

## Grant Proposal

Project Number: T-29 D-1

Project Title: Boone County Conservation District Distillery Conservation Area  
Henslows' Sparrow Habitat Expansion.

### Purpose:

The Boone County Conservation District (BCCD) manages the Distillery Conservation Area west of Belvidere, Illinois south of U.S. Business 20. On this site breeding pairs of Henslows' Sparrows have been observed each year since the spring of 2001. Since learning about the presence of this state threatened species, efforts have been made to create, enhance and expand their habitat. Presently, a total of 41 acres have been restored with plans to expand the restoration to include an additional 35 acres of native grassland.

Between the implemented and planned restoration sites, is a 40 acre tract of remnant oak savanna and abandoned pasture. This project proposes to enhance the oak savanna remnant and restore the pasture to short grass prairie, a critical, habitat component of Henslows' Sparrows and other ground nesting bird species. Completion of this project would establish a diverse ecology of nearly 116 acres of quality prairie, wetlands, and savanna.

### Need

The Henslows' Sparrow is as of March 2005 on the Illinois threatened species list, and is one of many "species in greatest need of conservation" in the recently completed Illinois Comprehensive Wildlife Conservation Plan. Being on these two lists demonstrates the need to continue the District's efforts toward improving and expanding habitat for the Henslows' Sparrow.

Four breeding pairs of Henslows' have been identified at Distillery Conservation Area by IDNR Heritage Biologists and local birders. These birds have been observed utilizing the Distillery Road site for five consecutive years indicating that the conservation area provides critical habitat for these birds. Because these birds are present and have been successful here, it is in the best interest of this species and other ground nesting birds to connect adjacent habitats to the areas where they have been observed courting, feeding and nesting.

In addition to habitat improvement, this project also creates opportunities for our education department. Our education staff can utilize the site to demonstrate the benefits of habitat restoration and enhancement by informing and educating the public about the diverse ecosystems native to Illinois using this site as a model.

### Objectives

Our proposal seeks the means to enhance and restore a portion of the Distillery Conservation Area to native short grass prairie and oak savanna. IDNR C2000 funds have already been secured to restore 14 acres of short grass prairie. This area will be fully restored by the spring of 2006. In addition 25 acres have been cleared of invasive woody

species and planted to native short grass prairie and forbs. This project was possible with funds from the Habitat Restoration Program for the Fox and Kishwaukee River Watersheds. This project will be completed in the spring of 2006. An additional 27 acres have been restored using BCCD resources. The BCCD is seeking funds to restore 40 acres adjacent to these project areas. The 40 acre project will link all of these areas creating a total of 116 acres of high quality habitat.

The District will allow two years for brush clearing because this is a very weather dependent activity. Brush must be removed on frozen ground, preferably with a snow cover. The stumps of the removed brush will be herbicided during the time of brush removal. In the third year the area will be seeded and weeds will be controlled with mowing and hand weeding as needed in sensitive areas. The area will then be put on a management schedule for weed control and burning, all additional work will be logged in the conservation areas management plan.

### Expected Results or Benefits

Once the entire project is completed the BCCD will have an additional 25 acres of short grass prairie and 15 acres of oak savanna habitat in the Distillery Conservation Area. This will link a number of different restoration projects making a continuous area of high quality habitat for numerous species of wildlife, including the state threatened Henslows' Sparrow. Expanding a key part of this bird's habitat will give it more breeding and nesting ground, strengthening the odds of expanding its population. A bird monitoring study including the Henslows' Sparrow would be good information for the Wildlife Action Plan and the Boone County Conservation District to have. A study is not part of this grant project. However, a volunteer for the BCCD has offered his services to conduct a survey. The volunteer is very knowledgeable in bird identification but would need some guidance in regards to documentation. Brad Semel the IDNR Project Manager for this project has offered his service in helping set up transects and documentation. The district is planning on monitoring the status of the Henslows' Sparrow population before, during and after project completion.

When the area is fully restored it will open up many educational opportunities for the BCCD education staff. The area will be a very good model of two native ecosystems of Illinois. The area will be a useful seed source for our natural resource staff to use for other habitat restoration projects throughout BCCD properties.

### Approach

The 40 acre project area the BCCD plans to restore is an old brome pasture and remnant oak savanna with significant encroachment of invasive brush. All of the brush on the site will be removed with a machine called a geoboy. This machine sits on large forestry tires or tracks. The weight of the machine is dispersed evenly making for a very light foot print. This machine will do all of the brush clearing work on frozen ground allowing for minimal ground disturbance. Trees too large for the machine or inaccessible will be removed by hand or with an all wheel steer loader owned and operated by the BCCD. This machine also creates minimal ground disturbance because all four wheels are able to turn unlike a skid steer which turns like a tank, causing heavy ground disturbance. The all wheel steer loader along with a feller buncher attachment is able to cut up to a 12 inch

tree and move it with its grapple arms. The brush and trees that are cut with the feller buncher and by hand will be piled and burned on site.

All of the stumps that exist after the tree and brush removal will be treated with an oil based woody and broadleaf herbicide. The brome grass will be killed with a glysophate herbicide right before seeding.

Once all of the brush clearing and herbiciding is completed a short grass prairie and oak savanna seed mix will be planted. Oaks both young and old are already present, which means some regeneration has taken place. They should begin to thrive once all of the brush that is choking them out is removed.

This project will take three years to complete. The first two years will focus on brush removal. Most of this will be done on frozen ground for minimal ground disturbance. The District is allowing two years for brush removal because it is a very weather dependent activity. Heavy brush removal must be done on frozen ground preferably with snow cover so sensitive areas are not damaged. During brush removal the stumps will be treated with an oil based herbicide.

In the third year the area will be burned to get rid of slash from the brush clearing and the thatch that has accumulated over the years in the old brome field. Our experience shows this makes herbiciding and seeding a lot easier with better results occurring. Once the burn occurs the project area will be broadcast with a glysophate herbicide avoiding any plants of value. Once this is completed the area will be seeded, any area that is not accessible to the no till seeder will be hand broadcast and raked in for good soil contact.

The seed used will be of a local genotype collected from district property and purchased from a reputable source. Maintenance mowing will be done as needed keeping the weeds down and giving the seed time to establish itself. Finally, it will be put on a management schedule with burning and weed control being done as needed.

#### Location:

The restoration project will take place at Distillery Conservation Area 7421 Distillery Rd., Belvidere Illinois 61008. The BCCD headquarters and the location of the Project Manager are located at 603 N Appleton Rd. Belvidere Illinois 61008.

#### Personnel

The following personnel from the Boone County Conservation District

One Restoration Projects Manager - Joshua Sage

One Restoration Technician - Seasonal Employee

The following personnel from Illinois Department of Natural Resources

IDNR Project Manager

Brad Semel

Natural Resource Specialist

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