A federal program is bringing about large-scale habitat improvements on public land.

Reversing Habitat Degradation

Story By Eric Smith

Efforts to conserve and manage the state's species and habitats received a critical boost in 2000 when Congress created the State Wildlife Grants Program to support conservation aimed at preventing wildlife from becoming endangered. This new program was an ambitious effort to keep common species common, and is giving states matching-grant funds for long-overdue conservation projects.

Funds from the State Wildlife Grant program are utilized to manage unique habitats, such as the oak savanna, prairie and marshes within the Greater Kankakee Sands Ecosystem.

Thanks to the program, Illinois now has a statewide wildlife conservation action plan that, among other priorities, seeks to protect no fewer than 350,000 acres of diverse habitats in Illinois. The new federal grants are funded by revenues collected from Outer Continental Shelf Oil and Gas royalties, which are deposited into the Land and Water Conservation Fund and apportioned annually to states. These resources are helping Illinois complete large-scale habitat improvement projects that previously lacked basic funding.

Here's how the program works.

The State Wildlife Grant Program distributes federal grant funds nationwide for the development and implementation of programs that benefit Species in Greatest Need of Conservation and their habitats. To qualify for SWG program funding, states were required to develop a

(Main photo courtesy Michael Jeffords. Inset photo by Adele Hodde.)

Prairie Ridge State Natural Area is a key Midwestern site for nesting grassland birds, including the state-endangered greater prairie-chicken.

(Photo courtesy Carol Freeman, www.carolfreeman.com.)

comprehensive wildlife conservation action plan. In Illinois, more than 150 agencies and organizations—scientists, sportsmen, conservationists, government agencies and other community members—took part in drafting a document identifying Illinois' most vulnerable species and habitats.

The approved Illinois Wildlife Action Plan outlines 654 species in greatest conservation need, including 432 invertebrates, 80 fish, 14 amphibians, 23 reptiles, 85 birds and 20 mammals. These species were identified because they had small or declining populations, were species that are dependent on rare or vulnerable habitats, or were species that are indicative of the health and diversity of the state's wildlife and habitat resources.

The plan also identifies habitats with the greatest conservation need and their potential for improvement. Additionally, the plan establishes specific conservation goals for the enhancement and protection of these sites. One of these goals is to actively manage all remaining high-quality forests, wetlands, prairies and savannas in Illinois. This goal alone encompasses more than 350,000 acres.

Since 2003, Illinois has funded 65 SWG projects. One such project, Public Lands Stewardship Initiative T-28-M-1, conducts management on state-owned lands and focuses on restoring and maintaining rare, high-quality habitats that support significant numbers of species in greatest need of conservation. Management techniques implemented in this initiative include prescribed fire, woody vegetation control, exotic species control, erosion/sedimentation control, boundary protection/fence repair, habitat creation and restoration, hydrology restoration, and wetland restoration and creation.

To date, the Public Lands Stewardship Initiative has received nearly 2 million dollars, matched with an equal amount of state money (mostly Natural Areas Stewardship, Furbearer and Natural Resource Damage Assessment funds) or staff time spent working on a particular project.

Prairie Ridge State Natural Area, a 4,100-acre natural area in Jasper and Marion counties, has received annual funding under the initiative. Prairie Ridge is a key Midwestern site for nesting grassland birds, which have shown a more consistent, steep and geographically widespread decline than any other group of North American birds, primarily due to loss of grassland habitat. Illinois grassland birds have declined by 75 to 95 percent in the last 30 years.

Prairie Ridge provides critical habitat for 93 species identified in the plan, including 20 state-endangered and seven state-threatened species. Illinois' only breeding population of greater prairie-chickens, and the state's largest breeding populations of northern harriers and short-eared owls, are present there. The December 2009 Audubon Christmas Bird Count survey indicated

Located just south of Chicago, the Greater Kankakee Sands Ecosystem supports unique organisms, such as the slender glass lizard (inset), red squirrel and plains pocket gopher.

(Main photo courtesy Carol Freeman. Inset photo courtesy Mike Redmer.)

(Photos courtesy Marty Kemper.)

Reintroducing fire to one Washington County area resulted in the emergence of a plant previously unknown to the site—the state-threatened buffalo clover.

an impressive 74 greater prairie-chickens, 63 northern harriers, 49 short-eared owls and six loggerhead shrikes over-wintering at the site.

The Prairie Ridge SWG initiative has become an important tool for grassland habitat management, providing the resources necessary to conduct habitat restoration and management, such as prescribed burning, invasive brush and nuisance species control, mowing to provide proper vegetative structure for nesting prairie-chickens, site and equipment maintenance, prairie and cool season grass plantings, and prairie pasture maintenance.

Within the **Greater Kankakee Sands Ecosystem** are two of Illinois' 30 conservation opportunity areas, **Iroquois County State Wildlife Area** and **Hooper Branch Savanna Nature Preserve**. Scientists consider the Kankakee Sands a resource-rich, important bird area, and one of the top three sites for biodiversity within the tallgrass prairie region. In 1997, the U.S. Fish and Wildlife Service stated the area contained the "largest concentration of high quality black oak sand savannas in the Midwest."

The Kankakee Sands contain a diverse mosaic of oak savanna, prairies and marsh communities. The region provides habitat for 14 state-listed species and nearly 80 species in greatest need of conservation. Several unusual mammals inhabit the area, such as the plains pocket gopher, southern flying squirrel and the rare and range-restricted red squirrel.

Utilizing funds from the initiative, surface and groundwater have been restored to almost 600 acres of rare sand savanna and prairie, including one of Illinois' largest and finest pin oak flatwoods. In addition, a 77-acre crop field was restored to mesic sand prairie and now is inhabited by grassland birds, pocket gophers and glass lizards.

At Starved Rock State Park, efforts are under way to slow run-off into the park, protecting the canyons and a number of plants, including the state-endangered royal catchfly.

At **Washington County Conservation Area** and adjacent **Posen Woods Nature Preserve**, infestations of exotic shrubs and vines, coupled with decades-long absence of fire, systematically degraded these former woodlands to a bare forest floor.

Following herbicide applications, mechanical removal of exotic species, and prescribed fire on more than 275 acres, a significant number of plant species returned. In addition, buffalo clover, a state-threatened species previously unknown from the site, emerged in two of the treated units.

On former agricultural fields above the natural area canyon systems at **Starved Rock State Park**, 100 acres of prairie and wetlands are being established, restoring grassland and wetland wildlife habitat and slowing water runoff into ravines. These efforts are reducing erosion, streambed head-cutting and soil deposition in unique and sensitive areas

(Main photo courtesy John Muchow. Inset photo by Adele Hoddle.)

Efforts to control large expanses of exotic species at northeastern Illinois' Goose Lake Prairie State Natural area benefit the state-threatened Blanding's turtle.

which provide critical habitat for several state endangered and threatened species.

At **Goose Lake Prairie State Natural Area**, more than 100 acres of giant reed grass and reed canary grass were controlled to benefit wetland-dependent bird species. Eliminating these two exotics species improved habitat for Illinois' largest known population of the state-threatened Blanding's turtle.

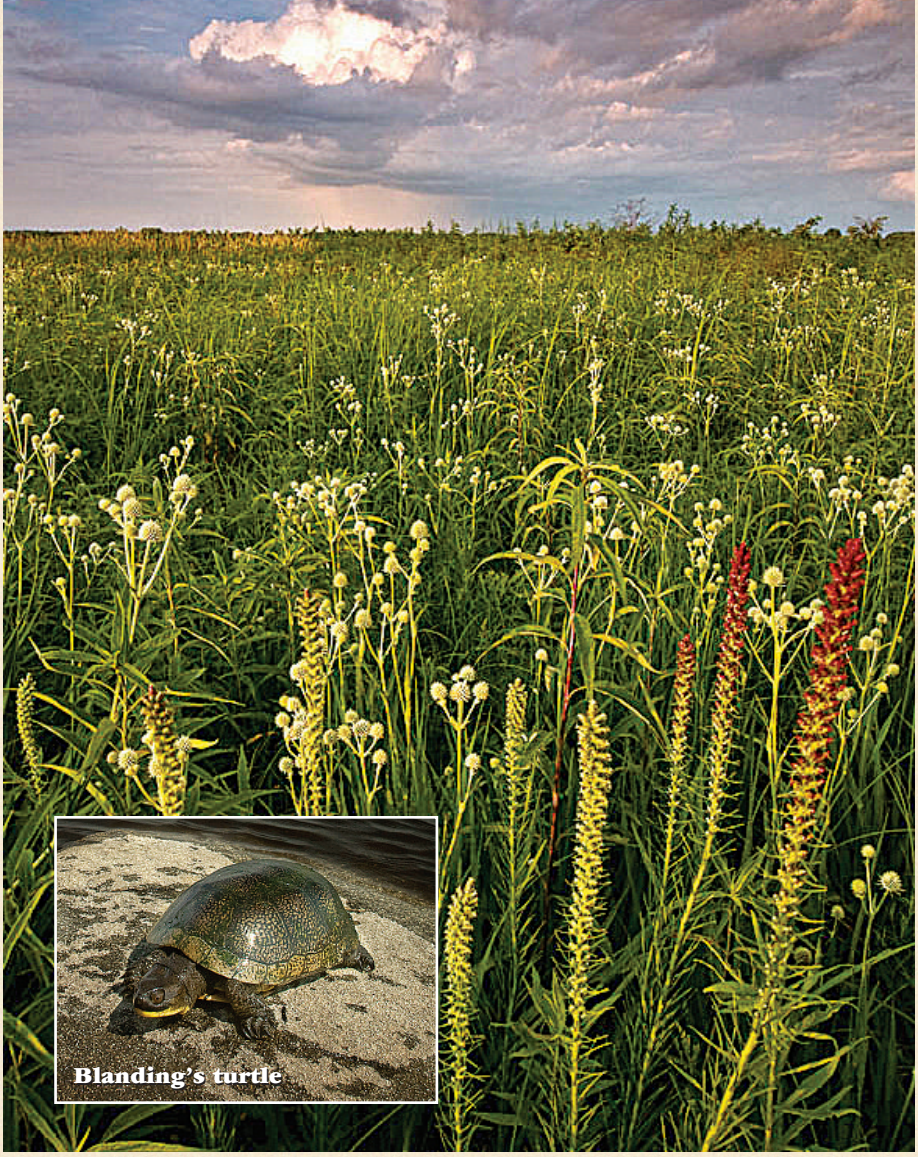
All total, 46 sites in 30 counties across Illinois have benefited from SWG funding under the Public Lands Stewardship Initiative.

Woody and herbaceous exotics have been treated on 1,951 acres and native woody vegetation reduced on 56 acres. Prescribed fire has been used on 1,043 acres, 76 acres have been reforested, and 863 acres of fescue or former row crops have been converted to warm- and cool-season grasses.

The importance of this work goes far beyond the actual number of acres treated.

The need for managing fish and wildlife habitat on Illinois' public lands far exceeds available funding. If habitats are not actively managed, their quality declines. If allowed to degrade for a long period of time, habitats can not be restored to their original quality and species are permanently lost.

The Public Lands Stewardship Initiative State Wildlife Grant program has provided a much-needed infusion of cash and allowed DNR to start desperately needed habitat management on publicly owned sites.



(Main photo courtesy Mark Baldwin. Inset photo courtesy Dan Kirk.)

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Natural Areas Acquisition Fund – Bringing federal conservation dollars to Illinois

The U. S. Fish and Wildlife Service State Wildlife Grant program has provided a much-needed shot-in-the-arm to natural resource conservation issues nationwide and Illinois is no exception.

In order to address critical needs identified in the Illinois Wildlife Action Plan, these federal grants require a 50 percent cost share of non-federal funds by participating states. While this match can be met through in-kind services (time and work of non-federally supported DNR field staff, partner contributions, etc), outright cash match has played an important role in getting SWG projects on-the-ground. In Illinois, one of the most important sources of state funds has been the Natural Areas Acquisition Fund.

NAAF is funded by the Illinois Real Estate Transfer Tax, providing 10 cents for every $500 of real estate sold. (This tax also supports an openspace land acquisition and development grant program for local units of governments as well as an affordable housing program.) NAAF funds DNR's efforts to identify, protect, steward and defend Illinois natural areas statewide including natural areas acquisition.

Over the last 4 years, NAAF Stewardship Funds have permitted Illinois to capture approximately $580,000 in federal dollars (in addition to those from the Public Lands State Wildlife Grant) that may otherwise have been unattainable due to a lack of matching funds. An additional $140,000 was used to match an equal amount from other federal grant programs.

Projects, in addition to projects covered in the Illinois Public Lands Initiative, include ecosystem rehabilitation at Siloam Springs State Park and adjacent protected lands (one of Illinois' most significant areas of contiguous forest lands), exotic species removal and hydrologic restoration in the Illinois Sand Areas, and forest and woodland restoration efforts at Singing Woods Nature Preserve (Peoria County), Maze Woods Land and Water Reserve (LaSalle County), and Green River Sand Areas and environs (Lee, Ogle and Bureau counties) as well as a comprehensive statewide effort to maintain and restore hill prairies and associated bluff-land habitat statewide.