

WILDLIFE HABITAT INCENTIVES PROGRAM (WHIP) 2006 NEBRASKA PLAN

SETTING

The Chief's 2005 Action Plan for Fish, Wildlife, and Wetlands calls for NRCS leadership at the national and state level to recognize and promote fish and wildlife conservation as an agency priority. Also identified was the need to ensure all NRCS programs use their authorities to address fish and wildlife concerns and to focus conservation efforts on habitats and species of greatest conservation need.

This Nebraska Wildlife Habitat Incentives Program (WHIP) Plan identifies conservation targets, major resource concerns for each conservation target, and discusses opportunities to help alleviate or solve identified resource concerns.

Nebraska is considered by many to be the biological crossroads of North America. The rich diversity of this environment provides Nebraska with excellent habitat areas for many species of fish and wildlife. Many factors, including the change in elevation from the lowlands of the east to the highlands of the southwestern panhandle and the change in annual precipitation from over 35 inches to less than 12 inches, combine to produce great diversity in habitat. The deciduous forests and fertile, tall grass prairies of the east gradually change to the coniferous forests and mixed and shortgrass prairies of the west, giving Nebraska a truly diverse natural resource base. This diversity in Nebraska is represented by the more than 50 amphibian and reptile species, 84 fish species, 400 birds, 97 mammals, 1,600 plant species in over 60 plant communities, 32 species of mollusks, and tens of thousands of other invertebrate species that inhabit the state, some of which, are unique to the world!

The south central area of Nebraska is a critical migratory bird staging area within the Central Flyway. The environmental importance for providing habitat for wintering, staging and breeding waterfowl, threatened and endangered species, and neotropical migrants is significant. Its importance reaches beyond Nebraska's borders, having national and international implications. Nebraska's importance to migratory waterfowl is well documented. The Rainwater Basin and Nebraska Sandhills areas are included on the North American Waterfowl Management Plan. The Central Platte region, also known as the Big Bend reach of the Platte River, is also significantly important internationally as a spring staging area for over 300 bird species including eighty percent of North America's Sandhill Crane population, as well as providing important and critical habitat for threatened and endangered species such as Whooping Cranes, Least Tern, and Piping Plover. This area has provided more Whooping Crane use-days during fall migration than any other known migration habitat in the United States.

CONCERNS

The wildlife resources of the state have undergone a series of major changes since the arrival of the first settlers. An initial lack of concern for these resources in times of former abundance resulted in little regard being given to their conservation and propagation. Conversion of grasslands and woodlands to cropland along with increased human habitation has had far-reaching effects on Nebraska's wildlife resources. Many species have adapted and some even have benefited by these changes through increased availability of grains and forage and with the reduction of natural predators. Many others have steadily declined in numbers and distribution.

Today less than five percent of Nebraska's original tallgrass prairie remains. Most remnants of this once vast prairie are usually less than 80 acres in size. Those surviving hay meadows or grazed pastures exist in a sea of cropland. Only four populations of the western prairie fringed orchid, a tallgrass prairie plant, are now known to exist in eastern Nebraska.

Hundreds of miles of stream channels in the loess areas of eastern Nebraska were dredged and straightened near the turn of the 20th century to increase the capacity of stream channels and to alleviate cropland-flooding problems. This controversial engineering practice generally reduces stream lengths,

increases the channel gradient, as well as increasing the ability of the flow to erode channel sediments. As a result, these riparian area tributaries have become modified channels (void of vegetation) experiencing head cutting and degradation.

OPPORTUNITIES

As a requirement for receiving federal wildlife conservation funding, Congress required each state to develop a “Comprehensive Wildlife Conservation Strategy” (CWCS). The Nebraska Game and Parks Commission (NGPC) coordinated these efforts with input from a wide diversity of stakeholders. The resulting Comprehensive Wildlife Conservation Strategy is called the “Nebraska Natural Legacy Project.” The CWCS developed in Nebraska provides an essential foundation for the future of wildlife conservation and a stimulus to engage all conservation partners to strategically think about their individual and coordinated roles in prioritizing and delivering conservation work.

This work has been vital in identifying those fish and wildlife species most at risk. The Nebraska Natural Legacy Project developed a two-tiered approach to identifying those species that may be at-risk of extinction or extirpation from the state. The Tier I species are those globally or nationally at-risk. The Tier II list contains those species that are at at-risk within Nebraska while apparently doing well in other parts of their range. The rationale for the two-tiered list was to focus attention and resources first on those species that may be headed for global extinction (and federal listing as Threatened or Endangered) and secondarily focus on those species that may be facing extirpation from Nebraska but appear to be stable globally. Eighty species were identified as meeting Tier I criteria. Species were included that met one or more of the following: State and Federally Listed Species, G1-G3 Species, Declining species, Endemic Species and Disjunct Species. There were 532 species identified as meeting the Tier II criteria. These were species that did not meet Tier I criteria but were ranked as State Critically Imperiled (S1), State Imperiled (S2) or State Vulnerable (S3).

The Nebraska Natural Legacy Project lays out the direction resource management will need to head in being the most responsive to the stewardship of Nebraska's fish and wildlife resources. One of the main goals is to “maintain, enhance, and restore the Natural Ecosystems of Nebraska.” The Nebraska Natural Legacy Project recognizes that "restoration of ecosystems is a bigger task than any one agency or organization can accomplish."

Another goal is to "increase and improve habitats on private lands..." The Nebraska Natural Legacy Project identifies the need to proactively coordinate efforts with other conservation organizations to accomplish state and regional habitat goals and objectives and to develop coordinated efforts between agencies and organizations that enhance mutual benefits in providing technical assistance.

Nebraska NRCS strives to use the Nebraska WHIP Plan to assist in a coordinated effort to help implement the Nebraska Natural Legacy Project within the context of NRCS national priorities, local priorities, and program objectives and capabilities.

NEBRASKA WHIP PLAN OBJECTIVE

Nebraska's WHIP Plan objective is to restore and enhance high quality habitats on private land to benefit native fish and wildlife species and to increase the landowner's and general public's knowledge and appreciation of their habitats. Historically, the rich natural resource base of Nebraska provided a wide range of habitat for a variety of fish and wildlife species. Today, there are numerous opportunities to reverse downward trends of resource base degradation and to maximize habitat potential through restoration, enhancement, or creation.

WHIP PLAN DEVELOPMENT

This plan represents much more than just the NRCS perspective on fish and wildlife habitat needs. This plan was developed and approved by the Nebraska State Technical Committee (STC). The STC strived to consider the priority habitat needs at the national, state, and local levels. Although the STC was unable to strictly follow the locally-led conservation approach, many of the state priorities adopted will be led by the local Natural Resources Districts (NRDs).

The State Technical Committee has more than 100 members representing governmental agencies and agricultural and environmental organizations. Membership of the WHIP Subcommittee includes representatives who have specific interests in wildlife habitat. This group has prioritized the following habitat concerns as well as their recommended treatments.

Nebraska's Wildlife Habitat Priorities

- 1) **Native Prairie Renovation and Management** – In addition to the dramatic conversion of many prairie types in Nebraska, many of the remnant native prairies have been negatively impacted by invasive, exotic grass species such as smooth brome, downy brome, Kentucky bluegrass, etc., and poor management practices. This has led to low biodiversity and vigor and reduced the value of these habitats to various wildlife species. Practices such as planned grazing systems (including rest), prescribed burning, tree removal, interseeding, and appropriate use of specific herbicides can be used to reduce invasive plants and restore the diversity of the native plant community.
- 2) **Native Prairie Establishment and Restoration** – Loss and fragmentation of grassland habitats are a widespread concern throughout the Great Plains. Specific prairie communities in Nebraska have experienced significant declines since pre-settlement. For example, it is estimated that over 70 percent of the Mixed and Shortgrass Prairie Mosaic, over 85 percent of the Loess Mixed Grass Prairie, and likely 99 percent of the Tallgrass Prairie (Upland and Lowland) has been converted to other land uses. Other local prairie types such as Sand Sage Prairie and Sandhill Borders Prairie have been impacted by more recent conversions to irrigated agriculture. Opportunities exist to establish or restore native prairie species on existing cropland or convert hayland/pastureland consisting of introduced species to native prairie species. It is expected that neo-tropical migrant grassland birds, waterfowl, native and introduced game species, pollinators as well as species using adjacent aquatic habitats will benefit.
- 3) **Riparian Area Improvement and Restoration** – Many riparian areas in Nebraska have been degraded due to channel modifications, inappropriate agricultural practices, or the influx of invasive species such as Russian olive and salt cedar. The need to restore/enhance the channel morphology and natural vegetation to Nebraska's rivers and streams is vitally important to many terrestrial and aquatic wildlife species. In addition, wildlife corridors would be reestablished, habitat fragmentation would be reduced, and significant water quantity and quality benefits would result. In some cases, using vegetative buffers and proper management techniques will be adequate to restore the functions of the riparian corridor. In other instances, control of invasive plant species is necessary to overcome habitat degradation. Finally, the use of more extensive practices, where it is technically feasible, may be needed on some river and stream segments which have been highly modified or degraded. These activities may include reconstructing meanders within the system or installing structures that are conducive to allowing fish passage to overcome artificial barriers. Riparian areas serve as essential habitat for many terrestrial wildlife species. Furthermore, the importance of aquatic species conservation is becoming a much higher priority.

Fish ponds are a popular practice among landowners and provide for long-term habitat development on small areas. However, they should not generally receive priority over the restoration or enhancement of native habitats. Therefore, strategies need to be used to ensure fish ponds are considered within the appropriate priority level and that habitat benefits are maximized

Wetlands provide essential habitat to many wildlife species in Nebraska. Approximately three-fourths

of Nebraska's threatened or endangered wildlife use wetlands for part of their life requisites. Wetlands also serve many other functions by improving water quality, increasing flood storage, augmenting groundwater recharge, and producing food and fiber. Impacts to these communities have been extensive over the last century and have resulted in an overall reduction of wetland acres by 35 percent statewide. In localized areas such as the Rainwater Basin, an estimated 90 percent of the wetlands have been lost. Opportunities exist to enhance and manage wetland habitats outside of other conservation programs. In many cases, vegetation management using prescribed burning and grazing, site-specific herbicide applications, and even minor sediment removal is appropriate to produce the intended results and provide benefits to waterfowl, shorebirds, amphibians, and many other wildlife species.

- 4) **Small Cropland Field Conversions and Habitat Enhancement in Cropland Dominated Landscapes** – Fertile soils and abundant irrigation water has resulted in very intensive agriculture in many parts of Nebraska. Pheasants Forever, most Natural Resources Districts, and the Nebraska Environmental Trust have been converting the corners of fields irrigated by center pivot irrigation systems to permanent wildlife cover under a program titled Corners for Wildlife. In addition, under a state funded wildlife habitat improvement program titled “WILD Nebraska,” nearly all the NRDs cooperate with the Nebraska Game and Parks Commission to develop and fund small habitat development projects. Frequently the state program is used to fund the conversion of marginal cropland to permanent wildlife cover. Both programs target lands that are ineligible for other conservation programs and provide cost/share and incentive payments through 5-year contracts. Small areas of existing habitat could also be improved through appropriate early successional habitat management techniques. Efforts to accomplish these activities could be more efficient and effective by using a partnership of the associated conservation programs.
- 5) **Native Woodland Habitat Enhancement** – While only a limited amount of native forests and woodlands occur in Nebraska, these communities provide habitat for unique wildlife populations not found elsewhere in the state. Furthermore, a broad diversity of native forests and woodlands occur across Nebraska from the Pine Ridge and Wildcat Hills to the Platte River Floodplain and the Missouri River Bluffs. In eastern and central Nebraska, riparian deciduous forests (especially cottonwood dominated communities) and upland deciduous forests (characterized by the presence of bur oak) are of particular concern. In western and northern Nebraska, coniferous forests dominated by ponderosa pine and containing isolated pockets of rare hardwoods such as quaking aspen are a high profile target. These communities can benefit from selective cutting to remove undesirable trees and shrubs, prescribed burning, specific grazing management strategies, “underplanting” of desired woody plants, or various “micro-habitat” practices such as snags and brush piles.

Threatened and Endangered Species Recovery and Conservation – This priority will be addressed in two ways: 1) Projects that benefit Federal Threatened or Endangered Species within areas designated as Critical Habitat will receive special consideration; and 2) All other project will assess the potential to benefit Federal or State Listed, Proposed or Candidate Threatened or Endangered Species through consultation with a wildlife biologist.

National Species of Interest (Northern Bobwhite Quail, Greater Prairie Chicken and Sharp-tailed Grouse – The Northern Bobwhite Quail Conservation Initiative is a national effort to address the declining populations of this species across its range (over 65 percent decrease in last 20 years). Cropland-dominated areas in eastern and southern Nebraska, which overlap with Nebraska's quail range, are potential habitat for this species and northern bobwhite quail can serve as a good indicator of habitat quality for this type of landscape. The Prairie Grouse Technical Council is a collaborative effort to address the plight of several grouse species that rely on prairie habitats, including greater prairie chickens and sharp-tailed grouse. Nebraska is fortunate to have healthy populations of both species while many surrounding states struggle with maintaining viable populations of one or the other. Similar to northern bobwhite quail, prairie grouse can be a good

indicator of habitat quality in a grassland or rangeland setting. The U.S. Forest Service uses prairie grouse as “Management Indicator Species” for that reason. Finally, there is an overall interest in upland game birds in Nebraska from landowners, sportsmen and women, local businesses, and others. For both quail and grouse, a more detailed habitat model will be used to specifically meet their habitat needs and consideration will be given within the ranking criteria to encourage participation.

APPLICATION RANKING AND EVALUATION

All NRCS programs require an evaluation process to prioritize proposed projects in order to maximize environmental benefits. The WHIP ranking process awards points for anticipated environmental benefits. Projects addressing the state priority areas established by the State Technical Committee will primarily benefit in the ranking process. In addition, the ranking procedure will also rate all potential applicants according to:

- Contribution to the restoration of plant communities of special interest
- Involvement of a wildlife biologist in the development of the plan
- Proximity to other areas managed primarily for fish and wildlife conservation
- Cost per acre and funding assigned to habitat priorities
- Opportunity for educational use

The ranking process for the WHIP Plan, based on the recommendations of the plan is provided at the following link <http://www.ne.nrcs.usda.gov/programs/whip.html>.

CRITERIA FOR MEASURING SUCCESS

NRCS employs periodic national program reviews, annual state program reviews, and annual conservation planning quality assurance reviews to ensure programs and conservation technical assistance are achieving their intended purpose. In addition, well designed program ranking tools can be used to track whether program outreach is effectively attracting high value conservation projects.

PARTNER INVOLVMENT

Nebraska has 47,918,000 acres of land (97 percent), privately held and managed. Due to this large amount of private land, building relationships is critical in order for conservation efforts to be successful. This requires working partnerships where one-on-one relationships can be established and nurtured. A partial list of conservation partners and efforts supporting Nebraska NRCS’ WHIP plan includes:

- An agreement with the Nebraska Game and Parks Commission and Pheasants Forever to employ and locate six wildlife biologists in NRCS Field offices across the state.
- Numerous individual projects partnering with WHIP include the Nebraska Game and Parks Commissions’ Landowner Incentive Program (LIP)
- Other individual projects partnering with WHIP are the Platte River Habitat Partnership whose participating members include; The Nature Conservancy, Nebraska Game and Parks and the Central Platte Natural Resources District
- Critical partners include the Private Lands Habitat Biologists with Nebraska Game and Parks and Fish and Wildlife Service whose counsel and advice are vital to both ranking and implementation.

NRCS will continue to work with a variety of conservation partners to effectively deliver the WHIP Program in a manner which benefit fish and wildlife resources and which focuses efforts to help solve priority national, regional, state and local fish and wildlife issues

Native Vegetation of Nebraska

