

4 Project Implementation



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Riders and prescribed fire.

Today, less than 4 percent of this once vast grassland region remains (Steinauer and Collins 1996). Cultivation, agriculture, tree encroachment, and development activities have pushed grassland-dependent wildlife species into ever-shrinking areas of tallgrass prairie. Approximately three-fourths of the remaining tallgrass prairie lies within the Flint Hills ecoregion of eastern Kansas and northeastern Oklahoma, with about 3.5 million acres present in the Kansas portion of the Flint Hills area.

LAND PROTECTION OPTIONS

Various alternatives considered in the EA for protecting this area included no action, voluntary landowner zoning, county zoning, fee-title acquisition, a smaller project area, a larger project area, expansion of the project into Oklahoma, or conservation easement acquisition by the Service which was the chosen action.

No Action

These consequences were considered unacceptable and led to the selection of the preferred alternative to establish a conservation area in the Flint Hills tallgrass prairie region. The Service's effort to conserve up to 1.1 million acres will augment the efforts of other conservation groups.

Acquisition or Management by Others

The ranching practices (grazing and prescribed fire) that have continued in the Flint Hills are essential to maintaining tallgrass prairie, which is a fire climax ecosystem. The ranching heritage and efforts by a variety of agencies, and organizations have been essential to maintaining the tallgrass prairie to date. However, development pressures and encroachment by trees are increasingly fragmenting the Flint Hills tallgrass habitat, making the long-term future of the tallgrass prairie uncertain without an overall, landscape-scale conservation project such as the FHLCA.

ACTION AND OBJECTIVES

After completion of the EA and after conducting a public comment period, the proposed alternative of acquiring conservation easements was chosen as the land protection plan. The project was found to have no significant impacts on the quality of the environment, thus a finding of no significant impact (FONSI) has been completed and signed (see appendix C). The FONSI document is basically the EA modified to reflect all applicable comments and responses. Appendix D is the compliance certificate, appendix E is the section 7 biological evaluation, and appendix F is the environmental action statement.

The Service intends to purchase or receive donated perpetual conservation easements on up to 1.1 million acres from willing landowners within the approved boundary. No fee-title acquisition will be considered as part of this project. The Service has standard conservation easement agreements that have been used successfully in other easement conservation areas of the United States. With appropriate modifications, the Service will use similar language and terms, and develop a standard document for the FHLCA conservation easements to minimize confusion, facilitate enforcement, and provide the necessary level of protection for the resources.

The easement program will rely on voluntary involvement by landowners. The project will not involve fee-title acquisitions. Land owner management practices such as grazing and prescribed fire will continue on the land included in the easement contract. All land within an easement will remain in private ownership and, therefore, property tax and grassland management activities such as invasive plant and tree control, grazing, and burning will remain the responsibility of the landowner. Public access, including hunting, will also remain under the control of the landowner.

The easement program will be managed by staff located at the Flint Hills National Wildlife Refuge near Hartford, Kansas. The Service staff will be responsible for monitoring and administration of all easements on private land. Monitoring will consist of periodically reviewing land status in meetings with the landowners or land managers to ensure that the stipulations of the conservation easement are being met. The Service's role is to monitor the purchased easements to ensure that landowners comply with the easement agreement so that the property does not undergo subdivision, commercial or industrial development, or conversion of native prairie grassland to cropland. Photo documentation will be used at the time the easements are established as part of a documentation of baseline conditions.

Conservation easements are the most cost-effective, politically acceptable means to ensure protection of critical habitats that occur within the project area. Although habitat protection through fee-title acquisition is preferable in some locations, it is not required and is not preferable to conservation easements in the Flint Hills region. Fee-title acquisition would triple or quadruple the cost of land acquisition in addition to adding significant increases in long-term management and operational costs for the Service. The Service views a strong and vibrant rural lifestyle, of which ranching is the dominant land use, as one of the key components to ensure habitat integrity and wildlife resource protection. The Service views conservation easements as the most viable means to protect wildlife values on the landscape-scale necessary to conserve the tallgrass prairie ecosystem.

PRIORITY AREAS

The Service and its partners recognize the tremendous opportunity that exists to expand existing blocks of conservation lands within the FHCLA, including state or federal fee-title ownership, and conservation-oriented nongovernmental organization ownership which currently includes the TLA, RTK, KLT, U.S. Department of Agriculture, Kansas Department of Agriculture, KDWP, and TNC. Within these ownership areas, the Service has identified certain existing "core" protected lands within the project area that provide protection for grassland dependent-wildlife and habitat. These areas provide good anchors from which to build the easement program and increase habitat connectivity.

Service biologists identified and mapped the core area containing the highest quality, least fragmented tallgrass habitat within the Flint Hills of Kansas (figure 5). The Kansas portion of the Flint Hills ecoregion encompasses approximately 6.3 million acres. Within this ecoregion the identification of priority grasslands for inclusion in the FHLCA project area was based on a conceptual model representing greater prairie-chicken response to landscape-level habitat conditions. Prairie-chickens were used as an umbrella species for grassland communities because of this species' requirement for native grasslands and large home ranges (Svedarsky 1988, Poiana et al. 2001). Using a geographic information system (GIS) existing land cover data from the National Land Cover Database (NLCD) (Homer 2007) for grasslands was evaluated. 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 conceptual model which was found to be very effective at identifying priority areas for 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:

- The greater prairie-chicken is an appropriate focal species for other Service priority trust species in the Flint Hills ecoregion.
- The greater prairie-chicken serves as an umbrella 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, population persistence).



U.S. Fish & Wildlife Service
Flint Hills Legacy Conservation Area
Eastern Kansas

Initial Priorities Map

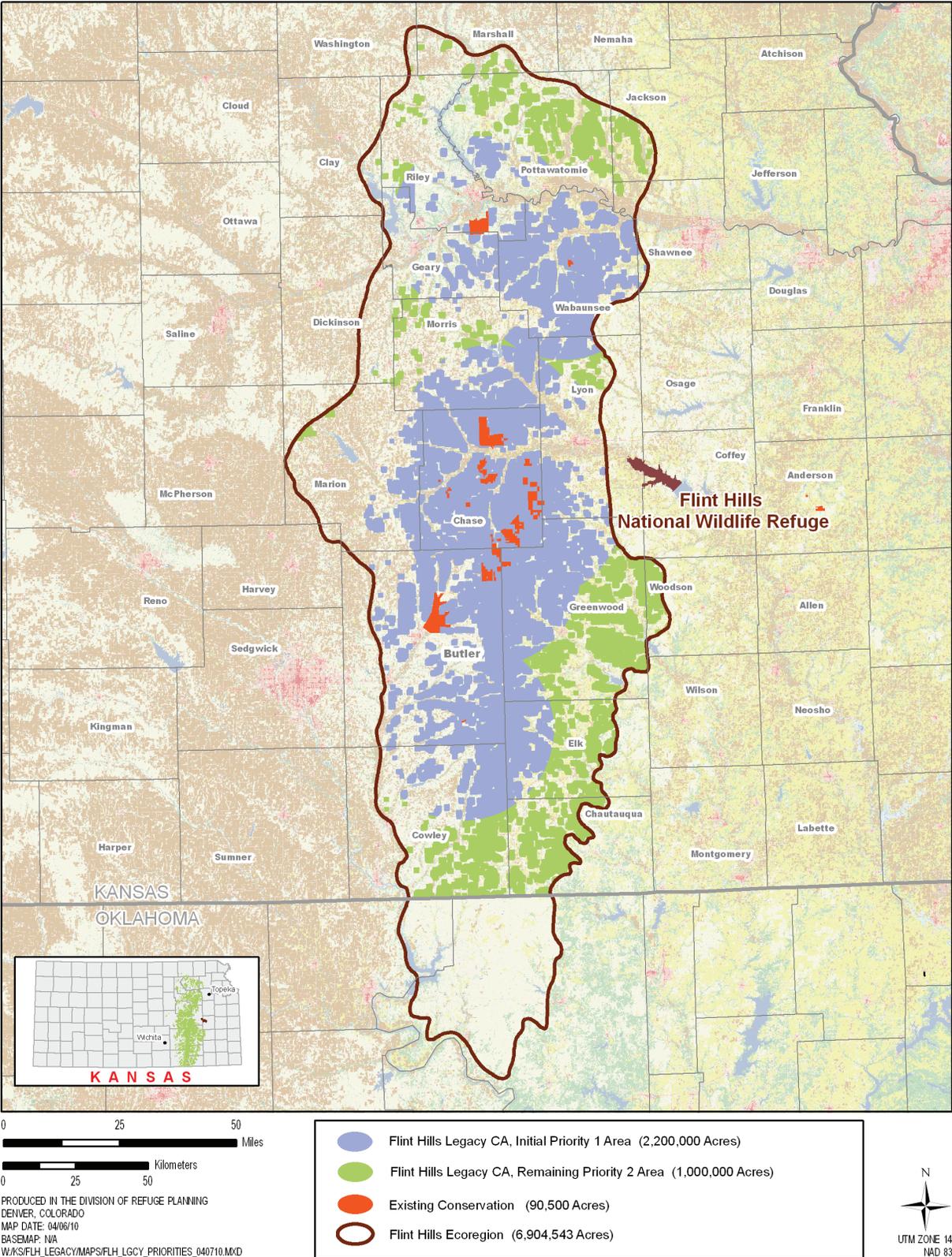


Figure 5. Priorities areas for the Flint Hills Legacy Conservation Area.

- 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.
- The greater prairie-chicken responds to landscapes as quantified with an 800-meter (2,625-foot) radius.
- The greater prairie-chicken show the strongest response to landscapes with >95% grassland habitat.
- 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).

There are over 3.3 million acres of unencumbered private land within the project area that may be eligible for the Service's easement program. Because the Service's 1.1 million acre target is about one third of the potential private land within the project area, the Service has created two priority zones which will be used to focus the acquisition of conservation easements on private lands to provide the greatest benefit to grassland dependent wildlife (see figure 5).

Within the potential priority areas of >95% grassland threshold, a 20 mile radius was projected out from some existing properties already protected with conservation easements. The 2.2 million acre area that is >95% grasslands within a 20-mile radius anchored by existing conservation lands will be the Service's initial Priority 1 habitat acquisition zone.

The remaining 1.1 million acres tallgrass habitat with a >95% grassland threshold that is greater than 20 miles away from existing conservation areas will be included in the Priority 2 habitat protection zone

Within the Priority 1 and 2 areas, selection of parcels for acquisition will be based on providing a mosaic of protected habitat of 10,000-acre parcels, separated by a maximum distance of 20 miles to prevent genetic isolation. The Hamerstrom plan (Hamerstrom et al. 1957) of using an "ecological scatter pattern" to provide a mosaic of grassland preserves throughout private land ownerships, is still followed today.

As new data and science become available, the information will be incorporated into the initial prioritization model and will be used to adjust the ranking criteria for potential acquisition parcels.

ACQUISITION ALTERNATIVES

The Service proposes to acquire conservation easements principally by using funds appropriated under the Land and Water Conservation Act, which derives funds from royalties paid for offshore oil and gas leasing. Such funds are intended for land and water conservation projects. These funds are not derived from general taxes. Funding is subject to annual appropriations by Congress for specific acquisition projects.

Money from other sources may also be used within the project area. Management activities associated with easements may be funded through other sources, such as TNC, PFW, and other private and public partners. Most of the Flint Hills Legacy Conservation Area is not eligible for Migratory Bird Conservation Fund dollars, which limits the use of this tool within the project area. The Service will also consider accepting voluntary donations for easements.

COORDINATION

The Flint Hills Legacy Conservation Area has been discussed with landowners, conservation organizations, federal, state and county governments, and other interested groups and individuals. The proposal and associated EA addressed the protection of native habitats, primarily through acquisition of conservation easements, to be managed as part of the National Wildlife Refuge System.

Conservation Cooperatives

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

Strategic Habitat Conservation

The FHLCA process will use 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 which is focused on improving the ability to apply conservation actions which result in landscapes capable of supporting populations of the 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 (USFWS 2008).

The U.S. Fish and Wildlife Service Region 6 Refuges program has Habitat and Population Evaluation Team Office of Conservation Science (HAPET) staff and equipment located at Flint Hills National Wildlife Refuge to provide support for the biological planning, conservation design, conservation delivery, monitoring, and research elements of SHC necessary to implement the FHLCA project. The FHLCA EA addressed the four key elements of strategic habitat conservation; planning, design, delivery, monitoring, and research.

Resources held in trust for the American people 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 which keep priority trust species populations below desired levels. Initial biological planning will be conducted using the greater prairie-chicken as an umbrella 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-chickens will also adequately address the limiting factors of priority grassland-dependent federal trust species (for example dickcissel, grasshopper sparrow, Henslow's sparrow, upland sandpiper) throughout the Flint Hills ecoregion. To aid in initial conservation design and delivery efforts, conceptual and quantitative models will be developed to predict greater prairie-chicken population response to landscape-level habitat conditions. 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 Delivery

PFW biologists have worked for years developing partnerships that provide the foundation for a successful easement program. The ongoing involvement of the PFW program and other partner organizations and agencies will be essential for the effective delivery of a 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 effectiveness and improve conservation actions 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 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 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 easement lands and on non-easement properties. Similar modeling approaches may be developed or incorporated for priority nontrust species (for example, the 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 meeting population goals and 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 (Reynolds et al. 2001, Reynolds et al. 2006, Niemuth et al. 2009).

Landscape Conservation Cooperatives

The Service will use landscape conservation cooperatives 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, non-governmental organizations, universities, and others to increase applied conservation science capacity in support of fish and wildlife management within specific landscapes. 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 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 TNC, but operated under an agreement with Kansas State University. The FHLCA will receive further science support from the GIS 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, classified as 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 will link existing Flint Hills conservation easement areas held by TNC and the U.S. Department of Agriculture. The Council Grove Wildlife Area (managed by 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 the 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 which will be used for the Flint Hills Legacy Conservation Area.

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.

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, the Service staff have 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 Environmental Protection Agency. At the state level, Governor Parkinson's staff, Kansas' state Congressional delegation, along with KDWP was 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 project. Service staff has coordinated with partner organizations such as TNC, TLA, RTK, and KLT.

The Service held six public meetings to provide information and discuss the proposal with landowners and other interested citizens. Open houses for public comments and scoping were held in Alma, Cottonwood Falls, and Wichita, Kansas on November 30 and December 1, and 2, 2009. Public comments were taken to identify issues to be analyzed for the proposed project. Approximately 148 landowners, citizens, and elected representatives attended the meetings and most expressed positive support for the project. Additionally, ninety letters providing comments and identifying issues and concerns were also submitted by mail or through the Service websites. In addition, Service field staff has contacted local government officials, other public agencies, sportsmen and conservation groups. Additional public meetings were held on April 21–23, 2010 in El Dorado, Cottonwood Falls and Alma, Kansas following publication of the "Environmental Assessment and Draft Land Protection Plan for the Flint Hills Legacy Conservation Area."

After issuance of the draft EA and LPP, three public meetings were held April 21–23, 2010.

Detailed comments and their responses are included in appendix G.

Contaminants and Hazardous Materials

Fieldwork for pre acquisition contaminant surveys will be conducted, on a tract-by-tract basis, prior to the purchase of any land interest. Any suspected problems or contaminants requiring additional surveys will 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 EA 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 draft EA, published in April 2010, served as the basis for determining whether implementation of the project would constitute a major federal action significantly affecting the quality of the human environment. A final EA was prepared and was approved July 2010.

SOCIAL AND CULTURAL CONSIDERATIONS

The Service will acquire conservation easements principally by using funds appropriated under the Land and Water Conservation Act, which derives funds from royalties paid for offshore oil and gas leasing. Such funds are intended for land and water conservation projects. These funds are not derived from general taxes. Funding is subject to annual appropriations by Congress for specific acquisition projects.

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TABLE—SUMMARY OF ACTION

The Service will purchase or receive donated conservation easements on approximately 1,100,000 acres from willing landowners within the approved boundary. The only method of protection that will be used within the project boundary is a conservation easement. Easements will be acquired principally using funds appropriated from the Land and Water Conservation Fund. Table 1 explains the protection priority zones.

Table 1. Protection priorities for the Flint Hills Legacy Conservation Area.

<i>Description</i>	<i>Total Area (acres)</i>	<i>Total Protected "Core" Lands</i>	<i>Priorities for Easements Private: Non-Pro- tected</i>
Priority 1 Zone	2,200,000	90,500	880,000
Priority 2 Zone	1,100,000	0	220,000
Total (acres)	3,300,000	90,500	1,100,000

DISTRIBUTION AND AVAILABILITY

Copies of the land protection plan 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>

