Nodaway Valley Conservation Area

25-Year Area Management Plan
FY 2019-2043

Joel W. Porath	4/29/2019
Wildlife Division Chief	**Date**

Nodaway Valley Conservation Area Plan Approval Page

PLANNING TEAM

Craig Crisler, Wildlife Management Biologist

Tory Mason, Fisheries Management Biologist

Steve Buback, Natural History Biologist

Lonnie Messbarger, Resource Forester

Jim Pierson, Private Land Conservationist

Jade Wright, Conservation Agent

Anthony Maupin, Conservation Agent

Tim Miller, Outdoor Skills Specialist

NORTHWEST REGION

RCT Chair	Scott Ryan	4/18/2019
	Signature	*Date*

WILDLIFE DIVISION

Wildlife Management Chief	Michael D. Schroer	4/23/2019
	Signature	*Date*

OVERVIEW

- **Official Area Name:** Nodaway Valley Conservation Area, # 9134
- **Year of Initial Acquisition:** 1991
- **Acreage:** 3,881 acres
- **County:** Andrew, 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 Nodaway Valley Conservation Area (CA) is a complex of intensively managed wetlands, bottomland and upland prairie, 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**
    - Nodaway Valley 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.
    - Nodaway Valley CA, or a portion thereof, was developed with North American Wetlands Conservation Act (NAWCA) funds to conserve and restore wetland habitats.

GENERAL INFORMATION AND CONDITIONS

I. Special Considerations

A. Priority Areas: Nodaway River Wetlands 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 Building, Shop, Storage Building
- Four privy locations (all are Americans with Disabilities Act [ADA] accessible)
- Fourteen wetland pools (with associated water-control structures, levees, and roads)
- Two river pump stations and two groundwater wells
- Five permanent duck blinds (one is ADA-accessible)
- Twenty-five parking lots (four with ADA-accessible pads)
- Mike Keller Memorial viewing platform (ADA-accessible)
- One camping area (in southwest corner, with individual sites and five fire rings)
- Four individual camping sites (with no amenities)

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.
- This land must be used to conserve and restore wetlands. The federal funds made available under NAWCA may not be used for fish and wildlife mitigation purposes under the Fish and Wildlife Coordination Act or the Water Resources Development Act of 1986. 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: Holt County Levee District 5 (Nodaway River flood protection levee and drainage of neighboring lands to Nodaway River).

D. Cultural Resources Findings: Yes, records kept with Missouri Department of Conservation (MDC) environmental compliance coordinators. Managers should follow best management practices for cultural resources found in the MDC Resource Policy Manual.

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 upland 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 Nodaway River basin. Alterations, such as stream channelization, grassland conversion to open land, terrace and drain tile construction, and watershed pond construction have affected flood frequency, depth, duration, and base flows, making wetland management more challenging.
4) Invasive species, particularly sericea lespedeza, Reed canary grass, and Johnson grass 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 native 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 33 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 will 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 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 small 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 Strategic Guidance Document* (MDC, 2015). (Wildlife)

Management Objective 4: Manage for 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 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 species. Spot-treat, broadcast, or aerial spray invasive species, including but not limited to sericea lespedeza, reed canary grass, and Johnson grass. Natural communities, wetlands, woodlands/forests, and restored grasslands are prioritized for treatments. (Wildlife)

VI. Aquatic Resource Management Considerations

Challenges and Opportunities:

1) Landscape-scale alterations in the Nodaway 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 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, which will help promote quality in-stream habitats for fish and other aquatic organisms, in accordance with MDC's stream management guidelines (MDC, 2009). (Wildlife, Fisheries)

Management Objective 2: Minimize impacts from wetland pumping to instream aquatic resources while balancing the needs of floodplain habitat and associated wetland resources.

Strategy 1: Limit river pumping activities, as needed, during periods of low flow on the Nodaway River, per the recommendations of a stream flow study completed in 2003. (Wildlife, Fisheries, Resource Science)

Strategy 2: Replace current river pumps with variable-flow pumps to provide flexibility in pumping volume, as funding permits. (Wildlife, Design and Development)

VII. Public Use Management Considerations

Challenges and Opportunities:

1) The waterfowl hunting program on Nodaway Valley CA provides excellent opportunity 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) River access for public fishing is limited to three locations. Impounded water fishing resources include one small pond, which can be stocked by Fisheries Division on an as-needed basis for fishing events (kids fishing clinics, Discover Nature Fishing events, etc.).
4) Build positive relationships with stakeholders (such as neighboring landowners and adjacent duck clubs) by providing timely assistance when/if public use issues develop.

5) The area's size, habitat diversity, and proximity to highly populated areas provide educational and interpretive 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 the managed hunt program for the managed waterfowl hunting pools (draw pools) under the current system. (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 by hunter expectations for a quality hunting experience. (Wildlife)

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

Strategy 4: Manage portions of the eastside wetland pools as "open hunting" to provide waterfowl hunting opportunity through a self-registration process. (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, dove, rabbits, 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 vehicle access to the Nodaway River for bank-fishing throughout the year on the east side and seasonally on the west side of the conservation area. (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: Communicate the area's educational programs to teachers and other youth leaders, as opportunities arise. (Outreach and Education)
Strategy 5: Maintain views from the overlook parking areas clear of trees for wildlife viewing opportunities. (Wildlife)
Strategy 6: Maintain viewing platform in a manner that is inviting to the public. (Wildlife)

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:
The MDC purchased the area in 1991 to restore a small portion of wetlands that once flourished along the Nodaway River floodplain. A 4-mile stretch of the Nodaway River flows through the middle of the area and provides habitat for both migratory and resident wildlife species.

A major wetland development project on the Nodaway Valley CA was completed in 2002. The project enabled the restoration of more than 2,000 acres of shallow wetland habitat and more than 400 acres of prairie and bottomland hardwood forest in the Nodaway River floodplain. The development project was made possible by the contributions of a diverse group of partners, including The North American Wetlands Conservation Act, Ducks Unlimited, Inc., Holt County Levee District #5, The National Wild Turkey Federation, Wildlife Forever, The Missouri Prairie Foundation, Boy Scouts of America Troop 81 (of Oregon, Missouri), Northwest Missouri Quail Unlimited, Northland Pheasants Forever, Ideker Inc., and MDC.

The area is managed primarily to provide wetland habitat for a wide range of game and non-game wildlife. Management practices on the area include farming, controlled burning, planting of various trees, shrubs and grasses; and pumping and releasing water in the wetland pools.

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 are mid-November and mid-March. In 2012, the Kathleen Lance Family donated 48 acres as an addition to the conservation area. This addition is the south-eastern-most tract in the conservation area.

Current Land and Water Types:

Land/Water Type	**Acres**	**% of Area**	**Miles**
Wetland	2,100	54	
Open Land	721	19	
Old Field	500	13	
Grassland (non-prairie)	273	7	
Forest/Woodlands	267	7	
Infrastructure (roads)	20	1	
Pond	<1	<1	
Total	**3,881**	**100**	
Permanent Stream Frontage – Nodaway River			4

Public Input Summary:
The draft Nodaway Valley Conservation Area Management Plan was available for a public comment period August 1–31, 2018. MDC received comments from three respondents (Appendix A). The Nodaway Valley 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 Nodaway Valley Conservation Area Management Plan public comment period.

Terrestrial Resource Management

Supports managing the area for upland game bird habitat.
Thank you for supporting our efforts to improve wildlife habitat on the area.

Does not support increasing wildlife on the area (such as deer, turkey, and elk) that may damage nearby agriculture.
We are sorry to hear you or your neighbors may be having problems with damage caused by wildlife. Please contact the Northwest Regional Office 816-271-3100 for assistance with this issue.

Public Use Management

Appreciates the opportunity to hunt for quail on the area.
We are glad you enjoy the opportunities available on the State's conservation areas.

Suggests managing roadside areas better (such as mowing more frequently).
We strive to keep the area looking good, but must balance mowing with other area maintenance needs. We mow roadsides on a schedule during the growing season to maintain visibility for vehicles and encourage habitat for butterflies and other types of wildlife.

Suggests adding footbridges over the deep canals to improve access.
Adding footbridges will be considered when we evaluate hunter access. Footbridges restrict boat access and boat lanes restrict access for those wading. Balancing these two methods of hunter access can be challenging.

Suggests conducting an electronic draw.

We are currently in the process of evaluating our waterfowl hunting program on intensively managed wetland areas. Our hope is to have a new system in place by the fall of 2019. Electronic drawings are one of the options being considered.

Administrative Considerations

Suggests that MDC donates money to Holt County since MDC does not pay taxes on the land they own.

MDC makes payments each year to Missouri counties in-lieu-of-taxes for lands acquired since 1977. Since 1980, MDC has paid over $22 million in-lieu-of-taxes and levee and drainage district payments to Missouri counties. In fiscal year 2018, MDC paid $23,658.45 to Holt County for in-lieu-of-tax payments and an additional $24,223.76 in levee and drainage district payments.

Suggests better means to keep hunters within conservation area boundaries.

Area boundaries are inspected periodically to ensure they are clearly marked. If you have a specific place where trespassing is an issue, please contact area staff for assistance. If you encounter trespassers, please contact the county Sheriff's Department or the county conservation agent for assistance.

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: Nodaway Valley Conservation Area Management Plan Public Comments

Figure 1: Area Map

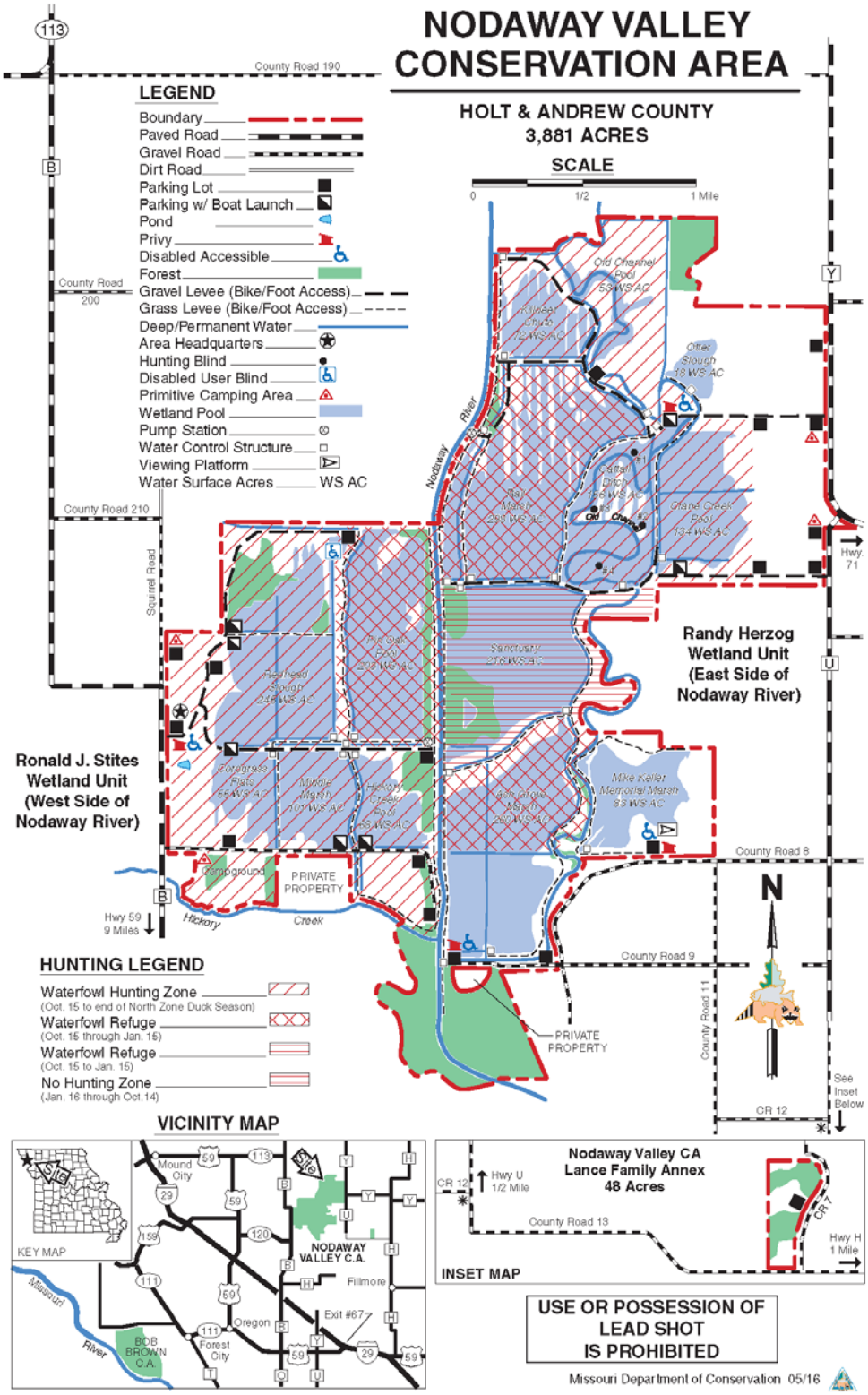


Figure 2: Aerial Photograph

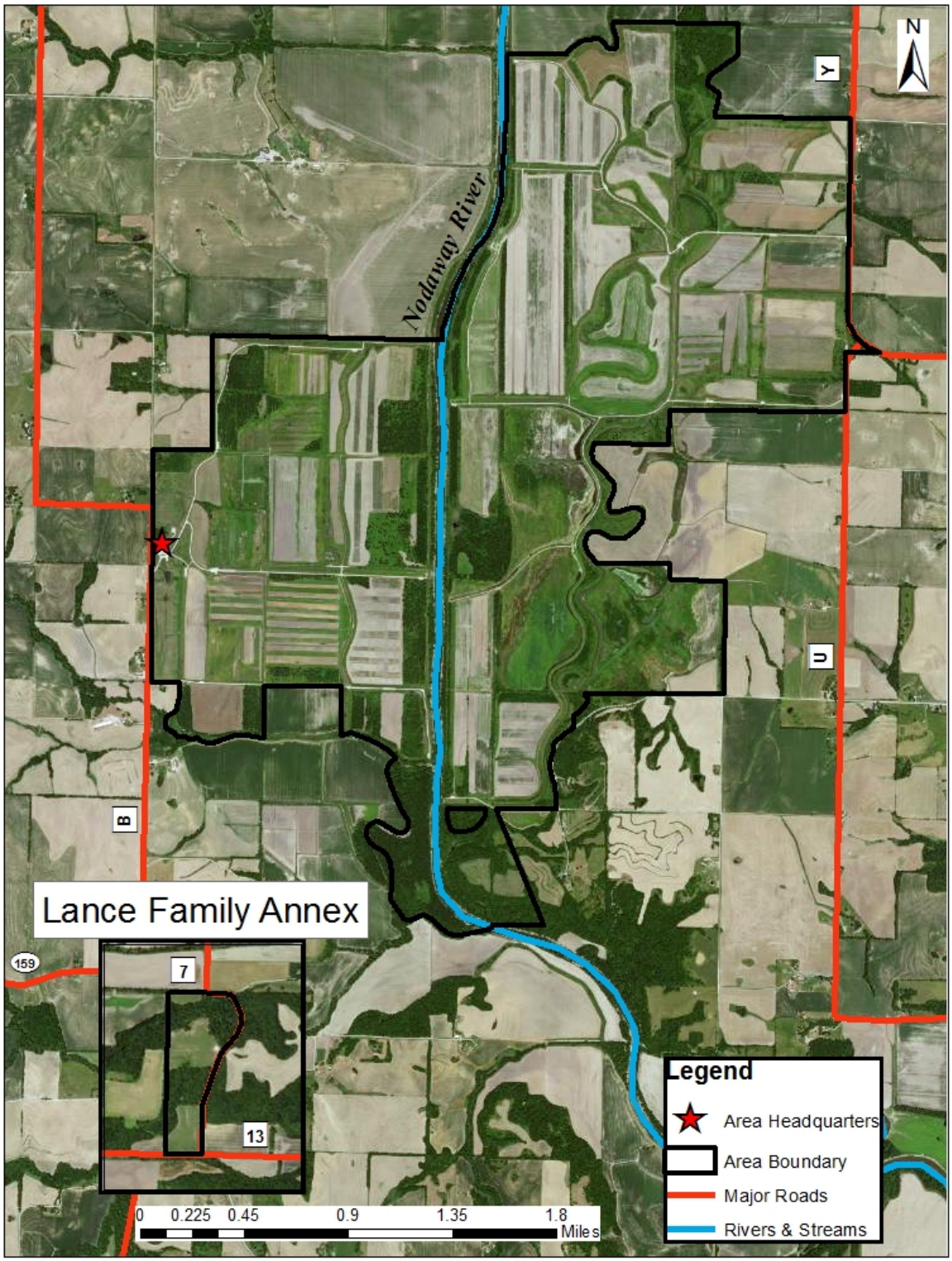


Figure 3: Land Cover Map

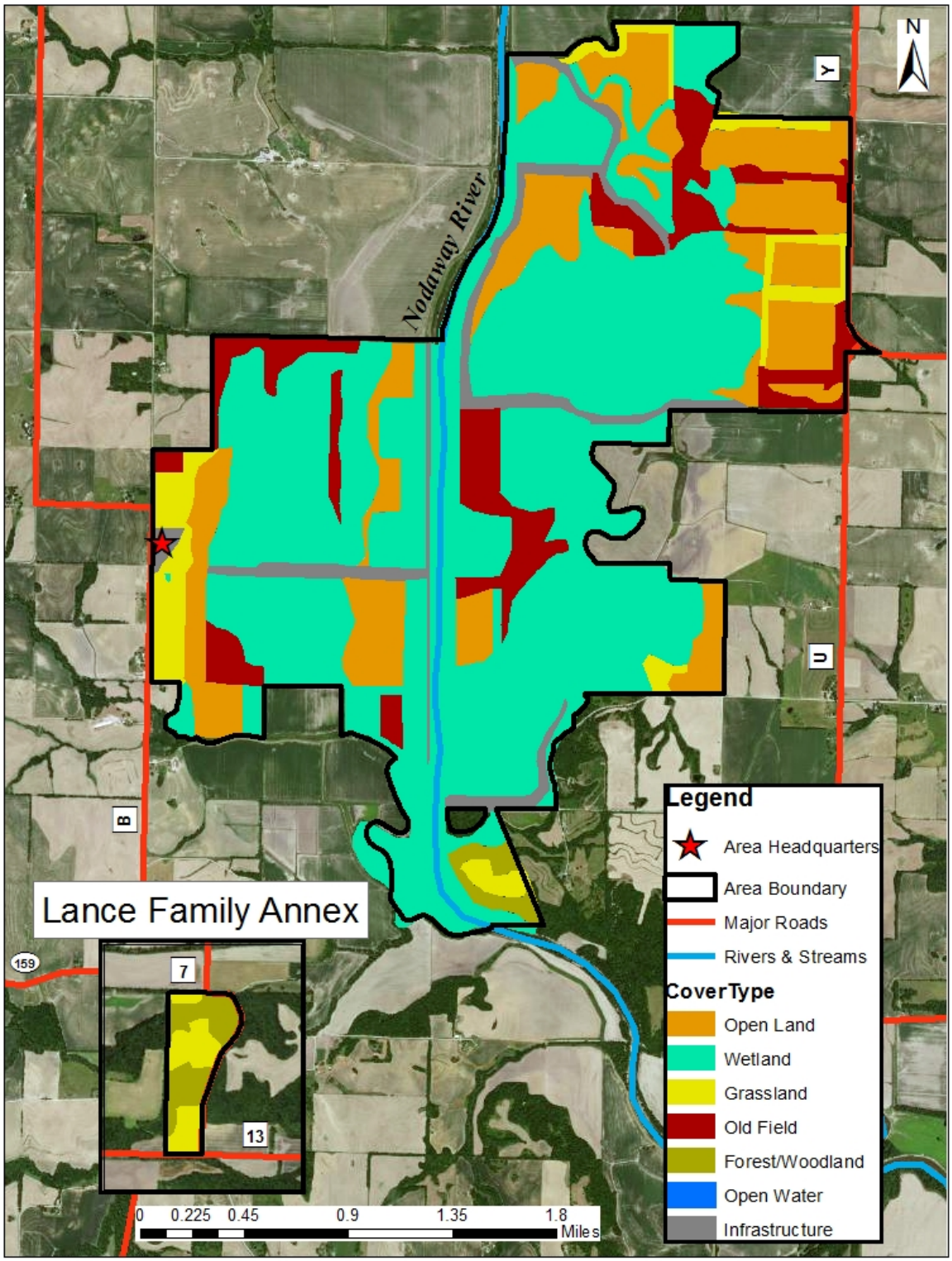
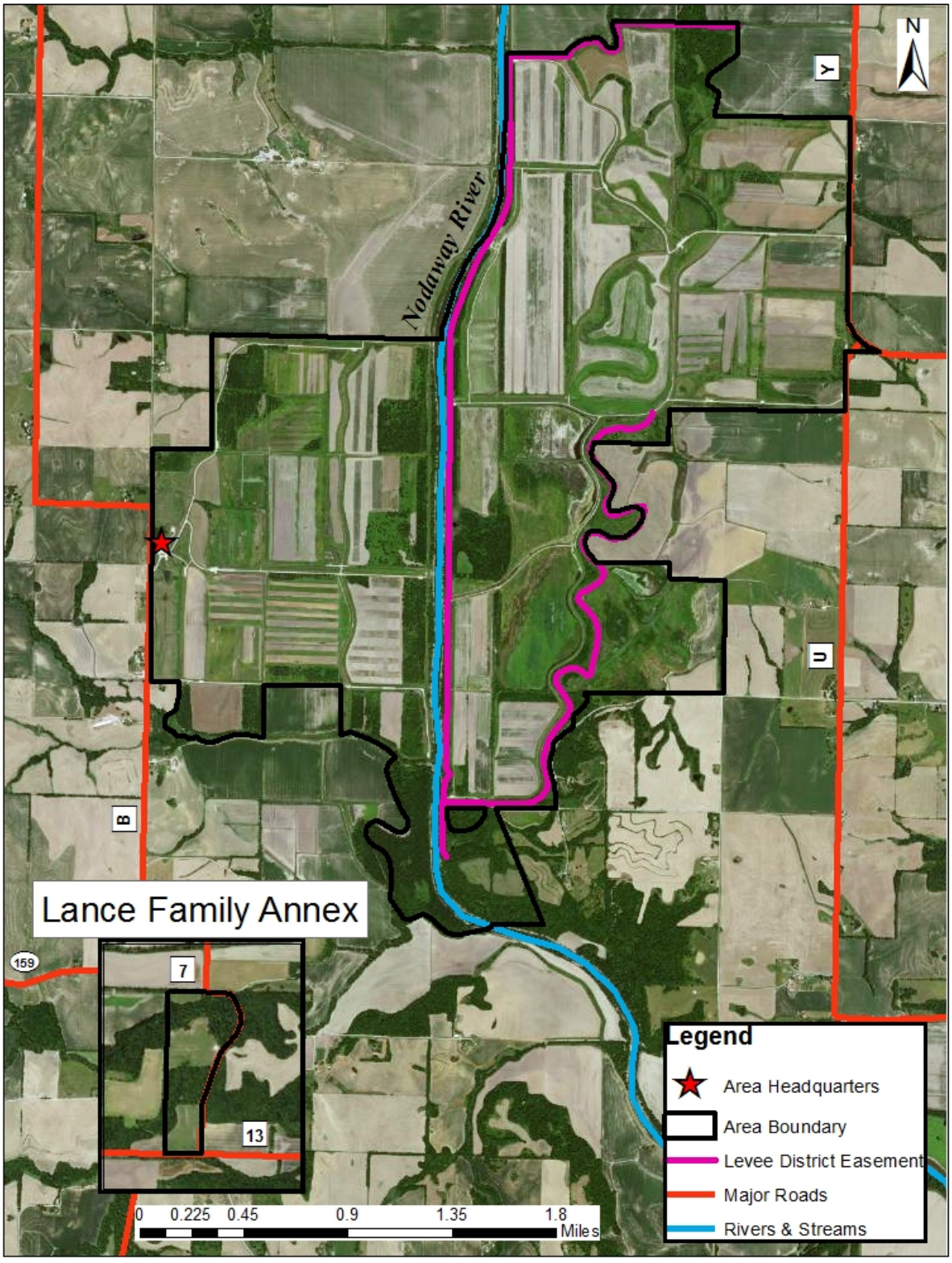


Figure 4: Easement Map



Appendix A: Nodaway Valley Conservation Area Management Plan Public Comments

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

THRILLED!!!! Quail hunting is almost non-existent in many areas due to habitat loss. To regain some good habitat for upland game birds - and all other species in the ecosystem - is just incredible news. So happy to see this plan.
I would like to see the Mo Conservation take better care of the land that is along the roads. Like mow it would be a start. Have more control on the hunters to stay on the conservation land. Since the Mo Conservation and Corp Engineers own so much land in Holt county it would be nice if they would donate money to the county since you do not pay taxes on all the land you own. Holt county is struggling to have the money to keep up with the roads etc. and do we really need all the animals that you bring into the county. NO . The deer destroyed so much of the farmers corn and the turkies too. Now you are bring in elk.
Would love to have some sort of electronic draw. It's no fun driving 90 miles and not getting drawn. Some foot bridges over some of the deep canals would make access easier.