Bonanza Conservation Area

Ten Year Area Management Plan

FY 2014-2023

Wildlife Division Chief

9/23/15

Date

Bonanza Conservation Area Management Plan Approval Page

PLANNING TEAM

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NORTHWEST REGION

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Roger E Wolkin 5/4/2015

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WILDLIFE DIVISION

Unit Chief

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OVERVIEW

- **Official Area Name:** Bonanza Conservation Area, # 6805
- **Year of Initial Acquisition:** 1968
- **Acreage:** 1,948 acres
- **County:** Caldwell
- **Division with Administrative Responsibility:** Wildlife
- **Division with Maintenance Responsibility:** Wildlife
- **Statements of Purpose:**
  - **A. Strategic Direction**
    Manage for a wide range of game and non-game wildlife species, with emphasis on ground nesting birds and compatible recreational opportunities.
  - **B. Desired Future Condition**
    The desired future condition for Bonanza CA is a wildlife-abundant, mixed agricultural/grassland/woodland landscape providing outdoor recreation (hunting, fishing, wildlife viewing, trail riding, etc.) while protecting water quality and sustaining healthy fish populations in area ponds.
  - **C. Federal Aid Statement**
    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.

GENERAL INFORMATION AND CONDITIONS

I. <u>Special Considerations</u>

A. Priority Areas: Quail Emphasis Area, 2C Quail Cooperative, Log Creek Aquatic Conservation Opportunity Area

B. Natural Area: None

II. <u>Important Natural Features and Resources</u>

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: Several important natural features occur in the Shoal Creek Prairie/Woodland Scarped Plain Landtype Association (LTA). The distinguishing

feature of the LTA is the low but sharp breaks in relief on the plains and in the shallow valleys that create a series of plateaulike surfaces. Historically, the LTA was prairie on the broad, flat uplands with oak woodland and forest (especially limestone forest) in scarped valleys and some wetlands and bottomland forest in the wider valleys. (Nigh & Schroeder, 2002)

III. Existing Infrastructure

- 12 gravel parking lots
- 12 primitive camping sites
- 1 storage building
- 29 pond dams
- 4.8 miles of multi-use trail (hike/bike/horse)

IV. Area Restrictions or Limitations

A. Deed restrictions or ownership considerations: A portion of this area was acquired with Stream Stewardship Trust Fund Grant Program dollars to restore, enhance, and/or protect stream systems and associated riparian habitats.

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: Known public easements

Lessor	Type of Easement	Location/Tract
Buckeye Pipeline Transportation, LLC	Natural gas/diesel pipeline	T56N R27W S.33 Haynie, Smith, Pruitt
Green Hills Telephone Corporation	Telephone	T56N R27W S.32 Milholland
Green Hills Telephone Corporation	Telephone	T56N R27W S.33 Frazier
Green Hills Telephone Corporation	Telephone	T56N R27W S.33 Stock
Green Hills Telephone Corporation	Telephone	T56N R27W S.33 Smith
Green Hills Telephone Corporation	Telephone	T56N R27W S.29 Prewitt
Green Hills Telephone Corporation	Telephone	T56N R27W S.33 Haynie
John Campbell	Water transmission line	T56N R27W S.33

Lessor	Type of Easement	Location/Tract
		Smith

D. Cultural Resources: Yes, records kept with Missouri Department of Conservation (the Department) Environmental Compliance Specialist. Managers should follow Best Management Practices for Cultural Resources found in the Department Resource Policy Manual.

E. Hazards and hazardous materials: None observed.

F. Endangered species: None observed.

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

MANAGEMENT CONSIDERATIONS

V. <u>Terrestrial Resource Management Considerations</u>

Challenges and Opportunities:

1) Maintain and promote healthy upland forest through the use of sustainable forest management practices. The primary goals will be optimum wildlife habitat and forest health. Improve/maintain open woodland sites with a focus on quail habitat.

2) Enhance open land management to provide a diversity of food and cover habitats that encourage early successional plants and control of exotic invasive plant species to minimize negative impacts on natural plant communities.

3) Annual monitoring of the area's quail and upland bird presence as a part of the Quail Emphasis Area designation for Bonanza CA to evaluate management efforts.

Management Objective 1: Continue to implement forest management prescriptions, with an objective of sustaining forest and woodland communities which provide forest products, ecosystem services, recreational values and wildlife habitat over time.

Strategy 1: Removal of poor quality trees and undesireable species through timber stand improvement (TSI) on sites that can be incorporated into the prescribed burning program and identified in the forest management plan.

Strategy 2: Reduce woody plants in the understory and stimulate herbaceous groundcover.

Strategy 3: Identify exotic and invasive species through forest inventories and by casual observations and use various treatments, as needed, for management and control of selected species.

Strategy 4: Conduct next forest inventory in 2031, and implement the recommendations from this inventory.

Management Objective 2: Manage open fields in a manner that provides early successional habitat to improve upland wildlife populations.

Strategy 1: Utilize agricultural crop permit for annual disturbances to benefit wildlife.

Strategy 2: Replace fields of fescue and smooth brome with native grasses/forbs to restore habitat for species of conservation concern and to benefit quail.

Strategy 3: Fallow standing crop fields and plant legumes to attract insects and improve brood rearing cover for upland birds.

Strategy 4: Manage old fields and grasslands to maintain early successional habitat. Chain saw removal and contract dozing may be required for the removal of larger trees to recapture open fields.

Strategy 5: Establish field borders to provide transition zones for brushy winter cover.

Strategy 6: Control herbaceous and woody invasive plant species.

Management Objective 3: Monitor quail and grassland bird presence to use as an index for monitoring quail populations.

Strategy 1: Conduct spring quail and grassland bird survey annually between May 15 and June 15.

Strategy 2: Conduct fall quail covey counts annually between Oct. 5 and Oct. 31.

VI. Aquatic Resource Management Considerations

Challenges and Opportunities:

1) Provide quality sport fish populations.
2) Manage for native aquatic vegetation.
3) Install and maintain fish attractors to improve angling efficiency in area ponds.

Management Objective 1: Provide quality fisheries in area ponds.

Strategy 1: Survey fish populations bi-annually or every five years based on angler use to monitor fisheries and aid in future management decisions (regulation changes, habitat alterations, stocking rate manipulations, potential new species introductions for additional angling opportunities).

Strategy 2: Consider introducing additional species, such as redear sunfish and black crappie, into suitable ponds to increase angling diversity on the area.

Strategy 3: Continue supplemental stockings where necessary to maintain quality angling opportunities.

Management Objective 2: Manage for native aquatic vegetation in area ponds.

Strategy 1: Continue efforts to introduce diversity into the aquatic vegetation community through seeding of pickerel weed, burhead and water plantain and by planting pink water lilies.

Strategy 2: Reduce or eliminate non-native and nuisance aquatic vegetation and improve angler access to and on vegetated shorelines when necessary.

Management Objective 3: Install and maintain fish attractors to improve angling efficiency.

Strategy 1: Install brush piles as fish attractors in strategic locations throughout the ponds and replace older piles as they break down.

VII. Public Use Management Considerations

Challenges and Opportunities:

1) Enhance hunting and fishing opportunities.
2) Provide multiple use opportunities.
3) Build relationships with neighboring land owners.

Management Objective 1: Provide public hunting, trapping and fishing opportunities.

Strategy 1: : Implement annual management activities targeting improvement of terrestrial and aquatic habitat to improve wildlife and fish populations.

Strategy 2: Provide access points and blinds for those that are mobility disabled. Mow trails to ponds with fishing potential to improve access.

Strategy 3: Issue special use permits to allow trapping on area.

Management Objective 2: Provide multiple use opportunities for area visitors.

Strategy 1: Maintain accurate area information and regulations through the online atlas.

Strategy 2: Maintain multiple use trail for horseback riding, biking and hiking.

Management Objective 3: Promote a positive working relationship with neighboring landowners.

Strategy 1: Respond to neighbors with request for shared fencing, boundary issues or trespass problems.

Strategy 2: Respond to neighboring landowners with interest of habitat management on their private property.

VIII. Administrative Considerations

Challenges and Opportunities:

1) Maintain area infrastructure at current levels.
2) Acquisition of land.
3) Boundary on east side is awaiting survey.

Management Objective 1: Maintain area infrastructure at level established by policy.

Strategy 1: Maintain area infrastructure in accordance to Department guidelines established for maintenance level 1.

Management Objective 2: Land proposed for acquisition.

Strategy 1: When available, 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 Objective 3: Resolve current boundary issue on east side of area.

Strategy 1: Explore options to complete boundary survey. Upon completion of the survey, enter into fencing agreement with adjoining landowner if feasible.

MANAGEMENT TIMETABLE

Strategies are considered ongoing unless listed in the following table:

	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	
Terrestrial Resources Management										
Objective 1										
Strategy 1		X			X			X		
Strategy 2			X			X			X	
Objective 2										
Strategy 2		X				X				X
Strategy 5	X		X		X		X		X	
Aquatic Resources Management										
Objective 1										
Strategy 1		X		X		X		X		X
Administrative Considerations										
Objective 3										
Strategy 1	X	X	X							

APPENDICES

Area Background:

Bonanza Conservation Area is located in central Caldwell County, 2 miles south of Kingston on Highway 13, then 5 miles east on Route F. The landscape is primarily open with a diverse mixture of woodlands, old fields, cropland and grassland. Four permanent streams run through the area; Crabapple Creek, Shoal Creek, Brush Creek and Log Creek.

The Department created this area in 1968 with the purchase of 1,024 acres from several landowners. Later acquisitions of 924 acres have increased the area's current size. This conservation area was acquired in part through the Pittman-Robertson Wildlife Restoration Act administered by the U.S. Fish and Wildlife Service. Pittman-Robertson funds are generated from a federal excise tax on sporting arms and ammunition.

Because of its size and diversity of habitat, Bonanza Conservation Area is managed for a wide range of game and nongame wildlife species. The area's open fields are managed by farming, haying and controlled burning. Other habitat management includes tree, shrub and grass plantings and selective timber harvest. Native grasses have been planted and managed to improve nesting habitat and winter cover.

Bonanza Conservation Area is a quail emphasis area. This means additional emphasis is placed upon managing the area for early successional species such as Bobwhite quail. Current management for bobwhite quail produces a viable population of wild birds on the area.

Current Land and Water Types

Land/Water Type	Acres	Miles	% of Area
Woodland	748		38
Old Field	500		26
Cropland	360		19
Grassland (non-prairie)	320		16
Lakes/Ponds	20		1
Total	**1,948**		**100**
Stream Frontage		4	

Chronological History of Land Purchased for Bonanza CA.

Grantor	Date	Acres
Bollinger	4/6/1968	156
Haynie	6/4/1968	40
Due	4/23/1968	150
Frazier	5/21/1968	40
Milholland	6/31/1968	40
Stock	4/9/1968	224
Smith	4/26/1968	160
Prewitt	5/1/1968	214
Adams	2/21/1979	192
Vanderpool	9/23/1982	160
Prewitt	9/1/1983	120
Adams	6/10/1991	117
Barnard	9/7/1991	154.28
Burnett	11/21/1996	3.23
Milholland	11/21/1996	100
Colaw	1/18/2013	77.6
Total		**1948.11**

Public Input Summary:

The draft Bonanza Conservation Area Management Plan was available for a public comment June 1-30, 2014. The Department received comments from one respondent (Appendix A). The Bonanza Conservation Area Planning Team carefully reviewed and considered these ideas, 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.

<u>Department responses to themes and issues identified through the Bonanza Conservation Area public comment period</u>

Supports prairie and native habitat restoration.

The area planning team agrees with and supports prairie and native habitat restoration on Bonanza Conservation Area. Although restored native prairie is present on the area, increasing the grassland habitat is a key management objective for the area's open portions.

References:

Environmental Research Center of Missouri, Inc. (2007) *Cultural resource investigations phase II testing, Bonanza Conservation Area, Caldwell County, Missouri*.

Environmental Research Center of Missouri, Inc. (1992). *Cultural resource investigations phase I survey, Bonanza Wildlife Area, Caldwell County, Missouri.*

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

Maps:

Figure 1: Area Map
Figure 2: Open Land Managed for Annual Vegetation
Figure 3: Funding Sources for Acquisition Map
Figure 4: Conservation Area Ponds
Figure 5: Survey Points for Distance Sampling
Figure 6: Current Vegetation Map
Figure 7: Woodland Prescription Map
Figure 8: Ecological Land Type Map

Additional Appendices:

Appendix A: Draft Bonanza Conservation Area Public Comment

Figure 1: Area Map

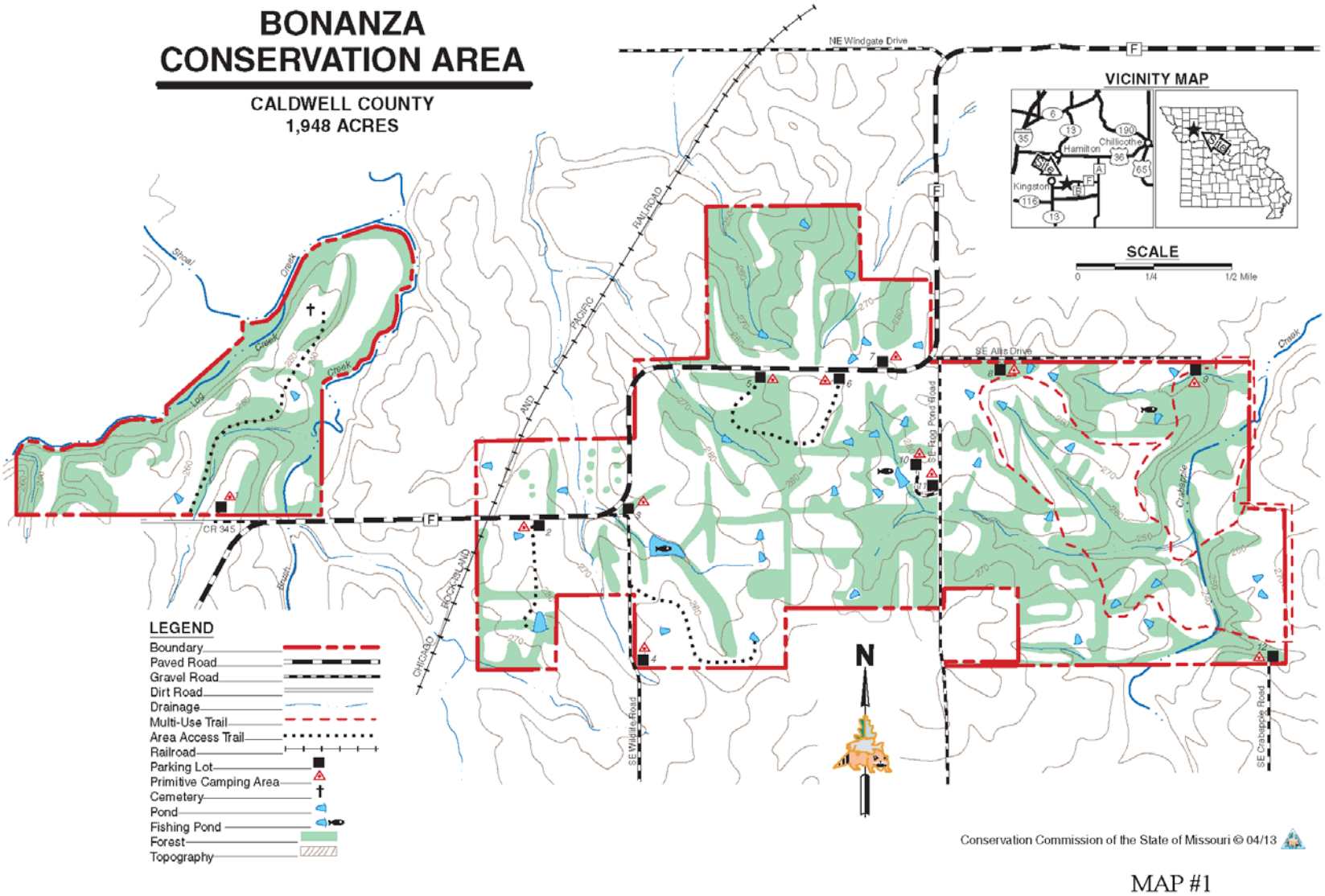


Figure 2: Open Land Managed for Annual Vegetation

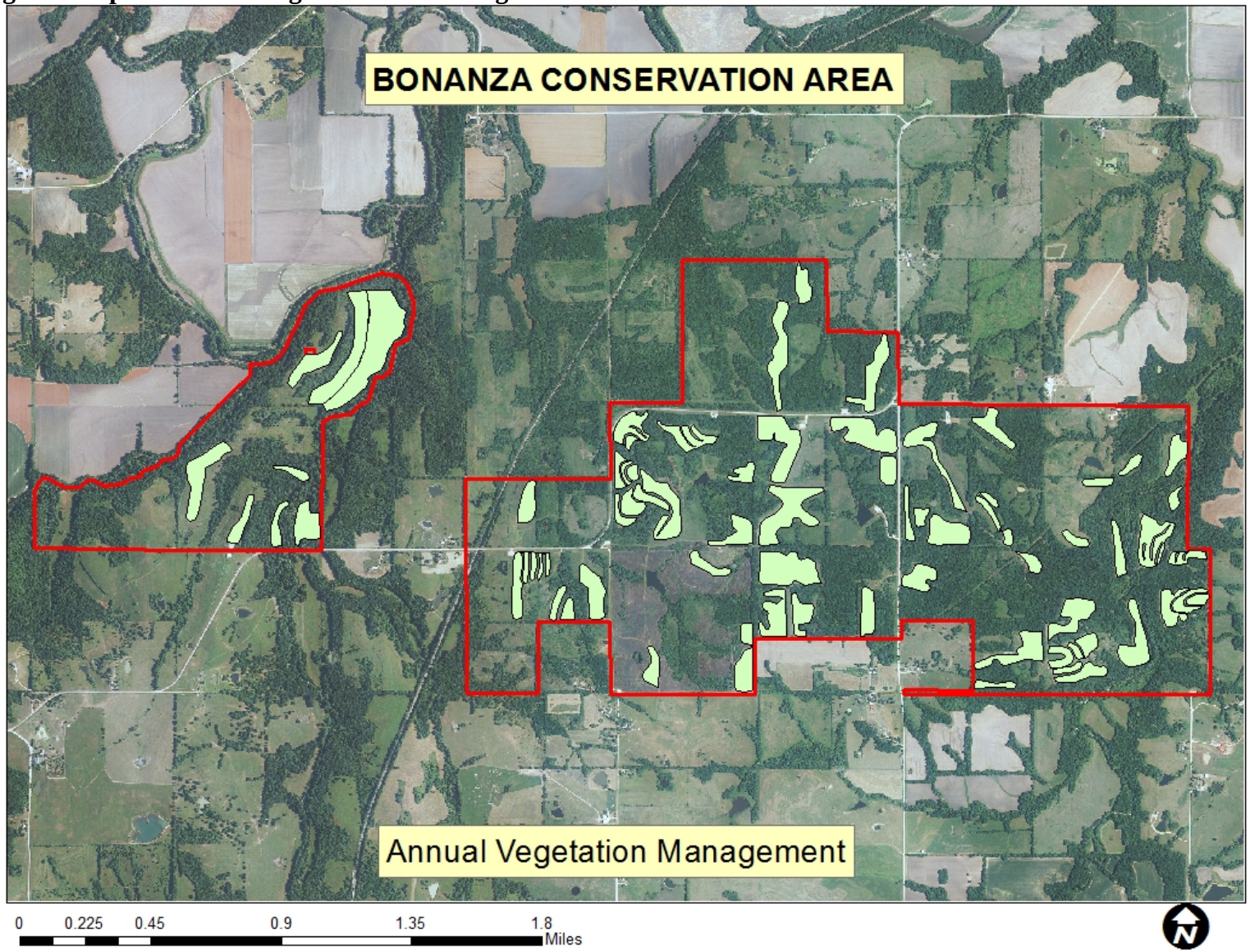


Figure 3: Funding Sources for Acquisition Map

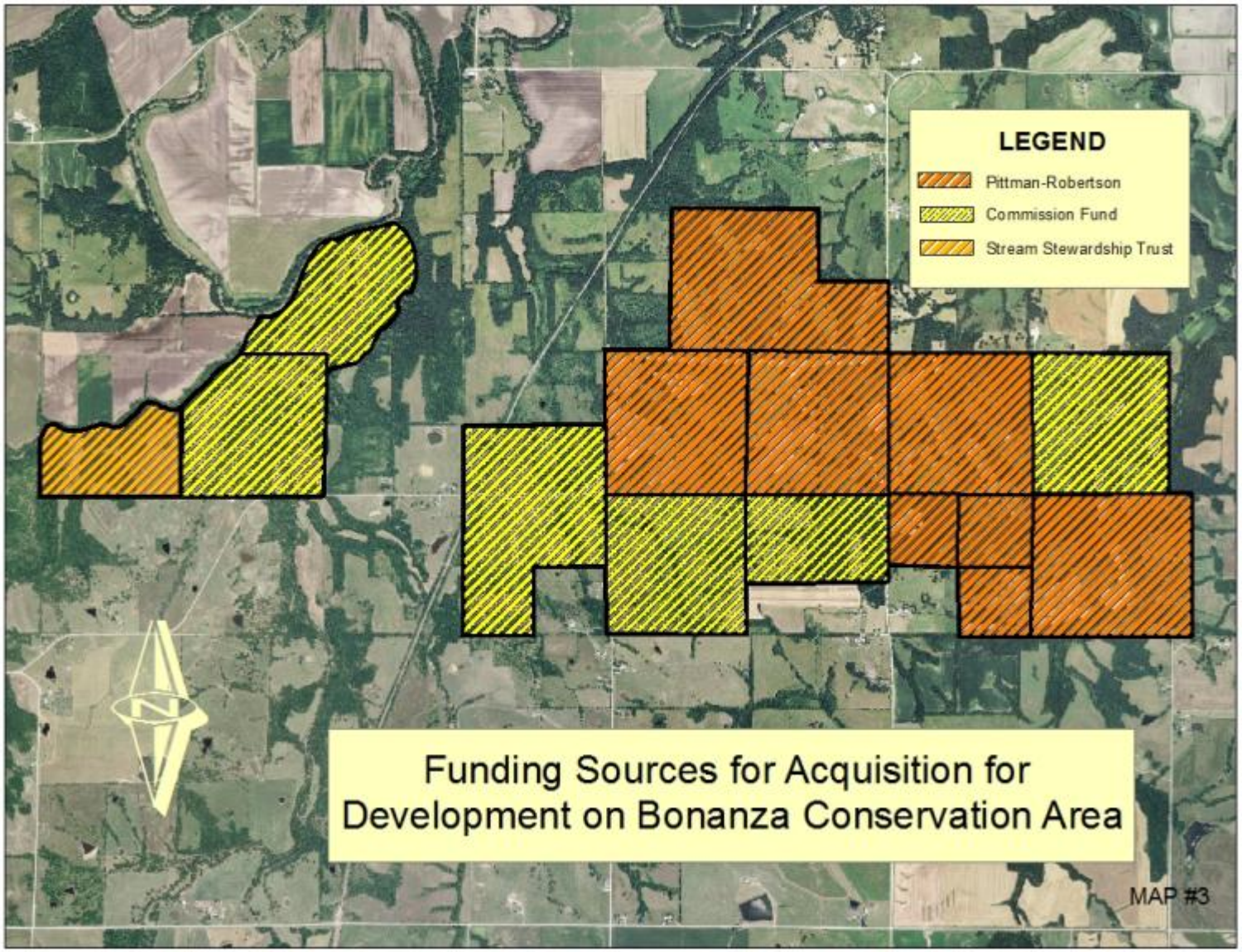


Figure 4: Conservation Area Ponds

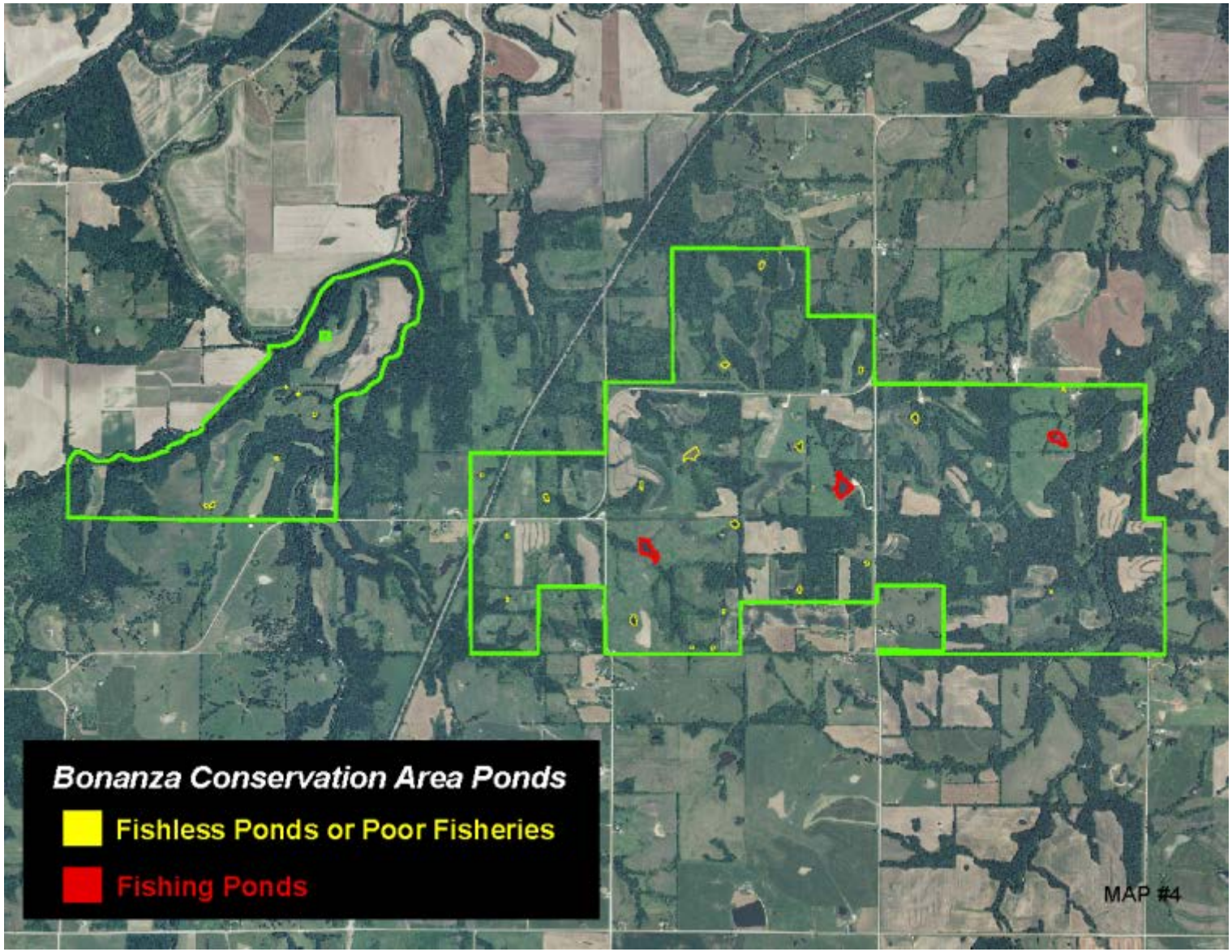


Figure 5: Survey Points for Distance Sampling

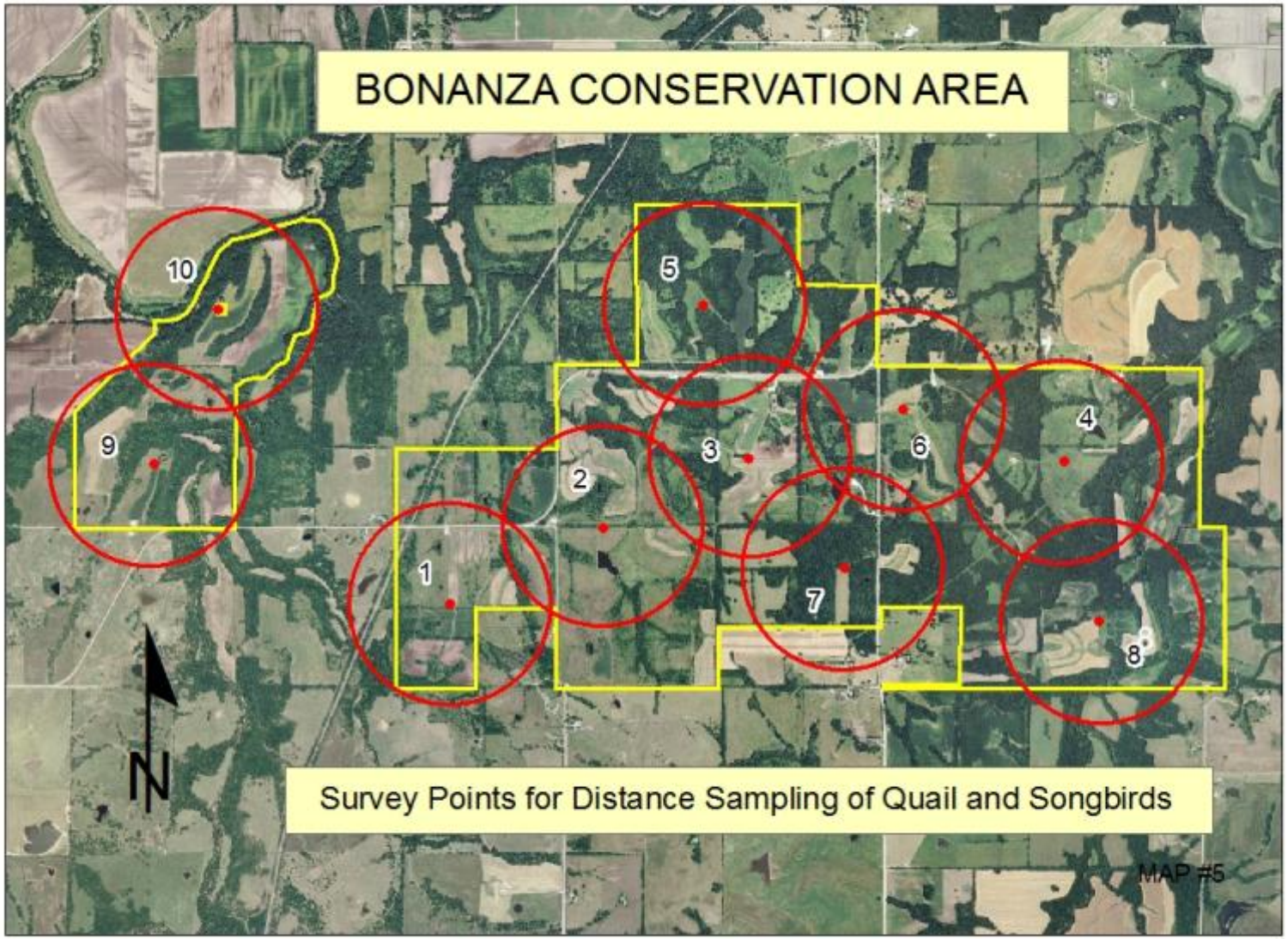
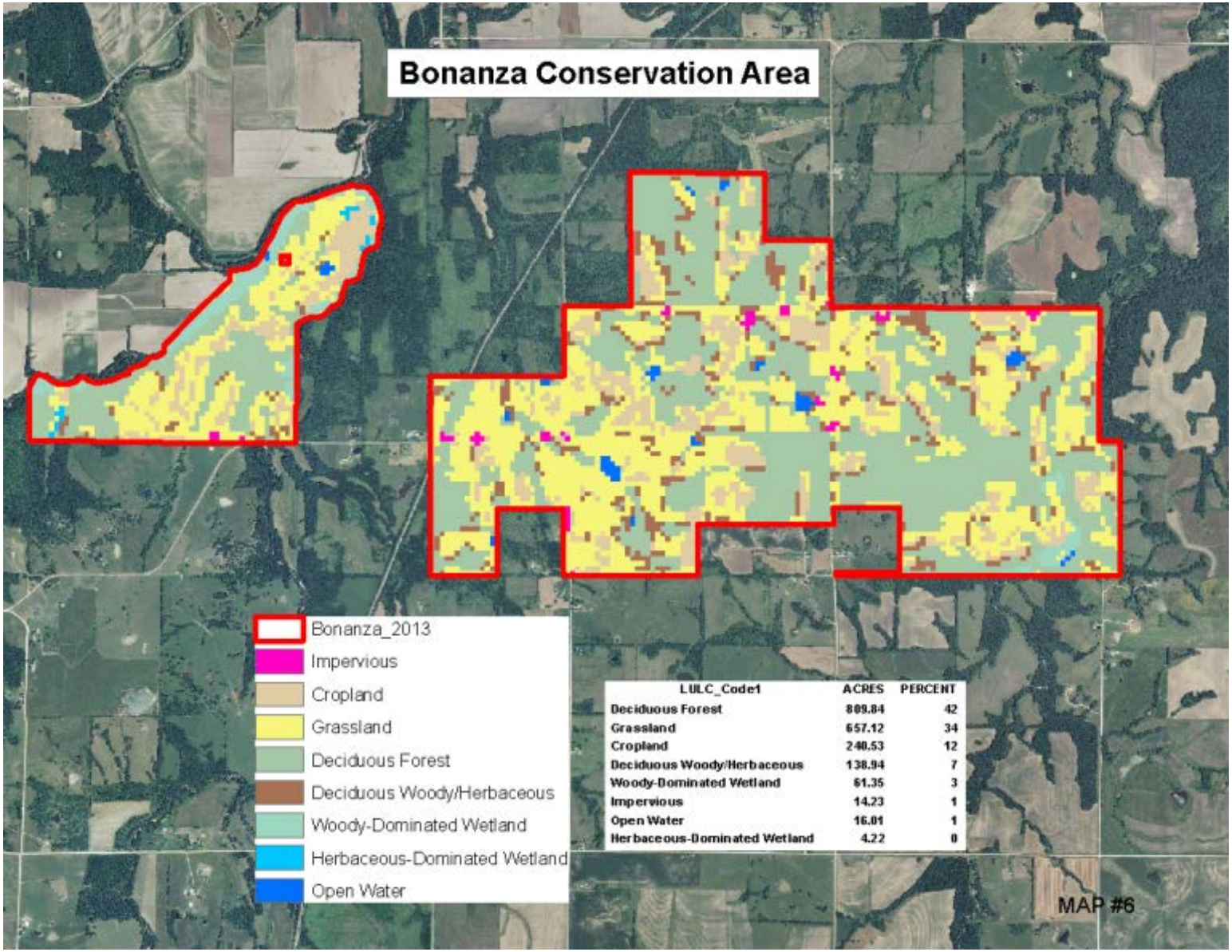


Figure 6: Current Vegetation Map



LULC_Code1	ACRES	PERCENT
Deciduous Forest	809.84	42
Grassland	657.12	34
Cropland	240.53	12
Deciduous Woody/Herbaceous	138.94	7
Woody-Dominated Wetland	61.35	3
Impervious	14.23	1
Open Water	16.01	1
Herbaceous-Dominated Wetland	4.22	0

Figure 7: Woodland Prescription Map

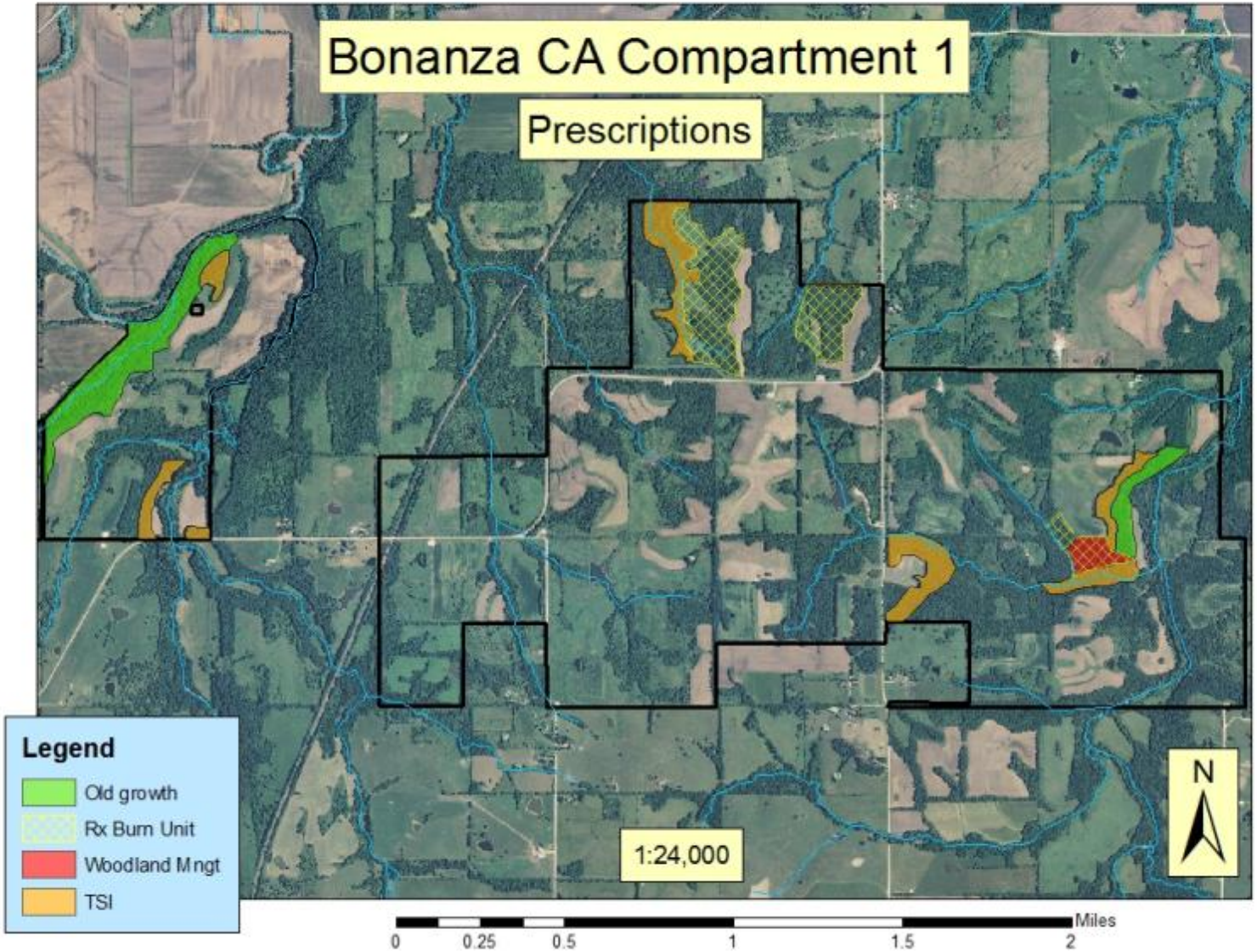
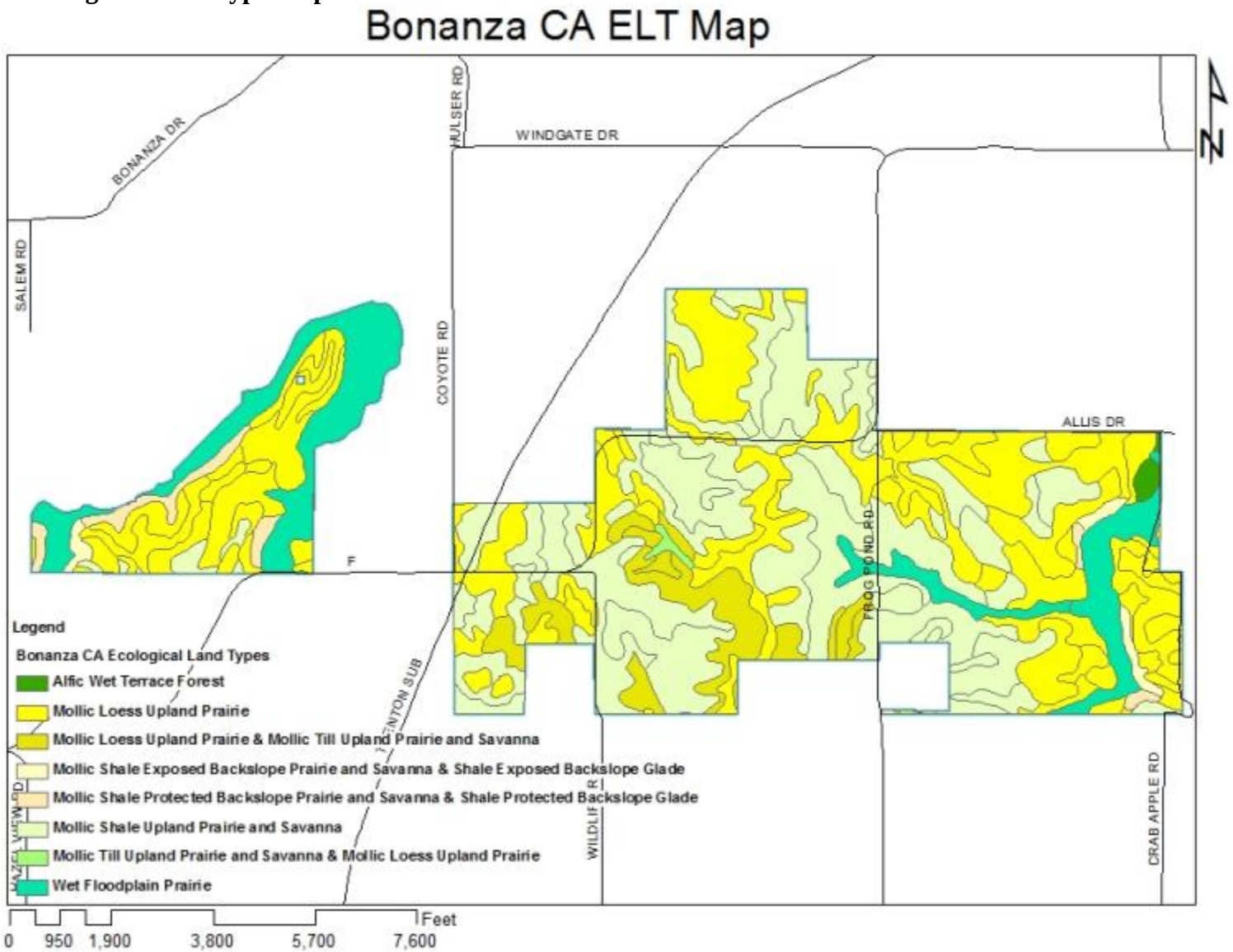


Figure 8: Ecological Land Type Map



Appendix A. Draft Bonanza Conservation Area Management Plan Public Comments

Received during public comment period (June 1-30, 2014)

Please manage any area that was originally prairie as prairie. Restore and reconstruct the original MO habitat as much as possible in all areas of the state.