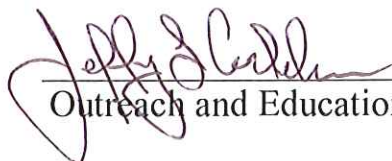


Springfield Conservation Nature Center

Ten Year Area Management Plan FY 2015-2024





Outreach and Education Division Chief



Date

**Springfield Conservation Nature Center Area Management Plan
Approval Page**

PLANNING TEAM

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Frances Main, Resource Forester

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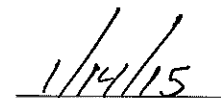
Rudy Martinez, Assistant Nature Center Manager

SOUTHWEST REGION

SW RCT Chair



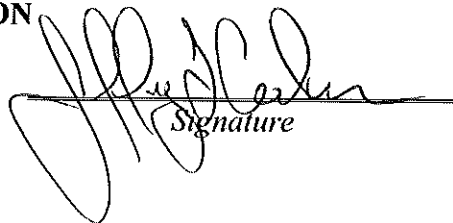
Signature



Date

OUTREACH & EDUCATION DIVISION

Unit Chief



Signature



Date

OVERVIEW

- **Official Area Name:** Springfield Conservation Nature Center, # 8609
- **Year of Initial Acquisition:** 1985
- **Acreage:** 79 acres
- **County:** Greene
- **Division with Administrative Responsibility:** Outreach and Education
- **Division with Maintenance Responsibility:** Design and Development
- **Statements of Purpose:**

A. Strategic Direction

The Springfield Conservation Nature Center lands will be managed to provide safe, enjoyable, and varied opportunities for people of all ages and backgrounds, especially urban audiences, to discover and experience nature. Repeat visitation will be encouraged by providing a continuation of learning opportunities designed to create an appreciation for and understanding of conservation through personal experiences, interpretive programs and resource management activities.

B. Desired Future Condition

The desired future condition of the Springfield Conservation Nature Center is to provide good examples of diverse natural communities that benefit a variety of wildlife species, provide enjoyable and safe natural experiences for the public, and support the Missouri Department of Conservation's (the Department's) interpretive educational program goals.

C. Federal Aid Statement

N/A

GENERAL INFORMATION AND CONDITIONS

I. Special Considerations

A. Priority Areas: The Springfield Conservation Nature Center is located within the Department's Fisheries Division James River Priority Watershed.

B. Natural Area: None

II. Important Natural Features and Resources

A. Species of Conservation Concern: Species of conservation concern are known from this area. Area Managers should consult the Natural Heritage Database annually and review all management activities with the Natural History Biologist.

B. Caves: None

C. Springs: Yes, records kept with Department Natural History Biologist.

D. Other: Occurs in the Springfield Plain subsection of the Ozark Highlands section of Missouri. The area is within the James River Oak Savanna/Woodland Low

Hills Land Type Association (Nigh & Schroeder, 2002). A mile or so north, Sequiota Spring (which is a large supplier of water to Galloway Creek as it flows across the nature center grounds) was the site of the first state-owned trout hatchery in Missouri.

III. Existing Infrastructure

- A nature center building (15,748 square feet) with 3,000 square feet of interpretive exhibits, a 147-seat auditorium, two classrooms with capacity for 48 each, lobby, gift shop, reception area, maintenance area and offices. The building is Americans with Disabilities Act (ADA) accessible.
- Covered staging area (2,068 square feet) with restrooms, soda machine and drinking fountain.
- Maintenance building (880 square feet) with heated bay.
- Paved parking lot for 109 cars and 5 buses. Additional cars can park in the bus lot.
- Seven hiking trails totaling nearly 3 miles in length and including two decks, seven foot bridges, five boardwalks (over water, areas prone to flooding, or sensitive areas such as the glade) and a viewing blind (Photo Blind) on Lake Springfield. The two trails closest to the building are surfaced in asphalt while others are either covered in gravel (in areas prone to flooding) or woodchips (preferred).
- A ditch and diversion berm of approximately 376 feet long by 10-12 feet wide is located on the north side of the property to divert water runoff from the U.S.-60/US-65 interchange to prevent flooding the Galloway Creek Section of the Long Trail.

IV. Area Restrictions or Limitations

A. Deed Restrictions or Ownership Considerations: There are no reservations on the title or other agreements. The Department owns nearly 53 acres and just less than 26 acres are leased from City Utilities of Springfield. The land was acquired as a community nature center site in two purchases and a lease agreement. In December 1985, the Department took title of 45 acres from Jean and Dr. Henry F. Knabb, Jr. Several months later, an additional 7 acres were purchased (with a partial donation) from C.W. Chrisman. In June 1986, a 10-year lease was signed to manage 26 acres of adjoining City Utilities property. In April 2008, about an acre of land on the north boundary (owned by the Department and leased by City Utilities of Springfield) was deeded to the Missouri Department of Transportation (MoDOT) for upgrades to the U.S.-60/US-65 interchange. MoDOT compensated the Department \$38,500 for approximately 0.9 acre as new right of way, a permanent easement on approximately 0.2 acre for a sanitary sewer and a temporary construction easement on approximately 0.5 acres. The “Second Amendment to Lease Agreement” for the 10-year lease with City Utilities was

renewed Nov. 14, 2005. The term of the Lease Agreement will expire June 15, 2016, before this plan expires.

- 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:** City Utilities of Springfield retains a 25-foot easement along US-60, which forms the nature center's north boundary.
- D. Cultural Resources Findings:** Yes, records kept with Department Environmental Compliance Specialist. Managers should follow Best Management Practices for Cultural Resources found in the Department's Resource Policy Manual.
- E. Hazards and Hazardous Materials:** None observed.
- F. 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.
- G. Boundary Issues:** None.

MANAGEMENT CONSIDERATIONS

V. Terrestrial Resource Management Considerations

The Springfield Conservation Nature Center is a small and heavily used conservation area (CA) located within the city limits of Springfield with diverse natural communities to showcase and manage. Because of high public interest, decisions about area management are based first on visitor safety and second on protecting the resource. Management of the area requires extensive resources of personnel and equipment, often from other divisions, and may interfere temporarily with public use, generate questions or affect neighbors. These parameters provide a unique opportunity to educate the public about the role of management in conserving the resource to benefit both wildlife and people.

Many outdoor activities at the nature center are restricted by the Wildlife Code due to the high volume of users. Visitors are required to remain on trails (except by Special Use Permit for educational or scientific purposes) and collecting of natural materials is prohibited to protect the area from overuse. Fishing (from the bridges and shoreline) and hunting are also currently prohibited. Fishing from boats is allowed.

The desire to reduce the number of white-tailed deer to acceptable levels related to resource sustainability while maintaining wildlife viewing opportunities is another important management consideration.

Challenges and Opportunities:

- 1) Extensive resources (e.g., equipment, budget and personnel) are required to manage the property.
- 2) Located within an urban area with close proximity to neighborhoods and US-60/US-65 interchange.
- 3) Heavy public use may cause conflicts among users and conflicts with natural resource management activities that may require the trails or area to close temporarily.
- 4) High white-tailed deer numbers may require future management to preserve area diversity. The Department utilizes and supports hunting as one management option which will be considered for the control of overabundant white-tailed deer at the nature center.
- 5) Area has multiple natural communities that need to be managed.

Management Objective 1: Maintain 62 acres of forests and woodlands with emphasis on wildlife habitat and aesthetics.

Strategy 1: Monitor forests and woodlands for invasive exotic vegetation and diseases. Manage any infestations that may develop (Outreach and Education / Design and Development).

Strategy 2: Retain and protect existing den trees for wildlife (Outreach and Education/ Design and Development).

Strategy 3: Assess hazardous trees close to the trails or structures on an annual basis to determine which ones need pruning or removal (Outreach and Education/ Design and Development/Forestry).

Management Objective 2: Maintain two-acre woodland restoration along Savanna Ridge Trail.

Strategy 1: Monitor woodland for invasive exotic vegetation, invasive woody vegetation and diseases. Manage any infestations that may develop (Outreach and Education/ Design and Development/Forestry).

Strategy 2: Maintain open woodland character by using prescribed fire to enhance native forbs and grasses (All Divisions).

Management Objective 3: Maintain 10-acre old field bottomland prairie planting.

Strategy 1: Monitor field for invasive exotic vegetation, invasive woody vegetation and diseases. Manage any infestations that may develop (Outreach and Education/ Design and Development/Forestry).

Strategy 2: Maintain prairie planting by using prescribed fire to control and set back woody succession (All Divisions).

Management Objective 4: Maintain 2-acre limestone glade.

Strategy 1: Monitor glade for invasive exotic vegetation, invasive woody vegetation and diseases. Manage any infestations that may develop (Outreach and Education/Design and Development).

Strategy 2: Maintain boardwalks to protect fragile soil from compaction (Outreach and Education/Design and Development).

VI. Aquatic Resource Management Considerations

The Springfield Conservation Nature Center is located along the shore of 318-acre Lake Springfield and includes several aquatic features within its boundaries. Expanding urbanization and the resulting infrastructure and the center's close proximity to residential areas provide the most pressing threats to the area's diverse aquatic resources.

Challenges and Opportunities:

- 1) The area contains multiple aquatic resources such as a marsh, spring, several small streams (losing, intermittent and permanent), Galloway Creek, a sinkhole and Lake Springfield shoreline.
- 2) Surrounding urbanization has led to increased flood frequency of Galloway Creek.
- 3) Aquatic resources are prone to invasive species introduction due to aquarium releases and nearby backyard water gardens.
- 4) Sedimentation has reduced water depths at the confluence of Galloway Creek and Lake Springfield, changing the habitat.

Management Objective 1: Maintain healthy aquatic features on the area.

Strategy 1: Monitor wetlands, streams and Lake Springfield for invasive exotic species. Manage any infestations that may develop (Outreach and Education/Design and Development/Fisheries).

Strategy 2: Monitor water quality in Galloway Creek through two annual water quality monitoring activities at a location upstream from the nature center (Outreach and Education).

Strategy 3: Monitor water quality in spring through quarterly sampling (Outreach and Education).

Strategy 4: Monitor stream banks for accelerated erosion (Fisheries).

Strategy 5: Continue to implement stream Best Management Practices (BMPs) as outlined in the Department's *Watershed and Stream Management Guidelines* (2009) (Outreach and Education/Design and Development/Fisheries).

Management Objective 2: Provide habitat for bottomland associated wildlife species.

Strategy 1: Maintain a minimum of two ephemeral ponds with depths of 18-24 inches to benefit amphibian species (Outreach and Education/Design and Development).

Strategy 2: Maintain and monitor prothonotary warbler boxes along waterways to attract warblers and educate visitors (Outreach and Education/Design and Development).

VII. Public Use Management Considerations

Heavy public use also creates conflicts between user groups. Because the primary purpose of the area is to provide a place for visitors to discover nature and to learn about conservation through educational programs, use of the area for exercise (e.g., running, jogging) is limited to avoid interfering with the primary user's experience or safety. While many visitors may walk the trails primarily for exercise, they do not interfere with educational programming, wildlife viewing or other nature activities. Visitors moving quickly on narrow, meandering trails may not be able to stop quickly enough to avoid interrupting programs, scaring off wildlife, startling visitors, or even making accidental physical contact with other trail users, many of which are children.

Challenges and Opportunities:

- 1) Provide for wildlife viewing opportunities.
- 2) Provide educational and interpretive opportunities.
- 3) Continue to honor good relationships with neighbors.
- 4) High year-round visitation requires that maintenance issues be addressed as soon as possible to keep trails open, accessible and safe.

Management Objective 1: Provide public wildlife viewing opportunities.

Strategy 1: Conduct annual management activities that will provide habitat for a diversity of wildlife (All Divisions).

Strategy 2: Maintain trails to allow public access to view wildlife and to connect with nature (Outreach and Education/Design and Development).

Management Objective 2: Provide educational and interpretive opportunities.

Strategy 1: Maintain trail head sign with current information about activities and opportunities (Outreach and Education/Design and Development).

Strategy 2: Provide innovative ways to connect people to the resource using technology (Outreach and Education/Design and Development).

Strategy 3: Continue to offer outdoor guided programming to organized groups, Discover Nature Schools and the general public (Outreach and Education/Design and Development).

Strategy 4: Provide opportunity for the general public to participate in management activities on a semiannual basis (Outreach and Education/Design and Development).

Management Objective 3: Maintain approximately two acres of landscaping/flower beds, parking lot islands, and mowed areas surrounding the building, staging area, parking lot, and entrance area for wildlife habitat, visitor appeal and safety.

Strategy 1: Monitor flower beds for invasive exotic species. Manage any infestations that may develop (Outreach and Education/Design and Development).

Strategy 2: Maintain native plantings to beautify entrance area and to educate the public on the benefits of using native plants. Discourage white-tailed deer use by planting deer-resistant plants (Outreach and Education/Design and Development).

Strategy 3: Maintain parking lot islands in a natural state. Trim periodically to increase visibility and to ensure visitor safety (Outreach and Education/Design and Development).

Strategy 4: Maintain Wildlife Viewing Area to show examples of feeders and feed to attract birds. Use Best Management Practices (BMPs) to reduce disease vectors as needed (Outreach and Education/Design and Development).

Strategy 5: Maintain brush piles in Wildlife Viewing Area to provide protection for wildlife species (Outreach and Education/Design and Development).

Strategy 6: Maintain small fishless pond in Wildlife Viewing Area to attract wildlife and to demonstrate how one may be duplicated in an urban yard (Outreach and Education/Design and Development).

Strategy 7: Maintain pump in fishless pond in Wildlife Viewing Area to keep water from freezing and to provide the sound of splashing water to attract species such as warblers during spring and fall migration (Outreach and Education/Design and Development).

Strategy 8: Monitor diversion berm to ensure proper function. Check for accelerated erosion and maintain by removing large woody debris.

Management Objective 4: Explore management options concerning overabundant white-tailed deer.

Strategy 1: Continue to monitor white-tailed deer populations (Wildlife).

Strategy 2: Maintain white-tailed deer enclosure for education and interpretive use (Outreach and Education/Design and Development).

Strategy 3: Reduce the number of white-tailed deer to acceptable levels related to the resource sustainability while maintaining wildlife viewing opportunities. The Department utilizes and supports hunting as one management option which will

be considered for the control of overabundant white-tailed deer at the nature center (Outreach and Education/Wildlife/Protection).

VIII. Administrative Considerations

Challenges and Opportunities:

- 1) Maintain area infrastructure.
- 2) Limited opportunity for expansion.

Management Objective 1: Maintain area infrastructure at current levels.

Strategy 1: Maintain area infrastructure in accordance with Department guidelines and at currently identified maintenance level (1) (Outreach and Education/Design and Development).

Management Objective 2: 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 Objective 3: Improve trail access for maintenance and emergency access.

Strategy 1: Widen two portions of the trail (Long Trail near Savanna Ridge Trail and Sycamore Cutoff) and stabilize trail edges (Design and Development).

Strategy 2: Widen bridges to accommodate equipment for maintenance and emergency access when budgets, personnel and equipment are available (Design and Development).

MANAGEMENT TIMETABLE

Strategies are considered ongoing unless listed in the following table:

	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24
Terrestrial Resources Management										
Objective 2										
Strategy 2		X	X	X			X			X
Aquatic Resource Management										
Objective 2										
Strategy 1				X			X			X
Administrative Considerations										
Objective 3										
Strategy 1	X	X				X				
Strategy 2						X				

APPENDICES

Area Background:

The Springfield Conservation Nature Center is located within the city limits of Springfield, about a half-mile west of the intersection of U.S.-60 and U.S.-65. The facility and area opened to the public Oct. 7, 1988. The area consists of 79 acres, all in Greene County. The nature center is operated by the Outreach and Education Division and the Design and Development Division in the Department.

The nature center building is open year-round 5 to 5 ½ days a week from 8 a.m.-5 p.m.. (Closed Sunday and Monday Nov. 1 to Feb. 29 and closed Sunday mornings until noon and Mondays the remainder of the year.) The area and trails are opened daily from 8 a.m.-8 p.m. March 1 through Oct. 31, and daily from 8 a.m.-6 p.m., Nov. 1 through Feb. 29. The entire area is closed on Thanksgiving, Christmas and New Year's Day. Through a contract with a security company, the gates and outdoor restrooms are opened Sunday mornings and opened and closed on state holidays that fall on Mondays. The facility is open on other state holidays.

The area is closed to pets, horses, hunting, fishing, collecting, littering, skateboards, rollerblades, fires and alcohol beverages. Bicycles and motorized vehicles are restricted to paved roads. Visitors are required to remain on designated trails at all times unless prior arrangements are made for research or educational activities through a Special Use Permit process.

The area has been intensively managed for public use. Annual building visitation averages approximately 100,000 visitors and trail visitation averages 250,000 annually or approximately two-and-a-half times the building visitation. Interpretive programming has been provided to approximately 34,000 visitors annually who attend more than 800 programs. About 90 percent of all on-site programs include guided activities on the trail. The nature center attracts a high percentage of repeat visitors with many visitors walking the trails several times a week. According to a yearlong visitor exit survey completed in 2011, the average party size is 1.8, they spend 1.4 hours on-site, travel 13.3 miles to the facility, and visit 7 times a year. Besides using the trailhead on the nature center property, visitors also access the trails from the connection to the Ozark Greenways Trail system. This recreational trail adds an additional 6 miles of trail for visitors.

For its small size, the Springfield Conservation Nature Center has an unusually diverse array of habitats including upland and bottomland forests, a limestone glade, a restored woodland/savanna, a marsh, a 10-acre field being converted to bottomland prairie species, karst features (spring and losing stream), an intermittent stream, and other water features including Galloway Creek and shoreline along Lake Springfield. Natural community types include dry chert

woodland, dry-mesic chert woodland and forest, dry limestone woodland, dry-mesic limestone woodland and forest, and mesic limestone forest.

Outside, visitors explore 79 acres of habitat on nearly 3 miles of trails. Inside, visitors experience the self-guided exhibit area, attend public programs, get their conservation questions answered, pick up brochures, purchase hunting/fishing permits, and browse through a nature-related gift shop.

Current Land and Water Types

Land/Water Type	Acres	Feet	% of Area
Forest and Woodland	66		83
Old Field	10		12
Glade	2		3
Wetland	1		2
Total	79		100
Lake Springfield Shoreline (0.50 miles)		2,640	
Spring - (1141.22 gallons per day) Small Seep		-	
Stream – Permanent (0.12 miles), flows into sinkhole and flows intermittently beyond that		633	
Stream – Permanent – Galloway Creek (0.25 miles)		1,320	
Stream – Intermittent (0.06 miles)		316	

Public Input Summary:

The draft Springfield Conservation Nature Center Area Management Plan was available for a public comment period June 1–30, 2014. The Department received comments from 15 respondents (Appendix A). The Springfield Conservation Nature Center 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.

Prior to writing area plan, the Department conducted a public input process (the Springfield Conservation Nature Center Idea Gathering Stage) from Jan. 1–31, 2014. During this “idea gathering” stage, the Department received input from 31 respondents (see *Springfield Conservation Nature Center Idea Gathering Stage Public Input Summary* at <http://mdc.mo.gov/node/27589>). The area management planning team took these comments into consideration as they drafted this 10-year management plan for the nature center. Department responses to comments received during the January 2014 idea gathering stage can be found in the report, *Missouri Department of Conservation Responses to Public Comments – Springfield Conservation Nature Center Idea Gathering Stage*. This report is available upon request by contacting Amy Buechler (amy.buechler@mdc.mo.gov).

Department responses to themes and issues identified through the draft Springfield Conservation Nature Center Area Management Plan public comment period (June 1-30, 2014)

Supports prairie and native habitat restoration.

The area management team agrees with this comment. We have made efforts to restore prairie habitat in the woodland (formerly known as savanna) near Savanna Ridge Trail because this was the dominant community type in southwest Missouri during presettlement times. We have also worked to create a bottomland prairie habitat in the floodplain that has been in old fields for as long as records exist. Bottomland prairie communities did exist in Greene County during presettlement times.

Concern about proliferation of cedars and honeysuckle.

The area planning team agrees with this concern. The nature center has addressed this issue with several strategies listed in Terrestrial and Aquatic Management Considerations and provides opportunities to engage the public in management activities through occasional programs. We also enlist the assistance of various volunteer groups in the ongoing efforts to control invasive species. Much effort has been placed on controlling invasive species in the past and it will continue into the future.

Appropriate herbicides are used according to label to help control invasive species in the bottomland prairie planting, in the savanna area (actually, a “woodland”), glade, and throughout the area on a regular basis. Many invasive plants are cut by hand and the stumps treated with herbicide while others are hand pulled. The bottomland prairie planting and “savanna” are burned periodically following the restrictive parameters listed in a written plan approved by the Department’s Fire Management Coordination Team (FMCT). Because of the sensitive locations of the two areas (close to highways and neighborhoods), there are very restrictive parameters under which a prescribed fire can take place. Available equipment, trained burn crew members, and weather conditions must align for the burns to take place. These burns, however, are a high priority to the area management team. When burning can’t be done, bush hogging is used to control woody invasive species.

Concern that white-tailed deer are overpopulated at the nature center. Supports allowing deer hunting. Suggests including timetable for specific actions to control the deer population.

The area management team agrees with the comments about deer damage to the terrestrial habitats at the nature center and is supportive of reducing the number of deer to acceptable levels related to the resource sustainability as listed in Public Use Management Considerations, Management Objective 4 and Strategy 3. High deer numbers require management to preserve area diversity. Likewise, management is required for healthy deer populations. The Department, working in conjunction with then Southwest Missouri State University (SMSU) has had deer enclosures in place at the nature center for more than 20 years to study the effects of deer on plant diversity. Deer were live trapped and tagged during 1997 and 1998 and browse lines studied by a graduate student from SMSU and his thesis was published in 1999. Data from these studies along with flyover counts and numerous spotlight surveys conducted by the Department were used to establish the need for an Urban Deer Action Committee and recommendations for reducing deer numbers.

In April 2006, based on recommendations from the Department, the Urban Deer Action Committee was formed with representatives from a number of southwest Missouri municipalities and agencies in and around the Springfield metropolitan area. The purpose of the committee is to look at the urban deer issue on a larger scale since it is not just a Springfield issue, to examine the nature and extent of problems caused by suburban deer, and to recommend potential solutions. Based on their recommendations, with scientific and technical advice provided by the Department, Springfield City Council passed an amendment to the archery ordinance allowing the use of broad-heads for archery hunting in November 2009. By ordinance, the City Manager coordinated with the Department to schedule a managed archery hunt to reduce the urban deer population within the city limits but only on City Utilities properties at that time. Springfield City Council approved managed archery hunt for specific locations on City Utilities property around Lake Springfield, adjacent to the nature center, in February 2011. The first managed hunt

took place during the entire month of December 2011. Successful managed hunts have been occurring on adjacent City Utilities property since 2011 and are scheduled again in December 2014.

In 2013, 234 hunters applied for 15 positions (having a 7 percent chance of being drawn) for the Lake Springfield managed hunt. There was a three deer limit, only one of which could be a buck. Hunters were required to kill and check a doe before they could harvest a buck. The hunt at Lake Springfield was conducted from Nov. 23 through Dec. 31. Fifteen (15) hunters harvested eight (8) deer (five does and three bucks) for a 53 percent overall success rate or (0.33 doe per hunter) success rate. Post hunt, hunter surveys indicated overwhelming support of the archery hunts, and appreciation for the opportunity to participate in these managed hunts.

The urban overpopulation of deer is an area-wide issue and not strictly a Springfield or nature center problem. The Department supports hunting as a management option which will be considered for the control of overabundant white-tailed deer at the nature center. The Department has been instrumental in advising city leaders in making sound deer management decisions.

Supports widening trails.

The area management team appreciates support for the recent widening of several trails including the Galloway Creek Section of the Long Trail (651 linear feet) and Sycamore cutoff (545 linear feet) for greater access for both people and maintenance equipment. There are currently no plans to widen any additional trails; however, widening several bridges is in the 10-year plan.

Suggests adding railing to paved trails where there is a steep drop-off or water below.

The area management team appreciates the concern some visitors may have with a lack of railings on a few portions of the trail that are covered in decking. Decking was used in areas prone to flooding along Galloway Creek so that trail can remain open during rain events. Every effort was made to keep the trails low enough to the ground to avoid adding railings which can collect debris during floods increasing damage to the trail and requiring more maintenance. Railings were purposely left off the boardwalk over the marshy area of Lake Springfield along the Boardwalk Trail to allow visitors to more easily view wildlife in the water below. An edge is in place to prevent strollers or wheelchairs from rolling off the decking. In addition, classroom lake studies have been conducted in this location so easy access to water is necessary. Ongoing maintenance to replace logs along the side of the paved trail will continue. There are no additional plans to add railings that might obstruct views or further impede wildlife movement.

Suggests adding a bike path that connects the nature center to the Galloway Creek trail.

The area management team agrees that having a bike path that connects to Galloway Creek Greenway Trail would benefit many bicyclists. The nature center was constructed in 1988 long

before the Ozark Greenways Trail system existed. Ozark Greenways met with nature center staff to discuss their thoughts of adding a trail that parallels James River Freeway adjacent to nature center property before learning about MoDOT's plan to expand the U.S.-60/US-65 interchange. After construction of the interchange was completed, space simply does not exist to add a bicycle trail. This area is routinely used by maintenance staff and heavy equipment to access existing trails. Emergency personnel also use this access when needed. Finally, the area is extremely steep and space doesn't exist to make a traversing trail that bicyclists could safely use.

Supports keeping dogs and bikes off trails. Concern about safety and erosion from bicycles on trails.

The area management team agrees with this comment. As fitting with the Department mission, the trails at the nature center were designed to provide opportunities for citizens to use, enjoy, and learn about the natural resources in Missouri. This is achieved through nature exploration done alone, with groups, or through guided conservation educational activities. The trails were purposely designed to meander to provide unique views and opportunity to spot wildlife. Bicycles and pets interfere with these types of experiences. There are many other places in the community, operated by organizations with recreational missions, which are designed specifically to accommodate bicycles and pets. Bicycles and pets are prohibited by the Wildlife Code on Department-owned nature centers.

Concern that early morning runners disturb birders. Concern that runners are not abiding by the posted signs.

The area management team agrees with the concerns of allowing jogging/running on the trails. When the nature center opened in 1988 the precedent to allow running was set according to leadership and policy at that time.

Because conflicts developed between user groups, a compromise was reached a few years after opening. The restricted jogging/running hours were set by a group of runners and non-runners (including members of the birding community) working with a professional mediator to design a compromise to which both sides could agree. The jogging/running hours were set during times when educational programs are typically not taking place on the trails (6 a.m.-9 a.m. and 2 p.m.-5 p.m.) seven days a week and went into effect Aug. 1, 1997. The runners and non-runners agreed to ban running after 5 p.m. to allow families and individuals to enjoy the trails without interference from others who may be moving quickly with fitness rather than nature enjoyment as their primary purpose.

In 1998, weekend hours were changed because the trails are often busier during the afternoon. Running hours were restricted to only the morning hours but were extended until 12 p.m.. In 2010, Sunday hours were eliminated, providing one day dedicated to nature enjoyment.

Nature center staff and volunteers continually educate users and work to curtail running/jogging outside of posted times. Unfortunately, runners/joggers are not a unified group and there is a constant influx of new individuals participating in the activity. This makes it extremely difficult to reach this diverse audience. We have been successful in curtailing organized groups (e.g., National Guard, cross-country teams) from using the area for running/jogging.

Supports keeping existing times for runners. Most runners are not a disturbance to others.

Running/jogging on the trail can be a direct conflict with the primary purpose of the area (providing citizens an opportunity to use, enjoy and learn about forest, fish and wildlife resources). When the nature center opened in 1988, the precedent to allow running was set according to leadership and policy at that time. Over the years, running hours have been modified as an attempt to minimize conflict. (See above response for additional detail.) When visitors follow the running hours and the rules, fewer conflicts exist. Walkers always have the right of way. There are no plans to change existing running hours.

The nature center is an asset to the community. Appreciates the services provided by the nature center.

The area management team and the nature center staff appreciate the many comments of support.

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Maps:

Figure 1: Area Map with Vicinity and Current Vegetation

Figure 2: Aerial Map

Figure 3: Topographic Map

Figure 4: Detailed Trail Map

Additional Appendices:

Appendix A: Draft Springfield Conservation Nature Center Area Management Plan Public Comments

Figure 1: Area Map with Vicinity and Current Vegetation

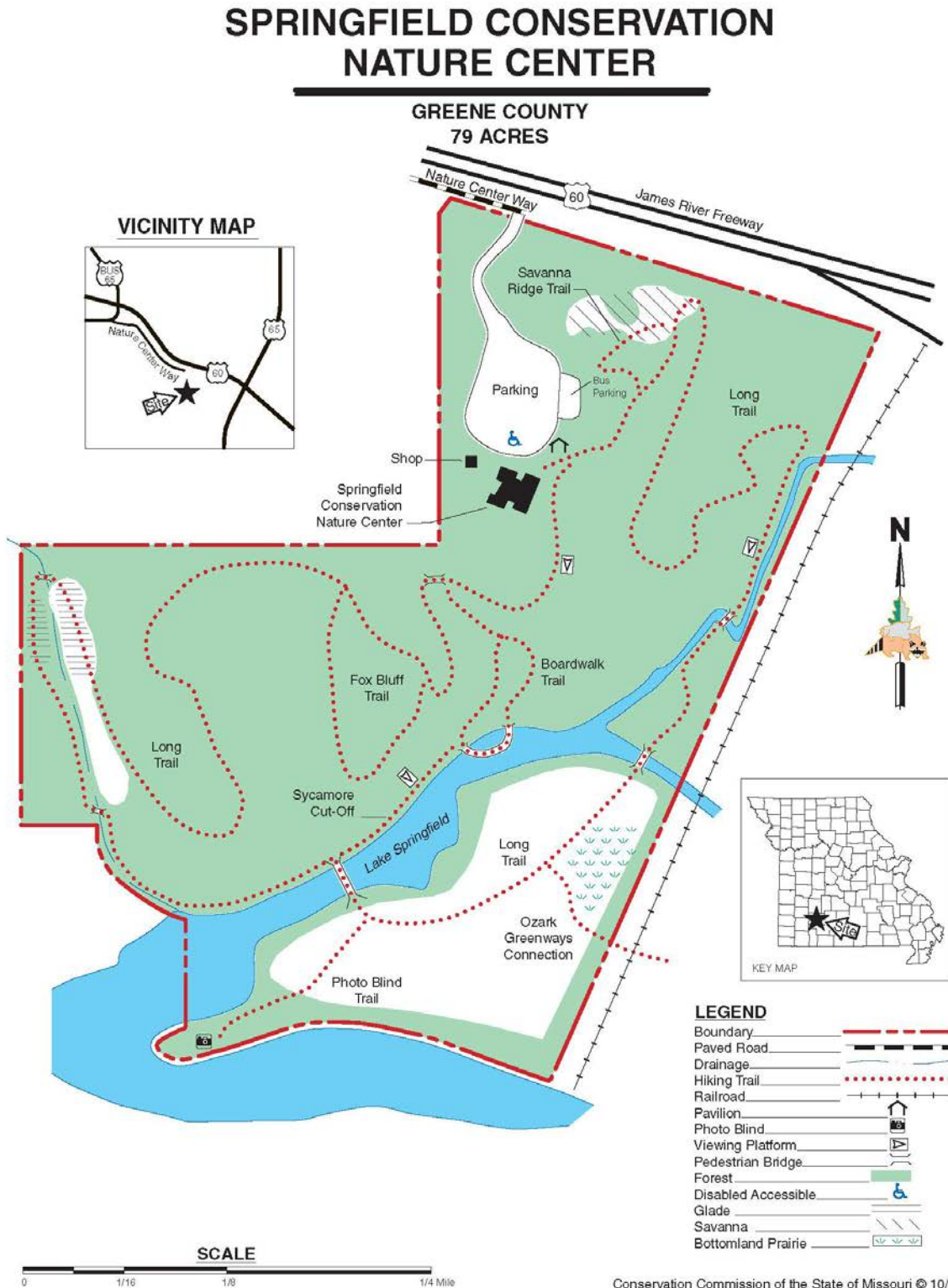


Figure 2: Aerial Map

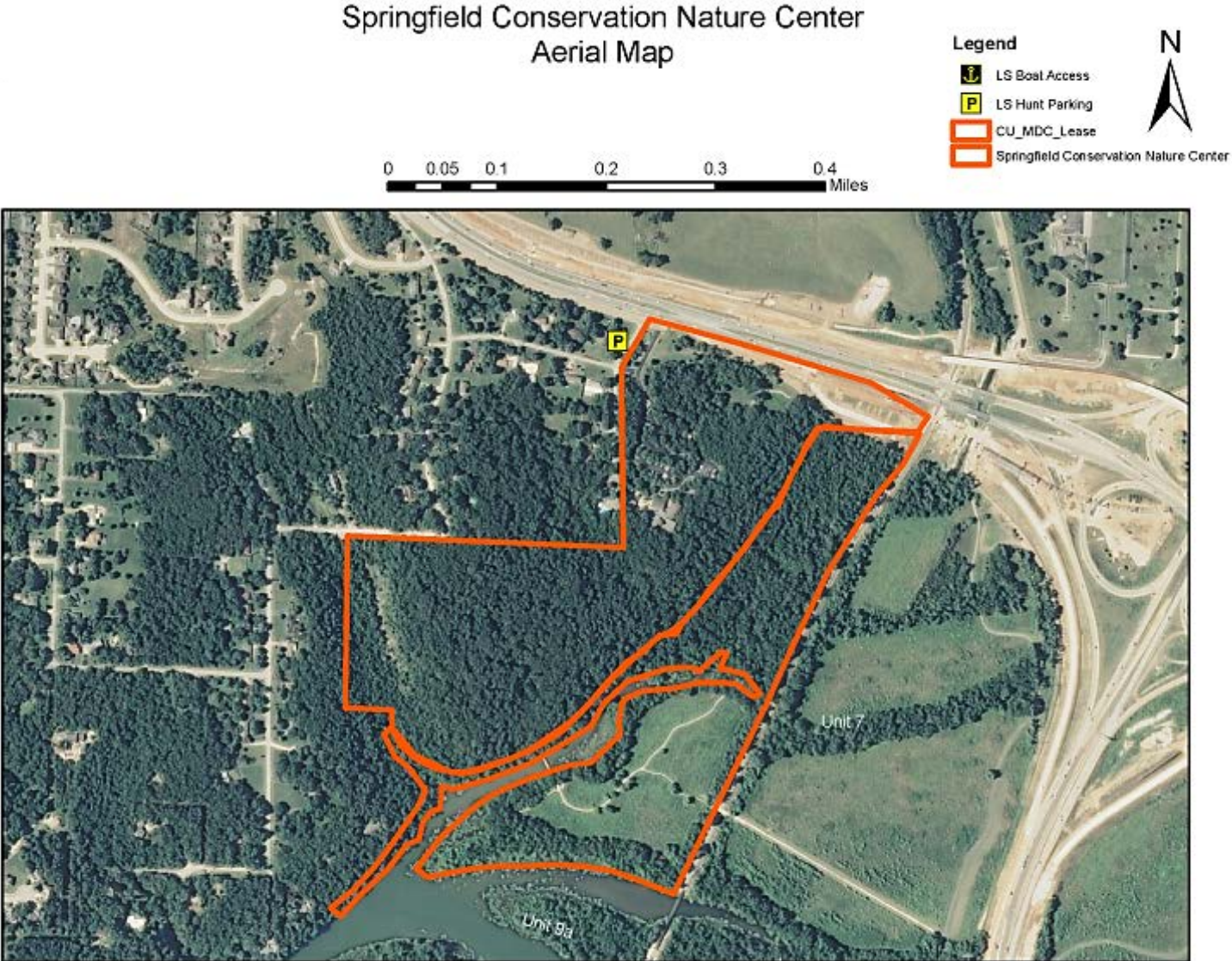


Figure 3: Topographic Map

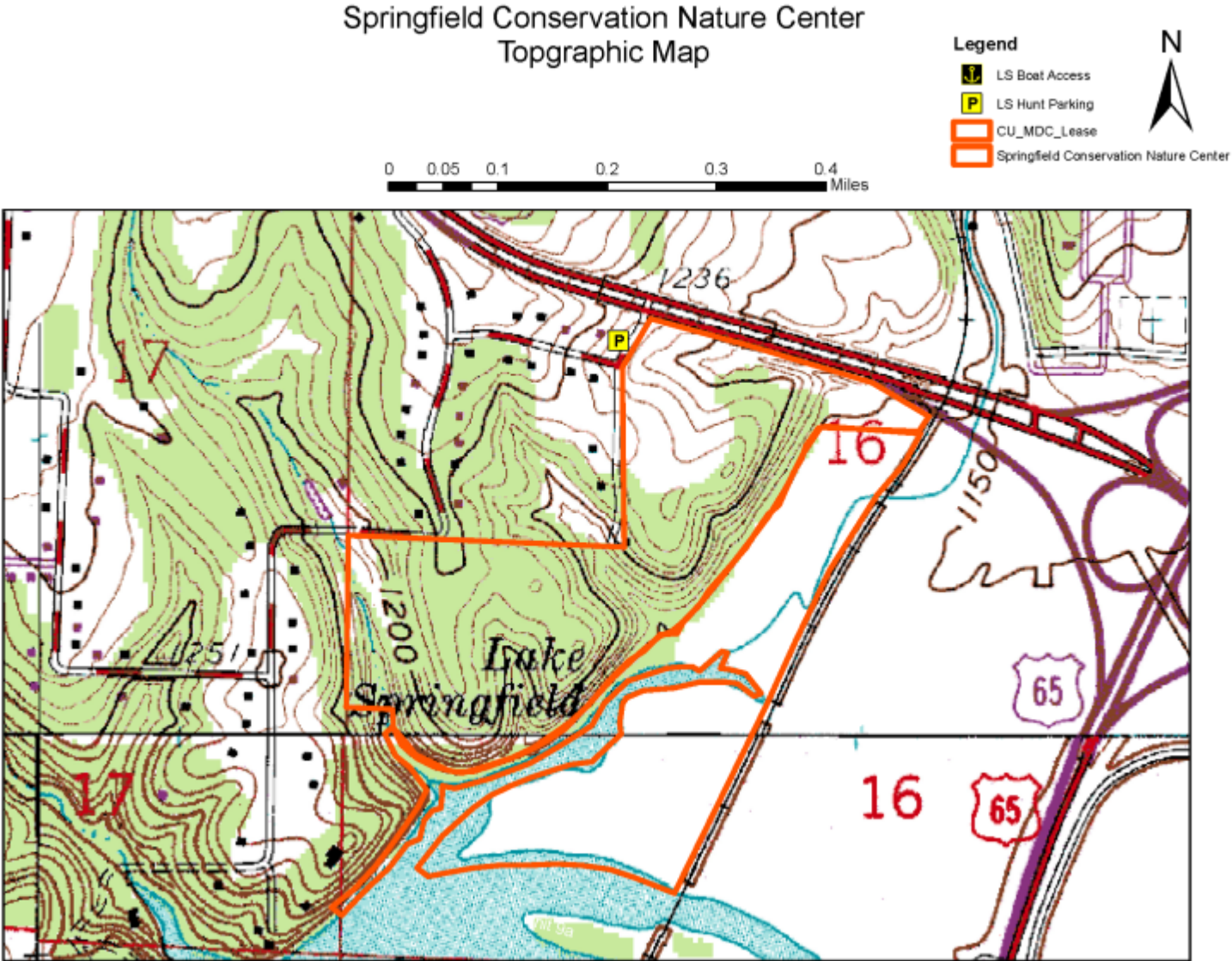
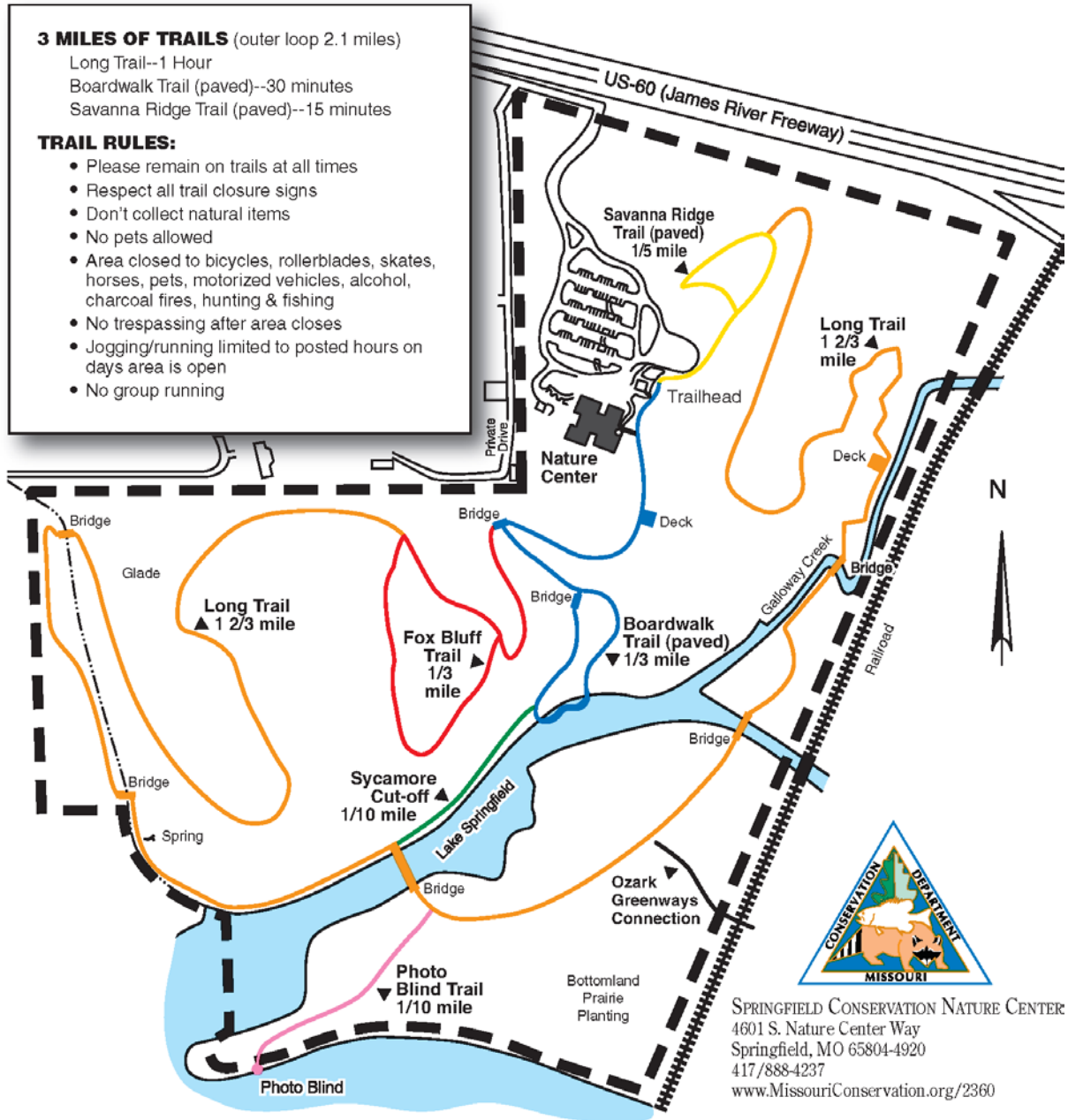


Figure 4: Detailed Trail Map

Welcome to the Springfield Conservation Nature Center Trails



Appendix A. Draft Springfield Conservation Nature Center Area Management Plan Public Comments

Received during public comment period (June 1-30, 2014)

<p>I would like to see railings added to the paved trails where there is a steep drop or water below. My children have taken a few scary tumbles in those places when they either fell or were knocked over by a passerby.</p>
<p>Please manage any area that was originally prairie as prairie. Restore and reconstruct the original MO habitat as much as possible in all areas of the state.</p>
<p>Plans like this are not my area of expertise. But I want to say I am pleased with what the Nature Center provides the Springfield area currently. And hope it continues in a similar fashion. Keep up the good work.</p>
<p>I would appreciate a trail/path connecting to the Galloway Creek trail that would allow bicycles. A connection between the neighborhoods to the west of the Nature Center to the Galloway trail more directly would make for a much safer connection across James River Freeway & to the rest of Springfield. A fairly direct path from Nature Center driveway entrance to the Galloway Trail that parallels James River Freeway would be ideal and wouldn't disturb the nature hikers on the other trails.</p>
<p>I support plan to widen trails, also allowing a whitetail season. I live near the nature center and have whitetail in the yard daily, they need to be thinned out, most are in breeds and create small deer and some never get bigger than a dog or cat. Thank you</p>
<p>I am disappointed that there is no new approach to managing runners. There are more trails available to runners than when the nature center first opened. Runners do NOT observe the posted signs. Simply maintaining the posted signs would not seem likely to result in a change in behavior by runners. In addition the early morning hours currently used by runners are also the best times for birders.</p>
<p>Plan is good but I hope you keep the running times. Most runners do not disturb walkers or classes.</p>
<p>The plan overall is good; it seems mostly to continue the status quo, which in most areas represents sound management that keeps the intended purposes of the nature center well in view. It has one significant deficiency, however, in my view. While acknowledging the problem of white-tailed deer overpopulation and damage, it provides no concrete recommendations for action. Instead, it says MDC will "explore management options." The deer overpopulation of the area has been a reality for years, and MDC should have finished its assessment and planning long ago. (Deer exclosures have been in place validating deer damage since the 1990s!) But if study still needs to be done, the Management Timetable presented in this document should include a series of deadlines for the completion of that study and the development of an action</p>

<p>plan. The lack of such a timetable amounts to "kicking the can down the road." MDC needs to take definitive steps to solve this problem.</p>
<p>Please keep trails free of dogs and bikes!</p>
<p>We vote for NO DOGS or Bikes!!</p>
<p>Some people would like to ride bikes at the nature center. I am a biker, typically riding 1,000-1,500 miles a year. From my perspective as both a biker and a hiker, I would advise against allowing bikes at the nature center. One reason, the primary one, is safety. The nature center trails are simply too narrow to mix the two. On trails where mountain bikes in particular are mixed with hikers, serious injuries and even deaths have occurred, usually due to the biker going at high speed down a hill or around a blind curve and hitting a hiker. The second reason is damage to trails by the bikes, especially on hills. The bikes tend to make ruts on hills. When it rains the runoff follows the ruts and further erodes the trails. Thus much more trail maintenance would be required. Bikes are illegal on the Pacific Crest Trail, but outlaw bikers ride certain areas anyway. I have seen the damage they cause, which on some steep slopes is significant to make it dangerous for hikers. I may be beating a dead horse but thought I would put in my 2 cents worth.</p>
<p>We were glad to see the emphasis placed on efforts to eradicate invasive plant species at the nature center, and to favor their replacement with natives. We strongly support this policy. We recognize that it does not represent a new direction for the nature center—you have made efforts for years to combat things like honeysuckle and Johnson grass—but we are happy to see the effort codified in the new plan. Native plant species support native insects, which in turn are essential for many species of native birds, especially during the breeding season.</p>
<p>While the plan acknowledges the issue of deer overpopulation on the area, we are very disappointed that it offers no strategy to address the problem, or even a timetable to develop such a strategy. The GOAS Board understands the complexity of the issue: that the deer to be managed inhabit an area much larger than the nature center itself, that options for culling the herd may be limited by Springfield city ordinances and the high degree of public use of the area, that many people enjoy viewing the deer and may be outspoken opponents of any proposal to harvest some of them. Those challenges may be reason to omit specific management recommendations from the plan, but they should not preclude the delineation of a process to reach those recommendations. Deer exclosures have been in place at the nature center for nearly 20 years! Surely it should be obvious by now that the deer have vastly denuded the forest understory and significantly impacted the plant species diversity at the nature center. This loss of understory structure and diversity has a damaging effect on birds that nest there. We strongly urge the Conservation Department to include a specific deadline in the plan by which detailed deer management recommendations will be developed.</p>
<p>GOAS also believes that the issue of running/jogging on nature center trails is inadequately addressed in the plan. In our experience, the "running schedule" developed by the nature center to try to minimize conflicts between runners and other trail users has been a failure. Despite being posted on the trails, it is mostly unenforced and widely ignored. The trail connection with</p>

the Galloway Creek Greenway has exacerbated the problem, since it provides runners access from the unmonitored eastern boundary of the property. This is not a problem that will go away on its own. Indeed, it is likely to get worse as competition for open space increases in the Springfield area. The issue needs to be directly addressed in your plan, which should include a commitment to enforce the current policy, new regulations, or a process and (again) a timetable to come up with a solution.