

# Donaldson Point Conservation Area

## Ten Year Area Management Plan FY 2014-2023



*Lisa M. Allen*

Forestry Division Chief

*4-17-14*

Date

## Donaldson Point Conservation Area Management Plan Approval Page

### PLANNING TEAM

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### SOUTHEAST REGION

SE RCT Chair

  
Signature

03/25/2014  
Date

### FORESTRY DIVISION

Unit Chief

  
Signature

4-11-14  
Date

## OVERVIEW

- **Official Area Name:** Donaldson Point Conservation Area, # 8506
- **Year of Initial Acquisition:** 1985
- **Acreage:** 5,785 acres
- **County:** New Madrid
- **Division with Administrative Responsibility:** Forestry
- **Division with Maintenance Responsibility:** Forestry
- **Statements of Purpose:**
  - A. Strategic Direction**

Manage and conserve natural resources and provide compatible opportunities for public use and recreation.
  - B. Desired Future Conditions**

The desired future condition of Donaldson Point Conservation Area (CA) is a healthy Mississippi River lowlands bottomland forest community.
  - C. Federal Aid Statement**

N/A

## GENERAL INFORMATION AND CONDITIONS

### I. Special Considerations

- A. Priority Areas:** River Bends Conservation Opportunity Area (COA), Donaldson Point Aquatic COA, Donaldson Point / Ten Mile Complex Terrestrial COA, River Bends Priority Forest Landscape
- B. Natural Areas:** Donaldson Point Natural Area

### II. Important Natural Features and Resource

- 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:** Hydro fluvial processes and flooding regimes have molded this landscape over time. The river produces meander scar wetlands, natural levees, point bars, swales and ridges across this area.
  - 1) Section: Mississippi River Alluvial Basin
  - 2) Subsection: Mississippi River Alluvial Plain
  - 3) Land Type Association: Mississippi River Holocene Alluvial Plain

**III. Existing Infrastructure**

- 1 gravel boat slide
- 10 parking lots
- 1 primitive camping area

**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:** The U.S. Army Corps of Engineers periodically requires temporary easements to provide riverbank stabilization and install river navigation aids. They also have the authority to breach the Front Line Levee in an emergency flood. St. John's Levee and Drainage District has an easement to repair and maintain the Front Line Levee. The New Madrid County road department has easements to maintain county roads where they cross state land.
- D. Cultural Resource Findings:** None observed.
- E. Hazards and Hazardous Materials:** None observed.
- F. Endangered Species:** Endangered Species are known from this area. Area Managers should consult the Natural Heritage Database annually and review all management activities with the Natural History Biologist.
- G. Boundary Issues:** None

**MANAGEMENT CONSIDERATIONS**

**V. Terrestrial Resource Management Considerations**

Donaldson Point CA contains 5447 acres of forest cover and is a good example of riverine bottomland forest community mosaic. Some of the physical characteristics of the land include low terraces, scours, deposits, and natural levees. Due to backwater and headwater flooding of the area there are drift piles, scour marks, and debris damage to many of established trees on the area. Portions of the area are slow to drain, and the sloughs will hold water for several weeks to months after the river recedes.

The terrain is broken by shallow to deep drains formed by flood waters and currents. Some of the lowest areas contain wet bottomland forest communities and some ridges (2-5 feet higher in elevation) are better drained and support a more mesic forest community. There are a number of artificial topographic changes, these include large borrow ditches,

roads, dikes, blue holes, and berms. Flooding disturbance patterns, along with timing, depth, and duration of these flood events have always influenced the area, and as these patterns continue to shift, so does the landscape.

The majority of the area is on the batture side of the Front Line Levee (4950 Acres). The flooding can be very deep (>10') and currents can be swift as they sweep across the area from east to west.

The area on the “protected” side of the Front Line Levee is within the New Madrid Floodway. This area still receives flooding on a regular basis, just not as deep or as swift as the batture side.

Prior to MDC possession (1984 – 1987) Anderson –Tully harvested much of the merchantable timber (25,000,000 Board Feet). Today tree species composition varies due to hydrology, soils, flooding, and past practices. Eastern cottonwood, sugarberry, box elder, green ash, pecan, silver maple, sweet gum and sycamore are present. Bald cypress and tupelo gum are found in drainages and natural depressions. Bottomland oaks and shellbark hickory are primarily found on the floodway side of the Front Line Levee. There are patches of vines throughout the area; some of them are large, expansive vine arbors that are impenetrable by man. There has been approximately 150 acres of open land planted to trees over the years. Unfortunately these plantings have not been completely successful and portions of them have been replanted.

### **Challenges and Opportunities:**

- 1) Forest management of the area should take many things into consideration including the hydorfluvial processes and flooding regimes that have molded this landscape over time. Flood timing, depth, duration, and water current dictate what the landscape is capable of, and should not be taken lightly. Many of these factors have changed over time, and managers need to have an understanding of these variables and how they have affected not only what is present today, but what is possible tomorrow.
- 2) As one of the few remaining large blocks of forested habitat in the Missouri portion of the Mississippi Alluvial Valley (MAV), Donaldson Point CA supports populations of common wildlife species and species of conservation concern (SOCC). Many of these species are restricted to the delta region of Missouri. Managing a healthy riverfront forest and associated habitats, should benefit these species.

**Management Objective 1:** Protect, maintain, and enhance the bottomland forest communities found on Donaldson Point CA, and grow the largest diameter trees as the site and species will allow.

**Strategy 1:** Conduct forest inventory as directed by the inventory schedule.

**Strategy 2:** Use Bottomland Stocking Guides for bottomland hardwoods by Goelz, department forest management guidelines, and the Lower Mississippi Joint Venture (LMJV) Desired Forest Conditions Report (2007) as a guide in developing and implementing management recommendations.

**Strategy 3:** Manage a 660-foot wide riparian corridor along the Mississippi River, following the recommendations for riparian corridor management found in the Forest Land Management Guidelines.

**Strategy 4:** If necessary, replant a mixture of native bottomland species that are characteristic of the site to obtain adequate stocking or enhance reforestation areas.

**Strategy 5:** Conduct timber stand improvement practices for tree species composition, improve tree quality, and provide diversity in stand structure that enhances habitat for target wildlife species.

**Management Objective 2:** Use timber management practices to maintain and enhance wildlife habitat.

**Strategy 1:** Use LMJV Desired Forest Conditions Report (2007) as a guide for forest habitat conditions attainable through forest management.

**Strategy 2:** Consult with wildlife biologists for management recommendations of species of conservation concern, and enhancing wildlife habitat.

**Management Objective 3:** Manage stands of giant cane to provide this unique habitat to species that depend on it, such as Swanson's warbler.

**Strategy 1:** Refine distribution map of giant cane on the area.

**Strategy 2:** Use a variety of cultural practices designated to increase the size, diversity, and vigor of cane stands.

**Strategy 3:** Review results of experimental practices and make future recommendations for cane management.

**Management Objective 4:** Manage open lands for improved wildlife habitat.

**Strategy 1:** Maintain desirable plant communities in open land situations, including wildlife food plots and natural openings.

**Strategy 2:** Discourage or eliminate populations of invasive species that threaten the integrity of natural communities and species of conservation concern.

Periodically survey for new populations of invasive species.

**Strategy 3:** Use green browse food plots to improve hunting opportunities, to control undesirable species, and provide diversity.

**Strategy 4:** Consult with the wildlife biologists for habitat management recommendations.

**Management Objective 5:** Provide suitable habitat for native biota.

**Strategy 1:** Implement forest management practices to enhance swamp rabbit habitat.

**Strategy 2:** Enhance herptile habitat by protecting or enhancing wetlands and through the use of forest management activities that includes leaving abundant coarse woody debris in the bottomland forest.

**Strategy 3:** Utilize forest management strategies to provide a diverse forest structure for migratory and forest interior bird species. These activities should provide vertical and horizontal structure, along with diversity in canopy structure. Lower Mississippi Valley Joint Ventures 2007 report of Desired Forest Conditions has good details for providing this type of habitat and should be used as a reference when targeting this habitat.

**Strategy 4:** Monitor for known populations of species of conservation concern and other wildlife, with special emphasis on those that have been found in the vicinity.

**Strategy 5:** Request management recommendations from Natural History Biologist for species of conservation concern.

## **VI. Aquatic Resource Management Considerations**

### **Challenges and Opportunities:**

- 1) Donaldson Point has approximately 7 miles of Mississippi River frontage, with eight wing dikes directing most of the current toward the Kentucky and Tennessee side. Bank angling opportunities during normal river stages are limited by the lack of depth and the lack of quality habitat.
- 2) The area is almost entirely forested and subject to backwater and headwater flooding as a result of its location adjacent to the river. The forest is composed of bottomland hardwood tree species of varying age and size classes which should produce excellent riparian conditions.
- 3) Several accreted sand islands, associated with wing dikes, are providing important nesting habitat for interior least terns.
- 4) There are various named and unnamed blew holes, borrow pits, and chutes providing approximately 63 acres of angling opportunity. Most of these holes are subject to flooding by the river providing an overflow type fishery.

**Management Objective 1:** Maintain a batture that functions as a natural floodplain.

**Strategy 1:** Maintain a forested riparian corridor.

**Strategy 2:** Maintain hydrologic connections between the river and natural slough meander scar wetlands, and forested wetlands.

**Strategy 3:** Monitor erosion along, and across the area.

## VII. Public Use Management Considerations

### **Challenges and Opportunities:**

- 1) This conservation area consisting of bottomland forest provides an opportunity for people to enjoy and study this unique habitat. Forested lands are extremely limited in New Madrid County and surrounding counties along the Mississippi River. Since most of these forested lands are privately owned and hunting rights leased to hunting clubs or individuals, demand for public hunting lands is high. As a result, this area receives a considerable amount of public use by many different types of visitors.
- 2) There are 10 gravel parking lots dispersed across the area for visitors to park when they reach the area. Along Road 11, at Road 8, 5, and the Dawson Hole are primitive camping areas with picnic tables and fire rings. Public gravel roads provide easy access to most of the area, and dirt service roads provide visitors opportunity to traverse the rest area by foot easily.
- 3) Area staff continuously stop and talk to the users of the area and see what comments they have. The majority of users are satisfied with the amenities, maintenance and management of the area.

**Management Objective 1:** Maintain boundary lines to prevent encroachment on the area by surrounding landowners and inhibit users from inadvertently trespassing onto adjoining landowners.

**Strategy 1:** Forestry division will maintain posted boundary and area signs as required by department policy along surveyed boundary.

**Management Objective 2:** Maintain the area so that it provides an opportunity for people to enjoy and study this unique habitat.

**Strategy 1:** Forestry division will be responsible for routine maintenance that keeps the area inviting to public use.

**Management Objective 3:** Protect the area, wildlife, and area users during periods of high river levels.

**Strategy 1:** The following regulation is in place: All public use is prohibited, except fishing and waterfowl hunting by boat, when Mississippi River water level is at or above thirty four feet (34') on the New Madrid river gauge.

**Strategy 2:** In addition to the area use regulation, MDC requested and received permission to close and lock the levee gate on CR 404 at the junction with Route AB when the Mississippi River Level reaches thirty four feet (34') on the New Madrid River Gauge. The New Madrid County Commission approved this on January 10, 1991.

**Management Objective 4:** Improve quality of the outdoor experience.

**Strategy 1:** Close road 11 from March 1st – June 15th to help wildlife nesting and improve quality of spring turkey hunting.

**Strategy 2:** Within reason, improve access for fishing along various named and unnamed blew holes, borrow pits, chutes, and Mississippi River. Gravel on road 13 is a prime example.

**Strategy 3:** Maintain existing interior service roads.

**Management Objective 5:** Observe statewide hunting, fishing, and public use regulations for department areas. Special regulations will apply as the area uses evolve in accordance to MDC policies.

**Strategy 1:** Southeast Protection Division will have primary enforcement responsibility for the area regulations.

**Strategy 2:** Continue to issue Special Use Permits (SUP) to individuals as needed, as long as the SUP is appropriate for the area. Area Manager should consult with area Conservation Agent prior to issuing SUP.

## VIII. Administrative Considerations

### **Challenges and Opportunities:**

- 1) Maintain area infrastructure at current levels.
- 2) In an area of the state lacking in bottomland forest cover, and the associated species, any opportunity to increase bottomland forest restoration or enlarge the size of forested areas should be considered.

**Management Objective 1:** Maintain area infrastructure at current levels.

**Strategy 1:** Maintain area infrastructure in accordance to MDC guidelines and at currently identified maintenance levels.

**Management Objective 2:** Land acquisition opportunities.

**Strategy 1:** When available, inholdings and 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.

	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22
<b>Terrestrial Resources Management</b>										
Objective 3										
Strategy 3						X				

## **APPENDICES**

### **Area Background:**

The area is at the north end of Donaldson Point, which is formed by the New Madrid Bend Loop of the Mississippi River. The Mississippi River forms part of the east and west boundaries of the conservation area and provides about seven miles of river frontage.

Donaldson Point CA and its surrounding landscape are regularly influenced by backwater and headwater flooding of the Mississippi River. The area is located in the batture land (the river side of the mainline levee) and is directly affected by floodwaters of the Mississippi River. Flooding disturbance patterns, along with timing, depth, and duration of these flood events have always influenced the area, and as these patterns continue to shift, so does the landscape. The topography is very flat and contains mostly riverfront forest. Elevation ranges from 285 to 300 feet above Mean Sea Level (MSL), and the entire area is subject to flooding, portions of the unprotected side see flooding on an annual basis.

The Front Line Levee runs through the area, as well as the obsolete Conran Dike Levee. Construction of these levees has created about 60 acres of ponds and borrows that are open to the public. The system of levees surrounding much of this Conservation Area has greatly altered the natural flooding regime.

There are no structures or buildings present on the property; there are approximately 5.25 miles of interior gravel roads, and 10 miles of interior dirt service roads to provide department personnel and public walk-in access to the area (Map 1).

### **Legal Description:**

The 5785-acre area lies within sections 31 & 32 of Township 23 North, Range 15 East, and sections 5, 6, 7, 8, 14, 15, 16, 17, 20, 21, 22, 27, 28, 29, & 34 of Township 22 North, Range 15 East in New Madrid County.

### **Directions to the area:**

Approximately six miles east of New Madrid on Route WW, then south on Route AB to County Road 405. The area is also accessible by boat from the Mississippi River.

### **Donaldson Point Natural Area:**

In March of 2003, 2160 Acres of Donaldson Point CA was designated as a natural area (Map 1). The management goal of the Natural Area: To represent, maintain, restore and protect the Mississippi River Lowlands bottomland forest landscape within the natural area including terrestrial and aquatic natural communities, and sensitive flora and fauna.

**Soils:**

The majority of the area: Commerce-Caruthersville Association – Somewhat poorly drained and moderately well drained, nearly level soils that formed in loamy alluvium; on the flood plain of the Mississippi River. Primarily on the Floodway Side: Sharkey-Alligator Association – Poorly drained, nearly level soils that are clayey; in broad slack water areas. A few small pockets of: Crevasse-Canalou Association – Excessively drained, nearly level soils that have sandy and loamy layers.

**Current Land and Water Types:**

<b>Land/Water Type</b>	<b>Acres</b>	<b>Miles</b>	<b>% of Area</b>
Bottomland/Riparian Forest	5447		94
Cropland	275		5
Impounded Water	63		1
<b>Total</b>	<b>5785</b>		<b>100</b>
Stream Frontage		7	

**Public Input Summary:**

The draft Donaldson Point Access Area Management Plan was available for a public comment period January 1 – 31, 2014. The Missouri Department of Conservation received no comments during this time period.

**References:**

Lower Mississippi Joint Venture (LMVJV). 2007. LMVJV Desired Forest Conditions Report. <http://www.lmvjv.org/bookshelf.htm>.

Missouri Department of Conservation. 2013. Draft Forest Management Guidelines.

**Maps:**

Figure 1: Area Map

Figure 2: Forest Compartment Map

Figure 1: Area Map

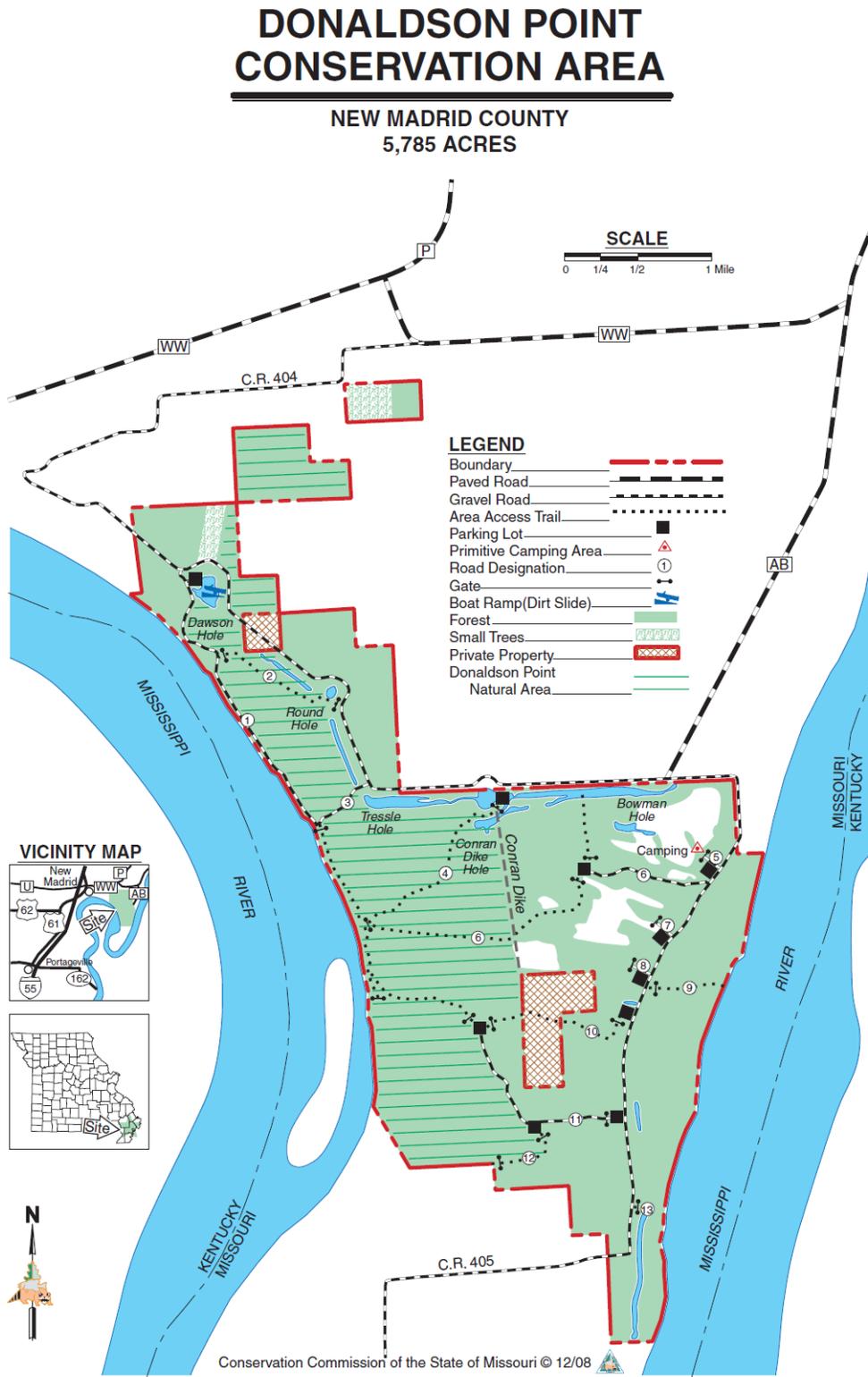


Figure 2: Forest Compartment Map

## Donaldson Point Conservation Area

