

# Western Grasslands Initiative

*A Plan for Conserving Grassland Habitat and Wildlife*



Photograph by Jennifer Martin 2011

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## Executive Summary

It is estimated the Great Plains and desert grasslands once covered over 500 million acres stretching between Canada, Mexico and the United States. Nearly 200 wildlife species were found to use this immense sea of grass in 11 different states (*parts of Arizona, Colorado, Kansas, Montana, Nebraska, New Mexico, North Dakota, Oklahoma,*

**From a global perspective, grasslands are one of the most threatened and under-represented habitat types in conservation area systems**

*South Dakota, Texas, and Wyoming*) within the United States. While these grassland ecosystems provide habitat for numerous wildlife species, another primary function is to slow water runoff and allow for aquifer recharge. Within the Great Plains region there are at least three major aquifers which are used for municipal drinking water, energy and industrial development, and agricultural crop irrigation. Despite the important role grasslands play in ground water recharge, this immense ecosystem is poorly represented in conservation areas when compared to other ecosystem types in North America. In fact, from a global perspective, grasslands are one of the most threatened and under-represented habitat types in conservation area systems.

Conservation and management of grassland species and their habitats has generally been addressed in a fragmented approach through various recovery plans, conservation agreements, state management plans, and other planning documents. Actions associated with grassland conservation are often costly or inadequately funded across the landscape. In 2004, the Western Association of Fish and Wildlife Agencies (WAFWA) recognized the need for a conservation focus on grassland ecosystems because of past (agricultural conversion, infrastructure development, and urbanization) and current (invasive species, energy development, climate change and urban sprawl) impacts, and the under-representation of this ecosystem in conservation areas. WAFWA directed its Habitat and Nongame and Endangered Species Committees to use renewal of a Memorandum of Understanding (MOU) for black-tailed prairie dog conservation as a vehicle for beginning the transition toward an ecosystem conservation approach and to develop a cohesive, comprehensive prairie conservation strategy that integrates pertinent components of companion efforts for prairie dog, black-footed ferret, swift and kit fox, lesser prairie-chicken, mountain plover, burrowing owl, ferruginous hawk, Swainson's hawk, loggerhead shrike, and, as appropriate and feasible, other shrub and grassland species. This effort became known as the WAFWA Grassland Initiative (WGI); a west-wide, broad scale, multi-state cooperative approach which seeks investment of partners in a comprehensive conservation strategy with actions designed to work toward stabilizing and expanding grasslands while halting and reversing declines in wildlife species dependent on them.

## *MISSION*

The mission of Western Grassland Initiative is to serve as the primary contributor to the implementation of conservation and management actions, through partnerships and cooperative efforts, resulting in improved species status, grassland habitats, and recreational opportunities for grassland dependent species across North America.

## *VISION*

The vision of the Western Grassland Initiative is that through collaborative efforts:

1. There will be stabilization and conservation of healthy populations of species dependent upon grassland habitats resulting from increased focus on and commitment to action on common conservation needs of these species.
2. There will be increased public benefits resulting from multiple partners working together, sharing resources, and speaking with a united voice about the conservation and value of grasslands and associated wildlife species.
3. There will be increased funding to accomplish strategic actions as a result of increased political, social, and financial support from Initiative partners and collaborators. Our approach highlights increased coordination, action, and accountability.

## *Approach*

Over the past 15 years, the WAFWA has made great strides in grassland conservation. These efforts have been performed under the WGI since 2005. At that time, native grasslands in various composition and ecological conditions remained in approximately 57.5% of their historic range, which provides for tremendous opportunities for conservation actions. However, time is of the essence. Lands are still being converted for agricultural purposes, energy infrastructure, and an expanding human population.

In order to implement the WGI, a management and operating structure has been identified in the existing MOU between WAFWA member states and appropriate federal agencies. As signatories to the MOU, member agencies agree to the purpose and value of the WGI. The MOU confirms the intent of state and federal wildlife and land management agencies to participate in and support WAFWA partnerships that focus on conserving grassland habitats and the wildlife species dependent upon them. Eventually the effort could be expanded to

**Continued human population growth, coupled with fragmenting and shifting habitats due to urbanization, climate change and energy development, necessitate a sense of urgency in securing and improving the status of grassland ecosystems.**

include Tribal organizations as well as other interested parties. Current partners include the states of Arizona, Colorado, Kansas, Montana, Nebraska, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, Wyoming, and Utah; the United States Fish and Wildlife Service (USFWS), the National Park Service, the Wildlife Services a division of the United States Department of Agriculture's Animal and Plant Health Inspection Service; Tribal representation; the Western Governor's Association, the National Fish and Wildlife Foundation and non-governmental organizations.

Through the MOU, partners confirm that the conservation of grasslands will be accomplished by application of resources (staff time, funding, information sharing, and other means) toward conservation and protection of intact grassland habitats and associated wildlife species. Partners will encourage stakeholders to seek solutions to regional environmental and ecological threats. The WGI will provide a forum for collaborative development and implementation of outreach and educational programs to ensure public awareness of the challenges that face wildlife populations. Partners will work together to generate support for implementation of programs that perpetuate and restore grassland dependent wildlife species throughout their historic range.

The WGI will operate as a function of the WAFWA Habitat Committee, with guidance from the WAFWA Directors. The WGI will annually report on accomplishments at several levels. Accomplishment reports will be provided to partners, the general public and others interested in the initiative. The WGI intends to leverage the efforts of those involved toward increased funding as it becomes available to fulfill our Mission, achieve our Vision, and benefit both the citizens and grassland habitats of North America.



Photograph by Texas Tech University

To assist with guiding WAFWA grassland conservation efforts through the WGI, signatory states and Federal agencies have agreed to pool resources for the purpose of staffing a full-time WAFWA Grassland Coordinator (WGC). The return on this investment has been tremendous

and the interest in expanding is growing. In 2009 alone, over \$1.1 million dollars were secured and matched by the WGC to implement projects directed toward grassland conservation. The projects also contributed to a host of conservation priority actions identified in State Wildlife Action Plans. Some of the priority actions addressed included conservation easement development, reintroduction and translocation efforts for prairie dogs, black-footed ferrets, and swift fox; management of diseases (development of an oral plague vaccine for prairie dogs), monitoring of grassland wildlife populations (prairie dogs and lesser prairie-chicken), genetic analysis, regulation modification, and the identification and mapping of important wildlife areas. The WGI provides the opportunity to gain significant new resources to address a common theme: revitalizing native grasslands across the western United States, and ultimately, North America.

Continued human population growth, coupled with fragmenting and shifting habitats due to urbanization, climate change and energy development, necessitate a sense of urgency in securing and improving the status of grassland ecosystems. By focussing efforts and increasing efficiency, the WGI improves returns on agency staff time and budgetary investment to further grassland conservation into the future.

### *Western Grassland Species*

The current list of grassland species included in the WGI is as follows: all four prairie dog species (black-tailed, white-tailed, Gunnison's, and Utah) found within the United States, black-footed ferret, swift and kit foxes, lesser prairie-chicken, mountain plover, burrowing owl, ferruginous hawk, Swainson's hawk, loggerhead shrike, and as appropriate and feasible, other shrub and grassland species in the Western Great Plains, desert grassland, and to a lesser extent, Great Basin habitats.



Photograph by Arizona Game and Fish Department

### **State and Federal Listing Status of grassland dependent species in WGI**

The specific federal or state listing status, type of management plan, and state or Tribal involvement in management of the individual species are provided in Table 1. This list is dynamic as the status of any of these species may be changed as a consequence of formal tribal, state or federal listings, down-listings, or de-listing under appropriate tribal, state, or federal (Endangered Species Act) provisions.

The current recovery or conservation management planning documentation for the individual species is also provided. Such documentation ranges from completed species recovery plans to no plan. Plans, like listing, are dynamic and change with species status, management attention, and funding avail-ability.

**Table 1. Federal and State Listing Status of grassland dependent species in WGI.**

<b><u>Federal and state listing status for grassland dependent species in WGI</u></b>			
<b>Species</b>	<b>Federal Status</b>	<b>State Status</b>	<b>Plan</b>
Black-footed ferret	Endangered	SCN	RP; 1988 – revision underway
Black-tailed prairie dog	NL	SCN	CAS; 1999 – addendum 2003
White tailed prairie dog	NL	SCN	CAS; 2006
Gunnison’s prairie dog	Candidate	SCN	CAS: 2006 – CP addendum 2007
Utah prairie dog	Threatened	SCN	RP: 1991 – draft revision out for review 2010
Burrowing owl	NL	SCN	None
Mountain plover	NL	SCN	None
Lesser prairie-chicken	Candidate	SCN	CAS: 2008
Swift Fox	NL	SCN	CAS 1997 – updated 2011
Ferruginous hawk	NL	SCN	None
Swainson’s hawk	NL	SCN	None
Loggerhead shrike	NL	SCN	None

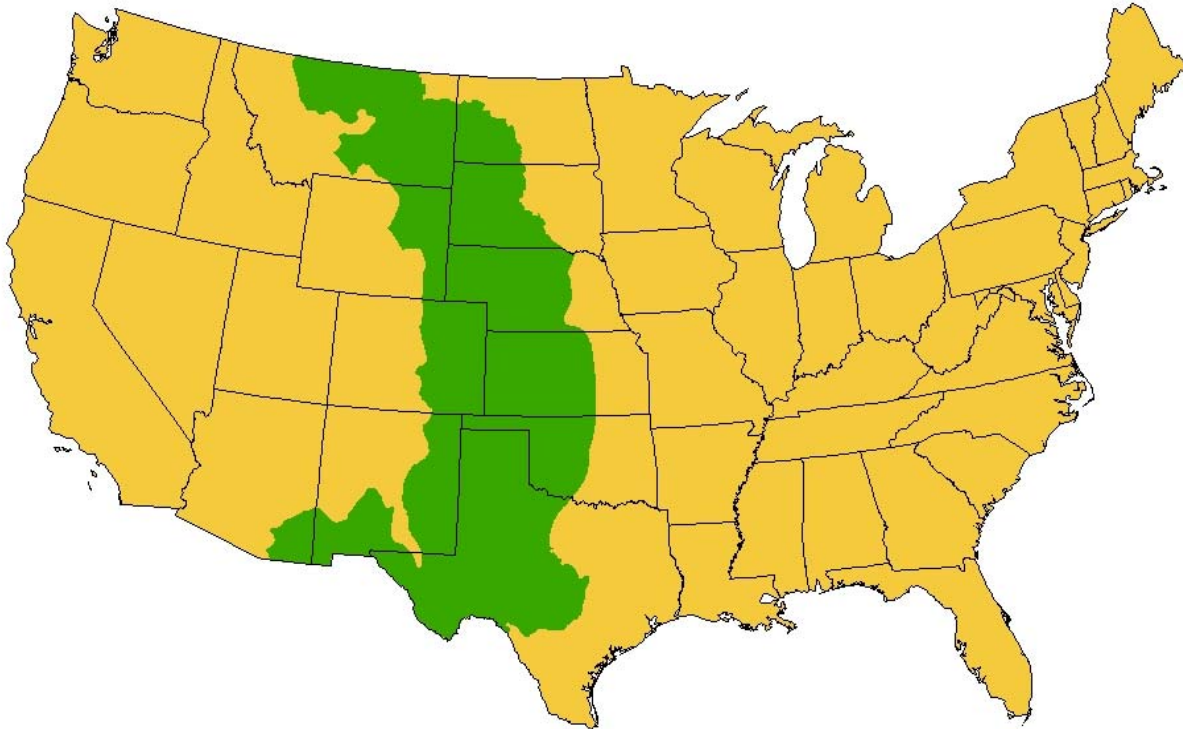
**NL = not listed at present time; SCN = Species of conservation need; RP = Recovery Plan; CAS = Conservation agreement and strategies; CP = Conservation Plan;**

### ***Geographic Scope***

The WGI is defined by continuous grassland habitats within state boundaries: Arizona, Colorado, Kansas, Montana, Nebraska, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, Wyoming, and appropriate habitats in Utah. The distribution of grassland species varies from occupying parts of a few states to across the entire range of WGI. WGI recognizes the historic

range of some grassland dependent species exists in several Canadian provinces and Mexican states. These two countries will be important partners in assisting WGI accomplish its objectives. Figure 1 is a visual representation of the area encompassed by the WGI. Most of the species of interest have a portion of their range within this area.

**Figure 1. General area of states included in the Western Grassland Initiative.**



### *Threats and Opportunities*

Numerous assessments for grassland dependent wildlife species (black-tailed prairie dog, lesser prairie-chicken, black-footed ferret, and various grassland bird species) have confirmed the fact that, with few exceptions, wildlife populations dependent upon grassland habitats have declined across the west due to numerous factors. These factors include habitat modification, reduction of groundwater levels, alteration of fire and grazing regimes, and the introduction of exotic diseases that result in reduced habitat, and increased predation, competition, and mortality rates of grassland wildlife populations.

Habitat modifications and reduction of groundwater levels: One of the unintended consequences of the development and settling of the western United States, and other portions of the North American grasslands, has been the loss, alteration and fragmentation of grasslands. Those factors contributing to the reduction of both quantity and quality of grasslands include conversion to croplands, urban development, petroleum and natural gas extraction, energy development and transmission, and unregulated grazing regimes. In addition, groundwater levels have been



drastically lowered putting water beyond the reach of grassroots due to water pumping used for irrigation, drinking, and industry development. Climate change and alternative energy development contribute to the urgency of securing and improving the status of our grasslands and their wildlife species.

Recent efforts have focused on development of up-to-date status assessments, implementation of limited habitat enhancements or improvement projects or set aside program like CRP, protecting those populations in stable conditions, and a greater emphasis on coordinated range-wide planning and assessments. However, the amount of resources has been inadequate to reverse the declining trends of some wildlife species.

Alteration of fire and grazing regimes: Fire and grazing by large herbivores were naturally occurring forms of disturbance on the North American grasslands and helped shape the nearly treeless structure of this vegetation community. Large ungulates are attracted to recently-burned areas, which burned every 5-20 years. In turn, recently burned and heavily-grazed areas supported more forbs, which were less likely to burn in subsequent years due to a reduction in grass litter. This fire-grazing interaction created a mosaic of patches (burned/unburned, heavily grazed/lightly grazed, dominated by forbs/dominated by grasses) that shifted spatially over time. Since widespread European settlement in the 1800's, the frequency and scale of deliberately-set fires have greatly diminished and, where possible, lightning-ignited fires have been actively suppressed. Fire suppression has increased the stature and dominance of shrubby species and the vigor of herbaceous prairie vegetation has been diminished over time.

Fire and managed grazing can play a critical role in restoring and maintaining the ecological integrity of grassland habitats. Recent efforts have focused on reintroducing prescribed fires and more intensely managed grazing regimens. Even in those few cases where land managers are currently willing to utilize prescribed fire as part of their rangeland management, such fires are typically less intense than the fires that helped mold the Great Plains landscape. With manmade structures scattered across many landscapes, prescribed fires are seldom set when wind speeds exceed 15 mph or when humidity is low. Thus, prescribed fires are less effective at removing or suppressing woody vegetation than those preceding European settlement. Additional follow up by land managers is needed for complete tree removal. Due to resource limitation, managers may only have enough money and personnel to conduct a controlled burn but not enough to perform follow-up actions.

Introduction of exotic diseases: Sylvatic plague is a disease caused by the bacterium *Yersinia pestis*, which fleas harbor and transmit to rodents and other species. The term "sylvatic" refers to the occurrence of the disease in the wild and has been recorded in 76 species of six mammalian orders, although it is primarily found in rodents. Rodent species vary in their susceptibility to plague. Some species act as hosts and carriers of the disease and/or infected fleas while showing no symptoms (e.g., kangaroo rats, *Dipodomys* spp., and deer mice, *Peromyscus maniculatus*). Conversely, when exposed to sylvatic plague prairie dogs have nearly 100% mortality rate. Scientists discovered plague among wild rodents near San Francisco in 1908 and it has spread throughout much of the Great Plains over the past century. Most black-tailed prairie dog populations show neither effective antibodies nor immunity to the disease. Generally for all prairie dog species, death occurs quickly for individuals that are exposed to plague. Noticeable symptoms usually do not have time to develop. Data obtained from the Rocky Mountain Arsenal National Wildlife

Refuge shows that plague has the potential to severely depress black-tailed prairie dog populations and cause local extirpations. Scientists have also observed long-term plague-related declines in white-tailed prairie dogs near Meeteetse, Wyoming. While plague can be managed in localized areas with the application of insecticides, a more holistic management tool like an oral vaccination is needed to secure prairie dog populations and those species dependent upon them on the landscape in the long-term.

To address grassland degradation, species impacts, and emerging concerns, WGI has several overarching approaches:

1. Capitalize on opportunities for conservation of grasslands that are based on cooperative planning, successful past actions, scientific assessment; and inspired public partnerships in order to de-list or prevent future listing of grassland dependent species
2. Interact with, and be recognized as a collective partnership focused on grassland conservation at local, state, national and international forums
3. Capitalize on growing public and private interest to acquire additional funding and incentives to support conservation actions promoting grassland ecosystems

One of the key features of WGI's approach is the reliance on the existing strengths of ongoing efforts for grassland species and their habitat needs across the west. For example, in 2010, WAFWA held a meeting to evaluate current survey methodologies used by member states for monitoring prairie dog populations in cooperation with USGS and USFWS. A detailed report recommending standardized survey methods for assessing the four prairie dog species has been completed by the evaluation board and forwarded to WAFWA. This effort gives WAFWA a common currency to focus efforts and document success as conservation measures are employed on the ground. Another example is the close collaboration between WGI and existing working groups (Prairie dog Conservation Team, Interstate Lesser Prairie-chicken Work Group, and Swift Fox conservation Team etc.) that is leading range-wide efforts to gather data on a relatively information-poor grassland species. Through this collaboration, WGI has stimulated interest and avoided duplicating efforts. These are examples of how WGI can provide a common framework to support ongoing efforts that are making significant progress.

WGI's strategic goals, objectives and actions include features that represent the strength of our approach which highlights increased coordination, action, and accountability. They describe and represent the key approaches that should be carried forward to conserve, protect and enhance western grassland habitats and recreational opportunities across North America.

### ***Strategic Planning Process***

In order to develop a Strategic Plan for WGI, it was necessary to complete range-wide status assessments for grassland dependent species. The steps taken to achieve this were to: 1) assess current status of species, 2) identify potential threats or management needs, 3) identify and categorizing common conservation strategies that could be applied to western grassland conservation at a broad scale, and 4) identify obstacles that may preclude or impede implementation of proposed actions. These tasks were accomplished through the teams and working groups of the WGI. Results of the Assessment of the Status of Grassland Dependent

Species provided the necessary foundation for the identification of Goals and Objectives of this plan. Findings were as follows:

1. **Prairie Dog Conservation Team** - In 1998 several non-governmental organizations petitioned the USFWS requesting that the black-tailed prairie dog (BTPD) be listed as a threatened species under the Endangered Species Act (ESA). In response to that petition, state wildlife agencies within the historical range of BTPD began discussion towards the development of an interstate effort to conserve the species. The Black-tailed Prairie Dog Conservation Assessment and Strategy (CAS; Van Pelt 1999) established a framework under which actions would be implemented to further conserve BTPD's within their historic range in the United States. Objectives of the CAS include establishing a prairie dog conservation team (PDCT), developing long-term conservation goals for the entire range of the BTPD (in number of occupied acres and individual colonies or complexes of minimum size), identifying focal areas for conservation, developing survey methods that would estimate occupied acres in each state and allow comparable analyses across states, preparing state-specific management plans and surveying the total number of occupied acres in each state at least once every five years. In February 2000, the USFWS issued a finding of "warranted but precluded," and the states continued to work on conservation measures.



Photograph Arizona Game and Fish Department

In February 2003, the PDCT published an addendum to the CAS, entitled, "A Multi-State Conservation Plan for the Black-tailed Prairie Dog, *Cynomys ludovicianus*, in the United States" (MSCP; Luce 2003). The MSCP provides further guidelines for achieving some of the objectives in the CAS and includes the following minimum 10-year target objectives (conservation goals) based on a range-wide analysis.

- 1) Maintain at least the currently occupied acreage of BTPD in the U.S.
- 2) Increase to at least 1,693,695 acres of occupied BTPD acreage in the U.S by 2011
- 3) Maintain at least the current BTPD occupied acreage in the two complexes greater than 5,000 acres that now occur on and adjacent to Conata Basin-Buffalo Gap National Grassland, South Dakota and Thunder Basin National Grassland, Wyoming
- 4) Develop and maintain a minimum of nine additional complexes greater than 5,000 acres (with each state managing or contributing to at least one complex greater than 5,000 acres) by 2011
- 5) Maintain at least 10% of total occupied acreage in colonies or complexes greater than 1,000 acres by 2011
- 6) Maintain distribution over at least 75% of the counties in the historic range or at least 75% of the historic geographic distribution

Initially, Gunnison's prairie dog (GUPD) white-tailed prairie dog (WTPD), and Utah prairie dog (UTPD) were not included in these plans. In 2002, with the filing of the WTPD petition, the PDCT was expanded to include all prairie dog species and states began to work in earnest on all four species.

**2. Swift Fox Conservation Team** – In 1992, the USFWS received a petition to list the swift fox under the ESA in the northern portion of the species' range (Montana, North Dakota, South Dakota and Nebraska), if not the entire range. In 1994, the ten affected state wildlife management agencies and interested cooperators formed the Swift Fox Conservation Team (SFCT). The SFCT prepared a species conservation assessment and conservation strategy to guide management and conservation activities in 1997, which was updated in 2011 (Dowd Stukel 2011). By implementing the conservation measures within this plan the states contributed to the ability of the USFWS to remove the swift fox from the candidate species list in 2001. WAFWA has identified a goal of maintaining or restoring swift fox populations within each state to provide the spatial, genetic and demographic structure of the United States swift fox population, throughout at least 50 percent of the suitable habitat available, to ensure long-term species viability and to provide species management flexibility.

**3. Lesser Prairie-chicken Interstate Working Group** – In 1995, the USFWS was petitioned to list the lesser prairie-chicken (LPC) as threatened under provisions of the ESA. The USFWS finding was that the listing was "warranted but precluded" indicating that evidence supported listing the species, but the agency had higher priority species to work with, given its limited resources. A focused conservation effort for LPC was described and approved by WAFWA through the Lesser Prairie-chicken Conservation Initiative (LPCCI) drafted by the Lesser Prairie-chicken Interstate Working Group (LPCIWG) in May 2008 (Davis et. al. 2008). The LPCIWG is

one of the technical groups associated with the WAFWA Grassland Initiative. The five cooperating states have continued to commit staff to this endeavor since it was formally established in 1996. WAFWA has identified a range-wide goal of maintaining habitat to support a breeding population of LPC averaging 80,000 birds.

These efforts resulted in multiple WAFWA reports that provide the background for the WGI Strategic Plan. References for the complete set of individual species status reviews can be found literature cited section. These reports will stand in the future, in addition to the summary report, as detailed references on specific needs for each species, and will be updated as needed to reflect changes in species status and management.

**Summary of common obstacles, concerns, and threats to viability of grassland species that to be addressed in the WGI Strategic Plan:**

Not unexpectedly, the obstacles and threats to improving the status and protecting populations of grassland dependent species are similar across the wide geographic range covered by the WGI. Opportunities and potential actions for achieving WGI objectives are likewise relatively similar across geographic areas, but vary in design and emphasis to reflect specific needs of each taxon.

Maintaining and increasing the geographical distribution of healthy populations of all grassland-dependent species is critical to improving their status. Concerns common to all species assessments include: habitat modification and reduction of groundwater levels, alteration of fire and grazing regimes, introduction of exotic diseases that result in reduced habitat, increased predation, competition, and mortality rates of grassland wildlife populations, sustaining current genetic diversity, maintaining and using protective land use regulations, buffering against climate change, improving conservation planning and cooperation among agencies, and providing additional information to the interested public. Other obstacles and concerns frequently identified, but not common to all species, include impacts of invasive and weedy nuisance species, data shortfalls, and energy development.

**Goals**

The WGI continues to make great strides in its conservation efforts. Actions implemented by WGI contributed to the removal of the swift fox and black-tailed prairie dog from the candidate list for Endangered Species Act protection. The WGI forum brings together relevant and interested wildlife and land management agencies to express their common concern over the status of the grassland ecosystems and the wildlife species dependent upon them and presents a unified commitment to improving the effectiveness of management actions and increasing public awareness of and support for the conservation needs of many wildlife species.

**Actions implemented by WGI contributed to the removal of the swift fox and black-tailed prairie dog from the candidate list for Endangered Species Act protection.**

Through a continuation of planning efforts supported by WAFWA partners, the WGI has adopted the following goals which are designed to achieve success by building upon the existing strengths of ongoing efforts:

1. Conserve, enhance, restore, or protect grassland dependent wildlife species and measure success in improving their status.
  - This goal will address the underlying concerns for maintaining the integrity (both physical and genetic) of wildlife populations at a landscape level. Continual identification and characterization of wildlife populations is a major objective of the WGI.
  - Monitoring of populations is required to effectively measure the impact and success of conservation actions. Developing a common language for describing the status of grassland dependent species will allow partners to determine conservation opportunities, priorities and outcomes at all levels of the WGI.
  
2. Conserve an additional 3.6 million acres of grassland habitats by enhancing, restoring, and/or protecting habitats through the use of conservation easements, incentives, stewardship programs such as “grass banking,” best management practices such as controlled burns and managed grazing, and acquisition.
  - This goal will address the underlying problem of the lack of representation of grassland habitats in conservation areas. Successful accomplishment will depend upon agencies, organizations, industry, and private individuals working together to implement actions on a local level, which will contribute to state, national, and international objectives. Healthy grassland ecosystems across North America are the keystone for WGI success.
  - Identification of priority and crucial grassland habitats is required to effectively focus resources and to measure the impact and success of conservation actions. By using existing conservation and planning efforts such as State Wildlife Actions Plans, U.S. Fish and Wildlife Service’s Landscape Conservation Cooperatives, and the Commission for Environmental Cooperation’s North American Grassland Priority Conservation Areas, the WGI will ensure a concentrated effort on the most important grasslands remaining in North America.
  
3. Develop collaborative approaches and partnerships among agencies and stakeholders that emphasize cooperation and shared effort, and increase funding to implement high priority actions for the protection, conservation and enhancement of grassland habitats.
  - This goal will address implementing a diverse array of conservation actions focused on grassland habitats and based on public, tribal and private partnerships. These efforts can be formed around intact grasslands, individual species, geographic areas, or other existing conservation efforts.
  - Collaborative development and publication of realistic conservation strategies with priorities at the local and regional level has been cited as a critical element of jump-starting species conservation. Improving the status of grassland dependent wildlife

- species and providing additional recreational opportunities will require the involvement of partners at all levels. Support for future funding and on-the-ground projects absolutely requires partnerships.
4. Develop and implement effective communication, education and outreach programs to increase public awareness and encourage partnerships that benefit grassland conservation.
    - This goal will guide consistent communications and coordination between the WGI, the grassland conservation community, and groups that can participate in education and outreach such as K-12 educators, the academic community, wildlife and land management agencies, conservation organizations, agricultural and ranching interests, and recreation and tourism industries.
    - There is a need to develop, implement, and manage comprehensive communication and outreach efforts to engage, inform, and inspire the public, agency program managers, and industry about conservation and management of grassland habitats. A more informed public can lead to development of strong partnerships between states and federal agencies, non-government organizations, tribal and international interests, and individual citizens.

## *Objectives and Strategic Actions*

### **Goal 1. Protect, enhance, or restore western grasslands habitats and measure success in improving the status of grassland dependent species.**

Goal 1 will be implemented through the following objectives and strategic actions:

- A. Continue monitoring projects established for various grassland species such as the four prairie dogs, swift fox, lesser prairie-chicken, and any others deemed necessary.
  - In 2012, begin bringing species to a common characterization of populations and habitats by completing or implementing comprehensive, standardized species assessments utilizing GIS-based protocols or other similar methodologies. Evaluate and update these methods no less than every 5 years. Encourage other grassland species technical groups that have not adopted GIS-based survey protocols or other similar methodologies to move toward these survey methods so they can be adapted to a common database.
  - Continue to gather information, establish baseline, as well as overall monitoring strategies for grassland species, especially those identified in the State Wildlife Action Plans.
  - Utilize the WGI technical working groups as needed to serve as a forum to focus on particular species problems or needs, and/or recommend actions to the Steering Committee for consideration and funding.
- B. Utilize assessment data to identify, enhance, or restore important grassland species populations and habitats through focused actions.
  - Use standard population manipulations to protect and restore grassland species to maintain and expand populations which are genetically similar, as well as

populations with distinct migratory life-history and habitat requirements. This information will be vital as the Western Governor's Decision Support Systems begin to be finalized and brought into use for identifying crucial wildlife areas.

- Conserve the best strongholds and maintain genetic integrity of populations.
  - Utilize the WGI technical workgroups to recommend and prioritize projects for WGI funding priorities.
  - Annually, WGI partners will evaluate, identify, and conduct research on habitats, population distribution, genetics, and species ecology to increase knowledge of grassland species life-stage requirements (i.e. brooding areas for lesser prairie-chickens, burrow densities needed for ferret reproduction, etc.) and evaluate the success of those conservation actions implemented by the coalition affecting these factors.
- C. WGI partners will conserve grassland species while recognizing and embracing traditional land uses in a manner that recognizes the biological, cultural and economic importance of each.
- By 2015, working with partners at a national and international level, identify and begin conservation of core areas for grassland species to reduce conflicts between grassland conservation and other land uses such as agriculture, infrastructure development, urbanization and energy development. This effort will compliment other national and international efforts, such as the ongoing effort of the Commission for Environmental Cooperation and The Nature Conservancy to identify North American Priority Conservation Areas (CEC and TNC 2005).
  - The WGI partnership will work toward conserving an additional 3.6 million acres (300,000 acres per state) of grassland habitats by the end of 2015. This will be accomplished by enhancing or protecting grassland habitats through the use of conservation easements, incentives, stewardship programs such as "grass banking," implementing NRCS best management practices such as controlled burns, and acquisition.
- D. WGI will support the development of a grassland species database, with common data fields by the end of 2015.
- In cooperation with the WGI work groups, use scientifically rigorous and standardized methodologies to monitor and report changes in the status of grassland species.
  - WGI will share data on western grassland species and habitats with guidelines established by state laws and agency guidelines.

**Benefits:**

The effective characterization of grassland species will serve as the basis for the various technical workgroups and teams to focus attention on specific actions that will contribute to improving the status of the species. Identification of core areas in each species range will provide opportunities for local partners to become involved in species conservation. Sharing data and updating range-wide databases with data from well-designed field monitoring programs will serve as barometers of the status of grassland species over time. Maintenance and expansion of recreational opportunities for grassland species will maintain and increase public support for the actions of WGI.



**Goal 2. Protect intact grasslands, and enhance or restore grassland habitats that have been impacted by human activities or catastrophic natural events.**

Goal 2 will be implemented through the following objectives and strategic actions:

- A. Utilizing habitat assessment data as a basis, identify, protect and restore existing grassland species strongholds.
  - By 2015, characterize key grassland habitats for species of greatest conservation need using GIS-based analysis or similar techniques.
  - WGI will support habitat actions at the local and species-levels that protect and enhance stronghold populations and the life history and migratory needs of grassland species.
- B. By 2015, restore 2,400,000 acres (200,000 acres per state) of degraded grasslands for grassland species while protecting and maintaining current strongholds and high-value grasslands.
  - Secure and enhance grassland conditions through standard habitat manipulations (e.g. controlled burns, tree removal, rotational grazing etc.) increasing habitat connectivity, and decreasing fragmentation.
  - Implement, evaluate, and monitor best management practices that include but are not limited to: modifying grazing practices, fencing areas important for life cycle like chick brooding, closing and obliterating roads in sensitive areas, and ameliorating affects of energy development such as transmission lines and infrastructure.
  - If necessary, reintroduce missing grassland species into restored grasslands to assist with maintenance and enhancement.
- C. WGI will communicate the need for new research on grassland species related to climate change, energy development, invasive species, and human encroachment or development in grassland habitats
  - WGI will seek funding for new research on impacts of new and developing habitat concerns such as climate change, habitat loss from energy development and population growth and increased catastrophic habitat losses from flooding, etc.
- D. Support recommendations for grassland habitat restoration and enhancement actions with available funding. through the WGI Steering committee.
  - WGI becomes a recognized Grassland Conservation Partnership under the Landscape Conservation Cooperatives.

**Benefits:**

Healthy grasslands constitute the foundation for improving and protecting wildlife species dependent on them. Prioritized habitat actions will address the habitat needs for life stages and life forms of grassland species. Specific improvement projects at a local level energize partners to participate in the shared objectives of WGI.

**Goal 3. Develop collaborative approaches and partnerships among agencies and stakeholders that emphasize cooperation and shared effort, and increase funding to implement high priority projects for the protection, conservation and enhancement of grassland-dependent species.**

Goal 3 will be implemented through the following objectives and strategic actions:

- A. By 2012, there will be updated State Wildlife Action Plans based on a collaborative process developed at the state level. Conservation actions will be identified with priorities at the local level that can be expanded to contribute toward the regional, national, and international objectives.
  - Stimulate and inspire, through funding and meeting frameworks, the initiation of planning efforts for those grassland species which do not currently have a multi-state, multi-agency conservation plan or strategy.
  - Encourage the updating, at least on a 3-5-year basis, of the cooperative management agreements among states, agencies and partners that revise and refine the priorities for action to protect, conserve, and enhance the species.
- B. WGI will foster and support a diverse array of grassland conservation actions based on public, private, and conservation organization partnerships. These efforts should be formed around distinct grasslands, species, or geographic areas, based on the collaborative conservation or recovery plans.
  - Use the WGI operational structure to seek and promote public-private partnerships for on-the-ground actions.
  - By 2013, develop a prospectus to inspire new partners to contribute financially to WGI actions.
- C. WGI will promote and foster new partnerships at all levels to increase funding and public support for identified needs.
  - Identify and communicate the need for funds with potential public/private conservation partners to encourage their involvement in the WGI, and to broaden the scope of support for improving the status of grassland dependent species.
  - Hold a meeting of WGI partners and invite entities who want to participate in the partnership or provide assistance (including financial) in implementing our mission, vision, goal, objectives and strategies, to participate and share ideas for improving the status of grassland species.
  - Work with current funding partners including states, federal agencies, Western Governors Association, National Fish and Wildlife Foundation and others to focus on implementing on-the-ground conservation actions.
  - Explore WGI taking a role in providing a forum for the discussion of issues on a larger scale which impact grassland species, i.e. continued human population growth coupled with potential impacts from a warming climate and increased emphasis on extractive energy development, and increased water use.

- D. WGI Steering Committee will recognize and recommend projects for funding as funds become available for WGI partners.
- By January 2012, WGI will establish a Steering Committee.
  - Guide development of the WGI website for multiple roles of reporting conservation efforts, articulating conservation priorities, and identifying research needs.

**Benefits:**

One of the key features of WGI's strategy is reliance on existing strengths of ongoing conservation efforts for grassland-related species. Cooperative development, publication and updating of conservation strategies with priorities at the local and regional level is a critical component to unite the efforts for improving the status of grassland species. Increased local efforts and additional recreational opportunities will require the involvement of partners at all levels. Support for future funding and on-the-ground projects absolutely requires partnerships and joint ventures that build upon existing local and regional efforts. In order to effectively utilize scientific data, and make good management decisions, there must be effective sharing of information between and among agencies and their partners.

**Goal 4. Develop and implement effective communication, education and outreach programs as a tool to increase public awareness and encourage partnerships that benefit grassland dependent species.**

Goal 4 will be implemented through the following objectives and strategic actions:

- A. WGI will complete a communications and outreach plan by July, 2014.
- Establish a communications sub-committee that consists of professionals from several WGI partner agencies and organizations to complete the plan.
  - Develop the communications plan in a manner that inspires partners to contribute to and support the success of WGI financially.
- B. WGI will annually develop communication products that keep partners fully informed, foster mutually beneficial relationships, and inform other interested publics about WGI and its goals and objectives.
- Survey partners, the grassland conservation community, and other grassland interests to initiate communication, to understand their outreach needs and to determine the most effective means of information dissemination.
  - Identify elements of success in other campaigns that have promoted recreational use of grassland species and incorporate successful elements into the WGI.
  - One product per year will be developed and made available to WGI partners to promote and encourage involvement in the WGI.
- C. The WGI Website will serve as a comprehensive source of information on the grassland dependent species including information on their status, conservation needs, potential conservation actions, and links to planning documents.

- Maintain the WGI Website as a comprehensive source of information for grassland dependent species and include information on their status, biology, distribution, conservation needs and impediments, conservation actions, links to official recovery plans, conservation strategies and conservation agreements. Develop the website as a repository for WGI-related planning, news releases, informational brochures and other related items.
  - Develop enhanced communication to outdoorsman about recreational opportunities and the benefits of conservation and management of grassland-dependent species to their recreational uses.
  - Develop enhanced communication to landowners about conservation opportunities and the benefits of conservation and management of grassland dependent species to their operations.
- D. WGI serves as a clearinghouse and source of information about how to obtain funding for recommended grassland conservation projects.
- WGI will develop outreach products that describe opportunities for partnerships and possible funding that is available. It will also gather, catalog and make available a list of financial resources that are available to implementers for funding grassland-related conservation projects.
  - Link to existing resources (USFWS LCC, WGA, NFWF, Doris Duke Foundation, etc.) and gather, catalog and make available other products for targeted interest groups such as landowners, local governments and the media, and provide materials for each target group.
  - Develop convenient and efficient means of distributing these tools using WGI.
- E. WGI will develop educational materials about grasslands and the species dependent upon them for use in schools and community-based events
- Work with teaching personnel to develop specific educational materials dealing with western grassland conservation.
  - Work with entities such as Project WILD to develop a series of interactive educational tools designed to illustrate the interrelationships of trout and aquatic habitats, and to demonstrate the cultural, biological, recreational, and economic importance of grassland ecosystems.
  - Explore the feasibility of initiating efforts in individual states to include grassland ecology into the primary or secondary school curriculums.
  - Develop materials that celebrate the unique nature of grassland habitats and the species dependent upon them and motivate people to become familiar and the need to conserve and enhance grassland-dependent populations.

**Benefits:**

It is essential to keep local governments, tribes, landowners and public land managers informed about grassland conservation and provide public, tribal and private land managers with information and advice on effective tools and techniques that can be used to achieve conservation goals. Benefits of communication and outreach are increased efficiency through routine and consistent communication and coordination between WGI and the grassland

conservation community, the generation of public and private funding and support for the WGI and habitat conservation, and support for continued recreational opportunities.

### *Progress Measurement, Communication and Reporting*

WGI will support the development of monitoring programs that assess the effectiveness of grassland conservation projects and measure progress of WGI's goals and objectives. Monitoring programs will assess trends and changes in the status of grassland-dependent species and their habitats over time. Accomplishment reporting will be conducted on an annual basis and reported to partners, the general public and others interested in the WGI.

In order to keep WGI and WGI-related planning and assessment up-to-date and help provide useful information to those seeking to improve WGI's funding base, revisions and updates of the Strategic Plan and Species Assessment Report on a 5-year basis will describe changes in the overall status of grassland dependent species.

- A. WGI will update the Strategic Plan and any status reports on a 5-year cycle to provide new recommendations for conservation actions.
- B. WGI will also develop and maintain a catalog of local, state, and range-wide success stories that can be shared among groups and disseminated to the general public on a regular basis to keep grassland conservation before the public and to demonstrate successes.
- C. WGI will develop progress and accomplishment reporting guidelines and annually report to WAFWA, partner agencies and tribes, and other stakeholders on the status of grassland dependent species.

### *Organizational and Operational Milestones*

**Management and Operations:** Organizational and operational aspects of the WGI are based on the MOU through the WAFWA in which signatories agree to a steering committee structure to provide guidance for WGI operations. Steering Committee activities support the actions described in the WGI Strategic Plan. The Steering Committee operates through, and as a function of, the Habitat Committee of WAFWA under the guidance of the Chair.

- A. WAFWA member states and agency partners agree to the WGI Memorandum of Understanding concerning WNTI organization and operations
- B. By July 2011, WGI member states and agencies sign a Memorandum of Understanding that describes the WGI purpose, conservation goals, operations and administration, and formalizes working relationships and commitments to action between WAFWA and partner agencies and interests.

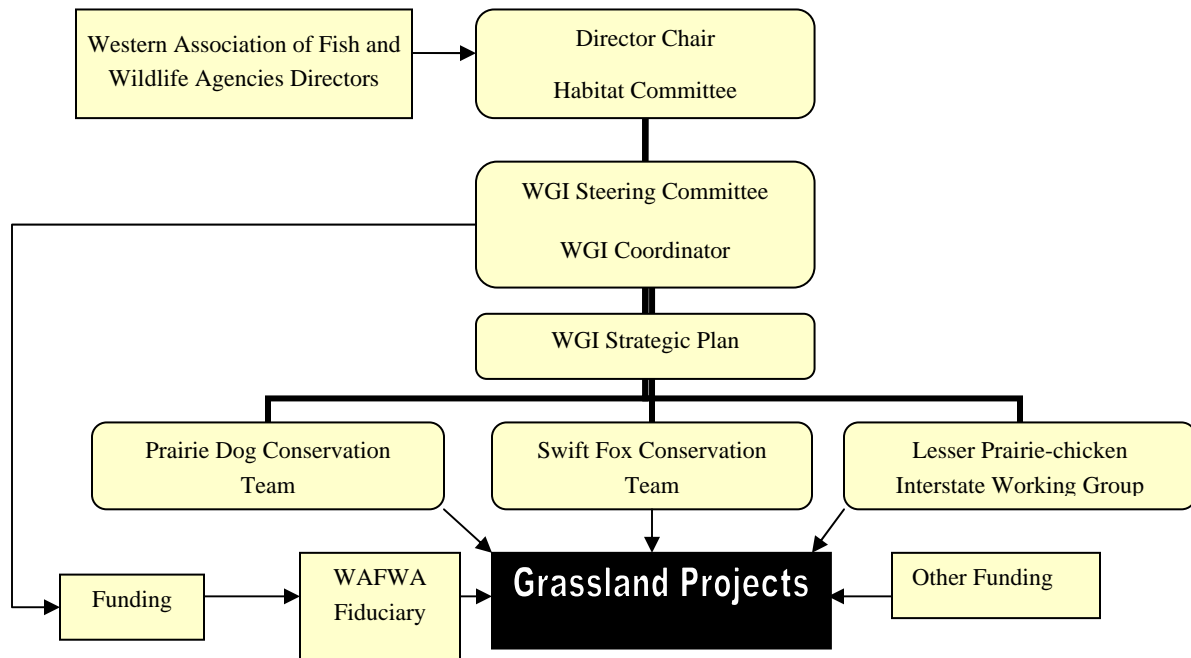
- C. By the July 2012 annual WAFWA meeting, WGI formalizes the following roles, responsibilities, and members of the WGI Steering Committee with the Directors of member states and agencies.

**Roles and Responsibilities of the Western Grassland Initiative Steering Committee:**

The WGI Steering Committee will promote and facilitate the actions described in the Strategic Plan and should not exceed 12 Members. The WGI Steering Committee will be comprised of the Chairperson (WAFWA Habitat Committee Chair), support staff (WGI Coordinator), and an appropriate number of WAFWA members and partners necessary to conduct business and provide direction to the WGI effort. These include, but are not limited to:

- Supporting the development, implementation, monitoring, and evaluation of grassland conservation actions at range-wide, regional and local scales;
- Promoting planning efforts among partners and stakeholders;
- Supporting and recommending WGI projects for funding;
- Providing direction and input to any WGI technical work groups and creating WGI ad-hoc task groups as needed;
- Supporting the partnerships and initiatives of the WGI with financial and/or staff resources as available per agreement of the WAFWA Directors;
- Participating in marketing efforts/information campaigns to garner additional resources to meet WGI objectives (within agency/organization guidelines);
- Reporting to partners and stakeholders on the status and accomplishments of the WGI.

**Figure 2: WGI Operational Structure**



**Teams and Working Groups:**

Because the WGI encompasses a 12-state geographic area, and since most populations overlap multiple states, there is a need for range-wide planning and coordination. To meet this need, WGI will retain the concept of using the technical working groups developed during the species assessment phase of WGI, and may form ad hoc working groups as needed. The species-based technical groups established to date are: 1) **Prairie Dog Conservation Team**; 2) **Swift Fox Conservation Team**; and 3) **Lesser Prairie-chicken Interstate Working Group**.

**Operational Memorandum of Understanding:**

The Memorandum of Understanding (MOU) confirms the intent of state and federal agencies, tribes or tribal organizations as well as interested other parties, to participate in and support a WAFWA partnership that focuses on conserving western grassland habitats and the species dependent upon them.

Through the agreement, partners confirm that the conservation of western grasslands will be accomplished by application of resources, human and financial, to conserving and protecting intact grassland dependent species and habitats; enhancing or restoring populations and habitats that have been impacted by habitat modification or other disturbances. Partners encourage management agencies and stakeholders to seek solutions to issues such as regional environmental and ecological threats, to develop and implementing outreach and educational programs to ensure public awareness of the challenges that face grassland dependent species; and to develop support for implementation of programs that perpetuate and restore grassland-dependent species throughout their historic range.

**WGI Coordinator:**

As funding is available, a part- or full-time coordinator for the WGI will be staffed through the WAFWA. Currently, the WGI Coordinator is operating under the guidance of the original Multi-State Contract that has funded current WGI activities. The coordinator will provide primary staff support to the WGI Director Sponsor and Steering Committee and will be responsible for disseminating information, coordinating and facilitating Steering Committee activities, coordinating outreach activities, and pursuing funding and grant opportunities that focus on WGI objectives.

***Funding***

The identification of funding sources is critical to successful implementation and completion of conservation actions for grassland-dependent species and their habitats, as well as for the continuation of WGI.

**Funding Objective:** This objective describes the approach suggested to provide sufficient funding to operate the WGI. As mentioned above, the current activities of the WGI are funded by a Multi-State Contract that was approved in January 2006. With an extension in October 1, 2010, this funding will be available through September 30, 2013. At that time, a mechanism must be in place to allow the WGI to keep operating in order to implement the objectives described in the Strategic Plan.

Identify and secure short-term and long-term funding options for implementation of the WGI Strategic Plan.

- Continue operations under the 2-year Multi-state contract and fully expend the funds available.
- Secure funding as available from Landscape Conservation Cooperative, State Wildlife Grants, and other sources as a result of being recognized as a National Grassland Partnership.
- Investigate and seek other funds as appropriate with future partners and collaborators.

**Short-term Funding:**

Currently, the WGI operates under a two-year WAFWA contract with an annual average budget of \$125,280 per year. Under the current funding, operations can continue through September 30, 2012 with the possibility for renewal depending upon performance and funding. Under this arrangement, the return for WAFWA's investment has been great. From 2008-2010 over 1.1 million dollars in funding has been secured for WGI species-related habitat and conservation projects as a result of collaboration with the U.S. Fish and Wildlife, National Park Services, and Geological Service, U.S.D.A. APHIS Wildlife Service, the Western Governors Association, and the National Fish and Wildlife Foundation (NFWF).

**Long-term WGI Operational Funding Options:**

We believe the efforts of WGI will result in clearer description of emergent priorities and ways to deal with them. For WGI to endure, a Western Association Wildlife Conservation Fund must be in place that allows the WGI to seek and accept outside funding from both public funds and private donations. In its first 2 years of having influence on projects, the return on investment has been great, and the future looks extremely positive for even greater potential to garner additional dollars to focus on the suggested WGI actions described in the Strategic Plan.

Following approval of the WGI Strategic Plan and operating guidelines, the development of public partnerships is expected to begin in earnest, and the need for a long-term operational structure will take precedence. The preferred approach is as follows:

**A. WAFWA Partner supported operations**

Under this scenario, the operations and coordination of WGI Activities would be supported by WGI MOU partners based on an annual administrative assessment of approximately \$5200 per state partner with the remaining funds coming from federal partners. This could yield approximately \$60,000-\$125,000/yr. to fund operations of either a part or full-time WGI Coordinator. Other operational and project implementation funds would be sought through grant programs, donations, gifts, and other funding sources that are available.

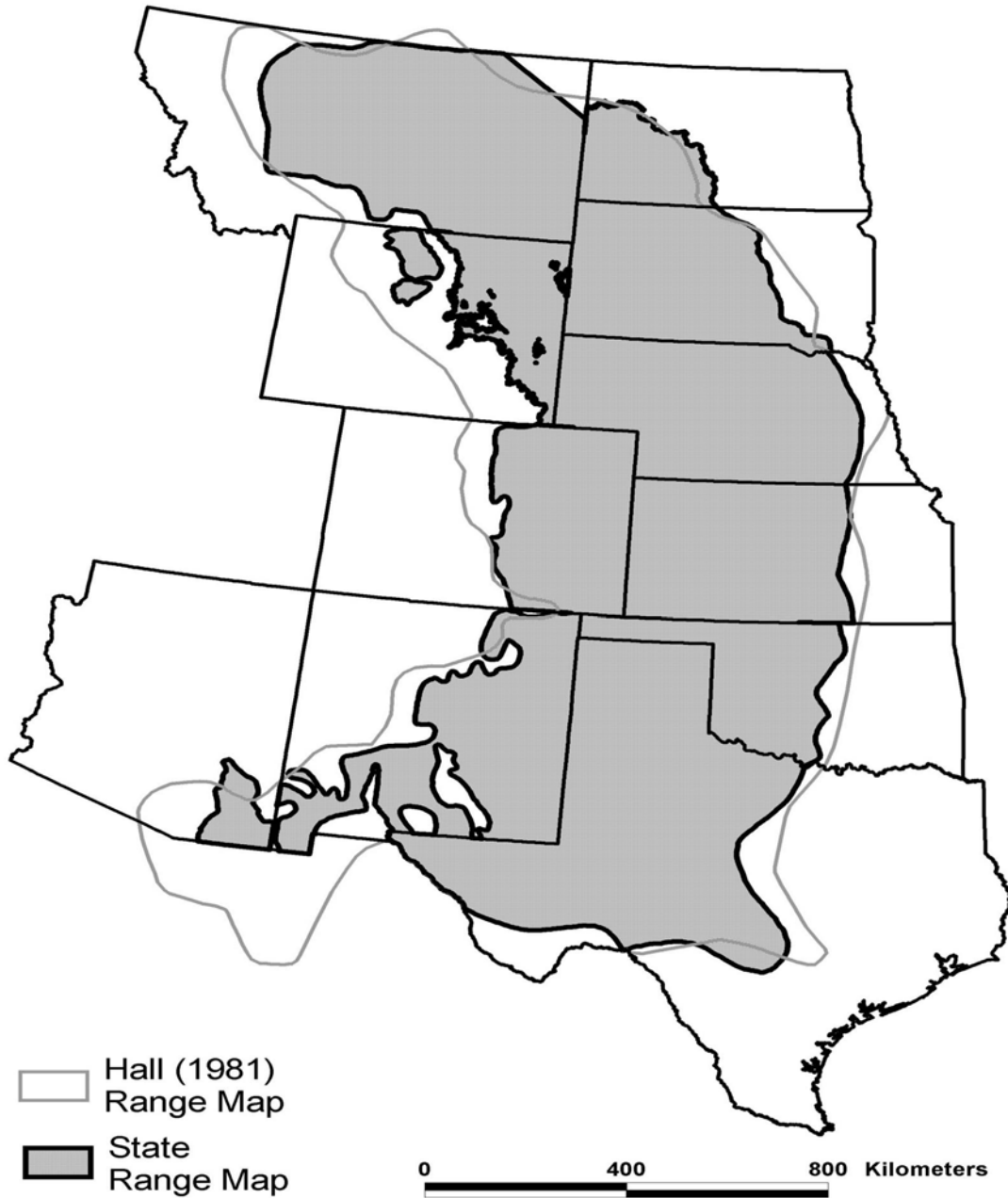
**B. National and/or Congressional authorizations for strategic actions**

With this scenario, WGI operations and project funding would be dependent upon the success of the national grassland partnership effort gaining spending authority through a Western Grassland Conservation Act that would provide for administrative costs as well as project funding. WGI efforts will also be supported by funding within the member states from the current state and federally funded programs, or other sources.

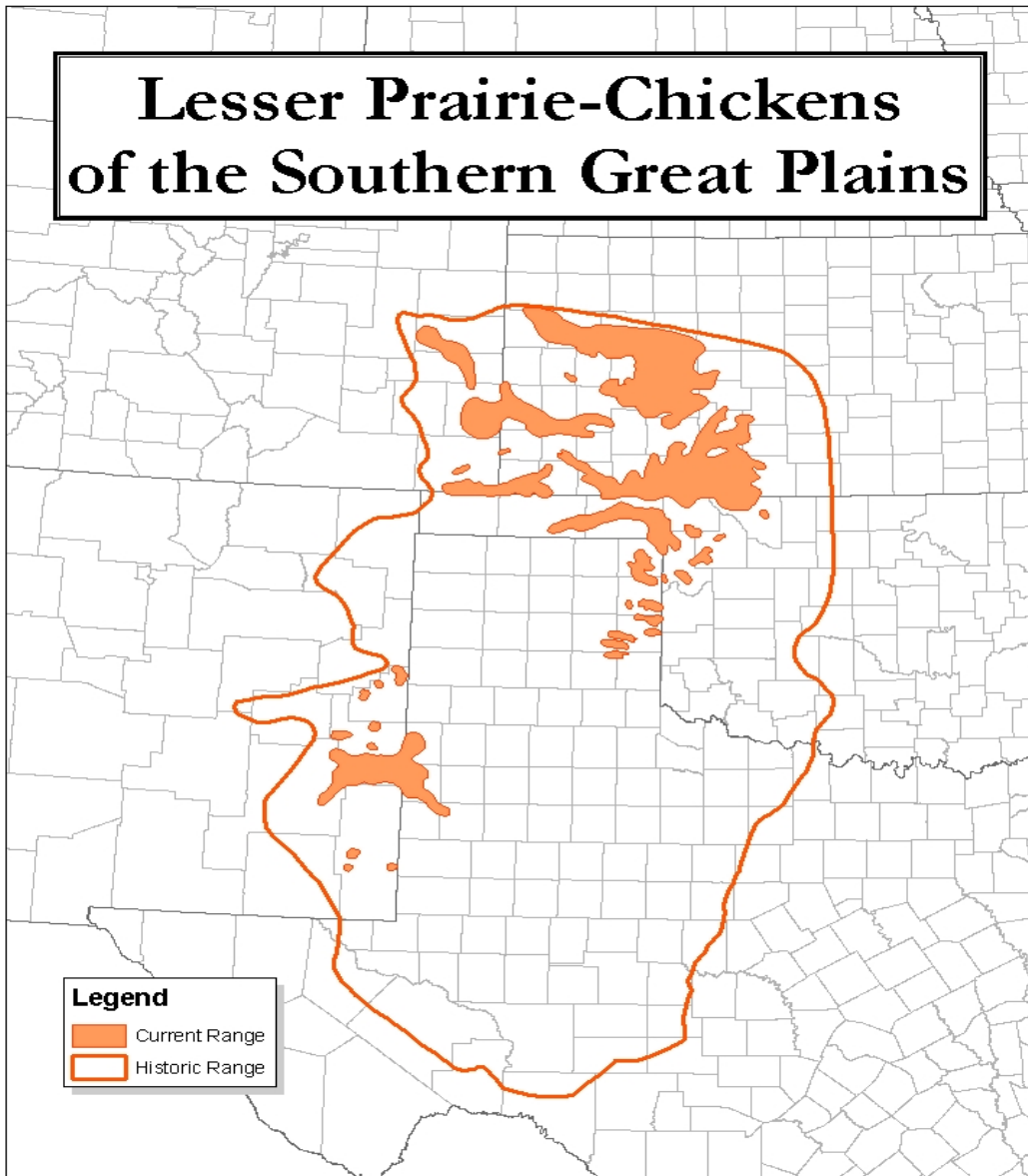


## Appendices

### Appendix 1: Black-tailed Prairie Dog Range Map

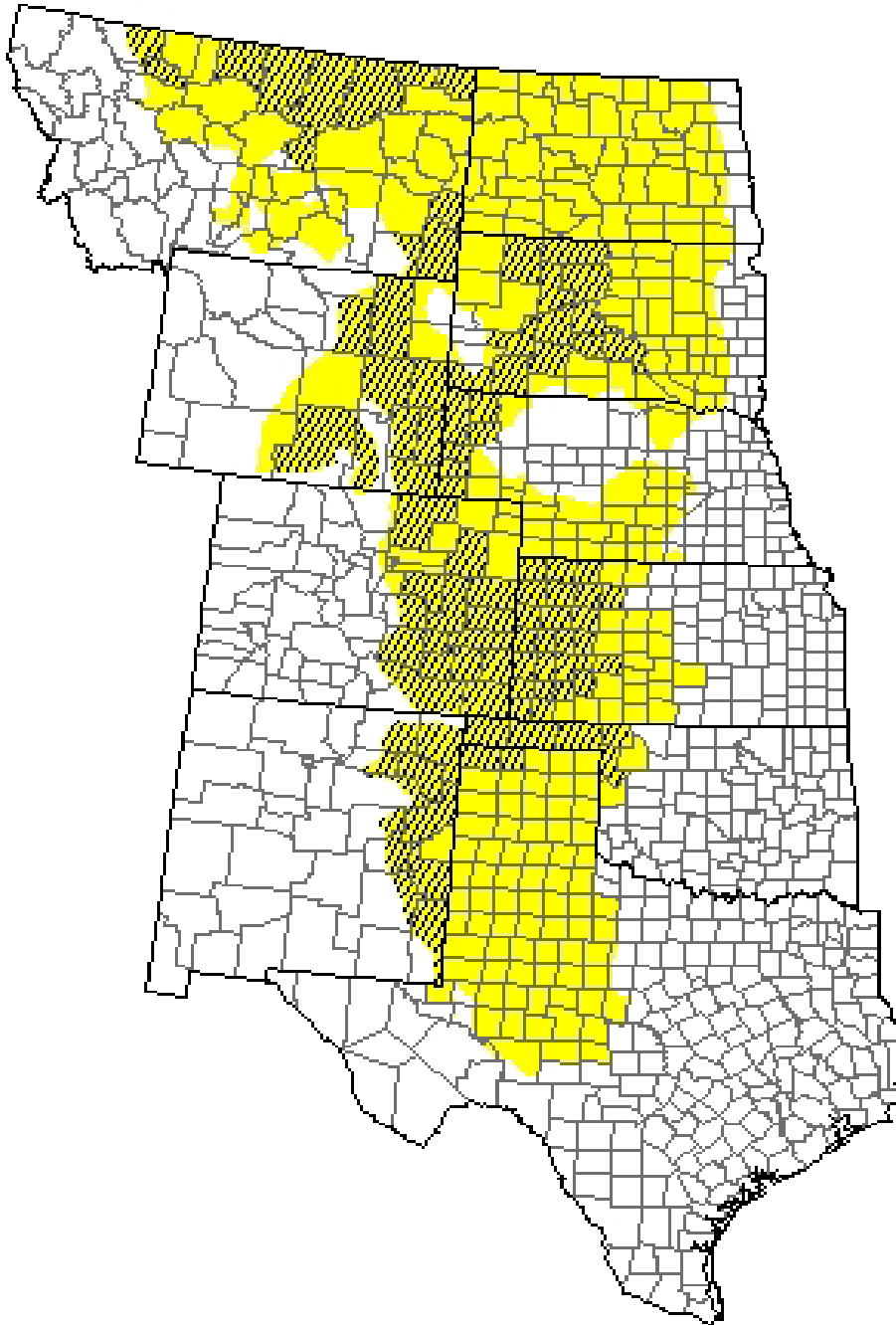


Appendix 2: Lesser Prairie-chicken Range Map



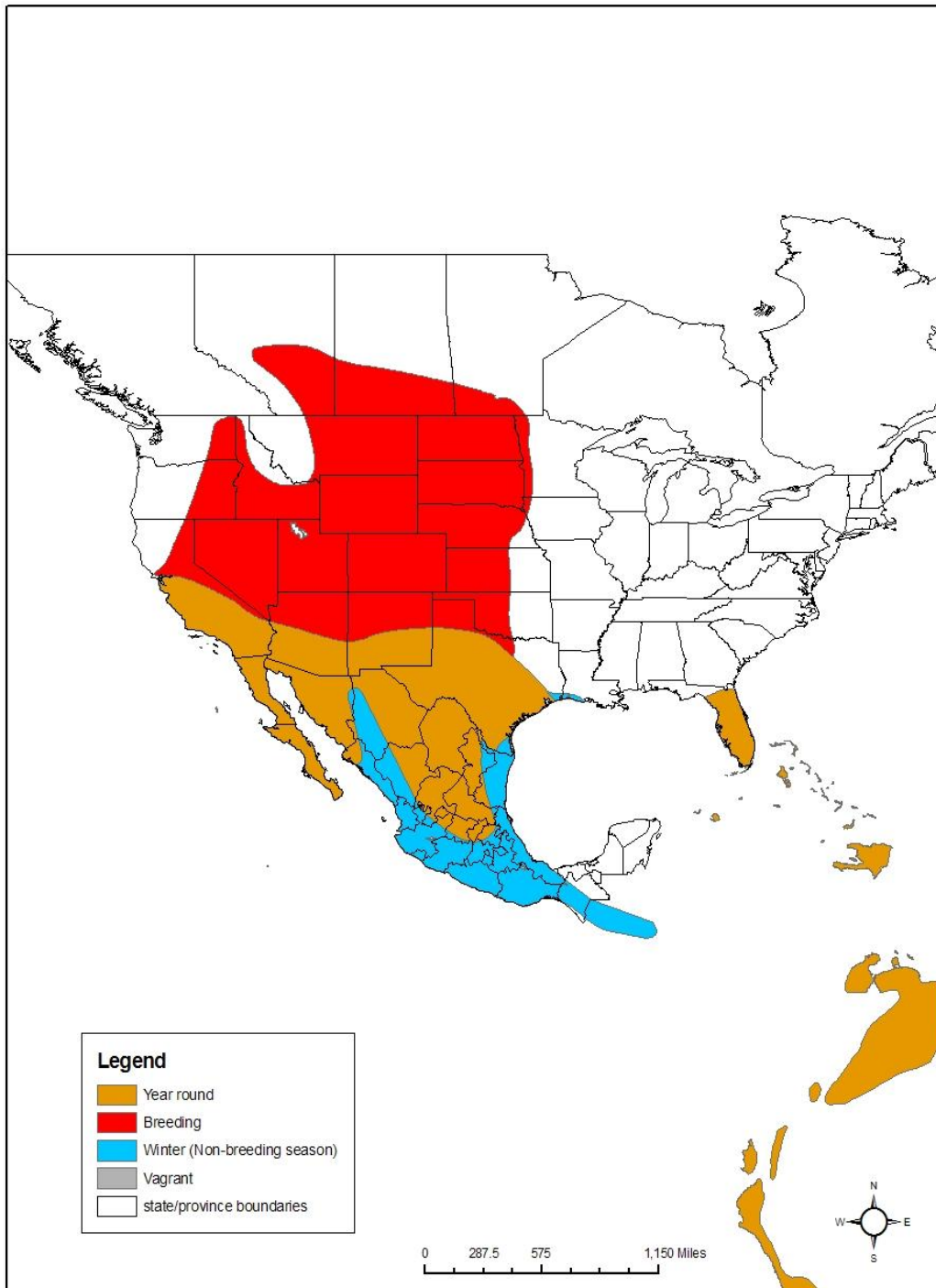
Map provided by PLJV, a member of the Great Plains GIS Partnership

Appendix 3: Swift Fox Range Map



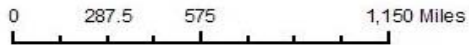
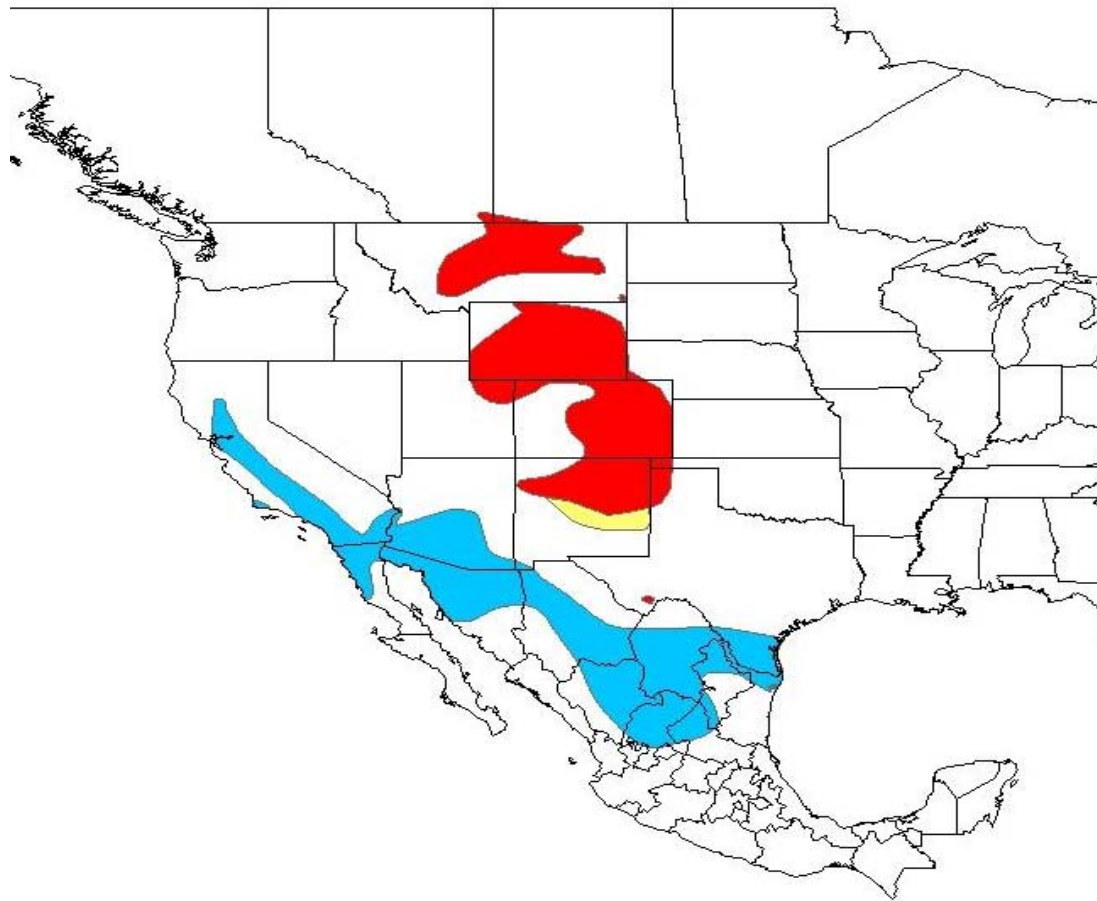
Map provided by Northern Prairie Wildlife Research Center,  
United States Geological Survey

Appendix 4: Burrowing Owl Range Map



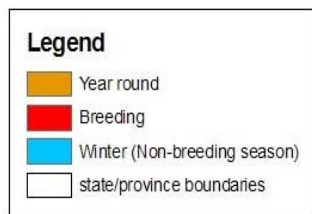
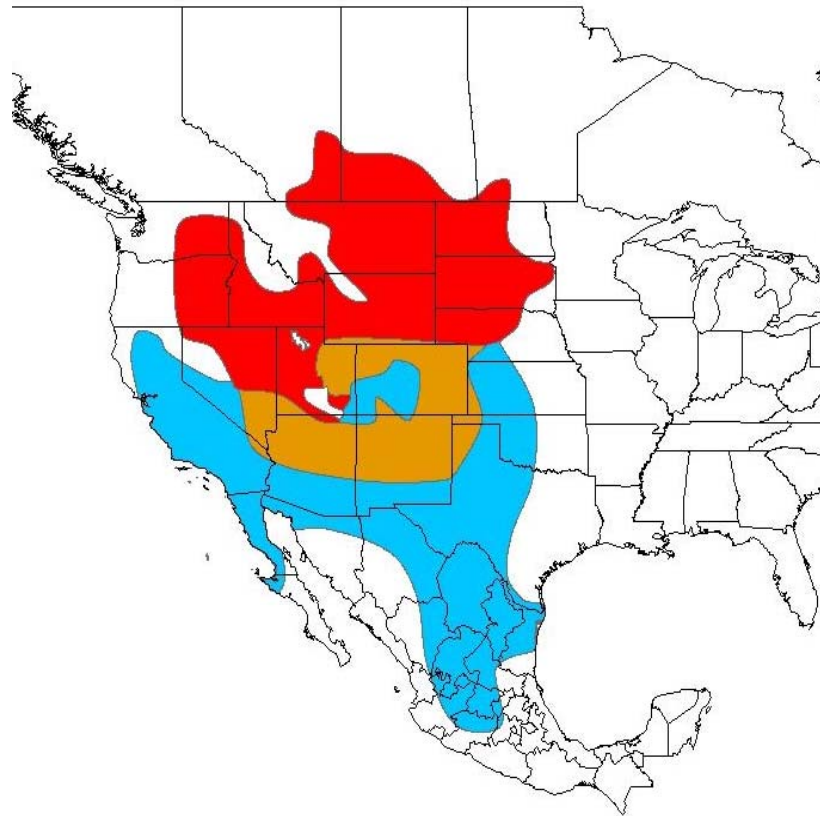
Map provided by [www.natureserve.org](http://www.natureserve.org)

Appendix 5: Mountain Plover Range Map



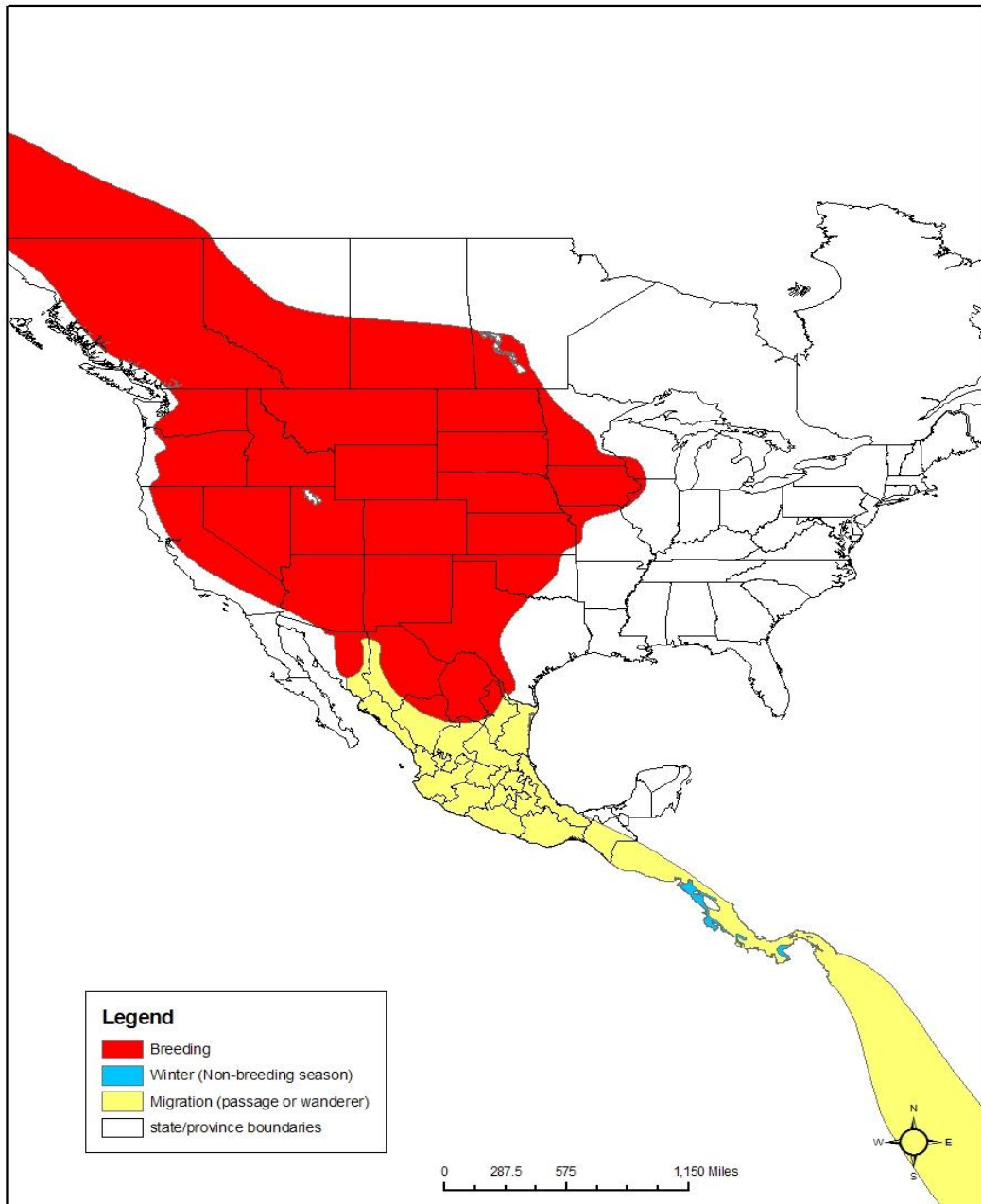
Map provided by [www.natureserve.org](http://www.natureserve.org)

Appendix 6: Ferruginous Hawk Range Map



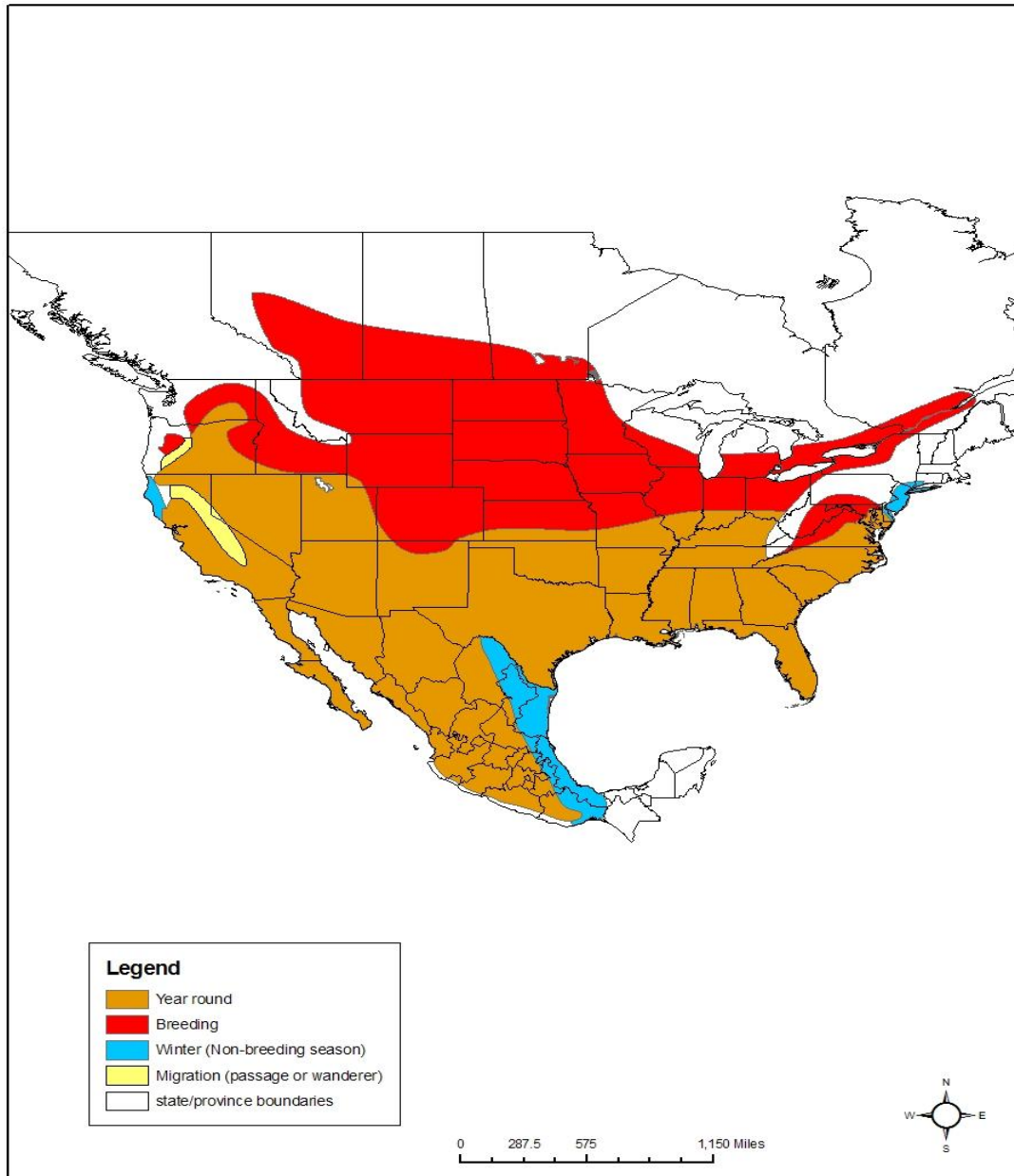
Map provided by [www.natureserve.org](http://www.natureserve.org)

Appendix 7: Swainson's Hawk Range Map



Map provided by [www.natureserve.org](http://www.natureserve.org)

Appendix 8: Loggerhead Shrike Range Map



Map provided by [www.natureserve.org](http://www.natureserve.org)



## Appendix 9: Literature Cited

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