Little Prairie Conservation Area

Ten-Year Area Management Plan

FY 2016-2025

Wildlife Division Chief

2/5/16

Date

Little Prairie Conservation Area Management Plan Approval Page

PLANNING TEAM

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OVERVIEW

- **Official Area Name:** Little Prairie Conservation Area, # 6316
- **Year of Initial Acquisition:** 1963
- **Acreage:** 342.41 acres
- **County:** Phelps
- **Division with Administrative Responsibility:** Wildlife
- **Division with Maintenance Responsibility:** Wildlife
- **Statements of Purpose:**

A. Strategic Direction

The Little Prairie Conservation Area (CA) provides an upland wildlife area and public recreational opportunities, including fishing and canoeing at William E. Towell (Towell) Lake, bird watching, hiking and hunting. The area will continue to be developed and managed for the protection and enhancement of the area's natural and cultural resources; grassland and woodland wildlife species; the protection and sustainability of aquatic species; and public recreation, to the extent compatible with natural resource management.

B. Desired Future Condition

The desired future condition of Little Prairie CA is a recreational lake surrounded by healthy woodlands and grasslands.

C. Federal Aid Statement

This area, or a portion thereof, was acquired and developed with Land and Water Conservation Fund dollars to provide land or facilities for public outdoor recreation.

GENERAL INFORMATION AND CONDITIONS

I. <u>Special Considerations</u>

A. Priority Areas: None

B. Natural Areas: None

II. <u>Important Natural Features and Resources</u>

A. Species of Conservation Concern: None observed.

B. Caves: None

C. Springs: None

D. Other: Heilbrunn Prairie (32 acres)**;** Towell Lake (95.2 acres)

III. <u>Existing Infrastructure</u>

- 4 parking lots, Americans with Disabilities Act (ADA) accessible
- 6 picnic tables
- 3 privies, ADA accessible

- 1 concrete boat ramp to Towell Lake
- 1 courtesy fishing/boat dock
- 1 fishing dock, ADA accessible
- Several miles of internal service roads
- William E. Towell fishing lake (95.2 acres, 1.1 miles of shoreline)
- 1 fishing pond (0.2 acres)
- 1 fishless pond (0.15 acres)

IV. Area Restrictions or Limitations

A. Deed Restrictions or Ownership Considerations: None

B. Federal Interest: This land must provide land/facilities for public outdoor recreation in perpetuity. 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: None Recorded

D. Cultural Resources Findings: Yes, records kept with the Missouri Department of Conservation (the 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

Little Prairie CA is comprised entirely of grassland, old field and forest/woodland landscapes. These landscapes are managed to provide habitat for all upland species.

Challenges and Opportunities:

1) Manage all grasslands and woodlands in an early successional stage while providing bare ground for grassland species.
2) Maintain warm-season grass density at a level that is useable and beneficial for multiple species, especially for bobwhite quail in the breeding and brood-rearing months.
3) Due to multiple hazards to mitigate (i.e., electrical transmission lines, high value developments within a quarter mile, close proximity to retirement communities

and potential smoke impact on Interstate-44), the use of prescribed fire will be limited.

4) Control exotic and invasive species in areas that have opened up.

Management Objective 1: Manage grassland landscape in multiple successional stages to provide food and cover for wildlife species.

Strategy 1: When feasible, multiple burn units will be needed to minimize the smoke hazard. When prescribed fire can be used, it should be used on a three-year rotation. Provide, at any given time, the early successional habitat needed for bare ground, as well as thicker nesting cover in close proximity. Prescribed fire will be used, when practical. Other methods to provide early successional habitat will be considered, when prescribed fire is not practical. (Wildlife)

Management Objective 2: Enhance the historic native forb and warm-season grass understory by providing early successional habitat and reducing the basal area in woodlands (i.e., in units with a more closed canopy). Allow timber to grow to larger sizes and uneven ages and conduct a forest inventory in the next five years.

Strategy 1: Areas that have had a basal area reduction, using prescribed fire or mechanical techniques, will continue to be thinned with these techniques. (Wildlife)

Strategy 2: Areas that were historically open woodlands (based on Ecological Land Types), but are currently a closed canopy, will be thinned mechanically, if prescribed fire has been ineffective. (Wildlife)

Management Objective 3: Write prescribed burn plans with very specific parameters that mitigate the main hazards.

Strategy 1: Focus prescribed burn plans on high value natural community areas that will benefit the most from prescribed burns. (Wildlife)

Management Objective 4: Control or eliminate exotic or invasive species in the area's grasslands and woodlands.

Strategy 1: Rotate prescribed burns later into the spring, in areas where tall fescue has been detrimental, as permitted. Reduce the growth potential of the tall fescue for the benefit of warm-season grasses. Burn early in the fall to provide a higher growth potential for the tall fescue. Effectively spray the fescue with a cool-season grass-specific herbicide, when tall fescue is more susceptible. (Wildlife)

Strategy 2: Use a broadleaf specific herbicide on exotic or invasive species, particularly, sericea lespedeza and spotted knapweed. Seasonally spot spray these herbicides, when it is most effective. (Wildlife)

VI. Aquatic Resource Management Considerations

Challenges and Opportunities:

1) Manage Towell Lake for fishing and recreational uses. Towell Lake averages 95 acres of fishable waters throughout the year. It is the closest boatable lake to Rolla and other communities along Interstate 44. Fishing and recreational boat usage is very high throughout the spring and summer months; public fishing occurs most months when the lake is not iced over.
2) Manage aquatic vegetation and invasive species at Towell Lake, and their effects on the lake's fishes.
3) Minimize the supply and transport of sediments and pollutants into downstream areas.
4) Maintain Towell Lake infrastructure.

Management Objective 1: Maintain a quality sport fishery for largemouth bass, channel catfish and sunfish through appropriate regulations.

Strategy 1: Install natural fish habitat in years when ice cover allows.(Fisheries)
Strategy 2: Maintain an acceptable level (25 percent to 40 percent) of aquatic vegetation to provide summer cover for small fishes. (Fisheries)
Strategy 3: Continue to sample fish populations as needed. (Fisheries)
Strategy 4: Survey for invasive aquatic plants and animals that can reduce fishing quality; and provide signage, as appropriate, for aquatic invasive species found in lake. (Fisheries)
Strategy 5: Maintain largemouth bass and sunfish populations by natural recruitment; maintain channel catfish populations by yearly stockings. (Fisheries)

Management Objective 2: Manage the area to minimize the supply and transport of sediments and pollutants into downstream areas. Follow *Watershed and Stream Management Guidelines for Lands and Waters Managed by Missouri Department of Conservation* (Missouri Department of Conservation, 2009).

Strategy 1: Minimize any adverse impacts to the watershed by observing protection measures during any disturbance in the riparian zones and around the lake. (Wildlife)
Strategy 2: Use appropriate herbicides when controlling invasive species in the riparian zones and around the lake. Maintain all existing riparian corridors. (Wildlife)
Strategy 3: Consult Fisheries on all work inside the riparian corridors. (Wildlife)
Strategy 4: Control erosion along the road and trail system. (Wildlife)

Management Objective 3: Maintain lake infrastructure.

Strategy 1: Keep the dam free of woody vegetation to minimize water level loss per the Missouri Department of Natural Resources Dam Safety Requirements. (Wildlife)

Strategy 2: Check the outflow structures yearly to ensure proper functioning. (Fisheries)

VII. Public Use Management Considerations

Challenges and Opportunities:

Increase public educational opportunities at the area.

Management Objective 1: Increase the awareness and success of habitat management on public lands and promote outdoor education.

Strategy 1: Work with Outreach and Education Division to promote outdoor skills activities. Work with the Discover Nature in Schools Program, when appropriate. (Wildlife)

Strategy 2: Work with the Master Naturalist program annually, while assisting with various programs including Missouri bird workshops. (Wildlife)

VIII. Administrative Considerations

Challenges and Opportunities:

Ensure Department boundaries are marked and visible to public users.

Management Objective 1: Keep current Little Prairie CA boundary signs visible and presentable to the public.

Strategy 1: Conduct an annual visual survey of all boundary signs. Replace damaged or missing signs. (Wildlife)

MANAGEMENT TIMETABLE

All strategies are considered ongoing.

APPENDICES

Area Background:
Little Prairie CA was acquired in 1963 with the intended purpose of providing upland hunting opportunities and fishing opportunities for Missouri residents. An additional 29 acres was donated in 1993 by Ilse Heilbrunn; this portion has been named Heilbrunn Prairie. The 95-acre lake was renamed in 1997 to honor the Missouri Department of Conservation's former director William E. Towell.

Current Land and Water Types:

Land/Water Type	Acres	% of Area
Open Water	98.20	29
Old Field	98	28
Forest/Woodland	97.6	28
Grassland	32	9
Other: Roads, Fishless Ponds, Parking Lots	19.61	6
Total	**342.41**	**100**

Public Input Summary:
The draft Little Prairie Conservation Area Management Plan was available for a public comment period May 1–31, 2015. The Missouri Department of Conservation received comments from five respondents (Appendix A). The Little Prairie 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.

<u>Department responses to themes and issues identified through Little Prairie Conservation Area public comment period</u>

Suggests focusing on native grassland restoration. Suggests utilizing prescribed burns and mowing.
Prescribed burning is a management tool the Department will continue to use on conservation areas. Mowing is a great tool used at the right time of year and will be incorporated more on the area.

Concern with invasive honeysuckle on western part of area. Suggests prioritizing eradication of honeysuckle.
2015 was the first year in approximately 10 years that herbicide was used to eliminate some of the honeysuckle on the area and staff will continue to use chemical and mechanical methods to control honeysuckle.

Concern with using herbicides on area. Instead suggests planting desired plants, mowing, cultivation, biological control.
Herbicide used according to label restrictions is a viable control method available. Mechanical control methods are also used annually where feasible.

Suggests allowing horseback riding.
No trails currently exist for horseback riding and this area is not large enough to support horses.

Concern with dumping of dead animals and trash on this area.
The dumping of dead animals has been addressed with several cooperating agencies should be minimalized in the future.

Concern that bushes are covering up area signs.
This will be investigated and corrective measures taken.

Concern about late night partying at parking area on 2170. Suggests closing this parking lot.
Local law enforcement has been notified and increased patrols will help control this problem.

References:

Missouri Department of Conservation. (2009). *Watershed and stream management guidelines for lands and waters managed by Missouri Department of Conservation*. Jefferson City, Missouri: Missouri Department of Conservation. http://forestkeepers.org/wp content/uploads/2013/05/Watershed-and-Stream Management-Guidelines-for-MDC Land1.pdf

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

Maps:

Additional Appendices:

Appendix A: Little Prairie Conservation Area Management Plan Public Comments

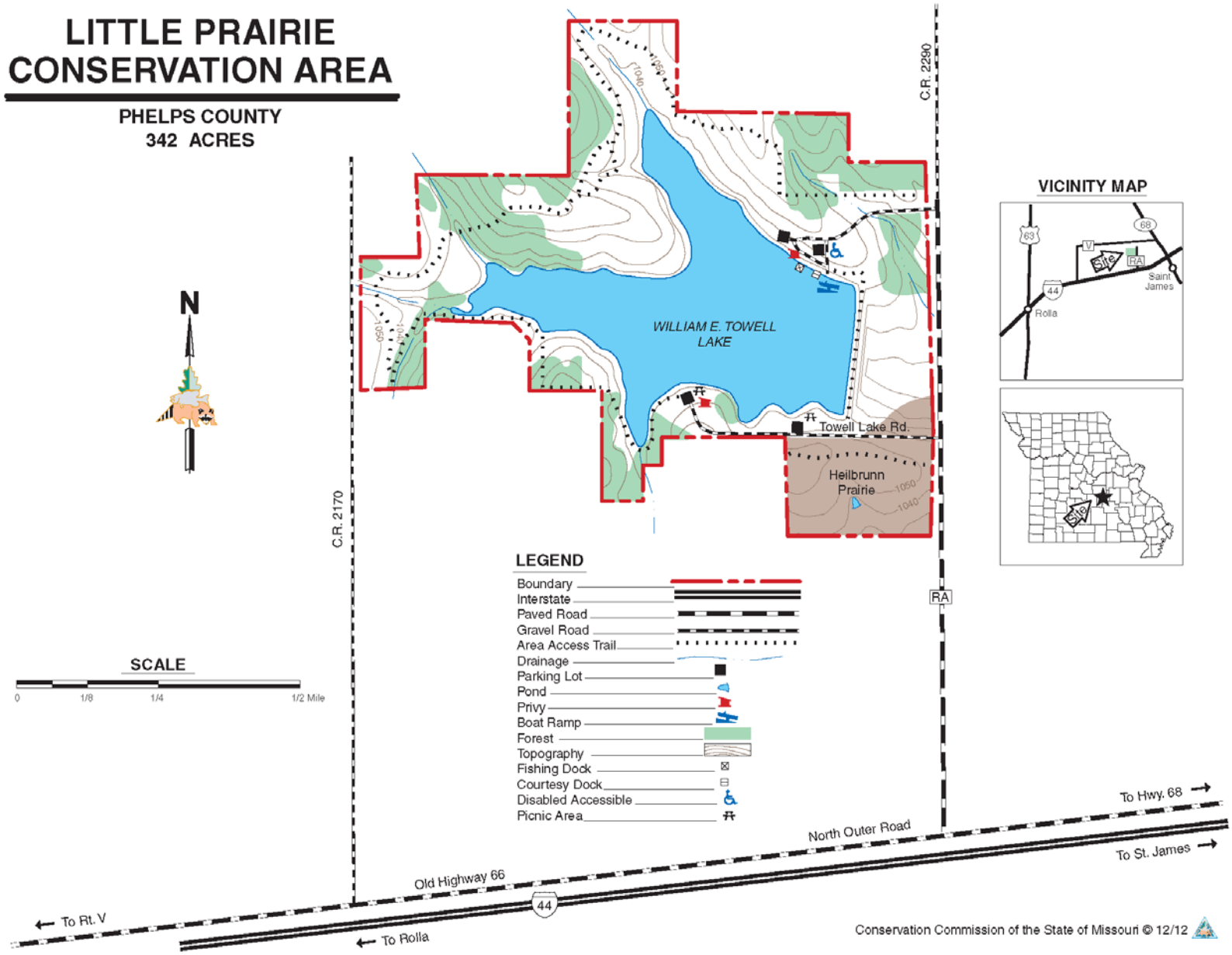

LITTLE PRAIRIE
CONSERVATION AREA
PHELPS COUNTY
342 ACRES
N
SCALE
0
1/8
1/4
1/2 Mile
WILLIAM E. TOWELL
LAKE
Towell Lake Rd.
Heilbrunn
Prairie
C.R. 2290
C.R. 2170
RA
LEGEND
Boundary
Interstate
Paved Road
Gravel Road
Area Access Trail
Drainage
Parking Lot
Pond
Privy
Boat Ramp
Forest
Topography
Fishing Dock
Courtesy Dock
Disabled Accessible
Picnic Area
VICINITY MAP
63
68
V
RA
Site
Saint
James
44
Rolla
To Hwy. 68
To St. James
North Outer Road
Old Highway 66
To Rt. V
To Rolla
Conservation Commission of the State of Missouri © 12/12

Figure 2: Aerial Map

Figure 3: Topographic Map

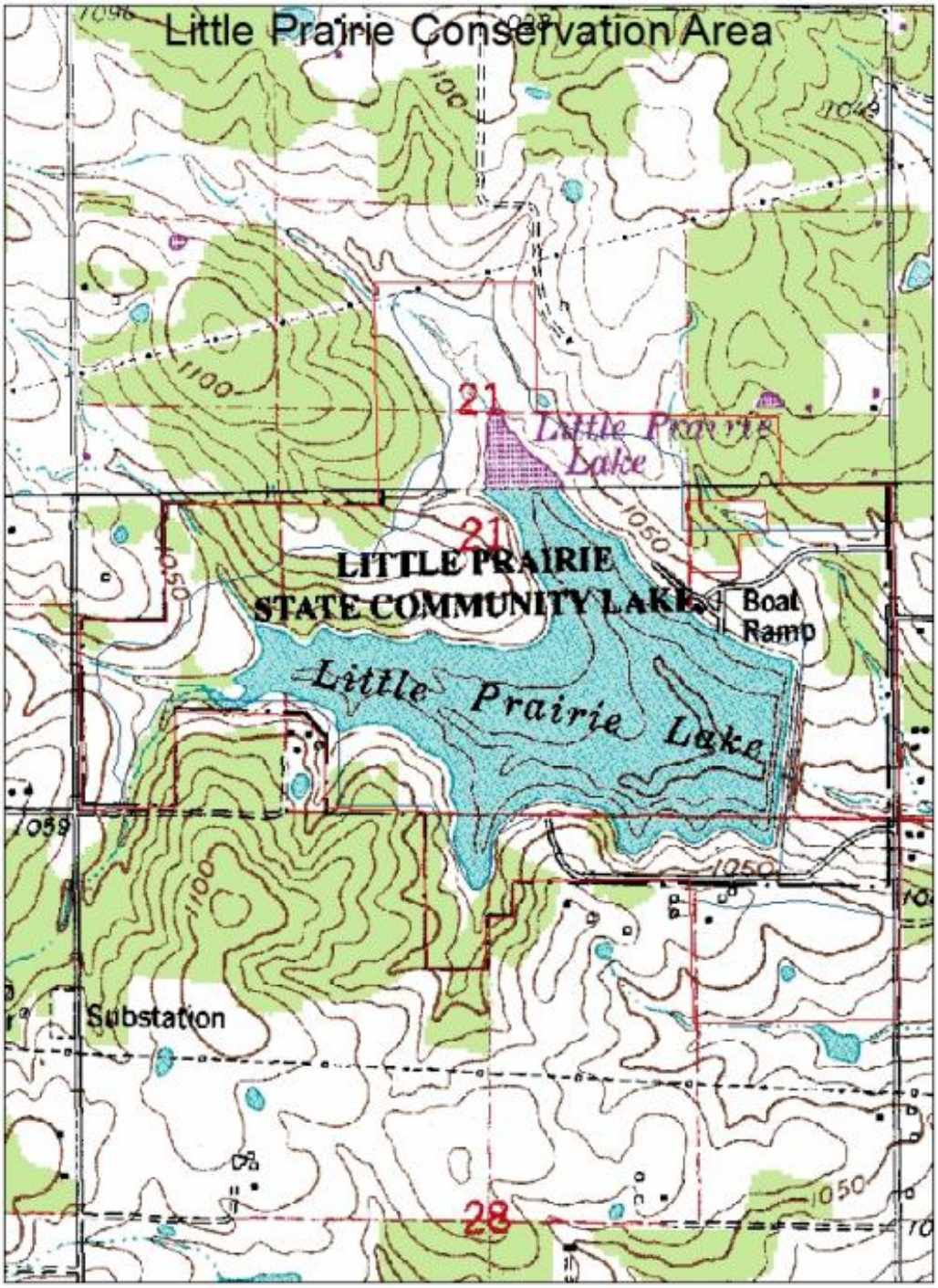
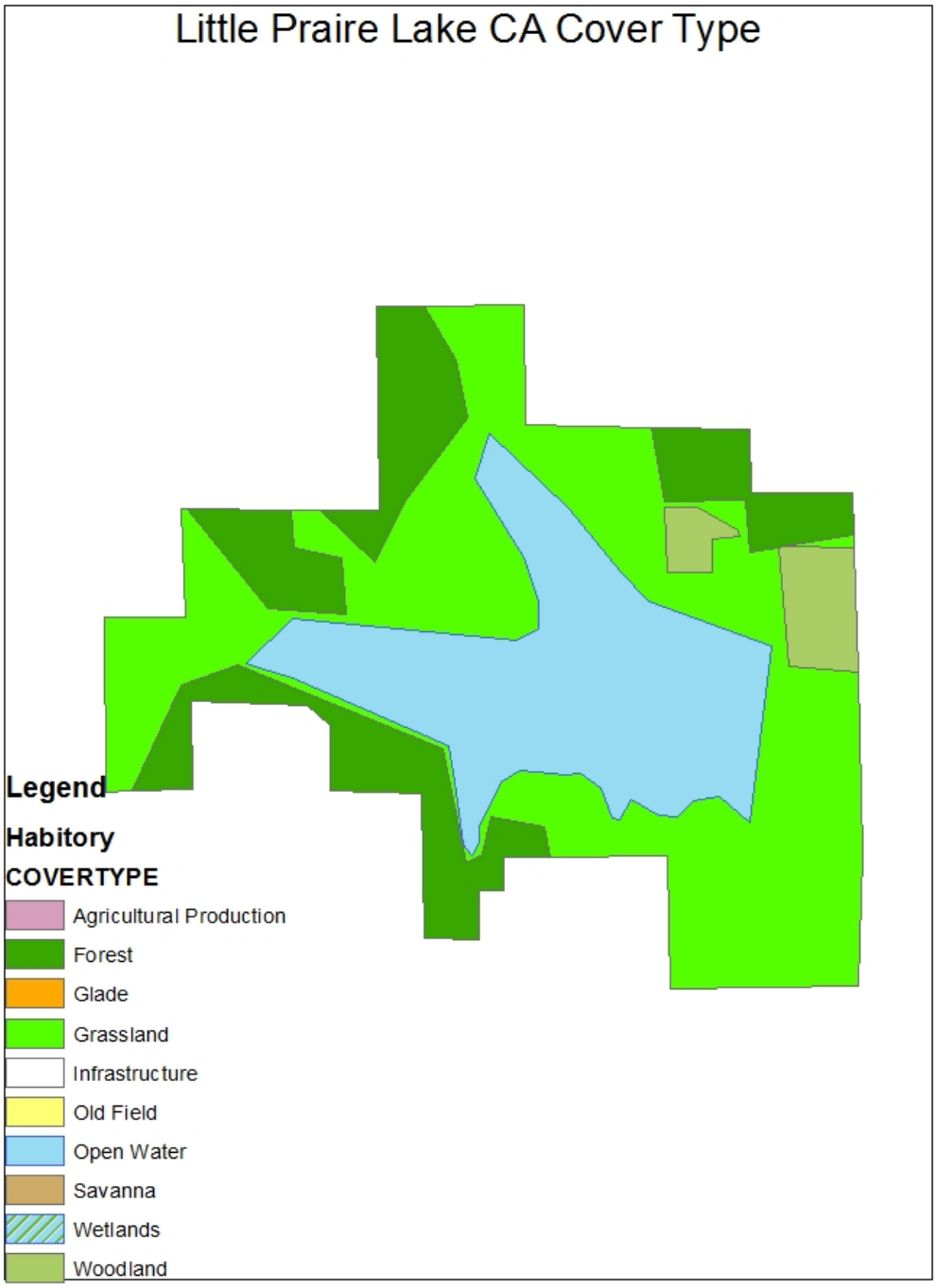


Figure 4: Land Cover Map



Appendix A: Little Prairie Conservation Area Management Plan Public Comments

Received during public comment period (May 1-31, 2015):

During last years Christmas Bird Count, I noticed that the very western part of the area along CR 2170 has one of the worst cases of invasive honeysuckle I have ever seen. Your plan does mention controlling invasives, and you have a LOT of work to do on this part of the area. I understand that this may be complicated by perhaps being limited on the amount of prescribed burning you can do due to some neighbors near this side, as well as not wanting any runoff of chemicals into the upper part of the lake, but I hope some priority can be given to eradicating the honeysuckle. Some years ago, I regularly saw a covey of quail in this area, but I don't see how any could survive there now.
I received a packet in the mail with the area plans for the little prairie lake conservation area and we thought it would be a perfect opportunity to comment on this area. I also used the number from this packet and left a message for Justin Gailey to please return my phone call. I recently built a new home which is next to the little prairie conservation area on CR 2170. I have noticed alot of dumping in this area of dead animals. Just a few weeks ago I noticed a rolla animal control truck dumping dead animals there. A few weeks ago I thought I would take a nature walk in that area and look for mushrooms and you would have thought I was in a bone yard. I live less than a 1/4 of a mile from this area and I can't even sit on my front porch due to the horrific smell. There are dogs,cats,deer, trash,old mattresses. I'm not the only house on this road that has been complaining of the smell and the trash that has been dumped there. This area is really grown up and looks terrible from the road. The bushes are growing over the signs. You would think you could find a human way to dispose of these dead animals. I have taken photos and plan to contact the county. There are many houses on this road and is well traveled and there needs to be a hault to dumping these animals and it maintained properly. I know this area was donated and is for wildlife but some of the state funds need to be put toward cleaning this area up and keeping it clean from rotten animals and trash.
Bravo for the plan. Sadly the absence of fire for ten years plus has turned prairie maintenance into a prairie restoration project following the takeover of exotic invasive species. I hope MDC focuses on native grassland restoration. Climax oak-hickory forest, disturbed soil, cover, and a variety of successional stages of other habitat are abundant on nearby private lands. However, few land owners promote warm season grasses though I have about 25 acres. If there is truly a fear that hot air from a fire can reach HWY 44 and sink back down, please simply burn with a wind from the south. I am the only proximal resident to the north and I would have no problem with smoke or the threat of a breakout. I think it will take a very aggressive burn program and considerable chain saw or heavy equipment labor to restore the degradation of the last 10-15 years. I hope the plan proceeds. It contains a lot of good ideas. I have burned regularly for about 25 years and would be happy to co-operate with the timing to preserve nesting etc. and happy to listen to any advice a MDC agent might have on my management efforts. Thank you, I look forward to some fire and smoke.
I would like to see Little Prairie opened up to horseback riding. Even if it would be by permit. Also, you have a parking area on 2170 opposite my property and it nothing more than a part

place at night. I would really appreciate it if you would close that area and make everyone access from the lake side.

Thank you for listening.

I understand Little Prairie Lake will continue to be developed and managed for the protection and enhancement of the area's natural and cultural resources; grassland and woodland wildlife species; the protection and sustainability of aquatic species; and public recreation, to the extent compatible with natural resource management.

With this in mind, I question what are the Best Management Practices for Cultural Resources?

• Ostensibly, prescribed fire will be used, when practical. Other methods to provide early successional habitat will be considered, when prescribed fire is not practical.

• Effectively spray the fescue with a cool-season grass-specific herbicide, when tall fescue is more susceptible.

• Use a broadleaf specific herbicide on exotic or invasive species, particularly, sericea lespedeza and spotted knapweed. Seasonally spot spray these herbicides, when it is most effective.

• Use appropriate herbicides when controlling invasive species in the riparian zones and around the lake.

There are NO environmentally safe herbicides available to control the invasive species. Using said herbicides on all the riparian zones is extremely dangerous to all aquatic life. The primary use of this area is fishing, so that makes NO sense to me.

Fire is not always safe, but can be safe more times than not. A single, low-intensity fire does not control spotted knapweeds.

It seems the better choices for controlling invasive vegetation would include:

• planting competitive desired plants, which slow knapweed encroachment,

• mowing can prevent seed production and reduce carbohydrate reserves,

• cultivation to depths of 7 inches (18 cm) or more will control spotted and diffuse knapweed,

• long-term control of knapweeds is unlikely without revegetation,

• thirteen insects have been introduced into Montana for biological control of spotted and diffuse knapweed. Perhaps a similar plan could be used in Missouri?

I know that years ago, the prairie sections were mowed at least once per year. I do not see that happening now. I effectively maintain our ten acres without use of herbicides. I have abundant

wildlife here. I also manage several bee colonies and I cannot afford to have them wiped out when foraging bees bring back herbicides into their hives. This poisons wax foundation, honey, brood, and pollen stores, essentially killing the colonies.

I urge you to stop using herbicides as the faster, easier way to maintain healthy prairie systems at Little Prairie Lake CA and all MCD CA's.

I urge you to truly enhance and protect the land and water for people and wildlife's sake.