

DRAFT

Busiek State Forest and Wildlife Area

**Ten-Year Area Management Plan
FY 2017-2026**



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OVERVIEW

- **Official Area Name and Number:** Busiek State Forest and Wildlife Area, #8109
- **Year of Initial Acquisition:** 1981
- **Acreage:** 2,701 acres
- **County:** Christian
- **Division with Administrative Responsibility:** Forestry
- **Division with Maintenance Responsibility:** Forestry
- **Statement of Purpose:**
 - A. Strategic Direction**

Busiek State Forest and Wildlife Area is managed for forest, woodland, and glade natural communities and the species they support.
 - B. Desired Future Condition**

The desired future condition of Busiek State Forest and Wildlife Area is a healthy forest, woodland, and glade landscape that supports upland game and other associated wildlife and plant species.
 - C. Federal Aid Statement**

N/A

GENERAL INFORMATION AND CONDITIONS

- I. Special Considerations**
 - A. Priority Areas:** Bull Creek Fisheries Priority Watershed
 - 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 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, White River Hills Subsection. Historically, glade, and mixed oak and pine oak woodlands dominated this landscape.

III. Existing Infrastructure

- One unstaffed shooting range west of Highway 65 along Camp Creek
- Eight designated campsites
- Four parking lots: one at the range, one designed for horse trailer use, one off Highway A, and the main parking lot near the campsites for general public use
- Two foot bridges: one for the shooting range, one near the main parking lot
- Eighteen miles of multi-use (hike/bike/horse) trails

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:** There is a roadway easement for Don Anderson (Quarry). Highway 65 bisects the area.
- D. Cultural Resources:** Yes, records kept with the Department environmental compliance specialist. Managers should follow best management practices for Cultural Resources found in the Department Resource Policy Manual.
- E. Endangered Species:** None observed.
- 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) Site quality for tree growth is low on the south- and southwest-facing slopes, where glades and woodlands are present. Higher site quality is present in forested stands on the ridge tops and on north-facing slopes.
- 2) Monitor forest stands for insects and diseases (e.g., emerald ash borer, gypsy moth, thousand cankers disease, etc.).
- 3) Encroaching eastern red cedars threaten the high quality glade natural communities at Busiek State Forest and Wildlife Area. Prescribed fire is needed

to keep these communities healthy and diverse. However, use of fire near Highway 65 is a challenge.

- 4) Control of invasive species on the area, such as sericea lespedeza, Johnson grass, and eastern red cedar is a continuing challenge.

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

Strategy 1: Monitor forested stands and glade areas for insects and diseases as well as for invasive species on an ongoing 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)

Strategy 3: Suppress all wildfires. (Forestry)

Strategy 4: Conduct forest inventory. Previous inventories were conducted in Compartment 1, 1994; Compartment 2, 2008; and Compartment 3, 1996. (Forestry)

Management Objective 2: Maintain high quality glade and woodland natural communities.

Strategy 1: Apply prescribed fire on a three- to five-year rotation. (Forestry)

VI. Aquatic Resource Management Considerations

Challenges and Opportunities:

- 1) Busiek State Forest and Wildlife Area contains approximately 6 miles of stream frontage: 3 miles of Camp Creek and 3 miles of Woods Fork.
- 2) The area also contains first- and second-order ephemeral streams, which flow from the uplands into Woods Fork and Camp Creek.

Management Objective 1: Maintain, enhance, or expand the riparian corridors of Woods Fork and Camp Creek to a minimum of 100 feet and the first- and second-order streams to a minimum of 50 feet on both stream sides, where appropriate.

Strategy 1: Allow natural regeneration to vegetate the riparian corridors, or plant trees and shrubs within the corridors, where regeneration is not likely to succeed. (Fisheries, Forestry, Wildlife)

Strategy 2: Monitor areas of stream bank erosion and address erosion using Department stream stabilization guidelines, where appropriate. (Fisheries, Forestry)

Strategy 3: 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
(Missouri Department of Conservation, 2009). (Fisheries, Forestry)

Management Objective 2: Implement appropriate watershed best management practices on all Department managed areas.

Strategy 1: Conduct glade/woodland restoration, and associated forest management activities on the area according to the Department’s *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, Forestry, Wildlife)

Strategy 2: Manage roads and trails according to appropriate best management practices to minimize runoff and sedimentation into stream resources. (Fisheries, Forestry)

VII. Public Use Management Considerations

Challenges and Opportunities:

- 1) The area contains 18 miles of multi-use trails (hiking, mountain biking, horseback riding, and running).
- 2) The area receives heavy public use in the form of hiking, camping, photography, birding, horseback riding, mountain biking, running, hunting, geocaching, educational field trips/trainings, and target shooting activities. All-terrain vehicles are prohibited on the area.
- 3) Heavy public use necessitates the need for enforcement and patrols to ensure safety for area users and cleanliness of the area.
- 4) It is a challenge locating users that need assistance, medical or otherwise, and providing medic assistance to injured area users.
- 5) The area contains an unstaffed rifle/pistol range, consisting of 100-, 50-, and 25-yard shooting distances with two shooting benches at each distance.

Management Objective 1: Maintain public access at the four parking areas.

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

Management Objective 2: Maintain an area that is safe and inviting for public use.

Strategy 1: Plan and coordinate routine and group patrols during peak activity periods to ensure compliance with area regulations. (Protection)

Strategy 2: Increase uniformed and plain clothes patrols of the shooting range to reduce littering and safety violations. (Protection)

Strategy 3: Increase patrols in the northwest section (Stoneshire) of the area to reduce the amount of all-terrain vehicle traffic and related misuse. (Protection)

Strategy 4: Continue to address special use camping permit concerns by coordinating with Forestry Division. (Protection)

Management Objective 3: Provide clearly marked and identifiable trails to allow for points of reference when locating users needing assistance.

Strategy 1: Improve signage of the color-coded trail system. (Forestry)

Strategy 2: Re-establish vegetation on closed and unofficial trails to discourage use. (Forestry)

Management Objective 4: Maintain a high level of safety for range users and non-users. Maintain an inviting range while reducing misuse.

Strategy 1: Perform biannual range inspections. (Outreach and Education)

Strategy 2: Perform regular maintenance on the range, including replacing target holding system, signs, and perimeter wire, as needed. (Forestry)

Strategy 3: Determine if patrols of the range are needed to enforce rules associated with range use. (Protection)

Management Objective 5: Maintain a range management plan that utilizes the environmental stewardship process as a guide.

Strategy 1: Perform biannual range inspections. (Outreach and Education)

Strategy 2: Perform tasks as directed by the environmental stewardship plan associated with range management. (Forestry)

Strategy 3: Work within the budgetary process to enhance the range site in a way that maintains safety while reducing erosion and enhancing the environmental features of the range (Outreach and Education, Forestry, Fisheries, Design and Development)

APPENDICES

Area Background:

The original 740 acres of Busiek State Forest and Wildlife Area was purchased from Dr. Paul Busiek in 1981, with Dr. Busiek donating approximately 25 percent of the purchase price to the Missouri Department of Conservation (the Department) in honor of his parents. All other land was purchased by the Department. In 2014, 199 additional acres were acquired from Missouri Department of Transportation. This new purchase will be left without designated trails due to its proximity to the shooting range and to provide uninterrupted hunting.

Busiek State Forest and Wildlife Area was purchased for a variety of purposes: to provide forest wildlife habitat improvement for public recreation, demonstration and education; to provide sustainable forests that yield diverse plant communities; and to protect and improve the riparian and stream resources along Camp Creek and Woods Fork of Bull Creek.

Current Land and Water Types:

Land/Water Type	Acres	Miles	% of Area
Woodland and Upland forest	2,454		91
Glades	165		6
Old Field	69		2
Food Plot	11		1
Other (parking lots, shooting range)	2		< 1
Total	2,701		100
Stream frontage		6	

Public Input Summary:

The idea gathering phase for development of the Busiek State Forest and Wildlife Area Management Plan ran from Oct. 15 – Dec. 31, 2015. The objective of this phase was to inform stakeholders about the area planning process and ask them to share their ideas. To communicate about this comment period, staff:

- Posted online comment form available at mdc.mo.gov/areaplans;
- Sent news release to local media outlets in October 2015 and posted to Department Facebook and Twitter accounts;
- Sent announcement to area plan email list (5,000+ recipients);
- Posted notices on bulletin boards with the opportunity to write hard copy comments in and around Busiek State Forest and Wildlife Area;
- Sent personal mail and email to neighboring landowners and non-governmental organizations;
- Made personal contacts with visitors to Busiek State Forest and Wildlife Area;

- Had hard copy comment cards available for the public to fill out at local Department offices (Southwest Regional Office) and Nature Centers (Springfield Conservation Nature Center and Shepherd of the Hills Conservation Center).

The Missouri Department of Conservation received input from 96 respondents (see “Busiek State Forest and Wildlife Area Idea Gathering Stage Public Input Summary” at <http://on.mo.gov/1TR4KWq>). The area management planning team took comments into consideration as they drafted this 10-year management plan for the area. A brief summary of public input themes, including how they will be incorporated or why they will not be included, can be found in Appendix A.

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: Conservation Commission of the State of Missouri.

Maps:

Figure 1: Area Map

Figure 2: Vicinity Map

Figure 3: Aerial Map

Figure 4: Facilities Map

Figure 5: Easement Map

Figure 6: Food Plot Map

Figure 7: Land Cover Type Map

Additional Appendices:

Appendix A: Department Responses to Public Comments – Busiek State Forest and Wildlife Area Idea Gathering Stage

Figure 1: Area Map

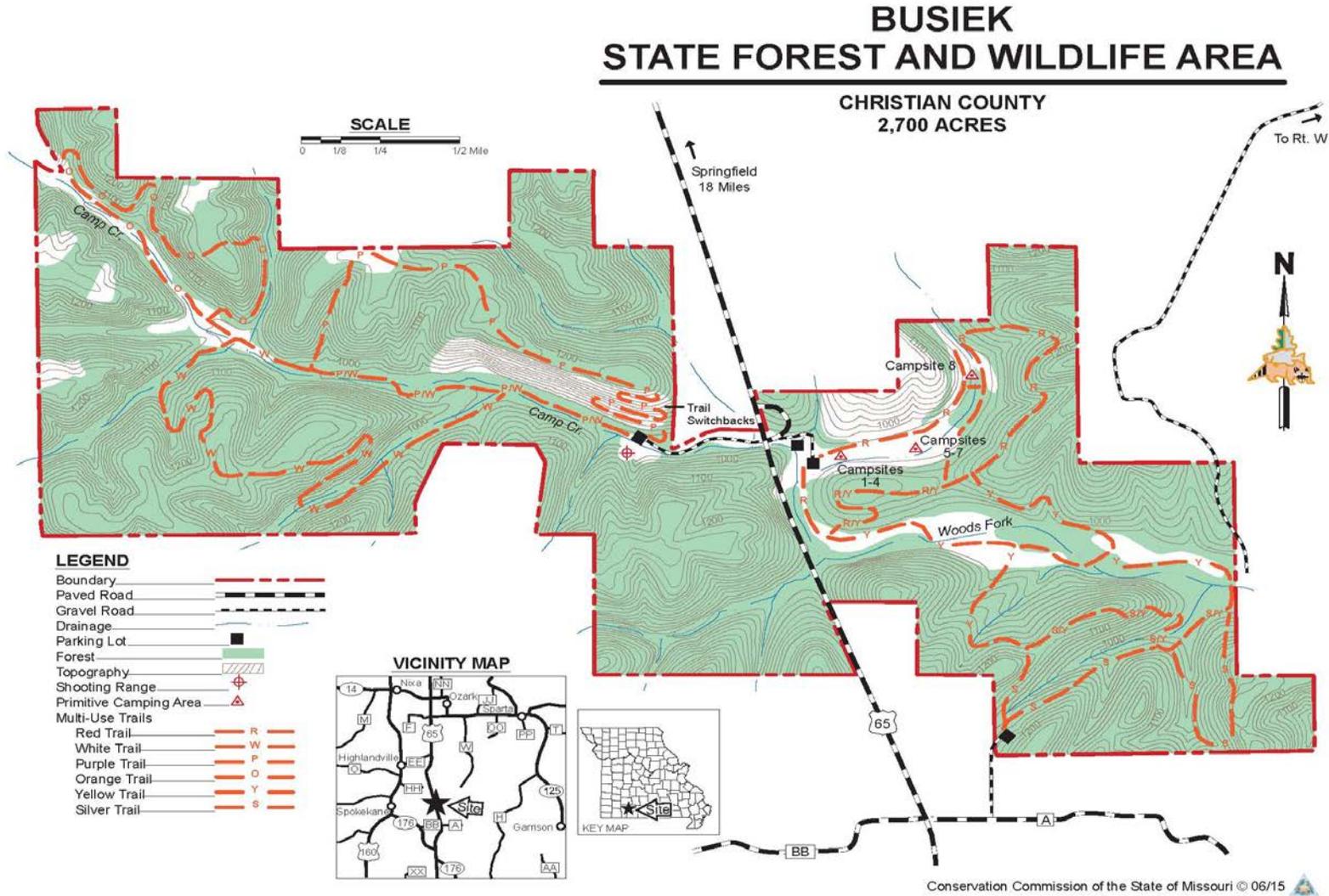


Figure 2: Vicinity Map

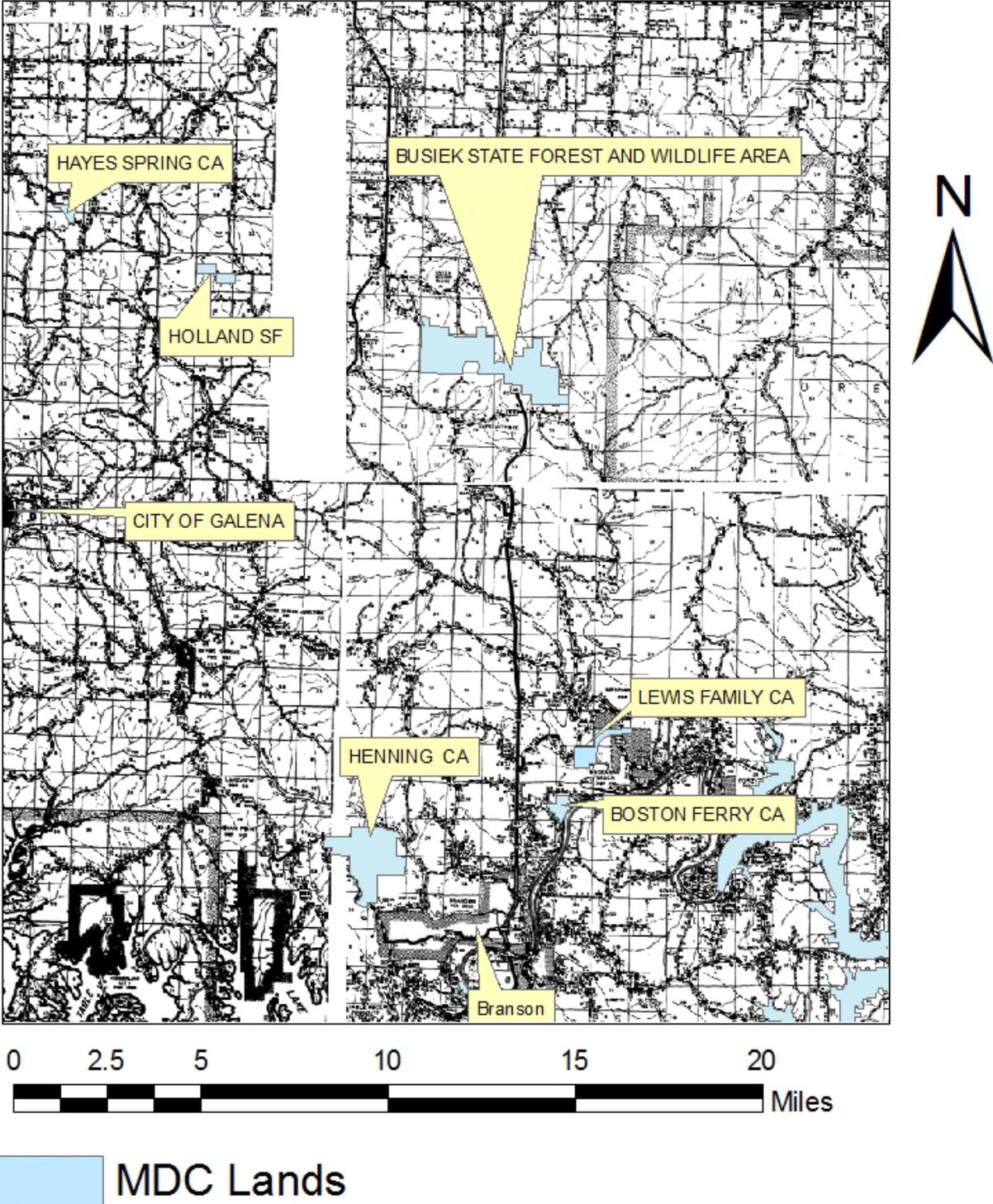


Figure 3: Aerial Map

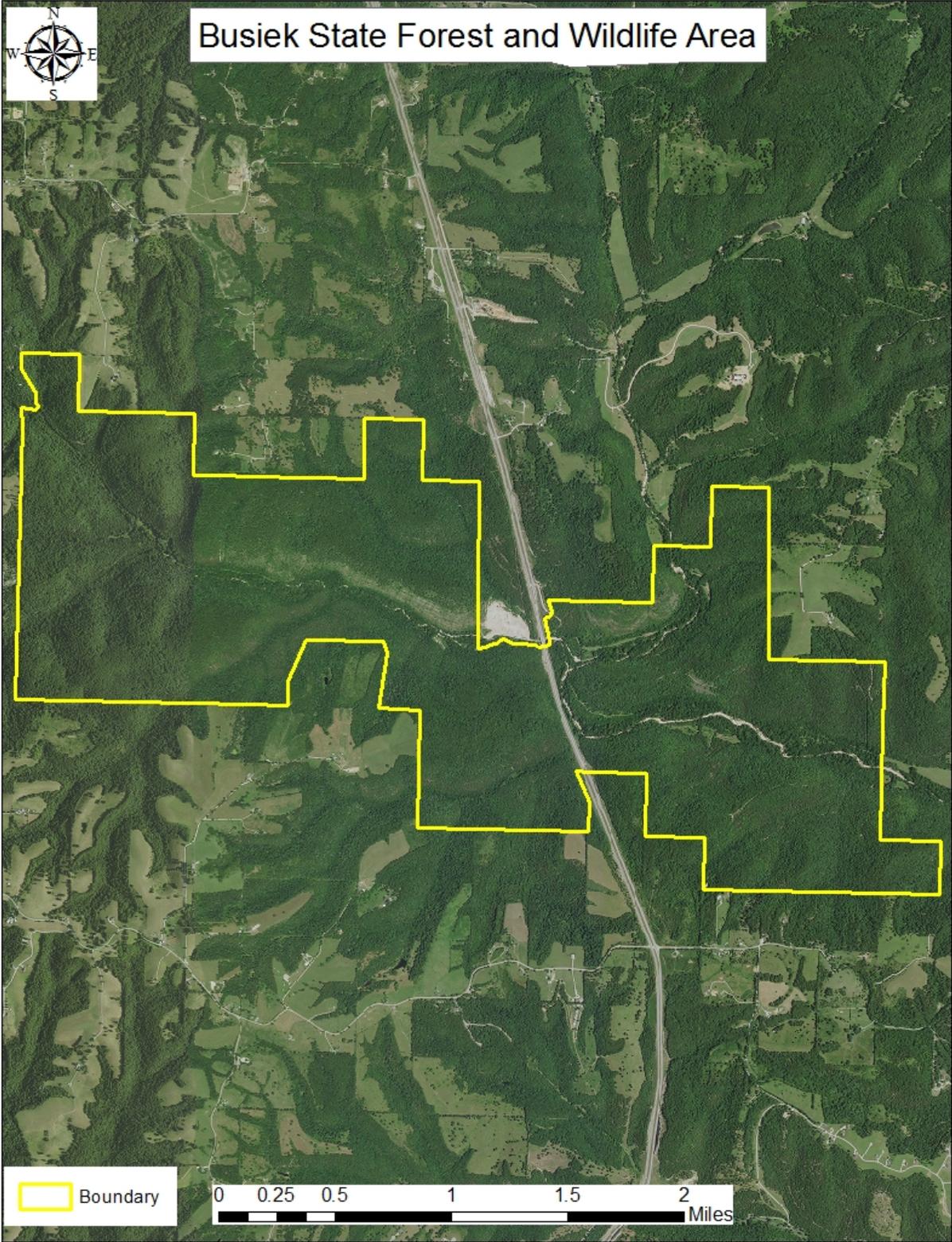


Figure 4: Facilities Map

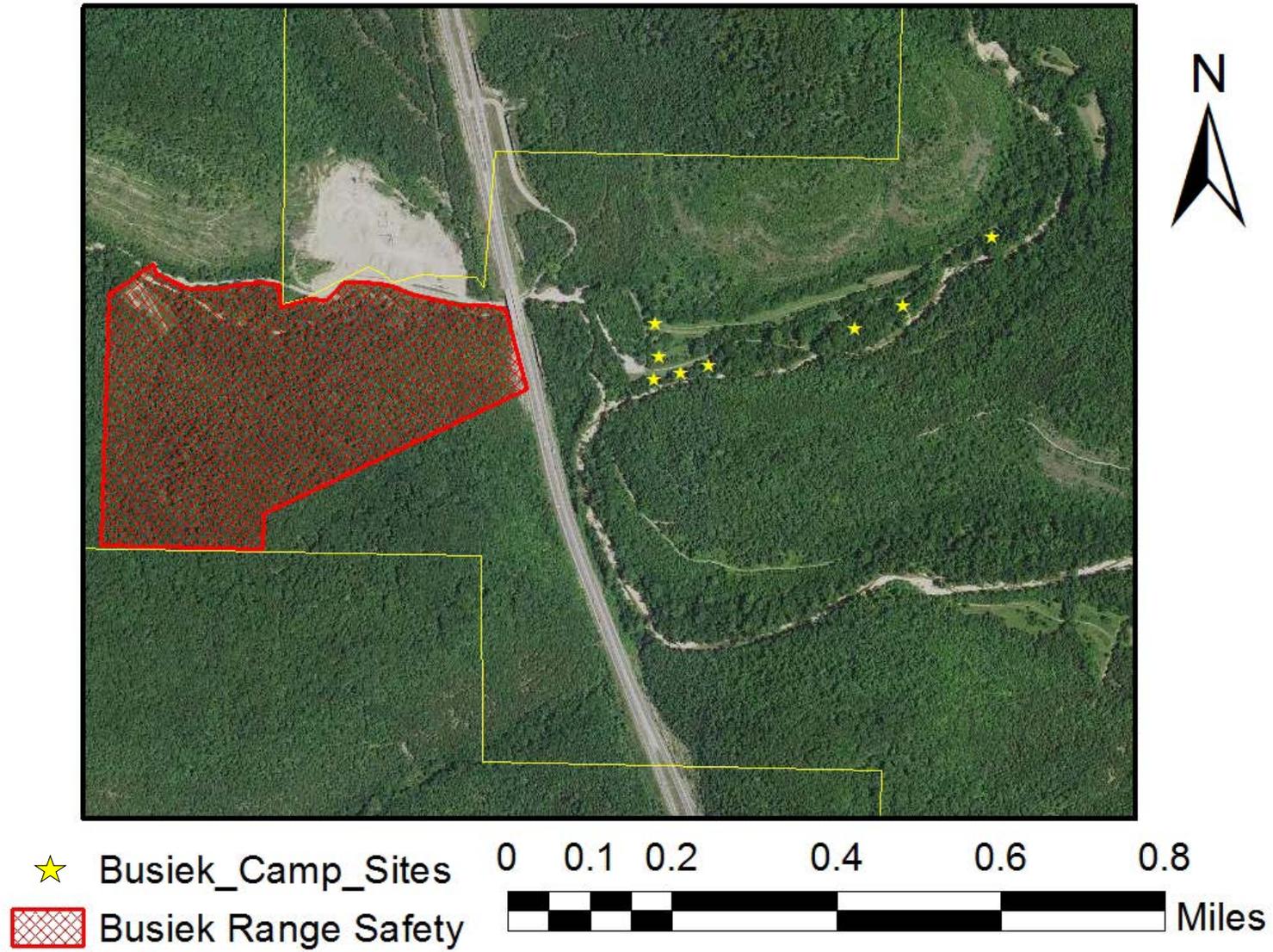


Figure 5: Easement Map

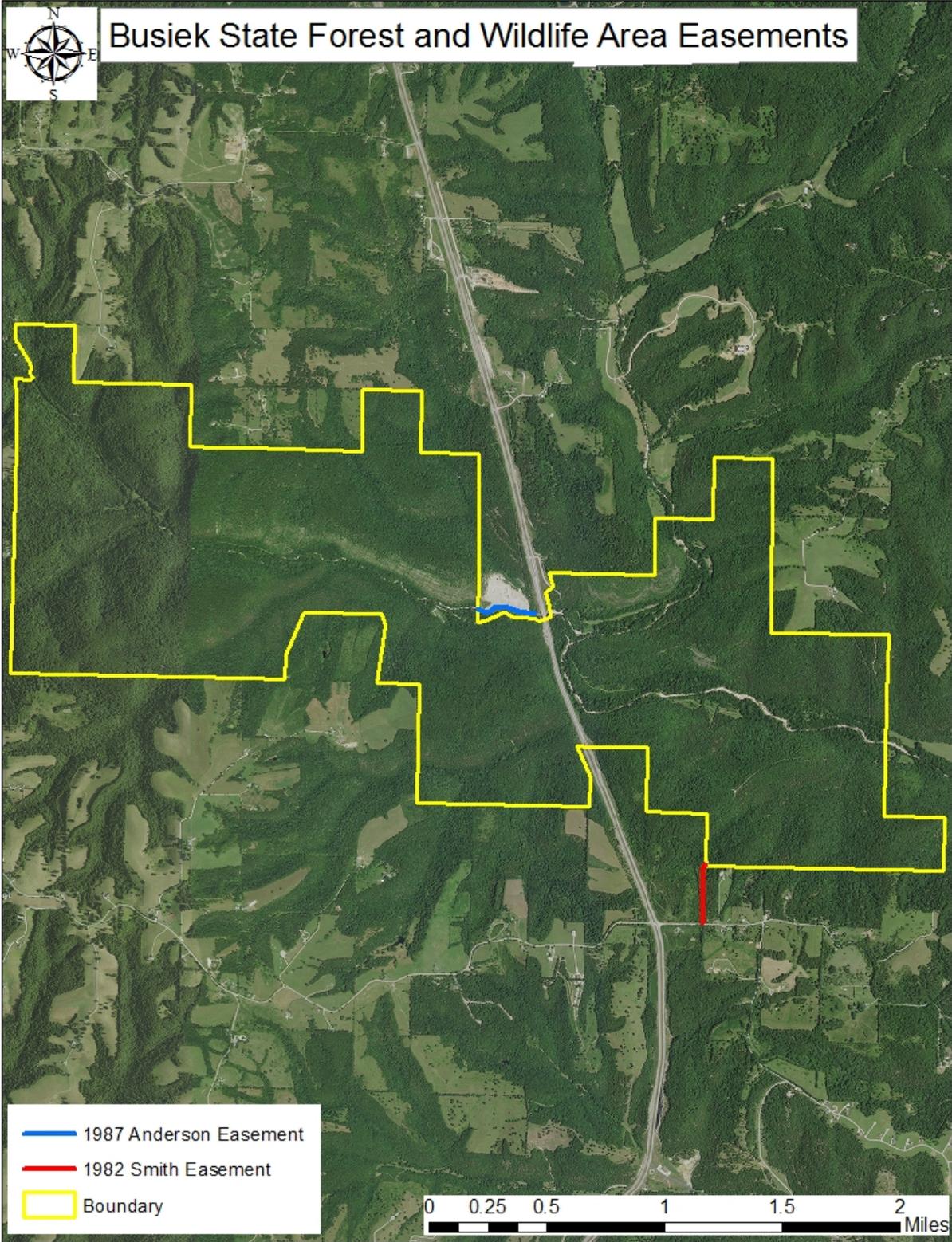


Figure 6: Food Plot Map

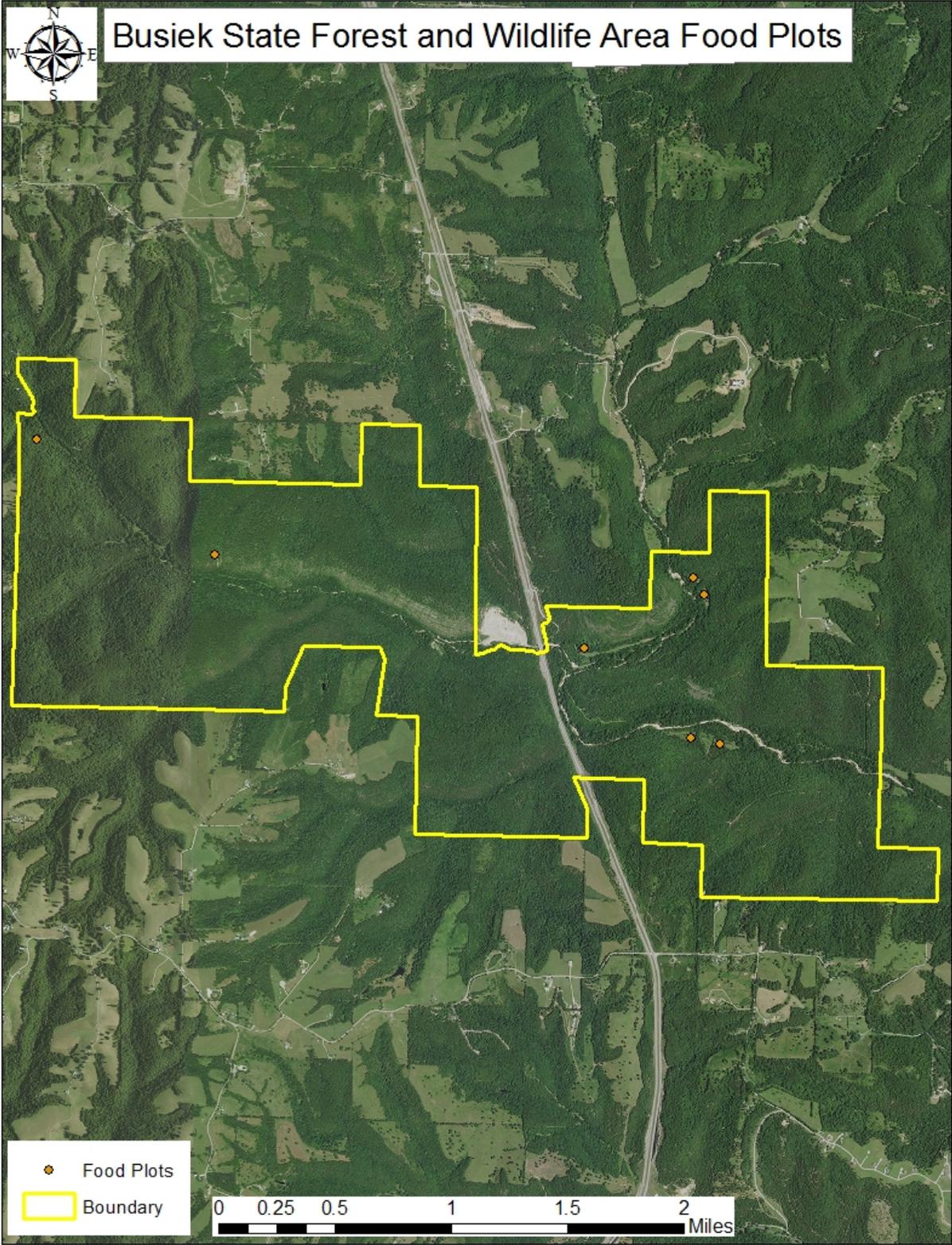
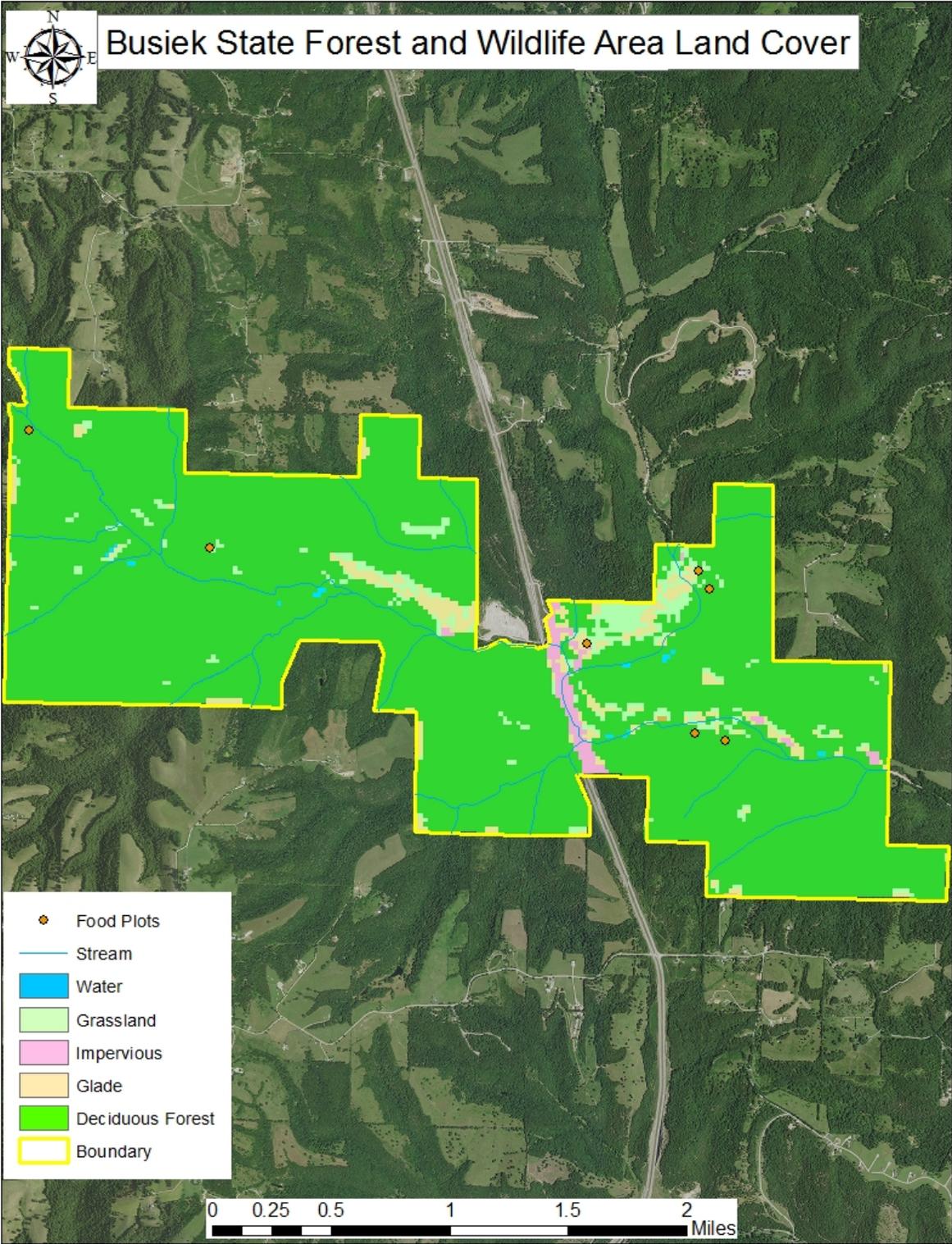


Figure 7: Land Cover Type Map



Appendix A: Department Responses to Public Comments – Busiek State Forest and Wildlife Area Idea Gathering Stage

Background:

Prior to writing the Draft Busiek State Forest and Wildlife Area 10-Year Area Management Plan, the Department conducted a public input process Oct. 15 – Dec. 31, 2015, as described on page 9. Altogether, 98 comments from 96 respondents were received. The area management planning team took comments into consideration as they drafted the plan. A brief summary of public input themes, including how they will be incorporated or why they will not be included, can be found below. Comments were grouped into general themes and addressed collectively.

Terrestrial Resource Management

Suggests adding food plots. Offers volunteer help to improve food plots.

Busiek State Forest and Wildlife Area is predominantly forest and glade habitats. Food plots have been established in the most appropriate places on the area (see Figure 6).

Concerned with clearcutting for glade habitat.

Management at Busiek State Forest and Wildlife Area is striving to create multiple habitats that would historically have been found on the area. Glades are a unique habitat known for their openness and lack of trees. They support a variety of animals, wildflowers, and grasses that require an abundance of sunlight.

Suggests reintroducing a small herd of bison.

Historically, bison would not have been found in this area due to the type of forest cover.

Suggests making the area more savanna like and open.

The area vegetation is currently maintained in the status that it historically and naturally occurred, forest intermixed with glade. Savannas are typically found near flat grassland areas.

Supports wide variety of habitat types on Busiek. Busiek is an important birding area.

We will continue to work to maintain the existing variety of habitats.

Aquatic Resource Management

Suggests adding some large fishing ponds.

Soils in the area are not conducive to building large fishing ponds.

Public Use Management

Shooting Range

Suggests expanding and renovating range. Suggests adding a 200 and 300 yard shooting range. Suggests adding benches for people waiting to shoot. Suggests adding a covered pavilion at the shooting range. Suggests lengthening berms between each range to enhance safety.

Range improvements will be made as the budget and work plans allow.

Suggests adding handgun stations with distances shorter than 25 yards.

Adding a shorter distance range for handguns designed for personal protection will not be offered at the Busiek shooting range because of the range design. Adding handgun stations with shorter distances would be unsafe because of berm locations and materials used for targets at the Busiek range.

Concern with noise from shooting range. Recommends closing shooting range or providing some quiet hours or noise barrier.

Quiet hours exist during the closed times of the shooting range, which includes Mondays and one-half hour after sunset to one-half hour before sunrise on the other days of the week.

Suggests adding an archery range.

A suitable location does not exist on Busiek.

Suggests implementing a time limit for shooting range use when the range is full.

The range is self-policing and without a full-time staff member on site, there is no efficient way to enforce the rule.

Suggests changing range hours during hunting seasons to one hour after sunrise to one hour before sunset.

Shooting range hours of operation are in compliance with the Missouri Wildlife Code (3 CSR 10-11.150), which states that shooting hours on unstaffed ranges are one-half hour before sunrise to a one-half hour after sunset

Suggests monitoring range to ensure user safety. Suggests adding security cameras.

Staff time is currently not available to continuously monitor range and/or security camera footage.

Suggests moving gun range at least 1 mile from parking area to better simulate hunting.

Gun range is located close to parking areas for easy access for all users. Also, current location is the most suitable location on the area for the shooting range.

Trails

Appreciates trails for horseback riding, mountain biking, hiking, and running.

Mountain bikers concerned with trail conditions from horseback riders.

- **Suggests limiting or not allowing horseback riding.**
- **Suggests a dedicated trail system for mountain biking.**
- **Suggests segmenting equestrian use on the east side of Busiek and mountain bike use on the west side.**
- **Suggests horseback riders and bikers swap days for trail use.**
- **Suggests keeping both sides (east and west) open for all users.**
- **Suggests a dedicated trail system for runners/hikers.**

Trails designated for specific users would decrease the miles of trails for all users, and the enforcement of such a designation would be nearly impossible.

Suggests adding/expanding trails.

There are 18 miles of multi-use trails on Busiek State Forest and Wildlife Area. The trail system currently covers most of the acreage that can support a sustainable trail.

Suggests rerouting or repairing eroded trails.

The main focus of the Busiek State Forest and Wildlife Area trail work is repairing and rerouting the legal/official trail system. This work relies heavily on volunteers.

Suggests improving trail signs/markers and providing trail information and better maps at the parking area.

Improvements are currently underway to better sign the legal/official trail system.

Illegal/unofficial trails will not be marked or maintained. Detailed maps of the trail system are located at each major parking area as well as maps on the area brochure (which are also located at the parking areas).

Offers volunteer assistance to maintain area trails. Suggests utilizing volunteers more for trail maintenance.

The main focus of the Busiek State Forest and Wildlife Area trail work is repairing and rerouting the legal/official trail system. This work relies heavily on volunteers. If individuals want to volunteer, they should contact the area manager for planned events that utilize volunteers.

Suggests having a trail conditions hotline with information if trails are open or closed due to muddy conditions (similar to system in place for Rock Bridge Memorial State Park trails). Suggests closing trails when too wet to ride horses or bikes without damaging trails. If concerned about trail conditions, contact the Department’s Southwest Regional Office. Trail updates are posted on the Department’s online Atlas (<http://on.mo.gov/1Wqqjyb>).

Suggests acknowledging the work of the local mountain biking community on Busiek trails. Busiek Trail Helpers signs have been ordered and will be installed as soon as they are ready. We appreciate volunteer efforts.

Suggests trimming the switchback portion of purple trail several times after spring growth. All trails are pruned on a rotating schedule as workload allows.

Suggests mowing grassy trail sections more often. Suggests more frequent weed eating/mowing.

Other conservation areas that are maintained by Busiek staff are under a new mowing contract which will allow more time for the Busiek staff to maintain mowed areas.

Suggests adding a mounting block to assist some horseback riders at parking area.

Currently, the Department is participating in a grant process with the Tri-Lakes Chapter of the Show-me Missouri Backcountry Horsemen. If approved, the grant would provide funding to install a mounting block and information kiosk by the horse trailer parking lot within the next couple years.

Opposes paving trails.

There are currently no plans to pave any trails on Busiek.

Suggests better creek crossings on east side of area.

A new bridge was installed in 2015.

Appreciates recent reroute of orange trail.

Many thanks to the Missouri Off Road Cyclist group who cooperated in this effort.

Suggests providing access from the west to the orange and white trails (without walking by the shooting range).

Due to property boundaries and the shooting range safety zone there is no access to the purple, orange, and white trails without walking by the shooting range.

Suggests informing all user types before closing or re-routing trails.

Trail updates are posted on the Department's online Atlas (<http://on.mo.gov/1Wqqjyb>).

Opposes use of bulldozers for trail building or maintenance.

Bulldozer use is limited to repairing damage in emergency situations.

Amenities

Suggests adding permanent toilet/restroom facilities.

Pit toilet locations near the highest activity would be located in floodplain soils and subject to flash flooding, which would pose a potential threat to the imperiled crayfish found in Woods Fork.

Suggests adding a water fountain.

There is no running water and pipe system that would allow for a continuous water system.

Suggests additional parking.

Parking is intentionally limited to reduce the impact on the natural resources.

Suggests signing horse trailer area for horse trailers only.

All parking is on a first-come-first-served basis to accommodate all users that enjoy the area.

Hunting

Concern that multi-use trail users prevent hunters from taking game. Suggests closing trails during hunting seasons or designating a portion of the area for hunting only.

The newly acquired 199-acre tract will not have officially designated trails to allow uninterrupted hunting.

Suggests having a check-in system for hunters (similar to Bois D'Arc Conservation Area) and allow hunters to post their hunting locations.

Hunter check-in systems are used primarily on Quail Emphasis Areas and dove management areas to monitor hunter use and harvest. This is not the objective of the Busiek area. Posting hunting locations may invite hunter harassment.

Concerned that it is too far to walk to hunt. Suggests adding a road through the area from east to west.

Installing and maintaining a road through Busiek running east and west through the valley would be cost prohibitive.

Suggests only allowing archery hunting.

Busiek area staff will monitor area public use and deer populations annually to consider possible changes to the hunting methods on Busiek.

Suggests prohibiting deer hunting. Concerned they seldom see deer on area.

Hunting will remain a permissible activity subject to the *Wildlife Code of Missouri*.

Neighbors concerned about seeing tree stands on Busiek. Is that allowed?

Portable tree stands are allowed from Sept. 1-Jan. 31. Unattended stands must be plainly labeled with the full name and address, or Conservation Number, of the owner. Hunting out of a tree stand helps to ensure all projectiles have a downward trajectory.

Suggests mandatory hunter orange for ALL area users during deer season.

We will create a sign to post at parking areas during muzzleloader deer season. This sign will inform areas users of the hunting season and suggest the wearing of hunter orange.

Camping

Suggests expanding camping areas. Suggests allowing camping throughout Busiek.

Suggests placing campsites farther away from main trail.

Camping is allowed throughout Busiek State Forest and Wildlife Area with a special use permit from the area manager.

Suggests an easier camping permitting system – online or self-permit station onsite.

Suggests that camping should be first-come, first-serve instead of reservation based.

For maintenance and safety reasons, the numbered campsites are managed through a permit system requiring a legal form of identification.

Suggests adding restroom facilities with showers to campground.

Due to Busiek State Forest and Wildlife Area's distance from power and water sources, several amenities are not feasible.

Suggests that campsites not be further developed.

We agree and will maintain campsites in current condition.

Concerned about lack of upkeep for campsites.

Department staff is on the area to inspect and clean campsites a minimum of twice a week.

Education/Interpretation

Suggests offering guided nature walks.

People may join hikes at Busiek that are led by Springfield Conservation Nature Center staff.

Suggests adding an interpretive nature trail on the east side.

We will consider this suggestion. Thank you.

Suggests encouraging use of Busiek as an outdoor educational site.

Busiek State Forest and Wildlife Area is currently used by a variety of educational groups.

Suggests building a small shelter house that includes interpretive information.

Two Department educational facilities are located within a 20-mile radius of Busiek State Forest and Wildlife Area: Springfield Conservation Nature Center and the Shepherd of The Hills Conservation Center and Fish Hatchery.

Administrative Considerations

Supports leaving area wild and rustic.

Conservation areas exist to conserve natural diversity and provide conservation-related recreation and education opportunities. These less-developed areas keep wild places wild, while giving people access to nature.

Concern about amount of money spent on area bridges.

The bridge near the parking lot and camping areas was replaced through Federal Emergency Management Assistance funding.

Suggests adding parking lot security cameras.

Logistics limit the Department's ability to do this; we will look into contracting with a private security company to monitor the area.

Suggests encouraging people to pick up trash. Concerned about amount of litter.

No littering is the first regulation listing on the area brochure.

Supports acquiring additional land.

Additional properties have been acquired, as availability and funding allow.

Concerned about illegal activities at the parking lot near Highway A. Suggests closing this parking lot if necessary.

Protection Division staff and other local law enforcement agencies work to curtail drug use on all parts of Busiek State Forest and Wildlife Area. Other local law enforcement agencies are aware of the Highway A parking lot and are working to curtail illegal activities.

Suggests closing access from Logan Ridge Road. There is not enough room for horse trailers to turn around.

Access on Logan Ridge Road is not a designated parking area.

Suggests improving property boundaries around Busiek. Suggests better fencing around property.

Fencing agreements are available with adjacent landowners. Interested persons will need to contact the area manager.

Enjoys spending time at Busiek State Forest and Wildlife Area.

Thank you!

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