

Office of Resource Conservation

State of Illinois

Grant Segment

PROJECT NUMBER: T-47 -D-1

PROJECT TITLE: Large-scale Grassland Bird Habitat Creation Project, Forest Preserve District- Kane County.

OBJECTIVES: Over the course of three calendar years, the District intends to establish grassland across land in Plato Township presently used for intensive row-crop production. An ambitious goal has been set: in three years the District intends to create between 300 and 500 acres of grassland suitable for nesting by a variety of grassland dependant birds.

Drawing from extensive experience with similar grassland creation efforts, this project shall provide grasslands with diverse plant structure and composition. Structural components such as acreage of field, plant height, and burn frequency are important considerations for this project. Conservation Priority birds such as Grasshopper Sparrow prefer short to medium height nesting cover, while Bobolink and Henslow's sparrow prefer medium to taller structure cover. Overall a diverse mix of dry prairie, mixed height and tallgrass prairie habitats will be created. The mosaic of habitats created shall also include wetlands of varied shapes and types.

To document grassland bird use of the restored prairies, District staff shall conduct standard point-count bird surveys from June 1 through July 10 for each year of the project.

EXPECTED RESULTS AND BENEFITS: In the past 10 years the District has planned for and planted over 1000 acres of prairie grass communities to prevent extirpation of prairie plant communities from Kane County and, more importantly, provide large refugia for dwindling grassland bird populations. All the projects implemented were large in scope and occurred on agricultural lands recently taken out of production. By utilizing sound and proven techniques to establish, then manage, a wide variety of prairie plant communities found in our ecoregion, the District has created expansive grassland habitats regularly used by these Illinois Conservation Priority birds: Henslow's Sparrow, Grasshopper Sparrow, Bobolink, Savannah Sparrow, Sandhill crane and Dickcissel. The District's project in Plato Township will create habitat for these birds in the forms of large, protected grasslands of variable structure and botanic diversity.

APPROACH: The large-scale grassland creation project will be accomplished in three phases, with one planting phase occurring each of three years from 2007 to 2009. Activities in each phase year will be similar. Thus to reduce redundancy in this text, one overall description of tasks and activities is provided below.

The first prime project action shall be to end row-crop production at selected sites. During each October from 2006 to 2008, farm leases shall be modified or terminated to annually remove 100 to 150 acres from row-crop production.

Crop harvests occur mainly in October, as do harvests of native seed used for local restoration efforts. During October and November (2007 - 2009), District staff shall hand and machine harvest the bulk of

the seed required, with additional seed coming from FermiLab donations. FermiLab annually combine and harvests thousands of pounds of prairie grass seed. In addition to the hand-harvested and FermiLab donated seed, approximately \$20,000 of native forb seed shall be purchased annually to supplement the initial mixes and overseed first and second year plantings.

Planting a prairie is a weather dependant activity. Seed shall be sown prior to December snows or in March after snows have melted, but before the ground thaws. It is planned that both contractors and District staff will install the seed across the vast acreage each year. The District owns a non-till seed drill, large tractors and spinner-disk seed spreaders, but because of other prairie seeding projects cannot seed all the areas targeted under this project.

Once the large fields are seeded with a cover crop (annual ryegrass) and permanent grassland matrix seed, an integrated weed management program shall be implemented.

As with other large prairie re-creations, weed management will be accomplished using well-timed field mowing, judicious use of herbicides and use of prescribed burning. Typical weeds to be controlled include white sweet clover, Canada thistle, musk thistle, cut-leaved teasel, horseweed, and giant ragweed

Mowing and herbicide treatments will vary from year to year. Some of the variability is attributed to success/establishment of cover crop, strength of the soil's weed seed bank, soil nutrient load resulting from farming, and abundance or lack of soil moisture.

A majority of weed control efforts will be concentrated in the first and second years following tallgrass prairie seed installation.

The most land management to be used in this project is prescribed burning. Burning is essential to reduce the abundance of invasive woody plants (e.g. cotton wood, cherry, box elder) that appear in fields the first few years following seeding.

Prescribed burns will be conducted the second growing season following each planting phase and shall continue on a regular basis into the distant future. All burn planning, coordination and trained District staff shall complete actual field ignition. The District has invested in all-terrain vehicles with water tanks, a grassland fire truck, flappers, brooms, rakes, NOMEX, radios, helmets & face shields for a core burn crew of 15 staff. Burning will be conducted primarily in the fall months.

Wetlands will be recreated during the first and second phase of the overall project. No funds are requested from the U.S. Fish & Wildlife Service (under the SWG program) to support proposed wetland recreation work in the project area. However, creating a mosaic of habitats (both wetland and grassland) is central to the success of the overall project. Recreating on-site wetlands will entail identifying, then removing and/or disabling drain tile lines to rehydrate hydric soil units. The District intends to hire a contractor to map then disable drain tile lines. A mix of live plant plugs and seed of appropriate natives species shall be sown in wet prairie and sedge meadow communities.

Finally, wildlife usage of the proposed prairie recreation areas must be documented. To that end, District staff shall establish point-count routes and monitor grassland bird use within the project areas. Several sampling points will be laid out along a transect, with each point 150 m apart. This sampling method entails standing at one point for 5 minutes and recording all species heard and observed within 75 meters of the point. District staff will collect data at each point six times from June 1 to July 10 of each project year.

LOCATION: Grassland habitat will be created on lands in Plato Township, Illinois that are owned & managed by the Forest Preserve District – Kane County. See the attachments for the Kane County Forest Preserve District sites included in this segment of Bowes Creek Woods Forest Preserve and Muirhead Springs Forest Preserve.

PROJECT SCHEDULE: Phases I to III (2007-2009)

Objectives & Tasks				
Phase I - 2007		June-July	July-Sept	Oct-Dec
End row crop production – first 100+ acres		x		
Purchase grassland seed		x		
Create seed mixes		x		
Install cover crop & permanent matrix seed		x		x
Initial grassland bird survey		x	x	
Mowing of fields for weed control			x	
Spot treatment - herbicide heavy weed zones		x	x	
Phase II - 2008	Jan-Mar	Apr-June	July-Sept	Oct-Dec
End row crop production – second 100+ acres	x			
Purchase grassland seed	x			
Create seed mixes for 2008 seeding area	x			
Install cover crop & permanent matrix seed		x		x
Supplemental seeding of Phase I planting area		x		
Year 2 grassland bird survey		x	x	
Evaluate growth & success of Phase I planting			x	
Mowing of fields for weed control			x	
Spot mowing & herbiciding			x	
Conduct prescribed burn across Phase 1-100 acres	x			x
Phase III - 2009	Jan-Mar	Apr-June	July-Sept	Oct-Dec
End row crop production – third 100+ acres	x			
Purchase grassland seed	x			
Create seed mixes for 2009 seeding area	x			
Install cover crop & permanent matrix seed		x		x
Supplemental seeding of Phase I & II planting area		x		
Year 3 grassland bird survey		x	x	
Evaluate growth & success of Phase II planting			x	
Mowing of fields for weed control			x	
Spot mowing & herbiciding			x	
Conduct prescribed burn across Phase I & II-100 acres	x			x

CONTACT INFORMATION:

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LITERATURE CITED:

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Illinois Natural History Survey. 1983. The declining grassland birds. Illinois Nat Hist Surv. Reports 227 : 1-2. Champaign, Illinois.

Herkert, J.R., Robert Szafoni, Vernon Kleen and John Schwegman. 1993. Habitat establishment, enhancement and management for forest and grassland birds in Illinois. Illinois Department of Conservation-Div of Natural Heritage. Natural Heritage Publ #1. Springfield Illinois.