



### Acknowledgements

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### **Contact Information**

For any questions regarding this strategy, please contact Abigail Valachovic at <a href="mailto:Abigail.valachovic@dec.ny.gov">Abigail.valachovic@dec.ny.gov</a>, or (518) 402-8878.

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#### I. Introduction

Conservation partners throughout New York State have been involved in efforts to maintain and restore grasslands (early successional upland habitats) to address concerns about long term and continuing declines in grassland breeding and wintering birds and other associated wildlife. These efforts are occurring on public lands, such as on State Wildlife Management Areas (WMAs), Federal Wildlife Refuges and National Forests; on private lands, such as land trusts and agricultural fields and involving an array of conservation partners, including federal agencies (US Department of Agriculture, US Forest Service and the US Fish and Wildlife Service) and NGOs (Audubon New York, Cornell Lab of Ornithology). In 2015, NYSDEC, along with several partners in grassland conservation, began drafting this strategy with the goal of making it operational by 2022. This document is the strategic plan for implementing priority actions for creating, managing, and maintaining grassland bird habitat within New York State and guiding management of grassland habitat on WMAs that are determined to be part of a Grassland Bird Conservation Center (GBCC).

### II. Definitions:

- a. Best Management Practices (BMPs): The suite of actions and recommendations provided in Appendix 1 of this document, that when fully implemented, maximize the value of grassland habitat for breeding and wintering grassland birds.
- b. Grasslands: Those areas that are open and dominated by grasses and forbs. Woody vegetation needs to be less than 25%. Ideally, the forb component should not exceed 25% by area. Grasslands may contain shrubs and other woody vegetation, but not to the point beyond which maintenance would require significant brush cutting (*i.e.* not suitable for brush-hogging).
- c. Grassland Bird Conservation Center (GBCC): A landscape of at least 25,000 acres that contains *at least two* of the following three criteria:
  - i. > 7,500 acres of grassland (i.e. >30% of the landscape is currently in some form of grassland habitat)
  - ii. A grassland "anchor" field that meets the following factors:
    - 1. The anchor field must occur on land held in permanent conservation status, where best management practices can be administered in perpetuity. Examples may include but are not limited to: local, tribal, state or federal lands managed in part for wildlife or conservation or land trust lands or managed private lands under permanent conservation easement.
    - 2. The "anchor" field must include one of the following:

- a. A contiguous grassland of 250 acres or larger that is managed following BMPs for grassland birds.
- b. Two grasslands fields, each of 125 acres or more, that are managed following BMPs for grassland birds.
- iii. At least 1,625 acres of grasslands already managed under BMPs for grassland birds. (See Appendix 2 for a list of GBCCs.)
- d. Grassland Focus Area (GFA): A region where grassland birds are most likely to persist, have been targeted for surveys and monitoring, and serve to focus conservation resources.
- e. Minimum viable population: The smallest possible size at which a biological population can exist without facing extinction from natural disasters or demographic, environmental, or genetic stochasticity.
- f. Wildlife Management Area (WMA): State-owned lands that are administered and managed by the Division's Bureau of Wildlife.

### III. Background

The Department of Environmental Conservation's Division of Fish and Wildlife (Division) supports a broad goal to protect, manage, and restore habitat for fish and wildlife. In 2005, recognizing the serious and prolonged decline in grassland bird populations, the Division convened a multidisciplinary group of grassland bird and habitat conservation experts to focus on the problem. One of the notable products of this group was Audubon NY's publication of a "Plan for Conserving Grassland Birds in New York". The plan introduced the concept that grassland bird populations are clustered around specific areas of the state. These areas, determined through an analysis of the 1980-85 and 2000-05 Breeding Bird Atlases, were dubbed the Grassland Focus Areas.

Grasslands in NY are most associated with agricultural land. The Division's analysis of the National Land Cover Database found that less than 0.5% of the grassland habitat in New York occurs on State-owned land. In 2006, the Division recognized that the scope of management necessary to manage enough habitat to arrest long-term declines in grassland breeding birds required the assistance of private landowners. Through the Landowner Incentive Program (LIP), the Division embarked on a specific habitat management initiative to improve the quality of grassland habitat being maintained on private lands. At its peak, this program had over 5,000 acres within the Grassland Focus Areas enrolled in grassland habitat management plans, with the last 2,900 acres of grassland habitat managed under LIP contracts expiring in early 2019. An evaluation of the effectiveness of the LIP for Grassland Protection and Management by Audubon NY, SUNY Brockport, and the USFWS found that Bobolink (one of the target species, which declined by 43% in NY between 1966 and 2013) were nesting on LIP fields at densities more than five times greater than on randomly selected grassland sites in the same landscapes.

Beginning in 2010, the Division partnered with Audubon NY and the Farm Service Agency to provide technical service to the Conservation Reserve Program's States Acres for Wildlife Enhancement (CRP-SAFE). Although fields enrolled in SAFE tended to be smaller than LIP fields, over 50 management plans for over 2,500 acres have been prepared to date.

In 2021, the Division finalized this strategic approach to guide grassland habitat management, with the specific goal of enhancing reproduction of at-risk grassland breeding birds and a secondary goal of providing suitable overwintering habitat for grassland-dependent species. Other species dependent on grassland habitat such as pollinators are also expected to benefit from this program. With the launch of the Division's Young Forest Initiative in 2015, the Division began writing WMA-specific Habitat Management Plans (HMP) for each WMA. Where appropriate, HMPs have and will continue to identify grassland goals and the BMPs for WMAs in support of this strategy. In addition, the templates for each GBCC will provide grassland management goals and methods for the entire landscape identified for each center.

The Division will continue to manage other important habitats such as young forest, wetlands, shrublands, and other forest types on WMAs in conjunction with various conservation partners on other lands. The Division will also continue to work more broadly with our conservation partners to foster and promote grassland conservation and enhancement in New York.

#### IV. Goals

This document provides structure and context for implementing grassland bird habitat management over the next five years (2022-27). It builds upon the Plan for Conserving Grassland Birds in New York, fine-tuning the focus area concept.

#### Goals of this document:

- a. To maintain, restore, enhance, and expand grassland (early successional) bird habitat in certain areas of New York State to address the declining populations of key grassland breeding and wintering bird species of conservation interest.
- b. To provide direction and guidance on the management of WMAs as one element of the Division's implementation of grassland bird conservation efforts.
- c. To specify where and how the Division will implement the recommendations of the Plan for Conserving Grassland Birds in New York.
- d. To guide conservation actions that will ensure that populations of the target species do not fall below minimum viability thresholds; *i.e.*, do not become extirpated.
- e. If the minimum viable population thresholds are met, to work towards stabilizing or increasing populations of the target species.
- f. To provide the overall scientific rationale for the strategy and goals selected for habitat management.

- g. To recognize and validate the collaborative approach between the Division and our conservation partners.
- h. To satisfy the articulated concerns of the public we serve.

### V. Target species:

Known as obligate breeding grassland birds, this is the suite of species that breed only in grasslands:

- a. Bobolink
- b. Eastern Meadowlark
- c. Grasshopper Sparrow
- d. Henslow's Sparrow
- e. Horned Lark
- f. Northern Harrier
- g. Savannah Sparrow
- h. Sedge Wren
- i. Short-eared Owl
- j. Vesper Sparrow
- k. Upland Sandpiper

### VI. Guiding Principles:

- a. Current grassland habitat on State land is limited and insufficient to meet the needs of grassland birds. To maintain viable populations of grassland birds, the Division must work with private landowners, NGOs, other agencies, and partners. The Division will explore a range of methods tailored to meet the needs of target species as well as local land-use and geographical settings.
- b. We recognize that many other species will benefit from the creation, restoration, and maintenance of grasslands, and these will be acknowledged in WMA-specific HMPs, but the intention of managing grassland bird habitat will be on the target species listed above.
- c. Grasslands may continue to decline despite our efforts. Habitat conservation is a method towards achieving viable and stable grassland bird populations; that is, it is not the end. If the species population goals are met, this strategy will be considered successful.
- d. The Division will be focused on maintaining and improving existing grassland habitat and, where possible and appropriate, expanding grasslands on selected WMAs either through acquisition of existing grasslands or conversion of other habitats. The Division will also look to maintain, improve, and expand grasslands on other public lands (*i.e.* National Wildlife Refuges) and private lands alongside partners of the strategy.

- e. For those WMAs within a GBCC, it is the intent to have the grassland goals on WMAs met and maintained *in perpetuity*. This will require continual management over time.
- f. For this strategy to be successful, the Division must be willing to commit adequate resources to administer and implement the program and to monitor efforts, including the compilation, analysis, and distribution of the results.
- g. This strategy is driven by the needs of specific wildlife. Actions will be taken based on BMPs for specific target species and will be incorporated into the conservation plans. Adverse impacts on other species will be assessed and addressed in the planning process.
- h. Wildlife conservation and stewardship is the preeminent goal; recreational opportunity is secondary. The public will be able to enjoy and experience grassland birds and other species utilizing this habitat. We will monitor and control access as necessary to prevent disturbances to breeding and overwintering birds.
- i. We will monitor our progress and how the birds respond to management.
- j. Implementation of this strategy will facilitate cooperation with our conservation partners, by demonstrating the full spectrum of benefits resulting from executing the grassland bird BMPs. See Appendix 1 for a list of BMPs.
- k. This strategy describes how the Division will manage grassland habitats on certain state lands and how we will work with willing partners to achieve grassland conservation on private lands in support of the goals above. It is a voluntary rather than regulatory effort to achieve grassland bird conservation through collaboration.

### VII. Approach:

Starting roughly in 2014, several years into the implementation of the Landowner Incentive Program and grassland habitat management efforts on WMAs, the Division began to ask how much grassland habitat was needed to sustain bird populations, what it should look like, and where it should be. To answer these questions, DEC biologists and partners turned to a recent Canadian publication. Released in 2013, Environment Canada's "How Much Habitat is Enough? Third Edition" addresses this elemental question for the main habitat types, including grasslands. Grasslands in Ontario and Quebec provinces, as well as the suite of birds that occupy them are similar to those of New York. Their genesis as agricultural habitats as well as present-day conservation challenges and stresses share striking similarities with New York. The recommendations below are based on this publication:

- a. The collective conservation partnership promoting grassland bird habitat has agreed to a goal of 4-10 GBCCs in strategic areas of the state to focus conservation efforts.
- b. Each GBCC will be based on a 25,000-acre area and have a goal of maintaining 7,500 acres of grassland habitat, or 30% of the landscape within a 25,000-acre area.

- c. Within each GBCC, a minimum of 6.5% of the total acreage, or 1,625 acres, would be managed under BMPs for grassland birds.
- d. To help accomplish that goal, the Division will establish and maintain contiguous grassland habitat on either a single field of ≥250 acres or two fields of ≥125 acres on each WMA or other permanently protected land that will serve as an anchor field to a GBCC.
- e. The Division will work towards increasing field sizes to an optimum of 500 acres at WMAs located within GBCCs wherever this is possible. This will be particularly beneficial to the species needing the greatest acreage for successful nesting, such as upland sandpipers.
- f. All grasslands greater than 25 acres within WMAs located inside a GBCC will be managed following the BMPs for grassland birds.
- g. Only those WMAs within GBCCs will be required to meet the goals above, though all fields greater than 25 acres should be managed in accordance with the grassland bird BMPs. Currently, about 5% of the acreage in WMAs is grassland habitat.
- h. The Division will work with conservation partners to carry out BMPs on private lands to help achieve the goals above.
- i. Grassland management will be based on the grassland bird BMPs, namely establishment of grasses, rotational mowing outside of breeding and wintering periods, removal of trees and shrubs, and control of invasive vegetation.
- j. Grassland management will focus on habitat needs for site-specific grassland birds, contemplating juxtaposition to other habitat types and conservation of sensitive or ecologically-unique habitats (e.g. wetlands, marshes, and forested stream buffers).
- k. Habitat management will adapt as staff learns what techniques work best.

#### VIII. Location:

The guidance and goals for implementing the Strategy for Grassland Bird Habitat and Conservation will apply to all WMAs within a GBCC except:

- a. Where there are no existing grasslands > 25 acres on a WMA, and there are no viable options for the creation of suitable grassland habitats on the WMA (e.g. no contiguous grasslands > 25 acres);
- b. There are legal limitations or restrictions on habitat management in the deed, or in the case of those within the forest preserve, in the state Constitution;
- c. There are overarching ecological considerations that predominate at the site (e.g., rare natural communities or habitat for endangered or threatened species). The simple presence of a rare community or species will not inherently preclude portions of the WMA from being part of the Breeding Grassland Bird Habitat Strategy;
- d. There are physical limitations (e.g., water features or steep slopes) that preclude management; or

- e. There is no legal access for conducting management.
- f. Appendix 2 summarizes the GBCCs approved as of the writing of this document.

### IX. Key partners:

The Division is collaborating with a variety of conservation partners to implement this strategy, including:

- a. The Division of Fish and Wildlife and Division of Operations staff, both in the regions and in central office, including the Division leaders;
- b. Farm Service Agency, Natural Resources Conservation Service, Audubon New York, SUNY-ESF, SUNY-Brockport, Cornell Lab of Ornithology, United States Forest Service, United States Fish and Wildlife Service; and
- c. Public and private landowners, who will be engaged as we execute this strategy.

This range of partnerships enables a variety of approaches to implementation of the strategy and therefore enhances its likelihood of success. For example, the Division will take three major actions: make maintenance and expansion of grassland habitat a priority on all WMAs in GBCCs, work to improve management for the species at greatest risk and support the efforts of others to prioritize grassland bird management within GBCCs and on private lands. These actions will be carried out through the provision of technical guidance and, as made available through sources such as the Endangered and Threatened Species Mitigation Bank Fund and the Federal Aid in Wildlife Restoration Grant W-173-G, direct support for actions that support the implementation of the strategy.

The Natural Resources Conservation Service (NRCS) is dedicated to supporting grassland bird habitat though conservation programs and practices. Programs include Environmental Quality Incentives Program (EQIP) and Conservation Stewardship Program (CSP). Conservation Practice Standards include Upland Wildlife Habitat Management, Wildlife Habitat Planting and Early Successional Habitat Development/Management. Through these programs and practices, NRCS is able to restore, enhance and maintain grasslands that benefit a diversity of grassland bird species.

Audubon New York has offered to work with the Division to develop a private landowner program that can be implemented in a way that doesn't place unnecessary administrative burden on the agency. The organization will also help guide the use of the Endangered and Threatened Species Mitigation Bank Fund in the most efficient and effective way, particularly in supporting a private landowner program.

The Cornell Lab of Ornithology and the Cornell Land Trust Bird Conservation Initiative will work to support the implementation of this strategy and amplify strategic grassland conservation by

focusing on protection and enhancement of this habitat on private lands to help reverse massive bird declines. We will work with bird conservation partners and land trusts to provide technical assistance to farmers and landowners to help better manage and restore open land for target species, support outreach and monitoring by teaching about grassland birds and eBird, and assist partners, when possible, with farmer incentive payments to help offset the costs of initial management changes and the integration of bird-friendly management practices into holistic farm planning and protection.

SUNY-Brockport has offered to provide technical advice relating to implementing the NYSDEC Strategy of Grassland Bird Habitat Management and Conservation 2022-2027, on topics that include grassland bird monitoring and management, and data analysis.

The Finger Lakes National Forest will continue to maintain grassland habitat within the grassland bird conservation center. This will include using tools such as prescribed fire as well as mowing, etc. The Finger Lakes National Forest has begun and plans to continue adding native warm season grass habitat within their grasslands in order to enhance the on the ground habitat quality.

#### X. Timeline:

- a. The term of this plan will be five years, at which time we will reassess what is working, where the obstacles are, and how close we are to meeting our goals of maintaining 7,500 acres of grassland habitat with 1,625 acres under BMPs within each GBCC. At that time, we will make any adjustments to the Strategy for Grassland Bird Habitat and Conservation as deemed appropriate.
- b. To maintain grassland habitats, management (e.g. mowing) will need to occur every 1-3 years, commensurate with the habitat needs of the target species and the ecological constraints of the site.
- c. A schedule of implementation and an annual workplan will be developed, with work within WMAs incorporated into the Habitat Management Plan for the property.
- d. The intent is to commit to implementing this strategy for the long-term: species will need this habitat in perpetuity.

### XI. Tracking outcomes:

- a. Post-treatment evaluation will document both wildlife and vegetation responses to determine whether we are meeting our goals.
- All monitoring will be kept simple and, to the degree possible, use our conservation partners, landowners, citizen science, and existing monitoring programs and protocols.
  Evaluation and assessment will be at the level appropriate to determine response of the target species and will not attempt to capture the response of all wildlife.

- c. Monitoring may occur at different levels for different areas or target species (e.g. bobolink vs. northern harrier).
- d. Additional guidance will be developed to guide the scope and magnitude of monitoring, including when and where pre-management assessments may be desirable or necessary. Monitoring will be addressed in each HMP to correspond to the grassland management actions and will follow a template to be provided.
- e. The wildlife benefits of managing grasslands are well documented. It is not necessary therefore to research the effects of general management on grassland birds. However, for sites with the rarest of species, such as upland sandpiper or Henslow's sparrow, monitoring could help improve specific management techniques to benefit these species.
- f. We will use a data management system to track progress, and to the degree possible, it will be consistent with existing data management systems.

### XII. Building Expertise:

- a. This is an enduring program. We will provide all necessary training and tools to develop expertise in our staff, including biologists, technicians, and other staff and partners involved in the management of grasslands.
- b. To the extent practicable, we will seek training and research expertise from our conservation partners.

#### XIII. Communication:

- a. Communication, both internally within the Division and externally with the public, NGOs, and other groups, is an important component of this effort and recognized as a central element of this enterprise.
- b. We will share HMPs and grassland conservation plans with the public to provide information and gain support for our habitat management and to promote the benefits of conserving grassland habitats.
- c. A central message will be that we are restoring and enhancing grasslands for birds and other wildlife habitat. We are encouraging the public to manage grasslands to benefit grasslands birds.
- d. Larger grasslands on WMAs within the GBCCs will serve as demonstration areas for the public. Signage will explain the reasons and methods for managing grasslands for birds and other wildlife.

### Appendix 1: Best Management Practices for Grassland Birds

The following sub-sections provide guidelines for grassland habitat management on all WMAs in NY. For more detailed information and recommendations see <u>A Plan for Conserving Grassland Birds in New York</u>. In particular, refer to the plan for species-specific habitat requirements and detailed recommendations regarding grassland management and restoration techniques.

#### General Management Recommendations

- Target management for grassland bird species known to be in the vicinity, and consider the needs of both breeding and wintering grassland bird species.
- Consider the surrounding landscape when making management decisions.
- Conduct baseline grassland bird surveys on newly acquired fields or fields targeted for management changes to determine which species are present.
- Increase field size by hedgerow removal, removing trees, etc. to benefit species that require large, open fields.
- Control invasive plant species (glossy buckthorn, pale and black swallowwort, Canada thistle, Phragmites, etc.) to improve habitat quality.
- When developing grassland planting or habitat restoration projects, consider a variety of factors including the targeted grassland bird species, pollinators, seed mix (warm versus cool season grasses, forbs, wildflower mixes, grass height and density), timing of planting, existing site conditions, and vegetation removal techniques (including herbicide and intensive disking).
- Utilize mowing, haying, burning, and grazing for maintaining grassland habitat, after evaluating the appropriateness of these methods relative to site conditions and management objectives. In particular, burning cool season grasses is not advisable in most situations in New York.

### Timing of Management

- Fields over 25 acres (including all contiguous fields) and fields of any size with a history of listed (federally listed and/or state E/T or SC) grassland bird species within the last 10 years:
  - O Avoid mowing or conducting other management between April 23 and August 15, unless the field(s)/area(s) targeted for management are first assessed or surveyed to confirm there is no active nesting by E/T/SC grassland birds and the proposed management will provide long-term benefits to the habitat/wildlife (such as invasive species management). In some cases, if nesting locations can be avoided, such as using spot treatment for invasive species, work can be done as long as any negative impacts to the species of concern are eliminated.
- Fields under 25 acres (including all contiguous fields) with no history of listed species:
  - o Fields can be managed/mowed between April 23 and August 15 to accomplish other goals and priorities that benefit other species that use the habitat. If early management is proposed, then the habitat requirements and nesting periods of other species should be considered (e.g., nesting waterfowl, American Bittern, reptiles, and amphibians).
- Winter Restrictions: Avoid mowing and other management from November 1 to March 31 within fields over 25 acres (including all contiguous fields) and fields with a history of listed wintering raptors (regardless of field size). If management to improve habitat is planned during this time, conduct pre-treatment winter raptor surveys using established protocols to confirm there is no use by

listed wintering raptors (short-eared owl and northern harrier). Other activities that cause excessive disturbance such as frequent high-speed snowmobile, ATV, motorized vehicle operation, or other loud noises should be avoided from November 1 to March 31, inclusive for the protection of wintering raptors.

### **Additional Mowing Guidelines**

- Frequency of mowing, size of area mowed, and mowing techniques should be based on species present and current and desired habitat conditions.
- Block or spot mowing is preferred, and strip mowing should be limited (especially in fields over 25 acres). In some cases, spot/wander mowing can be done to leave cover while targeting problem areas.
- Unmowed blocks should be in the shape of a square as opposed to long rectangles.
- When mowing, consider mowing from one side of the field to the other side or start in the center and mow outwards to avoid concentrating animals in the area yet to be mowed.
- In general, mow grass to a residual height of 6-12 inches.

### Appendix 2. Grassland Bird Conservation Center Summary

#### A. Criteria for inclusion:

Area of 25,000 acres or more that contains at least two of the following:

- 1. > 7,500 acres of grasslands (i.e. > 30% of landscape is currently grass/open field, as determined by the NLCD +/- 5 % to account for error)
- 2. A grassland anchor field(s) meeting these factors:
  - a. The anchor field must occur on land held in permanent conservation status, where best management practices can be administered in perpetuity. Examples may include but are not limited to: local, tribal, state or federal lands managed in part for wildlife or conservation or land trust lands or managed private lands under permanent conservation easement.
  - b. The "anchor" field must include one of the following:
    - A contiguous grassland of 250 acres or larger that is managed following BMPs for grassland birds.
    - ii. Two grasslands fields, each of 125 acres or more, that are managed following BMPs for grassland birds.
- 3. At least 1,625 acres of grasslands already managed under BMPs for grassland birds
- B. Grassland Bird Conservation Centers: Total Area: 556,681 acres.

#### 1. Jefferson County 1:

i. County: Jefferson

ii. DEC Region 6

iii. Area: 119,410 acres

iv. Grassland %: 40

v. Anchor field: Yes

vi. WMAs: Ashland Flats, Point Peninsula

vii. Total Cons Lands: 10,894 acres

#### 2. Jefferson County 2:

i. County: Jefferson, St. Lawrence

ii. DEC Region 6

iii. Area: 114,971 acres

iv. Grassland %: 28.5

v. Anchor field: Yes

vi. WMAs: French Creek

vii. Total Cons Lands: 8,020 acres

#### 3. Jefferson County 3:

i. County: Jefferson.

ii. DEC Region 6

iii. Area: 106,252 acres

iv. Grassland %: 44

- v. Anchor field: Yes
- vi. WMAs: Perch River
- vii. Total Cons Lands: 4,388 acres

#### 4. St. Lawrence County:

- i. County: St. Lawrence
- ii. DEC Region 6
- iii. Area: 25,289 acres
- iv. Grassland %: 26
- v. Anchor Fields: Yes
- vi. WMA: None (NYPA)
- vii. Total Cons Lands: 904 acres

#### 5. Oak Orchard-Iroquois:

- i. County: Niagara, Orleans, Genesee.
- ii. DEC Region 8
- iii. Area: 90,710 acres
- iv. Grassland %: 27
- v. Anchor field: Yes
- vi. WMAs: Oak Orchard, Tonawanda
- vii. Total Cons. Lands: 10,828 acres

#### 6. Washington County Grasslands:

- i. County: Washington.
- ii. DEC Region 5
- iii. Area: 102,233 acres
- iv. Grassland %: 38
- v. Anchor field: Yes
- vi. WMA: Washington County Grasslands
- vii. Total Cons. Lands: 2,598 acres

#### 7. Finger Lakes National Forest

- i. County: Seneca, Schuyler.
- ii. DEC Region 8
- iii. Area: 44,090 acres
- iv. Grassland %: 25.2
- v. Anchor field: Yes
- vi. WMA: None (USFS)
- vii. Total Cons. Lands: 23,225 acres

#### 8. Shawangunk Grasslands

- i. County: Ulster.
- ii. DEC Region 3
- iii. Area: 64,420 acres (refuge is 565 acres)
- iv. Grassland %: 23.23
- v. Anchor field: Yes
- vi. WMA: None (USFWS-NWR)
- vii. Total Cons. Lands: 2,985 acres

