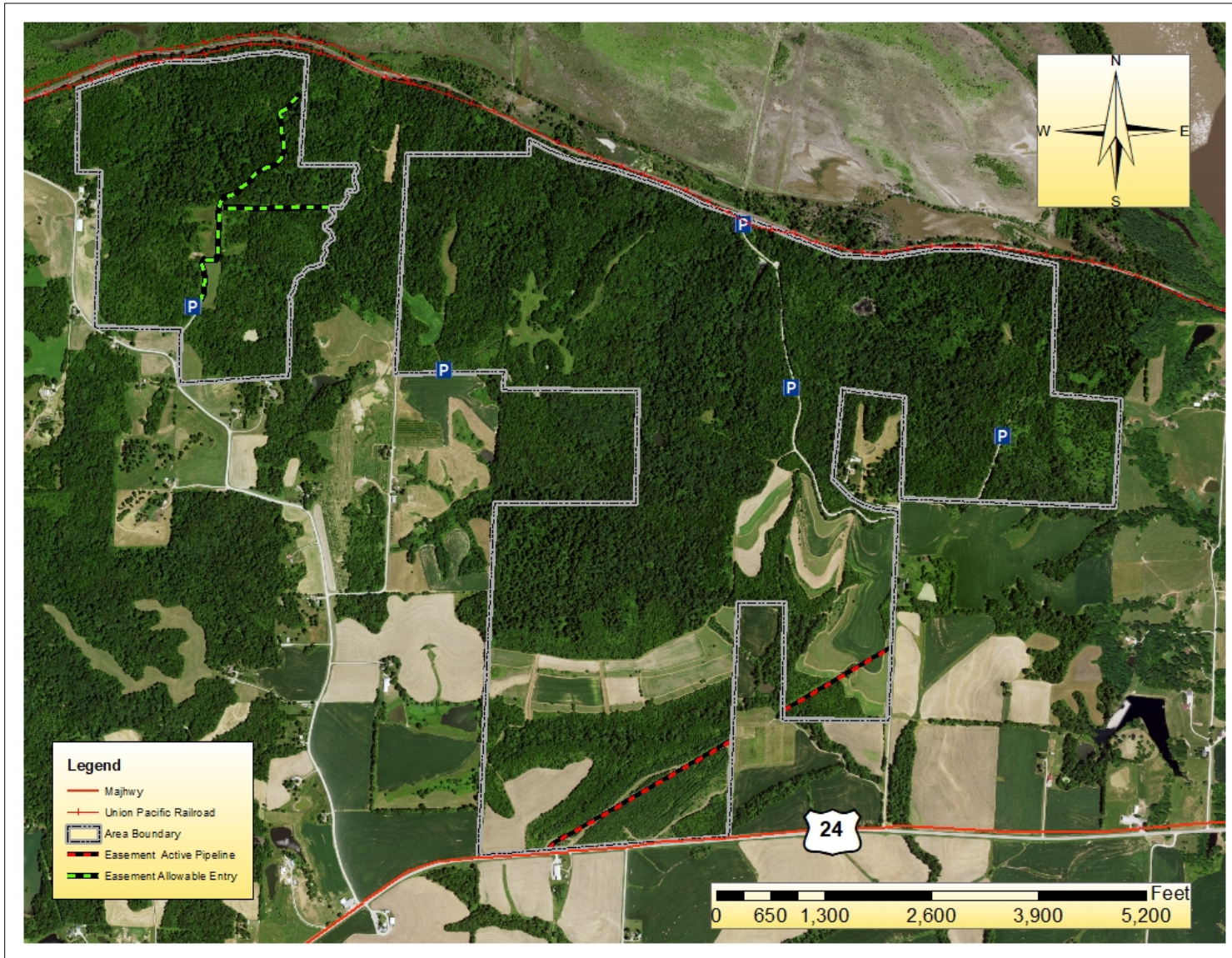


Figure 3: Topographic Map

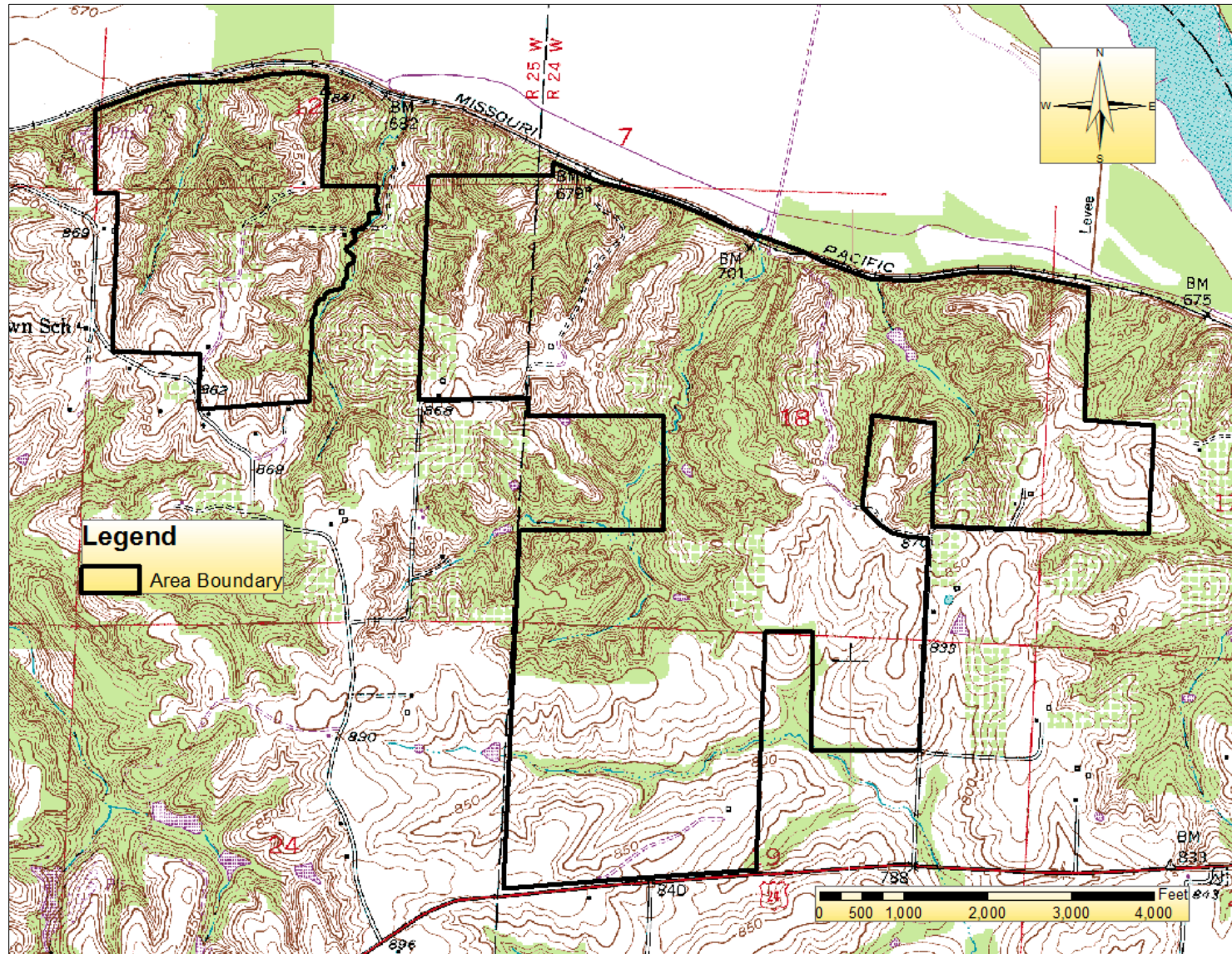


Figure 4: Forest Compartment Map

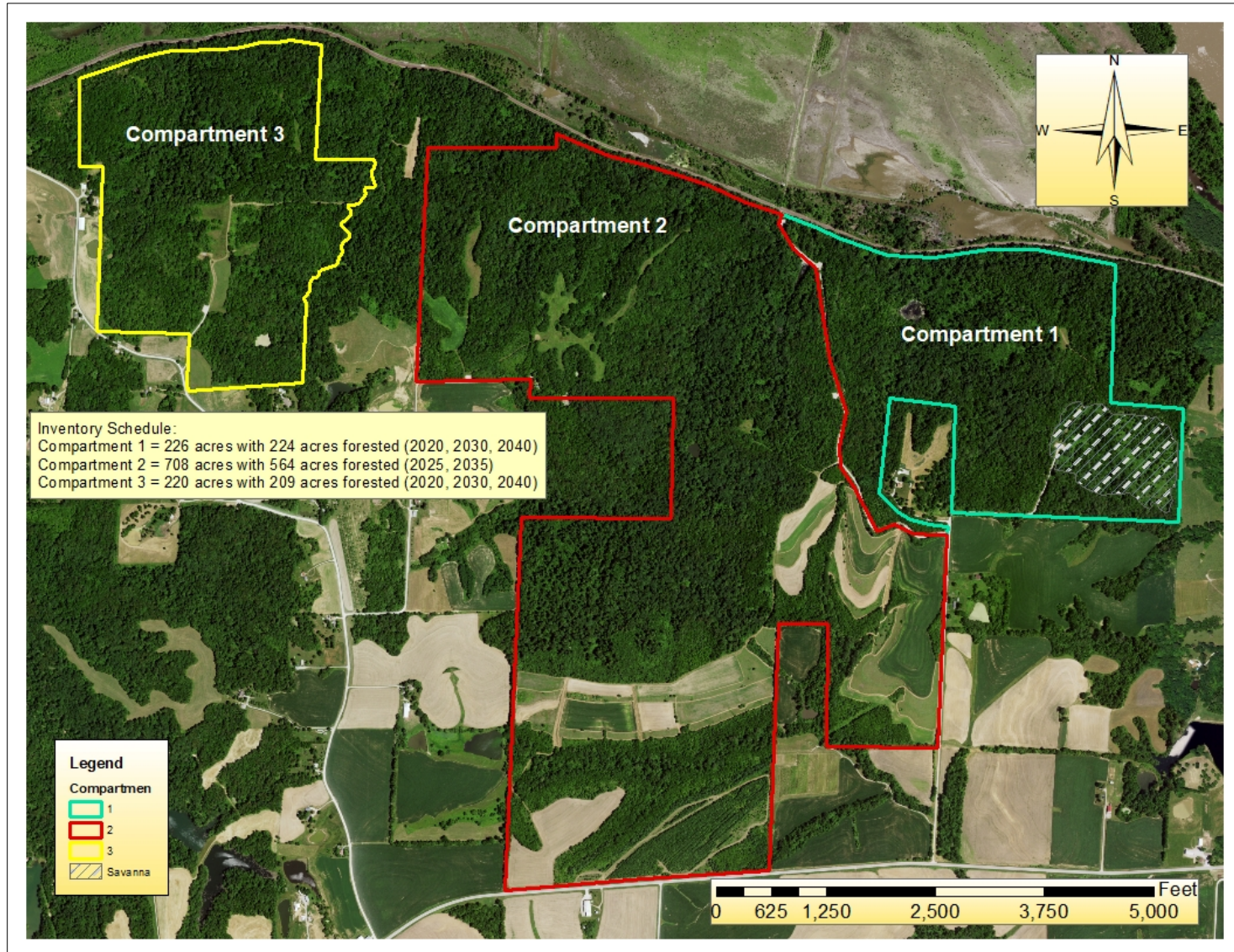




Figure 5: Land Cover Map

