

Hayes Spring Conservation Area

Fifteen-Year Area Management Plan FY 2018-2032



Isa B. Allen
Forestry Division Chief

3-28-18
Date

Hayes Spring Conservation Area Management Plan Approval Page

PLANNING TEAM

Ashley Schnake, Urban Wildlife Biologist

Dan Akin, Conservation Agent

John Miller, Interpretive Center Manager

Shane Bush, Fisheries Management Biologist

Andy Humble, Private Land Conservationist

Greg Cassell, Resource Forester

Rhonda Rimer, Natural History Biologist

SOUTHWEST REGION

RCT Chair

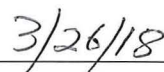

Signature


Date

FORESTRY DIVISION

Forest Management Chief


Signature


Date

OVERVIEW

- **Official Area Name:** Hayes Spring Conservation Area, #200520
- **Year of Initial Acquisition:** 2005
- **Acreage:** 104 acres
- **County:** Stone
- **Division with Administrative Responsibility:** Forestry
- **Division with Maintenance Responsibility:** Forestry
- **Statement of Purpose:**

A. Strategic Direction

Hayes Spring Conservation Area (CA) is managed for forested and mixed grassland natural communities and the species they support. Forests and fields are managed for game species, such as deer, turkey, quail, and squirrel, as well as many non-game species. Forests and streams are managed with best management practices to protect the Hayes Spring recharge area.

B. Desired Future Condition

The desired future condition of Hayes Spring CA is a healthy forest and native grass fields that support upland game and other associated wildlife species that provide hunting and nature viewing opportunities to the public. Continue the protection and management of the Hayes Spring recharge area to provide quality habitat for associated endangered species.

C. Federal Aid Statement

N/A

GENERAL INFORMATION AND CONDITIONS

I. Special Considerations

A. Priority Areas: Crane Creek and James River Priority Watersheds, Cave/Karst Conservation Opportunity Area #9

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. Caves: Yes, records kept with the Missouri Department of Conservation (Department) natural history biologist. Managers should follow the Cave Management policy found in the Department Resource Policy Manual. All caves on this and other conservation areas are closed or restricted to public access. The fungus

that causes White-nose Syndrome in bats has been documented in Missouri, resulting in the Department's White-nose Syndrome Action Plan that limits public access to protect bats.

C. Springs: Yes, records kept with Department natural history biologist.

D. Other: Occurs in the Ozark Highlands Section, Springfield Plains Subsection, James River Oak Savanna/Woodland Low Hills Landtype Association.

III. Existing Infrastructure

- One gravel parking lot
- Hiking trail, 0.5 miles
- Storage building

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: Stone County Road right of way. Ozark Electric Cooperative powerline right of way.

D. Cultural Resources: No known cultural resources.

E. Endangered Species: Endangered species are known from this area. Area managers should consult with Natural Heritage Database annually and all management activities 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

Challenges and Opportunities:

- 1) A forest inventory of the area has not been done. Most of the forest is located in the bottom of Dry Crane Creek and on the steep hillside adjacent to the creek.
- 2) Maintain forest health against possible introductions and/or spread of invasive insects and disease.

- 3) Invasive species, including serecia lespedeza, musk thistle, and fescue, have invaded the open lands on the area, and Japanese honeysuckle is present in some of the forested areas along the spring branch.
- 4) Maintain the mixed-grass open fields for upland game.

Management Objective 1: Maintain forest cover for wildlife and recreation.

Strategy 1: Protect forest from wildfire, insects, and disease. (Forestry)

Strategy 2: Conduct a forest inventory. (Forestry)

Management Objective 2: Monitor forest for insect and disease outbreaks.

Strategy 1: Forestry staff will monitor forested stands for insects and diseases as well as for invasive species on an on-going basis as regular area maintenance and boundary work is performed. (Forestry)

Strategy 2: Conduct forest management activities to manage any insect and disease issues as needed. (Forestry)

Management Objective 3: Reduce invasive vegetative species on the area to improve habitat quality.

Strategy 1: Annually assess invasive species and control using herbicides, mechanical removal, cultivation, and other cultural treatments. (Forestry, Wildlife)

Management Objective 4: Control woody plant encroachment in mixed grassland open fields.

Strategy 1: Conduct prescribed fire on a three-to-five-year basis. (Forestry, Wildlife)

VI. Aquatic Resource Management Considerations

Challenges and Opportunities:

- 1) Hayes Spring is located on the area and is known to contain a federally threatened species.
- 2) Hayes Spring CA contains approximately 0.6 miles of Dry Crane Creek and 0.2 miles of Hayes Springs Branch, perennial streams located in the Crane Creek watershed. Crane Creek was identified as a priority watershed by the Department in 2010.

Management Objective 1: Monitor populations of endangered/threatened species and maintain associated habitat on Hayes Spring CA.

Strategy 1: Monitor populations of endangered/threatened species every other year in coordination with Resource Science Division staff. (Fisheries, Resource Science)

Strategy 2: Implement beneficial land use practices while preventing adverse land use practices for the endangered/threatened species located on the property. (Forestry, Fisheries)

Management Objective 2: Implement appropriate watershed and karst best management practices on Hayes Spring CA.

Strategy 1: Conduct management activities on the area as needed, follow the best management practices to prevent soil erosion according to the *Missouri Watershed Protection Practice Recommended Practices for Missouri Forests: 2014 Management Guidelines for Maintaining Forested Watersheds to Protect Streams* (Missouri Department of Conservation, 2014). (Fisheries, Wildlife, Forestry)

Strategy 2: Maintain and improve the forested area in the cave recharge area and stream riparian areas. (Forestry)

Management Objective 3: Maintain and improve the natural stream function of Dry Crane Creek and its riparian area.

Strategy 1: Implement stream best management practices on all streams according to the Department's *Watershed and Stream Management Guidelines for Lands and Waters Managed by the Missouri Department of Conservation* (2009). (Fisheries)

Strategy 2: Maintain, enhance, or expand the riparian corridors of Dry Crane Creek to a minimum of 100 feet on both stream sides, where appropriate. (Forestry, Fisheries)

Strategy 3: Work with state and local road crews to improve road crossings to eliminate and prevent aquatic organism passage barriers by providing technical assistance and funding as available. (Fisheries)

VII. Public Use Management Considerations

Challenges and Opportunities:

- 1) Hayes Spring CA receives moderate public use in the form of small-game, deer, and turkey hunting; and hiking.

Management Objective 1: Maintain public access at the parking area.

Strategy 1: Perform regular parking lot maintenance, as needed, including grading, replacing gravel, and maintaining signs. (Forestry)

Management Objective 2: Ensure proper use by area visitors.

Strategy 1: Periodically patrol this access to ensure compliance with area regulations. (Protection)

Management Objective 3: Maintain nature study opportunities by area visitors.

Strategy 1: Maintain foot trail on the area. (Forestry)

Strategy 2: Provide interpretive signs to reinforce importance of protecting springs and surrounding habitat. (Outreach and Education)

VIII. Administrative Considerations

Challenges and Opportunities:

- 1) Maintain boundaries that are accurate and identifiable.
- 2) Consider land acquisition, when available.

Management Objective 1: Maintain boundaries annually.

Strategy 1: Maintain boundaries every five years or as needed by replacing boundary signs and demarcating boundary lines with blue paint. (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 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	FY28	FY29	FY30	FY31	FY32
Terrestrial Resource Management															
<i>Objective 1</i>															
Strategy 2	X														
<i>Objective 4</i>															
Strategy 1	X			X			X			X			X		
Aquatic Resource Management															
<i>Objective 1</i>															
Strategy 1	X		X		X		X		X		X		X		X
Public Use Management															
<i>Objective 3</i>															
Strategy 2	X														
Administrative Considerations															
<i>Objective 1</i>															
Strategy 1					X					X					

APPENDICES

Area Background:

Hayes Spring Conservation Area was acquired from a private landowner through purchase in 2005. The area contains Hayes Spring recharge area, which discharges into Dry Crane Creek. The area was acquired to protect the Hayes Spring recharge area and the associated habitat of the threatened species located on the property.

The area is currently open to hunting under statewide regulations. Habitat on the area is mostly upland and bottomland forest and grass fields.

Current Land and Water Types:

Land/Water Type	Acres	Miles	% of Area
Upland Forest	40		38
Bottomland Field	33		32
Bottomland Riparian Forest	23		22
Old Field /Upland Field	8		8
Total	104		100
Stream Frontage – Dry Crane Creek		0.6	
Stream Frontage – Hayes Spring Branch		0.2	

Public Input Summary:

The draft Hayes Spring Conservation Area was available for a public comment period June 1 – 30, 2017. 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 the Missouri Department of Conservation*. Jefferson City, MO: Missouri Department of Conservation.

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

Maps:

Figure 1: Area Map

Figure 2: Vicinity Map

Figure 3: Easement Map

Figure 4: Land Cover Map

Figure 1: Area Map

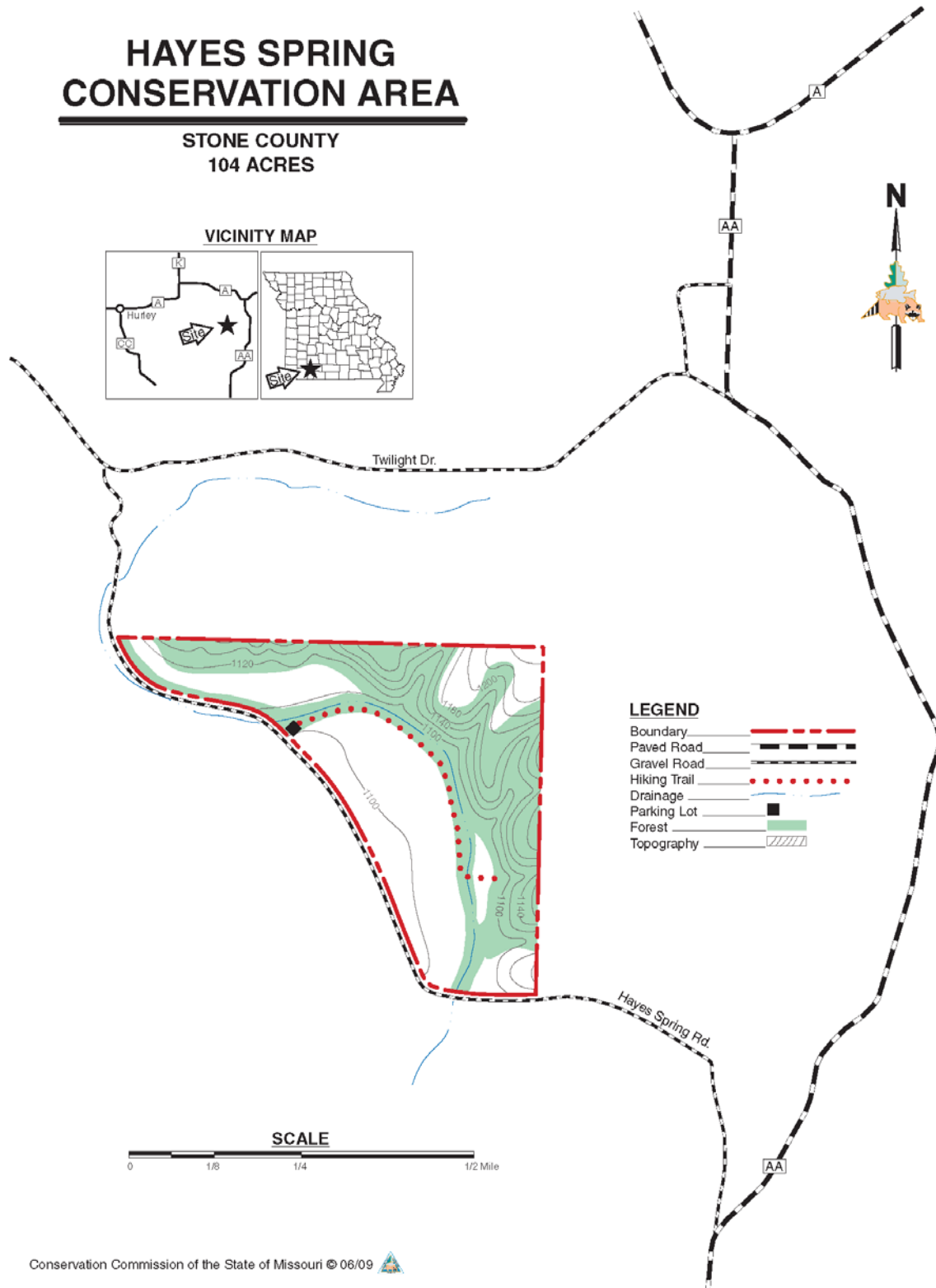


Figure 2: Vicinity Map

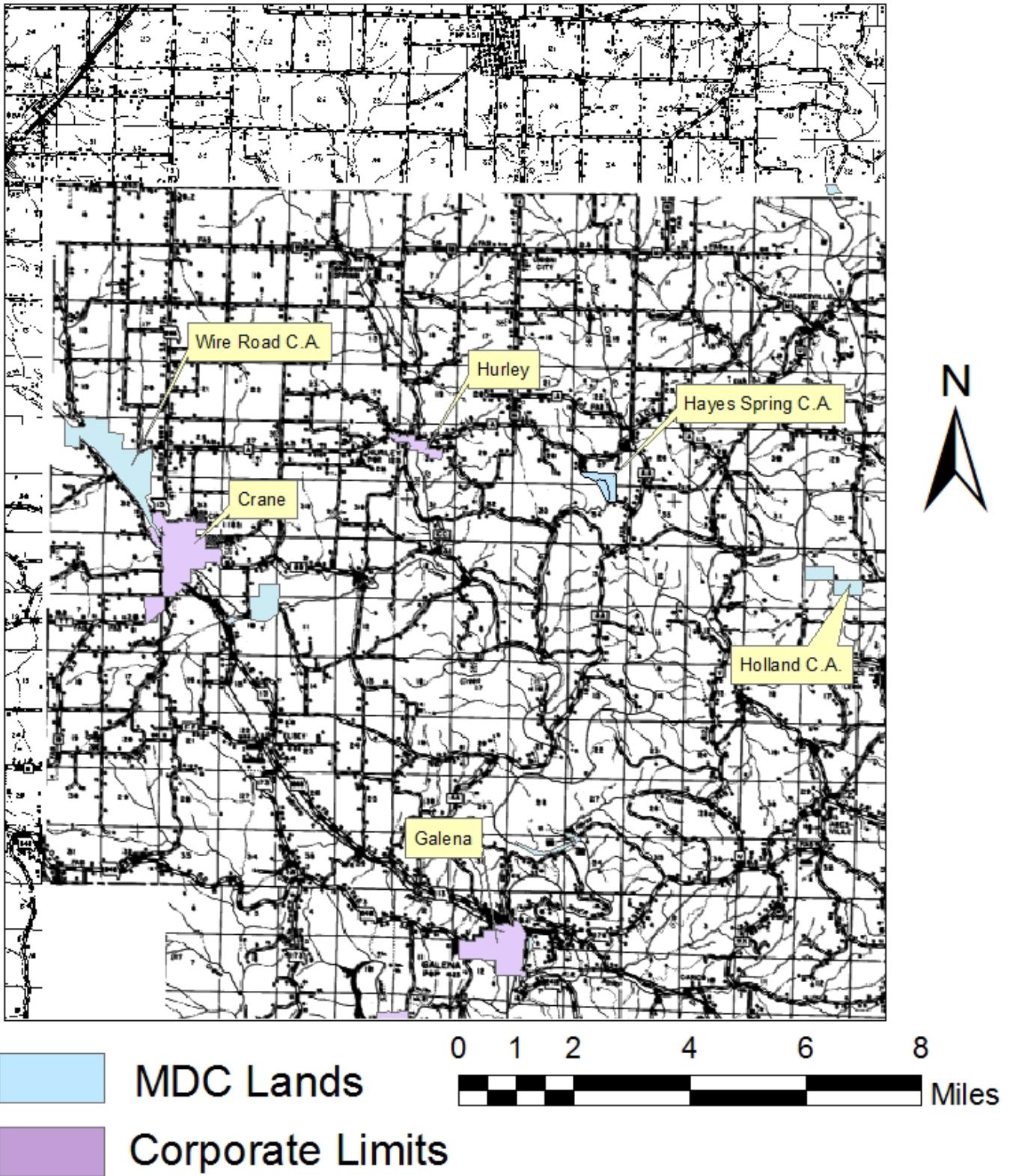


Figure 3: Easement Map

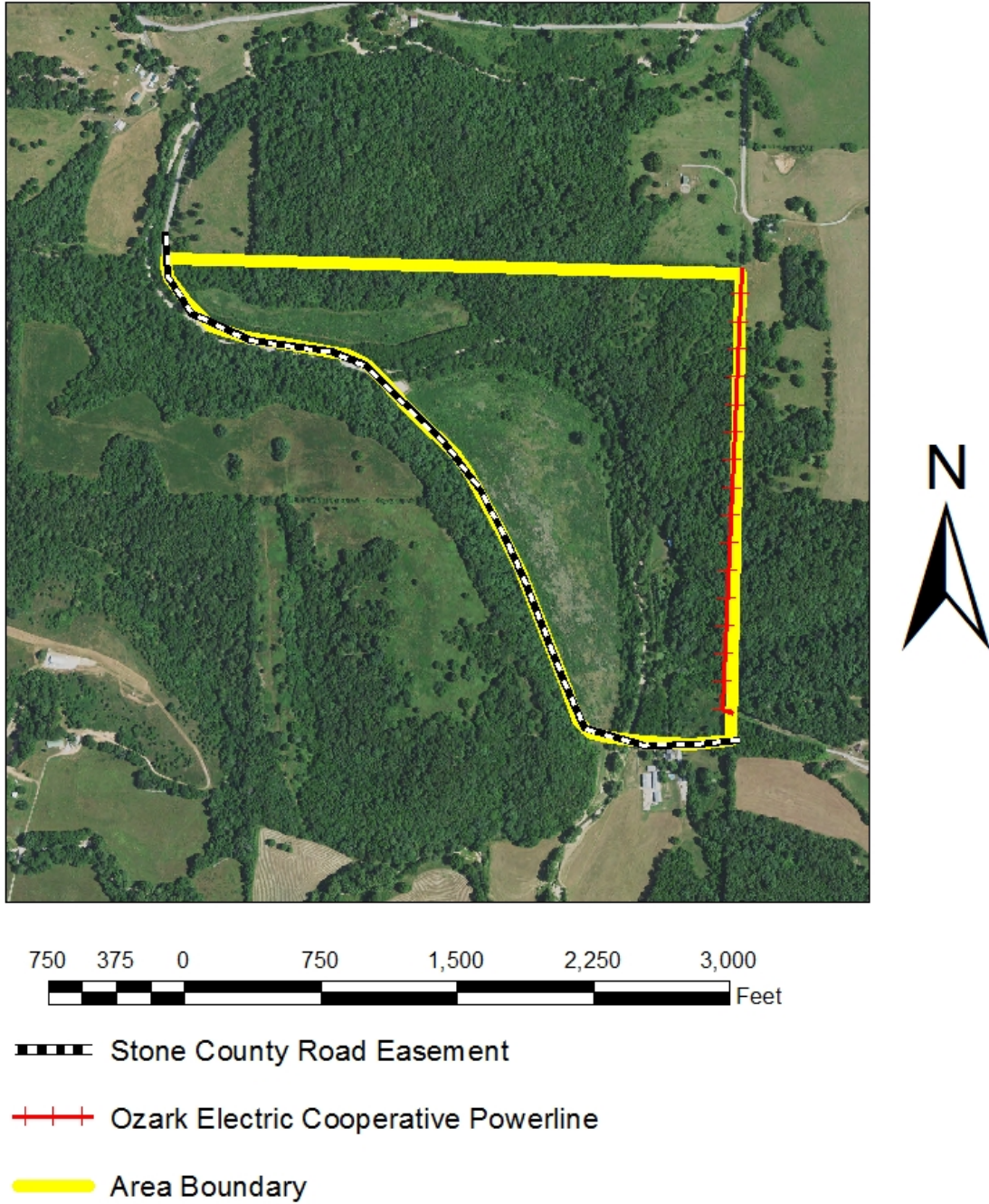
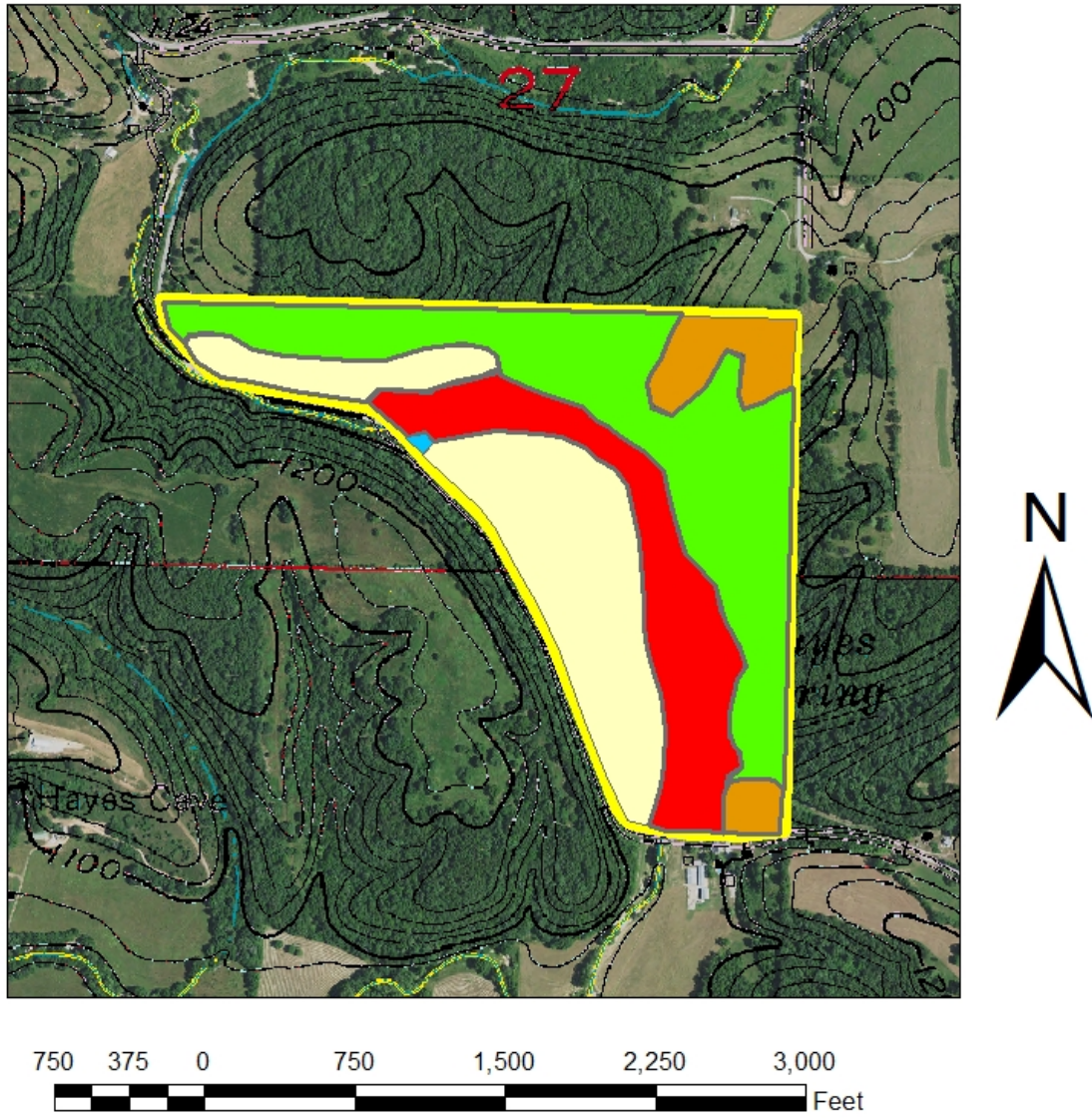


Figure 4: Land Cover Map



- Upland Forest
- Bottomland Field
- Bottomland Riparian Forest
- Old Field
- Parking Lot
- Area Boundary