

Frank, Emma Elizabeth, and Edna Reifsnider State Forest

Ten Year Area Management Plan

FY 2013-2022



Jusi M. Allen

Forestry Division Chief

10-7-14

Date

**Frank, Emma Elizabeth, and Edna Reifsnider State Forest
Management Plan Approval Page**

PLANNING TEAM

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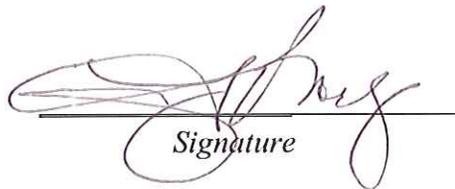
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ST. LOUIS REGION

St. Louis RCT Chair



Signature



Date

FORESTRY DIVISION

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Signature



Date

OVERVIEW

- **Official Area Name:** Frank, Emma Elizabeth, and Edna Reifsnider State Forest, # 5805
- **Year of Initial Acquisition:** 1958
- **Acreage:** 1,388 acres
- **County:** Warren
- **Division with Administrative Responsibility:** Forestry
- **Division with Maintenance Responsibility:** Forestry
- **Statements of Primary Purpose:**

A. Strategic Direction

The primary purpose of the Frank, Emma Elizabeth, and Edna Reifsnider State Forest is to: 1) Create and maintain a healthy, diverse and sustainable mosaic of forest, woodland, and glade communities which provide habitat to a wide variety of flora and fauna; 2) provide a wide variety of high quality recreational opportunities for the public; and 3) maintain high quality infrastructure and resources that make these recreational opportunities possible.

B. Desired Future Condition

The desired future condition of the Frank, Emma Elizabeth, and Edna Reifsnider State Forest (SF) is a healthy forest/woodland complex.

C. Federal Aid Statement

N/A

GENERAL INFORMATION AND CONDITIONS

I. Special Considerations

A. Priority Areas: Frank, Emma Elizabeth, and Edna Reifsnider State Forest lies within the Missouri River Hills Conservation Opportunity Area (COA), the Missouri River Hills Priority Forest Landscape (PFL), and The Nature Conservancy's Central Missouri Hills Conservation Portfolio Site.

B. Natural Area: None

C. Other: There is a 33 acre area closed to public use behind the Reifsnider Shooting Range that is marked with a two strand, wire fence and plastic signs. Public access is not allowed and management is limited in this closed safety fan associated with the shooting range.

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: None

D. Other: The Frank, Emma Elizabeth, and Edna Reifsnider State Forest is in the Forested Rugged Hills and Breaks Land Type Association (LTA) within the Outer Ozark Border subsection of the Ozark Highlands section. This LTA consists mostly of exceptionally steep and rugged lands that are associated with many river valleys. Local relief is 250 to 450 feet, with narrow ridges, steep side slopes and narrow, sinuous valleys. Historically the most densely wooded landscapes in the region, these landscapes are associated with a variety of parent materials (including loess, limestone, sandstone and cherty residuum), soils and forest/woodland types. Outstanding spring-fed perennial creeks and small rivers have gravel beds and deeply incised valleys. Today, much of this landscape is still largely timbered in second-growth forest with high habitat diversity including numerous woodland and forest types, glades, fens, cliffs, caves, springs and outstanding streams. Many areas contain more trees than they did historically and often the species mix is different than in the past.

III. Existing Infrastructure

- 7 parking lots
- 1.3 mile natural surface hiking trail
- 2.1 mile gravel area road
- Service roads (all but one small section are natural surface)
- 2 privies
- 2 picnic sites
- 2 other areas designated as camping sites during authorized camping periods
- 3 fishable ponds
- Unstaffed shooting range (25yd., 50 yd., and 100 yd. shooting lanes)

IV. Area Restrictions or Limitations

A. Deed Restrictions or Ownership Considerations: Four deed restrictions are attached to the original 1,352 acres that was donated by Bertha Reifsnider. These are: 1) the land shall be used as a state forest and public conservation area; 2) the area shall bear the name “Frank, Emma Elizabeth and Edna Reifsnider State Forest”; 3) it shall not be abandoned, conveyed, or sold, or attempted to be conveyed or sold; and 4) mining operations shall not be commenced upon any portion of the land.

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:** A 50-foot wide easement for a gas pipeline with Southern Star Central Gas Pipeline. The easement is 9,255 feet long and impacts a total of 10.62 acres.
- D. Cultural Resources Findings:** No known cultural resources.
- E. Hazards and Hazardous Materials:** During winter with ice and snow conditions, the entrance gate is locked to restrict public vehicle access to the area.
- F. Endangered Species:** None observed.
- G. Boundary Issues:** None

MANAGEMENT CONSIDERATIONS

V. Terrestrial Resource Management Considerations

Frank, Emma Elizabeth, and Edna Reifsnider State Forest is comprised of approximately 1,382 acres of forests and woodlands. Forest and woodland management will be directed at maintaining healthy forest and woodland natural communities for wildlife habitat.

The forests and woodlands on Frank, Emma Elizabeth, and Edna Reifsnider State Forest can be divided into two general categories:

- 1) Southern and Western aspects: These sites are typically dry and rocky with poor soil moisture and fertility, and are generally classified as woodlands. Trees exhibit slow growth, poor form and are of low quality for timber value. Typical tree species found on these sites include white oak, black oak, post oak, chinkapin oak, various hickory species and an understory of serviceberry, dogwood, red maple, and a small amount of sugar maple. These sites also have some small glade inclusions.
- 2) Northern and Eastern aspects: These sites typically retain more soil moisture and fertility and are generally classified as forests. Trees exhibit moderate to fast growth, good form and are of higher quality for timber value. Typical tree species found on these sites include white oak, red oak, sugar maple, various hickory species and scattered walnut, ash and basswood. The understory typically contains ironwood, sugar maple, dogwood, and scattered paw paw and spicebush.

The forests and woodlands on Frank, Emma Elizabeth, and Edna Reifsnider State Forest have had a long history of fire and livestock exclusion, as well as a lack of harvesting that dates back into the 1890s prior to Missouri Department of Conservation's (the Department's) ownership. This has had some good and some bad consequences. Overall tree quality and health is good due to the lack of tree injuries and harmful soil effects that can be caused by livestock use and wildfire. However, a lack of fire and mechanical forest management has led to an overstocked forest that has seen a large increase in fire intolerant/shade tolerant species in the understory and

overstory. In the past 20 years, forest/woodland management has included a combination of commercial/non-commercial thinning and prescribed burning.

Challenges and Opportunities:

- 1) Woodland/Forest community management.
- 2) Invasive species control.

Management Objective 1: Maintain a healthy woodland/forest complex with management emphasis on wildlife habitat.

Strategy 1: Monitor woodland/forest habitats for invasive vegetation, diseases and insects. Take steps to suppress any infestations that may develop. (Forestry)

Strategy 2: Retain and protect existing den trees. (Forestry)

Strategy 3: Complete forest compartment inventories according to compartment inventory schedule and manage woodland stands according to stand prescriptions. Compartment 2 is scheduled for inventory in 2014. (Forestry)

Strategy 4: Use a combination of mechanical thinning, herbicide, and prescribed fire to manage forest and woodland stands. (Forestry)

VI. Aquatic Resource Management Considerations

The Frank, Emma Elizabeth, and Edna Reifsnider State Forest lies within the Charrette Creek Watershed. It contains 2.5 miles of first order stream, 1.4 miles of second order stream, and 2.3 miles of third order stream (North Fork Charrette Creek). Charrette Creek is a Missouri River tributary and is characterized as an Ozark Border stream. The sections of stream in Frank, Emma Elizabeth, and Edna Reifsnider State Forest have fully forested riparian corridors. The main access road crosses North Fork Charrette Creek once. It is a stable low water crossing with minimal impacts. No changes to the crossing are recommended at this time. The shooting range drains into a first order tributary of Charrette Creek. There is a potential for lead contamination downstream from the shooting range. This water quality impact is of management concern. The Department desires to mitigate any potential for water quality impacts from the shooting range.

Frank, Emma Elizabeth, and Edna Reifsnider State Forest contains three fishable ponds - a 4-acre pond known as The Big Pit, a 1-acre walk-in pond known as The Overflow Pond, and another claypit pond that is approximately 0.4 acres in size. All are old clay mine pits. They receive little management beyond routine catfish stocking and occasional fish population sampling. Fishing pressure is reportedly light. Parking for The Big Pit and The Overflow Pond is limited to roadside areas, and can sometimes be a safety concern. In addition, 12 small fishless ponds dot the hillsides of the area. Some of these are small clay pits; some are constructed wildlife watering ponds.

Challenges and Opportunities:

- 1) Maintain water quality and health of streams on the area.
- 2) Improve public fishing opportunities at the three fishable ponds.
- 3) Manage fishless ponds for optimum wildlife benefit.

Management Objective 1: Maintain water quality and health of streams on the area.

Strategy 1: Develop an Environmental Stewardship Plan for Reifsnider Shooting Range which will include implementing Best Management Practices (BMPs) and a lead management plan. (Forestry/O&E)

Strategy 2: Monitor stability of low water crossings. (D&D/Forestry)

Strategy 3: Manage riparian forests according to Department guidelines. (Forestry)

Management Objective 2: Improve public fishing opportunities at the three fishable ponds.

Strategy 1: Investigate the possibility of constructing a parking lot and canoe launch for The Big Pit. (Forestry/D&D)

Strategy 2: Clear areas for bank fishing around ponds. (Forestry/Fisheries)

Strategy 3: Improve fish habitat in ponds by adding woody cover. (Forestry/Fisheries)

Strategy 3: Evaluate the need for additional stocking of ponds. (Fisheries)

Management Objective 3: Manage fishless ponds for optimum wildlife benefit.

Strategy 1: Survey fishless ponds to confirm the absence of fish. Use a piscicide to remove fish where appropriate. (Fisheries)

VII. Public Use Management Considerations

Challenges and Opportunities:

- 1) Provide for hunting, fishing and wildlife viewing opportunities.
- 2) Improve educational and interpretive opportunities.
- 3) Build relationships with neighboring landowners.
- 4) Maintain unstaffed shooting range.

Management Objective 1: Provide public hunting, fishing and wildlife viewing opportunities.

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

Strategy 2: Investigate the possibility of relocating the existing parking area and boat launch on the Big Pit to improve fishing access. (Forestry)

Strategy 3: Maintain and renovate as needed a green browse food plot composed of clover. (Forestry)

Strategy 4: Maintain the Lizard Rock Hiking Trail to provide hiking and viewing opportunities. (Forestry)

Management Objective 2: Improve educational and interpretive opportunities on Frank, Emma Elizabeth and Edna Reifsnider State Forest.

Strategy 1: Communicate to the general public about recreational opportunities (e.g., brochures, Atlas database). (Forestry)

Management Objective 3: Facilitate a good working relationship with neighboring land owners.

Strategy 1: Promote habitat management on neighboring landowner's properties. (Forestry and Private Land Services)

Management Objective 4: Maintain the Unstaffed Shooting Range to provide target shooting opportunities.

Strategy 1: Perform routine maintenance activities including: litter control, target holder replacement, sign inspection, safety fan boundary inspection, and maintenance, etc. (Forestry/O&E/D&D)

Strategy 2: Update and improve signage to better convey Range rules and regulations. (Forestry)

Strategy 3: Investigate the need to increase berm heights to reduce the potential for ricochet escape from the Range. (O&E/D&D)

VIII. Administrative Considerations

Challenges and Opportunities:

- 1) Maintain area infrastructure at current levels.
- 2) Acquisition of land.

Management Objective 1: Maintain area infrastructure at current levels.

Strategy 1: Maintain area infrastructure in accordance to Department guidelines and at currently identified maintenance level (1). (Forestry)

Management Objective 2: Explore neighboring land acquisition opportunities from willing sellers.

Strategy 1: 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.

APPENDICES

Area Background:

The Frank, Emma Elizabeth, and Edna Reifsnider State Forest is located in Warren County, about 3 miles southeast of Warrenton. The Missouri Department of Conservation acquired the first tract of this area in 1958 and manages it to improve forest and woodland health, wildlife habitat, and provide the public opportunities for hunting, fishing, hiking and viewing wildlife.

The 1,388-acre area is located in the Outer Ozark Border subsection of the Ozark Highlands section. It is 99 percent forested and includes a mosaic of woodland and forest communities.

A variety of forest and woodland management practices are conducted on the area, including commercial thinning (harvests), non-commercial thinning (timber stand improvement), invasive species control and prescribed burning. Deer, turkey, squirrel, raccoon, and other mammals associated with Missouri forest and woodland habitat are frequently seen here, along with a variety of reptiles and amphibians. During the spring through early fall, a variety of neo-tropical birds call the area home, and many other bird species are year-round residents.

The area is open to the public from 4 a.m. to 10 p.m. daily. Special facilities include an unstaffed shooting range and associated parking lot, a 1.3 mile long hiking trail, and 3 fishable ponds.

Current Land and Water Type:

Land/Water Type	Acres	Feet	% of Area
Forest/woodland	1,380		99.4
Lakes/ ponds	6.5		0.5
Crop Land (food plot)	1.5		0.1
Total	1,388		100
Stream Frontage		10,440	

Public Input Summary:

The draft Reifsnider State Forest Area Management Plan was available for a public comment period December 1 – 31, 2013. The Missouri Department of Conservation received comments from 26 respondents (Appendix A). The Reifsnider State Forest 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 Reifsnider State Forest public comment period

Supports removal of invasive plants.

Invasive species control is an ongoing priority on all of our Conservation areas. Achieving total control of any invasive species generally takes repeated treatments over the course of multiple years. Total eradication of many invasive species may never fully occur as untreated populations of the species that are on adjacent private lands act as a continuing seed source in the area. The local Department staff have been working for the past several years to treat invasive species that are found on the area by using a combination of prescribed burning, mechanical work (ex. chainsaw and equipment work), and targeted herbicide applications. The species being controlled include bush honeysuckle, autumn olive, burning bush and multiflora rose. In the past three years we have treated over 220 acres of invasive species on the area.

Opposes use of pesticides or herbicides for forest or pond management.

The use of pesticides/herbicides is sometimes necessary for forest and pond management. This is especially true for treating and controlling invasive plant species that have the ability to completely change our natural communities and thus greatly affect the wildlife that depend on them. While mechanical treatment and prescribed burning are beneficial in working on these species, very rarely is it possible to completely control the populations without use of herbicides. Herbicide applications always follow directions listed on the product label. The herbicide applications have minimal impacts on any other species besides the targeted ones.

Suggests adding ruffed grouse habitat.

Through our normal forest management techniques (timber stand improvement (TSI), intermediate harvesting and shelterwood harvesting) we will be improving habitat for ruffed grouse and a whole host of early successional wildlife species. In the last few years we have already performed TSI on several hundred acres on the area. Some timber harvesting is tentatively planned in several forest stands in the future, but our early successional forest habitat emphasis for the next several years is focused on Daniel Boone CA and Little Lost Creek CA, which are also located in Warren County.

Concerned about low deer and squirrel numbers on this area.

Wildlife population levels can be affected by numerous factors. Hunting intensity can be one of these factors, but in this era of regulated hunting, this is not generally the chief issue that is the cause of dramatic shifts in population numbers. Weather events and isolated disease outbreaks can have a more dramatic affect from year to year on particular wildlife populations. The last couple of years have been a good example of this. In 2012 we had a serious drought throughout much of the state that had several adverse wildlife impacts. The deer herd in isolated pockets throughout the state were affected by the blue tongue virus and the epizootic hemorrhagic disease (EHD) virus. This disease can have a negative impact on the population level of deer in these isolated pockets for several years following the outbreak. Also in 2012, this drought led to historically low production of acorns throughout the state and acorns are a staple food of deer, squirrels and many other wildlife populations. A short-term decrease in wildlife populations on the area may have occurred because of these circumstances, but this impact should be relatively short lived.

Suggests fish stocking of lake adjacent to shooting range.

The two ponds closest to the range are 0.1 – 0.2 acres in size, which are not of adequate size to support a public fishery. The pond known as the “Big Pit” has a self-sustaining population of bass and bluegill. Catfish are restocked every one to two years.

Suggests a low-impact bridge or other improvement for the creek crossing (access to area is sometimes blocked during rains or winter snows).

The current crossing is stable and has very little impact on the health of Charrette Creek. Infrastructure on Department lands is being carefully managed to ensure a balance of benefits and costs that meet public use demands and provide adequate staff support and maintenance in the future.

Suggests adding a parking lot, a canoe launch, and a clear path to the “Big Pit” pond.

As suggested in the area plan, we intend to look into the possibility of adding a larger parking area and canoe/boat launch to the “Big Pit” in order to improve access. Department staff will continue to treat invasive species surrounding the “Big Pit” which will improve public access. The steepness of the terrain immediately surrounding the “Big Pit” would make establishing and maintaining a trail around the pond very difficult.

Suggests cleaning up the fishing lake.

Some trees and brush are intentionally dropped into the lake in order to provide fish habitat. Continued treatment of the invasive species located around the lake shore will improve the aesthetics around the lake. Staff make occasional patrols around the lake to pick up litter that has been left by area users and will continue to do so.

Suggests more hiking trails.

The Lizard Rock hiking trail provides app. 1.3 miles of hiking on the area and hiking is allowed on all area service roads. In addition, hiking is available “off road” anywhere on the area. Future trail expansions are unlikely since there are current trail options, including service roads. In addition, Daniel Boone CA and Little Lost Creek CA, which are also located in Warren County, each provide approximately 7 miles of trails that are open to hiking year-round.

Suggests horseback riding trails.

In Warren County, Little Lost Creek CA and Daniel Boone CA each provide approximately 7 miles of multiuse trails that allow horseback riding for a majority of the year.

Suggests antlerless deer hunting only on this area.

If antlerless deer hunting via firearms were to be allowed on this area, a managed hunt would have to be utilized. The harvest of does is the main way to control deer populations and unlimited harvest of does by firearms on this area would have serious effects on the localized deer population. While antlerless deer cannot be harvested with firearms on the area, antlerless deer are allowed to be harvested on “any deer” archery tags.

Suggests managed youth hunt on this area.

A managed hunt has been considered on this area in the past and getting youth involved in hunting and outdoor recreation is an important issue. This would most likely be a “bonus” season on the area and other deer hunting seasons would remain the same. The area is open to the youth season deer hunt, which gives them an added opportunity beyond the normal seasons. Managed hunts in the future will be considered and a managed youth hunt will be a part of this discussion.

Suggests continued upkeep and maintenance for the shooting range.

Weekly and intermittent upkeep and maintenance of the shooting range will continue in order to provide a safe and enjoyable experience for area users. This includes trash pickup, target holder replacement, safety fence maintenance, backstop maintenance and repair, sign replacement and shooting bench maintenance.

Suggests expanding shooting range facility.

Infrastructure on Department lands is being carefully managed to ensure a balance of benefits and costs that meet public use demands and provide adequate staff support and maintenance in the future. Topography of the area around the shooting range would also make expansion difficult and costly. There are other Department shooting range facilities located nearby at the August A. Busch Memorial and Logan Conservation Areas.

Suggests closing shooting range.

The Department's mission is "To protect and manage the forest, fish, and wildlife resources of the state and to facilitate and provide opportunities for all citizens to use, enjoy and learn about these resources." Shooting ranges provide a valuable resource for the public to practice their shooting skills, whether this is related to hunting activities or just as recreational shooting.

Concern that shooting range is unsafe (stray bullets, alcohol use by those using range, overcrowding, fully automatic weapons mentioned).

Shooting range rules are posted in multiple locations on the shooting range and adjoining parking lot. Fully automatic weapons are not allowed. Alcohol is not allowed on the shooting range or adjoining parking lot. Berm heights around the range meet the standards required. The county Conservation Agent, as well as Warren County Sheriff's deputies, patrol the range and write tickets/give warnings based upon violations they encounter. Local Department staff also report violations to these authorities when they are observed.

Concern about noise from shooting range. Suggests sound abatement structures. Suggests limiting days/hours of shooting.

A statewide unstaffed shooting range study will be conducted by the Department in the near future that includes not only surveying Department staff responsible for the shooting ranges, but also will entail doing surveys of shooting range users on certain ranges around the state. This will help the Department better understand the overriding issues and concerns throughout the state on our unstaffed shooting ranges. One of the issues that are of concern is the noise from shooting. This range has the positive aspect of having significant surrounding forest cover which helps buffer range noise.

Concern about impact of lead from shooting range on local creek system, ground water and wildlife.

An Environmental Stewardship Plan will be developed for the Reifsnider Shooting Range which will include implementing Best Management Practices (BMPs) and a lead management plan.

Suggests staffing the shooting range (at least on the weekends).

The unstaffed shooting range study will provide useful information to help us make informed decisions related to our shooting ranges. Increased staffing and associated costs would be an obstacle to this suggestion.

Suggests more enforcement for Wildlife Code on this area.

The county Conservation Agent conducts routine patrols of the area and group patrols by multiple Conservation Agents are sometimes used to ensure area users are following the Wildlife Code. In addition, area staff share information with the Conservation Agent when they observe Wildlife Code violations on the area.

Concern that the plan doesn't acknowledge rapid growth of Warren County and potential impact to Reifsnider State Forest.

Growth has slowed down considerably in the last five years, but Warren County will certainly continue to grow in the future. Area streams are one resource that could be impacted as the area becomes more developed due to increased stormwater flows. Some mitigation of this issue could be achieved by supporting environmentally sound community planning. Department staff have spoken with the county about this issue and agency staff will continue to monitor the area for impacts.

Would like to see a carbon sequestration value of the forest recognized and part of this plan.

While not recognized in this plan, carbon sequestration is an extremely valuable “byproduct” that forests provide. We will continue to manage our forested areas in a manner that, not only provides high quality natural communities for a great diversity of plant and animal species, but also keep them healthy, productive and growing. The United States Forest Service notes that “Sustainable forestry practices can increase the ability of forests to sequester carbon while enhancing other ecosystem services, such as improved soil and water quality. Improving forest health through thinning and prescribed burning are some of the ways to increase forest carbon in the long run. Harvesting and regenerating forests can also result in net carbon sequestration in wood products and new forest growth.”

Concern that Schuetzenground Road may not be able to support additional traffic to the area.

Schuetzenground Road is a two-lane paved road that is maintained by Warren County. No mentions of issues with traffic heading to Reifsnider State Forest have been raised by the county or anyone else in the past.

References:

Nigh, T. A., & Schroeder, W. A. (2002). *Atlas of Missouri ecoregions*. Missouri: Missouri Department of Conservation.

Maps:

Figure 1: Area Map

Figure 2: Aerial Map

Figure 3: Topographical Map

Figure 4: Current Vegetative Map

Figure 5: Proximity Map

Additional Appendices:

Appendix A. Draft Reifsnider State Forest Area Plan Public Comments

Figure 1: Area Map

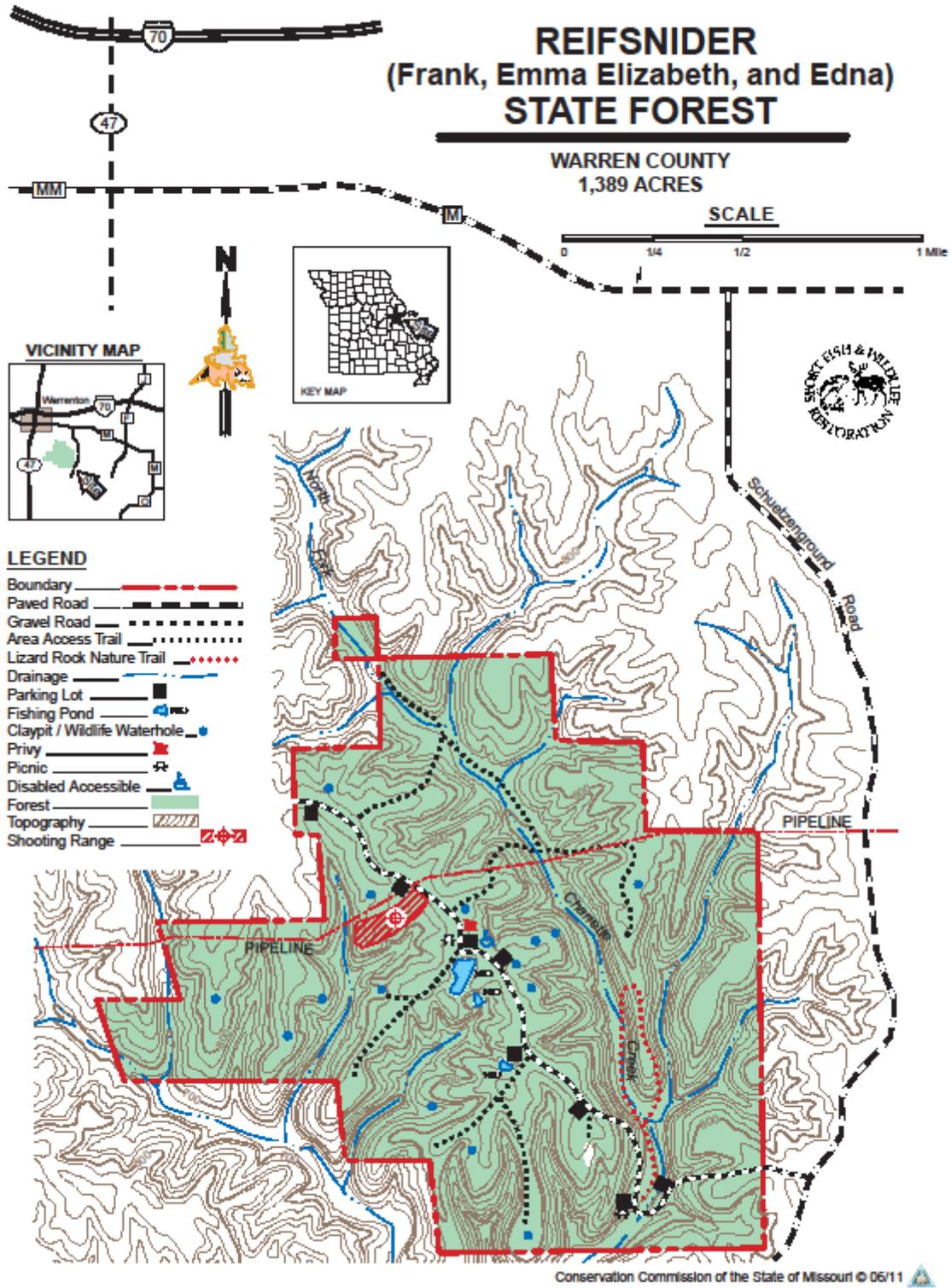
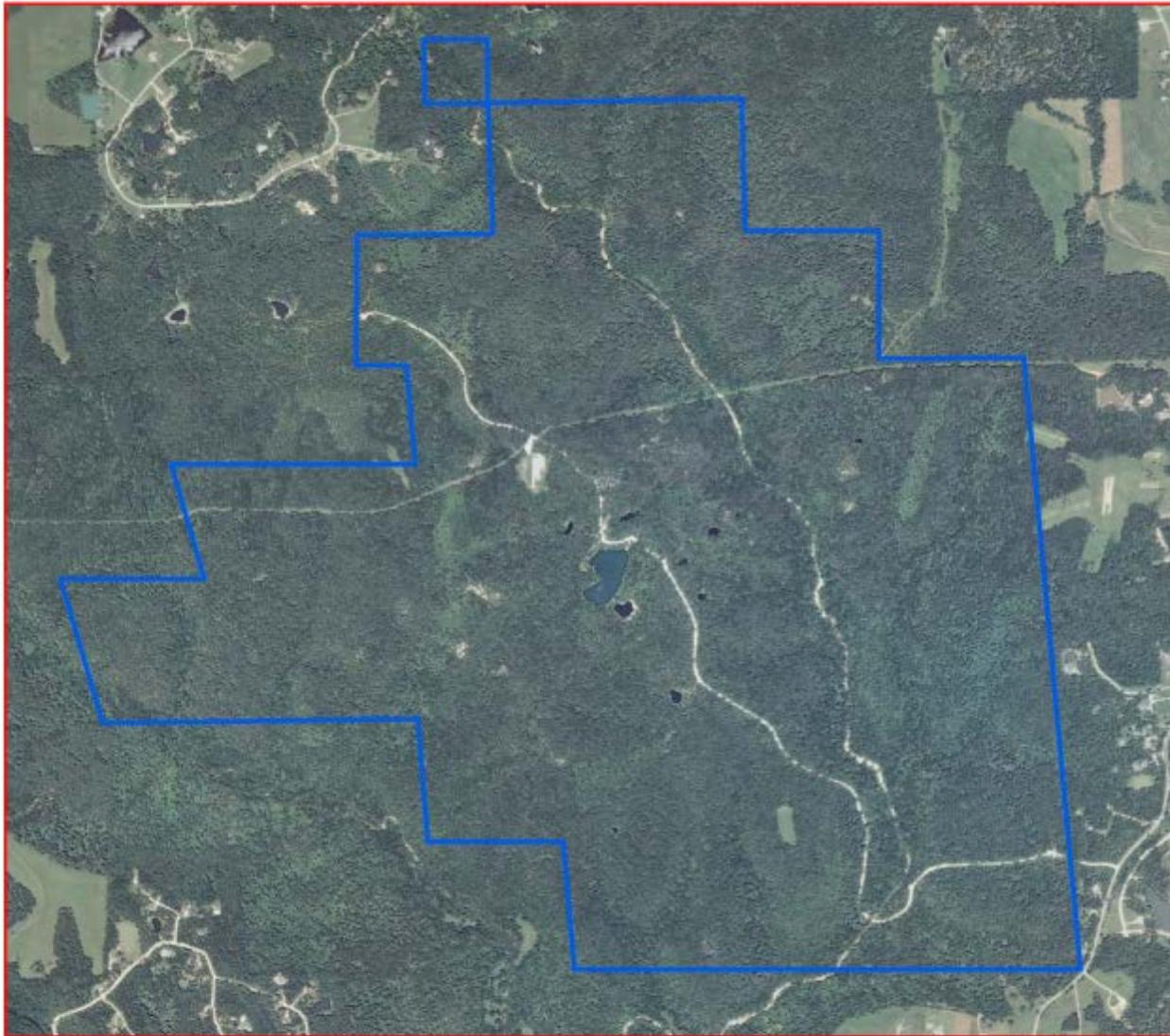


Figure 2: Aerial Map

Frank, Emma Elizabeth, and Edna Reifsnider State Forest



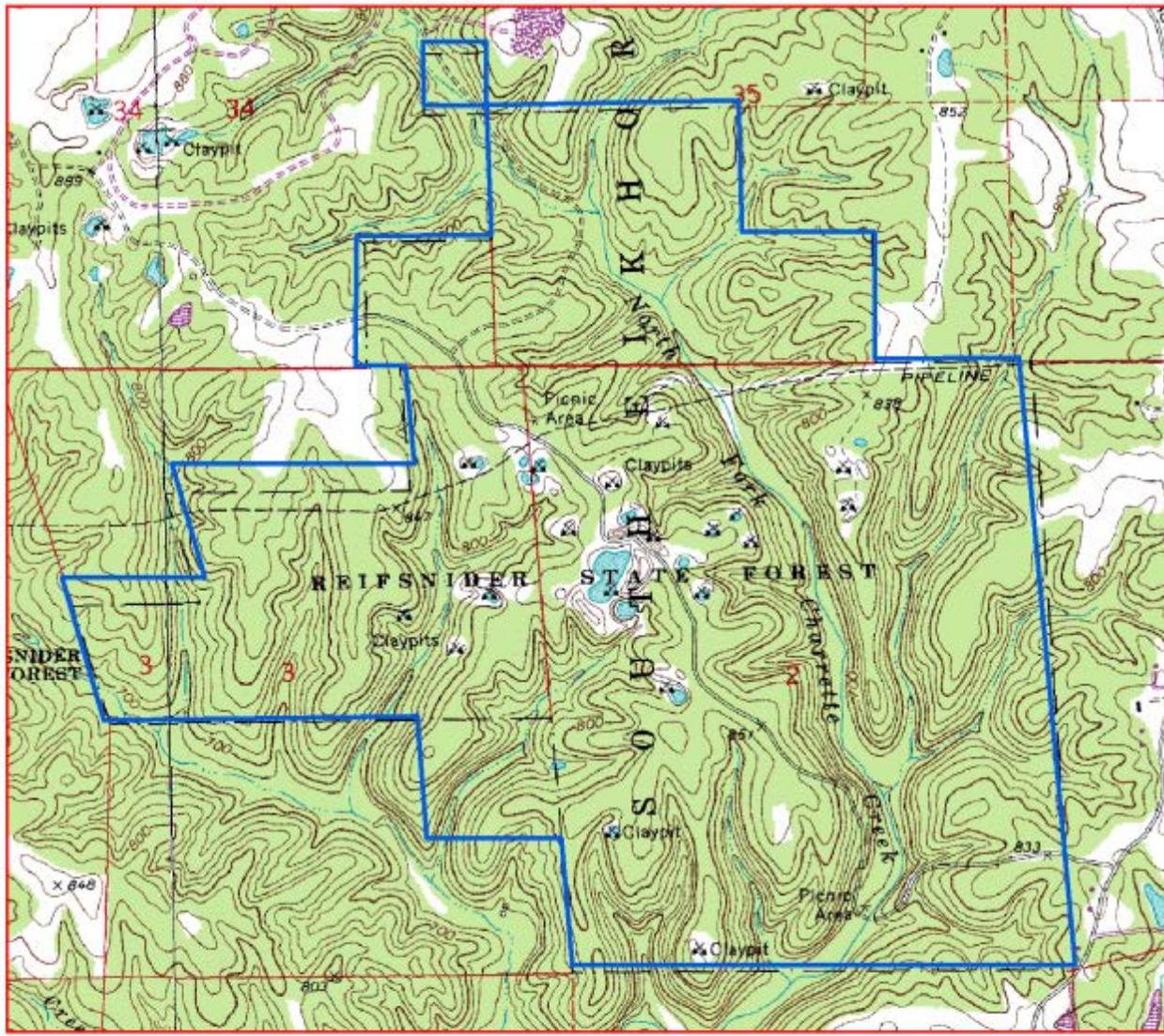
— = property line



0.3 0.15 0 0.3 Miles

Figure 3: Topographical Map

Frank, Emma Elizabeth, and Edna Reifsnider State Forest



— = property line

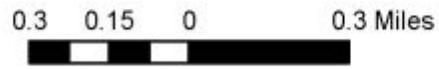
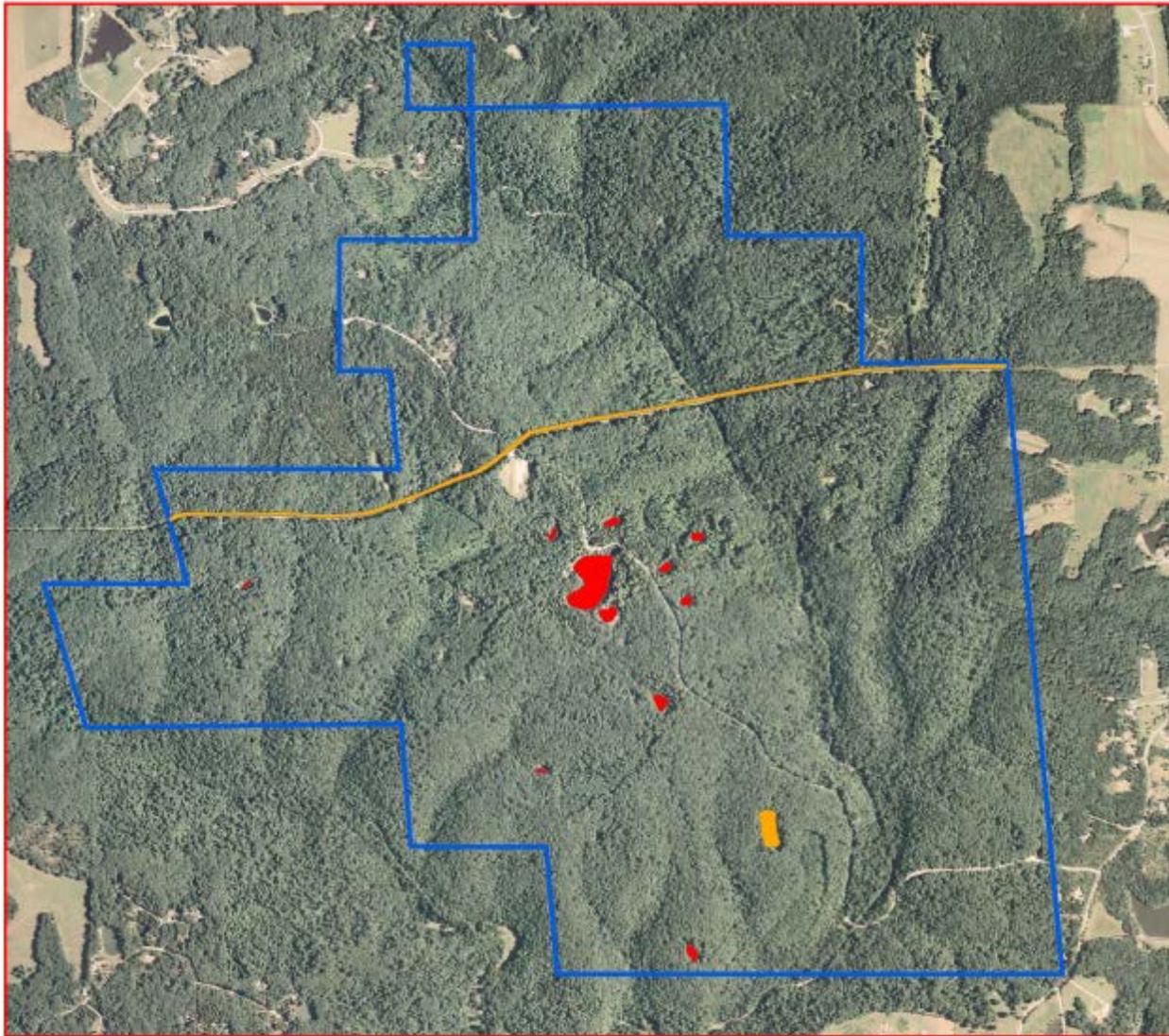


Figure 4: Current Vegetative Map

Frank, Emma Elizabeth, and Edna Reifsnider State Forest

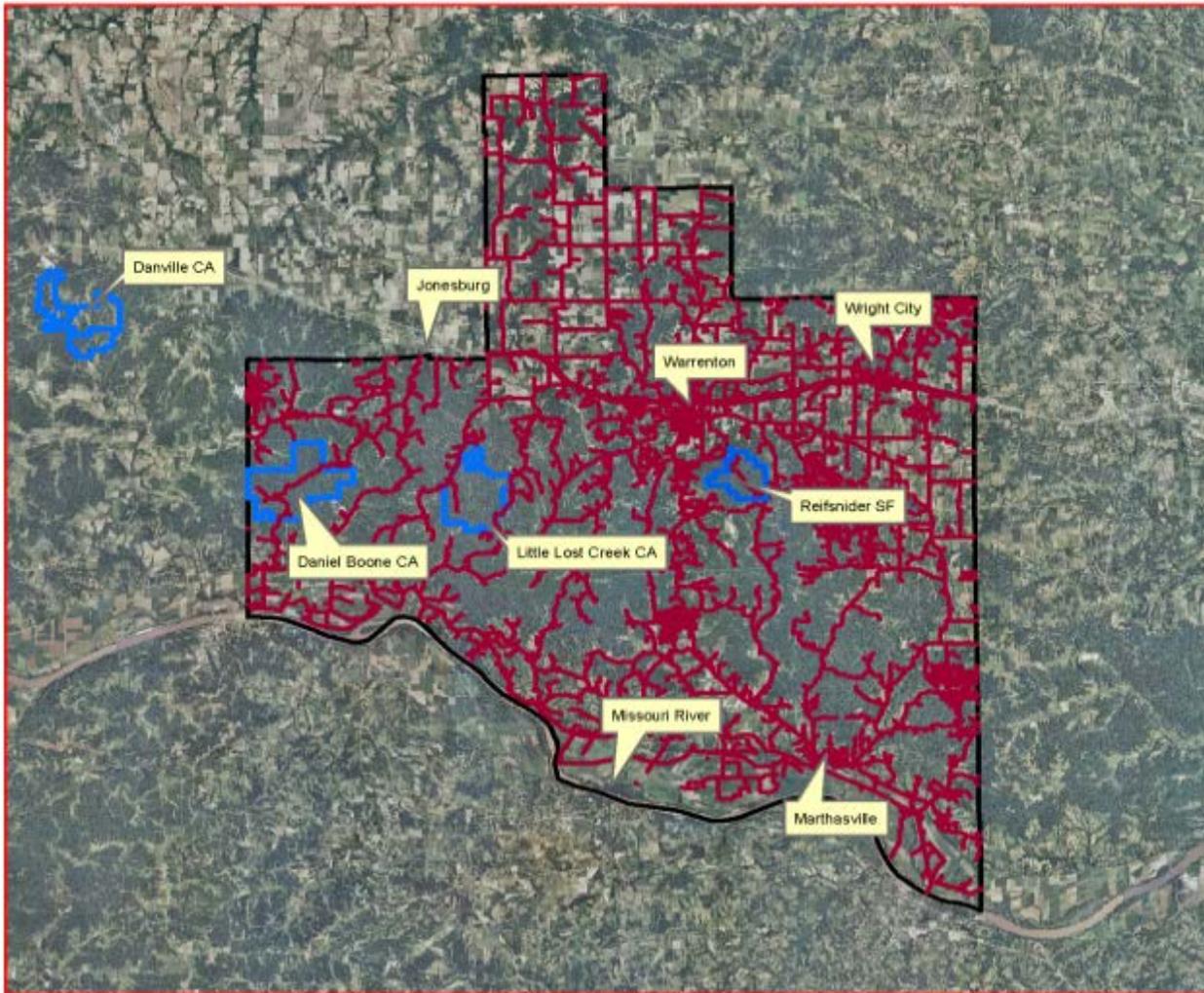


-  = property line
-  = forest/woodland
-  = open land
-  = lakes/ponds



Figure 5: Proximity Map

Frank, Emma Elizabeth, and Edna Reifsnider State Forest



- = Warren County Line
- = MDC land
- = roads



Appendix A. Draft Reifsnider State Forest Area Plan Public Comments

Received during public comment period (December 1-31, 2013)

I like the idea of adding a parking area and canoe launch at the "Big Pit" pond. Also better accessibility to the pond would be nice. A clear pathway to access the pond is a good idea.

I frequent the area in the spring for spring Turkey season, and the creek crossing sometimes creates a problem during the spring high waters. It caught my attention that no plans were in place for the crossing. I would suggest a low impact bridge.

It is good to see that MDC is concerned in maintaining and managing the public lands in MO. As a person who frequents the public areas for hunting, fishing, target shooting, and camping I appreciate your efforts.

Thank You,

Hello,

I am from St.Charles, and I have always enjoyed going to Reifsnider State Forest for hunting and fishing trips for the past 6 years. I come out and visit about six or more times a year and have had a great trip each time. I am concerned for this area though, it seems that most hunters have noticed ALOT less deer on the area. Even the squirrel count seems to be low. This is a fantastic area with facilities, but again I am concerned. I have noticed on a past trip (2 or so years ago) that bullets from the shooting range being reflected right thru a walking trail. The trail is now wired off thankfully. I think this area gets used a lot as it is. Many people from St.Charles take advantage of this area because of it's location right off highway 70. I think this area would be a great opportunity for the public if the plan would take affect. I think Many people would love to see MDC applying time and work in to this area.

Thanks,

Members of our community have expressed concerns regarding the safety, overcrowding, noise and environmental impacts of the shooting range.

1. Safety: Reports of open and excessive alcohol use by those using the range. Not aware of any other facility that allows for alcohol and guns.
2. Overcrowding: Long queues to use the range. Those in queue also using alcohol during long periods of waiting.
3. Noise: Reports of loud, non-stop shooting noise for long durations.
4. Environmental: Impact of lead leaching into the creek systems and harming wildlife.

I would like the MDC to consider:

- a. Ban alcohol from shooting range

- b. Staff the shooting range during operating hours.
- c. Improve shooting facilities (ie: Weldon Springs shooting facilities)
- d. sound abatement and restricted shooting times.

Thank you for your consideration. Please feel free to contact me for further discussion.

Sincerely,

Many of us in the Warrenton area would like to see Reifsnider be a alternative hunting area. We would like to see more enforcement of the conservation laws in this area. We would like to see the fishing lake cleaned up. We would like for the hunting in Reifsnider to be doe hunting only. We would like to see a well enforced youth hunt in Reifsnider.

I would like to request that sound abatement at the shooting range be part of the management plan. There are a number of relatively inexpensive approaches, including 1) earthen berms, 2) vegetative buffers, or 3) concrete sound mufflers. The advantage of the latter is that they would provide shade and protection for the shooters as well as sound abatement for neighbors (we can hear the shooting all day, every day). It seems like a terrific local resource that simply needs to be upgraded to manage the sound better. I would imagine that this would also benefit other users of the park, as well!

Recommended prioroities:

I am a local resident and park user.

Areas of emphasis:

- 1) Continued upkeep and maintenance of outdoor target range. This is a nice amenity and I use it often.
- 2) Reifsnider scenery and terrain is ideal for hiking trails. I would like to see more trails built as they are limited at present to a small area of the forest.
- 3) Stocking of lake adjacent to target range would be nice but not a top priority over my first two recommendations.

Dear Sir, I am a long time outdoor person and would love to use Reifsnider but I don't even think of gong there. I live in ear shot of the shooting range and spent 5 years in the Marine Corps. I know the difference between rapid fire and full automatic fire is. Full automatic fire is not a rare event on that shooting range. I also know how difficult it is to control full auto fire and it make me very uncomfortable when I think of who could be using that type of firearm at the shooting range.

You need to put the same type of range in that you put at the Hinges facility off Hwy 44 and Antire Road. That would help the neighbors feel safer. I would not have to be manned but a roof would do a lot to help stray bullets.

Thank you

Maintain and improve the shooting range.

We are permanent home owners at Innsbrook Resort living on Alpine Lake. We chose to build our home and live here close to nature. Unfortunately we frequently listen to the gunshot from the Reifsnider Shooting Range. This occurs throughout the year. Perhaps hours of shooting could be restricted. Also, I am a horse owner/trail rider. I would appreciate riding trails throughout Reifsnider, again, with the ability to ride during times of no gun fire. Our Innsbrook Garden Club is very interested in native species of plants and any effort to remove invasive plants and encourage natives would be desirable. Let's strive to make Reifsnider more accessible to everyone who enjoys nature, not just the hunters.

Although I live over 2 miles from the shooting range, the noise has increased significantly in the past several years. Much automatic rapid fire shooting is taking place and is not true target shooting. I would like to see the range closed. If not hours should be shortened, types of rapid fire weapons should be banned or their use monitored. The noise of gunfire disrupts the natural quiet of the surrounding area for many miles. Thank you.

The shooting range probably did not disturb many neighbors when it was built. But there are a lot more people (including us) living now within hearing distance of the noise generated by the weapons. We moved to this area to live in the peace and quiet, which we do not now have with the regular hooting going on disturbing our peace and quiet. We wish the shooting range would be closed permanently.

I have never been to Reifsnider State Forest. My connection to it is as a resident of Innsbrook. Our cabin is on the western side, just a couple of miles from Reifsnider, and in the past year there haven't been more than a few days without the sound of gunshots in the air. Some days it sounds like there's a full-on battle over there. I would LOVE it if there were no shooting range at Reifsnider. However, I don't know what other options are available to the public. If Reifsnider is their ONLY option then I would request that the management team take a good look at ways to reduce the noise pollution that extends from the shooting range in a 5-10 mile radius around it. Sound abatement options such as earthen berms, concrete sound mufflers, and vegetative buffers. There are benefits to the shooters here as well as us neighbors. Thanks so much!

Thank you for this opportunity to comment on the area plan for the Reifsnider State Forest.

You have stated that "The desired future condition of the Frank, Emma Elizabeth, and Edna Reifsnider State Forest (SF) is a healthy forest/woodland complex." I could not agree more. We need to leave to our children and grandchildren the opportunity to experience forests and woodlands as we found them years ago, uncontaminated by modern disruptions and distractions.

In that light, I want to comment on the very negative aspects of the presence of the shooting range in Reifsnider. Certainly, the noise associated with that operation is most disruptive of anyone's enjoyment of the peace and quiet expected with a visit to a State Forest. Our home is just East of Schuetzenground Road and is constantly bombarded with the noise of the shooting range.

There are adequate facilities operated by the Missouri Department of Conservation at the August Busch Wildlife area and the range off of Antire Road/I-44. In both cases, these ranges are fairly well separated from residential properties that would be disrupted by the firing of guns. Importantly, these Dept of Cons operations are closely supervised for safety and proper ettiquette.

I am a hunter and I have used both of the Dept. of Conservation ranges discussed above. I have never seen the indiscriminant, rapid firing mayhem that I hear at Reifsnider. It is not uncommon to hear a barrage of 30 rounds, obviously from the same weapon, in 10 seconds. Automatic? Hard to say. But certainly irresponsible. Without supervision, anything goes.

Residential presence around Reifsnider has grown to the point where the firing range does not have a reasonable presence.

If you are going to keep it, I urge you to provide disciplined supervision to eliminate the abuses.

Lead in the stream could be reduced perhaps by limiting the rifle range use to a select few days and hours per week. It would also give my family and our neighbors at Innsbrook a break from the semi automatic gun fire and random gunfire that we experience nearly everyday throughout the year from sun up to sun down. Maybe can we just have Sunday mornings' peace?

Also, the park seems very limited in its scope for the the general population. It seems like it is geared for hunting. I'm fine with that, except I would like to see more hiking trails on this 1,300 acre tract. It would add to its appeal to a greater portion of your surrounding population. Given the expanding residential population of Warren County, a nice hiking trail system would be ideal.

Otherwise, I like your stated goals. Not sure about the expanding part, when 1300 acres is already a pretty big management job.

I'm very unhappy with the gun range at Reifsnider. The gunfire is loud and often begins at daybreak. There is no restriction on the shells - some sound like cannons. The noise makes it impossible to sleep and is nerve wracking. It makes me uncomfortable to be out walking or working because I'm not really sure where the gunfire is coming from or going,

The Village of Innsbrook, population at 2010 census being 552, lies adjacent to and East of Reifsnider. The gunfire noise from the shooting range can be heard by virtually every one of the 552 residents. In addition the Village contains the Innsbrook Resort which adds over 1000 recreational chalet dwellings often used, principally in the Spring, Summer and Fall during

weekends. I have received some resident complaints about the gunfire noise. We are meeting with MDC representatives in January to discuss this situation. I also know that some residents use and appreciate the range. Perhaps measures could be taken to limit the dates and times of day the range can be used (not early in the morning), and some noise abatement measures could be considered.

I was very concerned to read about the Charrette tributary levels due to the shooting range. Where was this water measured? Where does this tributary flow and what steps are being discussed to clean this up immediately and prevent future polluting of our waters?

December 25, 2013

Missouri Department of Conservation St. Louis Regional Office
2360 Hwy. D
St. Charles, MO 63305

RE: Public Comment on Reifsnider State Forest Management Plan

I feel privileged as a Warren County resident to have a State Forest as beautiful as Reifsnider nearby and appreciate the work of MDC employees in their stewardship. Thank you for considering the following comments and questions from my review as an individual of the Draft Ten Year Area Management Plan.

1. The plan appears not to acknowledge the rapid growth of the surrounding Warren County, the 3rd fastest growing county in the state, from a largely rural county to a semi-urban county which is likely to continue if not accelerate in the next ten years. What impact will this population growth with bordering development and land use changes have on the State Forest and the public's use or expectations for it? As example, if the county does not develop its own recreational areas and parks during the next ten years, how might this impact this State Forest or render the plan obsolete?
2. Under working relationship with neighbors, does this include the neighboring Village of Innsbrook and Innsbrook Resort where I reside which encompasses an area adjacent near the State Forest with even larger acreage of forests and habitat? How might the continued development of Innsbrook impact the wildlife patterns and habitat needs of the State Forest? How can the MDC and the Village of Innsbrook or Innsbrook Resort collaborate together to preserve and protect our natural resources in a symbiotic manner, especially since they represent the two largest landowners of the county?
3. Writing this public comment on Christmas Day after just returning from a family holiday hike inside Innsbrook, my experience of the Missouri outdoors on this holiday was disrupted by the near non-stop sound of firearms coming from the State Forest shooting range, including rapid-fire automatic weapons that made me feel like I was adjacent to a battlefield. Why is it allowable that an activity in the State Forest infringe upon the rights of neighboring residents to peacefully enjoy Missouri's great outdoors without this nuisance?
4. With regards to the shooting range, how has the volume of users, type of users (local residents,

St. Louis day-trip, hunters, gun enthusiasts, clubs, etc.) and type of firearms being used changed in the past ten years? If the shooting range is unmanned, how is this information collected and tracked and if not, shouldn't it be? What can be projected in the volume and type of use during the next ten years? Have there not been complaints from area residents about noise pollution coming from the shooting range, especially the resort homes of Innsbrook, and where is this referenced in the plan? If complaints have already been received, or can reasonably be expected to increase with the growth of nearby residential properties and growth in range usage, can additional sound barriers be constructed, hours limited, or type of weapons restricted? How are existing regulations enforced without the range being manned or patrolled routinely? Is there an expectation or burden on the Warren County Sherriff's office to police or enforce shooting range regulations? As Warren County grows around the State Forest, and St. Louis sprawls into Warren County, is an open air shooting range at an increasingly urban location compatible and viable for the long term?

5. Given the importance of lakes, stream water quality, and water recreation within Warren County and Innsboork, the reference to pollution of Charrette Creek tributaries was appreciated but disturbing, especially that of waste and lead runoff from the shooting range. If the following questions are not covered in the management plan, where can they be addressed: how is the toxic pollution being monitored, is it by an independent agency like the DNR, have allowables been exceeded and reported, is there a non-compliance issue, if so what is the remediation plan, and who owns it?

6. How might climate change and extreme weather events impact a State Forest like Reifsnider and how does the MDC plan for such possibilities? Related to this topic, can an economic value be put on State Forests in their capacity to capture and store carbon? Can this value help MDC to justify the long term maintenance and survival of State Forests? If so, how can the carbon sequestration value of the forest be recognized and become part of the plan? Are their innovative opportunities for MDC to solicit greater public support of State Forests by, as an example, offering carbon credits for adoption or purchase by residents to help sponsor our State Forests?

Thank you for considering these public comments and questions as you plan forward.

Regards -

Regarding Section 7, Management Objective 4, Maintain the Unstaffed Shooting Range. After having lived within earshot of this range for 2 years, and having used the shooting range this year to sight in my deer rifle, I believe that this range needs to be staffed for safety reasons, at least on the weekends. It seems that many folks travel to use this range, because they can do things and shoot things here that they would not be allowed to at a staffed range. The volume of litter and shot-up debris at this site is staggering. Also staggering is the amount of shooting that takes place here beginning at 7 AM or so most weekend mornings. I would like to see this site staffed on the weekends to manage what appears to me to be problem behavior. While I realize that some of these folks may migrate to other unstaffed ranges, perhaps most would begin behaving in a safer manner with their weapons.

I enjoy everything about Reifsnider Forest except the shooting range. It seems like so many of

the issues listed could be solved by getting rid of the range. I enjoy hunting and the outdoors but this shooting range actually scares me.

Thank you for the opportunity to provide feedback on the Reifsnider State Forest Plan. As an Innsbrook home owner on the west side of Alpine Lake, the Reifsnider Forest Plan and future expansion plans impact me. The plans supports the primary mission to manage and improve of the forest and woodland health, wildlife habitat, and provide the public opportunities for hunting, fishing, hiking, and viewing wildlife.

The key features of the plan where I'd like to comment are:

- 1.) My most significant concern is the lead contamination in a watershed area affecting the neighboring land owners due to the possibility of lead may contaminate local wells and/or other nearby recreation areas. The removal of lead should be the primary and immediate focus;
- 2.) I would recommend that the hours of operation to be reduced to the public from sunrise to sunset;
- 3.) The Plan should specify natural or organic treatments to address insect infestations. This is directed to management of forest and ponds. At no time should pesticides or herbicide be used due to the proximity of a water shed and possible contamination of well water and/or aqua filter;
- 4.) More information is requested to gain a better understanding of the management of the riparian forests according to MDC guidelines;
- 5.) Assuming the plan does increase parking and recreational activities increase use of the park, a traffic study needs to be conducted to insure that Schuetzenground road can support additional use.

The road to the shooting range crosses a small creek and during rains or winter snows it is almost impossible to enter the area. Can this be corrected or improved?

My family enjoy this area and the range. Thank you

MDC should consider adding to the plan some areas for grouse habitat, and grouse stocking/restocking being relatively close to the current remaining Missouri population of ruffed grouse.

Also should evaluate the shooting range use to see if an expansion of the facility would be utilized.

Thank you for taking comments.

Unstaffed shooting range is unsafe and a nuisance. PLEASE:

1. restrict shooting hours to daylight
2. remove lead contamination and stop further lead accumulation
3. close the shooting range or provide safety supervision
4. ban alcohol consumption at the shooting range

Our family used the shooting range at Reifsnider and found it to be unsafe and unsupervised. Beer and shooting don't mix!

The park itself was unkempt.

It's is wonderful to have a State Forest in our area, but it needs to be cared for.

Please consider regrading or further improvement of the "stable water crossing" of Charrette Creek in Reifsnider State Forest. Although no changes are currently recommended in the plan as of 12/2013, I could not cross it in a 2-wheel drive pickup without serious concerns about being able to get back out due to the steep grade on each side of the crossing and poor gravel quality. I would not consider crossing it in anything but a 4-wheel drive vehicle. This limits access and enjoyment for many, as the crossing is on the main access road. Thanks for your work to conserve the area for the future.