

Lake Girardeau Conservation Area

Ten Year Area Management Plan FY 2015-2024



Jessie M. Allen

Forestry Division Chief

1-13-15

Date

Lake Girardeau Conservation Area Management Plan Approval Page

PLANNING TEAM

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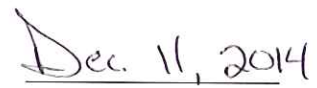
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SOUTHEAST REGION

RCT Chair


Signature


Date

FORESTRY DIVISION

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OVERVIEW

- **Official Area Name:** Lake Girardeau Conservation Area, #6203
- **Year of Initial Acquisition:** 1962
- **Acreage:** 351 acres
- **County:** Cape Girardeau
- **Division with Administrative Responsibility:** Forestry
- **Division with Maintenance Responsibility:** Forestry
- **Statements of Purpose:**

A. Strategic Direction

The primary purpose of the area is to serve as a place for outdoor recreation, including fishing, boating, camping, picnicking, hiking and nature viewing. The goal is to provide and maintain stable, high-quality angling opportunities, in accordance with the resources available and the public's need.

B. Desired Future Condition

The desired future condition of Lake Girardeau Conservation Area (CA) is a 162-acre lake surrounded by a mostly forested landscape.

C. Federal Aid Statement

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

GENERAL INFORMATION AND CONDITIONS

I. Special Considerations

- A. **Priority Areas:** None
- B. **Natural Areas:** None

II. Important Natural Features and Resources

- A. **Species of Conservation Concern:** Species of conservation concern are known from this area. Area Managers should consult the Natural Heritage Database annually and review all management activities with the Natural History Biologist.
- B. **Caves:** None
- C. **Springs:** None
- D. **Streams:** Lake discharges into a small tributary that flows into Crooked Creek in the Castor-Whitewater Rivers Basin.
- E. **Lake:** 162-acre impoundment with a watershed drainage ratio of 13.5:1 (land area to water area ratio) and approximately 25 feet deep at its maximum depth.

F. Forest Resource: The majority of the forest can be categorized as Oak-Hickory. The Land Type Association is East Bollinger Oak Woodland/Forest Hills. The timber is not intensively managed because of the area's small size and limited access. The area has no history of wildfires and has not been logged since the 1950s, except for a few dying trees around the picnic and camping area in 2004 and again in 2013.

G. Wetlands: Two wetland areas have been delineated by the U.S. Fish & Wildlife Service. One is a Freshwater Emergent Wetland and the second is a Freshwater Forested/Shrub Wetland.

H. Open Field Management: There are approximately 5 acres of food plots that are managed on a rotation using grains and clover. There are 6 acres of warm-season grass that is managed with periodic burning.

III. Existing Infrastructure

- 1 earthen dam (39 feet high) consisting of 180,000 cubic yards (ID #: MO 30066)
- 1 open-sided pavilion
- 2 ADA-accessible covered floating docks
- 1 courtesy dock next to concrete boat ramp
- 1 concrete boat ramp
- 3 vaulted privies
- approximately 32,000 square feet of asphalt road and parking area with 25 spaces
- 1 designated primitive camp ground with 10 sites
- approximately 1000 feet of gravel access road
- 10 concrete picnic tables, 10 wooden picnic tables
- 16 upright grills
- 12 lantern posts
- 1 mile of hiking trail (mostly along the edge of the lake)

IV. Area Restrictions or Limitations

A. Deed Restrictions: 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: Powerline on south in ditch along Highway RA

D. Cultural Resources Findings: None observed.

E. Hazards and Hazardous Materials: None observed.

F. Endangered Species: None observed.

G. Boundary Issues: Establishing accurate and identifiable boundary markers is a priority for this property.

MANAGEMENT CONSIDERATIONS

V. Terrestrial Resource Management Considerations

Challenges and Opportunities:

- 1) Controlling exotic species
- 2) Evaluating the possibility of eliminating food plot management
- 3) Maintaining warm-season grass planting

Management Objective 1: Reduce the occurrence of autumn olive.

Strategy 1: Annually cut and treat stumps of larger autumn olive with approved herbicide to reduce the seed source and inhibit sprouting.

Strategy 2: Broadcast and spot spray an approved herbicide on areas dominated by seedling-sized autumn olive.

Management Objective 2: Explore the option to plant the open land food plots to trees.

Strategy 1: Discuss the idea with area users and other Department staff

Strategy 2: If idea is desirable to move forward, disk and plant wheat in the fall as a cover crop, in preparation for spring tree planting. Species to plant include cherrybark oak, white oak, pecan and shellbark hickory.

Management Objective 3: Develop a healthy stand of warm-season grass.

Strategy 1: Maintain fire lines to facilitate burning every two to four years.

VI. Aquatic Resource Management Considerations

Challenges and Opportunities:

- 1) Growing and maintaining a healthy and sustainable fishery
- 2) Promoting the use of the area

Management Objective 1: Provide quality fish populations that provide diverse angling opportunities.

Strategy 1: Conduct spring electrofishing surveys according to standardized protocols to assess largemouth bass and sunfish communities. Area managers will strive to meet the following parameters (EF CR = electrofishing catch rates; PSD = proportional stock density; RSD = relative stock density):

| <u>Species</u> | <u>EF CR</u> | <u>PSD</u> | <u>RSD</u> | <u>Age 3</u> |
|-----------------|--------------|------------|------------|--------------|
| Largemouth Bass | 100-150 | 40-60 | 10-30 | 11.5-14.5 |
| Bluegill | 200-400 | 10-30 | >1 | |

Strategy 2: Conduct standardized fall trapnetting surveys every two to three years to assess the crappie community. Area managers will strive to meet the following parameters:

| <u>Species</u> | <u>RSD9</u> | <u>RSD10</u> | <u>Age 2+</u> |
|---------------------|-------------|--------------|---------------|
| Black/White crappie | 30-60 | 15-25 | >8.5 |

Strategy 3: Conduct standardized hoop-netting surveys every two to four years to assess the channel catfish community. Area managers will strive to meet the following parameters (HN CR = hoopnet catch rates; GII = growth increment index):

| <u>Species</u> | <u>HN CR</u> | <u>PSD</u> | <u>GII</u> |
|-----------------|--------------|------------|------------|
| Channel catfish | 40-100 | 30-60 | 0+ |

Strategy 4: Continue the annual supplemental stocking of channel catfish (25 fish/acre, total of 4,050 fish). The stocking rate may be adjusted periodically to maximize numbers for angler satisfaction and to meet stocking goals (in fish growth and stocking density).

Management Objective 2: Maintain beneficial vegetative coverage: less than 30 percent for aquatic vegetation and less than 10 percent for shoreline vegetation, where bank angling is accessible during the growing months.

Strategy 1: Sufficient phytoplankton densities will be maintained through artificial fertilization to shade and discourage the development of rooted plant growth. Successful artificial fertilization should limit the need for the extensive use of grass carp or herbicides while increasing phytoplankton blooms and zooplankton communities throughout the summer and into the early fall.

Strategy 2: Herbicides will be used if all other vegetation control measures fail or are not applicable. Water willow can develop problematic densities and impede successful angling. Spot treatment of aquatic approved glyphosate herbicide will be applied where plant densities dictate.

Management Objective 3: Provide littoral and deep-water woody cover to diversify fish habitat and improve angler success.

Strategy 1: Support or assist Forestry Division with periodically felling large hardwood trees into the lake.

Strategy 2: Periodically construct and place brush piles near the fishing docks, in the coves and in other locations. Small to moderate sized hardwoods and coniferous trees could be used to make the brush piles.

Management Objective 4: Increase public awareness of the area and angling opportunities to maintain or improve public use and satisfaction.

Strategy 1: Prepare, as needed, news releases for regulation changes and to inform the public of fishing opportunities.

Strategy 2: Prepare an annual lake report and annual fishing prospects for inclusion in *Fishing Prospects at Selected Missouri Lakes and Streams*.

VII. Public Use Management Considerations

Challenges and Opportunities:

- 1) Providing recreational opportunities for area users
- 2) Monitoring recreational area for hazard trees

Management Objective 1: Ensure that Lake Girardeau is inviting and accessible to all area users.

Strategy 1: Ensure that information regarding the area is accurate, consistent and available to the public through knowledgeable staff, the Missouri Atlas Database, posted signs and brochures.

Strategy 2: Maintain sufficient money in each year's budget to contract mowing.

Strategy 3: Annually maintain the trail segments near the camping area and the shoreline trail on the southeast side of the lake.

Strategy 4: Continue to work with Stream Teams to provide biannual trash pickup around the lake.

Strategy 5: Maintain infrastructure on an as-needed basis to ensure that signage, parking lots and privies are in good condition.

Management Objective 2: Reduce vandalism.

Strategy 1: Keep trash picked up and maintain the appearance of buildings and grounds to encourage public use.

VIII. Administrative Considerations

Challenges and Opportunities:

- 1) Encroaching boundaries
- 2) Maintaining the dam and spillway

Management Objective 1: Maintain area infrastructure.

Strategy 1: Monitor and mark the area boundaries according to the pre-established marking schedule.

Strategy 2: Bush-hog the front and back side of the dam twice a year to control undesirable woody vegetation.

Strategy 3: Comply with the Department of Natural Resources Dam and Reservoir Safety Council's recommendation(s) regarding compliance with the Registration Permit.

Lands Proposed for Acquisition:

No additional tracts have been proposed for acquisition. Watershed conditions outside the area boundary appear satisfactory.

MANAGEMENT TIMETABLE

Strategies are considered ongoing unless listed in the following table:

| | FY14 | FY15 | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 |
|---|------------|------|------|------|------|------|------|------|------|------|
| Terrestrial Resources Management | | | | | | | | | | |
| Objective 2 | | | | | | | | | | |
| Strategy 1 | X | | | | | | | | | |
| Strategy 2 | | X | | | | | | | | |
| Objective 3 | | | | | | | | | | |
| Strategy 1 | X | | X | | X | | X | | X | |
| Aquatic Resource Management | | | | | | | | | | |
| Objective 1 | | | | | | | | | | |
| Strategy 2 | X | | X | | X | | X | | X | |
| Strategy 3 | | X | | | X | | | X | | |
| Objective 3 | | | | | | | | | | |
| Strategy 1 | | X | | | X | | | X | | |
| Strategy 2 | X | | X | | X | | X | | X | |
| Objective 4 | | | | | | | | | | |
| Strategy 1 | X | | X | | X | | X | | X | |
| Public Use Management | | | | | | | | | | |
| Objective 1 | | | | | | | | | | |
| Strategy 5 | | X | | | X | | | X | | |
| Administrative Considerations | | | | | | | | | | |
| Objective 1 | | | | | | | | | | |
| Strategy 1 | | X | | | | | X | | | |
| Strategy 2 | Biannually | | | | | | | | | |
| Strategy 3 | | X | | | X | | | X | | |

APPENDICES

Area Background:

Lake Girardeau CA is near Crump in Cape Girardeau County, 14 miles southwest of Jackson on Route U and Route RA.

The Department acquired this 351-acre area in 1962 and constructed a 162-acre lake here in 1964. The lake features two ADA-accessible fishing piers and a concrete boat ramp. It offers quality fishing for bass, bluegill, catfish and crappie.

Current Land and Water Types

| Land/Water Type | Acres | Feet | % of Area |
|------------------------------------|------------|------|------------|
| Impounded Water | 162 | | 46 |
| Upland Forest | 122 | | 35 |
| Old Fields/Upland Fields/Grassland | 42 | | 12 |
| Bottomland/ Riparian Forest | 8 | | 2 |
| Warm Season Grass Fields | 6 | | 2 |
| Cropland/Hay Land | 5 | | 1 |
| Wetland | 5 | | 1 |
| Impervious | < 1 | | <1 |
| Total | 351 | | 100 |
| Stream Frontage | | 900 | |

Public Input Summary:

The draft Lake Girardeau Conservation Area Management Plan was available for a public comment period September 1–30, 2014. The Missouri Department of Conservation received no comments during this period.

References:

- Boone, Mark. (1992). *Lake Girardeau fishery management report*. Marble Hill, Missouri: Missouri Department of Conservation.
- Clay, R. A. (2012). *Letter and registration permit (R-292)*. Jefferson City, Missouri: Missouri Department of Natural Resources.
- Gann, L.W. (1986). *Lake Girardeau Wildlife Area limited area plan*. Marble Hill, Missouri: Missouri Department of Conservation.

- MoRAP. (2005). *LULC imagery database*. Retrieved from <ftp://msdis.missouri.edu/pub/lulc/lulc05/>. Accessed Nov. 31, 2012.
- Norman, D.E. (1989). *Lake Girardeau fisheries management plan*. Marble Hill, Missouri: Missouri Department of Conservation.
- U.S. Fish & Wildlife Service. (n.d.). *National wetlands inventory*. Retrieved from <http://www.fws.gov/wetlands/Data/Mapper.html>. Accessed May 8, 2013.
- U.S. Fish & Wildlife Service. (2003). *Director's order no. 152: Allowable recreational activities and related facilities on federal assistance lands*. Washington, D.C.: Department of the Interior.
- Zekor, D.T. (2004). *Memo: Information about Missouri allowable recreational activities on lands acquired, developed, or managed with federal aid, FAQs and guidelines*. Columbia, Missouri: Missouri Department of Conservation.

Maps:

Figure 1: Area Map

Figure 2: Land Cover Map

Figure 1: Area Map

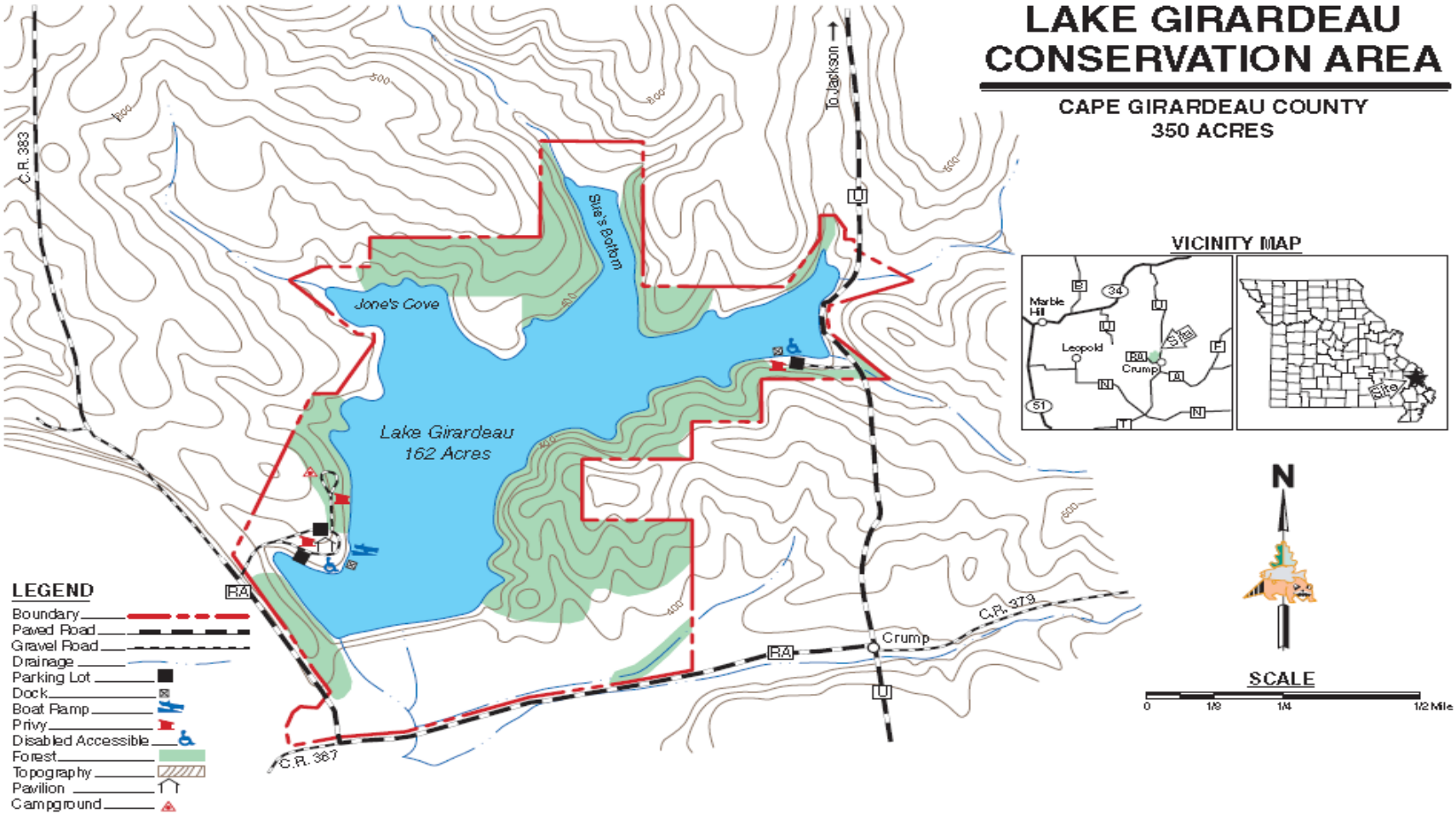


Figure 2: Land Cover Map

