

# 5 Coordination and Environmental Review

The Service coordinated within the agency, as well as with other federal agencies and local agencies, while developing this environmental assessment. The analysis and documentation was prepared by a combination of field and regional Service staff, along with partners (refer to appendix B). In addition, the coordination effort for contaminants and hazardous materials is described below.

The Service conducted this environmental analysis under the authority of the National Environmental Policy Act. The resulting document will be distributed to the project mailing list; copies can be requested. Appendix C contains the Finding of No Significant Impact, appendix D contains the Compliance Certificate, appendix E contains the Level 1 Report, and appendix F contains the Section 7 Biological Evaluation.

## AGENCY COORDINATION

The Service has discussed the proposal to establish the Flint Hills Legacy Conservation Area with landowners; conservation organizations; other federal agencies; tribal, state, and county governments; and other interested groups and individuals.

The Service held six public meetings to provide information and discuss the proposal with landowners and other interested citizens. Information on the FHLCA project has been made available to county commissioners in each of the twenty-one counties included in the project area.

At the federal level, Service staff has briefed Senators Brownback and Roberts, as well as the Congressional delegation, and coordinated with representatives from other federal agencies such as the U.S. Department of Agriculture (Natural Resources Conservation Service), Department of Defense (Fort Riley Army Installation), National Park Service, and the Environmental Protection Agency. At the state level, Governor Parkinson's staff and Kansas' State Congressional delegation, along with KDWP, were briefed on the project. In addition, the Service provided information to eleven tribes on this project.

Nongovernmental conservation groups are vital to the success of the proposed project. Service staff has coordinated with partner organizations such as The Nature Conservancy, Tallgrass Legacy Alliance, The Ranchland Trust of Kansas, and Kansas Land Trust.

Appendix G lists the comments and responses from the public review.

## CONTAMINANTS AND HAZARDOUS MATERIALS

Fieldwork for the pre acquisition contaminant surveys would be conducted on a tract-by-tract basis, prior to the purchase of any land interest. Any suspected problems or contaminants requiring additional surveys would be referred to a contaminants specialist located in the Service's ecological services office in Manhattan, Kansas.

## NATIONAL ENVIRONMENTAL POLICY ACT

As a federal agency, the Service must comply with provisions of the National Environmental Policy Act. An environmental assessment is required under the act to evaluate reasonable alternatives that will meet stated objectives, and to assess the possible impacts to the human environment. The environmental assessment serves as the basis for determining whether implementation of the proposed action would constitute a major federal action significantly affecting the quality of the human environment.

The analysis for, and development of this environmental assessment, facilitated the involvement of government agencies and the public in the decision-making process.

## STRATEGIC HABITAT CONSERVATION AND LANDSCAPE CONSERVATION COOPERATIVES

Strategic habitat conservation (SHC) is a means of applying adaptive management across large landscapes. Landscape conservation cooperatives will facilitate strategic habitat conservation (USFWS 2008).

### *Strategic Habitat Conservation*

The FHLCA will apply the strategic habitat conservation framework as outlined in the National Ecological Assessment Team report. SHC involves an ongoing cycle of biological planning, conservation design, conservation delivery, outcome-based

monitoring, and assumption-based research. It is also the process by which the Service continues to develop and apply science focused on improving the ability to apply conservation delivery actions which results in landscapes capable of supporting populations of priority species at desired levels. Additionally, SHC provides the framework by which the Service develops and applies science to inform and continually improve conservation delivery by addressing landscape-level population limiting factors in an adaptive manner.

The U.S. Fish and Wildlife Service Region 6 Refuges Program has co-located Habitat and Population Evaluation Team Office of Conservation Science (HAPET) staff and equipment at Flint Hills NWR to provide support for the biological planning, conservation design, conservation delivery, and monitoring/research elements of SHC necessary to implement the FHLCA project. The preparation of the Flint Hills project environmental assessment addresses the four key elements of strategic habitat conservation: planning, design, delivery, and monitoring and research.

## Biological Planning

Trust resources have been described in earlier chapters of this document. Biological planning requires the identification of priority species, development of population objectives, and identification of landscape-level limiting factors keeping priority trust species populations below desired levels. Initial biological planning will be conducted using the greater prairie-chicken as a focal species. This approach is based on the assumption that delivery of grassland conservation easements targeted at minimizing and reducing population limiting factors of greater prairie-chicken will also adequately address the limiting factors of priority grassland dependent federal trust species (that is dickcissel, grasshopper sparrow, Henslow's sparrow, upland sandpiper) throughout the Flint Hills ecoregion. Conceptual and quantitative models will be developed predicting greater prairie-chicken population response to landscape-level habitat conditions to aid in initial conservation design and delivery efforts. Priority species, along with associated population goals, will continually be defined and updated throughout the implementation of this project, and additional landscape models will be developed for priority trust species.

## Conservation Design

Service biologists identified and mapped the core area containing the highest quality, least fragmented tallgrass habitat within the Flint Hills of Kansas (see figure 2 in chapter 1). This remaining tallgrass prairie runs between the southern and northern borders of the state, and is as narrow as 20 miles wide, constrained on the east and west by tillage

agriculture. This narrow north-south corridor reflects the shape of the remaining intact Flint Hills tallgrass. The identification of priority grasslands for inclusion in the project area was based on a conceptual model representing greater prairie-chicken response to landscape-level habitat conditions. Using a geographic information system (GIS) and existing data from the National Land Cover Database (NLCD) (Homer et al. 2007) an 800 meter moving window analysis was applied to all grassland habitat within the Flint Hills ecoregion. All areas consisting of >95% grassland were selected as potential priority areas. The selection of a 95% grassland threshold is similar to that used for development of a Grassland Bird Conservation Area (GBCA) conceptual model which was found to be very effective at identifying priority areas for some grassland birds in the Prairie Pothole Region. Applying the greater prairie-chicken conceptual model to NLCD 2001 land cover data resulted in a spatially explicit decision support tool identifying approximately 3.3 million acres of priority grassland within the Flint Hills ecoregion.

The following assumptions are associated with the conceptual model used to identify priority grasslands for the FHLCA project area:

1. The greater prairie-chicken is an appropriate focal species for other Service priority trust species in the Flint Hills ecoregion.
2. The greater prairie-chicken serves as a focal species and adequately represents habitat requirements for priority federal trust species, which are below desired population levels or declining (as measured by some population response metric such as probability of occurrence, density, survival, recruitment, or population persistence). Potential declining priority federal trust species include dickcissel, grasshopper sparrow, Henslow's sparrow, upland sandpiper, and other species that may be deemed appropriate when data are obtained.
3. The greater prairie-chicken responds to landscapes as quantified with an 800-meter radius.
4. The greater prairie-chicken show the strongest response to landscapes with >95% grassland habitat.
5. NLCD 2001 land cover data adequately represents Flint Hills landscape conditions.

New decision support tools will be developed through refinements of the greater prairie-chicken model, additions of new priority species, development of additional priority species models, setting of population objectives, and evaluations of conservation delivery through the elements of biological planning, conservation delivery, and monitoring and research. These new tools may result in challenges to currently held paradigms about the best conservation approach for target species (Reynolds et al. 2001).

## Conservation Delivery

Partners for Fish and Wildlife biologists have worked for years developing partnerships that provide the foundation for a successful easement program. The ongoing involvement of the PFW program, and the many partner organizations and agencies will be essential for the effective delivery of sustainable conservation program. Application of the SHC framework will build on existing partnerships and support the development of new partnerships for delivering conservation throughout the Flint Hills ecoregion. Results from the biological planning and conservation design elements will be used to target conservation delivery, while the monitoring and research element will evaluate the effectiveness and improve conservation delivery over time. The biological planning element will engage partners in the identification of priority species, population objectives, and the development of biological models which will be directly linked to conservation delivery actions. The conservation design element will involve the development of spatially explicit decision support tools for targeting conservation delivery actions. These spatially explicit decision support tools, which can be tailored to specific treatments or locations based on the priorities and needs of different partners, will allow for greater flexibility, increased responsiveness, and improved efficiency in meeting Service and partner conservation delivery needs.

## Monitoring and Research

Monitoring and research efforts for the FHLCA will use model-based approaches to measure conservation effectiveness and will focus on three key areas:

- Developing, improving, and assessing landscape models for priority trust species. Emphasis will be placed on the highest priority species with the greatest degree of uncertainty regarding limiting factors and the effectiveness of management actions at minimizing and reducing limiting factors. Data from existing surveys such as the Breeding Bird Survey will be evaluated and incorporated into spatial models. When necessary, additional data will be collected to evaluate assumptions used in the modeling process and assessments will be adjusted accordingly. These methods will provide an estimate of population response of trust species on project (easement) lands and on non-easement properties. Similar modeling approaches may be developed or incorporated for priority non-trust species (for example, greater prairie-chicken) in cooperation with partners such as nongovernmental organizations and universities.
- Evaluating assumptions and addressing uncertainties identified through the biological planning, conservation design, and conservation delivery elements. When warranted, assumptions such as increased nesting success in larger blocks of grass will be evaluated in cooperation with partners such as nongovernmental organizations and universities.
- Assessing the contribution of grassland conservation easements and other management actions toward meeting population goals for priority trust species. Spatially explicit models will allow estimation of population size on conservation easements and other land parcels of interest. This will allow the Service and conservation partners to evaluate the contribution of the program to the meeting of population goals, and to refine conservation delivery to ensure maximum efficiency. Spatially explicit models will also enable the Service to demonstrate the contribution of the FHLCA to national and continental population goals for priority species similar to how the HAPET office and cooperators have assessed the contribution of landscape-level conservation in the Prairie Pothole Region (See Reynolds et al. 2001, Reynolds et al. 2006 and Niemuth et al. 2009).

## Landscape Conservation Cooperatives

The Service will use landscape conservation cooperatives (LCCs) as a means of implementing strategic habitat conservation. LCCs will be formal science and management partnerships between the Service, U.S. Geological Survey, other federal agencies, states, tribes, nongovernmental organizations, universities, and others to increase applied conservation science capacity in support of fish and wildlife management within specific landscapes (Secretarial Order Number 3289). The tools developed by the LCCs will allow Service offices, and our many partners, to implement on-the-ground actions in the most effective locations to meet their goals.

The FHLCA is part of the Tallgrass Prairie and Big Rivers LCC, which is in the process of being developed. This project meets the criteria of the LCC initiative—cooperation among private landowners and other agencies (federal, state, local, and nongovernmental organizations). In addition to fostering partnerships, these cooperatives provide science support to managers. The FHLCA will benefit from much of the science generated by the Konza Prairie Long-Term Ecological Research site. This land is owned by The Nature Conservancy, but is operated under an agreement with Kansas State University. The FHLCA would receive further science support from the Geographic Information System capacity at the Service's Ecological Services Office in Manhattan, Kansas. As a final support for the strategic habitat conservation approach to conservation, it is notable that the Flint Hills represents the largest intact tallgrass prairie within

the Geographic Framework of Bird Conservation Region #22, a treasured landscape.

The Secretary of the Interior recently outlined the importance of landscape conservation cooperatives as a response to climate change (USFWS 2009). Landscape conservation cooperatives reach across broad landscapes, involve many partners, and function at a scale necessary to address wildlife adaptation in response to climate change. The FHLCA would link existing Flint Hills conservation easement areas held by The Nature Conservancy and the U.S. Department of Agriculture. The Council Grove Wildlife Area (KDWP) also manages land within the easement boundary.

These cooperatives will continue to grow as a means of delivering strategic habitat conservation. The Service and U.S. Geological Survey signed a memorandum of understanding to strengthen the science-management relationship in landscape-level conservation. This further commitment to strategic habitat conservation improves the stature for the type of landscape conservation being proposed for the Flint Hills Legacy Conservation Area.

## **DISTRIBUTION AND AVAILABILITY**

Copies of the environmental assessment were sent to federal and state legislative delegations, tribes, agencies, landowners, private groups, and other interested individuals.

Additional copies of the document are available from the following offices and websites.

U.S. Fish and Wildlife Service  
Flint Hills National Wildlife Refuge  
530 West Maple Avenue  
Hartford, Kansas 66854  
620/392 5553  
<http://flinthills.fws.gov>

U.S. Fish and Wildlife Service  
Region 6, Division of Refuge Planning  
Branch of Land Protection Planning  
P.O. Box 25486-DFC  
Denver, Colorado 80225  
303/236 4345  
303/236 4792 fax  
<http://mountain-prairie.fws.gov/planning/lpp.htm>

