

Apple Creek Conservation Area

25-Year Area Management Plan FY 2020-2044



Justine Gartner

Forestry Division Chief

8/26/2019

Date

Apple Creek Conservation Area Management Plan Approval Page

PLANNING TEAM

Mike Keeley, Regional Forester

Danielle Stephenson, Resource Forester

Kevin Brunke, Natural History Biologist

Ryan Dirnberger, Wildlife Management Biologist

Mike Reed, Fisheries Management Biologist

Bridget Jackson, Conservation Education Consultant

Ben Stratton, Conservation Agent

Brad Pobst, Private Land Conservationist

Jay Brittain, Design and Development

SOUTHEAST REGION

RCT Chair

Matt W. Bowyer

6/28/2019

Signature

Date

FORESTRY DIVISION

Forest Management Chief

John Tuttle

8/26/2019

Signature

Date

OVERVIEW

- **Official Area Name:** Apple Creek Conservation Area, # 8612
- **Year of Initial Acquisition:** 1986
- **Acreage:** 2,100 acres
- **County:** Cape Girardeau
- **Region:** Southeast
- **Division with Administrative Responsibility:** Forestry
- **Division with Maintenance Responsibility:** Forestry
- **Statements of Purpose:**
 - A. Strategic Direction**

Manage for wildlife and forest resources with emphasis on forest species and compatibility with outdoor recreational opportunities.
 - B. Desired Future Condition**

The desired future condition of Apple Creek Conservation Area (CA) is healthy forest, woodland, open land, and riparian ecosystems that provide a variety of public use opportunities.
 - C. Federal Aid Statement**

N/A

GENERAL INFORMATION AND CONDITIONS

I. Special Considerations

- A. Priority Areas:** Cape Hills Forest and Woodland Conservation Opportunity Area
- B. Natural Areas:** N/A

II. Important Natural Features and Resources

- A. Species of Conservation Concern:** Species of conservation concern are known from this site. Area managers should consult the Natural Heritage Database annually and review all management activities with the natural history biologist.
- B. Caves:** None
- C. Springs:** Yes, records kept with MDC natural history biologist.
- D. Other:**
 - Apple Creek CA lies mostly in the Cape Oak-Mixed Hardwood Forest Hills Landtype Association. Natural communities in the uplands on the conservation area include mesic and dry-mesic forest with occasional patches of dry-mesic chert woodland/forest. Most of the upland forests on the area have a diverse herbaceous flora. The bottomlands are in the Ozark-Mississippi River Alluvial Plain Landtype (Nigh & Schroeder, 2002).

- William H. and Florida H. Foster, Robert Muffler, and T. B. McCain graveyards occur on the area.

III. Existing Infrastructure

- Eight parking lots, three at the shooting range that are Americans with Disabilities Act (ADA) accessible
- One 5-mile hike/bike/horse multi-use trail
- Two campgrounds with picnic tables, grills, and fire rings
- Rifle and pistol range (ADA accessible)
- Pavilion at range (ADA accessible)
- Trap and skeet range (ADA accessible)
- Static archery range (ADA accessible)
- One privy (ADA accessible, at rifle range)
- Six wetland structures
- Two barns
- Three stocked lakes (0.5, 0.5, and 1 acre)
- Thirteen wildlife watering ponds (total of 1 acre)
- One concrete boat ramp

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 powerline right of way easement with Citizens Electric; and there are property access easements with Wayne T. Pfeiffer, John M. and Julia J. Cotner.
- D. Cultural Resources Findings:** No known cultural resources.
- E. Endangered Species:** None observed.
- F. Boundary Issues:** None

MANAGEMENT CONSIDERATIONS

V. Terrestrial Resource Management Considerations

Apple Creek CA contains approximately 2,100 acres of forests, woodlands, old fields, and wetlands. Management of these areas is focused on maintaining resilient natural communities that provide for diverse wildlife.

Challenges and Opportunities:

- 1) Manage forest and woodland communities.
- 2) Manage for diverse old field/savanna/open woodland continuum.
- 3) Maintain stable riparian habitat.

Management Objective 1: Manage for sustainable and healthy forest and woodland communities with emphasis on wildlife habitat and improved timber quality for future harvests.

Strategy 1: Continue to implement the forest inventory schedule for the area.

Inventory will be used to guide future management decisions. (Forestry)

Strategy 2: Use uneven-aged, even-aged, forest stand improvement, and prescribed fire management practices to maintain and regenerate forest and woodland communities where appropriate. (Forestry)

Strategy 3: Monitor forests and woodlands for invasive vegetation, diseases, and insects. Suppress any infestations that may develop by using mechanical and chemical control methods. (Forestry, Wildlife)

Strategy 4: Use appropriate best management practices to prevent soil erosion during timber harvesting and trail maintenance on the area. Use the best management practices described in the *Missouri Watershed Protection Practice Recommended Practices for Missouri Forests: 2014 Management Guidelines for Maintaining Forested Watersheds to Protect Streams* (MDC, 2014). (Forestry)

Management Objective 2: Manage open lands in a manner that provides early successional habitat for wildlife.

Strategy 1: Prescribe burn warm-season grass and old fields with varying size and timing to provide a diversity of plant responses. (Forestry)

Strategy 2: Disc or spray as needed to maintain early successional species. (Forestry)

Management Objective 3: Manage open land fields for annual crops.

Strategy 1: Use permittee farming to manage a mixture of crops, food plots, idled acres, and MDC legume fields. (Wildlife, Forestry)

Strategy 2: Plant food plots in smaller fields on the area by planting a variety of grain and green browse crops to supplement native food sources for wildlife. (Wildlife, Forestry)

Management Objective 4: Manage open wetland habitats to provide resources for waterfowl and other wetland-dependent wildlife.

Strategy 1: Maintain native vegetation within managed impoundments and non-forested areas. (Wildlife)

Strategy 2: Maintain managed impoundments in a diverse array of early successional habitat. (Wildlife)

Management Objective 5: Maintain stable riparian habitat.

Strategy 1: Complete renovation of road system on the south side to ensure stable and accessible creek crossings as the Construction Improvement budget allows. When work is complete, revegetate disturbed areas with planted seedlings and natural regeneration. (Forestry)

VI. Aquatic Resource Management Considerations

Challenges and Opportunities:

- 1) Manage fish populations in lakes for quality angling.
- 2) Manage aquatic and/shoreline vegetation at the lakes for quality fish habitat and angler access.
- 3) Maintain area ponds incapable of supporting quality fisheries as habitat for amphibians, reptiles and other wildlife.

Management Objective 1: Manage fish populations in lakes.

Strategy 1: Maintain fish populations through area regulations. (Fisheries, Protection)

Strategy 2: Supplement natural recruitment and/or provide additional species by stocking, when necessary. (Fisheries)

Management Objective 2: Manage aquatic and shoreline vegetation.

Strategy 1: Use chemical, biological, and/or mechanical methods to control aquatic and/or shoreline vegetation. (Fisheries)

Strategy 2: Establish desirable aquatic vegetation in lakes. (Fisheries)

Management Objective 3: Manage ponds incapable of supporting quality fisheries as habitat for amphibians, reptiles, and other wildlife.

Strategy 1: Maintain wildlife watering ponds by allowing shoreline and aquatic vegetation to develop. Fell trees into water, when available/needed for reptile use. (Wildlife, Forestry)

VII. Public Use Management Considerations

Challenges and Opportunities:

- 1) Provide public hunting and viewing opportunities.
- 2) Maintain shooting range for diverse outdoor skill opportunities.

- 3) Maintain multi-use trail and service roads for user access.
- 4) Maintain boat ramp for access to the Apple Creek and Mississippi River.
- 5) Build relationships with neighboring landowners.

Management Objective 1: Provide public hunting and viewing opportunities.

Strategy 1: Conduct annual management activities that will provide habitat for a diversity of wildlife species. (Forestry, Wildlife)

Management Objective 2: Maintain shooting range for diverse outdoor skill opportunities

Strategy 1: Maintain current infrastructure for pistol, rifle, shotgun, and archery use. Utilize a contractor to conduct mowing and trash clean up. (Forestry, Design and Development)

Strategy 2: Maintain Memorandum of Understanding with the Cape Co. Gun Club to operate the trap and skeet range. (Outreach and Education, Forestry)

Strategy 3: Maintain recommended safety infrastructure. (Forestry, Design and Development, Outreach and Education)

Management Objective 3: Maintain multi-use trail and service roads for user access.

Strategy 1: Keep trail clear of brush and downed trees. (Forestry)

Strategy 2: Keep trail properly marked to help users navigate the trail. (Forestry)

Strategy 3: Monitor trail for possible soil erosion issues and implement best management practices to mitigate any issues. (Forestry)

Management Objective 4: Maintain boat ramp for access to the Apple Creek and Mississippi River

Strategy 1: Keep boat ramp and parking lot free of sediment and drift wood. (Forestry, Design and Development)

Management Objective 5: Facilitate a good working relationship with neighboring landowners.

Strategy 1: Work with neighbors to minimize any boundary, trespass, invasive species, or other issues affecting Apple Creek CA or private property. (Forestry)

VIII. Administrative Considerations

Challenges and Opportunities:

- 1) Maintain area infrastructure at current levels.
- 2) Consider acquisition of land, when available.

Management Objective 1: Maintain area infrastructure at current levels.

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

(Forestry)

Strategy 2: Maintain boundary lines on a five-year schedule. (Forestry)

Lands Proposed for Acquisition:

When available, adjacent land may be considered for acquisition from willing sellers. Tracts that improve area access, provide public use opportunities, contain unique natural communities and/or species of conservation concern, or meet other MDC priorities, as identified in the annual MDC land acquisition priorities, may be considered.

APPENDICES

Area Background:

Apple Creek Conservation Area (CA) is located in northeast Cape Girardeau County near the confluence of Apple Creek and the Mississippi River. The area is about 4 miles east of the community of New Wells on State Highway CC. Access is also available from County Road 525.

This portion of Cape Girardeau County was settled in the early 1800s by predominantly German immigrants. Northeast Cape Girardeau County is composed of rolling to steep hills of deep wind deposited loess and cherty residuum soils bisected by small creeks and hollows with relatively narrow flat bottoms.

In 1986, MDC purchased three adjoining farms and other small acreage to become Apple Creek CA. The area was purchased entirely with MDC funds. Apple Creek CA was previously composed of at least 12 farms. These were eventually consolidated into three farms by the time of purchase by MDC. Most of the old farmsteads still have buildings or remnants of buildings. Two were still occupied at the time of purchase.

These farms were fairly typical of the area, in that most steep hillsides and narrow ridges are forested. Most of which has had a cutting, grazing, and/or fire history. Some of the ownerships were more recently managed than others. This resulted in a diverse mix of tree size and age classes in the forest. This has continued with MDC ownership; mostly uneven-aged management is used to create habitat diversity. The broader bottoms and some of the broader ridges were cleared for use as cropland and hayland while the steeper cleared hillsides were used as pasture. Today the pasture/hay ground is largely maintained as old field with the steeper portions allowed to revert to forest. The crop ground is still maintained, but occupies less acreage. Buffers along creeks and drainages have been established and bottomland flood-prone acres have been reforested.

Current Land and Water Types:

Land/Water Type	Acres	% of Area	Miles
Forest	1,705	81	
Open Land	307	15	
Wetland	66	3	
Infrastructure (range/parking lots/roads)	19	1	
Lakes/Ponds	3	<1	
Total	2,100	100	
Permanent Stream Frontage – Apple Creek			2.0

Public Input Summary:

The draft Apple Creek Conservation Area Management Plan was available for a public comment period Sept. 1–30, 2018. MDC received comments from 19 respondents (Appendix A). The Apple 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.

MDC responses to themes and issues identified through the Apple Creek Conservation Area Management Plan public comment period.

Terrestrial Resource Considerations

Suggests reducing the deer population at Apple Creek CA (out of concern for vehicle safety and protection of nearby crops). Suggests allowing antlerless deer permits to reduce deer abundance.

MDC analyzes its deer population annually to keep populations at desired levels. Apple Creek CA's deer regulations changed three years ago from an area where only bucks could be harvested to its current regulation. Currently, antlerless deer can be harvested on any-deer permits. The ability to allow antlerless deer to be harvested on an antlerless permit is a newer option which allows MDC to address deer populations annually on conservation areas. Deer populations on Apple Creek CA have been at or around desired levels in the past, but the use of antlerless permits may be used in the future to address undesirable deer populations. Landowners surrounding Apple Creek CA currently have landowner permits, unlimited archery antlerless permits, as well as an additional antlerless firearm permit to lower populations on their own property if they believe the deer population is too high.

Suggests expanding dove hunting food plots on the area to relieve overcrowding at nearby areas.

Planting dove hunting food plots on Apple Creek CA has been tried in the past. This resulted in low dove use as well as light hunter use. Sunflower fields require a lot of money and staff time. We are currently focusing our efforts in locations that are most heavily used by doves, hopefully resulting in a higher quality hunt. From previous experiences, adding additional fields on nearby areas doesn't resolve the issue of crowded fields as hunters are attracted to fields with the heaviest dove use.

Public Use Considerations

Trails

Appreciates the 5-mile multi-use trail at Apple Creek CA; the trails are a favorite for bicyclists. Suggests adding more trails to the area (particularly biking trails). Would like to assist MDC in planning, constructing, and maintaining trails.

Staff works hard to maintain the current trail system to minimize associated resource degradation such as soil erosion. At this time, there is a limitation of the size of the area, the cost of labor, and resource degradation to justify expanding the trail. Expanding the trail on the north side was considered, but with the existing trail on the south side already over about half the area and roads and trails already existing on the northside, it was determined we did not want to disturb and fragment more acres of habitat than already has been. The area manager would be glad to discuss this with interested stakeholders to modify or improve the 5-mile trail for bicyclists.

Suggests separating horse-riding trails from hiking/biking trails.

MDC uses multi-use designation on most trails. Although it may not be ideal for each specific user group, we feel it is compatible enough that we can increase the public use opportunities for the same fixed costs of trail maintenance.

Suggests adding a water spigot at the trailer parking area to provide water for horses.

Digging a well for the limited use would be cost prohibitive.

Public Education

Suggests incorporating more public education at the area, such as educating the public on food sources for wildlife, the importance of trees, preventing wildfires, effects of littering, plants that attract bees/pollinators, and birds/bees/wildlife on the area.

We will look for opportunities as they arise. We are always looking to educate the public on natural resources of our land. We do post signage in concentrated areas like parking lots, but we must limit it not to saturate the area with too much information. We do post occasional signs by grasslands and management of forest resources for wildlife.

Suggests adding raised herb and flower beds.

Raised beds management would be outside the area objectives and not practical to maintain.

Shooting Range

Suggests adding covered areas above the benches at the pistol and rifle ranges.

We have chosen to establish trees to provide natural shade instead of more infrastructure. We believe this will be cheaper and have more environmental benefits over time. Although this will not be an immediate improvement, we are in the process of evaluating all unstaffed shooting range needs and looking at ways to improve the usage.

Suggests more enforcement of gun range hours. Shots are being fired outside of gun range hours.

Our protection staff does patrol the area but is not able to be there daily. We will do our best to enforce all regulations. Contact Ben Stratton at (573) 450-1763 to report any violations.

Appreciates the shooting range. Likes the concrete benches at the range and how the backstops are maintained.

MDC has invested a lot in the range to provide area users with an enjoyable safe experience. Thank you for the positive comments.

Suggests using asphalt for the range road instead of gravel to reduce long-term maintenance costs.

MDC constantly analyzes its infrastructure maintenance costs. At this time, it is not cost-effective to maintain an asphalt road.

Administrative Considerations

Suggests that MDC funds should be used to assist in maintenance of State Highway CC since MDC doesn't pay road taxes. Would like to see MDC assist in mowing the right of ways, widening the road, and repaving the road.

The Missouri Department of Transportation (MoDOT) maintains State roads like Hwy CC. MoDOT is managing Hwy CC to their standards for the location and amount of use.

Is concerned about the safety of vehicles pulling trailers on CR525 due to the condition of the road. Suggests that MDC assist in paving CR525, from Highway CC to the horse trail. Cape Girardeau County road department manages 525 to their standards. The hill that frequently washes is challenging to maintain.

References:

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.

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 Map

Figure 3: Land Cover Map

Figure 4: Easement Map

Additional Appendices:

Appendix A: Apple Creek Conservation Area Management Plan Public Comments

Figure 1: Area Map

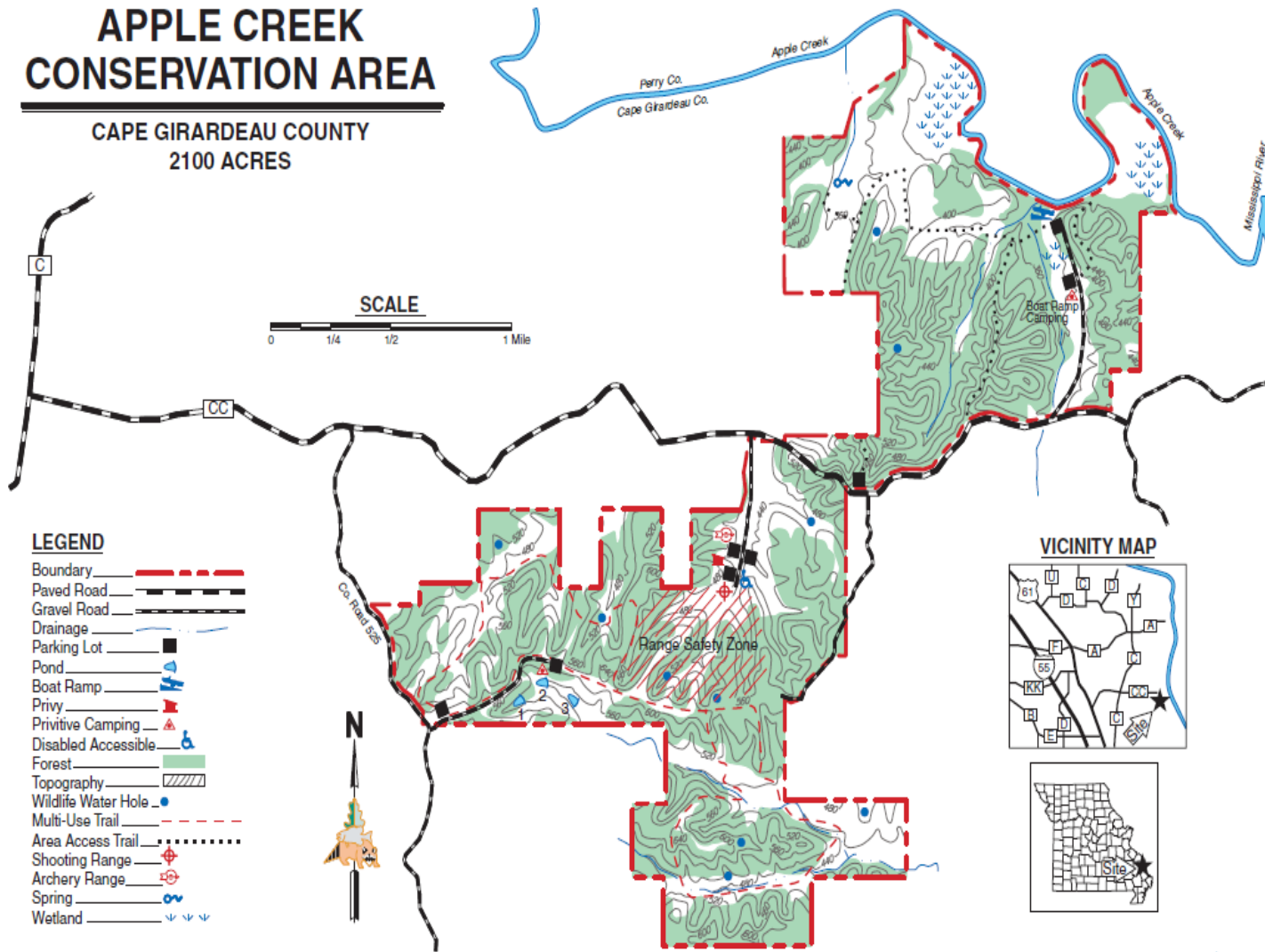


Figure 2: Aerial Map

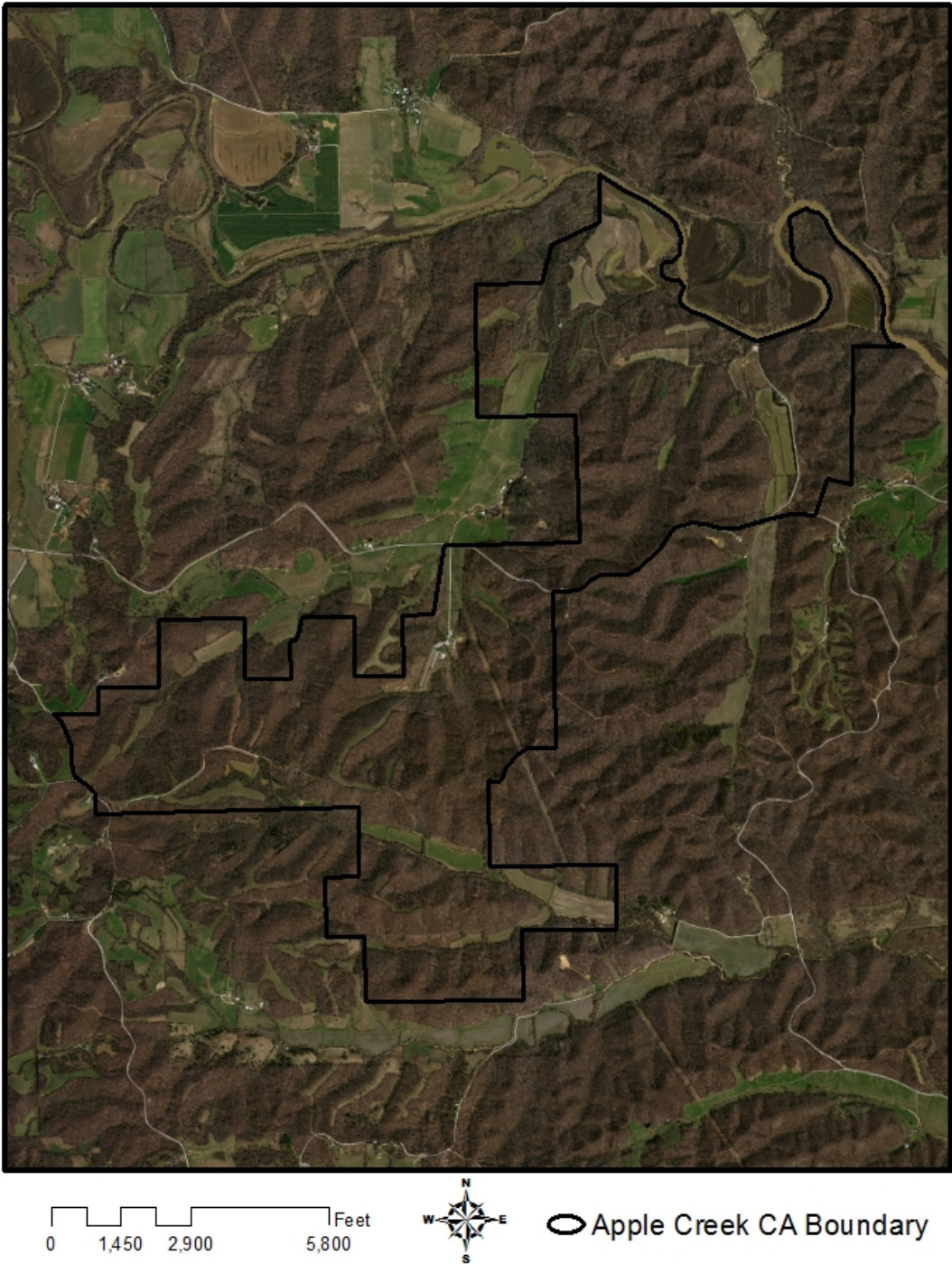


Figure 3: Land Cover Map

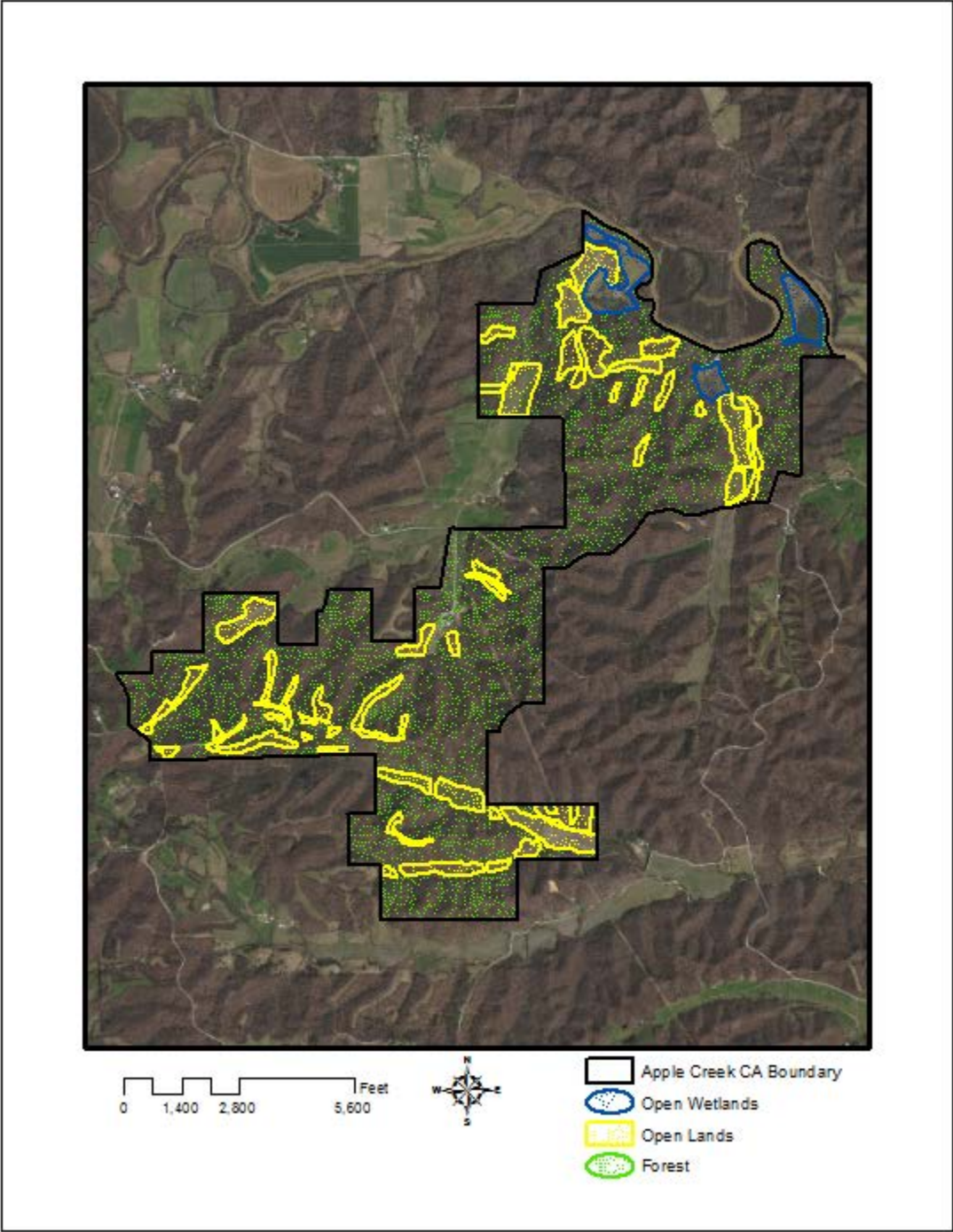
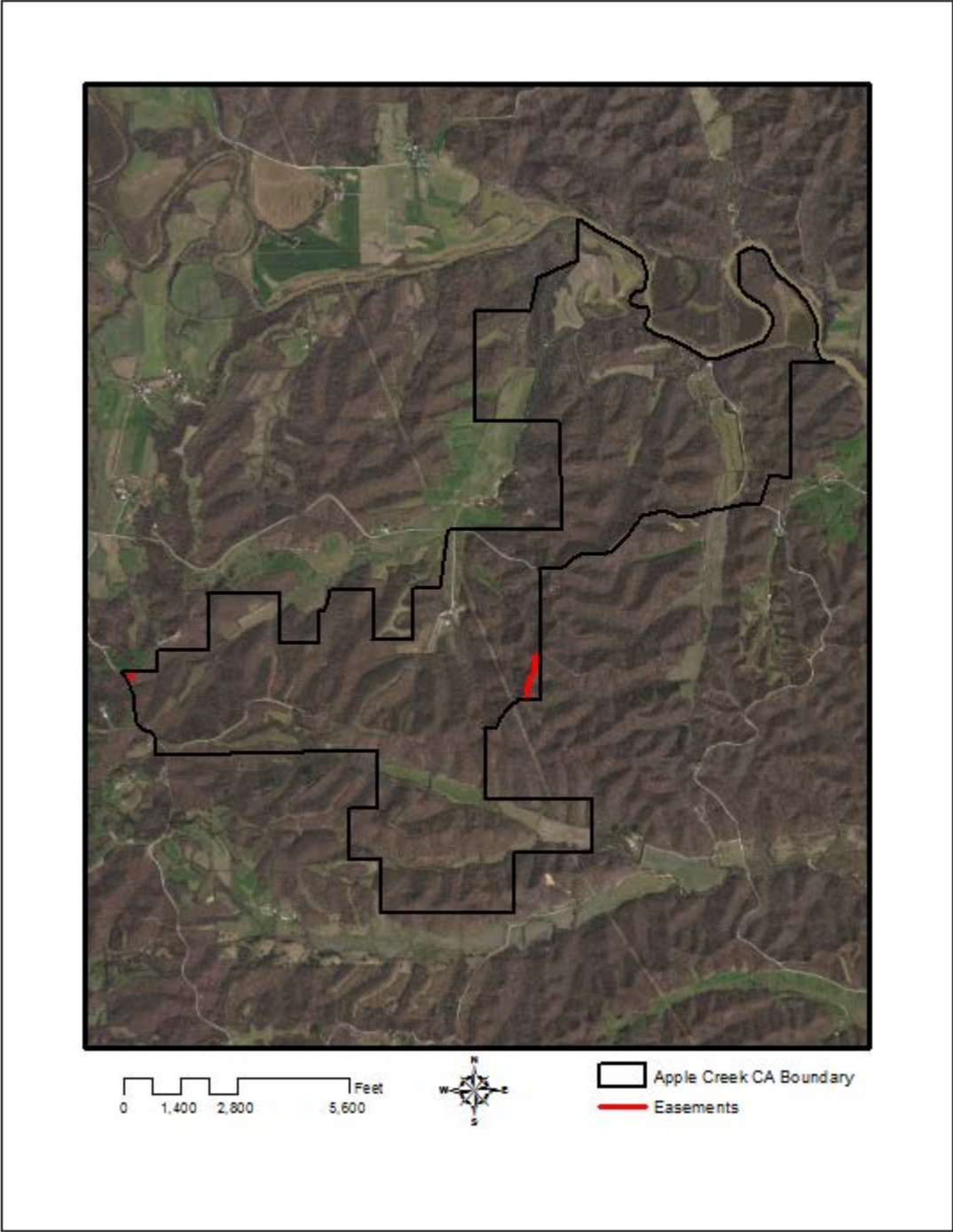


Figure 4: Easement Map



Appendix A: Apple Creek Conservation Area Management Plan Public Comments

Received during public comment period (Sept. 1–30, 2018):

Please allow for more mountain bike usage In Apple Creek. We desperately need mute mountain bike trails in Southeast Missouri as we are having to travel at least 1-2 hours to ride on trails of a decent length. This would greatly increase usage of the conservation area and could drive more tourism into the area. Please consider allowing more mountain bike friendly trails being built in Apple Creek. Thank you.

We have issue with over population of deer. They have become a hazard to our crops and vehicles. They appear to be very inbred and by your own tracking indicate they do not travel from the area. We would like to see a drastic thinning of the population or compensation for crop loss and vehicle repair.

The other concern we would like to express is the need for MDC to help in the maintenance of State Hwy CC. Because of increased traffic to MDC properties by the public-this roadway has become severely under kept. Right of ways not mowed enough so we can see the deer that stand along roadside in tall grass then get hit or hit us causing vehicle damage-multiple times to all our vehicles. Also, roadway needs to be widened and repaved due to high traffic volume. Boats on trailers are always over center line because edge of road has chipped off. They don't like their trailer tires hitting those holes so they ride the center line or over especially on corners. MDC doesn't pay road taxes like the rest of us land owners so we all feel some of MDC funds should be used to specifically help maintain Hwy CC and mow right of ways regularly thru growing season we ourselves maintain and groom our road right of way.

All in all we don't have major problems with MDC as a neighbor just would like to see attention taken to the above mentioned items. According to what I read in your Management plan you will be doing boundary maintenance so they are clearly marked and known.

Raised herb beds and edible plants that educate what animals thrive on, since there are are so many wild fires create open season for planting trees and educating sites why trees are important... educational sites about the effects of litter, raised flower beds and educate which flowers attract bees and the roll they play, along with the species of bees, birds, and wild life that thrive in that area.

thank you for the opportunity for public comment. I am a member of a not for profit organization whose main goal is to create recreational opportunities in the SE Missouri region for trail use. We design trail, build trail and maintain trail using sustainable techniques which ensure long lasting, sustainable, low maintenance trails for multi-use. While our focus is on mountain biking, we also understand that other users would use the trails as well.

We have enjoyed the use of the existing nearly 5 mile multi-use trail at Apple Creek already and would love to see MDC consider allowing some modifications to that trail to make it even better, or perhaps explore the possibility of the addition of some new trail in a different area of the Conservation land that would be for hikers and bikers only, allowing the older existing trail for equestrians?

Public lands in the SE Mo area are not too plentiful, but we feel like Apple Creek provides an excellent location and terrain to offer some additional opportunities to local people and perhaps even draw visitors from the region. We feel like an area with strong trail systems provide unique options for families, and one need look no further than Bentonville, Arkansas to see what impact trails have had on their community! It is truly remarkable.

So we would like to see the MDC consider meeting with our organizations representatives to see if perhaps we could offer some proposal to the MDC. We would also most certainly be willing to do the work for the cutting and building of the trail under the consent and direction of MDC, of course.

thanks so much!

*****, on behalf of the MTBC

I'd like to see more Mountain Bike trails. Something like Arkansas has done with the Bentonville and Fayetteville areas. Cycling is the new golf and it would bring more commerce to that area.

This area would be a great place for gravity mountain bike trails, along with other multi-use trails.

I love how well the horse trails are upkept!

It would be nice if there was a water spicket located near the trailer parking for the ability to water the horses or rinse them off on hot days that I ride.

Would be nice to have more mountain bike/hiking trails in the Apple creek conservation area.

I would like to see some trails for mountain biking. We don't have many in our area, and I am willing to bet that there is a good number of people that would be willing to volunteer to help.

Please work with Cape County to pave CR525 from highway CCto the horse trail. It's condition is dangerous for any citizen pulling a trailer. A serious accident is imminent.

Please manage the gun range hours strictly. Shots are being fired hours before and after posted range hours.

Overall, your team does very well

Could there be a possible more extensive development for dove hunting food plots Mentiz wildlife area is getting over hunted with lots of hunters it would be nice to have another area to help for the overcrowded hunting.

I would like to see the conservation department develop mountain biking trails. This is a growing interest of recreation in our area and I believe the public would greatly appreciate and desires facilities designed for this sport.

Not sure if this qualifies or not but the shooting range is a great part of Apple Creek. If there was a way to add covered ranges on the pistol and shooting ranges it would be the place to shoot in SEMO. Many times out there I see people bringing their own covered tents. That's fine, but

they're bulky and don't position well with other shooters and are unregulated. Having a covered range at the shooting benches would be a fantastic addition to the property. My guess is more people would be there more often. The shooting facility would be greatly enhanced with this addition.

The Apple Creek multiuse trail has been a favorite trail for the local mountain bikers in southeast Missouri for many years. We have enjoyed sharing the trail with horseback riders and hikers. As a member of the newly formed Midwest Trail Builders Coalition(MTBC) we would like to offer our volunteers for current trail maintenance and future expansion of the trails. We have certified And trained trail builders and lots of experience building quality trails. We would especially like to discuss the Missouri Department of Conservation expanding the opportunity for building new trails on Apple Creek Conservation Area. The MTBC is willing to partner with the MDC to plan, build and maintain new trails at Apple Creek CA. These new trails could be used by hunters, fishermen, hikers, horseback riders and mountain bikers. We hope that you will consider this request and we would like to request a meeting with Mike Keely and the Apple Creek CA staff.

Thanks for the opportunity,

Midwest Trail Builders Association

Add some awnings, some type of overhead protection, sun and rain to the pistol and rifle ranges.

The allowance of the use of antlerless deer permits should be strongly considered. The herd seems to be out of balance, leaning towards does and a few immature bucks.

I would love to see the addition of more trails in the Apple Creek area.

As a family of 4 that spends a lot of time doing outdoor recreation, more specifically mostly mountain bike riding, we would love to see an expansion to the multi use trail to be better suited to the use of mountain bikes. Trails are designed with land management in consideration, and when done properly can draw a lot of people to the area. I know we spend a large amount of resource on travel to visit areas that have trails.

Thanks,

My comment is regarding the Shooting Area. First things first, major kudos to the MDC for maintaining the shooting area. It truly is my "happy place". The concrete benches are a fantastic improvement from the old wooden benches that were there many years ago. The paths to the backstops and the backstops themselves are always in great shape. It's safe to say that the majority of the shooters observe the safety rules and I feel safe out there 99.9% of the time.

The one main improvement that would have a huge impact for the rifle and handgun benches would be shelter from the sun. A simple 6x6 frame with a corrugated tin roof would provide shade that would allow shooters to enjoy the range throughout the summer months. The cost for

such a simple structure should be relatively low compared to the return on the range usage.

The only other suggestion would be to asphalt the road for the range. The gravel is doable but maintenance on the gravel would seem to be more costly over the years versus a basic asphalt road (much less maintenance).

Thank you,
