


# Spring Creek Gap Conservation Area

## Ten Year Area Management Plan FY 2014-2023



  
Wildlife Division Chief

  
Date

**Spring Creek Gap Conservation Area Management Plan Approval Page**

**PLANNING TEAM**

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**CENTRAL REGION**

RCT Chair

 6/25/2014  
Signature Date

**WILDLIFE DIVISION**

Unit Chief

 7/3/14  
Signature Date

## OVERVIEW

- **Official Area Name:** Spring Creek Gap Conservation Area, #4644
- **Year of Initial Acquisition:** 1948
- **Acreage:** 1,819
- **County:** Maries (T40N R8W Sections 34 and 35, and T39N R8W Sections 3 and 4)
- **Division with Administrative Responsibility:** Wildlife
- **Division with Maintenance Responsibility:** Forestry
- **Statement of Purpose:**

Spring Creek Gap Conservation Area was established with an initial purchase of 280 acres in 1948 and was known as the Vichy Tower Site. In 1978, an adjoining tract of 1,495 acres was purchased and the area's name was changed to Spring Creek Gap State Forest. Subsequent purchases have increased the size to the current 1,819 acres (MDC; Area Plan 1995). Spring Creek Gap will be actively managed to promote diverse woodlands, glades and forests. Promoting and maintaining diverse plant communities and healthy wildlife populations will be the primary concern on the area. Through this, area users will enjoy the benefits of high quality natural communities and maximize the public use potential that Spring Creek Gap has to offer.

### A. Strategic Direction

Provide quality natural communities supporting diverse populations of all wildlife for the benefit of Missouri's citizens.

### B. Desired Future Condition

The desired future condition is a complex of quality natural communities suited for the various landforms and soils on the area. Dry to dry-mesic woodlands on the exposed slopes and broad ridges, glades where thin soils are exposed to bedrock, forests along protected slopes and stream sides where shade-tolerant and fire-sensitive species are common.

### C. Federal Aid Statement

N/A

## GENERAL INFORMATION AND CONDITIONS

### I. Special Considerations

#### A. Priority Areas

Spring Creek Gap lies within the Spring Creek Gap MDC Terrestrial Conservation Opportunity Area (COA) (MDC; DST, 2011). The Spring Creek Gap COA is a 34,000 acre geography comprised of a relatively contiguous block of forest and woodland with numerous glades. Most of the COA is privately owned with only 1,827 publicly owned acres.

## **B. Natural Area**

In 1982, 40 acres on Spring Creek Gap Conservation Area was designated as a Natural Area and in 2007 the Natural Area was expanded to its current size of 692 acres and named Spring Creek Gap Glades Natural Area. The majority of the Natural Area is made up primarily of dry chert and dolomite woodlands and dolomite glades (Nelson 2010). The Spring Creek Gap Glades Natural Area occurs in the central and eastern portion of the Conservation Area.

## **II. Important Natural Features and Resources**

Spring Creek Gap is located within the Gasconade River Hills Subsection of the Ozark Highlands Ecological Section (Nigh & Schroeder, 2002). This subsection is highly dissected landscape along the Gasconade River and was historically a mixture of savannas, woodlands, and forests. Glades are scattered throughout the subsection and the riparian bottomlands were comprised mostly of riverfront and mixed-hardwood bottomland forests. Today the oak forests, woodlands, glades, and savannas have been degraded due to clearing, grazing activity, fire suppression, harvesting pressure, and other human disturbances. Undisturbed forest and woodland communities are rare.

### **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. Glades/Woodland:** There are numerous dolomite glades on the area. Some have been restored and are of good quality, while others are in a variety of conditions, from fully encroached by cedar and maple to having had some thinning performed. Some glades exist outside of traditional burn units, and present a greater challenge to full restoration. The surrounding dolomite and chert woodlands also provide a wide spectrum of quality, from restored and maintained to stands in need of thinning and periodic disturbance.

## **III. Existing Infrastructure**

- The Vichy fire tower is in functional shape, hosts a radio repeater and its power supply is enclosed within a chain link security fence.
- Small storage shed near the tower that houses a wood stove and miscellaneous equipment.
- Approximately 11 miles of service trails.
- Two parking lots.

- Two designated primitive campgrounds.
- 19 wildlife watering holes for habitat for reptiles and amphibians.

#### IV. Area Restrictions or Limitations

- A. Deed restrictions or ownership considerations:** None
- B. Federal Interest:** Federal funds may be used in the management of this land. Fish and wildlife agencies may not allow recreational activities and related facilities that would interfere with the purpose for which the State is managing the land. Other uses may be acceptable and must be assessed in each specific situation.
- C. Easements:** None
- D. Cultural resources findings:** No known cultural resources.
- E. Hazards and hazardous materials:** None observed.
- F. Endangered species:** None observed.
- G. Boundary Issues:** Establishing an accurate and identifiable boundary where surveys have not yet been completed will address boundary concerns.

### MANAGEMENT CONSIDERATIONS

#### V. Terrestrial Resource Management Considerations

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

- 1) High-quality natural communities are found in the Natural Area and on portions of the conservation area. These require periodic disturbance to maintain their structure and species diversity.
- 2) Forest stand inventory has been completed and has identified and help prioritize woodlands across the area for future management. Soil type, aspect, accessibility, and overall quality of the woodland stands should be considered when prioritizing future management activities.
- 3) Encroachment by eastern red cedar (*Juniperus virginiana*) is prevalent in the woodlands and glades. Active management is required to reduce overcrowding and maintain/restore the diversity of these glades.

**Management Objective 1:** Maintain structure and floristic diversity of high-quality woodlands, glades, and forests.

**Strategy 1:** Use current compartment level inventory, aerial photography and onsite inspection to identify landscape scale management units that encompass a complex of natural communities that can be easily managed as a single unit.

**Strategy 2:** Conduct Timber Stand Improvement (TSI) prescribed per compartment to promote diverse natural communities.

**Strategy 3:** Maintain diversity and control undesirable woody plant species in the actively managed Natural Area.

**Strategy 4:** Monitor and plan for control of invasive species.

**Management Objective 2:** Manage the forest resources to improve productivity, health and sustainability as well as provide protection for aquatic resources.

**Strategy 1:** Conduct forest inventory by compartment with an estimated reentry time of 15 years or as needed.

**Strategy 2:** Implement silvicultural practices as prescribed by the detailed forest inventory process.

**Strategy 3:** Utilize Best Management Practices, including adequate riparian buffers, to reduce soil erosion and increase water quality.

**Management Objective 3:** Reduce the amount of eastern red cedar on at least 40 acres in woodlands, glades, and open areas by 2023.

**Strategy 1:** Reduce the presence of cedar using available labor sources (Regional work days, AmeriCorps, etc.)

**Strategy 2:** Work to identify willing cedar buyers and implement cedar sales.

**Strategy 3:** Attempt to utilize a contractor to cut, clip, or mulch cedar. Areas cleared of cedar will be likely candidates for additional management actions; taking steps to account for and reduce high fuel loading of cedar will be critical.

## VI. Aquatic Resource Management Considerations

### **Challenges and Opportunities:**

- 1) Water quality of streams and ponds must be maintained to support a healthy ecosystem.
- 2) Wildlife viewing opportunities should be maintained for future generations.

**Management Objective 1:** Maintain quality of streams, gravel and streambank communities.

**Strategy 1:** Monitor for presence of exotic or invasive species and treat as needed. Proper management of surrounding terrestrial communities is crucial to maintaining stream quality.

**Management Objective 2:** Maintain access to wildlife watering holes for wildlife viewing opportunities.

**Strategy 1:** Provide maintenance on an as-needed basis to the trails that lead to the wildlife watering holes to allow area users an opportunity to view wildlife, especially reptiles and amphibians.

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

### **Challenges and Opportunities:**

- 1) The existing management access trails are popular with hikers. These provide positive nature-based experiences for area users, yet present a challenge in that they are not maintained as trails.
- 2) Unauthorized horseback riding persists on Spring Creek Gap. Encourage use of nearby designated horseback riding trails and work to discourage unauthorized horseback riding on the conservation area.
- 3) The Vichy Fire Tower occurs on Spring Creek Gap and must be maintained.

**Management Objective 1:** Determine the proper balance between hiker safety and infrastructure maintenance.

**Strategy 1:** Maintain signage and consider updating area brochure with land marks (i.e. pre-existing location markers).

**Strategy 2:** Continue maintenance on access roads throughout the year. Plan work days to cut blow downs, brushing back trails, utilizing a dozer to fix washouts and roads as needed, and utilize AmeriCorps or other volunteer groups to assist in projects as available.

**Management Objective 2:** Encourage use of nearby designated horseback riding trails and work to discourage unauthorized horseback riding on the Conservation Area.

**Strategy 1:** Provide signage that prohibits horseback riding on Spring Creek Gap CA except on public roadways and encourages horseback riders to visit nearby Canaan Conservation Area which does have a designated multi-use trail.

**Strategy 2:** Work with local conservation agents to monitor unauthorized horseback riding and educate horseback riders of alternative horseback riding opportunities on state land.

**Management Objective 3:** Provide area users with compatible and inviting multiple use opportunities for recreation, education, and information.

**Strategy 1:** Maintain accurate area information and regulations through the Conservation Atlas, area brochures, posted information, and staff contacts with area users.

**Strategy 2:** Promote compatible uses for hunting, fishing, birding, hiking, camping, and nature photography.

**Strategy 3:** Monitor and document multiple use conflicts or concerns. Resolve or address these concerns by evaluating area regulations, season limitations, or special use permit options.

**Management Objective 4: Maintain Vichy Fire Tower site.**

**Strategy 1:** On a monthly basis, inspect the fence around the tower for vandalism. Inspect the Vichy fire tower and shop building for any signs of vandalism or tampering.

**Strategy 2:** Paint the fire cab roof every five years, or as needed.

**VIII. Administrative Considerations**

**Challenges and Opportunities:**

- 1) Area infrastructure should be inviting and encourage the public to care for it.
- 2) Enforce area and state wide regulations

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

**Strategy 1:** Monitor and post area boundaries according to the pre-established schedule.

**Strategy 2:** Maintain infrastructure on an as-needed basis to ensure that signage, parking lots, and trails are in good shape.

**Strategy 3:** Maintain the primitive camping and picnic areas.

**Management Objective 2: Monitor and administer area and statewide regulations to ensure public safety and satisfaction.**

**Strategy 1:** Maintain good communication among Linn District Conservation Team staff to ensure that violations of the wildlife code and regulations are noted and necessary steps are taken to remedy and eliminate them.

**Strategy 2:** Ensure all Special Use Permit users and contractors are following standards set within the contractual agreement, and confront any violations in a punctual manner.

**IX. Lands proposed for acquisition**

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



## MANAGEMENT TIMETABLE

Strategies are considered ongoing unless listed in the following table:

|   | FY14 | FY15 | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 |
|---|------|------|------|------|------|------|------|------|------|------|
| <b>Terrestrial Resources Management</b> |      |      |      |      |      |      |      |      |      |      |
| <b>Objective 1</b>                      |      |      |      |      |      |      |      |      |      |      |
| Strategy 1                              | X    |      |      |      |      |      |      |      |      |      |
| Strategy 2                              |      | X    | X    | X    | X    |      | X    | X    | X    | X    |
| Strategy 3                              | X    |      |      | X    |      |      | X    |      |      | X    |
| <b>Objective 2</b>                      |      |      |      |      |      |      |      |      |      |      |
| Strategy 1                              |      |      |      |      |      | X    |      |      |      | X    |
| Strategy 2                              |      |      | X    | X    | X    |      | X    | X    | X    |      |
| Strategy 3                              |      |      | X    | X    | X    |      | X    | X    | X    |      |
| <b>Objective 3</b>                      |      |      |      |      |      |      |      |      |      |      |
| Strategy 3                              |      | X    |      |      |      |      | X    |      |      |      |
| <b>Public Use Management</b>            |      |      |      |      |      |      |      |      |      |      |
| <b>Objective 4</b>                      |      |      |      |      |      |      |      |      |      |      |
| Strategy 2                              |      | X    |      |      |      |      | X    |      |      |      |
| <b>Administrative Management</b>        |      |      |      |      |      |      |      |      |      |      |
| <b>Objective 1</b>                      |      |      |      |      |      |      |      |      |      |      |
| Strategy 1                              |      | X    |      |      |      |      | X    |      |      |      |

## APPENDICES

### Area Background:

The area was established with an initial purchase of 280 acres in 1948 and was known as the Vichy Tower Site. In 1978, an adjoining tract of 1,495 acres was purchased and the area's name was changed to Spring Creek Gap State Forest. Subsequent purchases have increased the size to the current 1,819 acres. Spring Creek Gap, with its combination of forests, woodlands, steep topography, dolomite glades and old fields, is an extremely scenic area, especially during the fall color change. Cedar Creek, an intermittent stream, bisects the area.

The area features numerous glades, ranging in size from less than one acre to over 10 acres. The natural openings, which occur on low quality soil, harbor a distinctive plant community and provide forage for wildlife.

Long term management efforts include opening up overgrown glades and woodlands, which will increase the acreage of and diversity of light-dependent plants. Natural resource management practices designed to improve wildlife habitat, maintain watershed quality, restore natural communities, and enhance tree growth and species composition are often implemented on the area. Wildlife habitat management practices include the creation of watering ponds; shallow water developments which will provide habitat for reptiles and amphibians and woodland thinning followed by prescribed burning to open up the woodland canopy. Timber harvest, which helps create forage and cover for wildlife, is also an important element in habitat management.

### Current Land and Water Types

| <b>Land/Water Type</b>      | <b>Acres</b> | <b>Miles</b> | <b>% of Area</b> |
|-----------------------------|--------------|--------------|------------------|
| Woodland                    | 1106         |              | 61%              |
| Upland Forest               | 402          |              | 22%              |
| Glade/Woodland Complex      | 200          |              | 11%              |
| Bottomland/ Riparian Forest | 106          |              | 6%               |
| Old Fields/Upland Fields    | 3            |              | <1%              |
| Impounded Water             | 2            |              | <1%              |
| <b>Total</b>                | <b>1819</b>  |              | <b>100%</b>      |
| Stream                      |              | 2.9          |                  |

**Public Input Summary:**

The draft Spring Creek Gap Conservation Area Management Plan was available for a public comment period March 1 – 31, 2014. The Missouri Department of Conservation received no comments during this time period.

**References:**

MDC. (1995). *1995 Spring Creek Gap Conservation Area Plan*. Jefferson City: Missouri Department of Conservation.

MDC. (2011). *Conservation Priorities; Decision Support Tool*. Jefferson City: Missouri Department of Conservation.

MDC. (n.d.). *Natural Heritage Database*. Jefferson City: Missouri Department of Conservation.

Nelson, P. W. (2010). *The Terrestrial Natural Communities of Missouri*. Jefferson City, MO: Missouri Natural Areas Committee.

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

**Maps:**

Figure 1: Area Map

Figure 2: Infrastructure Map

Figure 3: Ecological Site Descriptions

Figure 4: Land Cover Types

Figure 1: Area Map

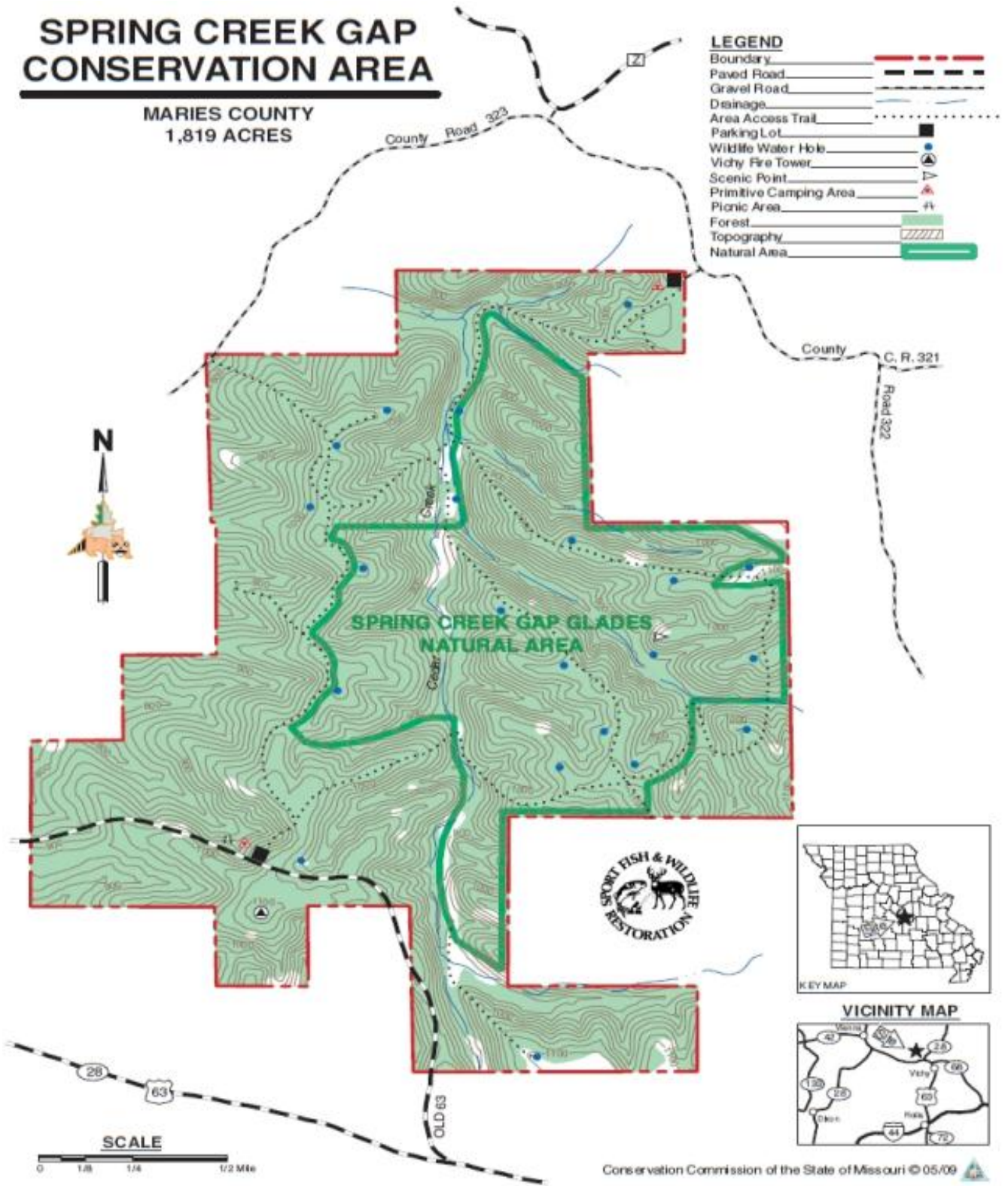
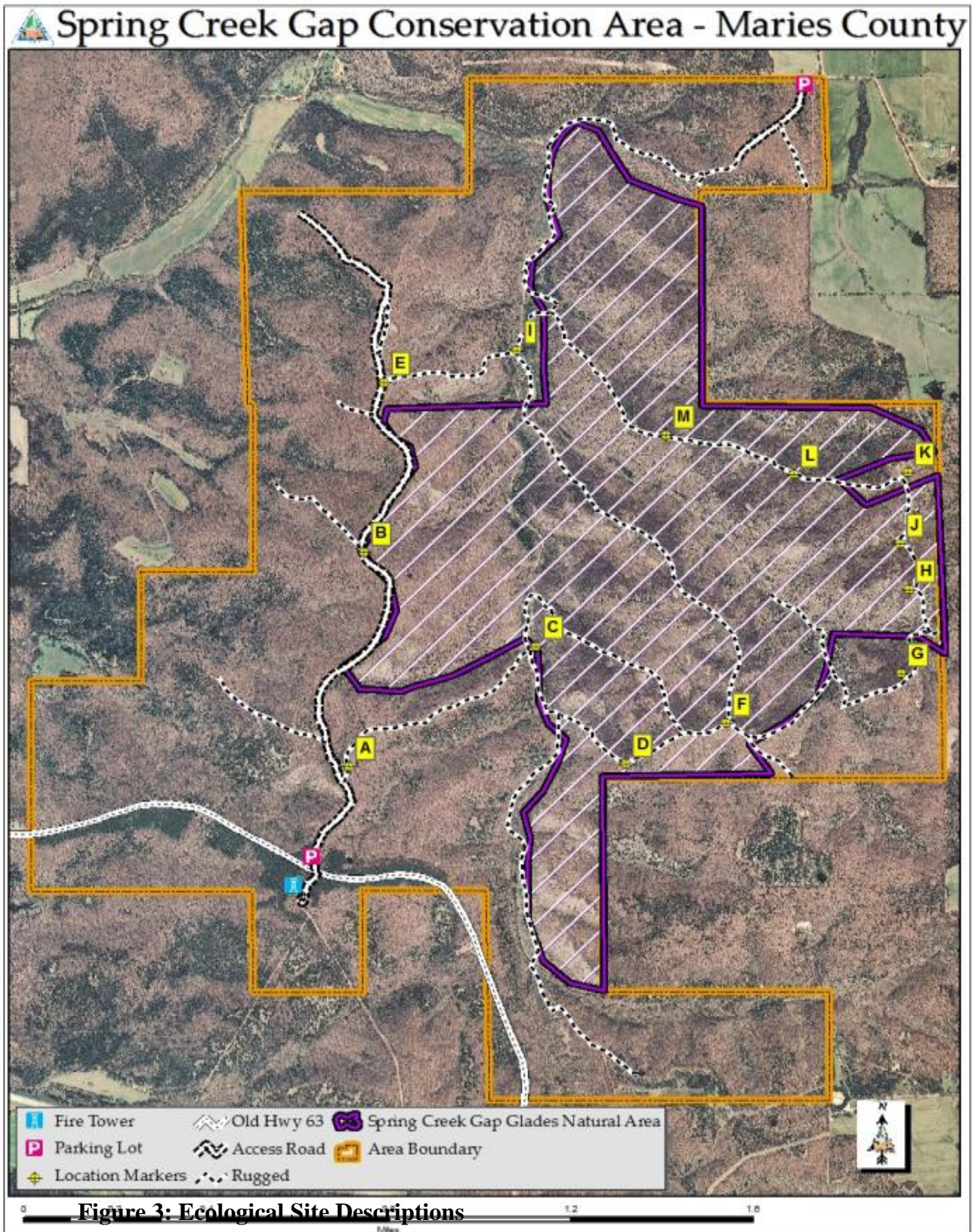




Figure 2: Infrastructure Map





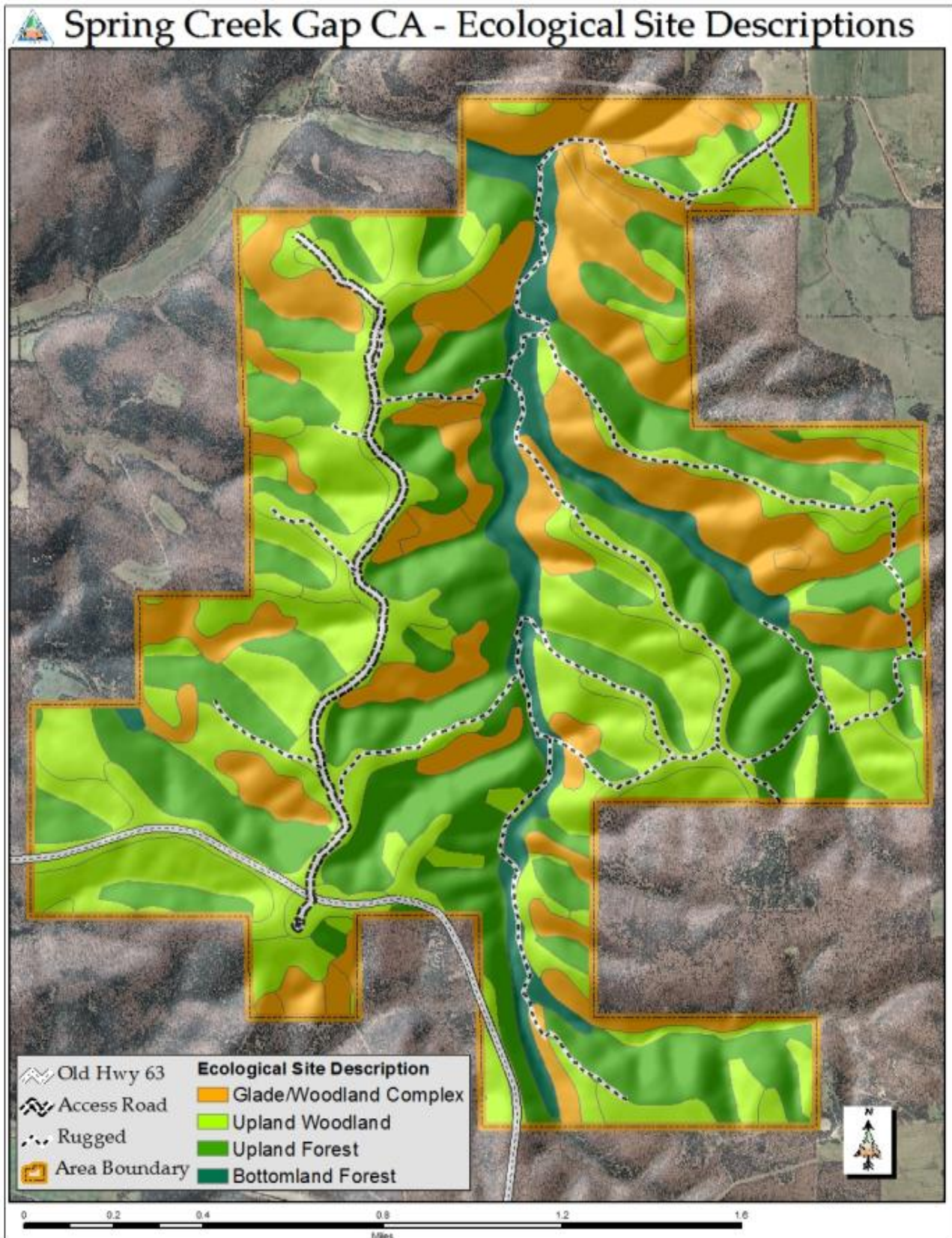




Figure 4: Land Cover Types

