

Northwest Region Missouri River Lands Conservation Areas

Aspinwall Bend
Corning Conservation Area
Deroin Bend Conservation Area
H. F. Thurnau Conservation Area
Lower Hamburg Bend Conservation Area
Nishnabotna Conservation Area
Rush Bottoms Conservation Area
Wolf Creek Bend Conservation Area
Worthwine Island Conservation Area

Ten-Year Area Management Plan FY 2018-2027





Wildlife Division Chief

14 FEB 2018
Date

Northwest Region Missouri River Lands Conservation Areas Management Plan Approval Page

PLANNING TEAM

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NORTHWEST REGION

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1/26/18
Date

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Wildlife Management Chief


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2/13/18
Date

OVERVIEW

Area Name	Area Number	Year Acquired	Acreage	County	Administrative Responsibility	Maintenance Responsibility
Aspinwall Bend	201301	2013 ¹	737	Atchison	Wildlife	Wildlife
Corning Conservation Area (CA)	200222	2002 ¹	1,879	Holt	Wildlife	Wildlife
Deroin Bend CA	9615	1996	1,164	Atchison/ Holt	Wildlife	Wildlife
H. F. Thurnau CA	6415	1964 ²	2,418	Holt	Wildlife	Wildlife
Lower Hamburg Bend CA	9911	1999 ¹	2,371	Atchison	Wildlife	Wildlife
Nishnabotna CA	200010	2000 ¹	2,907	Atchison	Wildlife	Wildlife
Rush Bottoms CA	200103	2001 ¹	1,217	Holt	Wildlife	Wildlife
Wolf Creek Bend CA	200512	2005 ¹	966	Holt	Wildlife	Wildlife
Worthwine Island CA	7910	1979	584	Andrew	Wildlife	Wildlife

¹These areas are owned by the U.S. Army Corps of Engineers and managed by the Missouri Department of Conservation (Department) through a contractual agreement. Year acquired for these areas indicates the year the contractual agreement began.

²These areas are partially owned by the Department (year acquired by the Department) and partially owned by the U.S. Army Corps of Engineers, but managed by the Department through a contractual agreement.

Statements of Purpose:

A. Strategic Direction

The primary purpose of these areas is to provide large-river/floodplain aquatic, wetland, and terrestrial habitats and associated recreational opportunities for the public.

B. Desired Future Condition

This desired future condition is high quality large-river/floodplain aquatic, wetland, and terrestrial habitats in the Missouri River floodplain that provide important ecosystem functions while also providing recreational opportunities (hunting, fishing, viewing, trapping, etc.) for area users.

C. Federal Aid Statement

Aspinwall Bend, Corning CA, Deroin Bend CA, Lower Hamburg Bend CA, Nishnabotna CA, Rush Bottoms CA, Wolf Creek CA, Worthwine Island CA: N/A

H. F. Thurnau CA: 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.

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

GENERAL INFORMATION AND CONDITIONS

I. Special Considerations

Area Name	Priority Areas	Natural Areas
Aspinwall Bend	Missouri River – Stream Reach Conservation Opportunity Area	None
Corning CA	Missouri River – Stream Reach Conservation Opportunity Area	None
Deroin Bend CA	Missouri River – Stream Reach Conservation Opportunity Area	None
H. F. Thurnau CA	Missouri River – Stream Reach Conservation Opportunity Area, Squaw Creek Wetland Complex – Wetland Conservation Opportunity Area	None
Lower Hamburg Bend CA	Missouri River – Stream Reach Conservation Opportunity Area, Nishnabotna Wetland Complex – Wetland Conservation Opportunity Area	None
Nishnabotna CA	Missouri River – Stream Reach Conservation Opportunity Area, Nishnabotna Wetland Complex – Wetland Conservation Opportunity Area	None
Rush Bottoms CA	Missouri River – Stream Reach Conservation Opportunity Area, Squaw Creek Wetland Complex – Wetland Conservation Opportunity Area	None
Wolf Creek Bend CA	Missouri River – Stream Reach Conservation Opportunity Area, Squaw Creek Wetland Complex – Wetland Conservation Opportunity Area	None
Worthwine Island CA	Missouri River – Stream Reach Conservation Opportunity Area	None

II. Important Natural Features and Resources

Area Name	Species of Conservation Concern	Caves	Springs
Aspinwall Bend	Yes ¹	None	None
Corning Conservation Area	Yes ¹	None	None
Deroin Bend CA	Yes ¹	None	None
H. F. Thurnau CA	Yes ¹	None	None
Lower Hamburg Bend CA	Yes ¹	None	None
Nishnabotna CA	Yes ¹	None	None
Rush Bottoms CA	Yes ¹	None	None
Wolf Creek Bend CA	Yes ¹	None	None
Worthwine Island CA	Yes ¹	None	None

¹Species of conservation concern are known from this site or the surrounding area. Area managers should consult the Natural Heritage Database annually and review all management activities with the natural history biologist.

III. Existing Infrastructure

Area Name	Concrete Ramp	Camping Areas	Parking Area #	Fishing Lake/Pond
Aspinwall Bend	None	1 ¹	2	1 (0.5 acres) ²
Corning CA	None	2 ¹	3	None
Deroin Bend CA	None	1	3	None
H. F. Thurnau CA	Yes	2 ¹	5	None
Lower Hamburg Bend CA	None	1	3	None
Nishnabotna CA	None	1 ¹	1	4 (7 acres total) ²
Rush Bottoms CA	None	0	1	1 (Blue Hole, 3.8 acres) ³
Wolf Creek Bend CA	None	1	1	None
Worthwine Island CA	None	2 ¹	2	None

¹No amenities provided.

²Blue Holes stocked during Missouri River flood events.

³Scour hole stocked when Missouri River floods.

IV. Area Restrictions or Limitations

Area Name	Deed Restrictions	Federal Interest	Ease-ments	Cultural Resources	Endangered Species	Boundary Issues
Aspinwall Bend	Yes ¹	Yes ⁴	None	None known	Yes ⁹	None
Corning CA	Yes ¹	Yes ⁴	None	None known	Yes ⁹	None
Deroin Bend CA	Yes ²	Yes ⁴	Yes ⁷	None known	Yes ¹⁰	None
H. F. Thurnau CA	Yes ³	Yes ^{5,6}	None	None known	Yes ⁹	None
Lower Hamburg Bend CA	Yes ¹	Yes ⁴	None	None known	Yes ¹⁰	None
Nishnabotna CA	Yes ¹	Yes ⁴	None	None known	Yes ⁹	None
Rush Bottoms CA	Yes ¹	Yes ⁴	None	None known	Yes ⁹	None
Wolf Creek Bend CA	Yes ¹	Yes ⁴	None	None known	Yes ⁹	None
Worthwine Island CA	None	Yes ⁴	Yes ^{7,8}	None known	Yes ⁹	None

¹These areas are owned by the U.S. Army Corps of Engineers and managed by the Department through a contractual agreement. The license began 1/1/1998 and expires 12/31/2022.

²This area is owned by the Department and managed through a contractual agreement between the U.S. Army Corps of Engineers and the Department.

³This area is partially owned by the U.S. Army Corps of Engineers and managed by the Department through a contractual agreement. The license began 1/1/1998 and expires 12/31/2022.

⁴Federal 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.

⁵Uses 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.

⁶This 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.

⁷Portions of these areas have a mitigation easement with the U. S. Army Corps of Engineers.

⁸Army Corps of Engineers right of way easement

⁹Endangered species are not known from this site, but are found in the surrounding area. Area managers should consult annually with the natural history biologist.

¹⁰Endangered 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.

MANAGEMENT CONSIDERATIONS

V. Terrestrial Resource Management Considerations

Challenges and Opportunities

- 1) Control invasive species.
- 2) Manage large river floodplain habitat for species of conservation concern.
- 3) Manage early successional and old fields.
- 4) Manage riparian corridor/riverfront forest.

Management Objective 1: Control invasive species to the extent possible.

Strategy 1: Annually monitor populations of invasive species and treat as necessary. (Wildlife)

Management Objective 2: Manage species of conservation concern that occur in large river floodplain habitats.

Strategy 1: Consult with natural history biologist prior to any new vegetation management practices near the site of the species or communities of conservation concern. (Wildlife)

Strategy 2: Coordinate with the natural history biologist on the development of an annual plan for habitat restoration efforts, cropping food plots, tree removal activities, burning, construction, and/or maintenance projects in the vicinity of the species or community of conservation concern. (Wildlife)

Management Objective 3: Provide early successional and old field habitats.

Strategy 1: Maintain old field habitats using a combination of prescribed burning, mechanical and chemical treatment, disking, mowing, and over-seeding to provide nesting and brood rearing habitat such as bare ground, annual forbs, warm- and cool-season grasses, and shrubs. (Wildlife)

Strategy 2: Utilize cropping and food plots to promote desired early successional habitat and to provide a high energy food source for wildlife. (Wildlife)

Management Objective 4: Maintain and restore riparian corridor/ riverfront forest habitats.

Strategy 1: Maintain existing riparian areas and establish new riparian areas adjacent to the Missouri River and its side channels. Establishment will consist of

natural regeneration or tree plantings with riverfront forest community species.
(Wildlife)

VI. Aquatic Resource Management Considerations

Challenges and Opportunities:

- 1) Provide quality sport fish populations on area fisheries.

Management Objective 1: Manage for quality angling opportunities on Missouri River and existing area fisheries.

Strategy 1: Conduct annual fish surveys as part of ongoing Missouri River catfish monitoring. (Fisheries)

Strategy 2: Complete fish surveys on area pond/scour hole fisheries, if they exist or as they develop, and consider supplemental fish stockings on an as-needed basis to provide for quality angling opportunities. (Fisheries)

VII. Public Use Management Considerations

Challenges and Opportunities:

- 1) Provide quality fishing opportunities.
- 2) Provide quality upland game hunting opportunities.
- 3) Provide primitive camping opportunities.
- 4) Provide designated areas for hunter method exemption special access.

Management Objective 1: Provide access to quality fishing areas.

Strategy 1: Maintain area infrastructure to provide adequate public access to fishing opportunities. (Fisheries)

Strategy 2: Monitor and manage for quality angling opportunities on Missouri River and existing area fisheries. (Fisheries)

Management Objective 2: Manage habitats to provide upland game hunting opportunities.

Strategy 1: Maintain the current Ag Crop Program, or work with the U. S. Army Corps of Engineers on their lands to provide quality high energy food sources for deer and turkey populations. (Wildlife)

Strategy 2: Provide food and cover plots to provide quality habitat for small game. (Wildlife)

Strategy 3: Participate in annual reviews of game populations and regulations that provide for a quality hunting experience. (Wildlife)

Management Objective 3: Maintain areas in a condition that promotes primitive camping.

Strategy 1: Maintain designated campgrounds in a condition that encourages camping by area users. (Wildlife)

Strategy 2: Mow/maintain grass around parking lots designated for primitive camping. (Wildlife)

Management Objective 4: Administer portions of at least one area to provide special access to designated zones for users with hunter method exemptions.

Strategy 1: Continue to include H. F. Thurnau CA in the group of areas that have designated zones where special use permits are issued for off-road vehicle access to qualifying individuals for hunting. (Wildlife)

VIII. Administrative Considerations

Challenges and Opportunities:

- 1) Maintain existing infrastructure.
- 2) Consider land acquisition, when available.

Management Objective 1: Maintain existing infrastructure to Department standards.

Strategy 1: Maintain area facilities according to the current Area and Facility Maintenance Policy located in the Resource Policy Manual. (Wildlife)

Lands Proposed for Acquisition:

Pursue the highest priority lands for acquisition as they become available. When available, three-sided inholdings and any adjacent (or nearby) lands 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. Available lands that meet these criteria and adjoin lands owned by the U. S. Army Corps of Engineers will be evaluated and then forwarded to them for their purchase consideration, prior to consideration by the Department.

MANAGEMENT TIMETABLE

All strategies for this management plan are considered ongoing.

APPENDICES

Appendices:

- Appendix 1. Northwest Region Missouri River Lands Conservation Areas
- Appendix 2. Aspinwall Bend Background
- Appendix 3. Map of Aspinwall Bend Conservation Area
- Appendix 4. Land Cover Map of Aspinwall Bend Conservation Area
- Appendix 5. Corning Conservation Area Background
- Appendix 6. Deroin Bend Conservation Area Background
- Appendix 7. Map of Deroin Bend and Corning Conservation Areas
- Appendix 8. Land Cover Map of Deroin Bend and Corning Conservation Areas
- Appendix 9. H. F. Thurnau Conservation Area Background
- Appendix 10. Map of H. F. Thurnau Conservation Area
- Appendix 11. Land Cover Map of H. F. Thurnau Conservation Area
- Appendix 12. Lower Hamburg Bend Conservation Area Background
- Appendix 13. Map of Lower Hamburg Bend Conservation Area
- Appendix 14. Land Cover Map of Lower Hamburg Bend Conservation Area
- Appendix 15. Nishnabotna Conservation Area Background
- Appendix 16. Map of Nishnabotna Conservation Area
- Appendix 17. Land Cover Map of Nishnabotna Conservation Area
- Appendix 18. Rush Bottoms Conservation Area Background
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- Appendix 21. Wolf Creek Bend Conservation Area Background
- Appendix 22. Map of Wolf Creek Bend Conservation Area
- Appendix 23. Land Cover Map of Wolf Bend Conservation Area
- Appendix 24. Worthwine Island Conservation Area Background
- Appendix 25. Map of Worthwine Island Conservation Area
- Appendix 26. Land Cover Map of Worthwine Island Conservation Area

Additional Appendices:

- Appendix A. Northwest Region Missouri River Lands Conservation Areas Management Plan Public Comments

Public Input Summary:

The draft Northwest Region Missouri River Lands Conservation Areas Management Plan was available for a public comment period May 1–31, 2017. The Missouri Department of Conservation received comments from four respondents (Appendix A). The Northwest Region Missouri River Lands Conservation Areas 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 the Northwest Region Missouri River Lands Conservation Areas Management Plan public comment period.

Suggests liming area fields.

Cropping activities, other than food plots, are conducted by tenant farmers who lime fields as needed. Generally, floodplain soils do not require much lime.

Suggests creating better walking access to the blue hole in Rush Bottoms CA.

The blue hole at Rush Bottom has a parking lot adjacent to it that is accessible by road when the river is below flood stage. The feasibility of mowing and maintaining a path around the blue hole at Rush Bottom will be evaluated. The challenge with this is the wide fluctuations of the blue hole's water level and shoreline location. This fluctuation occurs in concert with the rising and falling water levels in the Missouri River.

Supports acquiring additional land as it comes available, especially limited access (boat-in only) areas.

Most of the areas covered by this plan are owned by the U.S. Army Corps of Engineers (USACE) and managed by the Department. The USACE is authorized by Congress to acquire land from willing sellers in the Missouri floodplain for conservation purposes. The Department frequently notifies the USACE when properties meeting their conservation goals come up for sale. The Department may pursue acquisition from willing sellers when it meets Department priorities.

Concerned that decrease in planted crops on these areas is leading to a decline in deer, turkey, and pheasant populations.

While the crop acres have decreased on these areas since acquisition, the habitat that has replaced crops is critical for other wildlife species. Most of these areas continue to have a cropping rotation that is beneficial for many wildlife species.

Concerned flooding of the river bottoms is creating an adverse effect on game species such as upland birds, turkey, and deer. Suggests working with the U.S. Army Corps of Engineers to reduce flooding on these areas.

Flooding can adversely impact some species like upland birds, turkey, and deer. Yet flooding is an important part of the ecosystem in floodplains adjacent to major rivers. Fish, turtles, waterfowl, and wading birds are animals that can benefit from flooding. Finding a balance is always difficult especially when major floods are outside the control of managers.

Suggests opening gate on H. F. Thurnau CA to allow better access to the pond.

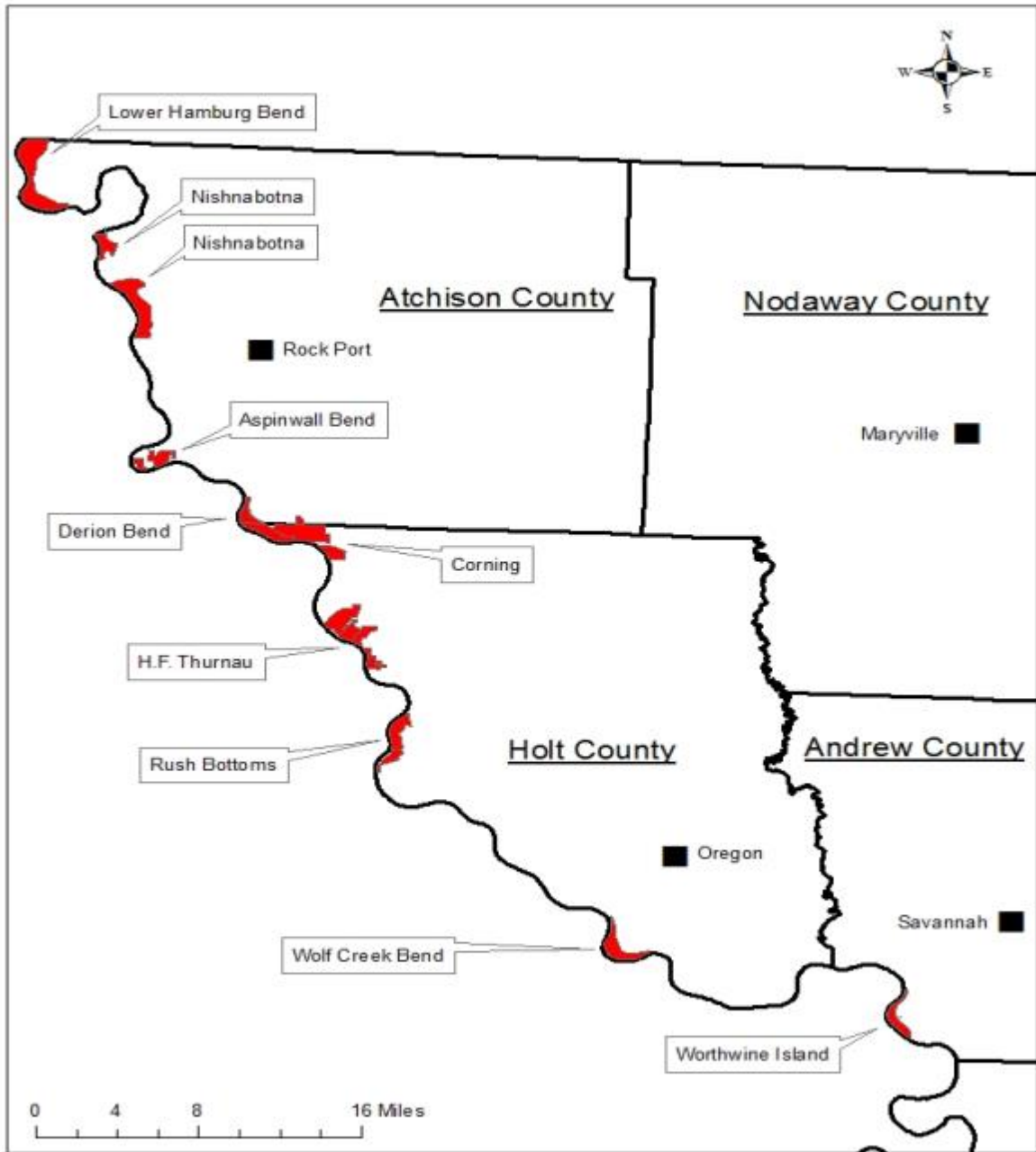
We will consider this as we look to improve public access on these lands.

Suggests improving camping areas by adding picnic tables, fire rings, and cleared tent area.

In general, the Department does not develop improved camping areas in flood prone areas. There are some conservation areas in the vicinity that have the amenities that you mention. Brickyard Hill, Bob Brown, and Honey Creek are three such areas nearby.

Appendix 1. Northwest Region Missouri River Lands Conservation Areas

Missouri River Lands (MDC/COE)



Appendix 2. Aspinwall Bend Background

The U. S. Army Corps of Engineers purchased this area as part of the Missouri River Mitigation Project. The mitigation project was designed to enhance fish and wildlife habitat along the Missouri River. The area is managed through a contractual agreement between the U. S. Corps of Engineers and the Missouri Department of Conservation.

The Aspinwall Bend Conservation Area is composed of four separate tracts. The west tract is only accessible from the Missouri River. The nearest boat access to the Missouri River is at the Langdon Bend Access, 1 mile north of the area. A variety of cover types exist on each tract to include forest, cropland, idle fields, and grasslands. There is one small scour hole that contains fish.

Legal Description: Township 64N, Range 42W, Section 33.

Area Location: This area is located 3.5 miles southwest of Langdon, Missouri.

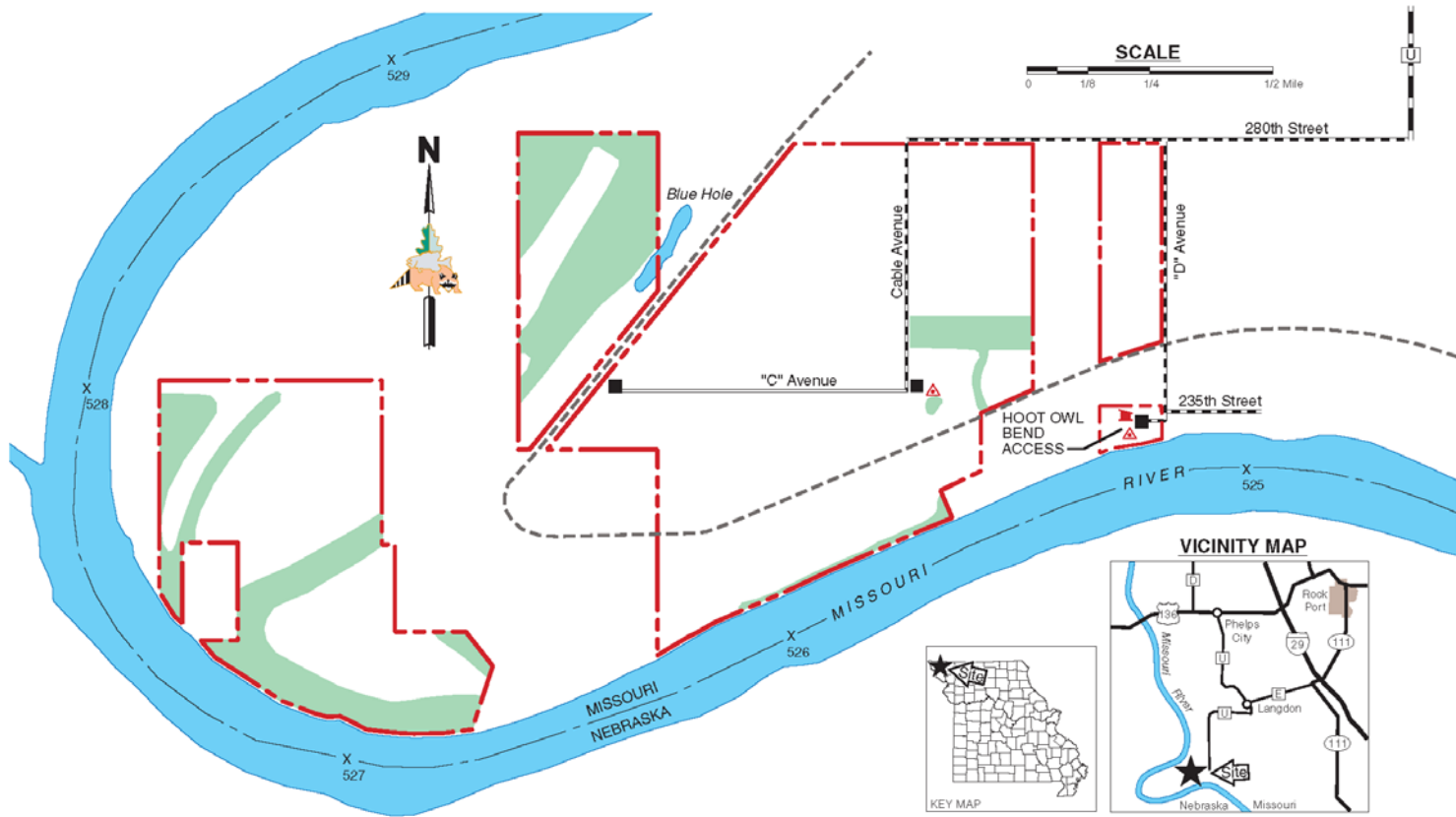
Current Land and Water Types:

Land/Water Type	Acres	Mile	% of Area
Old field	252		34
Cropland	213		29
Forest and woodland	137		19
Grassland (non-prairie)	77		10
Other: levees, roads, and parking lots	58		8
Total	737		100
Stream frontage – Missouri River		1.0	

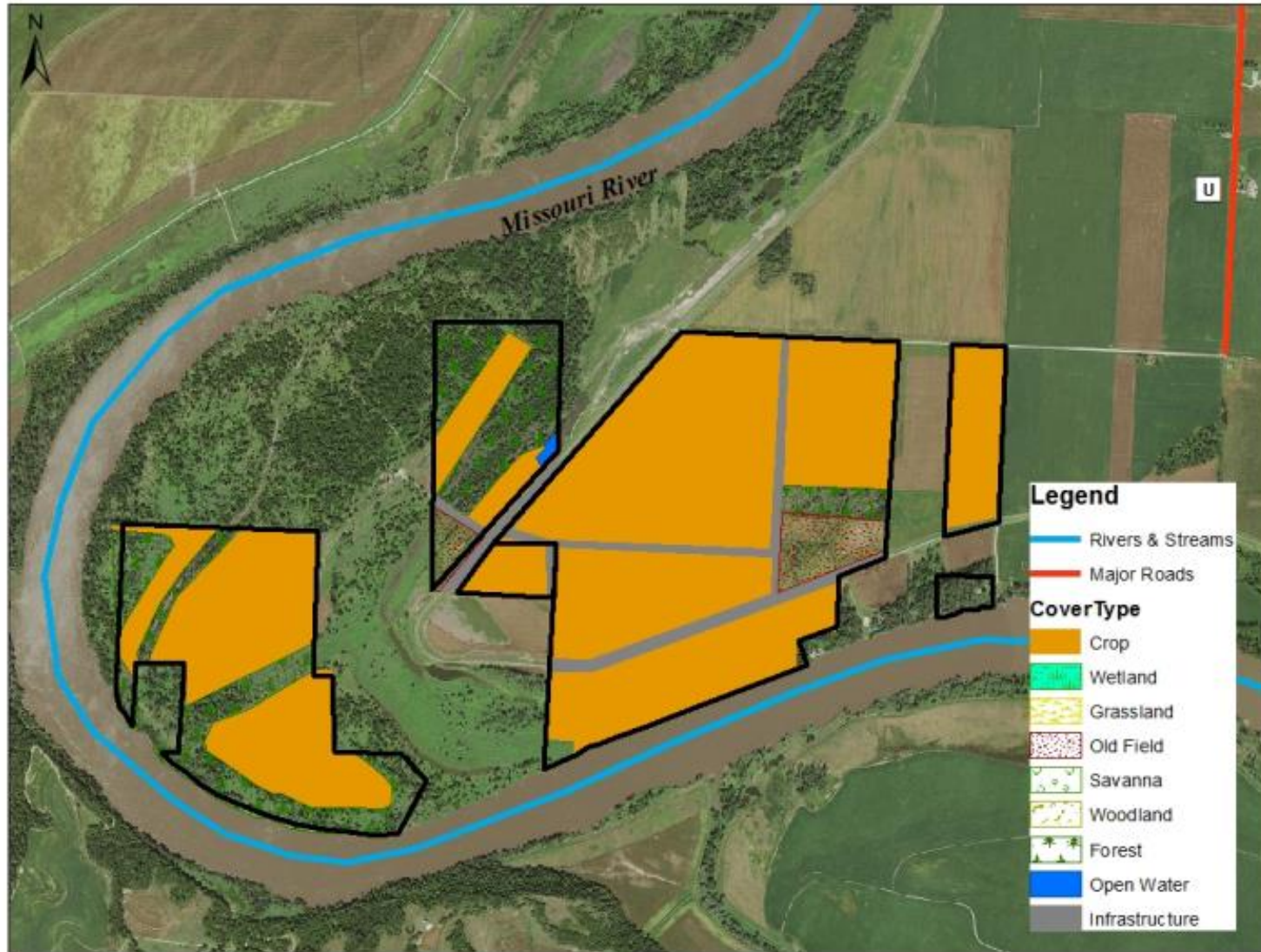
Appendix 3. Map of Aspinwall Bend

ASPINWALL BEND CONSERVATION AREA

ATCHISON COUNTY
737 ACRES



Appendix 4. Land Cover Map of Aspinwall Bend



Appendix 5. Corning Conservation Area Background

The west boundary of this area adjoins the Deroin Bend Conservation Area. The U. S. Army Corps of Engineers purchased this area as part of the Missouri River Mitigation Project. The mitigation project was designed to enhance fish and wildlife habitat along the Missouri River.

The area is managed through a contractual agreement between the U. S. Corps of Engineers and the Missouri Department of Conservation. This area is managed for a variety of game and non-game species of fish and wildlife. Rich bottomland soils produce a variety of wetland vegetation and bottomland timber that are supplemented by plantings of row crops and warm-season grasses. Management practices include reforestation, prescribed burning, and opportunistic management of wetlands.

Legal Description: Township 63N, Range 41W, Section 22.

Area Location: This area is located 1 mile west of Corning, Missouri.

Current Land and Water Types:

Land/Water Type	Acres	Miles	% of Area
Old field	831		44
Cropland	581		30
Grassland (non-prairie)	236		13
Forest and woodland	231		13
Total	1,879		100
Stream frontage – Missouri River		1.8	

Appendix 6. Deroin Bend Conservation Area Background

The Missouri Department of Conservation purchased this area along the Missouri River after the Flood of 1993. The area was acquired to preserve unique wetland and fisheries habitats, and to restore 3.3 miles of the old Missouri River chute, and the 400-acre island. The area is managed through a contractual agreement between the U. S. Corps of Engineers and the Missouri Department of Conservation.

The area is named after a nearby bend in the river that was originally owned by and named after Jeffrey Deroin, a talented Government interpreter of Native American languages born as a slave to a black mother and a French fur trapper, Francis Deroin. He purchased his freedom from his owner, the famous and wealthy Joseph Robidoux, founder of St. Joseph, in 1835. In the 1840s Jeffrey Deroin established and ran a ferry across the river at “Jeffrie’s Point” over to his Native American friends across the river on the reservation. He died in 1854, five years prior to the formal chartering of the town of St. Deroin, Nebraska across the Missouri River. The encroaching white settlers onto reservation lands had hoped that by renaming the trading post from Deroin to St. Deroin, it would link their settlement to St. Joseph and St. Louis, however, the town was completely abandoned by 1920.

This area is managed for a wide variety of game and non-game species of fish and wildlife. Rich bottomland soils produce a wide variety of wetland vegetation and bottomland timber that are supplemented by plantings of warm-season grasses. Management practices include reforestation, prescribed burning, and opportunistic management of wetlands.

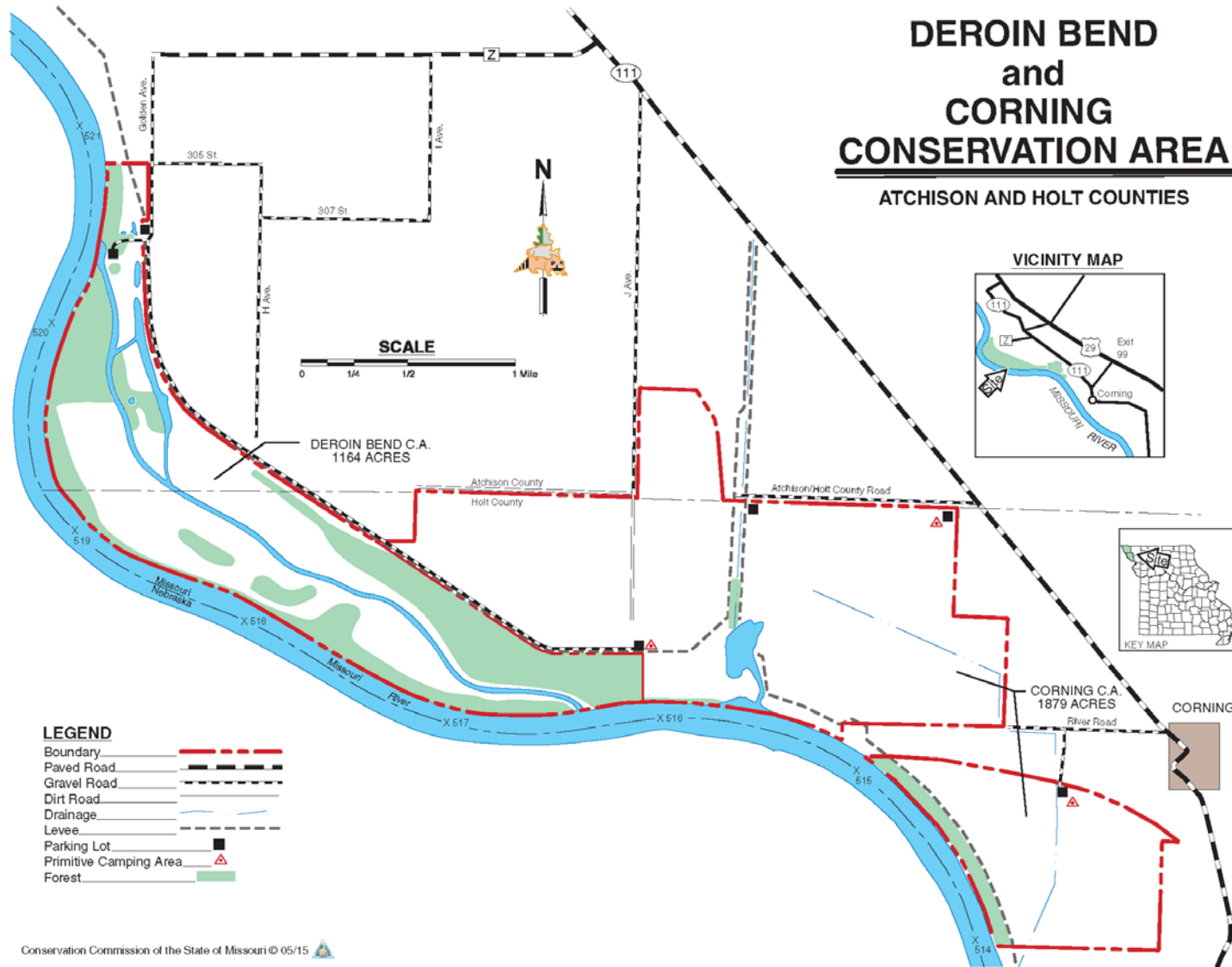
Legal Description: Township 63N, Range 41W, Section 8.

Area Location: This area is located 3 miles northwest of Corning, Missouri.

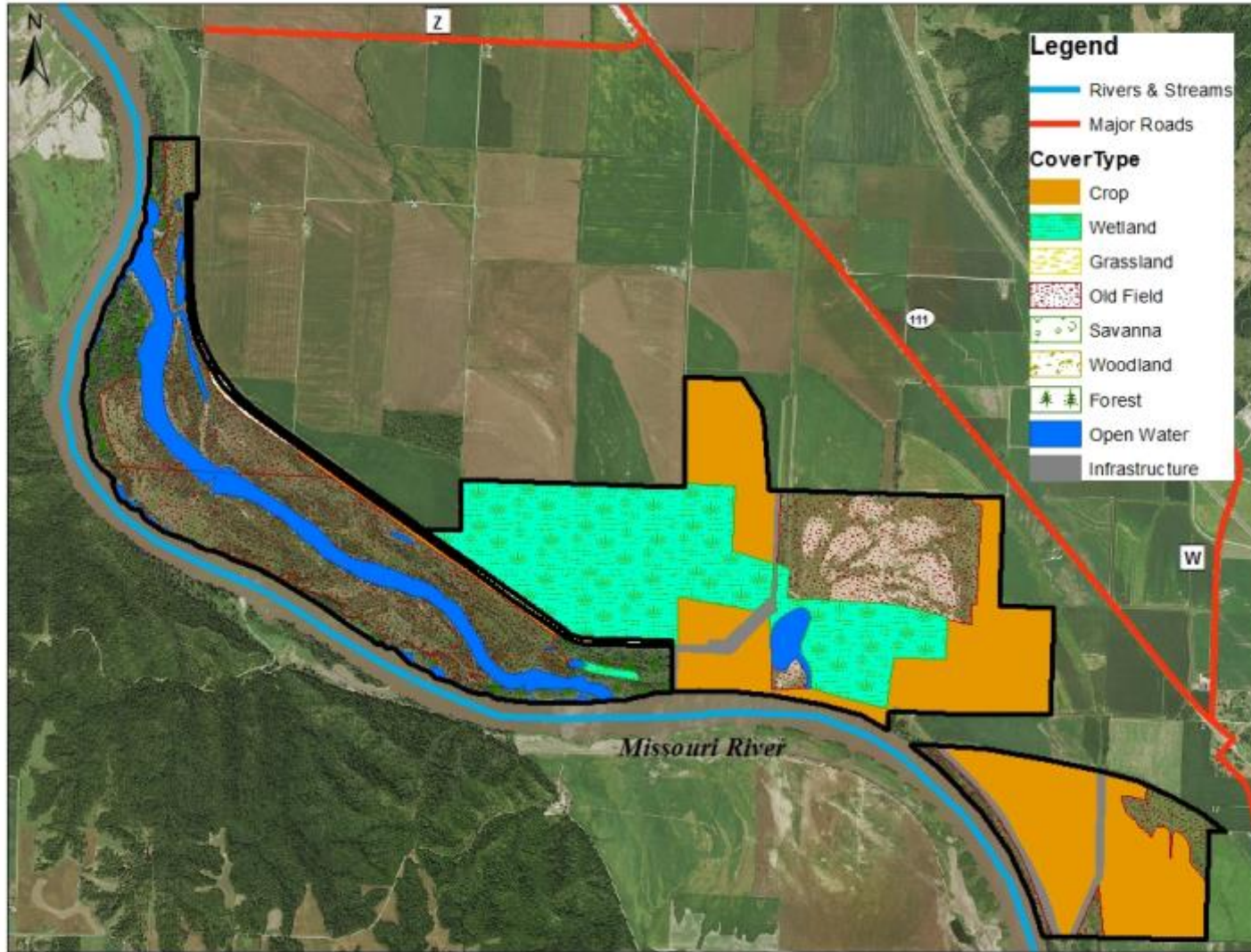
Current Land and Water Types:

Land/Water Type	Acres	Miles	% of Area
Old field	600		51
Forest and woodland	323		28
Grassland (non-prairie)	127		11
Wetland	100		9
Cropland	14		1
Total	1,164		100
Stream frontage – Missouri River		5.0	
Stream frontage – Missouri River Chute		3.4	

Appendix 7. Map of Deroin Bend and Corning Conservation Areas



Appendix 8. Land Cover Map of Derooin Bend and Corning Conservation Areas



Appendix 9. H. F. Thurnau Conservation Area Background

The Missouri Department of Conservation purchased 366 acres in 1965 to preserve unique wetlands and habitats associated with the Missouri River and to provide public lands and recreational opportunities in northwest Missouri. The U.S. Army Corps of Engineers purchased additional acres as part of the Missouri River Mitigation Project. The mitigation project was designed to enhance fish and wildlife habitat along the Missouri River. The area is managed through a contractual agreement between the U. S. Corps of Engineers and the Missouri Department of Conservation.

Early exploration and settlement of this area began with the Lewis and Clark expedition in 1804. Journal entries from that expedition mentioned an abundance of wildlife along the broad marshlands of the heavy bottomland timber near the Missouri River. This area was part of the Platte Purchase, arranged by the U. S. government with Native Americans in 1836.

This area is managed for a wide range of game and non-game wildlife species and is available to the public for a variety of outdoor activities. Management of the open fields includes farming and controlled burning, plus developing wildlife habitat by tree, shrub and grass plantings, wetland management, and selective harvesting of timber.

Legal Description: Township 62N, Range 41W, Section 13.

Area Location: This area is located 4 miles west of Craig, Missouri.

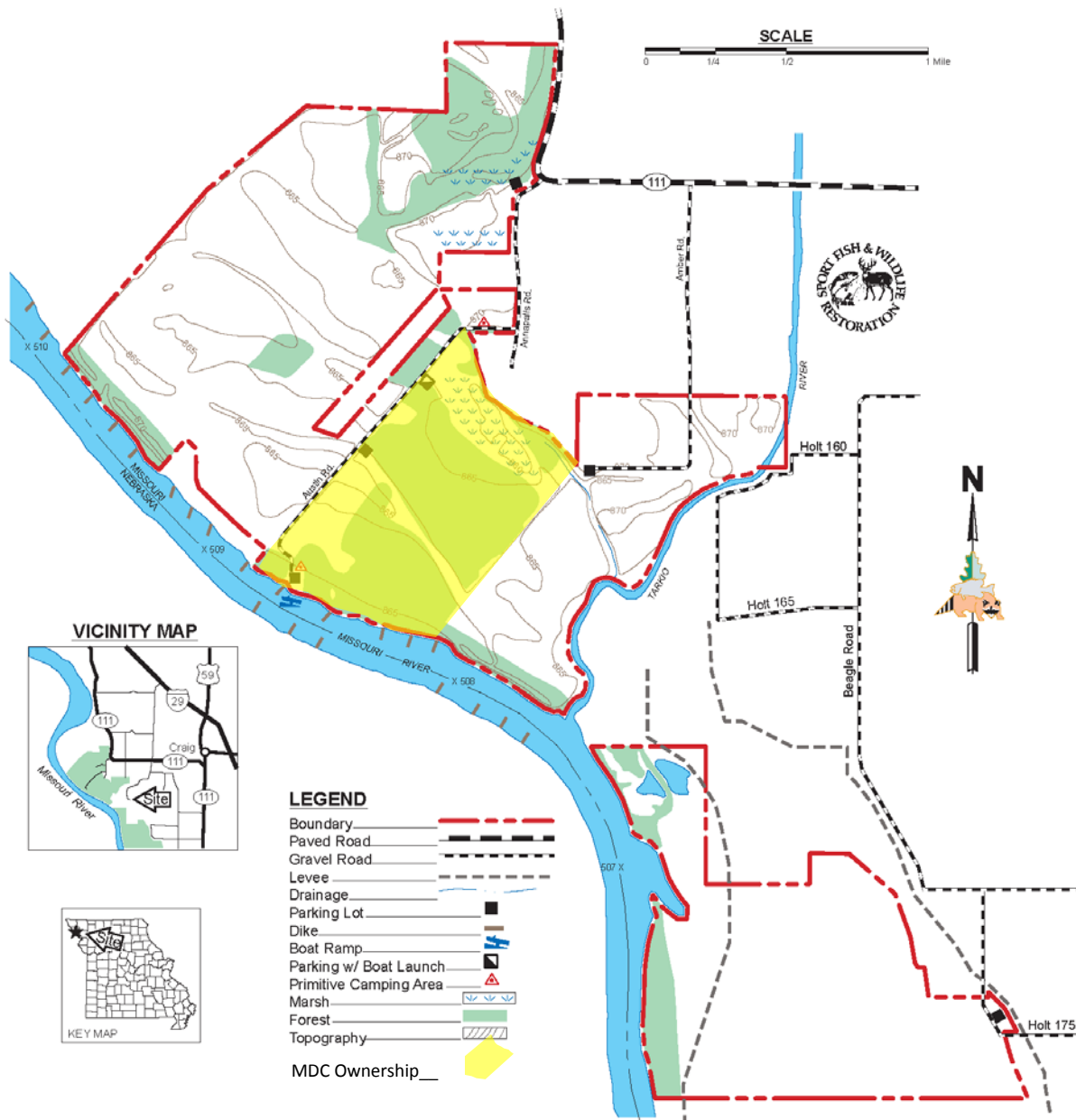
Current Land and Water Types:

Land/Water Type	Acres	Miles	% of Area
Old field	730		30
Forest and woodland	710		29
Cropland	520		22
Grassland (non-prairie)	370		15
Wetland	50		2
Other: roads and parking lots	38		2
Total	2,418		100
Stream frontage – Missouri River		3.3	
Stream frontage – Tarkio River		1.0	

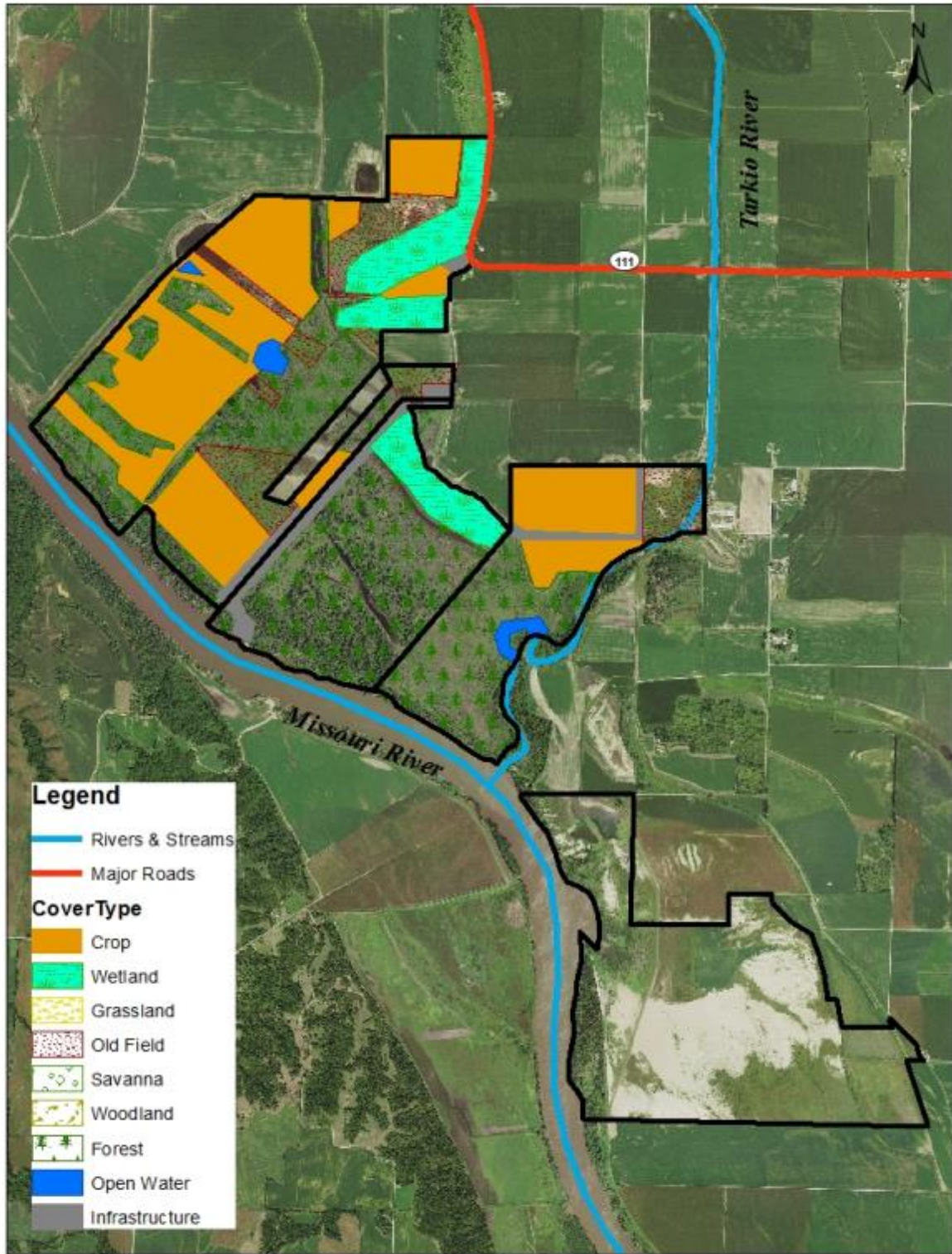
Appendix 10. Map of H. F. Thurnau Conservation Area

H.F. THURNAU CONSERVATION AREA

HOLT COUNTY
2,418 ACRES



Appendix 11. Land Cover Map of H. F. Thurnau Conservation Area



Appendix 12. Lower Hamburg Bend Conservation Area Background

The U. S. Army Corps of Engineers purchased this area as part of the Missouri River Mitigation Project. The mitigation project was designed to enhance fish and wildlife habitat along the Missouri River.

The area is managed through a contractual agreement between the U. S. Corps of Engineers and the Missouri Department of Conservation. This area is managed for a wide variety of game and non-game fish and wildlife species. Rich bottomland soils produce a wide variety of wetland vegetation and bottomland timber, which are supplemented by plantings of warm-season grasses. Management practices include reforestation, prescribed burning, and opportunistic wetland management. Management of this area includes the restoration of 2 miles of an old Missouri River chute, creating a 500-acre island.

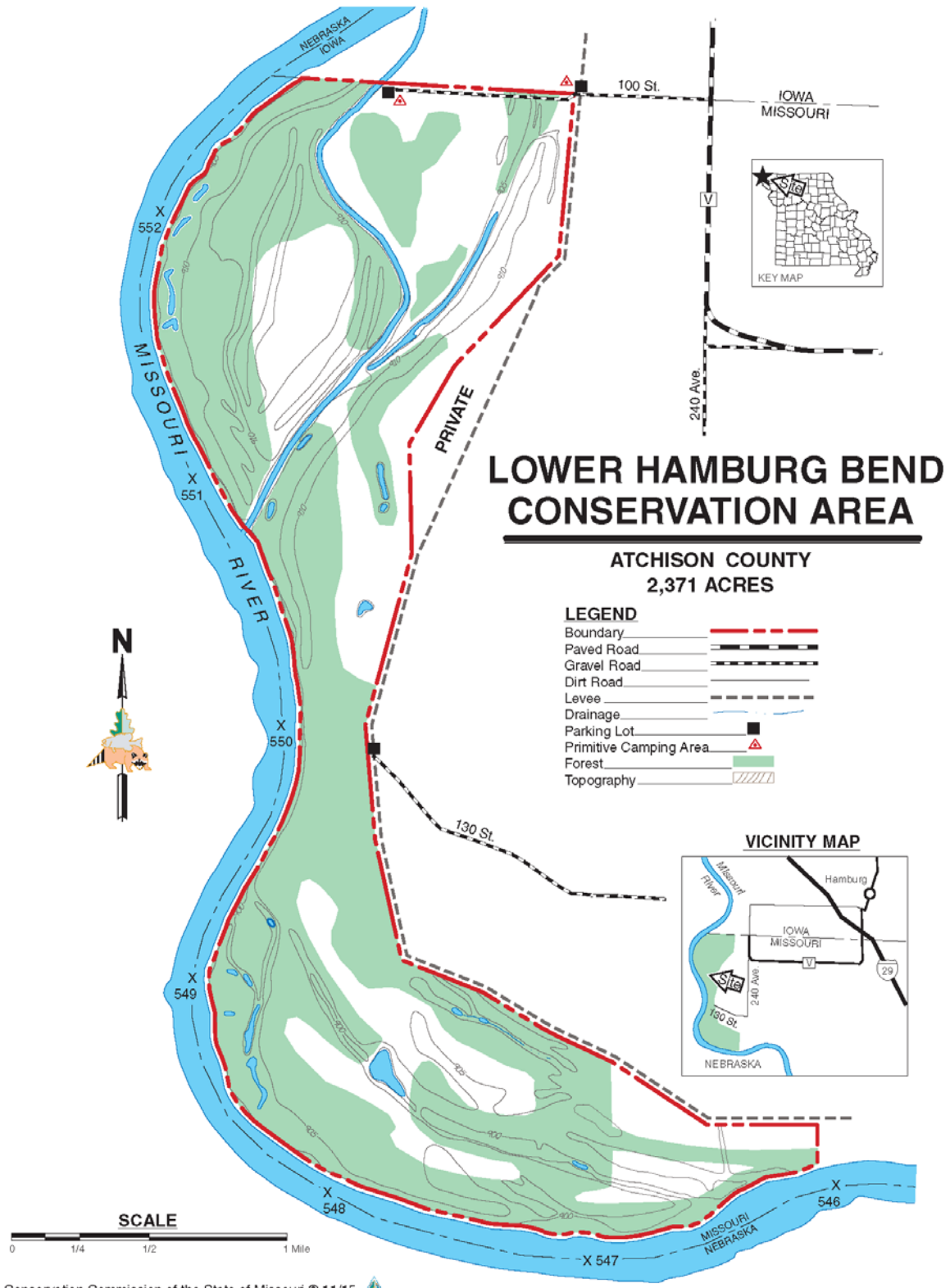
Legal Description: Township 67 N, Range 43 W, Section 34.

Area Location: This area is located approximately 6 miles south and west of Hamburg, Iowa.

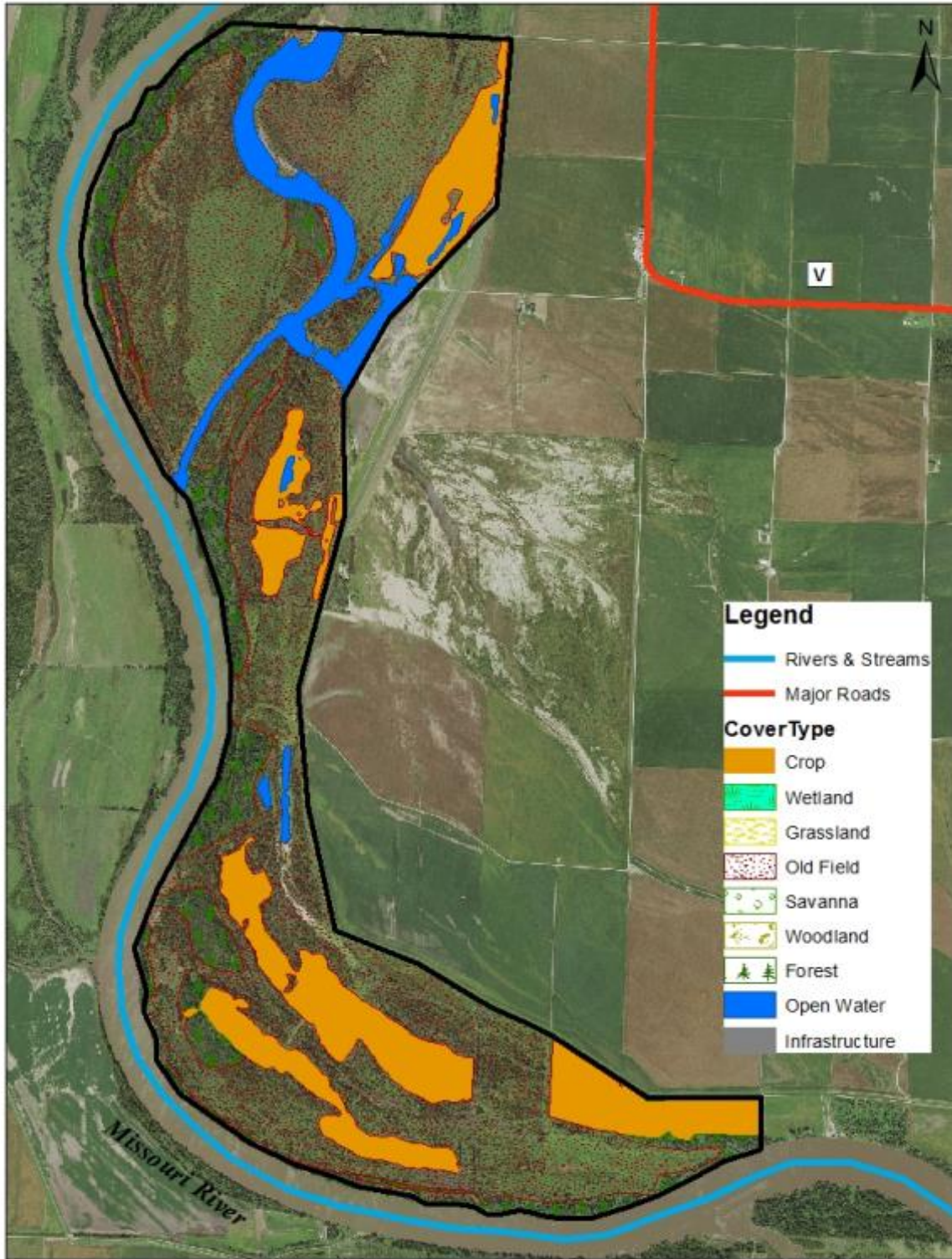
Current Land and Water Types:

Land/Water Type	Acres	Miles	% of Area
Old field	885		37
Forest and woodland	781		33
Cropland	305		13
Wetland	300		13
Other: levees, roads, and parking lots	100		4
Total	2,371		100
Stream frontage – Missouri River		7.0	
Stream frontage – Missouri River Chute		2.0	

Appendix 13. Map of Lower Hamburg Bend Conservation Area



Appendix 14. Land Cover Map of Lower Hamburg Bend Conservation Area



Appendix 15. Nishnabotna Conservation Area Background

The U. S. Army Corps of Engineers purchased this area as part of the Missouri River Mitigation Project. The mitigation project was designed to enhance fish and wildlife habitat along the Missouri River.

The area is managed through a contractual agreement between the Corps of Engineers and the Missouri Department of Conservation. This area is managed for a variety of game and non-game species of fish and wildlife. Rich bottomland soils produce a variety of wetland vegetation and bottomland timber that are supplemented by plantings of row crops and warm-season grasses. Management practices include reforestation, prescribed burning, and opportunistic management of wetlands. There are four small scour holes that contain fish.

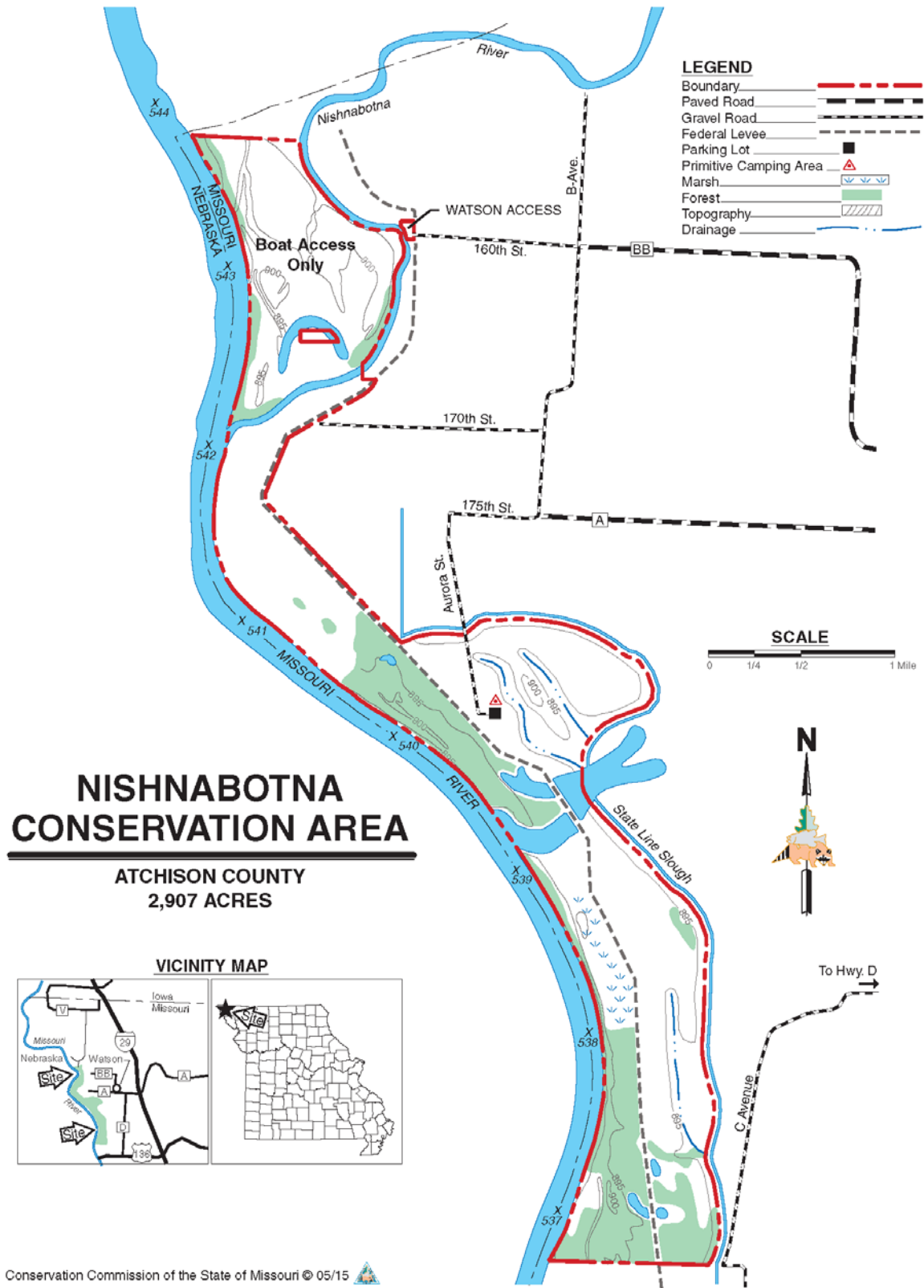
Legal Description: Township 66N, Range 42W, Section 29.

Area Location: This area is located approximately 2.5 miles west of Watson, Missouri.

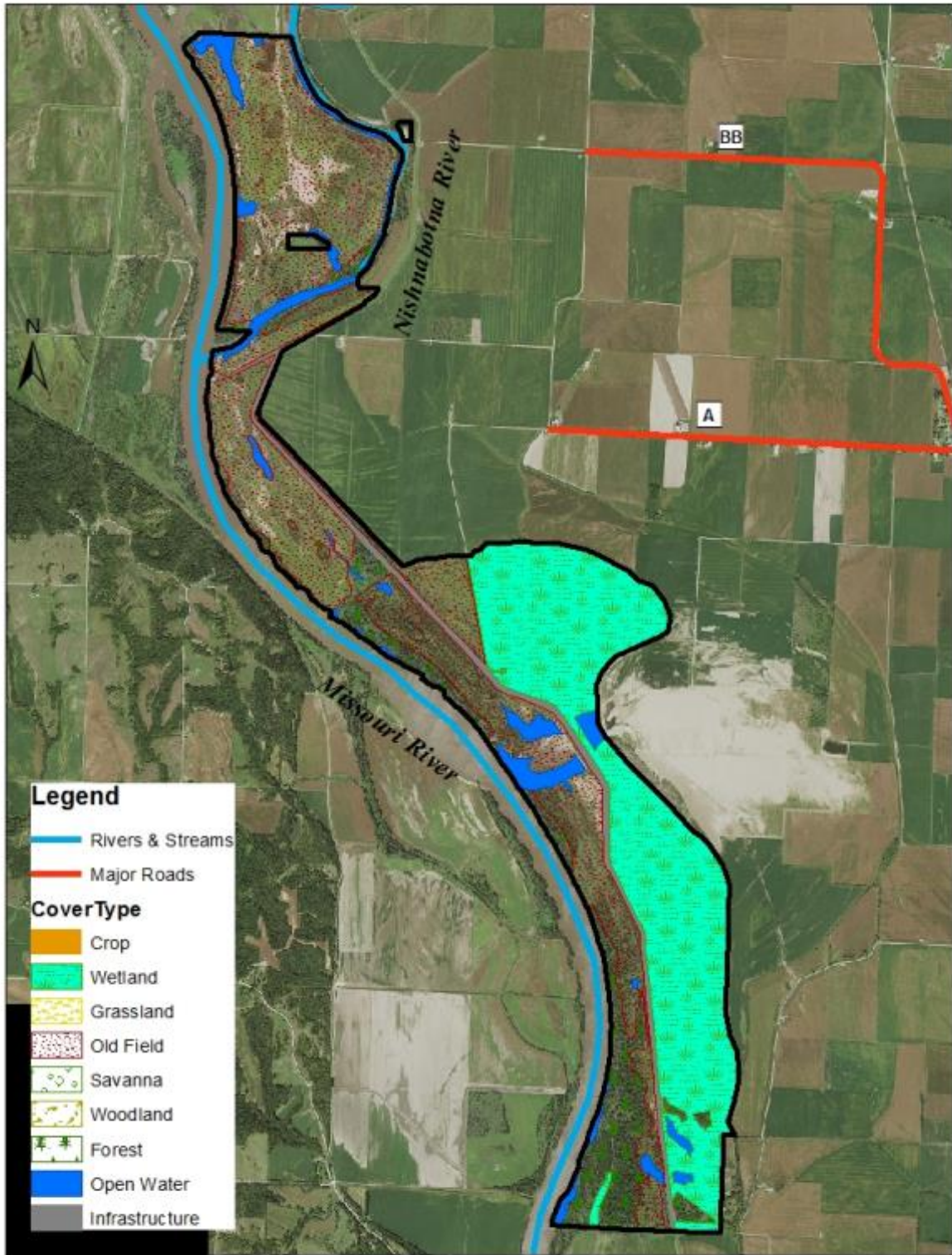
Current Land and Water Types:

Land/Water Type	Acres	Miles	% of Area
Grassland	1,145		39
Old field	878		30
Forest and woodland	535		18
Cropland	300		10
Other: levees, roads, and parking lots	49		2
Total	2,907		100
Stream frontage – Missouri River		7.0	
Stream frontage – Nishnabotna		2.0	

Appendix 16. Map of Nishnabotna Conservation Area



Appendix 17. Land Cover Map of Nishuabotna Conservation Area



Appendix 18. Rush Bottoms Conservation Area Background

The U. S. Army Corps of Engineers purchased this area as part of the Missouri River Mitigation Project. The mitigation project was designed to enhance fish and wildlife habitat along the Missouri River.

The area is managed through a contractual agreement between the U. S. Corps of Engineers and the Missouri Department of Conservation. This area is managed for a wide variety of game and non-game fish and wildlife species. Rich bottomland soils produce a wide variety of wetland vegetation and bottomland timber that are supplemented by plantings of warm-season grasses. Management practices include reforestation, prescribed burning, and opportunistic wetland management. Management of this area includes the restoration of an old Missouri River chute, creating a small island.

Legal Description: Township 61N, Range 40W, Section 10.

Area Location: This area is located 8 miles west of Mound City, Missouri.

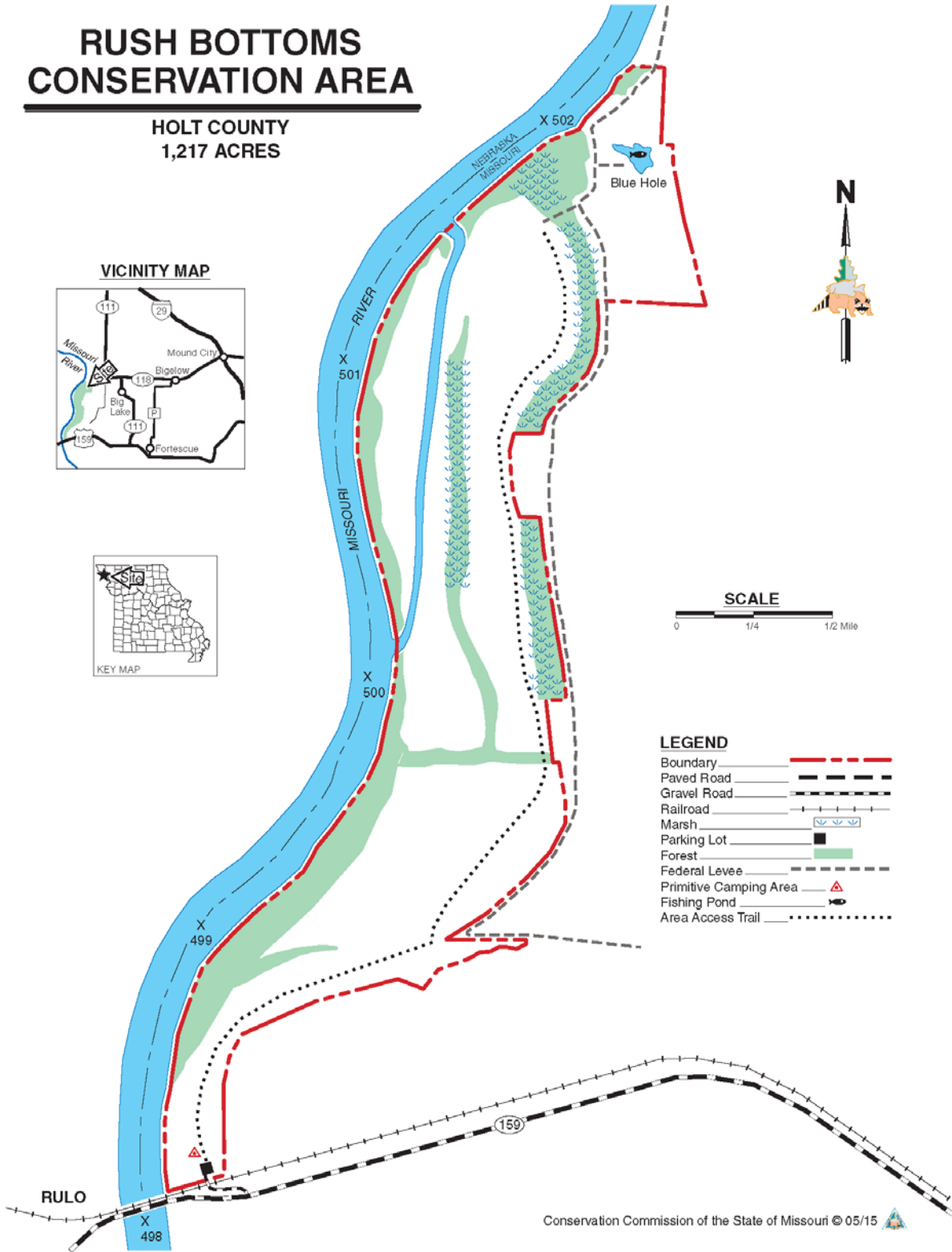
Current Land and Water Types:

Land/Water Type	Acres	Miles	% of Area
Old field	430		35
Cropland	325		27
Forest and woodland	276		23
Grassland (non-prairie)	135		11
Other: levees, road, and parking lot	26		2
Wetland	25		2
Total	1,217		100
Stream frontage – Missouri River		4.3	
Stream frontage – Missouri River Chute		1.5	

Appendix 19. Map of Rush Bottoms Conservation Area

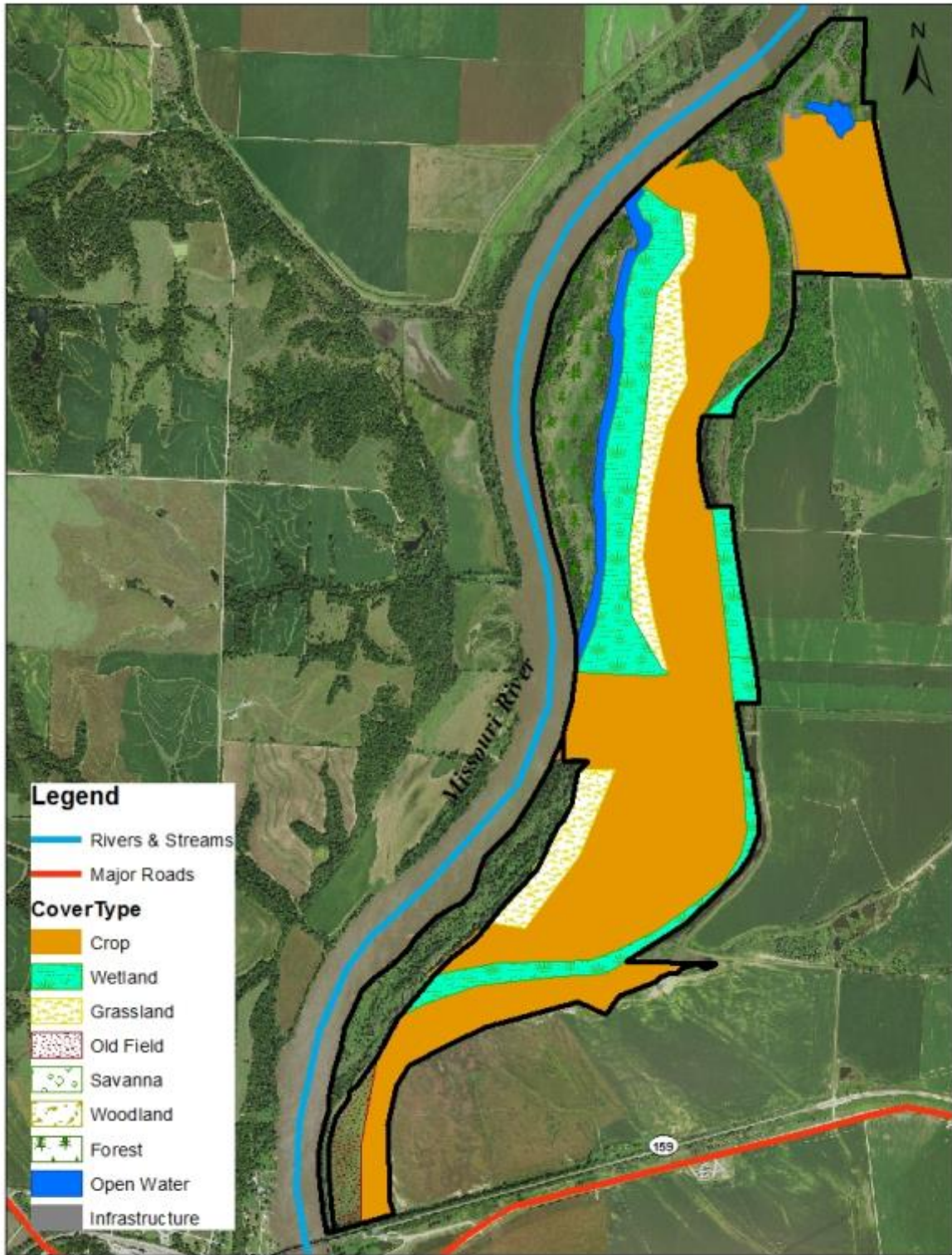
RUSH BOTTOMS CONSERVATION AREA

HOLT COUNTY
1,217 ACRES



- LEGEND**
- Boundary ————
 - Paved Road ————
 - Gravel Road ————
 - Railroad ————
 - Marsh ————
 - Parking Lot ————
 - Forest ————
 - Federal Levee ————
 - Primitive Camping Area ————
 - Fishing Pond ————
 - Area Access Trail ————

Appendix 20. Land Cover Map of Rush Bottoms Conservation Area



Appendix 21. Wolf Creek Bend Conservation Area Background

The U. S. Army Corps of Engineers purchased this area as part of the Missouri River Mitigation Project. The mitigation project was designed to enhance fish and wildlife habitat along the Missouri River.

The area is managed through a contractual agreement between the U. S. Corps of Engineers and the Missouri Department of Conservation. This area is managed for a wide variety of game and non-game fish and wildlife species. Rich bottomland soils produce a wide variety of wetland vegetation and bottomland timber that are supplemented by plantings of warm-season grasses. Management practices include reforestation, prescribed burning, and opportunistic wetland management.

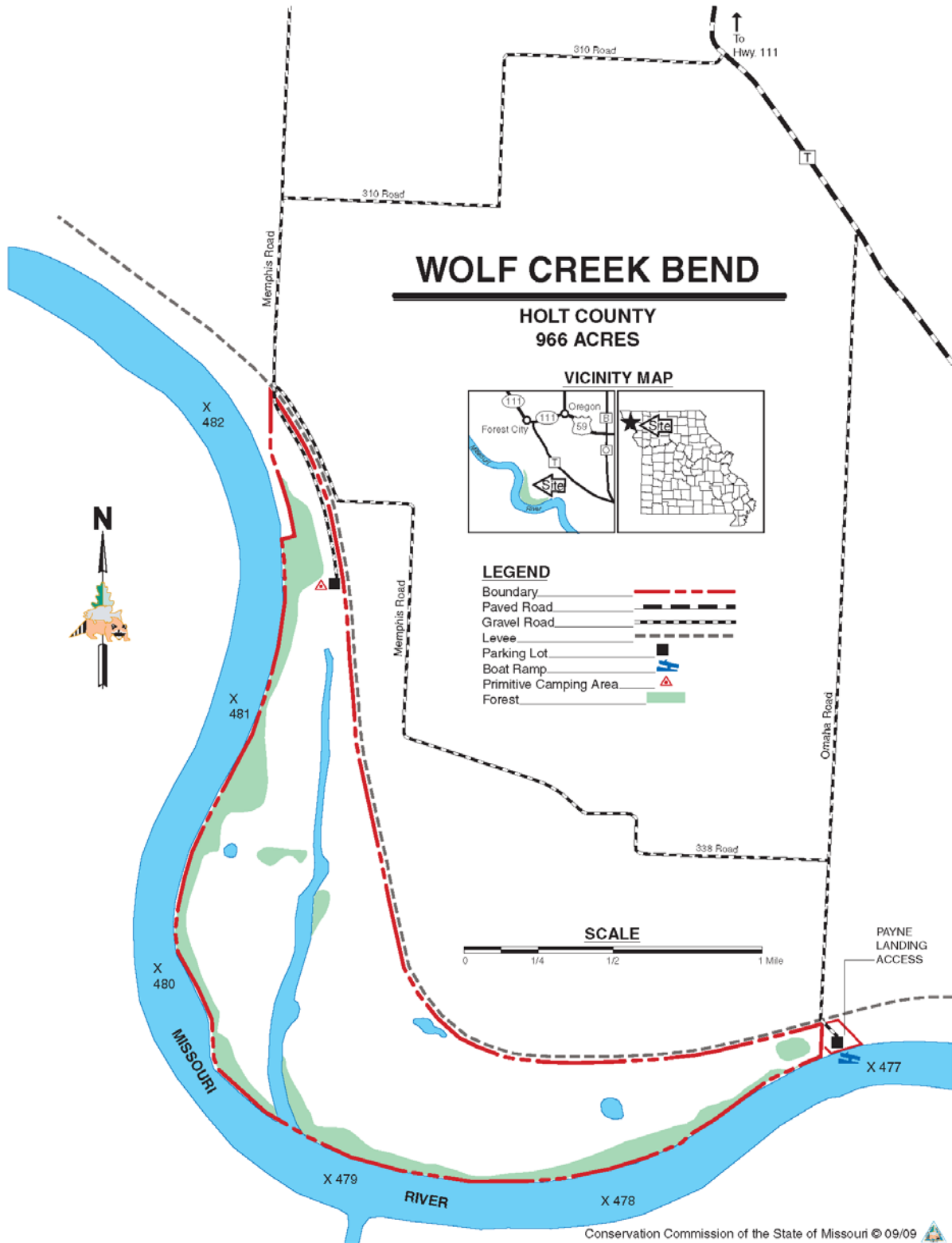
Legal Description: Township 59N, Range 38W, Section 17.

Area Location: This area is located 3 miles south of Forest City, Missouri.

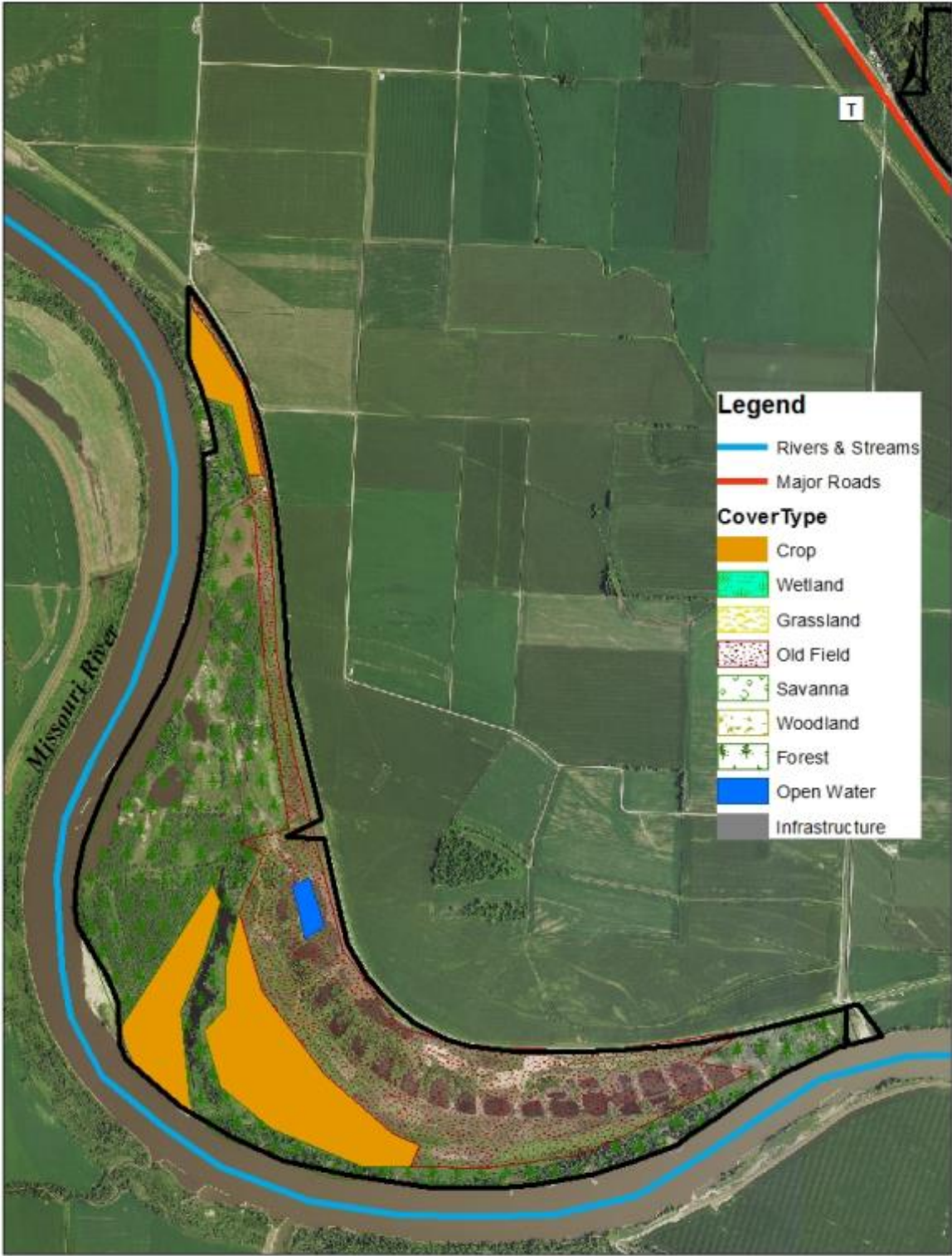
Current Land and Water Types:

Land/Water Type	Acres	Miles	% of Area
Old field	446		46
Forest and woodland	420		43
Grassland (non-prairie)	50		5
Cropland	50		5
Total	966		100
Stream frontage – Missouri River		4.5	

Appendix 22. Map of Wolf Creek Bend Conservation Area



Appendix 23. Land Cover Map of Wolf Creek Bend Conservation Area



Appendix 24. Worthwine Island Conservation Area Background

Worthwine Island Conservation Area is in Andrew County, southwest of Amazonia. The Missouri Department of Conservation purchased 28 acres along the Missouri River in 1989. Additional purchases have brought the area to its present 584 acres. The property was acquired in order to preserve unique wetlands and habitats associated with the Missouri River and to provide public lands and recreational opportunities in northwest Missouri. The area was an island before the U.S. Corps of Engineers channelized the Missouri River.

Early exploration and settlement of this area began with the Lewis and Clark Expedition in 1804. Journal entries from that expedition mentioned an abundance of wildlife along the broad marshlands of the heavy bottomland timber near the Missouri River. This area was part of the Platte Purchase, arranged by the U.S. government with the Indians in 1836.

In 2007, one of the main chutes on the area was restored by the U.S. Corps of Engineers. The chute restoration recreated the island portion of the area and off-channel aquatic habitat nearly absent in the river's current conditions.

This area is managed for a wide range of game and non-game wildlife species and is available to the public for a variety of outdoor activities. Management of the area consists of restoring bottomland hardwoods through tree planting, allowing natural re-vegetation, and developing wetland habitat.

Legal Description: Township 58N, Range 36W, Section 10.

Area Location: This area is located 3 miles southwest of Amazonia, Missouri.

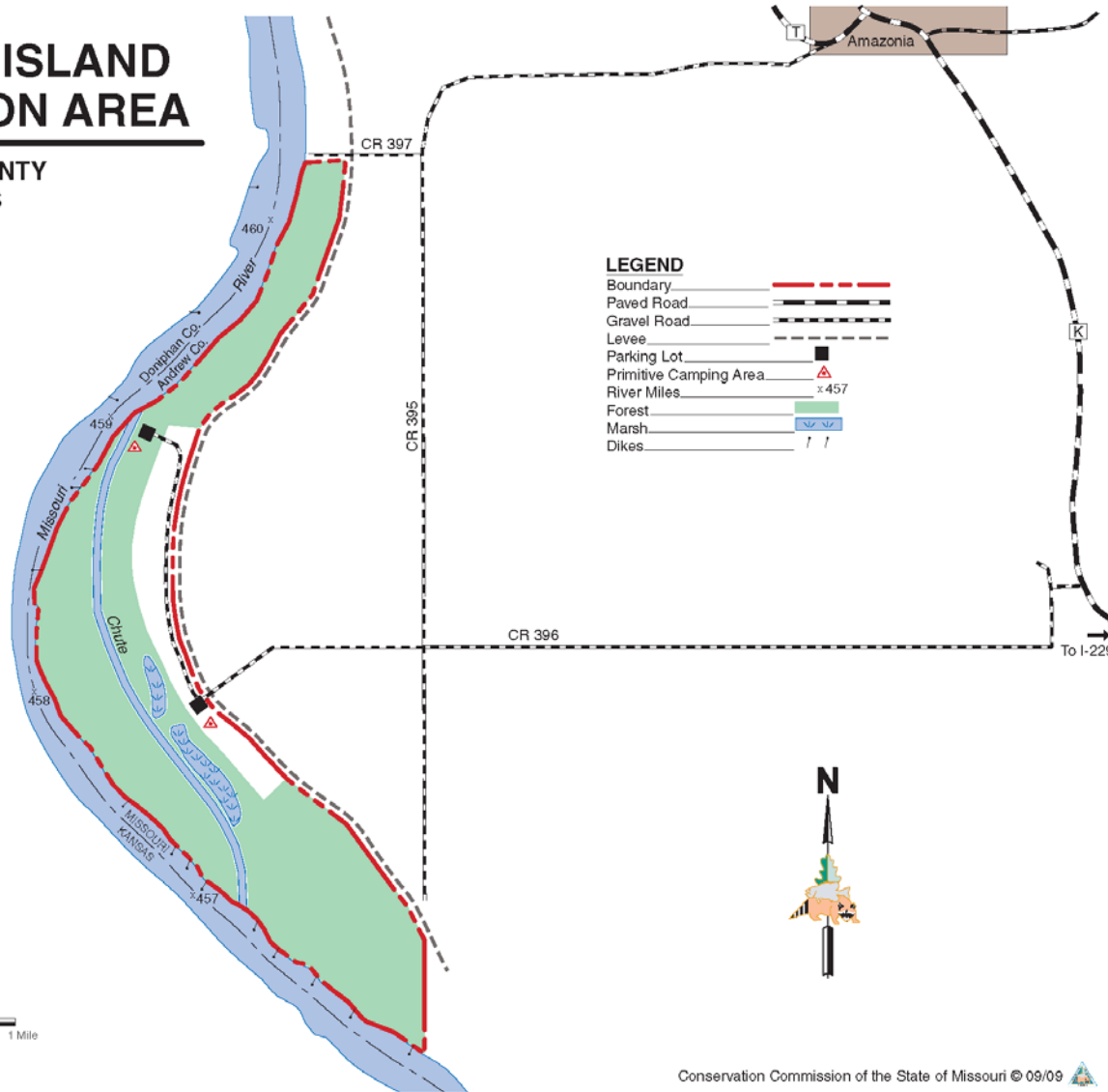
Current Land and Water Types:

Land/Water Type	Acres	Miles	% of Area
Forest and woodland	340		58
Old field	200		34
Wetland	30		5
Other: roads and parking lots	9		2
Cropland	5		1
Total	584		100
Stream frontage – Missouri River		4	

Appendix 25. Map of Worthwine Island Conservation Area

WORTHWINE ISLAND CONSERVATION AREA

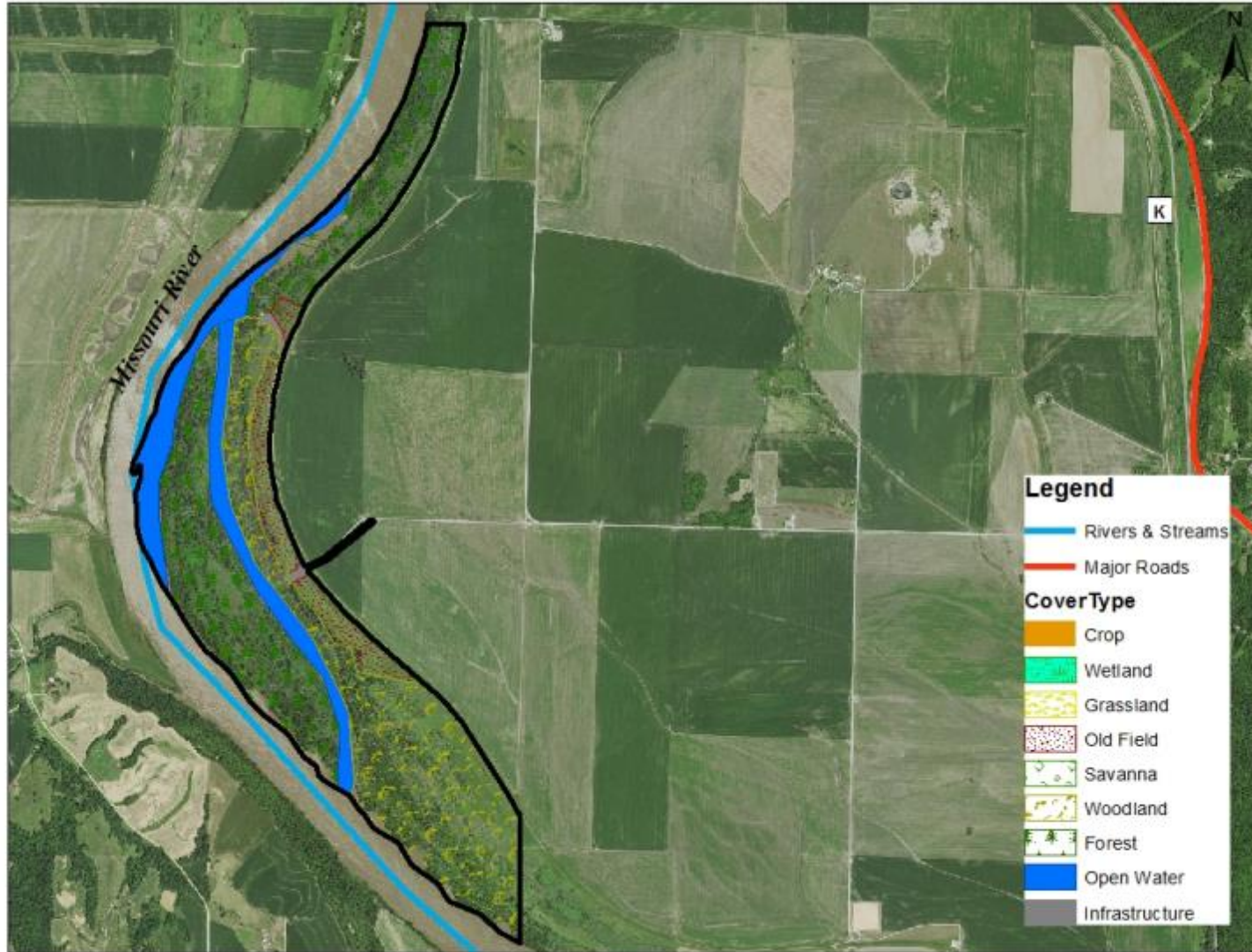
ANDREW COUNTY
584 ACRES



LEGEND

Boundary	—
Paved Road	— — — —
Gravel Road	- - - -
Levee	- - - -
Parking Lot	■
Primitive Camping Area	▲
River Miles	x457
Forest	■
Marsh	■
Dikes	

Appendix 26. Land Cover Map of Worthwine Island Conservation Area



Appendix A. Northwest Region Missouri River Lands Conservation Areas Management Plan Public Comments

Received during public comment period (May 1–31, 2017):

lime the fields healthy land equals healthy plants this greatly slows down the lead shot fired 100 years ago

Make the fishing hole at Rush Bottoms more accessible. To much weeds and brush to walk to fish. A path or two would be nice. Thanks

Thank you for the opportunity to comment on your management plan. I have participated in recreational activities including boating, fishing, hunting, hiking, and camping on various properties under this management plan every year for the last 12 years. During that time I have witnessed a lot of change in these properties from new land acquisition to extreme flooding to Epizootic hemorrhagic disease (EHD). In the past couple years I purchased 10 acres of MO riverfront land between the Lower Hamburg area and the Nishnabotna area. I spend considerable time in these areas every year.

That being said I appreciate how difficult management of these areas can be. Balancing out the diverse ecosystems must be an interesting challenge especially when you add in the unpredictability in mother nature (e.g. flooding, EHD). I'll provide my observations over the past 12 years and hope they provide you some insight and help you improve these properties.

First, let me comment on access. I think the additional land acquisitions that have occurred since I started using these areas has in general been a good thing. More land means more opportunity and in some cases more access. I hope you continue to seek out new lands to acquire and expand these opportunities. I especially appreciate the areas that have limited access (i.e. boat in only) as they provide a unique opportunity for individuals who want to work a little bit harder in order to escape the crowds that are usually associated with areas that you can easily drive to with big parking lots. I hope you continue to manage these and more areas with boat-in only access and provide these unique experiences.

Secondly, I'll comment on the habitat. With the acquisitions of more areas I've noticed a dramatic decrease in the number and type of wildlife associated with these areas. I spent a lot of time on the edges of private/public boundaries. While these properties were privately held they tended to have more crops planted that were essential to wildlife health and growth. Even some of the properties like upper Nishnabotna and Lower Hamburg in years past had crops planted in certain areas on the public lands. In the last few years those crops have been missing and it is having a negative effect on the quality and quantity of the wildlife in the area. There has been a significant drop in deer population, although I know much of that was due to the EHD outbreak a few years back. Still, I know some of it is tied to the lack of good high energy food sources mentioned in your management plan. You clearly see the deer have rebounded much better on

the nearby private lands than on the public lands. I've seen the most dramatic impact on turkey and pheasant populations. I think this is partly due to the lack of plantings of food sources necessary for pheasant, but also know that the flooding over recent years has really hurt their reproduction. Which brings me to my third point.

Constant flooding of the river bottoms is having an adverse effect. You can really see it in the number of trees that are dying from being flooded. But, in addition to the previously mentioned effect on pheasant and turkey hatches, I believe it is a key reason fields that previously had been planted are now being left to fill in with sand and overgrowth that has little or no nutritional value for upland birds, turkey, and deer. Additionally, every year when the bottoms are flooded wildlife are forced to vacate the public lands for higher ground which is almost exclusively privately held. In addition to putting extra burden on private land owners and their crops, it takes a long time for the wildlife to migrate back after the flooding and it seems each time less make it back.

I think the two biggest challenges you should tackle are the flooding and food sources. I'd recommend working closely with the Corp to try and reduce the amount of flooding and to work with area farmers in cooperative planting on the public portions of the river bottoms in field areas that have historically been planted. As I see the old fields growing up rapidly you have a small window of opportunity to re-capture many of those areas before they become so overgrown and it becomes cost prohibitive to clear and plant again (I think you've already reached that point in some areas). A perfect example of this is the Nishnabotna area south of the Nishnabotna River and north of the parking lot between the levee and river. That area had been a very productive area with crops, but now the saplings have taken over with many of them standing over head high. I've seen this occur on Lower Hamburg and the Nishnabotna area north of the Nishnabotna river already. I know once it happens wildlife rarely use those areas and they become wasted land.

Thanks again for providing the opportunity to voice my opinions. Hopefully this information will assist as you develop your 10 year plan. Feel free to contact me if you want to discuss my inputs further. I'm even happy to go to some of the properties and show you what I'm talking about.

It would be nice to open the gate at the H.F. Thurnau area and allow fishermen access to the pond located beyond the gated area. This could also have a few cleared areas so we could fish from the bank. It is always good to have a launch ramp for a small boat and make it a electric motor only area. Very few of the conservation areas have camping actually on the lake or river. No one wants to camp two miles from where they are fishing and not have a nice view of the lake or river. One of the worst examples is the camping area for Bilby Lake. The conservation department built a beautiful camping area for Bilby lake with nice lawn areas, picnic tables, a bathroom and fire rings. The problem is that some person who has never camped in their life

built it on a busy highway. Who wants to camp and hear trucks and cars driving by all night?

There is plenty of room around the lake to provide great camping without being right on the lake but with views and quiet. No one uses these camping areas at Bilby Lake and are a waste of time and money. We don't mind primitive camping but we do like to have a view of the reason we are camping in the first place. Thurnau has the same camping problem, too far from anything and nothing to see. I have camped at Hoot Owl and all you have to do is walk over a slight berm and you have access to great fishing on the Missouri River. The problem is that even though there is a restroom there, there are no other items to make it a welcoming place such as picnic tables, fire rings, and a cleared tent area. The Langdon bend area has a great launch ramp to the Missouri River, but no cleared tent area or picnic tables or fire rings. This would be a nice place to camp if there were clear camping areas. You have one area that is set up almost perfectly for fishing and camping and that is the Brickyard Hill area. Even though the camping areas once again have no view of the lake, and there are only a very few camping areas, at least all of the facilities are there and I camp there off and on all summer. This is what we are looking for.