

# **William R. Logan Conservation Area**

## **Ten-Year Area Management Plan FY 2016-2025**



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**Wildlife Division Chief**

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**Date**

## William R. Logan Conservation Area Management Plan Approval Page

### PLANNING TEAM

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Wildlife Management Chief

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## OVERVIEW

- **Official Area Name:** William R. Logan Conservation Area, #6607
- **Year of Initial Acquisition:** 1968
- **Acreage:** 1,798 acres
- **County:** Lincoln
- **Division with Administrative Responsibility:** Wildlife
- **Division with Maintenance Responsibility:**
  - A. **Infrastructure Maintenance:** Design and Development
  - B. **General Area Maintenance:** Wildlife
- **Statements of Purpose:**
  - A. **Strategic Direction:** Manage for wildlife, woodland, and open land resources with emphasis on woodland and open land species and compatible outdoor recreational opportunities.
  - B. **Desired Future Condition:** The desired future condition of William R. Logan Conservation Area (Logan CA) is healthy forest and woodland natural communities and open land habitats blended together to form a diverse landscape for a variety of plants and animals representative of quality habitat management within the Cuivre River Hills Conservation Opportunity Area.
  - C. **Federal Aid Statement:**

This area, or a portion thereof, was acquired with Pittman-Robertson Wildlife Restoration funds to restore and manage wildlife, conserve and restore suitable wildlife habitat, and provide public access for hunting or other wildlife-oriented recreation.

## GENERAL INFORMATION AND CONDITIONS

### I. Special Considerations

- A. **Priority Areas:** Cuivre River Hills Conservation Opportunity Area, Cuivre River Fisheries Priority Watershed, Whiteside Quail Focus Area, Quail Emphasis Area (extension to the William G. and Erma Parke White Memorial Wildlife Area, on north end of Logan CA)
- B. **Natural Areas:** None
- C. **Land Type Association:** William R. Logan Conservation Area is described in the Cuivre River Woodland/Forest Hills Land Type Association of the Central Dissected Till Plains Section of Missouri. This land type possesses strongly rolling to relatively rugged hills with rather narrow ridges, steep sideslopes, narrow valleys, and over 200 feet of local relief. Upland soils are mainly thin layers of till and loess, while lower slopes grade into sedimentary residuum. Historically, this area consisted of a complex mosaic of narrow ridgetop prairies

and savannas, grading into oak woodlands on upper slopes, with well-developed oak and mixed hardwood forests on protected slopes and bottoms. Floodplains with marshes and wet prairies are interspersed throughout. Streams have mainly sand bed channels and well-developed floodplains of variable soil texture. Today, while much of the landscape has been cleared for pasture, the largest blocks of remaining timber in this region occur here. Most blocks are dense, second growth oak forest, fragmenting and simplifying a potentially diverse landscape (Nigh & Schroeder, 2002).

## 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

## III. Existing Infrastructure

- 10 parking lots
- 1 hike/bike multi-use trail (4.2 miles, natural surface)
- 1 rifle shooting range, Americans with Disabilities Act (ADA) accessible
- 1 shotgun shooting range
- 2 primitive campgrounds (with parking pads, privies and fire pits)
- 2 privies
- 1 radio tower
- 7 fishing ponds (29.0 acres) and dams
- 13 fishless ponds (4.0 acres)

## IV. Area Restrictions or Limitations

- A. **Deed Restrictions:** None
- B. **Federal Interest:** Uses of land acquired with federal funds may not interfere with the purpose for which it was acquired. Federal funds may also be used in the management of this land. Fish and wildlife agencies may not allow recreational activities and related facilities that would interfere with the purpose for which the State is managing the land. Other uses may be acceptable and must be assessed in each specific situation.
- C. **Easements:** BP pipeline, MoGAS pipeline, Cuivre River Electrical Coop utility line (Figure 6)
- D. **Cultural Resources Findings:** Yes, records kept with Missouri Department of Conservation (Department) Environmental Compliance Specialist. Managers

should follow Best Management Practices for Cultural Resources found in the Department Resource Policy Manual.

**E. Hazards and Hazardous Materials:** None observed

**F. Endangered Species:** None observed

**G. Boundary Issues:** None

## MANAGEMENT CONSIDERATIONS

### V. Terrestrial Resource Management Considerations

Logan CA contains 1,418 wooded acres and 350 acres of old field and open lands. Past management focused on providing suitable habitat for wildlife through tree, shrub, and native grass plantings. Recent management has focused on reducing woody invasive plants in open land and wooded areas, conducting prescribed burns, reducing exotic broadleaf plants in grassland areas, planting food plots, and rotating agricultural crops.

Logan CA lies within the Cuivre River Hills Conservation Opportunity Area, an area where the ecology of the southern Missouri Ozarks mixes with the plains of northern Missouri. Many plants and animals important to conservation occur in this distinctive landscape. Any opportunity to enhance natural communities should be explored.

Management efforts should replicate natural disturbance with special attention given to prescribed burning, invasive woody species reduction and exotic species reduction. The agricultural crop program should be utilized to diversify food and cover sources for wildlife, control exotic plant species, and maintain open land habitat.

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

- 1) Manage exotic species.
- 2) Enhance woodland/forest.
- 3) Enhance open land.
- 4) Manage quail and small game.
- 5) Where there is interest, partner with private landowners to manage private lands benefiting a variety of plants and animals representative of quality habitat within the Cuivre River Hills Conservation Opportunity Area and Whiteside Quail Focus Area.

#### **Management Objective 1:** Manage exotic species.

**Strategy 1:** Identify areas where fescue, sericea lespedeza, bush honeysuckle, autumn olive, and other exotic species occur and use proven treatment methods to reduce their occurrence. (Wildlife)

**Management Objective 2:** Enhance wooded areas.

**Strategy 1:** Identify areas suitable for woodland restoration and manage these areas with woodland thinning, prescribed burning, commercial harvest and other techniques to enhance woodland natural communities and associated wildlife. (Wildlife, Forestry)

**Strategy 2:** If prescribed burning is not feasible, wooded areas may be managed with forest stand improvement or other techniques to enhance habitat for wildlife. (Wildlife, Forestry)

**Management Objective 3:** Maintain open land.

**Strategy 1:** Manage open land in current condition with mechanical and chemical disturbance, native vegetation establishment, food plot establishment, and prescribed fire to maintain habitat for open land wildlife. (Wildlife)

**Management Objective 4:** Manage quail and small game.

**Strategy 1:** Identify areas suitable to sustaining quail and small game populations. Utilize proven habitat management techniques to enhance these habitats. (Wildlife)

**Strategy 2:** Conduct spring quail and grassland bird surveys annually between May 1 and July 15. (Wildlife)

**Strategy 3:** Conduct fall quail covey counts annually between Oct. 1 and Oct. 31. (Wildlife)

**Management Objective 5:** Where there is interest, partner with private landowners to manage private lands for a variety of plants and animals representative of quality habitat within the Cuivre River Hills Conservation Opportunity Area and Whiteside Quail Focus Area.

**Strategy 1:** Identify landowners within the Cuivre River Hills Conservation Areas and Quail Focus Area willing to enhance open lands, woodlands, edges, and streamside habitats. (Private Land Services)

**Strategy 2:** Utilize cost share options to help landowners achieve habitat management goals. (Private Land Services)

**VI. Aquatic Resource Management Considerations**

**Challenges and Opportunities:**

- 1) Protect stream corridors.
- 2) Maintain quality fishing in area ponds.

**Management Objective 1:** Protect stream corridors.

**Strategy 1:** Maintain a 100-foot buffer adjacent to Mill Creek and at least a 50-foot buffer adjacent to other tributaries. (Wildlife)

**Strategy 2:** Continue to follow best management practices to ensure consideration is given to streams when management activities are conducted. (Wildlife)

**Management Objective 2:** Maintain quality fishing in the area's seven fishing ponds.

**Strategy 1:** Conduct occasional electrofishing surveys in each pond to ensure fish communities are balanced. (Fisheries)

**Strategy 2:** Control aquatic vegetation in ponds using herbicide and/or introducing grass carp, as needed. (Fisheries)

**Strategy 3:** Stock channel catfish in each of the ponds as needed. (Fisheries)

**Strategy 4:** Maintain fishing access, adequate numbers of harvested fish, and proper community balance using herbicide application and brush cutting. (Fisheries)

**Strategy 5:** Propose lake renovation, as needed, to improve fishing. Lake #1 was recently renovated and reopened to fishing. (Fisheries)

**Strategy 6:** Plant beneficial vegetation to improve fish habitat. This was conducted in Lake #1, for example, after renovation. (Fisheries)

**VII. Public Use Management Considerations**

**Challenges and Opportunities:**

- 1) Provide hunting, trapping, fishing, and wildlife viewing opportunities for the public.
- 2) Maintain hiking and biking trail to provide high-quality opportunities for area users.
- 3) Maintain positive relationships with adjacent landowners.
- 4) Maintain shooting ranges to provide high-quality shooting opportunities for area users.

**Management Objective 1:** Provide hunting, trapping, fishing, and wildlife viewing opportunities for the public.

**Strategy 1:** Continue to enhance woodland, open land, edge, and aquatic habitats to increase fish and wildlife populations on the area. (Wildlife, Forestry, Fisheries)

**Strategy 2:** Plant and manipulate food plots for mourning dove management to provide quality opportunities for dove hunting. (Wildlife)

**Strategy 3:** Maintain trails and dams around lakes on alternating months during the growing season to provide access to anglers. (Wildlife)

**Management Objective 2:** Maintain hiking and biking trail to provide high-quality opportunities for area users.

**Strategy 1:** Maintain trail by mowing at least once a month during the growing season, with monthly inspections for debris and hazards throughout the year. (Wildlife)

**Management Objective 3:** Maintain positive relationships with adjacent landowners.

**Strategy 1:** Maintain signage in a way that clearly designates Department property boundaries. (Wildlife)

**Strategy 2:** Respond quickly and effectively to neighboring landowner questions, comments, and concerns. (Wildlife)

**Management Objective 4:** Maintain shooting ranges to provide high-quality shooting opportunities for area users.

**Strategy 1:** Inspect, clean, and repair infrastructure on both ranges on a weekly basis. (Wildlife)

**Strategy 2:** Inspect and repair range safety fence and signage twice per year. (Wildlife)

**Strategy 3:** Coordinate enforcement with local Conservation Agents to ensure compliance with range rules and deter vandalism. (Wildlife)

## 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 with Department guidelines. (Design & Development)

### **Lands Proposed for Acquisition:**

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

## MANAGEMENT TIMETABLE

Strategies are considered ongoing unless listed in the following table:

	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25
<b>Aquatic Resource Management</b>										
<i>Objective 2</i>										
Strategy 1	X			X			X			

## APPENDICES

### Area Background:

William R. Logan Conservation Area is comprised of two tracts located in northern Lincoln County and totals 1,798 acres. This area includes 1,418 acres of woods, 350 acres of old fields and open lands, and 29 acres divided between seven ponds. The area was purchased from William R. Logan in 1968 in part with Pittman-Robertson Wildlife Restoration funds. Management of the William R. Logan Conservation Area focuses on providing food and cover for wildlife while providing outdoor recreational opportunities for the public.

### Current Land and Water Types:

Land/Water Type	Acres	Miles	% of Area
Woodland	1,418		79
Old Fields	163		9
Ponds	29		2
Gravel Infrastructure	1		<1
Open Land	187		10
<b>Total</b>	<b>1,798</b>		<b>100</b>
Stream Frontage		6.8	

### Public Input Summary:

The draft William R. Logan Conservation Area Management Plan was available for a public comment period September 1–30, 2015. The Missouri Department of Conservation received comments from three respondents (Appendix A). The William R. Logan Conservation Area Planning Team carefully reviewed and considered these ideas as they finalized this document. A brief summary of public input themes, including how they were incorporated or why they were not, can be found below. Rather than respond to each individual comment, comments are grouped into general themes and are addressed collectively.

### Department responses to themes and issues identified through William R. Logan Conservation Area public comment period

#### Supports quail management on area.

The north end of Logan Conservation Area is now an extension of the William G. and Erma Parke White Memorial Wildlife Area Quail Emphasis Area. Quail management will continue to be a focal point for area managers as described in Section V, Management Objective 4 of this plan.

**Concerned this area is too overgrown for accessing hunting areas.**

Designated area access trails are mowed bi-monthly throughout the growing season providing accessibility to many parts of the area. The Logan multi-use trail is mowed monthly during the growing season providing accessibility to the southern portion of the area. Although not maintained as access trails, hunters gain increased area accessibility utilizing numerous prescribed fire burn lines. Prescribed fire is utilized as a management tool on Logan CA to restore and maintain woodland and grassland habitats and control exotic species including bush honeysuckle and autumn olive. Prescribed fire burn units are burned on a 3-5 year rotation and burn lines are maintained vegetation free a minimum width of 6' the growing season prior to a planned burn.

**Opposes bicycle use on this area.**

The Logan multi-use trail is maintained to provide high-quality recreational opportunity for all types of area users. Off-road bicycle use is restricted to the Logan multi-use trail (4.2 mi). The trail is inspected on a monthly basis for debris, hazards, and maintenance concerns.

**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: Current Cover Type Map

Figure 4: Logan Priority Areas Overview

Figure 5: Topographic Map

Figure 6: Easement Map

**Additional Appendices:**

Appendix A. William R. Logan Public Comments

Figure 1: Area Map

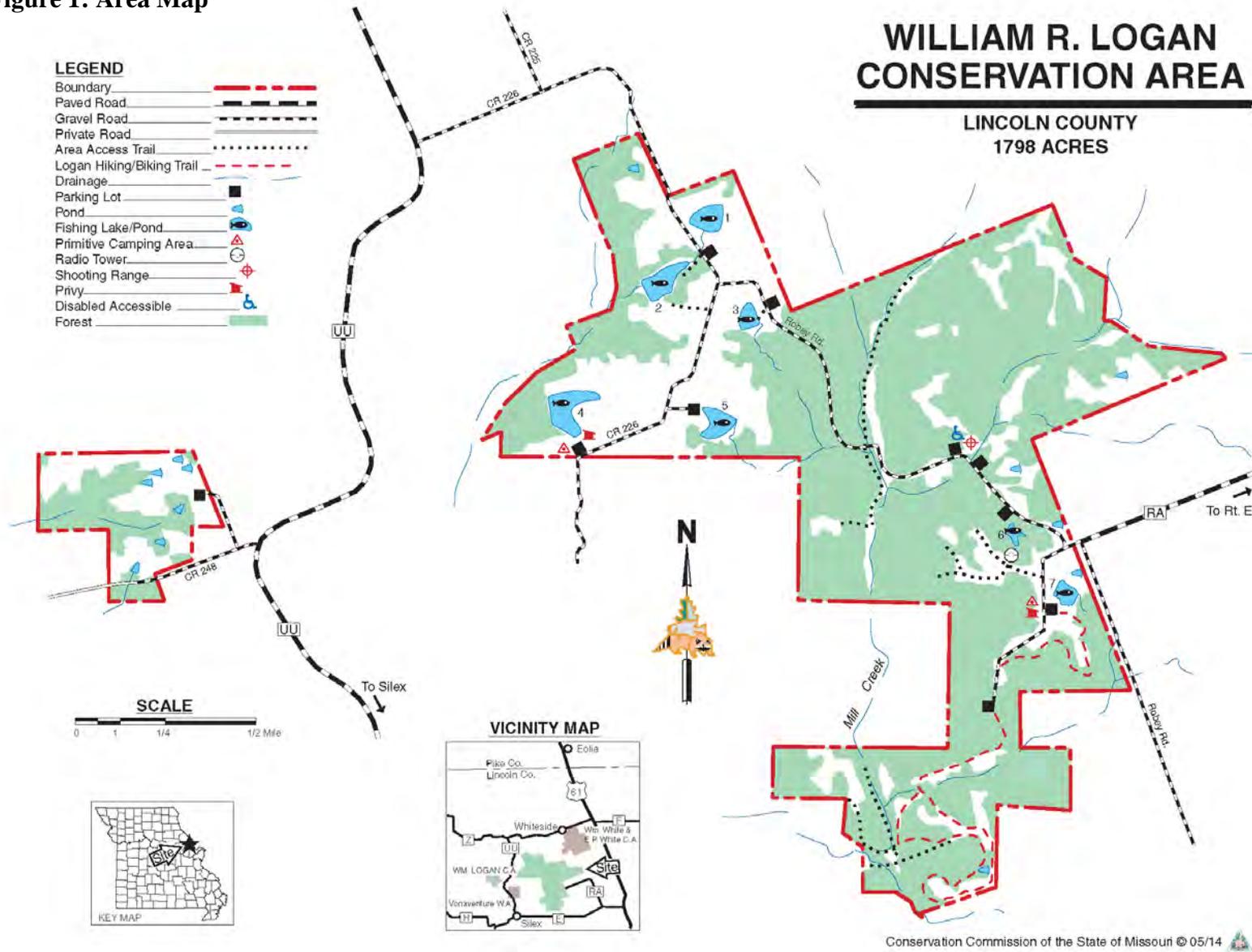


Figure 2: Aerial Map

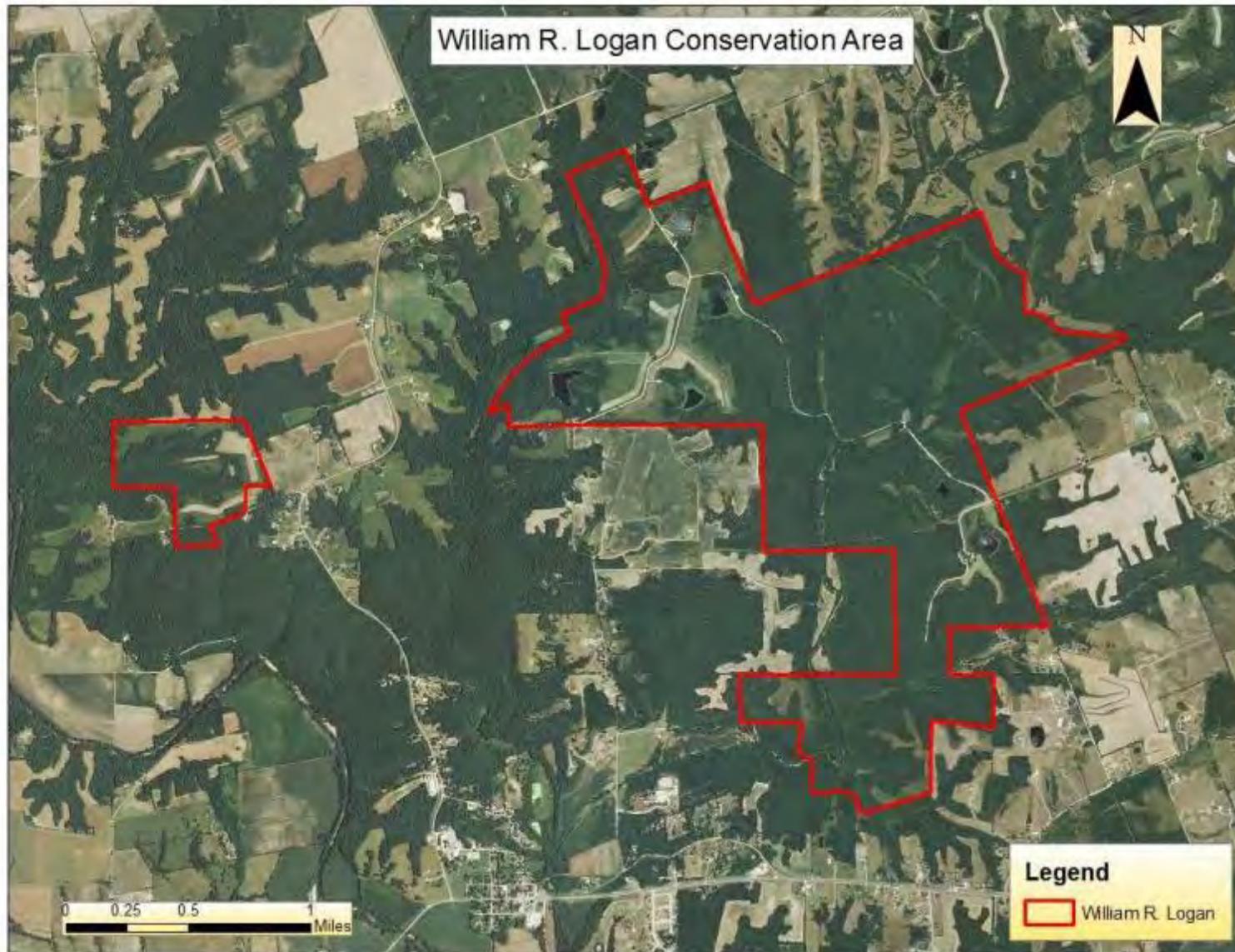


Figure 3: Current Cover Type Map

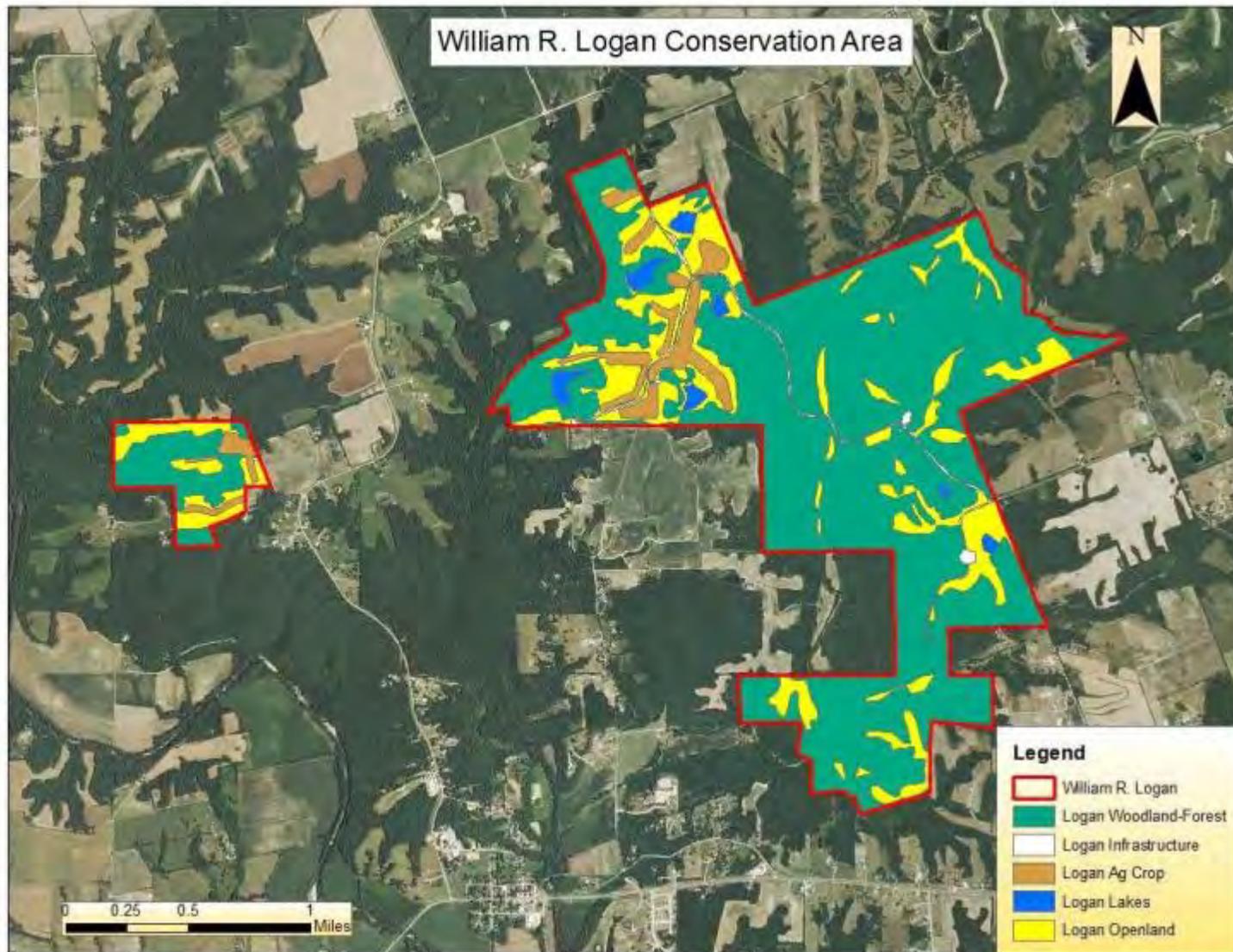


Figure 4: Logan Priority Areas Overview

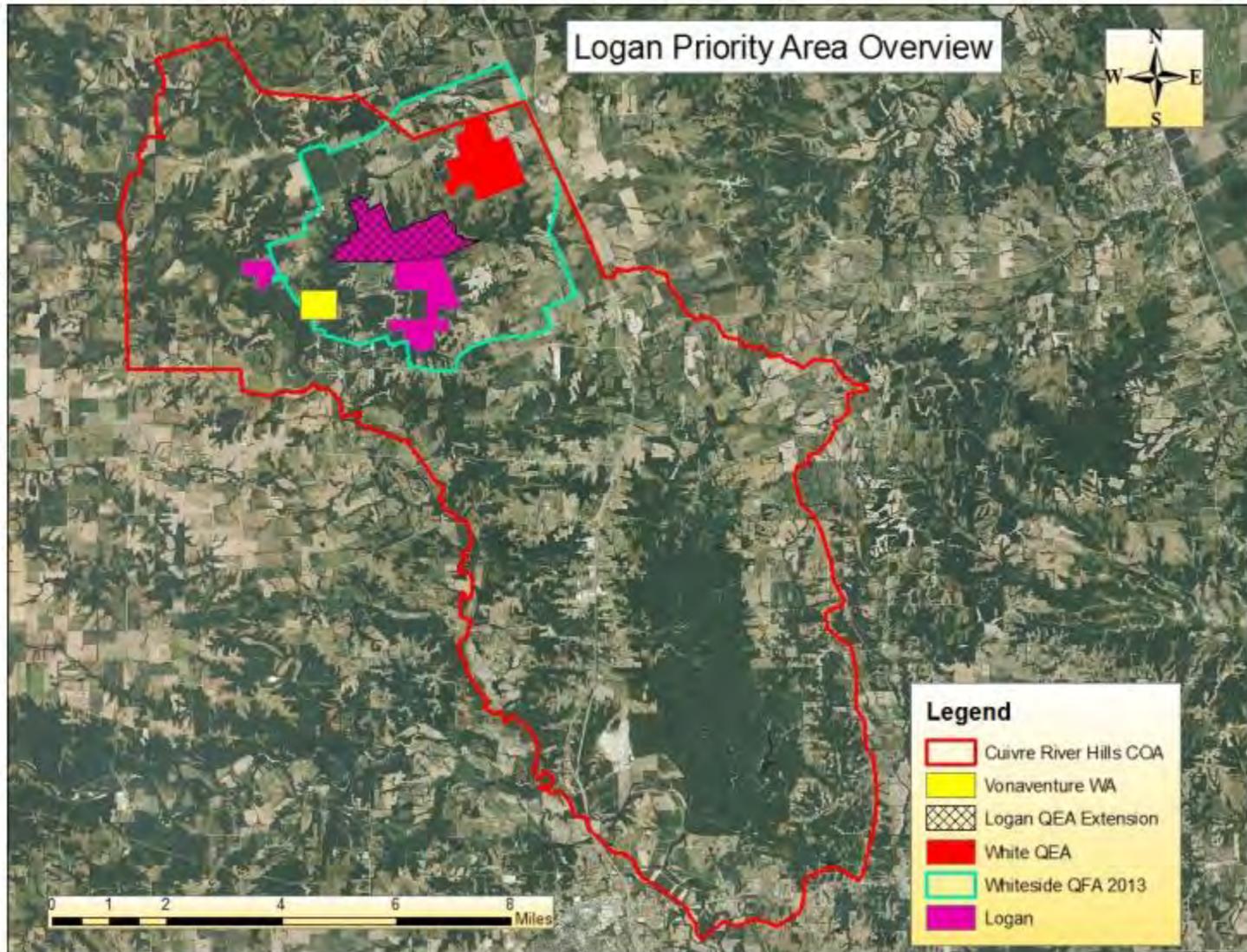


Figure 5: Topographic Map

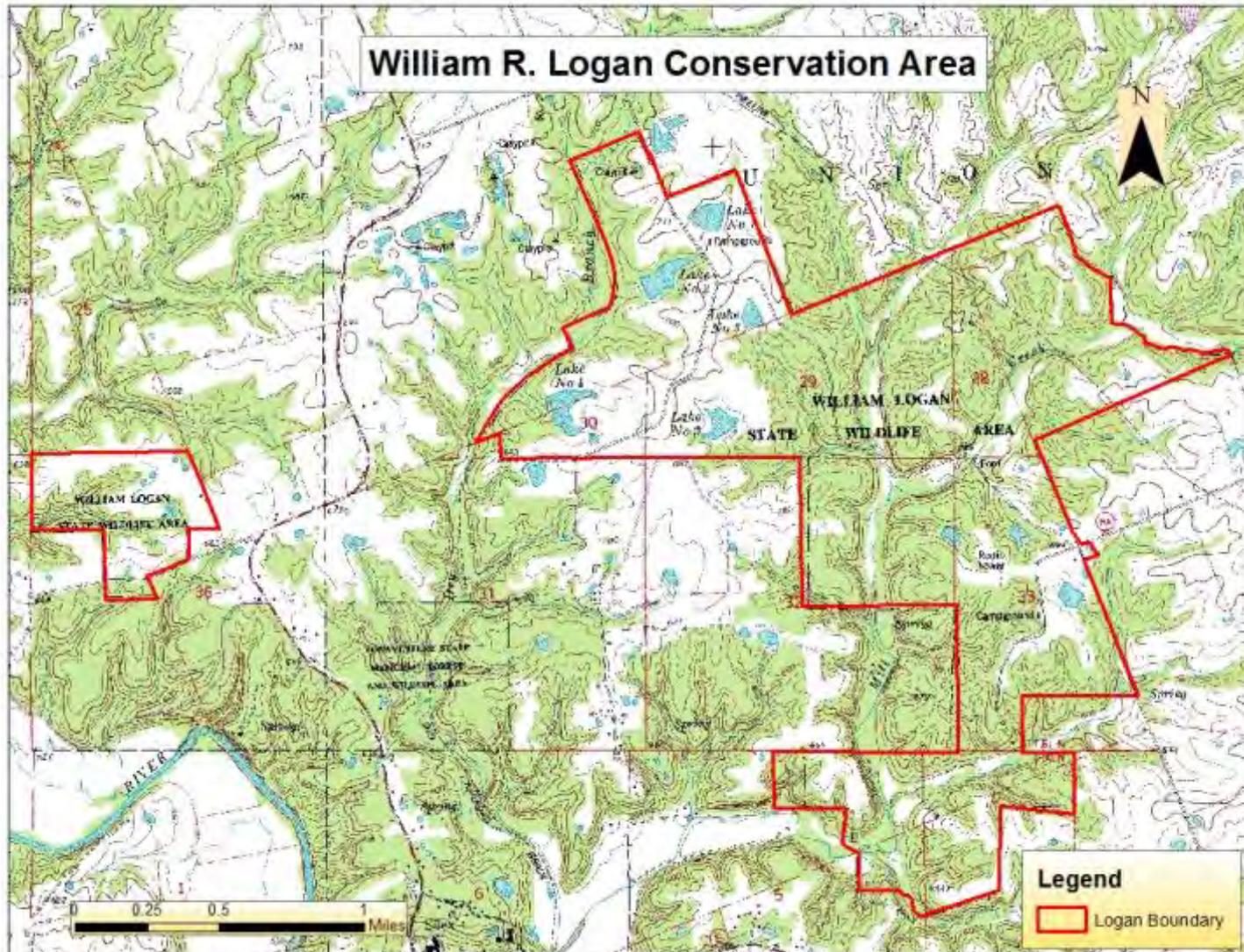
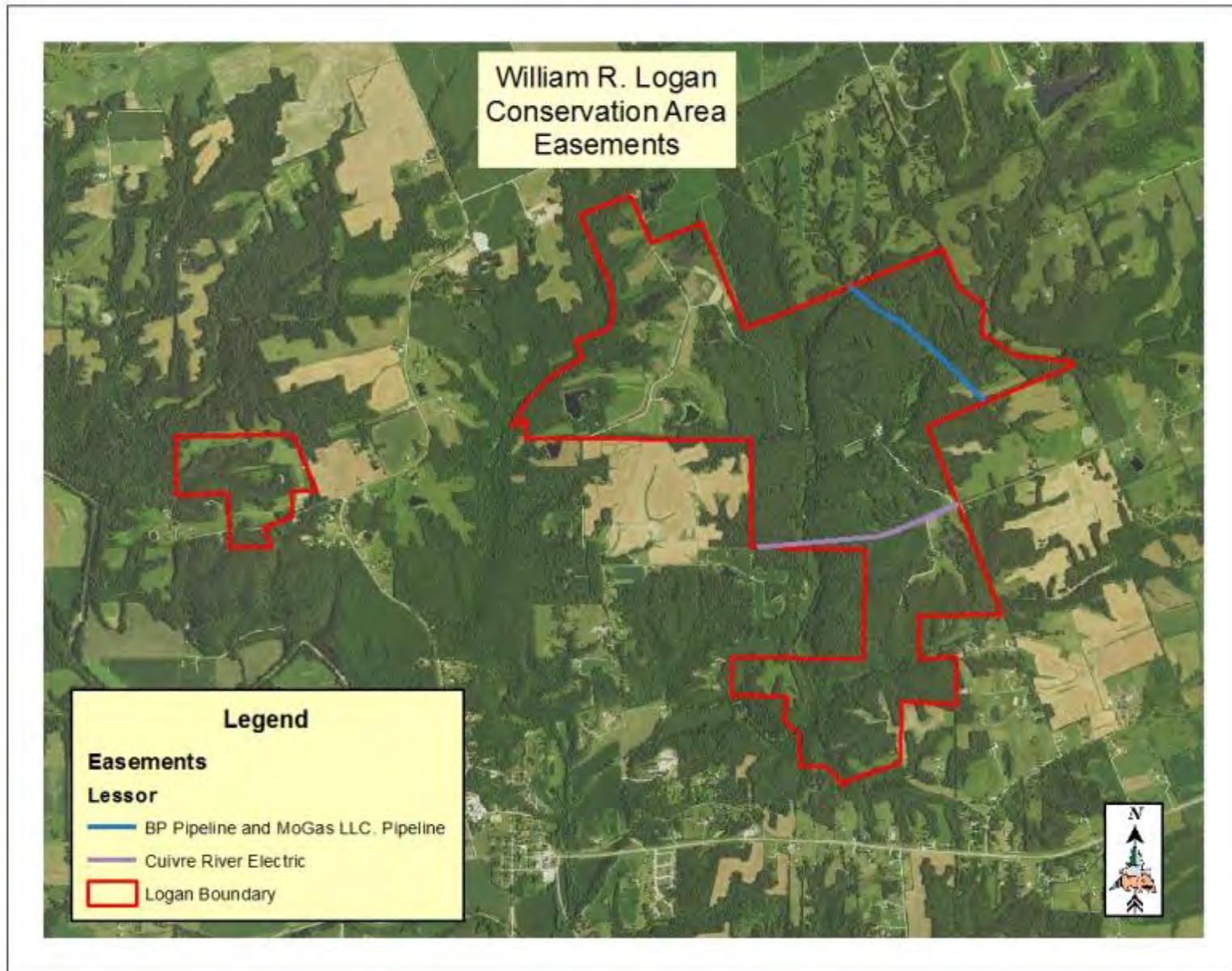


Figure 6: Easement Map



## Appendix A. William R. Logan Conservation Area Accesses Management Plan Public Comments

Received during public comment period (September 1-30, 2015):

Bicycles should not be allowed in any natural area. They are inanimate objects and have no rights. There is also no right to mountain bike. That was settled in federal court in 1996: <http://mjvande.nfshost.com/mtb10.htm> . It's dishonest of mountain bikers to say that they don't have access to trails closed to bikes. They have EXACTLY the same access as everyone else -- ON FOOT! Why isn't that good enough for mountain bikers? They are all capable of walking....

A favorite myth of mountain bikers is that mountain biking is no more harmful to wildlife, people, and the environment than hiking, and that science supports that view. Of course, it's not true. To settle the matter once and for all, I read all of the research they cited, and wrote a review of the research on mountain biking impacts (see <http://mjvande.nfshost.com/scb7.htm> ). I found that of the seven studies they cited, (1) all were written by mountain bikers, and (2) in every case, the authors misinterpreted their own data, in order to come to the conclusion that they favored. They also studiously avoided mentioning another scientific study (Wisdom et al) which did not favor mountain biking, and came to the opposite conclusions.

Those were all experimental studies. Two other studies (by White et al and by Jeff Marion) used a survey design, which is inherently incapable of answering that question (comparing hiking with mountain biking). I only mention them because mountain bikers often cite them, but scientifically, they are worthless.

Mountain biking accelerates erosion, creates V-shaped ruts, kills small animals and plants on and next to the trail, drives wildlife and other trail users out of the area, and, worst of all, teaches kids that the rough treatment of nature is okay (it's NOT!). What's good about THAT?

To see exactly what harm mountain biking does to the land, watch this 5-minute video: <http://vimeo.com/48784297>.

In addition to all of this, it is extremely dangerous: [http://mjvande.nfshost.com/mtb\\_dangerous.htm](http://mjvande.nfshost.com/mtb_dangerous.htm) .

For more information: <http://mjvande.nfshost.com/mtbfaq.htm> .

The common thread among those who want more recreation in our parks is total ignorance about and disinterest in the wildlife whose homes these parks are. Yes, if humans are the only beings that matter, it is simply a conflict among humans (but even then, allowing bikes on trails harms

the MAJORITY of park users -- hikers and equestrians -- who can no longer safely and peacefully enjoy their parks).

The parks aren't gymnasiums or racetracks or even human playgrounds. They are WILDLIFE HABITAT, which is precisely why they are attractive to humans. Activities such as mountain biking, that destroy habitat, violate the charter of the parks.

Even kayaking and rafting, which give humans access to the entirety of a water body, prevent the wildlife that live there from making full use of their habitat, and should not be allowed. Of course those who think that only humans matter won't understand what I am talking about -- an indication of the sad state of our culture and educational system.

I have been hunting in Logan for nearly 6 years now, and bowhunting there for about 4 years now. I was just out there today, and I could not believe how overgrown everything was. I am talking about the area near the southwest entrance to Logan where one of the campgrounds is. I noticed the dam to the lake was recently mowed, but further up near the field has not been touched. It was absolutely ridiculous to try to bring my tree stand through there. All I am asking for a 3-5 foot wide path to be mowed to allow hunters access to the woods in that area. Even the "path" near my tree stand is way overgrown. It would be nearly impossible to drag a deer out of that area. Please call me if you want further direction about the area I am talking about. I would greatly appreciate it if this could be taken care of within the next couple of weeks.

My property borders Logan Wildlife on the southeast side. With my recent quail habitat plantings and TSI, our plans match perfectly. We share at least one covey of quail along my west border. This is the service I have grown to expect of the finest conservation departments in the nation. Keep up the good work.