

Final Performance Report for T-98-R-1

Grassland Habitat Restoration at Prairie Ridge State Natural Area

Project Information:

- a) Grant Title: *Grassland Habitat Restoration at Prairie Ridge State Natural Area*, T-98-R-1
- b) Project Number: T-98-R-1
- c) Grant Award Number: F15AF01094, MOD 01
- d) Recipient DUNS Number: 617554506
- e) Legal Name of Entity Doing the Project: The Illinois Department of Natural Resources
- f) Period of Time covered by this report is January 1, 2016 through December 31, 2020
- g) Project Period: 01/01/2016 through 6/30/2021

Grant Status: This grant was suspended for some time due to the State of Illinois Budget Impasse (which left the State of Illinois without a budget for two years during the project period) ; the retirement of the grantee (project leader); the changing job duties of supporting staff members related to this grant project; and the difficulty of implementing this project through the State of Illinois procurement system. A modification to this grant was requested and awarded in July 2019 to modify the period of performance and to revise the budget. An extension of time through June 2021 was requested. Since that modification the grant has been active albeit impacted by the limitations on staffing and operations associated with the Covid 19 pandemic. All aspects of this grant were completed despite the significant hurdles encountered during the grant's active period. This final performance report details the operations conducted through the support provided by this grant award. Grant T-98-R-1, Grassland Habitat Restoration at Prairie Ridge State Natural Area was focused on the procurement of equipment items, supplies, and the administration of various contractual operations to maintain and enhance grassland habitat at Prairie Ridge State Natural Area.

Project Description: *Restore and protect grassland habitat within the Prairie Ridge Conservation Priority Area to maintain viable populations of greater prairie chickens and associated prairie wildlife. This proposed Grassland Habitat Restoration Project is consistent with "A Plan for the Recovery of Greater Prairie Chicken in Illinois (2004) and The Illinois Wildlife Action Plan (IWAP).*

By the end of this grant period, this project will maintain, enhance, and develop 4,317 acres of grassland habitat and their functional equivalents (e.g. large acres of desirable cultivated Eurasian grasses that support grassland wildlife including SGCN) utilizing ecosystem-based natural community and habitat management practices at Prairie Ridge State Natural Area.

The *Grassland Habitat Restoration at Prairie Ridge State Natural Area* project addresses conservation needs of the IWAP Farmland and Prairie Campaign. The objective of the Project is to expand the restoration and stewardship of high quality wildlife habitats at Prairie Ridge State Natural Area (SNA).

The approach outlined in the initially approved project consists of the implementation of management actions to benefit grassland dependent Species in Greatest Conservation Need (SGCN).

Prairie Ridge SNA, a 4,300 acre Illinois Natural Area Inventory Site, Conservation Priority Area (IWAP), and Audubon Important Bird Area contains two of the five significant grasslands in Illinois and is an important site for grassland birds in the Midwest. (See Figure 1) Currently Prairie Ridge provides habitat for 98 species in greatest need of conservation as identified in the Illinois Wildlife Action Plan. These include 24 state endangered, 6 state threatened, 6 watch list species, and 5 area sensitive species. Of those species, the greater prairie chicken is state endangered and a conservation reliant species in Illinois, requiring specific conservation actions to maintain the declining populations that persist in the State of Illinois. Greater prairie chickens persist only at Prairie Ridge State Natural Area (SNA) in southeastern Illinois.

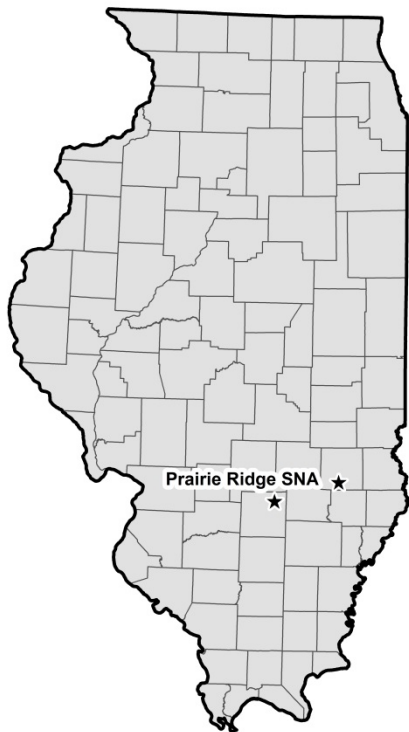


Figure 1: *Prairie Ridge State Natural Area is located in down-state Illinois and is composed of two management units, the Jasper county unit and the Marion county unit. The units of Prairie Ridge SNA are situated approximately 37 miles apart. The Jasper county unit (the area headquarters unit) is approximately 2,850 acres in size, the Marion county unit is approximately 1,400 – excluding non-grassland satellite areas under Prairie Ridge SNA’s jurisdiction.*

Within this project IDNR and its partners will utilize the following conservation practices to maintain high-quality grassland habitats for populations of SGCN: prescribed fire, invasive woody plant control, invasive exotic species control, boundary protection, habitat plantings, hydrology restoration, and project monitoring.

Funds through Grant T-98-R-1 allow for habitat restoration and management at Prairie Ridge SNA. Prairie Ridge is intensively managed to provide optimal habitat for grassland wildlife with emphasis on nest cover for grassland birds. Management activities supported by T-98-R-1 include prescribed burning; grazing; rotary mowing to provide suitable nesting structure; legume seeding for brood cover; exotic and invasive plant control; brush removal; and prairie and pollinator habitat restoration. This grant supports the management of 3500 acres annually at Prairie Ridge SNA as outlined in the IDNR approved "A Plan for the Recovery of the Greater Prairie Chicken in Illinois" and the Prairie Ridge State Natural Area – Habitat Plan. Critical grassland habitat restoration supported by this grant directly benefits the 98 species listed in the Illinois Wildlife Action Plan as species in greatest need of conservation (SGCN).

Final Performance Reporting:

Progress towards objectives: Over the course of this grant, IDNR staff and contractors managed, enhanced, and maintained approximately 6,000 acres. Of those acres, 2,500 acres were rotary moved, 1,500 acres were prescribe burned, and 2,000 acres were treated for invasive. The total acres maintained, enhanced, and managed exceeds the grant objective of 4,317 acres.

During the grant’s operational period a modification to T-98-R-1 was requested for a time extension and to revise the budget. This extension was awarded in July of 2019. The End Date of the Project was extended out to June 30, 2021. The original budget focused entirely on contractual services and did not allow for other budget categories. The revised budget for T-98-R-1 provided a more diversified budget with equipment, materials and supplies, and contractual services. A simple breakdown of that budget is as follows:

Equipment -

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| 1. 20 ft Rotary mower | \$30,000 |
| 2. Schulte Eliminator Brush and Weed Suppressor System | \$6,500 |
| 3. Slide-In Fire Service Unit (300 gallon capacity) | \$13,000 |

Materials and Supplies - \$20,500

Contractual Services - \$20,000

Accomplishments:

Equipment -

Operations related to this grant, immediately following the initial time extension, focused on the procurement of the equipment items identified. Procurement of the 20 foot rotary mower (a Schulte brand FX520), the Schulte Eliminator Brush and Weed Suppressor System, and a 300 gallon Poly skid tank slide-in fire apparatus was completed. All of these equipment items have been delivered to Prairie Ridge SNA. The Schulte mower, plus additional blades bushings, and locking nuts total \$33,826.00. The Schulte Eliminator Brush and Weed Suppressor System totaled \$7,000 dollars delivered and mounted to an existing 15' rotary mower at Prairie Ridge SNA. The poly tank skid unit was procured from Jensen Equipment Company and totaled \$4,240.

The equipment requested and obtained allows for the application of management prescriptions to more acres of habitat increasing the efficacy of IDNR staff conducting project related activities at Prairie Ridge SNA. The Schulte FX520 mower allows for the management of grassland successional stages. An aggressive rotary mowing program is utilized to maintain grassland acreages in the best possible conditions for grassland wildlife and SGCN. Rotary mowing large acreages requires specialized equipment with the durability to withstand the punishment of rough ground conditions and long field seasons. This equipment item will allow for a continued efficient mowing program that will maintain grassland habitats with the correct structure and openness that is required by many grassland species. The Schulte Eliminator Brush and Weed Suppressor System is an add-on herbicide application equipment item that is mounted to an existing Schulte XH1500 mower at Prairie Ridge SNA. This item allows for infestations of invasive plants to be treated while conducting mowing operations – thereby providing an additive invasive species control strategy for managing grassland natural community health. Invasive species control is a key management action on the Prairie Ridge Landscape and a management action that was supported by this Grant. Operations following purchase of the Schulte Eliminator Brush and Weed Suppressor System included the treatment of significant infestations of *Sericea lespedeza*, a problematic grassland weed species prevalent in meadows at Prairie Ridge SNA.

During the fall mowing season (Fall 2020) at Prairie Ridge SNA, the new Schulte rotary mower treated approximately 1,500 grassland acres effectively controlling undesirable woody species encroaching in the meadows and manipulating grass cover structure and densities throughout those acreages. The Schulte Eliminator Brush and Weed Suppressor System was utilized to treat approximately 65 acres of *Sericea* infested meadows and was also utilized to control populations of Japanese honeysuckle that had formed large colonies in grassland units in the Marion County unit of Prairie Ridge SNA.

The 300 gallon Poly skid tank slide-in fire apparatus was procured in June of 2021 just shortly before the close of the State of Illinois' fiscal year. This apparatus will support the diverse prescribed fire program implemented at Prairie Ridge SNA and throughout southern Illinois. This equipment item was not fielded for prescribed fire before the grant report period ended on June 30, 2021, due to limitations of prescribed fire application during the nesting season at Prairie Ridge SNA and because of various final assembly needs.

Materials and Supplies –

Materials and Supplies procured through T-98-R-1 include a range of items to support operations associated with the grant to maintain and enhance grassland habitats at Prairie Ridge SNA. Materials procured include:

- Fencing supplies (gates, treated posts, wire) to maintain boundaries, protect resource management infrastructure, and support the prescribed grazing program at Prairie Ridge SNA.
- Chainsaws, bars and chains necessary to support all manner of brush control actions and the prescribed fire program on the Area.
- Herbicide handling equipment including bulk chem pumps and specialty micro-matic couplers needed to ensure applicator safety when utilizing herbicides for the control of non-native invasive species present on Prairie Ridge.
- Prairie forb seed, clovers, cool season grasses, and warm season grasses have been purchased through T-98-R-1 to seed newly acquired tracts and restore and enhance meadows. Diversified plantings of native grasses and forbs have been undertaken at Prairie Ridge on the new 40-acre, Marshall Tract (currently owned by the Illinois Audubon Society) and on several units at Prairie Ridge where growing season burns have allowed for effective overseeding during freeze and thaw cycles. Clovers are seeded on select brood strips developed on the area that are specifically planted for grassland birds that benefit from leguminous forage and the insect fauna that utilizes those plantings.
- Communications equipment, including new F-52D Icom radios will allow for improved communications and safety of operations when conducting prescribed burns at Prairie Ridge SNA.
- Various powertools have also been acquired through T-98-R-1 to support the installation of barn owl and kestrel boxes, maintain fencing, and service habitat management equipment on the area.

Contractual Services –

Contractually conducted conservation actions associated with this grant that have currently been completed through T-98-R-1 include:

- Greater prairie chicken booming ground census operations conducted in the spring of 2020 and in the spring of 2021. These contractual agreements with multiple contractors provide a focused and detailed assessment of greater prairie chicken numbers at Prairie Ridge SNA, thereby determining the yearly health and robustness of the prairie chicken population in the State of Illinois.
- Brush control operations on the Walter's Forty, the Soldner tract, and various specified problem locations of woody species encroachment on Prairie Ridge SNA. Grassland areas at Prairie Ridge are subject to undesirable woody species encroachment, often along waterways and drainages, but woody species control requires multiple modes of action from contractual handsaw work to rotary mowing and even forestry grinding in the most badly encroached areas.

- The installation and maintenance of barn owl boxes at Prairie Ridge SNA, to maintain populations of barn owls and enhance the nesting and rearing resources for those owls on the area.
- Fence construction to maintain boundary fences and preserve the integrity of facilities and habitats.
- Boundary surveys to reestablish property boundaries on select areas of Prairie Ridge SNA where neighboring landowners are impinging on preserve boundaries.

Budget Status:

Spend down of the T-98-R-1 budget has been completed to the degree possible for this grant project. A final tabulation has determined that \$34.00 remained in the Equipment line item. A total of \$2,149.78 remained in Materials and Supplies. After the close of the grant and the State's fiscal year a vendor indicated that they had not been paid for materials related to the grant totaling \$1,980.00. This oversight was then corrected through other fund sources. Contractual Services was deficit spent to \$2,658.66. Please see the spreadsheet below for further specificity on expenditures.

fire operations on the area and will allow for enhanced habitat management on the area into the future. Materials and Supplies procured supported the enhancement of grassland habitat; monitoring and recovery of imperiled species; and the complex management of grassland habitats through the purchase of various powertools and smaller consumables. Contractual Services funds were utilized to maintain and defend preserve boundaries; monitor and protect imperiled grassland species populations; restore grassland habitats through active habitat stewardship projects (firebreak installation and brush control projects); and maintain important habitat management equipment.

Grant T-98-R-1 through a particularly challenging period of operations for both State and Federal entities has been very successful and accomplished the goals of the grant award and is fully expended.

References

Illinois Department of Natural Resources. 2005. Illinois Comprehensive Wildlife Conservation Plan-Strategy. Illinois Department of Natural Resources. Version 1.0. xxv + 353pp.

Walk, Jeff. 2004. A Plan for the Recovery of the Greater Prairie Chicken in Illinois. Illinois Department of Natural Resources. Springfield, Illinois, USA.