

# Big Buffalo Creek Conservation Area

Ten-Year Area Management Plan  
FY 2019-2028



*Lisa D. Allen*

Forestry Division Chief

*8-2-18*

Date

## Big Buffalo Creek Conservation Area Management Plan Approval Page

### PLANNING TEAM

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### KANSAS CITY REGION

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Signature

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### FORESTRY DIVISION

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Date

## OVERVIEW

- **Official Area Name:** Big Buffalo Creek Conservation Area, # 6315
- **Year of Initial Acquisition:** 1964
- **Acreage:** 3,612 acres
- **County:** Benton, Morgan
- **Division with Administrative Responsibility:** Forestry
- **Division with Maintenance Responsibility:** Forestry
- **Statements of Purpose:**
  - A. Strategic Direction**

Manage for forest health, natural communities, quality wildlife habitat, and compatible recreational opportunities.
  - B. Desired Future Condition**

The desired future condition of Big Buffalo Creek Conservation Area (CA) is a healthy forest and woodland complex with a healthy Ozark stream system that provides improved habitat for a wide range of aquatic and terrestrial species.
  - C. Federal Aid Statement:**

This area, or a portion thereof, was acquired with Dingell-Johnson Sport Fish Restoration funds to restore and manage sport fish, conserve and restore sport fish habitat (or a buffer to protect that habitat), and provide public access for sport fishing.

## GENERAL INFORMATION AND CONDITIONS

### I. Special Considerations

- A. Priority Areas:** Big Buffalo Creek Priority Geography, Big Buffalo Creek – Forest and Woodland Conservation Opportunity Area, Fen – Wetland Conservation Opportunity Area, Priority Forest Landscape, Big Buffalo Creek Fisheries Priority Watershed
- B. Natural Areas:** Big Buffalo Creek CA has one designated natural area, Big Buffalo Creek Fen Natural Area. The natural area is 45 acres and includes a small spring-fed fen, a spring branch and creek, dolomite glades, and forest. Sedges dominate the fen vegetation, along with blue flag, marsh coneflower, Riddell's goldenrod, and horsetail.

### II. Important Natural Features and Resources

- A. Species of Conservation Concern:** Species of conservation concern are known from this area. Area managers should consult the Natural Heritage Database annually and review all management activities with the natural history biologist.
- B. Caves:** Yes, records kept with the Missouri Department of Conservation (Department) natural history biologist. Managers should follow the Cave

Management policy found in the Department Resource Policy Manual. All caves on this and other conservation areas are closed or restricted to public access. The fungus that causes White-nose Syndrome in bats has been documented in Missouri, resulting in the Department's White-nose Syndrome Action Plan that limits public access to protect bats.

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

### III. Existing Infrastructure

- Three parking lots
- Hike/bike/horse multi-use trails, 16.1 miles
- Primitive camping area with 10 pull-in sites
- Big Buffalo Lake, 6-acre fishing lake
- Heron Pond, 2-acre non-stocked pond (not managed for fishing)

### IV. Area Restrictions or Limitations

A. **Deed Restrictions or Ownership Considerations:** None

B. **Federal Interest:** Uses of land acquired with federal funds may not interfere with the purpose for which it was acquired. Closures to sport fishing must be based on the recommendations of the state fish and wildlife agency for fish and wildlife management purposes. 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:** Utility easement with Co-MO Electric, two ingress and egress easements

D. **Cultural Resources Findings:** No known cultural resources.

E. **Endangered Species:** None observed.

F. **Boundary Issues:** None

## MANAGEMENT CONSIDERATIONS

### V. Terrestrial Resource Management Considerations

#### **Challenges and Opportunities:**

- 1) Invasive plants are a threat on the area. Autumn olive, sericea lespedeza, and tall fescue are well established in some locations. Small populations of bush honeysuckle, burning bush, and teasel have also been found on the area.
- 2) Forest management is limited on certain portions of the area due to terrain and access. However, some opportunities exist to maintain and enhance forest and woodland stands through the use of sustainable forest management practices for optimum wildlife habitat and forest health.

- 3) The area's open fields are located on ridges, associated side slopes, and bottomland fields adjacent to streams that flow through the area. The majority of these fields are cool-season grass dominated by fescue, with several having terraces from past farming practices. Food plots were established along ridge tops and bottomland fields for wildlife.

**Management Objective 1: Manage forested areas to improve overall natural community health while improving habitat for wildlife.**

Strategy 1: Inventory forests and woodlands according to the inventory schedule to develop prescriptions for ecological and silvicultural treatment. (Forestry)

Strategy 2: Utilize a variety of sustainable forest management techniques to promote healthy forest and woodland communities, including, but not limited to, timber harvesting, forest stand improvement, firewood cutting, salvage cuttings, tree planting, seeding, and prescribed burning. (Forestry)

Strategy 3: Utilize best management practices, as described in the Department's forest management manuals: *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)

**Management Objective 2: Manage the Big Buffalo Creek Fen Natural Area to maintain or enhance the natural community to provide habitat for characteristic native plant and animal species.**

Strategy 1: Control succession and invasive species using a combination of prescribed fire and mechanical/chemical control. (Forestry)

**Management Objective 3: Eradicate and/or control spread of invasive and undesirable plant species to the extent possible.**

Strategy 1: Periodically monitor the area for invasive vegetation, diseases, and insects. (Forestry)

Strategy 2: Use appropriate strategies to suppress any infestations that may develop, including, but not limited to, mechanical and herbicide treatments. (Forestry)

**Management Objective 4: Renovate fields over time to tree plantations, native grasses, forbs, wildlife friendly cool-season mixes, and food plots to provide food and cover for wildlife and pollinator species.**

Strategy 1: Establish tree plantations in appropriate fields. In the short term, the primary focus will be fields located in riparian areas. (Forestry)

Strategy 2: Utilize appropriate fields for food plots. (Forestry)

Strategy 3: Manage designated old fields for diversity. Use mechanical, chemical, and prescribed fire methods to setback succession and control invasive species. (Forestry)

Strategy 4: Use limited haying through the Agricultural Crop Program in order to maintain quality early successional habitat. (Forestry, Wildlife)

## **VI. Aquatic Resource Management Considerations**

### **Challenges and Opportunities:**

- 1) The forested riparian corridors along Big Buffalo Creek and its tributaries are adequate in most places. Very few areas are in need of enhancement.
- 2) Big Buffalo Lake provides excellent public fishing opportunities.

### **Management Objective 1: Maintain and protect a healthy watershed by implementing best management practices.**

Strategy 1: Follow *Watershed and Stream Management Guidelines for Lands and Waters Managed by Missouri Department of Conservation* (Missouri Department of Conservation, 2009) and the Department Resource Policy Manual to ensure that all management activities adhere to best management practices. (Forestry)

### **Management Objective 2: Maintain an adequate forested riparian corridor along Big Buffalo Creek and its tributaries.**

Strategy 1: Where needed, expand the forested riparian zone by conducting tree/shrub plantings. (Forestry, Fisheries)

### **Management Objective 3: Provide quality angling opportunities.**

Strategy 1: Manage Big Buffalo Lake for self-sustaining largemouth bass, bluegill, and redear sunfish populations. (Fisheries)

Strategy 2: Continue the supplemental channel catfish stockings every two years. (Fisheries)

Strategy 3: Sample fish populations every two to three years, or as needed. (Fisheries)

Strategy 4: Manage aquatic vegetation at levels beneficial to fish populations while still allowing for shoreline fishing. (Fisheries)

## **VII. Public Use Management Considerations**

### **Challenges and Opportunities:**

- 1) This area provides excellent opportunities to the public for hunting, fishing, hiking, equestrian riding, and wildlife viewing.
- 2) The area could be utilized for increased educational and interpretive opportunities.
- 3) Budget and staffing needs for the area have increased since the addition of 1000+ acres in 2016, which could affect timelines for development and installation of additional facilities.

### **Management Objective 1: Provide public hunting and viewing opportunities.**

Strategy 1: Maintain parking lots, trails, and other facilities throughout the area. (Forestry)

Strategy 2: Conduct annual management activities that will provide habitat for a diversity of species. (Forestry)

### **Management Objective 2: Improve educational and interpretive opportunities on Big Buffalo Creek CA.**

Strategy 1: Provide maps and information on recreational opportunities to the public (e.g., using brochures and the Missouri Conservation Atlas database). (Forestry)

Strategy 2: Communicate to teachers and other youth leaders the possibilities for educational programs on the areas. (Outreach and Education)

### **Management Objective 3: Facilitate good working relationships with neighboring land owners.**

Strategy 1: Work with neighbors to minimize boundary, trespass or other issues affecting Big Buffalo Creek CA or private property. (Forestry)

Strategy 2: Promote habitat management on neighboring landowner properties. (Private Land Services, Forestry, Fisheries)

### **Management Objective 4: Maintain and improve multi-use trails for appropriate uses. Trails should be sustainable and require minimal maintenance.**

Strategy 1: Maintain the partnership with the State Fairs Trails Chapter of the Show-Me Back County Horseman for the upkeep and improvement of the horseback riding trail. (Forestry)

Strategy 2: Conduct a periodic assessment of the condition of the trails. Identify problem erosion areas and sections that need re-routing to improve sustainability and reduce maintenance. (Forestry, Design and Development)

Strategy 3: Identify and reach out to local horseback riding individuals and/or groups to facilitate communication about trail improvements. (Forestry)

Strategy 4: Update and maintain accurate signage on all trails consistent with Department guidelines. (Forestry)

**VIII. Administrative Considerations**

**Challenges and Opportunities:**

- 1) With the recent acquisition of additional acreage, the current infrastructure is inadequate to facilitate an appropriate level of public use and enjoyment.
- 2) Increasing the acreage of the area could provide for additional management and public use opportunities.

**Management Objective 1: Increase area infrastructure.**

Strategy 1: Explore possibility of constructing additional facilities, including parking and access, to facilitate public use and enjoyment of area resources. (Forestry, Design and Development)

Strategy 2: Maintain area infrastructure in accordance with Department guidelines and at currently identified maintenance level (2). (Forestry)

**Management Objective 2: Maintain clearly identified property lines.**

Strategy 1: Inspect and maintain boundaries on a regular cycle. (Forestry)

Strategy 2: Resolve boundary issues with adjoining landowners as they arise. (Forestry)

**Lands Proposed for Acquisition:**

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

**MANAGEMENT TIMETABLE**

Strategies are considered ongoing unless listed in the following table:

	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28
<b>Aquatic Resource Management Considerations</b>										
<i>Objective 3</i>										
Strategy 2	X		X		X		X		X	
Strategy 3	X		X		X		X		X	



## APPENDICES

### Area Background:

Big Buffalo Creek Conservation Area (CA) lies in Benton and Morgan counties, about 4 miles southwest of Stover. The Department acquired this area in 1964 from a private party who managed a portion of the bottomland as a minnow hatchery. The property was acquired with Sport Fish Restoration Funds for the purposes of fisheries research in the hatchery ponds and for smallmouth bass habitat research on Big Buffalo Creek. The original purchase was 1,424 acres. Through additional acquisitions, the area has now grown to 3,612 acres.

Currently, the forested portions of the property are managed for the long-term health and sustainability of the diverse forest resources. Forest management activities that can be observed on the area include forest stand improvement, tree planting, commercial thinning, even-aged and uneven-aged commercial harvests, and woodland restoration. Management also includes the preservation of several old-growth areas. All practices are carried out in such a way to provide a variety of wildlife habitats to allow the area to support diverse and healthy wildlife populations.

There are approximately 422 acres of open land habitat on the area. The majority of these fields are in cool-season pasture grasses, though some have been converted to native warm-season grass and forbs, have been planted to trees or are utilized as green-browse food plots. It is planned that the majority of these fields will undergo conversion of some form in the future.

### Current Land and Water Types:

Land/Water Type	Acres	Miles	% of Area
Forest/Woodland	3,174		88
Old Field/Warm-Season Grass	422		12
Ponds/Wetland	16		<1
<b>Total</b>	<b>3,612</b>		<b>100</b>
Stream Frontage – Intermittent Stream		9.3	
Stream Frontage – Permanent Stream (Big Buffalo Creek)		3.0	
Stream Frontage – Permanent Stream (Pole Hollow Creek)		0.7	

### Public Input Summary:

The draft Big Buffalo Creek Conservation Area Management Plan was available for a public comment period Dec. 1–31, 2017. The Missouri Department of Conservation received comments from 13 respondents (Appendix A). The Big Buffalo 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 Big Buffalo Creek Conservation Area Management Plan public comment period.

**Terrestrial Resource Considerations**

**Appreciates Big Buffalo Creek CA for opportunities to view high quality natural areas and diverse plants and animals. Suggests working closely with the natural history biologist and other divisions to conserve the area's natural diversity and natural areas. Suggests conducting an inventory of all species at the area and adopting long-term monitoring of species.**

Planning team members support the conservation of the natural area, diverse natural communities, plants and wildlife through habitat management including prescribed fire and eradication of invasive plants, surveys, and monitoring efforts.

**Opposes conducting timber improvement at the area. If selective harvest is conducted, suggests conducting with minimal disturbance. From year to year, has observed successively more bare areas along the trail.**

When timber harvesting or other tree removal practices are implemented it is done to improve forest health, improve wildlife habitat, or as part of natural community restoration or management. When harvesting is done, all accepted best management practices are followed and implemented to protect water quality and address other environmental impacts.

**Opposes managing the area for game species.**

Big Buffalo Creek CA's desired future condition ensures the forest, woodland, and stream natural communities, and their associated plants and wildlife, are managed to benefit the natural resources and the public.

**Suggests more removal of invasive species (e.g., multiflora rose, Euonymus) at the area. Suggests recruiting volunteers to help remove invasive species.**

Team members support volunteer groups assisting with eradication of invasive plants and surveys and monitoring. Those interested in volunteer opportunities should contact the area manager. Removal of invasive exotic species is a priority of this area and occurs as time and funding allows.

**Suggests using management techniques, such as prescribed burns that mimic natural disturbances. Suggests conducting a prescribed burn at the fen in the dormant season.**

Prescribed burning is a commonly used management tool on this conservation area. It is also planned to periodically burn the natural area.

**Supports maintaining old growth forests and improving riparian areas at Big Buffalo Creek CA.**

Old growth forest is a prescription commonly used on this conservation area. Each management compartment has areas designated as old growth. Primarily these old growth stands are located in or near riparian areas.

**Supports adding food plots for wildlife.**

We manage several food plots on the area. There are no plans at this time to expand efforts for additional food plots.

**Suggests liming hedge rows and fields.**

If necessary, lime application would be based upon professional soil testing.

**Aquatic Resource Considerations**

**Suggests improving smallmouth bass fishing. Suggests stocking smallmouth bass and other species (such as trout species) at the area.**

The Big Buffalo Creek Watershed has been heavily impacted over the last several decades by sedimentation (gravel) caused by poor land use practices, and disconnection throughout the watershed due to low-water crossing installations on county roads. Most deep pools have been replaced by vast shallow runs and riffles that are more suited to smaller species. The low-water crossings have also caused a fish passage barrier or disconnect from Lake of the Ozarks, which has kept new populations of smallmouth bass from taking up residence in the stream and without adequate in-stream habitat, stocking smallmouth bass would not be appropriate or cost-effective. We are currently working with landowners to implement best management practices for better land use to decrease the amount of sedimentation in the streams, and with county road districts to replace crossings as needed with a better design to allow fish and sediment passage.

Big Buffalo Creek has a summer water temperature range of 60–75 degrees Fahrenheit according to 2017 sampling data. Trout species are a cold-water stream fish and would have minimal chance of surviving if stocked into Big Buffalo Creek and therefore would not be a cost-effective program.

**Suggests planting duck food in area ponds.**

The area has numerous bodies of water that support native aquatic plants used by ducks.

**Suggests removing vegetation that prevents bank-fishing.**

The aquatic plant that is impeding bank fishing on the 6-acre lake on Big Buffalo Creek CA is most likely curly-leaf pondweed. This plant and others are being actively managed annually to keep the dam face open for bank anglers. Fisheries managers typically try to use chemical

treatments throughout the spring months every year to keep curly-leaf from taking over the fishing space along areas where bank fishing is highest, as well as to allow native aquatic plants a chance to grow and provide beneficial habitat for fish.

### **Public Use Management Considerations**

#### **Appreciates the outreach and education objectives for this area.**

We will continue those efforts in the future.

#### **Opposes having horse-trails at Big Buffalo Creek CA.**

The Department's mission statement is "to protect and manage the fish, forest, and wildlife resources of the state; to facilitate and provide opportunity for all citizens to use, enjoy, and learn about these resources." We recognize the impacts to the area with all the varied uses; however, in keeping with our mission, we allow certain uses on areas where we can adequately manage the impacts. We will continue to work toward reducing recreational impacts on the Big Buffalo Creek CA watershed.

#### **Appreciates the horse-riding trails available at the area. Suggests adding more horse-riding trails; offers assistance to add more trails. Appreciates the cooperation that the area manager and staff have had with the Backcountry Horsemen of Missouri.**

This area provides excellent equestrian trail riding opportunities. We will continue to provide these opportunities in the future. Total trail mileage for the area is now 16.1 miles.

#### **Opposes adding a parking lot at the top of the hill on the 1600-acre addition. Is concerned that a parking lot at this location would result in a decline in the quality of deer hunting at the area. Would like to know the location of the new parking lot.**

There are no plans to add a parking lot at the top of the hill. The planned parking lot location is adjacent to Big Buffalo Road.

#### **Suggests adding more trails and parking (especially at the newly added acres).**

A new parking lot is planned for construction adjacent to Big Buffalo Road. Total trail mileage on the newly added acreage is 6.8 miles.

#### **Suggests adding wooden corrals to the parking/camping areas for equestrian use.**

The Department is working to minimize infrastructure and the costs of maintaining existing structures to responsibly manage the financial resources we have been given. Adding wooden corrals at Big Buffalo CA would lead to a significant cost to the Department in construction and maintenance and is not planned at this time.

#### **Appreciates opportunities provided for individuals with mobility disabilities.**

The Department strives to provide opportunities for all citizens. The planning team considers the appreciation of the opportunities provided to be a great success in the implementation of our mission.

### Administrative Considerations

#### **Supports the acquisition of additional acreage for this conservation area.**

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

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

Because this area does not attract a large number of hunters for small game, lead shot deposition should be minimal. Anyone hunting waterfowl on area ponds or streams must use non-toxic shot by regulation.

#### **Opposes adding more buildings or roads at the area.**

There are no plans for additional structures or roads on the area. The only planned improvement is the previously mentioned parking lot.

#### **Suggests better enforcement of area boundaries. Trespassers have entered private property from the conservation area.**

Options for improving signage and marking will be explored. Area boundaries are regularly inspected and maintained. If trespassing occurs, we recommend contacting the local conservation agent or law enforcement.

#### **References:**

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

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.

Missouri Department of Conservation. (n.d.). *Missouri Natural Heritage database [ArcGeographic Information System datafiles]*. Retrieved from Missouri Department of Conservation shape files.

**Maps:**

Figure 1: Area Map

Figure 2: Easement Map

Figure 3: Topographic Map

Figure 4: Land Cover Map

**Additional Appendices:**












Appendix A: Big Buffalo Creek Conservation Area Management Plan Public Comments

Figure 1: Area Map

# BIG BUFFALO CREEK CONSERVATION AREA

BENTON AND MORGAN COUNTIES  
3,612 ACRES

**LEGEND**

- Boundary 
- Paved Road 
- Gravel Road 
- Drainage 
- Parking Lot 
- Spring 
- Primitive Camping Area 
- Forest 
- Topography 
- Multi-Use Trail 
- No Shooting Zone 

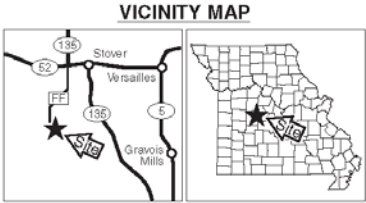
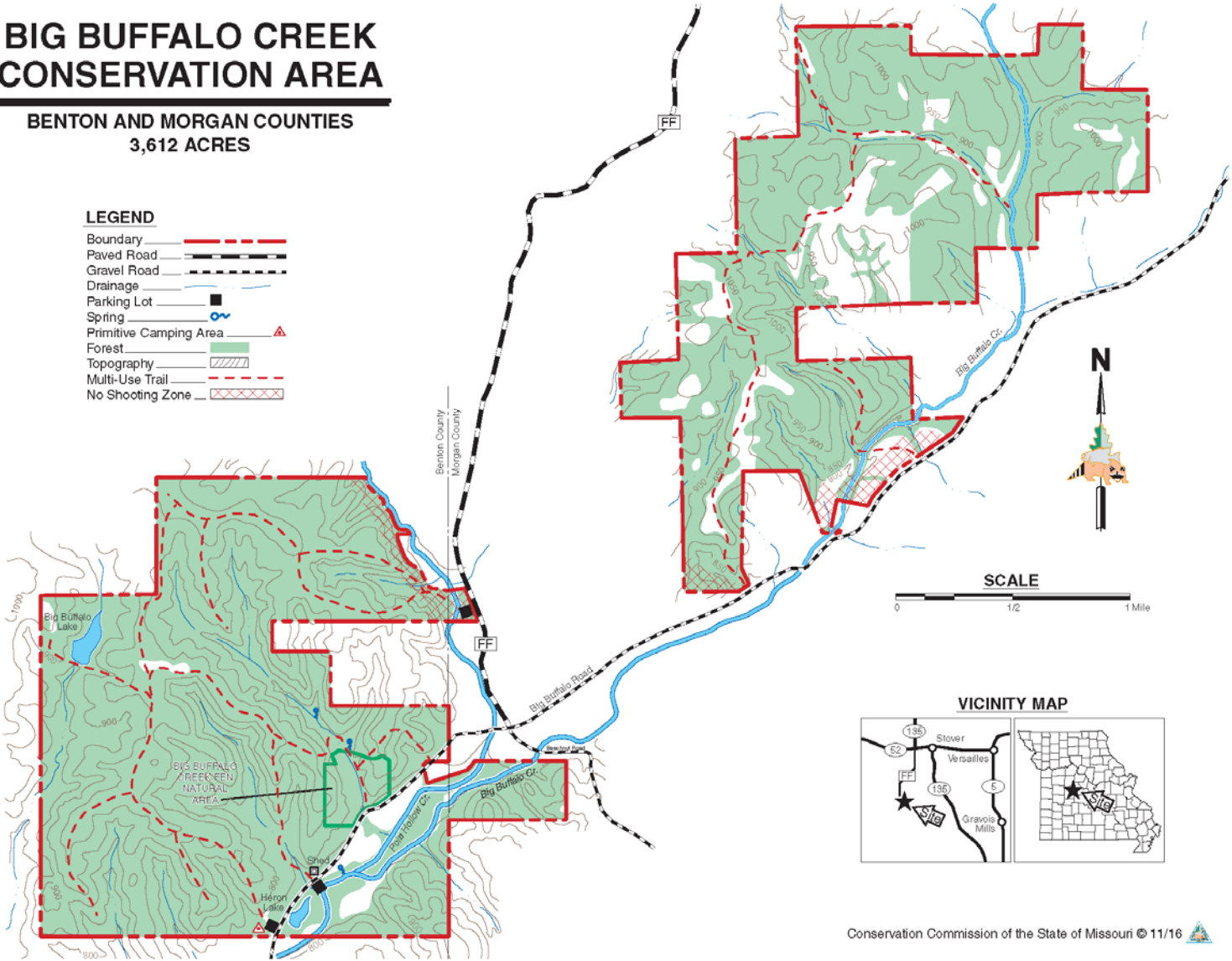


Figure 2: Easement Map

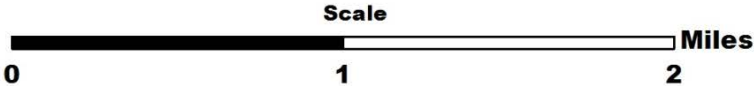
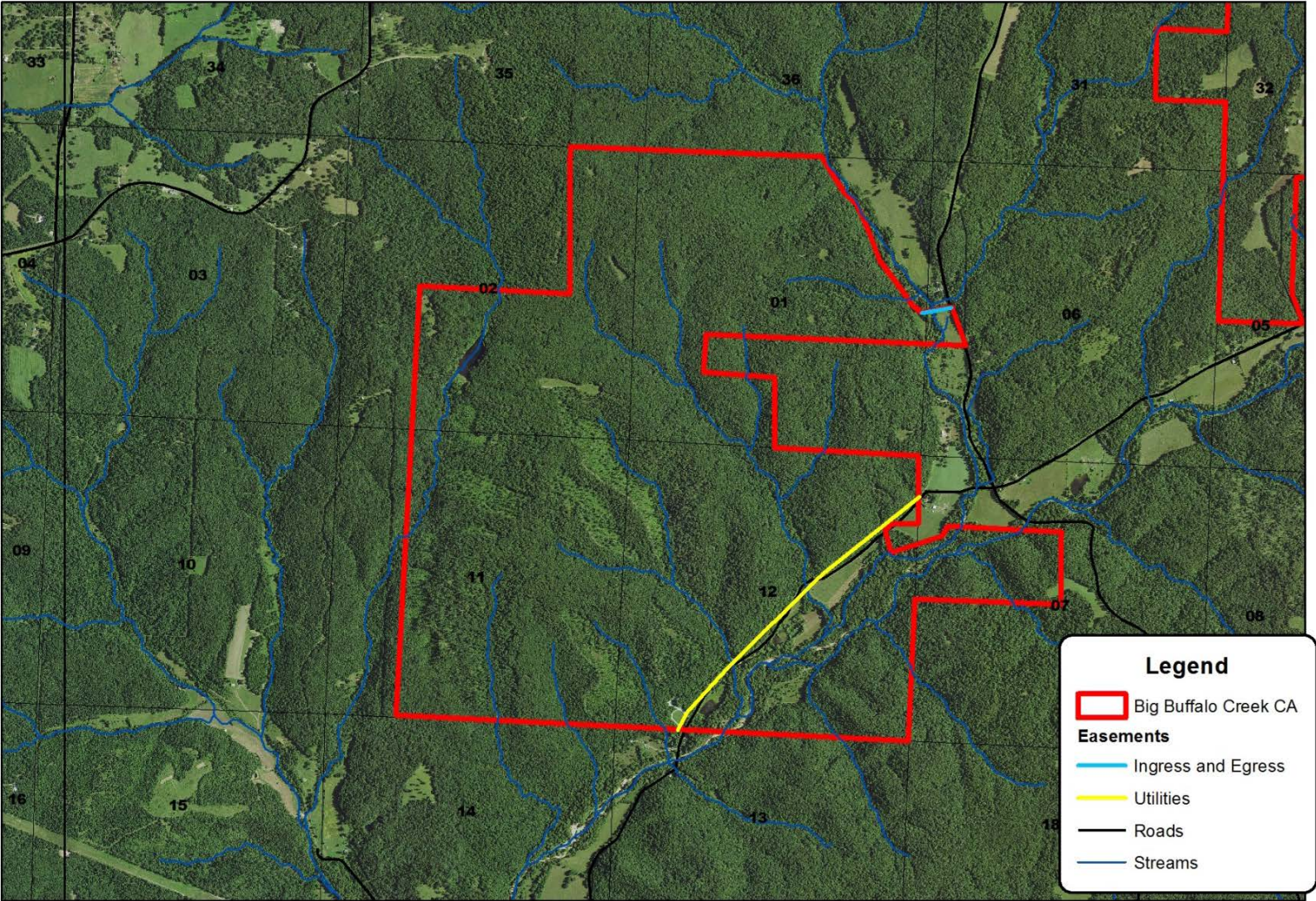




Figure 3: Topographic Map

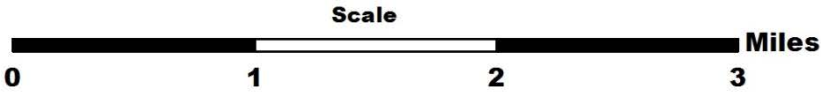
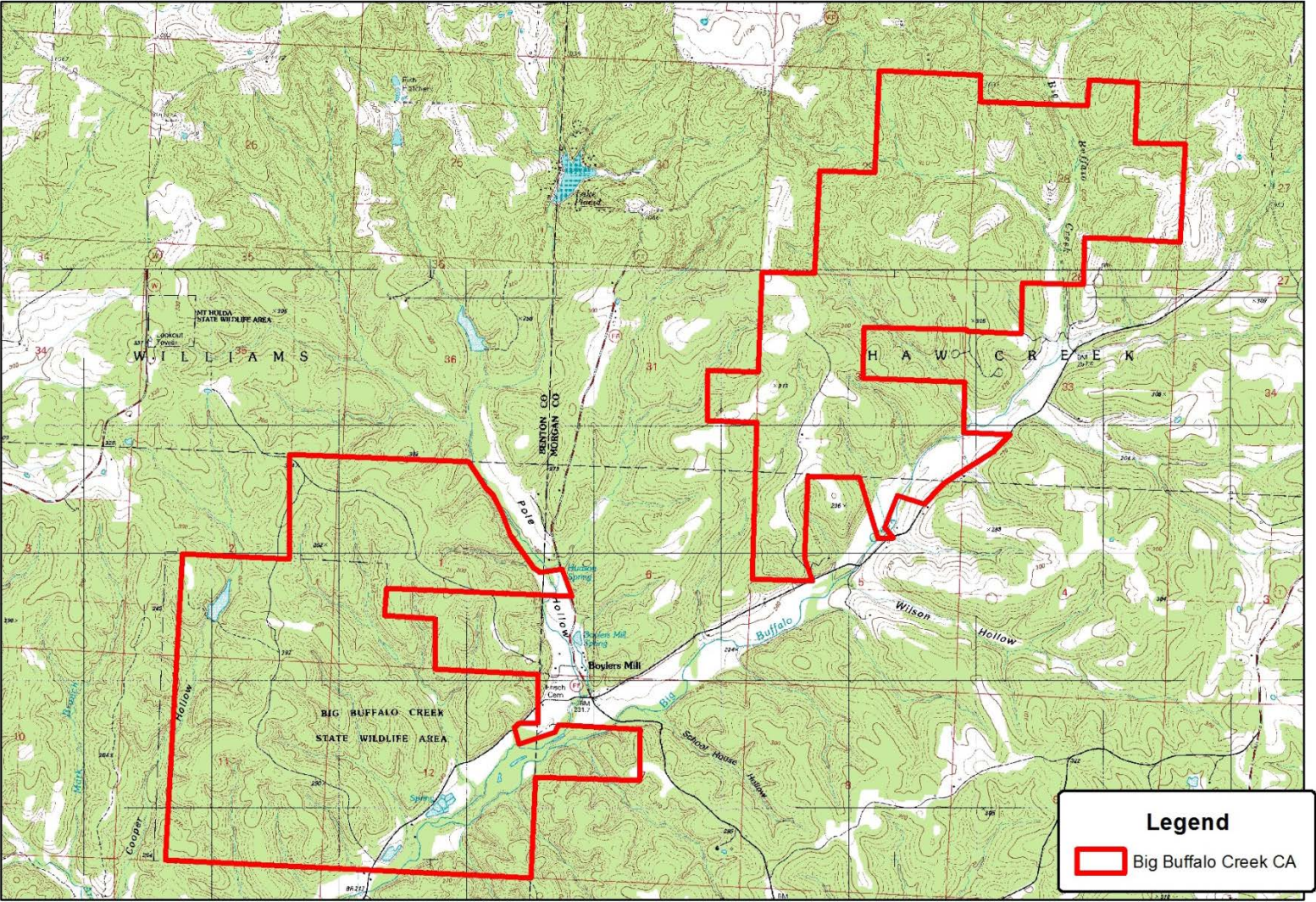
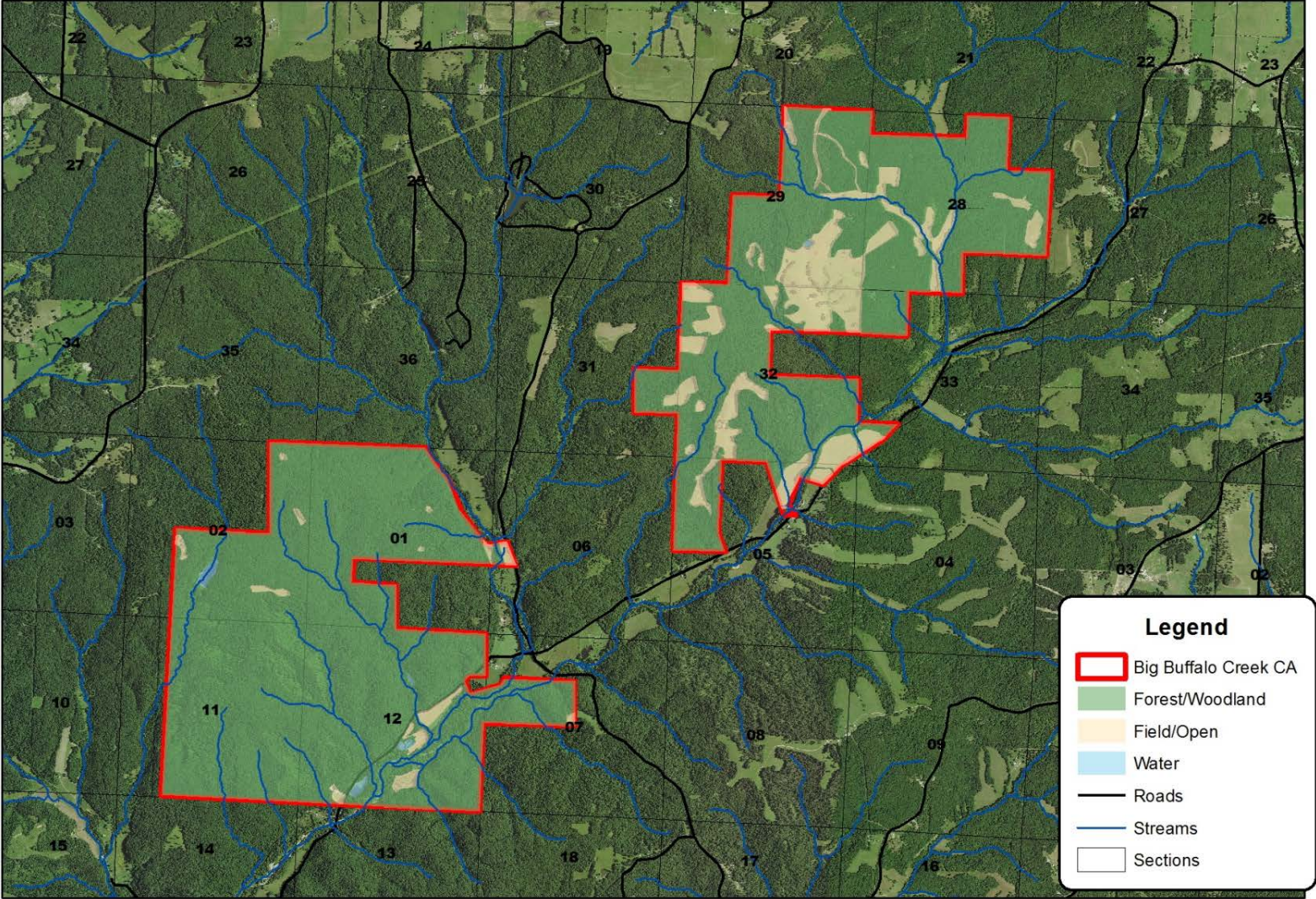


Figure 4: Land Cover Map



## Appendix A: Big Buffalo Creek Conservation Area Management Plan Public Comments

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

Big Buffalo Creek is a premier destination for Kansas City area birders, botanists, and other nature enthusiasts. This assemblage of high quality natural communities is one of the closest to Kansas City, allowing for urban and suburban residents to experience the spectacular Ozark ecosystems all in a day's drive. This is by far the best site to enjoy spring wildflowers, spring migrants (birds), butterflies, impressive maturing second-growth oaks and hickories, clear-water streams, etc.

With the ecological riches this area holds, a focus on management of natural communities and maintenance of high quality diversity should be the priority, not increasing game species or improving the quality of standing timber. The highly disruptive "timber improvement" strategies currently being used are causing rampant soil disturbance from machinery, an immediate flush of resprouts that form impenetrable thickets, and a loss of conservative flora and fauna. The end result is an increase in a handful of game species and weedy plants, and a long-term loss of the inherent natural beauty of maturing woodlands and forests. The best features of the area are the mature canopy of oaks and hickories, the gnarly old dogwoods and serviceberries, the spring ephemerals and woodland wildflowers, the butterflies, the migrant songbirds, the bumper crops of morel mushrooms, and the scenic beauty of large trees and an open understory. Unfortunately for much of the site, those features have been replaced by fallen trees, stumps, impenetrable thickets of shrubs and resprouts, blackberry brambles, an alleged increase in game species, towhees and thrashers have replaced the Cerulean Warblers, and the quality flora languishes under the stifling thickets.

I would stress natural community management within the context of how target natural communities evolved through natural disturbance of fires and drought rather than simply focusing on the return of game at the expense of diversity, quality flora and fauna and the irreplaceable loss of a high value Missouri ecosystem in its historic beauty.

Please abandon "timber stand improvement" and other forestry-style management techniques and replace them with regimes that mirror the historical disturbances that the upland woods at the site would have evolved with: i.e. high frequency, low-intensity fires in the dormant season (autumn-late winter).

The mesic and riparian forests (and bluff community at the south end of the property) are incredibly rich with spring flora. I am happy that these have been appropriately maintained with little intervention, allowing the beauty and diversity to persist. That said, the area could use some focus on invasive species control (*Euonymus*, *Rosa multiflora*, etc.). A couple days of search-destroy work with a few folks with loppers and herbicide should handle the minor (for now) infestations.

The fen seems overdue for a burn, so long as it is burned in the dormant season (autumn-late winter). Many of the conservative fen species that grow there have fleshy, green, active growth throughout the winter and begin elongating stems VERY early (March), making them highly susceptible to suppression by out-of-season (spring) fires. I would not be in support of

growing-season fire that seems to stimulate shrubs and saplings causing them to spread underground and resprout with vigor. Dormant season fire won't truly kill shrubs and saplings (what fire does?), but at least it'll top-kill them without inducing aggressive spreading and resprouting.

This area deserves the best in high value conservation management and should be a partnership between the natural history biologist and the area managers to make the most of this wonderful conservation area.

A detailed inventory of the all species at the site (assuming one doesn't already exist) and/or long-term monitoring may be useful and informative for both the site manager(s) and the public.

I appreciate your outreach and education objectives. I also appreciate the plan to maintain some portions of old growth forests and improving riparian areas. I hope that invasive species can be given enough attention that they do not spread to new areas. Garnering public, local support for invasive species elimination might be something to look into. Missouri Master Naturalists and Master Gardeners might be interested in helping with eradication efforts.

I own a 65 acre farm on Big Buffalo Road across from the new addition area. I am concerned that a parking lot may be put at the top of the hill of the new 1600 acre addition that was added in 2016. There has been significant deer hunting pressure as it sits today and I have heard a rumor that MDC is entertaining adding parking on the south end of the new section. I can see adding parking on the road if anywhere but I hope the path up the hill is not widened into a road and a parking lot set up on top. This would make the area too accessible for hunters and would make it too easy to shoot deer. I believe this could making the quality of hunting worse in the future. I love the idea of adding the food plots for the wildlife and reducing invasive plants that are growing in the area. I look forward to seeing what additional acreage MDC might be adding in the future. Thanks for letting me share my comments and listening.

MDC and Missouri taxpayers money should not spend monies for horse trails as horses and their use tend to destroy natural land and habitat. These trails should be restricted to hiking and bicycles only. Monies would be better spent on supporting native fauna and flora with concentration on smallmouth bass fishing habitat in Big Buffalo Creek. Land owner close by.

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

I own 48 acres which adjoin Big Buffalo CA on the west side. I am going to put my property on the market soon to sell, but want to utilize Big Buffalo Ca for hunting opportunities in the future. My preference is that the area continue to be managed as it has been, but perhaps with additional trails and parking especially for the newer portion that was added in the last couple years. The improved accessibility would make it easier to utilize.

I would not want to see the area have building additions or allow motorized vehicle use. I

think it is important to keep many CAs in a more primitive state.

One further comment re: the small lake on Big Buffalo - can something be done about the moss which prevents bank fishing? I've tried fishing there the past couple years and it's impossible.

It's encouraging to see the cooperation between the forestry and the Back Country Horsemen of Missouri's State Fair Chapter. Hopefully an increase of equestrian miles would help display what this CA has to offer. Some of the additions, to create loops, would require little expense and, if placed properly, would require minimal maintenance.

Trail riders appreciate the recreational opportunity provided by the designated multi-use trails. An evidence of this appreciation is the cooperation between the Department and the State Fair Trails Chapter of BCHMO. Manager Jake Willard and staff are excellent to work with.

More miles of trails are needed to meet the demand for multi-use trail access on public land in this part of the state. Please consider utilizing the assistance and expertise available through State Fair Trails Chapter to implement more trails on Big Buffalo Creek CA.

Thank you for the opportunity to comment.

I own the Anglin family Trust 23064 and The Woods At Raven properties 23675 on both sides of Hwy FF in Stove MO within the Big Buffalo Conservation Area. I can't thank you enough for all you do....One point in particular was when my niece who can't walk was allowed with her dad to take her up on one of the trails to a very special little lake....He passed away a couple of years ago and she actually called me a few days ago. She was going out on an adventure with her mother in Idaho. She was crying remembering the special time that she had with her dad here in Missouri on Buffalo Creek conservation land. The only negative thing that I see happening are people are crossing over on to our private land... we have actually talked to several different people this year alone....They don't say much they just turn around and go back the other way...I don't personally know what the results would be to stop this but maybe you guys could come up with something. Thanks for all you do.

Big Buffalo Creek is an amazing natural area, not far from Kansas City, that represents a high quality woodland. In the spring you can find warblers in abundance including state species of concern such as cerulean warblers, along with a stellar display of spring ephemerals and other woodland wildflowers. The timber management in areas has unfortunately destroyed the under canopy and prompted woody species growth that is unattractive and decreases the value to the of both the flora and fauna of the area. I would encourage the area manager to work closely with the natural history biologist and other experts to maintain the area as close as possible to how it was managed by indigenous people pre-European settlement- allowing the ancient dogwoods, woodland flowers and high conservation value species to persist while eliminating the invasion of lower value species that are making the area less attractive to both people and diversity of wildlife. Any harvest or selective management being done should be done with the least amount of disturbance. Focus on entire natural community management, including appreciation for and attention to the diversity of flora and fauna, including but beyond game species, should be the goal. MDC maintains the best of Missouri natural areas. Entire community management with input from natural history biologists and other divisions will result in the best management for ALL species of plants and wildlife and

continue the fortunate and valued window we have into the ecological inheritance for all Missourians.

Friends introduced me to Big Buffalo Creek CA five or six years ago and I fell in love with the area. I try to get out two or three times each spring to view the spring ephemerals, butterflies and enjoy warbler migration. Each successive spring it seems more and more large swaths of the forest have been cut along the trail, leaving unsightly bare areas exposed. Scrubby thickets of invasive species encroach on what was once lush and treed. I am not a wildlife biologist but it only takes decent eyesight to compare these areas of eyesore to the undisturbed forested areas of oaks, hickories, dogwoods and underlying wildflowers. I can't believe this loss of habitat won't affect the birds and butterflies and other wildlife I enjoy. Please do away with ancient, ineffective management practices and adopt practices that enable the woods to evolve naturally. Thank you.

The addition of Wooden Corral's in the parking / camping areas what increase the convenience for equestrian useage. The Nebraska National Forest has them in the campgrounds. Maybe three 14' x 14' in each area? Could the small mouth fishing be improved some how? Stockings? Also red banded trout again maybe, or winter trout stockings, if they wouldnt affect the native fish population. Our property is been in our family 80 years, located where the Big Buffalo meets LOZ.

I very much love to ride horses there. With the season changes, and riding with groups to enjoy nature. We also enjoy taking our dogs there to enjoy the day.