

Rocky Creek Conservation Area

25-Year Area Management Plan FY2019-2043



Lisa G. Allen

Forestry Division Chief

9/17/2018

Date

Rocky Creek Conservation Area Management Plan Approval Page

PLANNING TEAM

John Ackerson, Fisheries Management Biologist

Skyler Bockman, Education Center Supervisor

Susan Farrington, Natural History Biologist

Cody Roberts, Private Land Conservationist

Brad Hadley, Conservation Agent

Dawn Henderson, Resource Science Field Station Supervisor

Ryan Houf, Wildlife Management Biologist

Gary Gognat, Resource Forester

Michael Smith, Construction and Maintenance Supervisor

OZARK REGION

RCT Chair

Michael D. Smith

9/10/2018

Signature

Date

FORESTRY DIVISION

Forest Management Chief

John Tuttle

9/17/2018

Signature

Date

OVERVIEW

- **Official Area Name:** Rocky Creek Conservation Area, #4629
- **Year of Initial Acquisition:** 1940s
- **Acreage:** 38,354 acres
- **County:** Shannon
- **Region:** Northwest
- **Division with Administrative Responsibility:** Forestry
- **Division with Maintenance Responsibility:** Forestry
- **Statements of Purpose:**
 - A. Strategic Direction**

Manage for healthy forests, the restoration and enhancement of native plant and animal communities, and provide outdoor recreational and educational opportunities.
 - B. Desired Future Condition**

The desired future condition of Rocky Creek Conservation Area (CA) is a diverse contiguous forest/woodland landscape that provides a variety of outdoor recreational opportunities for multiple user groups.
 - 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:** Rocky Creek CA is within or contains parts of the Audubon Society Current River Watershed Important Bird Area, Current River Stream Reach Conservation Opportunity Area, Mahan's Creek Priority Geography, Mahan Creek Fisheries Priority Watershed, Mahan's Creek Conservation Opportunity Area, Current River Hills Forest/Woodland Conservation Opportunity Area, Current River Hills Glades Conservation Opportunity Area, Cave and Karst Conservation Opportunity Areas, Cave Focus Areas (Powder Mill Creek Cave and Curtwright Spring), Fen Opportunities Wetland Conservation Opportunity Area, Ozark National Scenic Riverways, and Priority Forest Landscape.
- B. Natural Areas:** Rocky Creek CA is within or contains parts of the Powder Mill Cave Natural Area, Mill Mountain Natural Area, and Stegall Mountain Natural Area.

Mill Mountain Natural Area includes Missouri Department of Conservation (Department) lands on Rocky Creek CA as well as on lands of the Ozark National Scenic Riverways. This natural area contains scenic shut-ins of Rocky Creek, outstanding igneous glade and woodland natural communities, and species of conservation concern. The Ozark Trail crosses through the area.

Powder Mill Cave Natural Area lies entirely within Rocky Creek CA and contains a highly significant cave system for its biological, geological, and paleontological resources. Almost 9 miles of cave passage occur here. The cave is gated to protect the sensitive resources and species of conservation concern that utilize it. A spring branch emanates from the cave.

Stegall Mountain Natural Area includes Department lands on Rocky Creek CA as well as lands of the Ozark National Scenic Riverways and The Nature Conservancy. This is one of the most rugged and scenic Missouri natural areas and contains almost the entirety of the Rogers Creek watershed, a high-quality Ozark headwaters stream. The area supports restored glades and woodlands that provide habitat for species of conservation concern, and are rich in native plant and animal species.

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.
- B. Caves:** Yes, records kept with 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 the Department natural history biologist.
- D. Others:** Rocky Creek Conservation Area features high quality dolomite glade and fen complexes. The fen areas are distinguished by shallow soils with groundwater forming ooze areas and spring rivulets. Both the glades and the fens in this area benefit from periodic prescribed burning to prevent and control woody plant encroachment, encourage nutrient turnover, and foster herbaceous plant health and diversity. The area also features sinkholes and at least one sinkhole shrub swamp. The area serves as a very important forested watershed, protecting the water quality and high biodiversity of the Current River, Jacks Fork River, Mahan's Creek, and many smaller tributaries.

III. Existing Infrastructure

- Coot Mountain Fire Tower
- Coot Mountain residence house and garage
- Ozark Trail (9-mile hiking trail)
- Back Country Horsemen of Missouri Trailhead
- Department maintained gravel roads (11 miles)
- Blue Spring boat ramp (gravel bar boat launch)
- Camping area near Current River (no amenities)
- 91 fishless ponds (30 acres total)
- Allen Pond (fishless pond, 0.25 acres)
- Church Pond (fishless pond, 0.30 acres)

IV. Area Restrictions or Limitations

- A. Deed Restrictions or Ownership Considerations:** National Park Service scenic easement along compartments joining the Ozark National Scenic Riverways Park.
- B. Federal Interest:** 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:** State primary highways 19, 60 and 106 pass through the area along with secondary highways H, E, and many county gravel roads. Howell-Oregon Electric Cooperative and Show-Me Power Corporation have easements for powerlines across this area. The National Park Service and the Department signed a Memorandum of Understanding in 1968 and 2011. This agreement established a management zone on Department lands within the Ozark National Scenic Riverways boundary. This affects a limited number of acres along the Current River corridor.
- D. Cultural Resources Findings:** Yes, records kept with Department environmental compliance coordinators. Managers should follow best management practices for cultural resources found in the Department Resource Policy Manual.
- E. Endangered Species:** Endangered species are known from this area. Area managers should consult the Natural Heritage Database annually and review 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) Improve and restore forest/woodland habitat to achieve greater biodiversity and sustainable forest management.
- 2) Improve old field habitat for both game and non-game wildlife species.
- 3) Monitor and eradicate invasive plant and animal species.

Management Objective 1: Maintain, enhance, and restore healthy forests and woodlands.

Strategy 1: Inventory compartments according to forest inventory schedule. (Forestry)

Strategy 2: Implement management recommendations, as outlined in approved inventory and following the *Missouri Forest Management Guidelines: Voluntary Recommendations for Well-Managed Forests* (Missouri Department of Conservation, 2014a). (Forestry)

Management Objective 2: Maintain, enhance, and restore open land.

Strategy 1: Identify and improve open land habitat by setting back succession in old fields, including Blue Spring and Knuckles fields, for diverse wildlife use and associated diverse public use. (Forestry, Wildlife)

Management Objective 3: Maintain biodiversity.

Strategy 1: Survey for high priority invasive species (e.g., spotted knapweed, Japanese stiltgrass, sericea lespedeza, and feral hogs). Eradicate and/or control these species as possible. (Forestry, Wildlife)

Strategy 2: Restore glades, fens, and woodlands, as they are identified in forest inventory and as resources allow. (Forestry, Wildlife)

Strategy 3: Continue managing existing glades, fens, and woodland restoration projects, i.e., at Vance, Barnett, and Mill Mountains; and the Rocky Creek Woodland Restoration Project areas. (Forestry, Wildlife)

VI. Aquatic Resource Management Considerations

Challenges and Opportunities:

- 1) Numerous fishless ponds are currently located unevenly across the area.
- 2) Opportunistically create new fishless ponds for wildlife use.

- 3) Reduce sedimentation by protecting and establishing riparian corridors, and repairing and/or redesigning failing stream crossings in order to maintain and enhance water quality of the Current and Jacks Fork watersheds.

Management Objective 1: Maintain and opportunistically create fishless ponds as habitat for amphibians and reptiles, and as a source of water for other wildlife.

Strategy 1: Build shallow, fishless ponds after receiving approval through the capital improvement process in areas of need in conjunction with future forest management practices, following a natural history and cultural review of the area. (Forestry)

Management Objective 2: Protect and enhance the riparian corridor along the Jacks Fork and its tributaries, Current River tributaries, Mahan's Creek, springs, seeps, fens, and other unique communities associated with bottomland forest from erosion.

Strategy 1: Minimize sedimentation to Mahan's Creek, the Jacks Fork, and Current River tributaries from land management practices and/or road systems that will affect biodiversity of unique habitats by following the practices recommended in *Missouri Watershed Protection Practice Recommended Practices for Missouri Forests: 2014 Management Guidelines for Maintaining Forested Watersheds to Protect Streams* (Missouri Department of Conservation, 2014b) and *Missouri Forest Management Guidelines: Voluntary Recommendations for Well-Managed Forests* (Missouri Department of Conservation, 2014a). (Forestry)

Strategy 2: Employ best management practices along multi-use trails. (Forestry, Design and Development)

Management Objective 3: Design and maintain appropriate stream crossings to allow access while minimizing impact to aquatic communities.

Strategy 1: Evaluate stream crossings, as concerns arise, and apply practices outlined in the *Missouri Watershed Protection Practice Recommended Practices for Missouri Forests: 2014 Management Guidelines for Maintaining Forested Watersheds to Protect Streams* (Missouri Department of Conservation, 2014b). (Fisheries, Forestry, Design and Development)

Strategy 2: Minimize negative impacts to water quality using best management practices. (Forestry, Fisheries)

VII. Public Use Management Considerations

Challenges and Opportunities:

- 1) Maintain management goals while meeting high public use demands.
- 2) Enforce laws and regulations.

Management Objective 1: Provide and manage for recreational opportunities compatible with natural community management and Department Public Use Policy.

Strategy 1: Adapt, maintain, improve through capital improvement process, or alter existing infrastructure compatible with high quality user experience.

(Forestry, Design and Development)

Strategy 2: Maintain, improve, or alter existing trails. (Forestry, Design and Development)

Strategy 3: Promote and advance educational opportunities for stakeholders (Outreach and Education, Forestry)

Strategy 4: Consider and utilize, where appropriate, management applications that will maintain or enhance view-shed experiences and opportunities. (Forestry)

Management Objective 2: Maintain area as one that invites public uses that are in accordance with area regulations and state laws.

Strategy 1: There is light, but regular, use of the area by local communities throughout the year, with a significant increase of non-local use during the major hunting and summer tourism seasons. Access should be confined to areas of low impact to the landscape. Any trails constructed for the purpose of timber harvest and determined to be unnecessary for future management will be closed immediately post-harvest. Trails determined to not need altering will continue to be maintained or improved through low-impact, environmentally-sensitive methods, and will have minimal right of way widths. Where a trail crosses a riparian corridor, minimize disturbance to the riparian portion. (Protection, Forestry)

Strategy 2: Special, routine, and group patrols will be conducted as necessary according to demands caused by user impact. (Protection)

VIII. Administrative Considerations

Challenges and Opportunities:

- 1) Resolve any boundary line disputes.
- 2) Inholdings and out holdings exist, creating management challenges and opportunities.

Management Objective 1: Resolve boundary line disputes as they arise.

Strategy 1: Request surveys as needed. (Forestry)

Management Objective 2: Maintain boundary lines.

Strategy 1: Maintain boundary line on a five-year rotating schedule. (Forestry)

Lands Proposed for Acquisition:

When available, inholdings and/or 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:

	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28
Terrestrial Resources Management										
<i>Objective 1</i>										
Strategy 1 - Compartments	1, 15, 21 (2049 acres)	13, 39, 53 ¹ (2169 + 699 acres)	8, 36, 49 ¹ (2026 + 100 acres)	20, 46 (1734 acres)	23, 24 (1895 acres)	19, 26, 28, 34 (1513 acres)	16, 44 (1252 acres)	10, 22, 47, 56 ¹ (2669 + 679 acres)	3, 37, 52 ¹ (2354 + 1593 acres)	12, 33, 57 (1834 acres)

	FY29	FY30	FY31	FY32	FY33	FY34	FY35	FY36	FY37	FY38
Terrestrial Resources Management										
<i>Objective 1</i>										
Strategy 1 - Compartments	32, 35, 38 (1622 acres)	27, 51 ¹ (1318 + 40 acres)	11, 31, 54 ¹ (1299 + 1132 acres)	45 (885 acres)	29 ¹ (760 acres)	48 (810 acres)	6 (837 acres)	14, 55 ¹ (1114 + 895 ac)	7, 43 (2049 acres)	1, 15, 21 (2049 acres)

¹Responsibility of Van Buren office. All other numbers are the responsibility of the Eminence office.

APPENDICES

Area Background:

The Rocky Creek Conservation Area (CA) contains over 38,000 acres in the southern and eastern parts of Shannon County. Major tracts can be accessed along Highway 19 south, Highway 106, and from Routes H and E. Additional tracts are located north and south of Highway 106, starting 5 miles east of Eminence and continuing to the Reynolds County line. Tracts vary in size from over 6,000 acres to 80 acres, some of which were originally state forests, including Indian Creek, Bloom Creek, Blair's Creek, Mule Mountain, and the Rocky Creek State Forest. Others were part of the Keer-McGee land acquisition that happened in 1995-1996.

Rocky Creek CA is in the Ozark Highland Section and the Current River Hills Subsection (Nigh & Schroeder, 2002). The majority of the conservation area is in the Oak-Pine Woodland/Forest Hills Landtype Association. The remaining area is in the Eminence Igneous Glade/Oak Forest Hills landtype that includes Coot, Peter Mooney, Mill, Barnett, Vance, and Buttin Rock mountains.

Rocky Creek CA is a forested landscape, resulting from The Great Cutover around the turn of the century. Today, woodlands and forests are covered by mostly even-aged black oak, scarlet oak, white oak, post oak, hickory, and some shortleaf pine. Although the conservation area is in the native shortleaf pine range, many pine sites have been invaded by other hardwoods species that are now past or reaching maturity.

The area is managed with a sustainable ecological approach to multiple-use management. The goal of the silviculture prescriptions is to improve the overall health and vigor of the forest by promoting and encouraging natural communities indigenous to the landtype association. The prescriptions will guide the forest to more ecological and biological stable conditions that will enhance productivity and value over time. Management techniques include prescribed fire, invasive species control, planting, selective and regeneration harvests. Other areas are set aside for old-growth habitat, and will not be actively managed by the Department.

With almost 40,000 acres of public land, the Rocky Creek CA provides for a wide range of outdoor activities. These include nature viewing, bird watching, hiking, dispersed primitive camping, and hunting and fishing opportunities. Rocky Creek provides access to the Current River, just south of the Highway 106 bridge near Owls Bend east of Eminence. The conservation area is also home to an auto driving tour that explores a 1,300-acre pine oak woodland restoration project. Access to areas varies from paved roads to unimproved woods roads, to areas that are only accessible by foot.

The area also contains many springs, caves, and karst features that contain some of the rarest plants and animals in the state. Rocky Creek CA is the focus of ongoing natural community restoration projects in forest, woodlands, and glades. These projects are designed to improve the system’s overall health and vigor and provide for a diverse range of wildlife habitat.

Current Land and Water Types:

Land/Water Type	Acres	Miles	% of Area
Forest and Woodland	36,425		95
Glade	1,907		5
Old Field	22		<1
Total	38,354		100
Stream Frontage – Indian Creek		2.0	
Stream Frontage – Thorny Creek		1.0	
Stream Frontage – Bloom Creek		0.75	
Stream Frontage – Little Indian Creek		0.75	
Stream Frontage – Little Bloom Creek		0.25	
Stream Frontage – Current River		0.1	

Public Input Summary:

The draft Rocky Creek Conservation Area Management Plan was available for a public comment period Dec. 1–31, 2017. The Missouri Department of Conservation received comments from four respondents (Appendix A). The Rocky Creek 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 Rocky Creek Conservation Area Management Plan public comment period.

Suggests planting duck food in area ponds.

Rocky Creek CA focuses on restoring forest, woodland, and glade natural communities to create healthy and diverse habitat for both game and non-game species. We are currently managing several fishless ponds (wildlife watering holes) for use by forest invertebrates, amphibians, and other wildlife on the area. The natural vegetation and aquatic plants growing in the waterholes provide an adequate natural food source. There are no plans to expand these efforts.

Suggests liming hedge rows and fields.

Rocky Creek CA plans to maintain existing old field habitat for both game and non-game species. Knuckles and Blue Spring Fields are two areas that are being managed for open land and

early successional habitat. They will be either periodically brush-hogged and/or treated with prescribed fire. Liming is generally not required in management for non-agriculture purposes.

Suggests prohibiting the use of lead shot at the conservation area.

The prohibition of lead shot is currently reserved for locations where it is possible for large concentrations of waterfowl to feed. This area has no history of waterfowl use that would suggest a restriction of lead shot is needed.

Suggests adding trails to Rocky Creek CA. Suggests creating a looped trail that connects to the Ozark Trail and add trails south of the existing trailhead. Suggests stating in the plan that equestrian trails may be added in the future.

All roads open to public vehicles within Rocky Creek CA are open to foot and equestrian traffic, unless otherwise noted. Groups of more than 10 horseback riders are required to obtain a special use permit. Horseback riders can also pursue this recreational opportunity on Angeline CA having 9.5 miles of trail (Shannon County), and also 25 miles of National Park Service Ozark National Scenic Riverways horse trails located adjacent to the Angeline CA.

Suggests in the Existing Infrastructure section, changing “Show-Me Missouri Back Country Horsemen Trailhead” to “Back Country Horsemen of Missouri Trailhead.”

We have updated the plan to reflect the group’s new name.

Appreciates the opportunity to comment on the plan.

The Department appreciates everyone who took the time to comment on the Rocky Creek CA plan and provide input. After all, it is your conservation area.

References:

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: Aerial Compartment Map

Figure 3: Land Cover Map

Figure 4: Easement Map

Additional Appendices:

Appendix A: Rocky Creek Conservation Area Management Plan Public Comments

Figure 1: Area Map

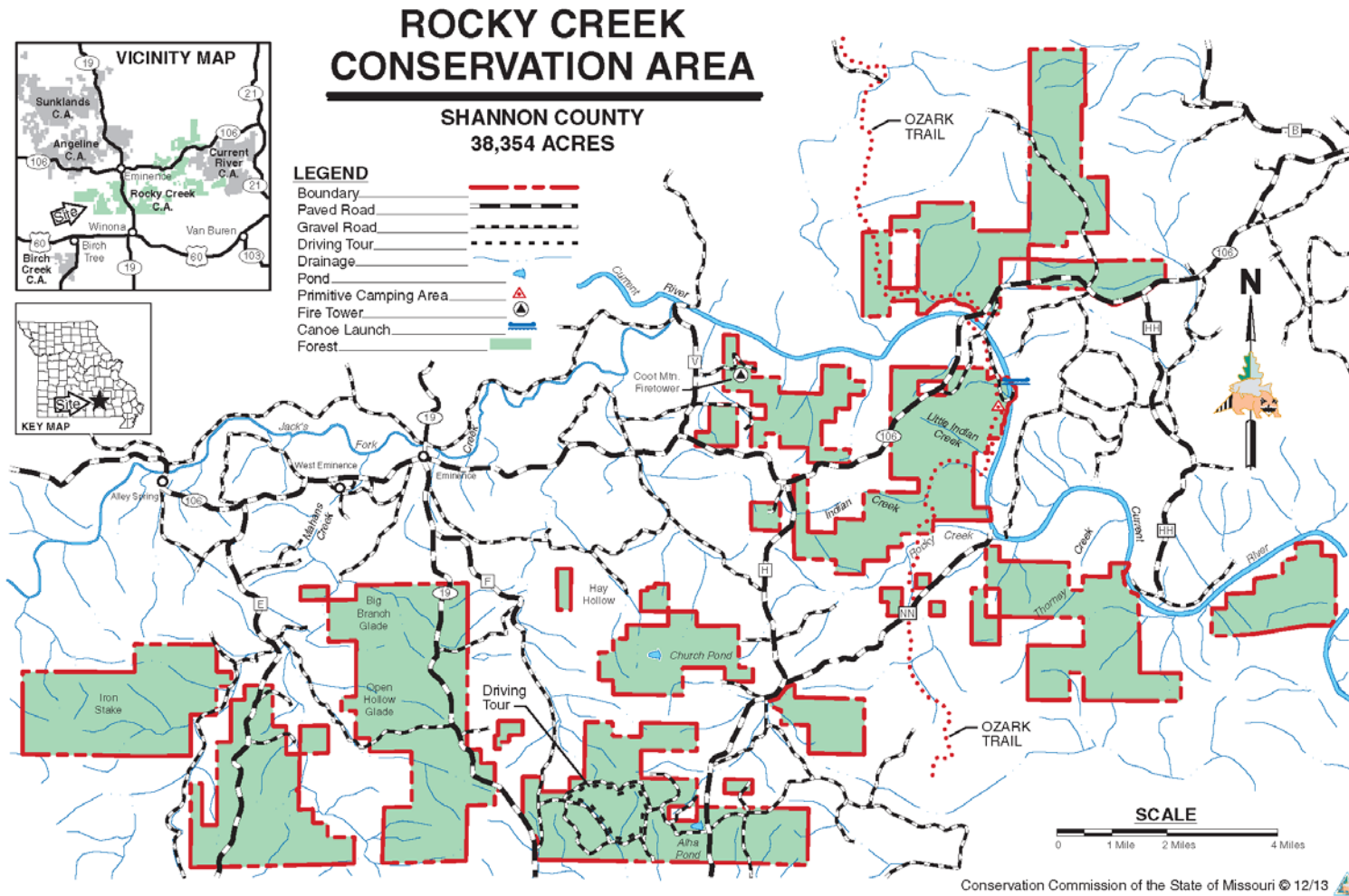


Figure 2: Aerial Compartment Map

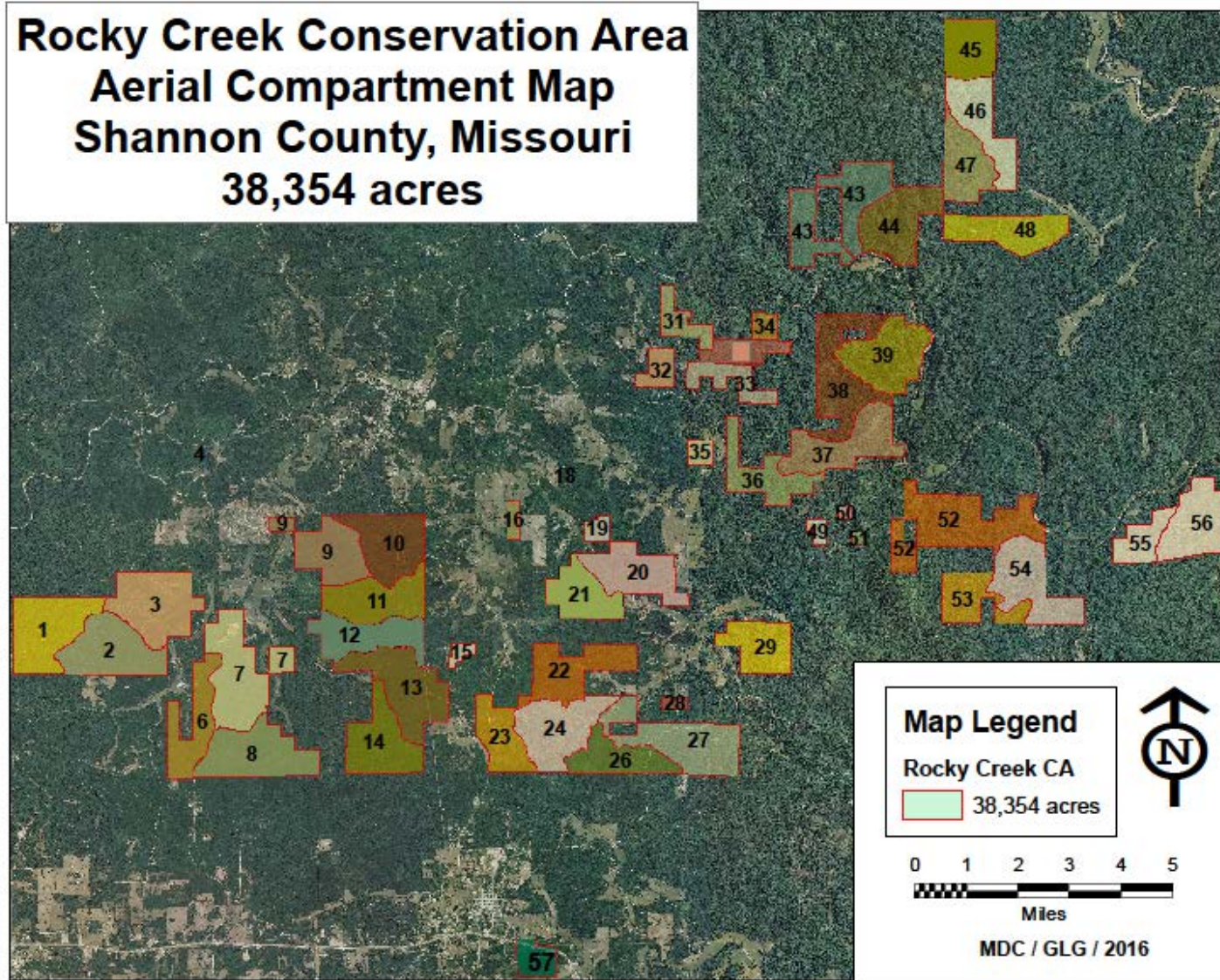


Figure 3: Land Cover Map

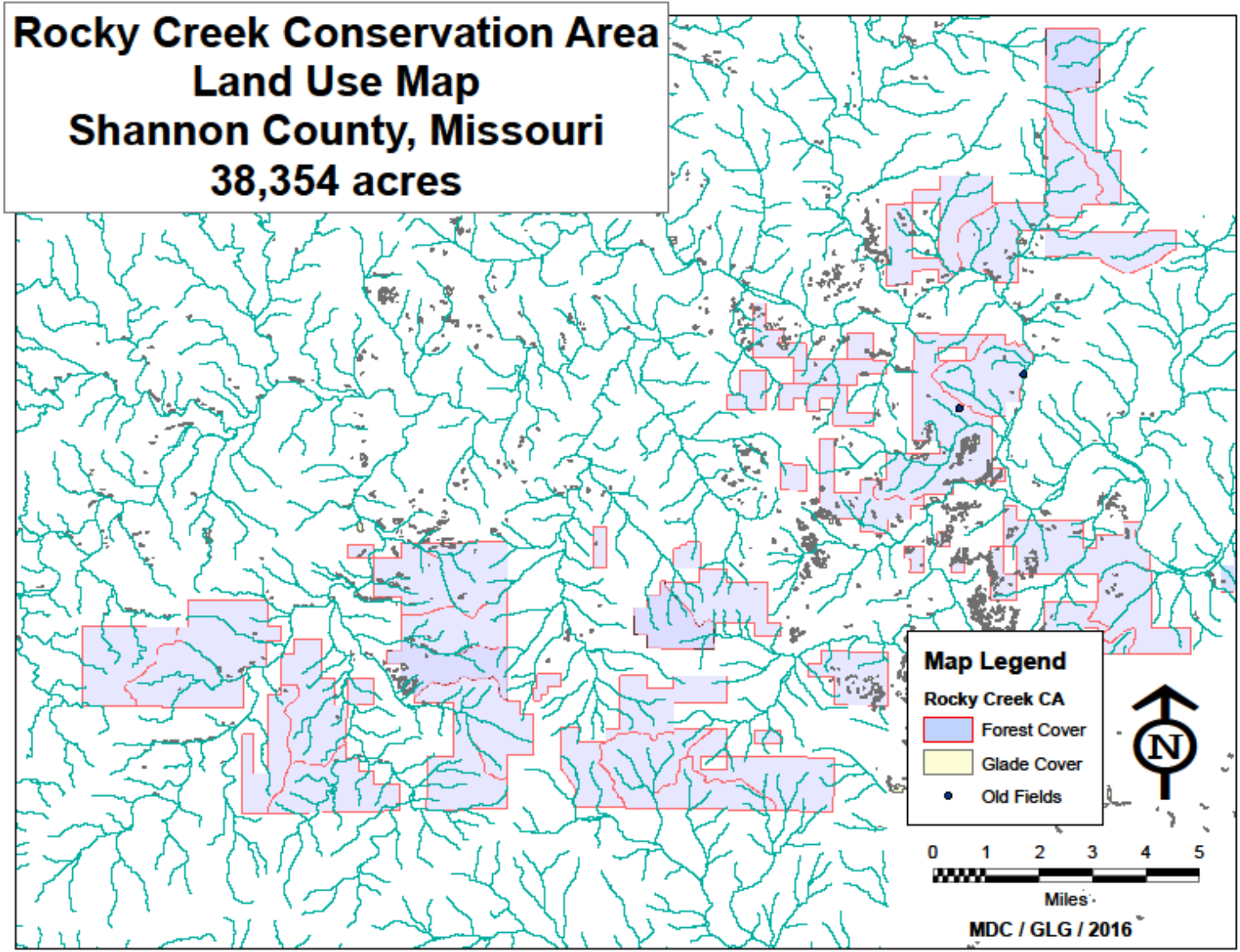
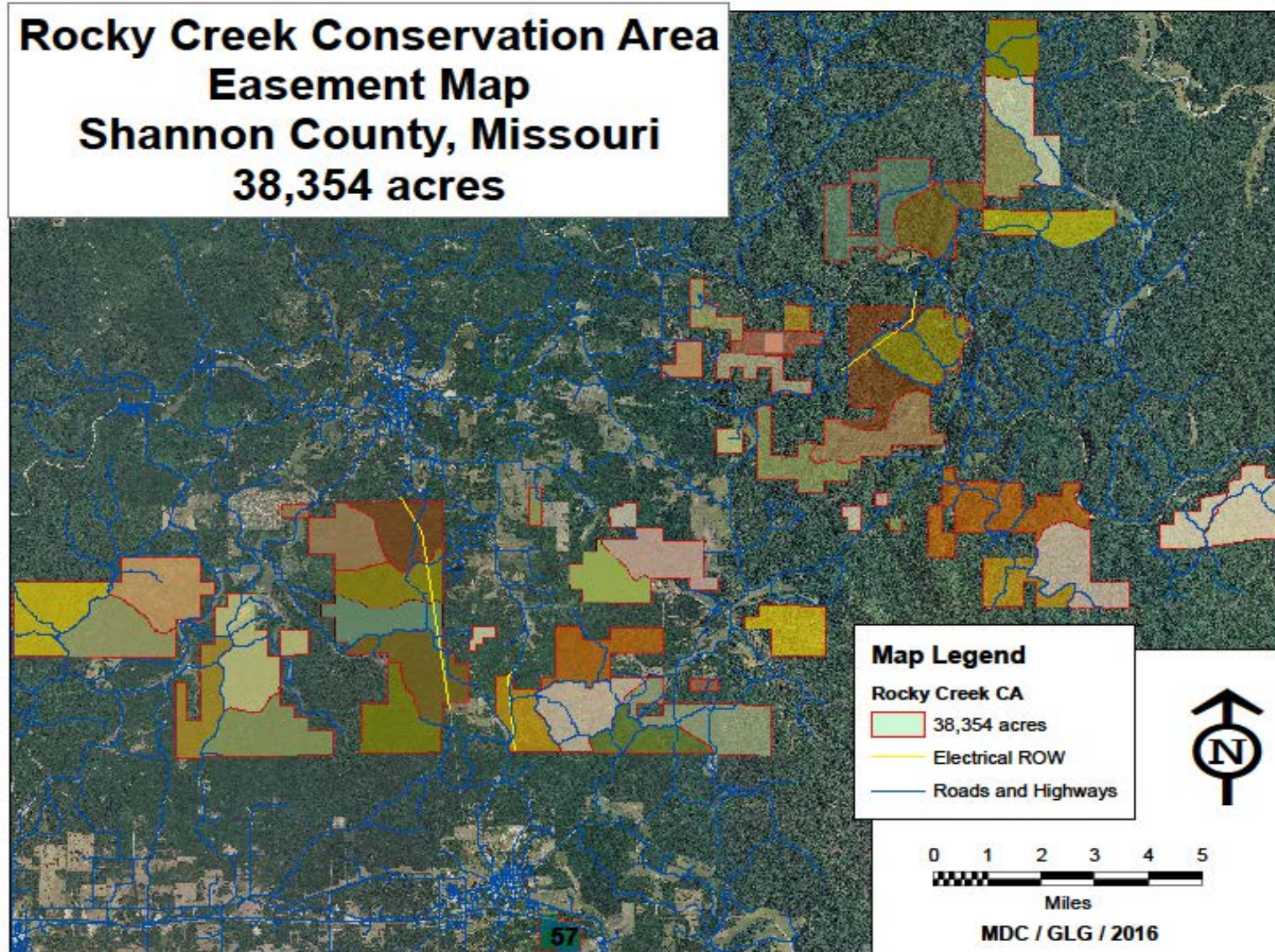


Figure 4: Easement Map



Appendix A: Rocky Creek Conservation Area Management Plan Public Comments

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

1 plant duck food on all ponds so they will light in M.O. instead of other states 2. no lead shot. shot guns make 95% of the lead in the wild. Healthy soil =healthy plants =healthy animals. The reproductive of the hen ducks will fall !!!!! and everything else
3. Lime the hedge rows and fields to help neutralize the dissolved lead. 4 . leave the Rifles and pistols alone! it has lost 3 times in top federal courts because police have protective closing

The only trail in any of the areas is the Ozark trail. Trails should be created in one or more of the areas and/or a connector to the Ozark Trail to create a loop so it is not out and back if you are only hiking this portion. The driving trail could be promoted more since it is educational in terms of conservation.

Thank You

Thank you for the opportunity to make constructive comments about this plan. It is a very comprehensive plan that covers all of the major areas that are core to your mission. I only have two thoughts to add. First is on Page 4, Existing infrastructure, the trailhead is with the Back Country Horsemen of Missouri, instead of the Show-Me Missouri Back Country Horsemen. We changed our name in March of 2017, so it is understandable that you are not aware of the name change. The Second item is on page 10, the last paragraph, when reference is made to recreational opportunities. Because this is a 20 plan, and I know the timing is not appropriate at this time, could the concept of future equestrian trails be added to that paragraph, just to keep that option open in the future. The Rocky Creek Conservation Area with all of its beauty, and with all of the equestrian activity and large number of equestrian ownership, could easily support non-motorized multi use trails in the future. After all, much of the ground is rock and could easily sustain a trail system.

Thank you again for allowing comments.

Sincerely,

Back Country Horsemen of Missouri

I would like to see provisions made for future equestrian trails to be extended southward from the existing trailhead.