

Bob Brown Conservation Area

25-Five-Year Area Management Plan FY 2019-2043



Joel W. Porath

Wildlife Division Chief

4/2/2019

Date

Bob Brown Conservation Area Management Plan Approval Page

PLANNING TEAM

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OVERVIEW

- **Official Area Name:** Bob Brown Conservation Area, #8142
- **Year of Initial Acquisition:** 1981
- **Acreage:** 3,307 acres
- **County:** Holt
- **Region:** Northwest
- **Division with Administrative Responsibility:** Wildlife
- **Division with Maintenance Responsibility:** Wildlife
- **Statements of Purpose:**
 - A. Strategic Direction**

Protect, restore, and manage fish, forest, and wildlife habitats, particularly wetlands and their associated plants and animals, emphasizing biodiversity and ecosystem integrity, while providing high quality public use opportunities for hunting, fishing, and wildlife viewing.
 - B. Desired Future Condition**

The desired future condition of the Bob Brown Conservation Area (CA) is a complex of intensively managed wetlands, riverfront forest, old fields, and interspersed open fields that will provide diverse habitats for a suite of game and non-game species.
 - C. Federal Aid Statement**

Bob Brown CA, 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.

GENERAL INFORMATION AND CONDITIONS

- I. Special Considerations**
 - A. Priority Areas:** Missouri River Stream Reach Conservation Opportunity Area, Squaw Creek Wetland Conservation Opportunity Area
 - 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

III. Existing Infrastructure

- Headquarters: Office/ Draw Room/Shop Building
- Two privies (both are Americans with Disabilities Act [ADA] accessible)
- Six wetland pools with associated water-control structures, levees, and roads
- One river pump station
- One permanent viewing/duck hunting blind (ADA accessible)
- Eleven gravel parking lots (three are ADA accessible and include a concrete pad)
- Kent D. Smith Memorial boardwalk (0.2 miles, concluding at the viewing/duck hunting blind, ADA accessible)
- One designated-improved camping area

IV. Area Restrictions or Limitations

- A. Deed Restrictions or Ownership Considerations:** None
- B. Federal Interest:** Uses 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.
- C. Easements:** Cannon Drainage District of Holt County has an easement for flood protection levees and drainage of neighboring lands to the Missouri River. Exide Technologies Inc. has a pipeline easement on the area.
- D. Cultural Resources Findings:** None
- E. 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.
- F. Boundary Issues:** None

MANAGEMENT CONSIDERATIONS

V. Terrestrial Resource Management Considerations

Manage floodplain and associated habitats and restore additional habitat that supports a diversity of game and non-game species for the benefit of public use, where possible.

Challenges and Opportunities:

- 1) High-quality waterfowl habitat and adequate waterfowl refuge is needed to support abundant waterfowl populations during spring and fall migrations.

- 2) Wetland pools and their adjacent natural communities provide a large wetland complex and habitat for a broad suite of wetland-dependent species throughout the year.
- 3) The area contains some of the best examples of wetlands occurring in the Lower Missouri River basin. Alterations, such as Missouri River Channelization and Bank Stabilization, Missouri River Flood Control and Navigation Reservoir System, intensive federal and private levee systems, and grassland/wetland/bottomland forest conversion to open land, have affected flood frequency, depth, duration, and base flows, making wetland management more challenging.
- 4) Invasive plant species, particularly purple loosestrife, sesbania, reed canary grass, and Johnson grass, are present on the area. Invasive fish species, including bighead carp, common carp, grass carp, and silver carp are present on the area.

Management Objective 1: Manage wetland pools primarily as moist-soil units. Manage open land to provide a high-energy food source, particularly for fall migrating waterfowl.

Strategy 1: Manage pools using a variety of moist-soil management techniques, including, but not limited to, mowing, spraying, and disking. Manage water in spring and fall to promote annual plants that are shallowly flooded and to provide interspersed open-water areas. (Wildlife)

Strategy 2: Plant small and large grain crops, not to exceed 40 percent of the area's total wetland acres. (Wildlife)

Strategy 3: Continue to provide high-quality inviolate refuge to support large numbers of waterfowl. Refuge pools serve as resting and foraging areas to help waterfowl build fat reserves and improve body condition. (Wildlife)

Strategy 4: Manage water on portions of the pools in late summer/fall and spring to provide areas of shallowly flooded habitat, interspersed with mudflats to serve as forage and loafing areas for dabbling ducks, wading birds, and shorebirds. (Wildlife)

Management Objective 2: Manage portions of the wetland pools to promote diverse wetland communities, including moist-soil interspersed with open water, emergent marsh, and shrub swamp to provide habitat for a broad range of wetland-dependent species.

Strategy 1: Manage water in spring, summer, and fall to promote moist-soil, emergent marsh, and shrub swamp habitat for a broad range of wetland species in suitable pools. (Wildlife)

Management Objective 3: Improve floodplain function and wetland resiliency.

Strategy 1: As aging or failing infrastructures are replaced and as funding permits, use the latest wetland renovation technologies, for instance light detection and ranging (LiDAR), soils data, and a stream-floodplain “systems” approach (also known as hydrogeomorphic approach-based evaluation). Conduct renovations in accordance with the *Wetland Planning Initiative* (MDC, 2015). (Wildlife)

Management Objective 4: Manage for a healthy and sustainable mixture of woodland and forest communities on the area.

Strategy 1: Utilize best management practices, including maintaining adequate riparian buffers, to reduce soil erosion, and increase water quality and plant diversity. (Wildlife)

Strategy 2: Monitor woodlands and forests for invasive exotic vegetation, diseases, and insect pests. Treat undesirable vegetation and pests to control spread, as warranted utilizing a variety of techniques, including but not limited to prescribed fire, chemical, and mechanical treatments. (Wildlife, Forestry)

Strategy 3: Implement silvicultural forestry practices such as tree planting, forest stand improvement, or salvage timber harvest, as needed (Wildlife, Forestry)

Management Objective 5: Control invasive species.

Strategy 1: Monitor invasive plant species. Spot-treat, broadcast, or aerial spray invasive species, including, but not limited to, purple loosestrife, sesbania, reed canary grass, and Johnson grass. Natural communities, wetlands, and restored grasslands are prioritized for treatments. (Wildlife)

VI. Aquatic Resource Management Considerations

Challenges and Opportunities:

- 1) Landscape-scale alterations in the Missouri River Basin have changed the hydrology and habitat conditions instream and across the floodplain, threatening water quality, streambank stability, and biodiversity on the area.

Management Objective 1: Manage the area’s streams and adjacent floodplain for a diversity of aquatic species, consistent with other management objectives.

Strategy 1: Maintain water in borrow areas in portions of moist soil management pools and emergent marsh/shrub pools until midsummer of each year, to benefit fish spawning and nurseries, when consistent with other wetland management objectives. (Wildlife, Fisheries)

Strategy 2: As old infrastructure is replaced, design new infrastructure to minimize seasonal mortality of native fish species in developed wetlands. (Wildlife, Fisheries, Design and Development)

Strategy 3: Continue to manage riparian areas for streambank stability to promote quality instream habitats for fish and other aquatic organisms, in accordance with MDC stream management guidelines (MDC, 2009). (Wildlife, Fisheries)

VII. Public Use Management Considerations

Challenges and Opportunities:

- 1) The waterfowl hunting program on Bob Brown CA provides excellent opportunities on a large scale, while balancing hunter preferences for a range of hunting styles.
- 2) Upland game hunting is scarce on private lands in the northwest corner of the state due to intensive agriculture and lack of habitat.
- 3) Access to the Missouri River for public bank-fishing is limited in northwest Missouri.
- 4) Build positive relationships with stakeholders (such as neighboring landowners and adjacent duck clubs) by providing timely assistance if/when public use issues develop.
- 5) Improve educational opportunities.

Management Objective 1: Provide a range of waterfowl hunting opportunities to meet the needs and preferences of waterfowl hunters.

Strategy 1: Support the continuation of a managed hunt program for the managed waterfowl hunting pools. (Wildlife)

Strategy 2: Determine the appropriate number of hunting positions allocated daily by considering draw pool configurations and arrangements, Waterfowl Hunt Program guidelines (approximately 40 acres per party), and hunter expectations for a quality hunting experience. (Wildlife)

Strategy 3: Provide at least one ADA-accessible waterfowl hunting blind, when conditions allow. (Wildlife)

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

Strategy 1: Maintain the current Agriculture Crop program to provide quality high-energy food sources for pheasant, quail, rabbits, dove, and other upland game. (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: Provide stream-based recreational opportunities.

Strategy 1: Maintain through routine mowing bank-fishing access trails/footpaths to the Missouri River for bank-fishing throughout the year. (Wildlife)

Management Objective 4: Foster positive relationships with neighboring landowners.

Strategy 1: Work with neighbors and nearby duck clubs to prevent or resolve any boundary or trespass issues. (Wildlife, Protection)

Management Objective 5: Improve educational and interpretive opportunities.

Strategy 1: Make available taxidermy mounts of water birds in the draw room as specimens and funding permits. (Wildlife)

Strategy 2: Maintain signage in accordance with MDC policy. (Wildlife)

Strategy 3: Update maps and information on the MDC Atlas database to inform the public of area opportunities. (Wildlife)

Strategy 4: Maintain boardwalk and viewing blind in a manner that is inviting to the public. (Wildlife)

Strategy 5: Communicate the area's educational programs to teachers and other youth leaders, as opportunities arise. (Outreach and Education)

VIII. Administrative Considerations

Challenges and Opportunities:

- 1) Maintain and clearly demarcate area boundary lines.
- 2) Evaluate land offered as additions to the area, particularly adjoining tracts.

Management Objective 1: Maintain and clearly identify area boundaries.

Strategy 1: Submit a boundary survey request for boundary segments, if disputes arise. (Wildlife)

Strategy 2: Maintain clearly demarcated area boundary lines on an as-needed basis.

Lands Proposed for Acquisition:

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

MANAGEMENT TIMETABLE

All strategies for this plan are considered ongoing.

APPENDICES

Area Background:

This area which was named for the late Robert A. Brown, a St. Joseph conservationist. The area consists of 3,307 acres of bottomland and is bounded by the Missouri River for 3 miles.

The rich bottomland soils support mixed lowland hardwood forest, and also are planted with cool- and warm-season grasses and agricultural crops. A major portion of the land is restored Missouri River wetlands, which provide habitat for migrating waterfowl as well as resident species. The area is primarily managed to provide wetland habitat. The area's proximity to Loess Bluff National Wildlife Refuge (5 miles) provides excellent opportunities to observe bald eagles, shorebirds, and migratory waterfowl.

Bob Brown CA is a widely recognized waterfowl hunting and wildlife viewing destination. The area provides opportunity for well over 2,500 hunter-use-days and 2.5 million waterfowl use days. The area also attracts numerous birders, fishers, deer hunters, pheasant hunters, small game hunters, and dove hunters.

This area has been designated by Audubon Missouri as an Important Bird Area. Important Bird Areas are sites that have been identified by Audubon as those that are the most crucial for bird populations, due to their abundance and/or diversity of birds present. Peak times for viewing waterfowl occur in mid-November and mid-March. Pedestrians will find good wildlife viewing from the levee roads and trails. Mid-March to early April usually offers an excellent opportunity to view waterfowl in their breeding plumage. From late April through May, the boardwalk to the accessible blind is an excellent area to look for songbirds while the road between Ringneck Roost and Sandpiper Flats (which is closed shortly before and during waterfowl seasons) provides a chance to view shorebirds, wading birds, and marsh birds, such as black-crowned night herons, great egrets, greater yellowlegs, yellow-headed blackbirds, and soras.

Current Land and Water Types:

Land/Water Type	Acres	% of Area	Miles
Wetland	1,302	39	
Open Land	850	26	
Old Field	800	24	
Forest and Woodland	200	6	
Grassland (non-prairie)	130	4	
Infrastructure (roads, parking lots)	22	1	
Lake/Ponds	3	<1	
Total	3,307	100	
Permanent Stream Frontage – Missouri River			3.0

Public Input Summary:

The draft Bob Brown Conservation Area Management Plan was available for a public comment period August 1–31, 2018. MDC received comments from two respondents (Appendix A). The Bob Brown 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.

MDC responses to themes and issues identified through the Bob Brown Conservation Area Management Plan public comment period.

Terrestrial Resource Management

Suggests improving and expanding refuge areas.

The MDC evaluates offers to purchase land as they become available. Adjoining land is usually more desirable than tracts not adjacent to an existing conservation area. When land adjacent to Bob Brown is for sale, expanding the area will be considered. If area expansion occurs, we will consider expanding the size of the refuge as well.

Supports management of the area for wildlife (particularly for waterfowl and a diversity of species).

Thank you for supporting our efforts to improve wildlife habitat on the area.

Public Use Management

Appreciates that MDC provides this area for public hunting opportunities.

Hunting, fishing, nature viewing, and many other recreational activities are available to the public on our conservation areas. We appreciate your support of these opportunities.

Administrative Considerations

Ducks Unlimited group offers to volunteer help and to donate waterfowl mounts.

MDC is very willing to partner with volunteer groups to assist with various activities that occur on conservation areas. Additional waterfowl mounts would make a nice addition to the draw room. Please contact area staff to coordinate volunteer activities and to investigate the potential acceptance of donated items.

References:

Missouri Department of Conservation. (2009). *Watershed and stream management guidelines for lands and waters managed by Missouri Department of Conservation*. Jefferson City, MO: Missouri Department of Conservation.

Missouri Department of Conservation. (2015). *Wetland planning initiative: Strategic guidance document*. Jefferson City, MO: Missouri Department of Conservation.

Nelson, P. W. (2010). *The terrestrial natural communities of Missouri*. Jefferson City, MO: Missouri Department of Conservation.

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

Maps:

Figure 1: Area Map

Figure 2: Aerial Photograph

Figure 3: Land Cover Map

Figure 4: Easement Map

Additional Appendices:

Appendix A: Bob Brown Conservation Area Management Plan Public Comments

Figure 1: Area Map

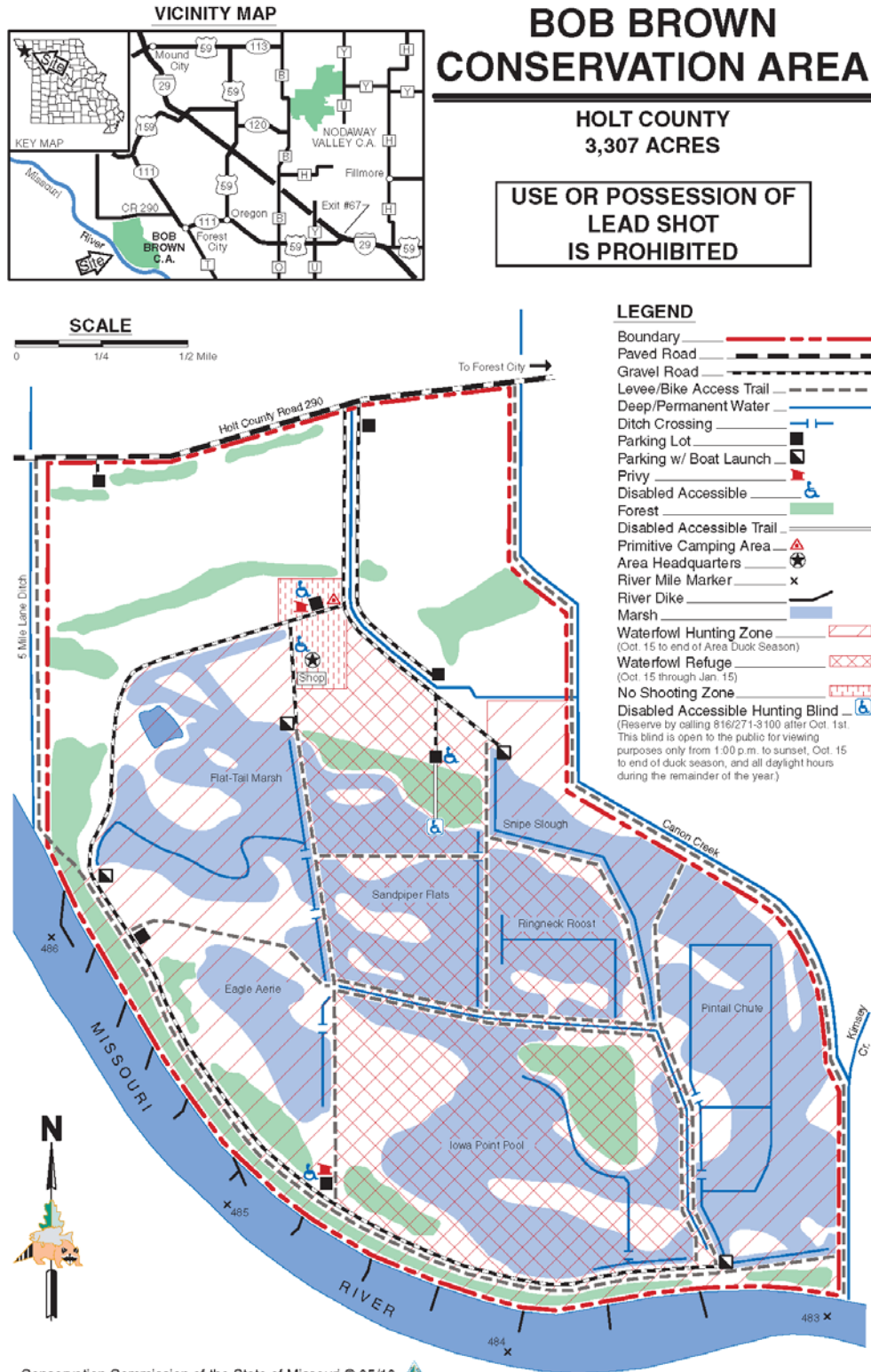


Figure 2: Aerial Map

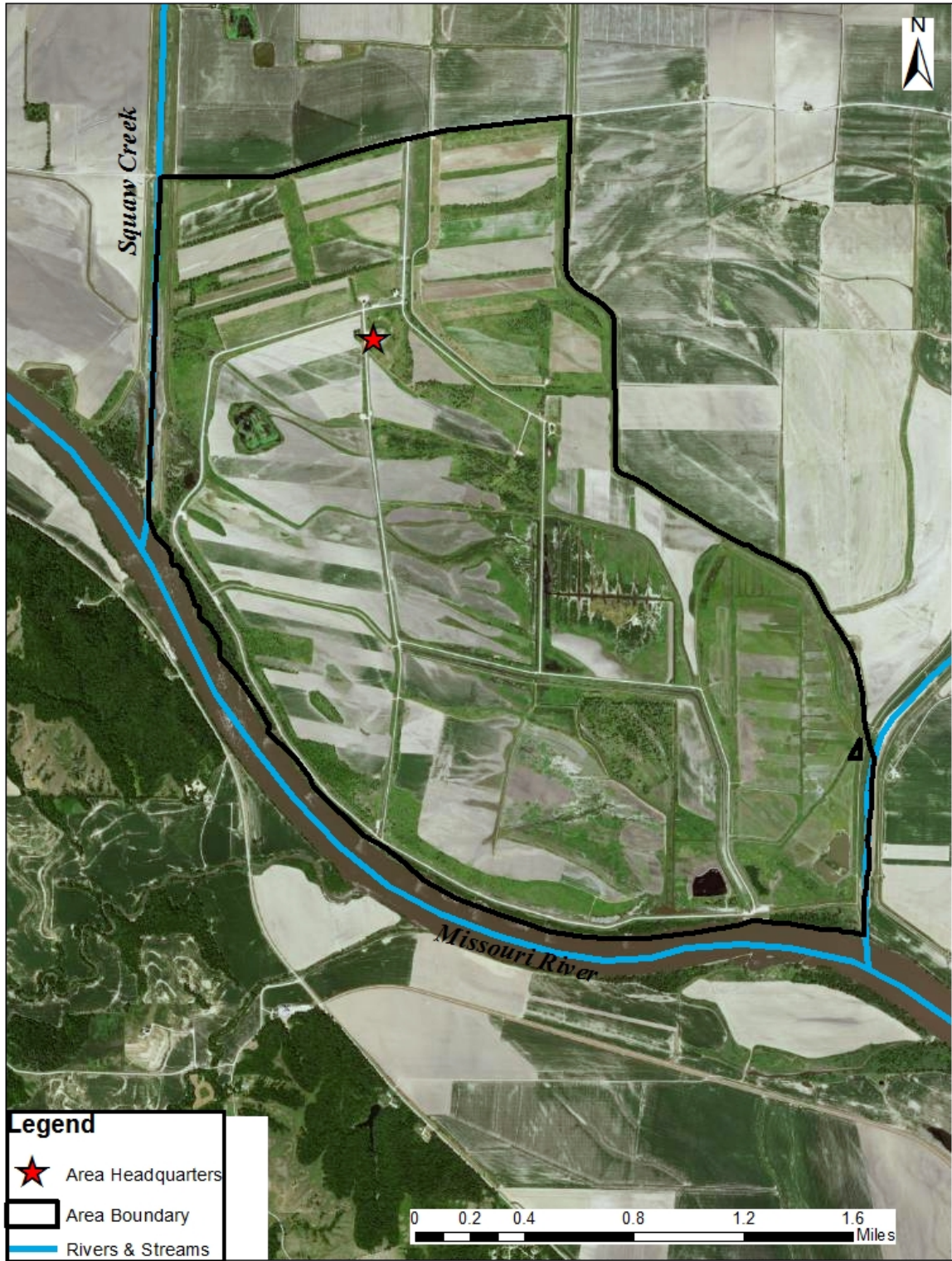


Figure 3: Land Cover Map

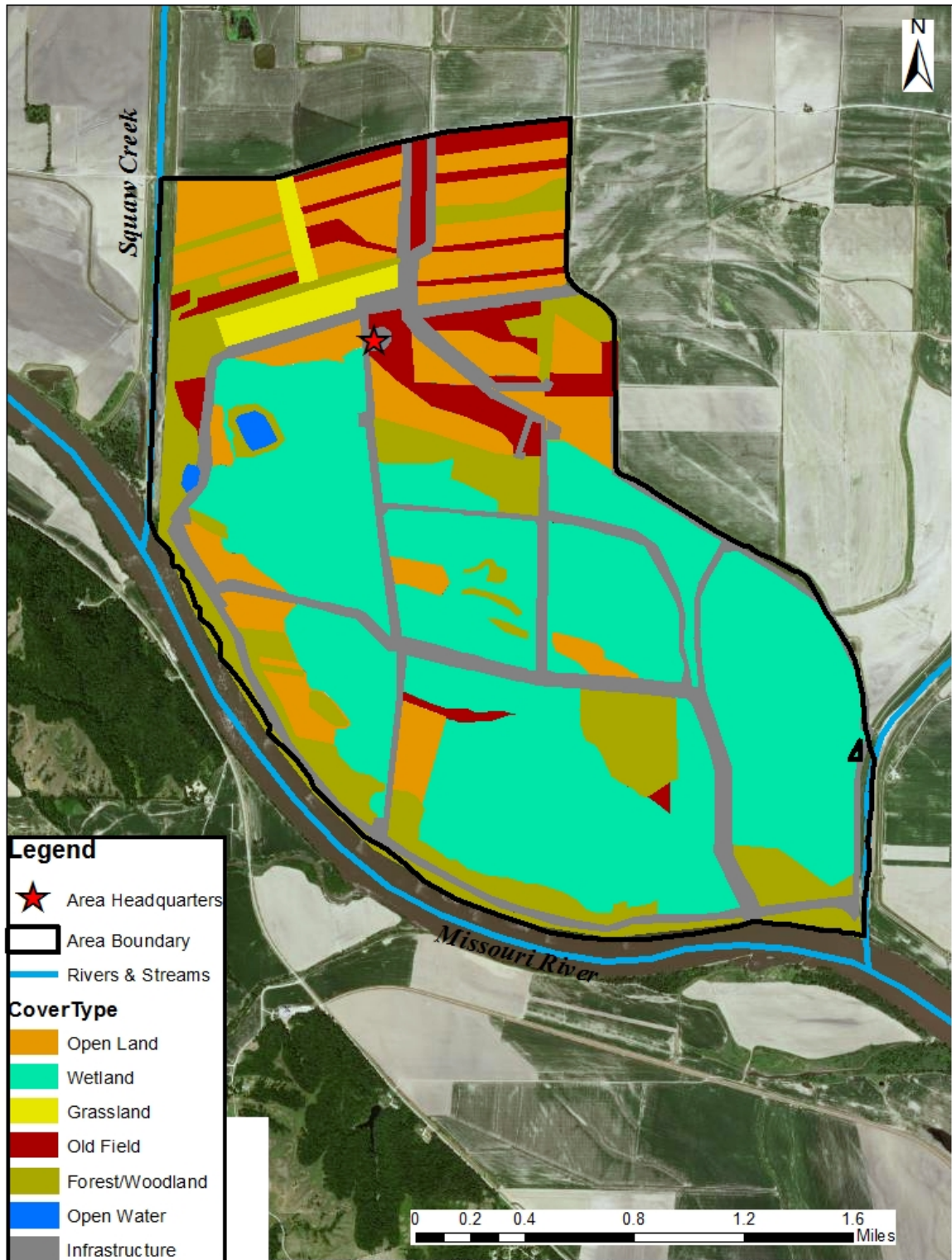
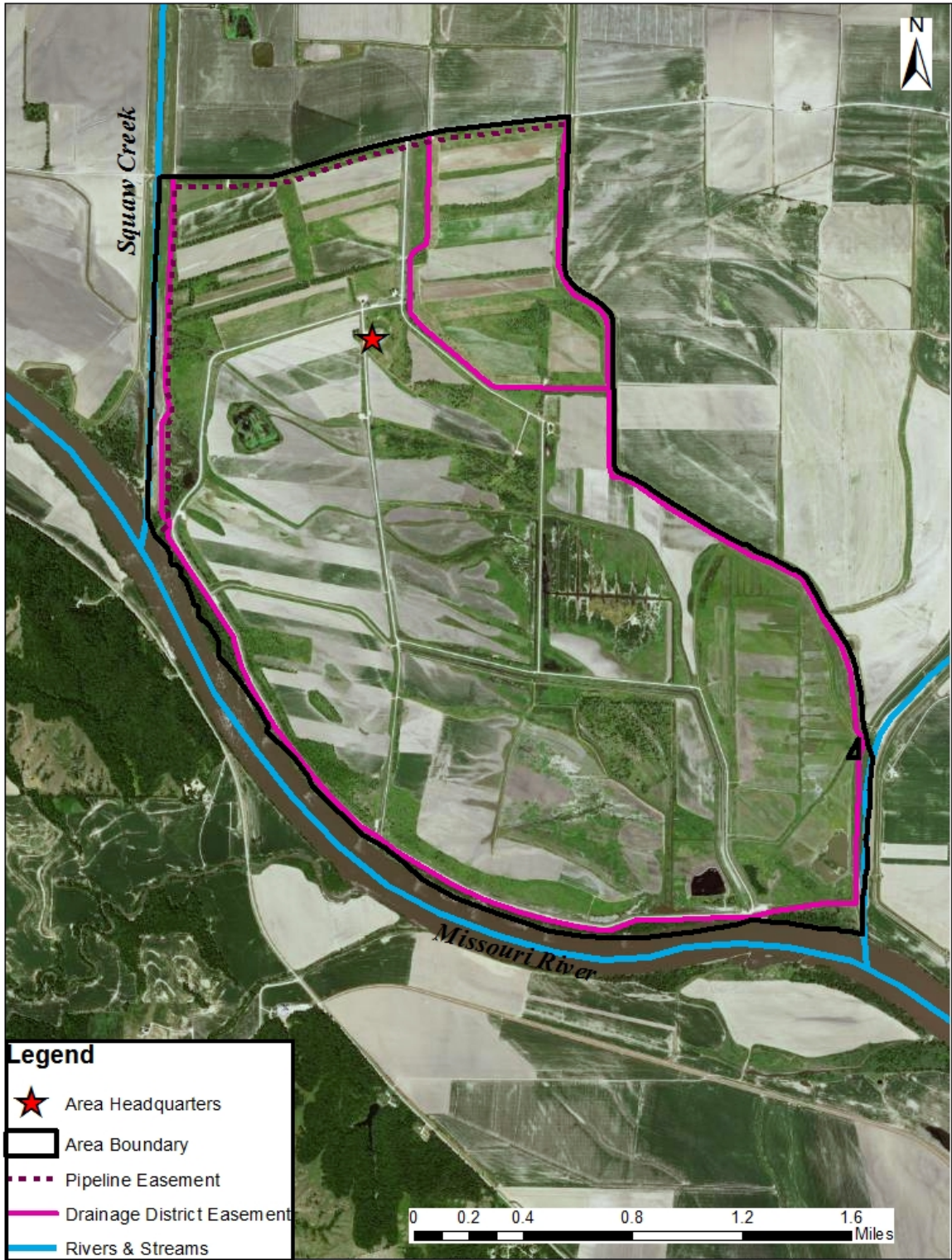


Figure 4: Easement Map



Appendix A: Bob Brown Conservation Area Management Plan Public Comments

Received during public comment period (August 1–31, 2018):

I do not personally hunt at Brown or Nodaway but I think they are great areas for hunters who do not have access to private ground. I also think improving and expanding the refuge areas are very important. Our DU chapter would love to help if there is any opportunities for volunteer work (sowing seed, clean up, labor for constructing the ADA blind etc.). We also would be happy to donate a waterfowl mount or two, for the headquarters at either area. Thanks for all you do to help our feathered friends.

This is so awesome!!! Our state and national wetlands have really suffered incredibly over the past 100+ years - and so have the diverse species that once called them home. This plan is great. MDC: Keep up the great work! Habitat restoration is not easy, but it's critical to biodiversity and amazing natural areas. You guys rock!