The Lewis Family Dean, Anna Mae and David D. Lewis Memorial Conservation Area

Ten Year Area Management Plan

FY 2015-2024

Lisa M Allen
Forestry Division Chief

5-26-15
Date

The Lewis Family Dean, Anna Mae, and David D. Lewis Memorial Conservation Area Plan Approval Page

PLANNING TEAM

Brad Jump, Urban Wildlife Biologist

Charles Nofsinger, Conservation Agent

John Miller, Interpretive Center Manager

Dave Woods, Fisheries Management Biologist

Andy Humble, Private Land Conservationist

Greg Cassell, Resource Forester

Rhonda Rimer, Natural History Biologist

SOUTHWEST REGION

RCT Chair

Signature — Date: May 4, 2015

FORESTRY DIVISION

Forest Management Chief

John Turtle — Signature — Date: 5-22-15

OVERVIEW

- **Official Area Name:** The Lewis Family Dean, Anna Mae and David D. Lewis Memorial Conservation Area, #201302
- **Year Of Initial Acquisition:** 2012
- **Acreage:** 362
- **County:** Taney
- **Division With Administrative Responsibility:** Forestry
- **Division With Maintenance Responsibility:** Forestry
- **Statements of Purpose:**
  - **A. Strategic Direction**
    Manage for forested natural communities and the species that they support. Old fields on the area are managed to maximize recreational hunting opportunities.
  - **B. Desired Future Condition**
    The desired future condition of Lewis Family Memorial Conservation Area (CA) is a woodland/glade/forest landscape with some upland fields. In the bottomland field areas, emphasis will be placed on widening the riparian corridor to protect Bull Creek.
  - **C. Federal Aid Statement**
    N/A

GENERAL INFORMATION AND CONDITIONS

I. <u>Special Considerations</u>

A. Priority Areas: Lewis Family Memorial CA is located within the Bull Creek watershed, which is considered a high quality Ozark cold-water small river, Missouri Department of Natural Resources Outstanding State Resource Water and a Missouri Department of Conservation (Department) Fisheries Division priority watershed.

B. Natural Areas: None

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: None

III. Existing Infrastructure

- There is a primitive service road located on the area.
- Parking lot located on the west side of State Highway 176

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 area. 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:

1) Missouri Department of Transportation right of way on State Highway F, 75 feet wide
2) Missouri Department of Transportation right of way on State Highway 176, 60 feet wide
3) KAMO transmission power line right of way, 100 feet wide on north boundary line
4) White River Electric Coop power line right of way, 30 feet wide located on west side of Highway 176
5) White River Electric Coop power line right of way, 30 feet wide located in the northeast corner, along the north boundary, parallel with the transmission line
6) White River Electric Coop power line right of way, 30 feet wide located on west side
7) White River Electric Coop power line right of way, 30 feet wide located on west side of property, parallel with Highway F on east side of highway
8) Village of Bull Creek sewer line easement, 20 feet wide in bottomland near Bull Creek running parallel with creek
9) Private driveway on west side, 12 feet wide for approximately 1,000 feet. No mention of recorded easement in deed.

D. Cultural Resources: Yes, records kept with Department Environmental Compliance Specialist. Managers should follow Best Management Practices for Cultural Resources found in Department Resource Policy Manual.

E. Hazards and Hazardous Materials: None observed.

F. Endangered Species: None observed.

G. Boundary Issues: None observed.

H. Other: An approximate 40-acre section of the property lies within the village of Merriam Woods on west side of Highway 176.

MANAGEMENT CONSIDERATIONS

V. Terrestrial Resource Management Considerations

Challenges and Opportunities:

1) Create a forest inventory of the area and a project plan to identify forest stand conditions and resource management needs.
2) Monitor forest stands for insects and diseases such as emerald ash borer, gypsy moth, thousand cankers disease and the walnut twig beetle.
3) Control exotic and invasive native species on the area such as sericea lespedeza, musk thistle, tall fescue, Johnson grass, reed canary grass and Eastern red cedar.

Management Objective 1: Complete forest inventory and project plan.

Strategy 1: A forest inventory will be conducted in Fiscal Year 2015. Management practices identified in the inventory will be implemented according to the project plan schedule (Forestry).

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

Strategy 1. Monitor forested stands for insects and diseases as regular area maintenance and boundary work are performed (Forestry).

Management Objective 3: Monitor area for exotic and invasive species.

Strategy 1: Regularly monitor the area for exotic and/or invasive species as maintenance and boundary work are performed (Forestry).

Strategy 2: Control exotic species using chemical, mechanical and cultural methods (Forestry/Wildlife).

Management Objective 4: Implement wildlife management techniques that will increase habitat quality for game and non-game species.

Strategy 1: Maintain upland fields using prescribed fire, chemical, mechanical or cultural methods (Forestry/Wildlife).

Strategy 2: Identify glade management units where use of prescribed fire is feasible, in order to provide nesting and brood-rearing habitat for turkey, quail, songbirds; and provide quality habitat for glade-dependent wildlife species (Forestry/Wildlife).

Strategy 3: Manage wildlife using statewide regulations (Protection).

Management Objective 5: Protect and expand stands of giant river cane to enhance the riparian corridor and provide nesting habitat for species of conservation concern.

Strategy 1: Allow giant river cane to naturally spread into adjacent open land areas (Forestry).
Strategy 2: Investigate need for expansion of giant river cane by transplanting plugs from existing cane patches on the area to new locations on the area (Forestry/Wildlife).

VI. Aquatic Resource Management Considerations

Challenges and Opportunities:

1) Lewis Family Memorial CA contains approximately 0.6 miles of Bull Creek frontage.
2) Lewis Family Memorial CA contains three first-order ephemeral streams which flow from the northern uplands of the property south into Bull Creek.
3) The property contains three fishless ponds.

Management Objective 1: Maintain, enhance, or expand the riparian corridors of Bull Creek to a minimum of 100 feet and the first-order streams to a minimum of 50 feet on both stream sides, where appropriate (Forestry/Fisheries/Wildlife).

Strategy 1: Allow vegetation to naturally regenerate the riparian corridors. Plant trees and shrubs within the corridors, where regeneration is not likely to succeed. Actively establish river cane stands within riparian corridors by transplanting existing cane. (Forestry/Fisheries/Wildlife).
Strategy 2: Monitor areas of stream bank erosion and address using Department stream stabilization guidelines (Missouri Department of Conservation, 2009), where appropriate (Fisheries).
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* (2009) (Fisheries).
Strategy 4: Roads and trails will be managed according to appropriate Best Management Practices to minimize runoff and sedimentation into stream resources (Forestry/Wildlife).

Management Objective 2: Maintain three fishless ponds as habitat and breeding areas for amphibians; and as wildlife watering holes.

Strategy 1: Place fallen limbs of hardwood species along pond edges to provide cover and egg deposition sites for amphibians and reptiles (Forestry/Fisheries/Wildlife).
Strategy 2: Monitor ponds for aquatic invasive species and suppress any occurrences as needed (Fisheries).

VII. Public Use Management Considerations

Challenges and Opportunities:

1) The existing service roads are sufficient for most foot traffic on the area. If an access to Bull Creek is established on the southwest portion of the area, a foot trail would be recommended to access fishing and the lower portions of the area. Foot trails accessing Bull Creek should be limited to locations that minimize erosion potential.
2) There is an old house/building on the west access along Highway F that used to be the home of the donor's parents. The structure is sometimes used by a nesting species of conservation concern. The species is protected under Federal Law and, thus, the house will be left undisturbed.
3) There is an old homestead site located on the property that does have potential historical significance. It should be protected, but not have interpretive signage.
4) Working with surrounding private landowners would allow landscape-scale management for natural communities and the wildlife species they support.

Management Objective 1: Maintain public access to the area.

Strategy 1: Maintain parking lot on the area for public use.
Forestry staff will be responsible for routine service of the parking lot, including grading, replacing gravel and parking lot posts, maintaining signs and removing trash (Design and Development/Forestry).

Strategy 2: The existing service road will be maintained for area access and as a foot trail for the public (Design and Development/Forestry).

Strategy 3: Create and post informational signs along the service road to interpret and highlight restoration and management techniques (Outreach and Education).

Management Objective 2: Protect old homestead site and standing house.

Strategy 1: As required under Federal Law, the old standing house, which is currently used as a nesting site by a species of conservation concern, will not be removed from the property and will be protected from disturbance from March through July in order to protect the species (Wildlife/Forestry).

Strategy 2: Should future management activities potentially impact the old homestead site, an additional cultural resource survey would be required to determine historic significance (Wildlife/Forestry/Design & Development).

Management Objective 3: Ensure proper use by all area visitors.

Strategy1: Periodically patrol this area to ensure compliance with area regulations (Protection).

Management Objective 4: Build relationships with neighboring landowners.

Strategy 1: Work with landowners in the vicinity of the Lewis Family Memorial CA to expand habitat management around the conservation area (Private Land Services/Forestry/Wildlife).

Strategy 2: Use the Lewis Family Memorial CA to showcase glade, woodland, and riparian natural community management practices to landowners (Private Land Services/Forestry/Wildlife).

VIII. Administrative Considerations

Challenges and Opportunities:

Much of this area is located adjacent to the village of Merriam Woods. There are a large number of adjacent landowners who border the area. Annual maintenance of boundaries is needed to prevent trespass.

Management Objective 1: Prevent encroachment and trespass on the area.

Strategy 1: Annually maintain boundaries by replacing signs and repainting lines with blue paint (Forestry).

MANAGEMENT TIMETABLE

Strategies are considered ongoing unless listed in the following table:

	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24
Terrestrial Resource Management										
Objective 1										
Strategy 1	X									
Objective 4										
Strategy 2		X								
Objective 5										
Strategy 2		X								
Aquatic Resource Management										
Objective 1										
Strategy 1		X								
Objective 2										
Strategy 1	X									
Public Use Management										
Objective 1										
Strategy 3		X								

APPENDICES

Area Background:
The Lewis Family, Dean, Anna Mae and David D. Lewis Memorial Conservation Area (CA) was donated in 2012 by David D. Lewis. The area is comprised of 362 acres. A 40-acre portion on the east side of the conservation area is located in the village of Merriam Woods. Bull Creek flows through the area near the southern boundary. The area consists of a variety of habitats including upland fields, bottomland fields, riparian forest, glade, savanna and woodland.

The Lewis Family Memorial CA is within the White River Hills subsection of the Ozark Highlands Section. Nine Ecological Land Types are found on the Lewis Family Memorial CA (see list below). In addition, several areas of open land are present on the property; however, they are overgrown and require management to restore them to an early successional state. The glade communities on the area are also degraded and will require extensive management if they are to be restored.

The bottomlands on the area contain several patches of remnant native giant river cane. These stands will be protected, and possibly expanded, especially along the Bull Creek corridor, to protect the river bank from erosion and to provide nesting habitat for Missouri species of conservation concern. The remaining riparian corridor will be protected and expanded to provide roost and perching sites.

Like many areas managed by the Department, the appearance of exotic species is an ever-present threat to management at the Lewis Family Memorial CA. Consequently, the area will be monitored regularly for their presence. Problem species known to exist on the area include sericea lespedeza, musk thistle, Johnson grass and reed canary grass.

Management strategies will include maintenance and enhancement of all open fields (not scheduled for reforestation) and woodland communities for ground nesting, brood rearing and browse areas. Conversion of the open fields to wildlife-friendly native species of grasses, legumes and small grain food plots may be considered.

The Lewis Family Memorial Conservation Area contains these Ecological Land Types:

Bottomland Forest Community (10 percent of area)
Dry-Mesic Upland Drainageway Forests
Mesic High Floodplain Forests
Mesic Footslope/High Terrace Forests

Woodland Community (45 percent of area)
Limestone/Dolomite Protected Backslope Mixed Oak Forests
Limestone/Dolomite Upland Post Oak Woodlands
Limestone/Dolomite Exposed Backslope Post Oak Woodlands
Limestone/Dolomite Upland Glade/Woodland Complex

Glade Community (mapped as Glade/Woodland complex, 45 percent of area)
Limestone/Dolomite Protected Backslope Glade/Woodland Complex
Limestone/Dolomite Exposed Backslope Glade/Woodland Complex

Current Land and Water Types:

Land/Water Type	**Acres**	**Miles**	**% of Area**
Upland Forest	193.4		53
Old Fields/Upland Fields	101		28
Bottomland Field	30		8
Glade	20		6
Bottomland/Riparian Forest	10		3
Streams	4		1
Highway	3.3		1
Impounded Water	0.3		<1
Total	**362**		**100**
Stream Frontage (first order and above)		0.61	

Public Input Summary:
The draft Lewis Family Memorial Conservation Area Management Plan was available for a public comment period January 1–31, 2015. The Missouri Department of Conservation received comments from four respondents (Appendix A). The Lewis Family Memorial 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.

<u>Department responses to themes and issues identified through Lewis Family Memorial Conservation Area public comment period</u>

Concern area is becoming overgrown with cedar and sassafras.
Future management activities on the area are to continue to harvest hay and to prescribe burn glade and savanna native grass areas. These areas are usually burned every 3-5 years. This will help to control some of the cedar and sassafras growth. Some areas will be allowed to grow up in

brush made up of species that typically invade fields. These areas are called old fields and are valuable as wildlife habitat by providing cover for species such as deer during the cold winter months. They are maintained by prescribed burning every 5-7 years to prevent them from reverting to back to forest.

Concern with several dead trees near property line.
Dead standing trees are valuable as wildlife habitat. They are sometimes called snags. Species such as woodpeckers, squirrels and bats make their homes in them. The area manager will contact the adjacent landowner concerning the dead trees near the property line to determine if they are a hazard.

Suggests adding wildlife food plots to the area.
The planting of foodplots can provide additional food sources for wildlife. Prescribed burning of glade and savanna areas will also stimulate grass growth and provide large areas of forage for wildlife. If work schedules and budgets allow, annual grain and greenbrowse foodplots may be planted in suitable locations on the area, in the future.

Concern that bobwhite quail are no longer heard here. Suggests restocking or reintroducing quail on the area.
Bobwhite quail populations in Taney County are very low as compared with areas to the north on the Springfield Plateau. This is mainly due to habitat loss and predation by other animals. Past efforts at restocking on other areas have proved unsuccessful, with stocked quail dying within a few years. Glade restoration and prescribed burning of savannas will help to encourage native warm season grasses which are preferred by quail for nesting and foraging. Given the present low numbers of quail in Taney County, it is unlikely that a significant population will be established on the area in the near future.

Concern that deer sightings on area are less frequent.
The previous landowner, David Lewis, restricted use and visitation on his property. The Conservation Area is now open for public use. Hikers and hunters utilize the area on a regular basis. This public use may result in deer being disturbed along the trail or during hunting seasons. This could be the reason for fewer sightings of deer. Future planned wildlife management activities such as prescribed burning may help to attract deer to the area.

Opposes the use of firearms on the property. Sounds as if some people use the area for target practice.
Regulations on the area currently allow for deer hunting by archery method only. Use of firearms on the area is restricted to shotguns to hunt turkey, other game birds as well as rabbit and squirrel during designated seasons. No rifles are permitted on the area. It is possible that visitors to the

area may be using it for target shooting. This practice is prohibited and should be reported to the area manager or the local conservation agent. A shooting range is located on private land, ½ mile southwest of the conservation area. This may also be the source of some of the target shooting that is being heard.

Suggests allowing archery deer hunting and turkey and small game hunting.
Regulations do allow for archery deer hunting as well as turkey and small game hunting using a shotgun. Spring turkey hunting was first allowed in 2014. Archery deer hunting will be allowed for the first time in 2015. The use of rifles is not allowed on the area.

Suggests creating hiking trails on area.
A 1.65 mile hiking trail down to Bull Creek has been established utilizing an old woods road. As time and budgets allow, other trails may be constructed in the future.

Suggests regularly mowing the area around the Highway 176 entrance. Would love to use this area for picnics and gatherings, etc.
Recreational use of this area is intended for hikers, nature viewers and hunters. It is not set up for picnicking. The area surrounding the parking lot will only be mowed a short distance beyond the graveled area. Time and staff limitations do not allow for additional mowing out into the field. The hiking trail will be mowed regularly to allow hikers to walk to Bull Creek.

References:

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

Maps:
Figure 1: Area Map
Figure 2: Vicinity Map
Figure 3: Aerial Photo Map
Figure 4: Facilities Map

Additional Appendices:
Appendix A: Draft Lewis Family Memorial Conservation Area Management Plan Public Comments

Figure 1: Area Map

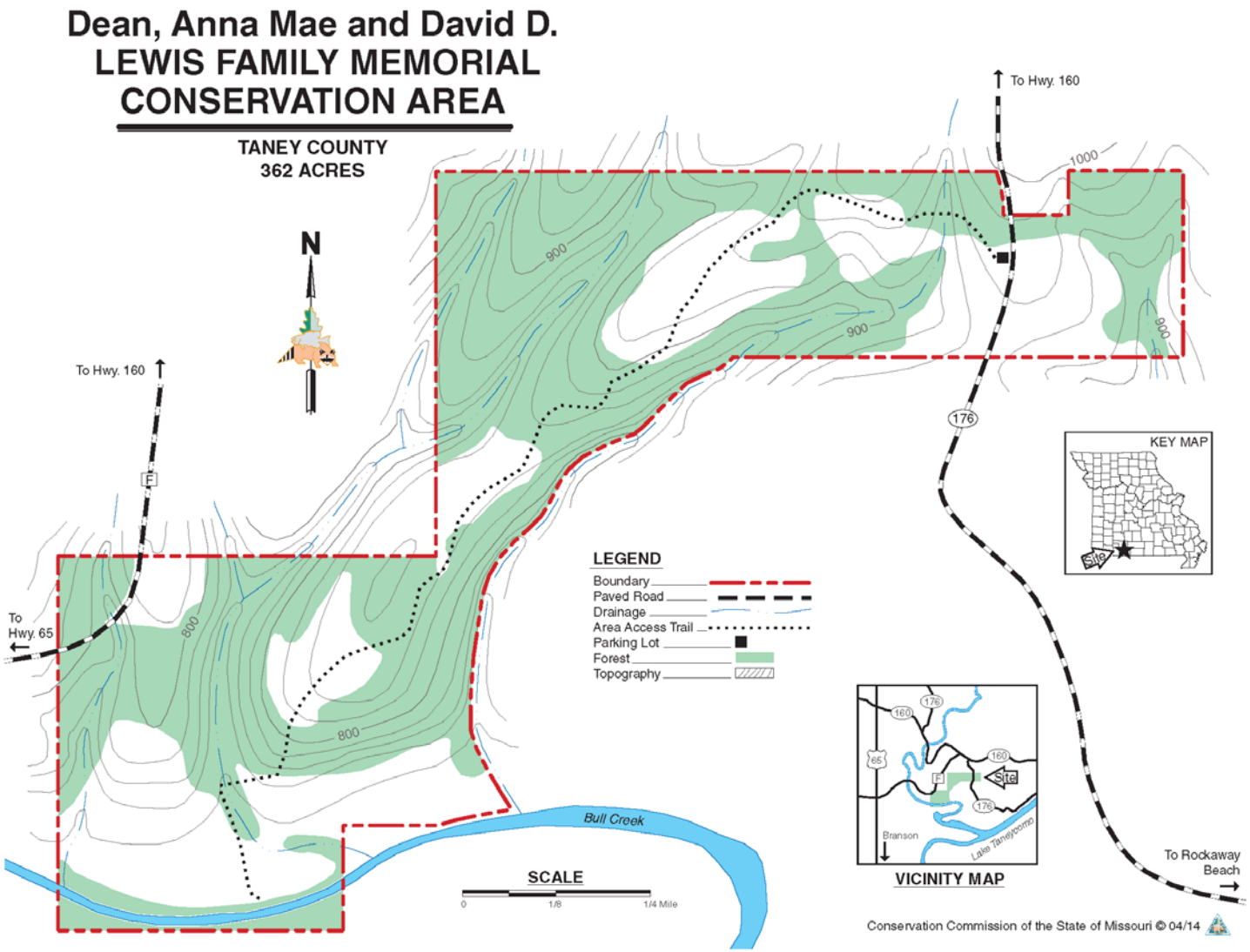


Figure 2: Vicinity Map

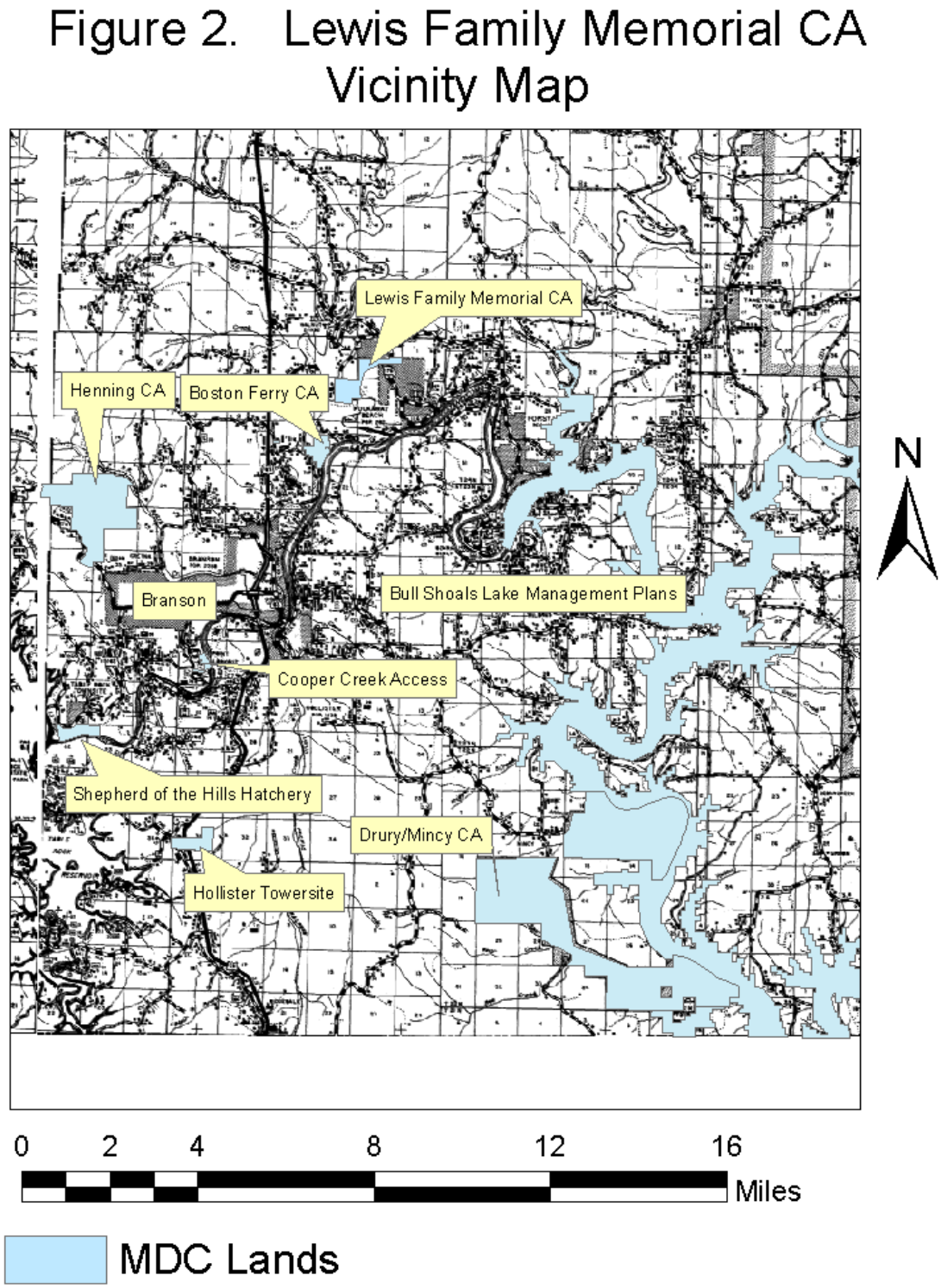


Figure 3: Aerial Photo Map

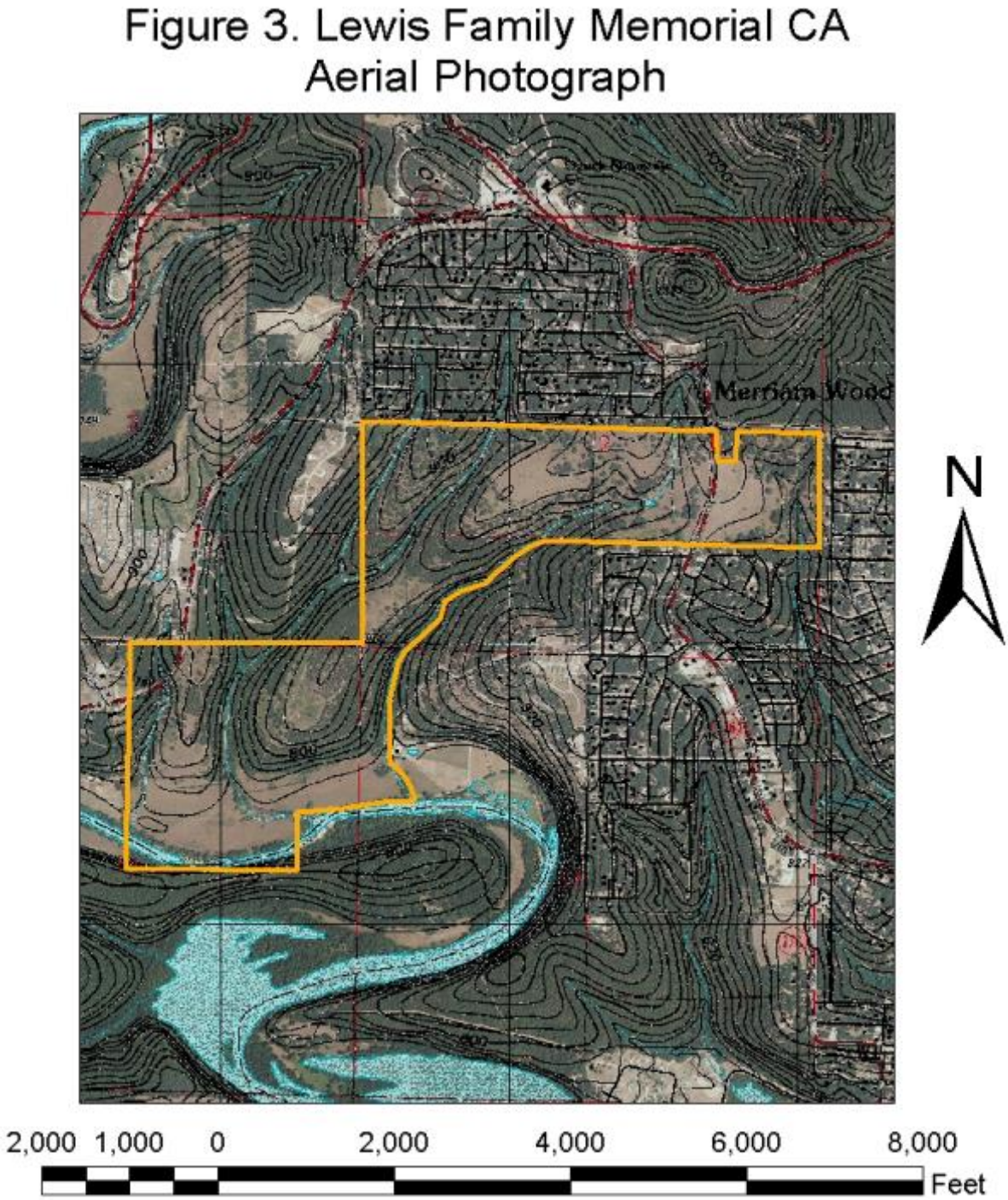
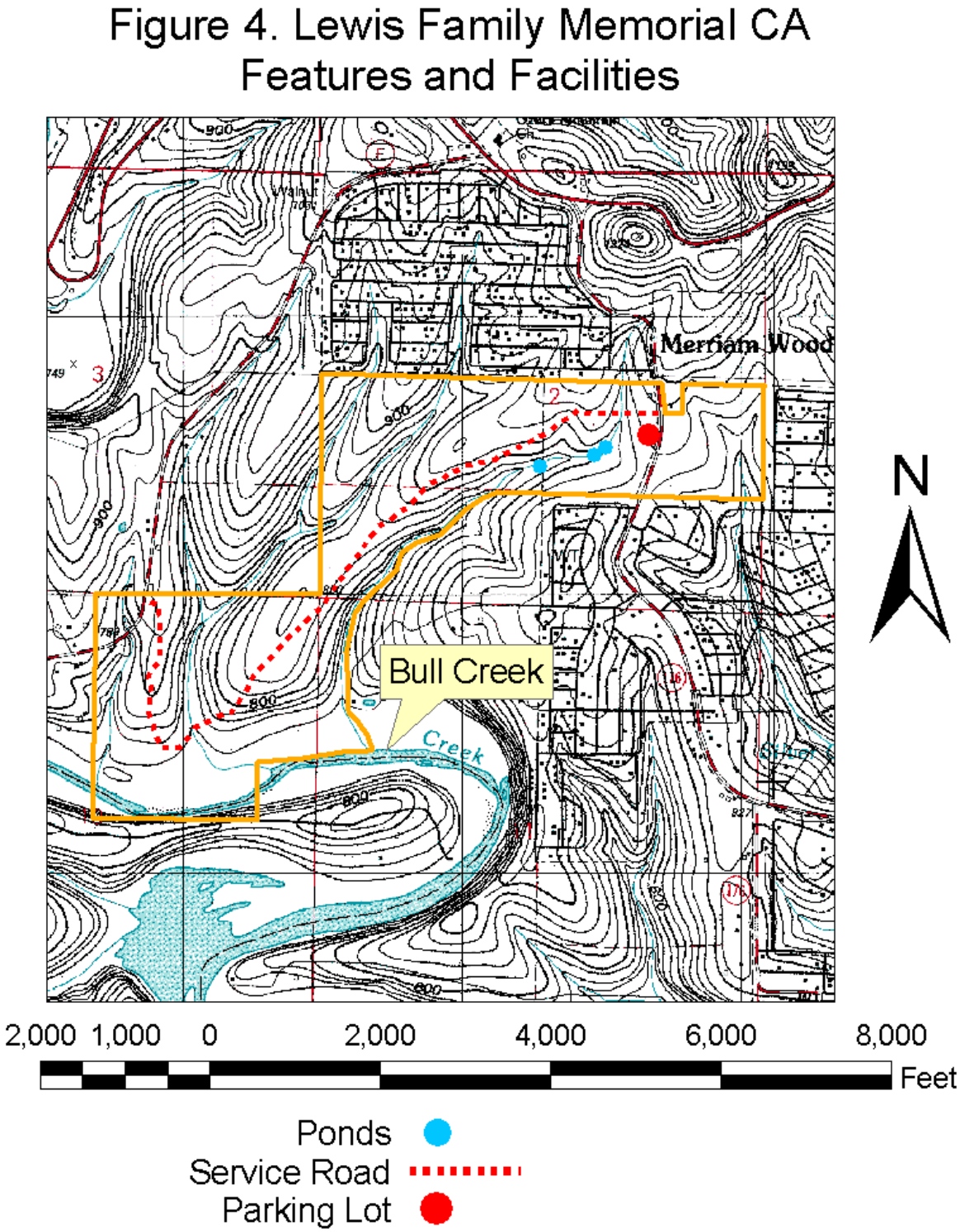


Figure 4: Facilities Map



Appendix A. Draft Lewis Family Memorial Conservation Area Management Plan Public Comments

Received during public comment period (January 1-31, 2015)

We live right beside the conservation area, and we love it. I do have a suggestion, though. When the land first opened, the grass around the entrance at highway 176 was mowed, and we took our boys out to play there in addition to walking the trail. Although the trail stayed consistently mowed, the area around the entrance did not. We would love it if that area could be consistently mowed so it could be used for play, picnics, gathering, etc. Thanks!
1. I don't like the idea that fire arms can be used on the property. A couple of times sounded like someone was using it for target practice. 2. When it was used as a pasture the place was bush hogged every year. Now the area behind my house is becoming a thicket of cedar and sasafras bushes. Soon want to be able to see the deer and the other game back there. Also there are several dead trees near my backyard. 3. Either something has happened to the deer or someone is hunting them back there because we only see one every few months. We were seeing them several times a week. 4. I do like it used for hiking and other none hunting uses even though my health won't let me hike there.
Wonderful area on Bull Creek Basin. Natural place for Ozark pristine land to be protected. Used to hear "bobwhite" calls but wonder if the quail are gone and need to be restocked or reintroduced. Please protect this natural God given gift!
I own a 3 acre lot adjacent to this area. #1 - Allow archery deer hunting. - Allow turkey and small game hunting. - Hiking trails - Wildlife food plots