



Mountain-Prairie Region



Message from the Regional Director

I am honored to share with you the Region 6 Partners for Fish and Wildlife (PFW) program's 5-year Strategic Plan covering FY 2012-2016. The document represents the 2nd generation of the Regional Step-Down plan in a structured 3-part process. This year marks the 25th anniversary of the PFW program which was conceived from humble beginnings through efforts in the prairie pothole ecosystem and the forerunner Mid-continent Waterfowl Management Plan. Let me highlight some of the incredible work that has defined the program throughout the years.

PFW has been a tremendous asset in the Mountain-Prairie Region and paved-the-way for both community and landscape-scale conservation. Private land is critically important to the successful management of Federal Trust Species and fulfilling the mission of the United States Fish and Wildlife Service (Service). Additionally, PFW efforts have been crucial to Department of the Interior (DOI) initiatives such as America's Great Outdoors (AGO). With private land ownership comprising nearly 70% of all holdings in the United States these properties are pivotal to the success of large conservation undertakings. The one-on-one relationships with landowners, which define the Region 6 PFW program, are the base for moving forward.

New National Wildlife Refuge (NWR) Units have been established including the over 2 million acre Dakota Grassland Conservation Area, spanning major parts of North and South Dakota, along with the Flint Hills Legacy Conservation Area in Kansas, targeting more than 1.1 million acres of native Tallgrass prairie for protection. In addition, we have essentially doubled the size of the Rocky Mountain Front and Blackfoot Valley Conservation Area, and established the Swan Valley Conservation Area. PFW was part of the solid foundation, through decades of trust-building voluntary conservation, which allowed these major projects to become a reality.

I would also like to take the opportunity to thank our incredible partners. The very concept of the PFW program is to communicate and network with the understanding that collaboration is a value-added component of on-the-ground delivery. Partnerships are extremely varied and so are contributions but whatever form the relationship takes the basic ideals of the program are steadfast and the end-product is stronger when we perform our duties hand-in-hand.

Congratulations to the PFW program for 25 years of success and I look forward to the implementation of this incredible plan!

A handwritten signature in black ink that reads "Steph D Guertin". The signature is written in a cursive, flowing style.

RD Guertin
U.S. Fish and Wildlife Service



U.S. Fish & Wildlife Service

Partners for Fish and Wildlife Program

*Mountain-Prairie Region
Strategic Plan
2012-2016*



*Voluntary Private Lands
Habitat Restoration*

Cornerstones:

Trust

Respect

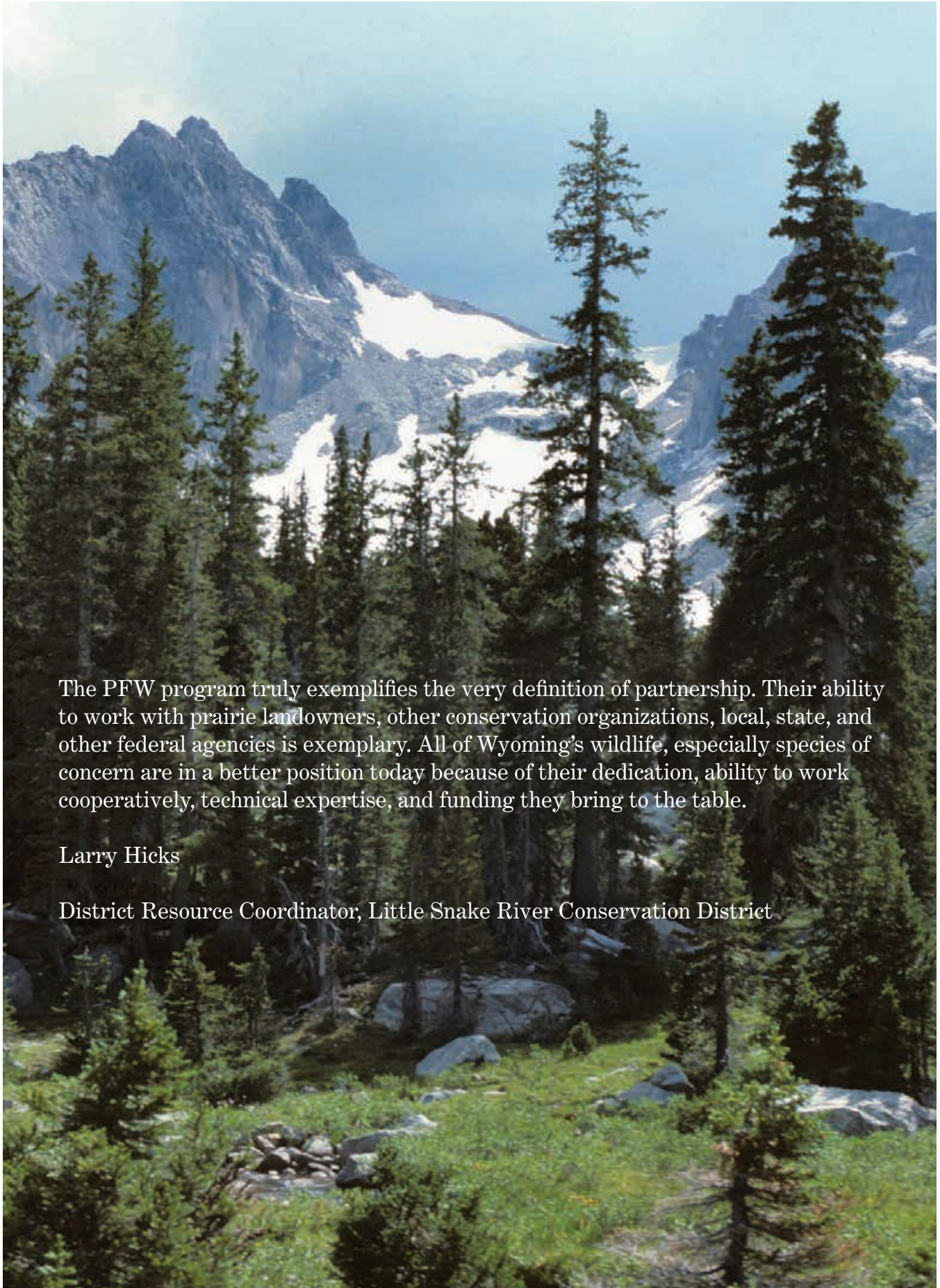
Honesty

Flexibility

Open Communication

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The PFW program truly exemplifies the very definition of partnership. Their ability to work with prairie landowners, other conservation organizations, local, state, and other federal agencies is exemplary. All of Wyoming's wildlife, especially species of concern are in a better position today because of their dedication, ability to work cooperatively, technical expertise, and funding they bring to the table.

Larry Hicks

District Resource Coordinator, Little Snake River Conservation District

Overview of the Mountain-Prairie Region



Introduction

The Partners for Fish and Wildlife (PFW) program is the U.S. Fish and Wildlife Service's (Service) private lands habitat restoration program. Region 6 PFW program continues to lead the Nation in these efforts, working with hundreds of private landowners annually to restore and enhance habitat that benefits high priority Federal trust species. Since 1987, Region 6 has worked with private landowners to restore wetlands, uplands, rivers and streams, impacting 207,542 acres of wetlands, 2,375,704 acres of uplands, 2,479 miles of rivers / riparian, and 98 fish passage barriers. These restoration accomplishments would not have been possible without the cooperation of the program's more than 14,930 private landowner partners. With all the successes the PFW program and its partners have had, Region 6 considers this only the beginning in terms of the potential of the PFW program. Congress recognized the effectiveness of the PFW program and ratified the Partners for Fish and Wildlife Act in 2006. Operating under this organic legislation, financial increases were realized and the program has expanded. The PFW program continues to grow in Region 6, with new landowners and partners wanting to work together, with the Service, to benefit fish and wildlife. The Region 6 PFW program is eager to work with these new landowner cooperators, and shared partners, to achieve the mission of the Service, "Working with others, to conserve, protect and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people."

Several landscape level community-based conservation partnerships have been developed with the help of the PFW program. These community-based partnerships

are effective at providing habitat for high-priority fish and wildlife species, but also maintain sustainable agriculture communities and rural lifestyles. In addition to working with many private landowner partners, the Region 6 PFW program works with organizations and other agencies with common goals. Many of these agency and organizational partners were stakeholders involved in the process of developing this strategic plan (see Appendix A).

The Region 6 PFW program has a bright future even though it faces many challenges. Staff are creative, innovative, and amazing critical thinkers. An investment in them is an investment in the future of private lands conservation. The program has been praised for its skilled staff and looks to continue to lead the way and raising the bar.

Focus Areas

Region 6 has had geographic focus areas for the past 13 years. These focus areas have always been identified with significant stakeholder involvement, including the involvement of other Service programs (i.e., Migratory Birds, Fisheries, Ecological Services and Refuges). With this new 5-year strategic plan, the PFW program again involved stakeholders in the process to ensure the program was using the best available science and took into consideration shared goals. With new available GIS data layers, and increased research and monitoring to determine species population numbers and threats, the Service has more tools available to help refine the focus areas that are currently in place. These newly developed Regional Focus Areas will provide great opportunities to benefit high-priority fish and wildlife species through private land habitat restoration and enhancement. In addition, acre

and river mile accomplishment goals have been established for each of the focus areas to ensure funding provided by Congress to the program is being allocated efficiently and effectively. The new selection criteria will remain similar to the previous 5-year plan, with a basic understanding that there are finite resources and a host of Service priorities to support. Advances in science and planning tools allow PFW to better understand large landscapes and the stressors that impact Federal trust species. The current planning process used the most advanced tools and science available. Both internal and external resources were tapped to obtain this information. The criteria are as follows:

- Species Diversity and Trust Responsibilities
- Intact Landscapes (Fragmentation)
- Threats
- Public Land - Private Land Patterns
- Partnership Opportunities
- Proximity to Service Field Stations

Geographic Information System (GIS) technology was again a strong component used to re-evaluate previous decisions and identify new opportunities. Significant advances in GIS have occurred since the first generation plan. Most notably, new land cover and species range layers are now available to improve understanding and delivery of conservation. For example, distribution and core area maps, as well as modeling capabilities, are now available for species such as greater sage-grouse and lesser prairie-chicken. We can now better understand the distribution and life-cycle needs of these species to focus habitat restoration and enhancement efforts.

Region 6 PFW program state coordinators were given latitude to add new or additional criteria and were given the opportunity to structure their own process of engaging partners. The diversity of methods is highlighted throughout the state write-ups. The final decision for strategic focus area boundaries was made by each PFW State Coordinator. A key important component of the success of Region 6 PFW program is the physical location of the field biologists' offices. Biologists are stationed within their geographic focus area, living and working within the community. Landowners recognize the value of them being both resource professionals as well as members of the community.

PFW Program Goals

Within the Partners for Fish and Wildlife Program 5 major goals were identified within the national Vision Document. These were goals within the previous 5-year plan and will remain the same for this current strategic plan.

Goal I

Conservation Habitat – Restore and protect priority habitats to increase and maintain federal trust species populations.

Goal II

Broaden and Strengthen Partnerships – Accomplish our work through voluntary partnerships

Goal III

Improve Information Sharing and Communication – Collaborate and share information and concerns with our partners, stakeholders, potential future partners, decision-makers, and others to protect, restore, and enhance trust resources.

Goal IV

Enhance our Workforce – The staff of our Program is our most important resource. Maintaining and supporting this staff is the key to success in achieving on- the- ground results for federal trust species.

Goal V

Increase Accountability – Measure, assess, and report on the effectiveness, efficiency and fiscal integrity of our habitat conservation programs and activities.



The MT PFW program has developed a strong partnership with the Confederated Salish and Kootenai Tribes. Photo by Matt Filsinger, USFWS.

Partnerships

Community-based partnerships are the foundation for success of the Region 6 PFW program. These are vitally important as they provide opportunities for communication and input on how decisions affect the community. Participation can include Federal, state, or local agencies along with non-governmental organizations, private landowners, and other interest groups. Bringing together people with a common interest in conservation allows the group to leverage the unique expertise and experience of its members. These combined skill-sets are viewed as value-added components and the program is confident projects are stronger due to the varied input. Restoring and enhancing habitat for key fish and wildlife species is the primary mission of the Region 6 PFW program. In addition, maintaining rural lifestyles and sustainable agriculture are vitally important.

As you read throughout this plan, each state has its unique set of partnerships. Private landowners make up the core of our program but we work with many other organizations, tribes, and agencies. USDA continues to be a huge partner and with their increasing emphasis in directing funds towards

targeted initiatives, PFW is seeing increased collaboration at the field level. Non-governmental organizations such as Ducks Unlimited (DU), Trout Unlimited (TU) and The Nature Conservancy (TNC) continue to be major partners. Another key partner is Pheasants Forever — they have made a large investment in private lands conservation and are expanding their biological programs.

For the past five years the PFW program has hosted a Private Lands Day to celebrate the successes of the program; thank landowners and key partners; and provide an opportunity to network with landowners and other partners. Feedback from all events has been extremely positive, with everyone in attendance saying they believe PFW should continue to do an annual event. Every year the event has grown and more states across the Nation have been represented. For example in October 2011, Private Lands Day was held in Aberdeen, South Dakota and drew over 100 people from 25 different states and 8 regions. Other regions are now excited about hosting an event within their region. Region 6 PFW program will continue to host an event every year, or support another region with their function.

Each event the PFW program will plan to highlight different habitat restoration success stories, trying to emphasize cross-program and Director's priorities each year.

Conserving Habitat

Region 6 has the largest percentage of the Nation's private and tribal agricultural lands in the United States. Many of these acres are part of large intact landscapes that are providing tremendous habitat benefits for suites of high priority fish and wildlife species. The PFW program used all the best science support tools to determine the focus area boundaries and high priority species for the current FY2012 – 2016 Strategic Plan. All at-risk species are included in the plan, unless the habitat needs of an umbrella species will capture a full suite of species with similar needs. Opportunities to recover species at-risk, as well as opportunities to keep common species common, were both considered, recognizing that the PFW program may be able to reverse downward trends of some species before expensive recovery actions are required.

The status and markets surrounding agriculture are major factors in our delivery of conservation programs. From a landscape perspective, it is difficult for conservation to compete against record cereal grain prices. In some areas, this can accelerate the conversion of native grasslands and drainage of wetlands along with decreased participation in USDA Natural Resources Conservation Service (NRCS) and Farm Service Agency (FSA) conservation programs.



Native Prairie Restoration in Kansas. Photo by Tony Ifland, USFWS.

Native Prairie

Due to the continued loss of, and increasing threats to, native prairie, this will be a major focus for the PFW program in Region 6. Loss of native grasslands needs to be viewed as a regional, national, and international priority. The program will continue to emphasize increased efforts in tall-, short-, and mixed-grass prairie areas. The greatest threats are native prairie conversion to row-crop agriculture; invasive species, such as Eastern red cedar; development and urban sprawl; and poor grazing management practices.

In addition to increased restoration and enhancement efforts in the Tallgrass prairie, accelerated efforts in the short and mixed grass prairie will occur. Working with non-governmental organizations, and the Service's grassland easement program, the PFW program will also assist with efforts to protect native prairie. Major efforts will take place in the Prairie Pothole Region to increase the native prairie projects and funding available to private landowners for native prairie restoration. With the

onset of Roundup-ready crops, the ease of tilling, profitability, and cost effective means of farming, there is an accelerated threat to native prairie in the Dakotas. Major efforts, by the PFW program and others, will be needed to prevent further losses.

Native prairie habitat restoration and enhancement projects will benefit a suite of migratory bird species identified within the Migratory Bird Program's Focal Species Strategy, and Birds of Management Concern and Focal Species list. Some of these key species include golden eagle, mountain plover, long-billed curlew, grasshopper sparrow, Henslow's sparrow, Sprague's pipit, bobolink, and rusty blackbird. Other species of concern that could benefit from prairie restoration projects include the upland sandpiper, lesser prairie-chicken, greater prairie-chicken, and burrowing owl. In addition to these high-priority bird species, several at-risk plants could benefit from these restoration efforts, including the threatened Mead's milkweed and Western prairie fringed orchid. Additional threatened and endangered species

will benefit from these restoration efforts as well, including species such as black-footed ferret, gray wolf, grizzly bear, and Utah prairie dog.

The Region 6 PFW program is working very closely with the USDA Natural Resources Conservation Service (NRCS) on their Lesser Prairie Chicken Initiative. The Colorado and Kansas PFW program staff, and PFW program Deputy Regional Coordinator, are active on teams to develop best management practices for lesser prairie-chicken recovery. They are also working with the Farm Service Agency to support agriculture producers enrolled in the Conservation Reserve Program. The PFW program will put an added emphasis on habitat accomplishments to specifically address threats to the lesser prairie-chicken, while also providing technical assistance to NRCS and other key partners.



Wetland restoration project in Wyoming. USFWS photo.

Wetlands

Throughout Region 6, wetland losses have continued to threaten suites of waterfowl, shorebirds, and other waterbirds. The greatest threats are the drainage of wetlands to increase row-crop production, development, and urban sprawl. In particular, there has been a tremendous increase in tile drainage in North and South Dakota, accelerating the percentage of wetland loss to an alarming rate. To address these threats, the PFW program will make wetland restoration and enhancement one of its highest priorities. To meet this priority goal, the PFW program will continue to focus on efforts in northeast Montana, North Dakota, and South Dakota to restore, enhance and create wetlands in the Prairie Pothole Region. These small wetlands, imbedded in prairie grasslands, are critical nesting and brood-rearing habitat for waterfowl, shorebirds, and waterbirds. This extremely

valuable complex of habitat types also serves as a major flyway for many wetland-dependent migratory birds that use the prairie potholes as a resting place, as well as a migratory stopover, en-route to Alaska and the Canadian Arctic.

In addition to prairie potholes, Region 6 is also home to Playa Lakes and the Rainwater Basin, both of which provide critical migration and nesting habitats for large numbers of wetland-dependent birds. These two critical migratory bird areas are part of PFW program focus areas in Colorado and Kansas (Playa Lakes) and Nebraska (Rainwater Basin).

Wetland habitat restoration, enhancement, and creation projects will benefit a suite of migratory bird species identified within the Migratory Bird Program's Focal Species Strategy and Birds of Management Concern, and Focal Species list. Some of these keys species include trumpeter

swan, northern pintail, greater scaup, lesser scaup, piping plover (Endangered), marbled godwit, black tern, and whooping crane (Endangered).

Shallow water wetlands also provide excellent habitat for key amphibian species of conservation concern. The PFW program will continue to focus efforts on restoring habitat for the imperiled Boreal and Wyoming toads.

Major partners in wetland conservation continue to be DU, TNC and several migratory bird Joint Ventures (i.e., Rainwater Basin, Playa Lakes, Intermountain West, and Prairie Pothole). These partners are providing assistance through planning, monitoring, funding and on-the-ground delivery.

Sagebrush-Steppe

Across the West, sagebrush-steppe habitat losses have resulted in the decline of sagebrush obligate species, most notably the greater and Gunnison sage-grouse.

Increased oil and gas development, urban sprawl, and poor grazing management practices have been the primary causes of these habitat losses. Both Gunnison and greater sage-grouse status has been elevated since the previous PFW program 5-year strategic plan was completed. They are now both warranted for listing under the Endangered Species Act. They are currently listed as Candidate species because other species are ranked higher on the list for current funding. However, both species are in need of immediate action to support their recovery. The PFW program has taken action to support sage-grouse habitat restoration within identified core areas where we have the greatest opportunities to recover the species. Some of the specific habitat restoration practices we plan on using include implementation of grazing management plans, mechanical sagebrush treatment (e.g., Dixie harrow, Lawson aerator), grass and forb interseeding, and wetland seep

development. The combination of these treatments is an effective way to increase and improve sage-grouse habitat. Rotational grazing, cross-fencing, and off-site livestock water sources will be used to increase the grass/forb understory to provide food and cover. Mechanical sagebrush treatment to open up closed canopy sagebrush habitat, followed by interseeding grasses and forbs, has been a successful method that will be used to enhance sagebrush-steppe habitats across the West. In addition, wetland seep development will be done at selected sites to increase insect production, demonstrated to be especially valuable to sage grouse chicks.

Region 6 PFW program has been committed to sagebrush-steppe conservation for decades. However, arguably, it has increased focus on this habitat type more over the last five years than any other. It recently increased capacity with two new full-time PFW field biologists in Evanston, WY and Richfield, UT. Both of these positions will focus heavily on sagebrush projects and species such as the greater sage-grouse. In addition to the PFW program supporting additional on-the-ground habitat restoration through our

private landowner agreements (i.e., Wildlife Extension Agreements) the program is also supporting 11 new shared positions, within core areas throughout the Region, to support the NRCS Sage-Grouse Initiative. Nine of these positions are part of a larger partnership with many state, federal and non-governmental organizations as part of the Strategic Watershed Action Team. The other two are two-year commitments made with NRCS and the Region 6 PFW program to support the initial Sage-Grouse Initiative rollout. It is very exciting to be able to support our “sister agency” in the delivery of Farm Bill conservation programs and work hand-in-hand to reach shared conservation goals for a high priority wildlife species. Working together, we are certain to see some tremendous successes.

Sagebrush-steppe habitat restoration and enhancement projects will also benefit a suite of migratory bird species on the Birds of Management Concern and Focal Species list. These species include ferruginous hawk, burrowing owl, loggerhead shrike, grasshopper sparrow, and yellow-billed cuckoo. Sagebrush obligate species that will benefit include greater sage-grouse, Gunnison sage-grouse,



Lawson aerator treating sagebrush to obtain desired conditions. USFWS photo.



In-stream and riparian restoration in Utah. USFWS photo.

sage sparrow, Brewer's sparrow, and sage thrasher. Identified restoration efforts would also benefit other threatened, endangered, candidate, or species of concern such as white- and black-tailed prairie dog, black-footed ferret, and pygmy rabbit.

In-stream Riparian

Native fish restoration and enhancement projects have long been a focus for the program and critical fisheries exist throughout the region. Water demand is increasing and has placed added stress on fisheries resources as competition soars. Region 6 has vital habitat for bull trout and westslope cutthroats. Fluvial Arctic grayling inhabit pristine waters of Montana and one of the largest Candidate Conservation Agreement with Assurance (CCAA) efforts is underway there. PFW program is working on all of these species and many more.

The Mountain-Prairie Region hosts some of the most critical native trout fisheries in the world. These native trout species, as well as many small prairie fishes, are threatened by diversion of water for irrigation; drought; introduced invasive species of fish and crustaceans; diseases, such as whirling disease; habitat degradation, due to poor grazing management practices and development; and over harvest. With large rivers and numerous associated tributaries providing habitat for a diverse array of aquatic species, Region 6 has made river and stream restoration a priority. A great many of the tributaries within the Region are part of intact landscapes that still have the capability of supporting large numbers of native trout and other high priority or at-risk species within the Mountain-Prairie Region. Consequently, efforts expended to restore degraded streams are very worthwhile, and the outcomes are usually immediate – natural dimensions, patterns,

and profiles are returned, and fish and aquatic invertebrates respond quickly to the positive changes in river morphology. Extensive reaches of several rivers and streams in Montana, Utah, and Wyoming have been restored. Plans are to continue these efforts. The PFW program will also continue to build upon their successful fish passage work, using the most up-to-date technologies in fish passage structures to reduce entrainment of fish in irrigation ditches and other systems. This will prevent invasion of non-native fishes into sections of river with pure strains of native fish.

PFW program biologists will continue to use state-of-the-art techniques and materials for in-stream habitat restoration projects. Region 6 PFW program restoration activities will support recovery efforts for species such as native trout, fluvial Arctic grayling, chub, sucker, neosho madtom (threatened), Topeka shiner, plains topminnow, and Arkansas darter.

PFW program staff in Region 6 work closely with fisheries biologists, both within and outside the Service, to assist implementation of the National Fish Habitat Action Plan. The PFW program plans to continue to make these projects a high-priority, supporting projects that benefit warm- and cold-water fisheries efforts leading towards goals and objectives identified within the National Fish Habitat Initiative.

The PFW program has several trained specialists in river restoration, leading the nation in terms of expertise in river morphology and innovative techniques in river restoration. The Mountain-Prairie Region continues to invest in river restoration training for PFW program staff in order to expand involvement in such activities region-wide. Several biologists have acquired advanced levels of river restoration training (e.g., Rosgen methodology) and will accelerate river restoration efforts within their designated focus areas.

In addition to in-stream activities, Region 6 PFW biologists will emphasize riparian restoration. Riparian restoration projects have proven extremely valuable, not just for fish and other aquatic species, but migratory birds and water

quality as well. These efforts will be continued.

Invasive species

Invasive species control continues to be a major emphasis of the PFW program. Many invasive species have spread across the region and are negatively impacting native flora and fauna. Biological, chemical, and mechanical control methods are all used to combat species expansion. Outcomes range from maintenance to eradication and are based on project specific goals. In addition to the initial and follow-up attacks on the invasives, management activities such as controlled burns and managed grazing maintain desired conditions.

PFW has seen eastern red cedar invade native prairie landscapes and cause fragmentation leading to a decline in grassland bird species like the lesser prairie-chicken. The program is removing this highly aggressive woody invasive through mechanical means and following up with treatments which prevent re-establishment. Tamarisk, or salt cedar, is another invasive woody found along riparian areas. It is halotrophic and prevents other species by spreading salts into the soil essentially sterilizing it to a condition where only it can survive. The obvious effects are

displacement of natives and the species is known to consume great quantities of water that in some areas is scarce.

One of the biggest challenges with invasives is the constant evolution of known species and the introduction of new ones. Finding effective treatment methods and helping to control the rapid spread will always be a priority for the program.

Intact Landscapes

Region 6 encompasses multiple states with thousands of acres of intact landscapes. Because of this, the Service, through its private lands program, has a huge responsibility to the American people to keep these landscapes intact. These landscapes constitute large amounts of high quality habitat for suites of fish and wildlife species. This creates a need for the PFW program to work closely with the landowners in those areas to restore, enhance, and maintain grasslands, wetlands, and riverine systems.

The majority of the private lands within these areas are part of working ranches. To assist in keeping such operations on the land, community-based partnerships have formed, with the PFW program providing financial and technical assistance.

Urban sprawl continues to threaten rural agriculture communities in the Mountain-Prairie states. The PFW program has assisted many community-based conservation initiatives, working to maintain rural lifestyles, as well as support wildlife conservation efforts. Region 6 plans to continue support of these very successful efforts. Examples of some of these community-based partnerships include the Tallgrass Legacy Alliance in Kansas, Blackfoot Challenge in Montana and Sandhills Task Force in Nebraska. The PFW program will also plan to think beyond regional boundaries by continuing to support the Comanche Pool Prairie Resource Foundation's community conservation efforts in Kansas



*Invasive species removal along a riparian zone in Colorado.
Photo by Matt Filsinger, USFWS*

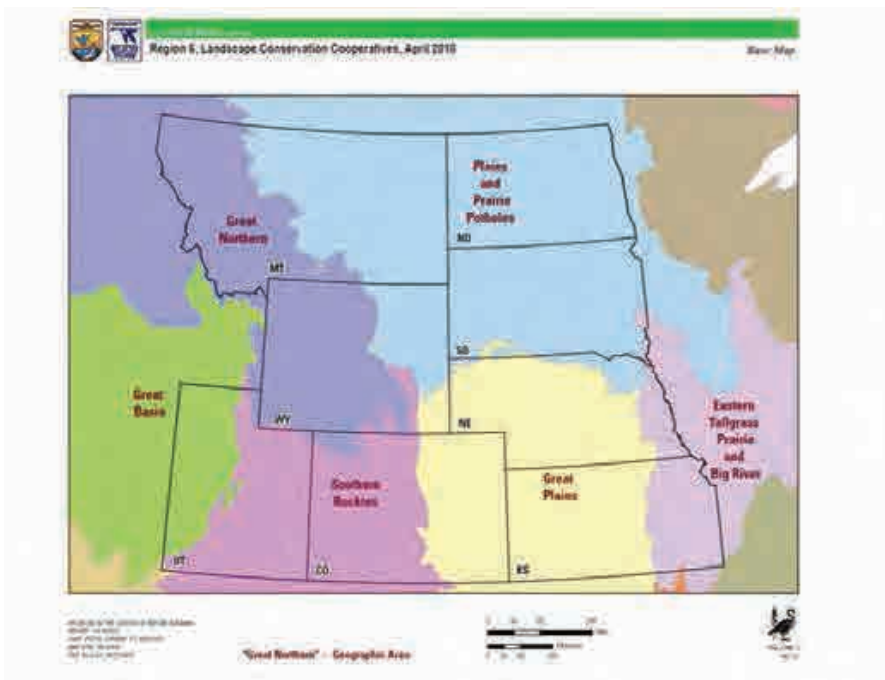
and Oklahoma. In addition, the Montana PFW program is working closely with the Kootenai River Network, a bilateral initiative with the Canadian provinces of British Columbia and Alberta. These efforts extend into Region 1 as well, where a portion of the community-based partnership is taking place in Idaho.

Through these efforts, the Mountain-Prairie Region has the opportunity to not only assist habitat restoration activities, but maintain intact and functional ecosystems, capitalize on efforts to recover at-risk species, and keep common species common. These are valuable partnerships that strive to keep ranchers and farmers on the land and help prevent adverse impacts associated with subdivision, development, and other forms of land-use conversion that could result in fragmentation and permanent loss of key habitats for federal trust resources.

The PFW program's focus on maintaining intact landscapes will benefit several species of conservation concern, including the black-footed ferret, whooping crane, grizzly bear and native cutthroat trout species.

Landscape Conservation Cooperatives

Landscape Conservation Cooperatives (LCC's) have evolved from the Strategic Habitat Conservation (SHC) model which has guided the PFW program for many years. Specifically, PFW has been involved in the delivery arm of the SHC model and has maintained its focus and commitment to carrying-out this crucial role. The program has embraced the concept and supported the development and initiation of the 6 LCC's covering the Mountain-Prairie Region. Landscape-level conservation continues to be a priority and is strengthened by our incredible community-based partnerships.



Adaptive Management/Global Climate Change

The Service has developed a Climate Change Strategic Plan which lays out a framework for the agency to ensure sustainability of fish and wildlife resources under dynamic climate stressors. Complementary to this document is the Service's 5-year Climate Change Action Plan identifying immediate needs and short-term goals. Both plans follow many of the recommendations put forth by the Intergovernmental Panel on Climate Change (IPCC). This blueprint helps guide Service activities and allows the PFW program to assist in implementation.

Key aspects and strategic points of Service's response to Climate Change

- Adaptation – helping to reduce the impacts of climate change on fish, wildlife, plants and their habitats;
- Mitigation – reducing levels of heat-trapping greenhouse gas pollution in the Earth's atmosphere; and
- Engagement – reaching out to Service employees, local, national and international partners in the public

and private sectors, key constituencies and stakeholders and the broader citizenry of this country to join forces and seek solutions to the challenges to fish and wildlife conservation posed by climate change.

In accordance with the Service plans, Region 6 PFW program looks to deliver projects which benefit the most vulnerable species. Some examples include in-stream restoration work for native cutthroat trout, providing more suitable habitat and protection as average temperatures increase. Rising water temperatures can impact spawning, migration, and survivability. The restoration of seasonal and permanent wetland basins in the Prairie Pothole Region will allow more options for waterfowl to fulfill their life-cycle needs as drought events become more intense and frequent. PFW program upland projects serve to prevent mobilization of soil carbons by preventing annual agricultural tillage. Carbon benefits are also seen through the sequestration rates afforded by wetland and grassland projects.

The State of the Birds: 2010 Report on Climate Change, estimates more than half of the grassland bird species are expected to face additional stress and pressures as a

result of climate change. The IPCC Fourth Assessment Report predicts that of all the assessed species in 2006, approximately 20-30% of all the plants and animals will exhibit an increased likelihood of extinction if mean global temperatures rise 2-3% over preindustrial times. As global change-drivers become more prevalent ecosystem resiliency will become compromised.

From an operational standpoint, the Region 6 PFW program is personally reducing its carbon footprint through less travel and will be implementing the use of communication tools such as computer-based webinars. Modes of transportation are evaluated for their efficiency in regards to fossil fuel consumption. Although these measures may appear small, the cumulative efforts of all programs can have a significant positive impact.

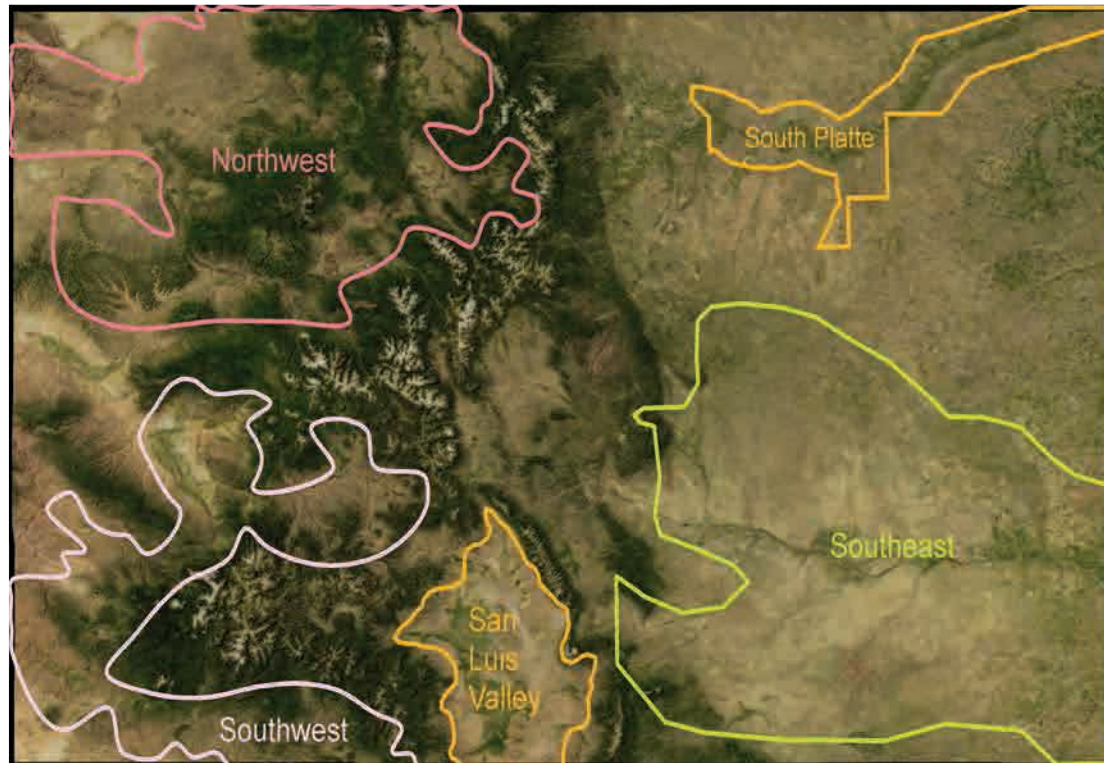
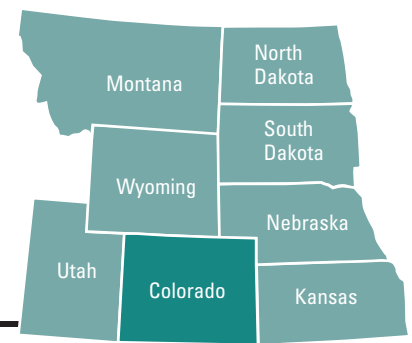
America's Great Outdoors Initiative

Secretary of Interior, Ken Salazar, together with President Barack Obama, launched the new America's Great Outdoors (AGO) Initiative. The initiative goals are to connect the American people to the outdoors, and conserve, restore and protect America's great outdoors. A major goal of the new AGO Initiative is to work towards increasing the Land and Water Conservation Fund (LWCF) to expand easement opportunities within key landscapes across the U.S. With Region 6 hosting the majority of the large intact landscapes across the Nation, several new proposals were developed and plans approved by Secretary Salazar. The PFW program was very active in working with key landowners and other partners to be sure these plans were developed in support of community goals to ensure success. With the development of these plans, the PFW program will support these new opportunities by providing technical assistance to landowners potentially interested in an easement opportunity or future restoration and enhancement

activities on their land.

Within Region 6, the key projects that have been launched as part of the AGO Initiative include the Dakota Grassland Conservation Area, Flint Hills Legacy Conservation Area, Crown of the Continent, Bear River Watershed Project, and the String of Pearls. The private lands that encompass these project areas have been focus areas for the PFW program for many years. Therefore, while supporting landowners in these new project opportunities, the PFW program will also be providing voluntary cost-share opportunities for landowners to restore and enhance key habitats.

Colorado



Colorado Partners Program Conservation Focus Areas

Introduction and Overview

The Colorado (CO) PFW Strategic Plan for the next five years is built upon the foundation established by our 2007-2011 Strategic Plan. That plan developed CO PFW program focus areas, evaluated critical resource needs and threats in conjunction with opportunities to prevent or reverse habitat fragmentation. It also identified existing or potential partners, and assessed support for National Wildlife Refuge system lands in relationship to private lands.

Information relating species and habitat occurrences, priority areas for conservation, and presence of potential local partnerships were obtained from the Colorado Parks and Wildlife (CPW), Colorado Natural Heritage Program

(CNHP), The Nature Conservancy (TNC), Ducks Unlimited (DU), and statewide and local land trusts. CPW's Comprehensive State Wildlife Conservation Plan, in particular, was used to help guide the planning process. Additionally, CO PFW field biologists regularly participate in a wide range of local working and planning groups. Information from these more localized sources was integrated into the national, regional, and statewide data.

Colorado is home to 29 plant and animal species listed as threatened or endangered under the Endangered Species Act (ESA), and 10 species which are candidates for listing. The CNHP lists 132 species and natural communities as Globally Critically Imperiled (G1) or Imperiled (G2), and 681

species and natural communities as State Critically Imperiled (S1) or Imperiled (S2). Colorado lies within the Central and Pacific flyways and the Playa Lakes (PLJV) and Intermountain West Joint Ventures (IWJV). The state provides important nesting and stopover habitat for many migratory birds and for resident sage-steppe and grassland species.

Although a portion of Colorado is in state or Federal ownership, nearly two-thirds or 38,679,947 acres (60,437 square miles) are in private or local government ownership. It is the intersection between private land ownership and habitat needs for declining species, which provides the primary filter and foundation for PFW program restoration efforts. The executive summary of the

Comprehensive State Wildlife Conservation Plan (CPW, 2006) states that, "...the landscape of eastern Colorado -eastern plains river and stream systems (including riparian), Tallgrass and mixed-grass prairie – and sagebrush were judged as being among those in the poorest condition to support native species....." Several CO PFW focus areas reflect agreement with the state's conclusion.

Our resource priorities have not changed for the Colorado PFW program. However, it is important to note that there is an increased emphasis and opportunity for both greater sage-grouse, Gunnison sage-grouse and lesser prairie-chicken due to the Natural Resources Conservation Service (NRCS) development of the Sage-Grouse (SGI) and Lesser Prairie-Chicken Initiatives (LPCI). These two initiatives focus funding under key Farm Bill conservation programs specifically to improve habitat conditions for both species. CO PFW staff is working closely with both initiatives to assist in the biological and financial delivery of habitat improvement projects.

Increased communications with Service Ecological Services (ES) botanists has resulted in the addition of plant species to our priority species lists and will

result in more projects directed at improving or protecting habitat for listed plants. Input on general PFW program direction and future activities was solicited from key partners in a comprehensive stakeholder meeting on March 15, 2011 and through requests for written comments from our major partners. (See Appendix A.)



An interwoven landscape of diverse species and habitats can be found throughout this conservation focus area. From the headwaters of the Little Snake River, North to the CO River near its southern boundary, a plethora of riparian, stream, and wetlands are located throughout. The importance is marked by having Colorado's largest populations of greater sage-grouse, while also having renowned habitats for nesting waterfowl. With species such as native Colorado River

cutthroat trout, northern leopard frog, sandhill crane, western tanager, and other key species it is an important area for coordinating conservation efforts.

The majority of sage-steppe habitat is located west of the Continental Divide. The primary exception to this is Jackson County, commonly referred to as North Park. Sagebrush rangelands are located sporadically throughout all of northwestern Colorado. In this area of the state, greater sage-grouse are considered the marquee species for this habitat type.

The distribution and abundance of sage-grouse has markedly decreased in recent times, and the species has been extirpated from at least three states and one Canadian province. Sage-grouse populations have exhibited long-term declines in this area, decreasing by 33% over the past 30 to 40 years (Braun 1998). Focus will also be placed on other sagebrush obligate species, including sage thrasher, Brewer's sparrow, and sage sparrow. In addition, PFW program projects that specifically benefit these obligate species will positively impact a wider suite of Federal trust species and state species of concern, including northern harrier and vesper sparrow. Other species, typically noted with a



Native cutthroat trout, red-naped sapsuckers, and a variety of neotropical migratory birds all benefit from this project on the South Fork of the Little Snake River. Photo by Bob Timberman, USFWS.



Aerial seeding of native grasses, shrubs and forbs to prevent areas from becoming a cheatgrass monotype where a Fall wildfire burned its hottest.
Photo by Bob Timberman USFWS.

more moderate association with sagebrush, will benefit as well, including green-tailed towhee, lark sparrow, and Merriam's shrew (CPW 2005).

The restoration of diverse age classes of sagebrush, enhancement of wet meadows, and removal of encroaching pinyon juniper woodlands are thus far the main emphasis of program efforts. Some greater sage-grouse research points to the majority of nesting (70-80%) and early brood-rearing occurring within three miles of lek sites (Bradbury, Vehrencamp, and Gipson 1989; Wakkinen, Reese, and Connelly 1992). The program tries to concentrate efforts within this "circle of maximum influence."

Habitat restoration/enhancement techniques include grazing management, native seeding, and various mechanical treatments used to produce small, irregular shaped openings within stands of heavy canopy sagebrush habitats. Within sage-steppe habitats, wet meadows are protected from livestock overuse by creating new grazing rotations and promoting additional fencing as needed. These areas are important brood habitat for greater sage-grouse, while providing a variety of lifecycle benefits for a multitude of neotropical migratory birds.

Riparian and wetland resources are of particular importance to the arid landscape. This conservation focus area includes the floodplains of the Colorado, White, Yampa, North Platte, and Little Snake rivers, as well as many of the smaller streams within the watersheds. Several of these rivers have relatively unaltered hydrographs which have maintained important riparian and wetland communities. TNC and Yampa Valley Land Trust have been targeting riparian areas with conservation easements to protect these valuable habitats. In addition, Arapaho and Browns Park National Wildlife Refuge are located within the focus area and provide valuable fish and wildlife habitat. The PFW program will provide technical assistance to support these efforts.

Priority Species

- Bufflehead
- Western grebe
- Marbled godwit
- Greater sage-grouse
- Sage thrasher
- Green-tailed towhee
- Spotted towhee
- Brewer's sparrow
- Lark sparrow
- Sage sparrow
- CO River cutthroat trout
- Colorado pike minnow (Endangered)
- Humpback chub (Endangered)
- Bonytail chub (Endangered)
- Razorback sucker (Endangered)
- Colorado hookless cactus (*Sclerocactus glaucus*)
- DeBeque phacelia (*Phacelia submutica*)
- Parachute penstemon (*Penstemon debilis*)
- Dudley Bluffs bladderpod (*Physaria congesta*)
- Dudley Bluffs twinpod (*Physaria obcordata*)
- White River beardtongue (*Penstemon scariosus* var. *albifluvis*)
- Kremmling or Osterhout milkvetch (*Astragalus osterhoutii*)
- Penland penstemon (*Penstemon penlandii*)
- North Park phacelia (*Phacelia formosula*)



Aerial seeding mechanism(left) and loading the aircraft(right). Photos by Bob Timberman, USFWS.



Bob Timberman, PFW field biologist, enjoys the final results of the project with the landowner, after an extremely successful seeding. Photo by Heather Johnson, USFWS.

Northwest Focus Area Five Year Targets

- Upland Restoration/Enhancement: 8,625 acres
- Riparian Restoration/Enhancement: 10 miles
- Wetland Restoration/Enhancement 500 acres
- In-stream Structures: 10

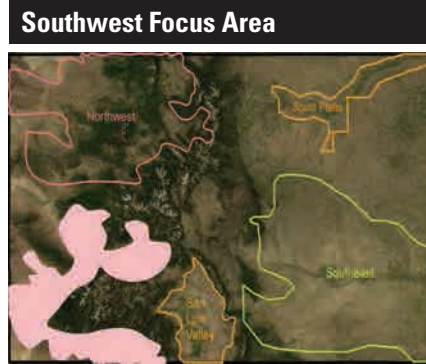
Partnerships

- New landowner partners: 55
- Other new partners: 10
- Amount of technical assistance: 250 staff days
- Percentage of leveraging (ratio Service to Partner): 1:3

Related Plans

- North American Waterfowl Management Plan (USFWS)
- United States Shorebird Conservation Plan (USFWS)
- North American Waterbird Conservation Plan (USFWS)
- North American Bird Conservation Initiative (USFWS)
- Colorado's Comprehensive Wildlife Conservation Strategy (Colorado Parks and Wildlife)
- Partners in Flight (Rich et al. 2004)
- Southern Rocky Mountains: An Ecoregional Assessment and Conservation Blueprint, September 2001 (Neely et al. 2001)
- A Conservation Assessment of the Colorado Plateau Ecoregion
- Colorado Important Bird Areas Program
- Greater Sage-Grouse Statewide Conservation Plan (in progress)
- Gunnison's Sage-Grouse Rangewide Conservation Plan
- WAFWA MOU National Sage-Grouse Habitat Conservation Strategy
- Intermountain West Joint Venture Coordinated Bird Conservation Plan
- Northern Eagle and Southern Routt Greater Sage-Grouse Conservation Plan
- Northwest Colorado Greater Sage-Grouse Conservation Plan
- Conservation Agreement and Strategy for Colorado River Cutthroat Trout in the States of Colorado, Utah, and Wyoming

The PFW program conservation targets for this focus area include the restoration and enhancement of native riparian and wetland plant communities for the primary benefit of migratory bird species. Riparian fencing, wetland restoration, grazing system establishment, and enhancement of native grasses and forbs will constitute the majority of PFW program efforts. When possible, private land projects to restore or protect habitat for native fishes will be pursued.



This conservation focus area targets habitat on all private and tribal lands in an area extending south from the Colorado River to New Mexico, and west of the Continental Divide to Utah. It includes the watersheds of the San Juan, Los Pinos-Piedra, La Plata, Mancos, Disappointment Creek, Uncompahgre, and Upper and Lower Gunnison Rivers.

The PFW program strategy is to take a science-based, ecological

approach that addresses critical parameters affecting wetlands throughout southwestern Colorado. The strategy involves components with several parts. It recognizes the diversity of wetland types and the varied environmental processes that support and maintain those wetlands. Using a landscape-scale approach, the program also categorizes wetland types, their connection to complexes, and the likelihood of successful delivery. Delivery includes grazing management, wet meadow enhancement, hemi-marsh restoration, as well as employing other restoration techniques to benefit wetland complexes in the watershed. Wetland complexes vary greatly throughout southwestern Colorado and the program has evolved to meet these varying needs.

The PFW program recognizes that wetlands provide habitat



With grazing allowed for 2 weeks every 3rd year, after the avian nesting season, - riparian and wetland projects are maintained at a high standard. Photo by Bob Timberman, USFWS.



Landowner bird watching at restored wetlands. Photo by Rick Schmaderbeck, USFWS.

for a majority of the areas' wildlife species. Ninety percent of Colorado's wildlife species use wetlands at some time during their life cycle. Wetlands are one of the most productive and diverse communities within the arid landscapes of southwestern Colorado and thereby warrant significant investment. The program targets the restoration, enhancement, and establishment of wetland habitat to offset the estimated 10 million acres of wetlands lost in Colorado since pre-settlement times (Dahl 1990).

Riparian wetlands are distinctly dependent on the hydrology and associated ground water table of the watershed. Declining ground water tables are a significant threat to wetlands and riparian vegetation. The program addresses threats to ground water tables of riparian corridors by installing a variety of water control structures designed to keep water tables at historic levels, thereby supporting wetlands and native riparian vegetation.

The majority of Gunnison sage-grouse habitat is located within the Southwestern focus area and is located sporadically throughout. Gunnison sage-grouse are considered the marquee species for this habitat type. The distribution and abundance of Gunnison's sage-grouse has been declining and the Gunnison basin is the primary population center. As with greater sage-grouse, the restoration of diverse age classes of sagebrush, enhancement of wet meadows, and removal of encroaching pinyon-

juniper woodlands are the main emphasis of program efforts. With the implementation of the NRCS SGI, more resources and staff are now available to improve private lands for the benefit of Gunnison sage-grouse. The program will assist NRCS with the delivery of SGI funded projects to the greatest extent possible.

Declining native fish populations have become a more elevated emphasis of the program. PFW works closely with various government entities and nongovernmental organizations

to identify habitat needs of native fishes. Fish barriers are installed on private land to protect existing populations of Colorado River cutthroat trout from hybridization with non-native trout. The program seeks opportunities to work with Federally threatened and endangered native fishes such as the Colorado pike minnow, humpback chub, and razorback sucker by altering irrigation diversion structures which are currently impeding upstream movement by these species.

Priority Species

- Mallard
- Cinnamon teal
- Northern pintail
- Wilson's phalarope
- Yellow-billed cuckoo (Candidate)
- Southwestern willow flycatcher (Endangered)
- Gunnison's sage-grouse
- Ferruginous hawk
- Sage thrasher
- Green-tailed towhee
- Brewer's sparrow
- Vesper sparrow
- Lark sparrow
- Black-throated sparrow
- Sage sparrow
- Colorado pike minnow(Endangered)
- Humpback chub(Endangered)
- Razorback sucker(Endangered)
- Mancos milkvetch (Astragalus humillimus)
- Schmolls milkvetch (Astragalus schmolliae)
- Sleeping Ute milkvetch (Astragalus tortipes)
- Mesa Verde cactus (Sclerocactus mesae-verdae)
- Knowlton cactus (Pediocactus knowltonii)
- Pagosa skyrocket (Ipomopsis polyantha)
- Skiff milkvetch (Astragalus microcymbus)
- Clay-loving wild buckwheat (Eriogonum pelinophilum)

Southwest Focus Area Five Year Targets

- Upland Restoration/Enhancement: 2,500 acres
- Wetland Restoration/Enhancement: 2,000 acres
- Riparian/Stream Restoration/Enhancement: 20 miles
- In-stream Structures: 10

Partnerships

- Landowner partners: 50
- Other partners: 15
- Amount of technical assistance: 125 staff days
- Percentage of leveraging (ratio Service to Partner): 1:3

Related Plans

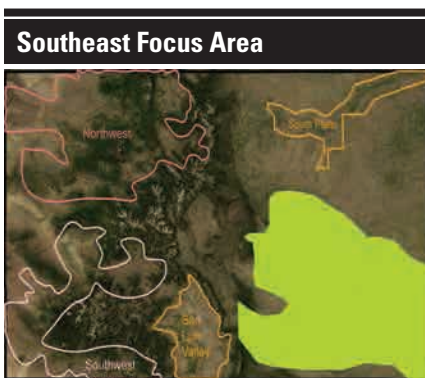
- North American Waterfowl Management Plan (USFWS)
- United States Shorebird Conservation Plan (USFWS)
- North American Waterbird Conservation Plan (USFWS)
- North American Bird Conservation Initiative (USFWS)
- Colorado's Comprehensive Wildlife Conservation Strategy (Colorado Division of Parks and Wildlife)
- Partners in Flight (Rich et al. 2004)
- Southern Rocky Mountains: An Ecoregional Assessment and Conservation Blueprint, September 2001 (Neely et al. 2001)
- Colorado Important Bird Areas Program
- Southwestern Willow Flycatcher Recovery Plan
- Conservation Agreement and Strategy for Colorado River Cutthroat Trout (*Oncorhynchus clarki pleuriticus*) in the States of Colorado, Utah, and Wyoming
- Southwestern Wetlands Focus Area Committee Strategic Plan
- Intermountain West Joint Venture Coordinated Bird Conservation Plan
- The Gunnison Wetlands Focus Area Strategy



Cooperating landowners within newly fenced riparian area. Photo by Rick Schnaderbeck, USFWS.



Construction of an “E” Channel to Establish Spawning Habitat for Colorado River Cutthroat Trout. Photo by Rick Schnaderebeck, USFWS.



implemented throughout the last 5 years. The focus area goals have 4 distinct habitat emphases: 1) restoring or improving riparian and stream condition 2) playa restoration 3) facilitating rangeland management that improves short and sand sagebrush structural diversity 4) encouraging land management that reduces fragmentation impacts.

The community-based partnership goals entail engaging the individual landowners and communities in assessing their specific goals, finding opportunities to directly meet like-minded goals, and developing plans that utilize habitat restoration and program assets as a tool to meet other goals. The goals have shifted slightly in response to partner participation and roles. The PFW program has

The CO PFW program focus area for southeastern Colorado spans a very broad geographical area and address a number of habitat concerns. The geographical area is primarily made up of short grass prairie habitat with transitional mixed-grass prairie, sand sagebrush, pinyon-juniper forest, and riparian forest. Average rainfall varies from 5-21 inches across the landscape. Land use is primarily ranching, haying, dryland and irrigated farming which presents a diversity of restoration challenges and opportunities.

The outline of this focus area was developed based on the concentration of habitat projects



Playa basin restored on private land within the Southeast Focus Area of Colorado. Photo by Katy Fitzgerald, USFWS.

moved from a fiscal partner in some cases to a technical assistance role. Contributing factors include the type of funds available within the area which require a shorter landowner obligation, often involve incentives, and a higher cost-share percentage. The PFW program has assisted with on-the-ground implementation of these partner leveraged dollars. Nationally driven program initiatives have required a local field perspective to assure it is something that can be implemented to the best value of the targeted species.

Stream Restoration

The waterways in this area are mostly tributaries of the Lower Arkansas watershed, and are often strongholds for native eastern plains fishes. Hydrologically, they range from dry creeks to intermittent and perennial flowing streams with water levels dependent on rainfall, springs, run-off events, and diversions for agriculture. Riparian and stream systems are heavily impacted by overgrazing, development, fragmentation, diversion, and farming practices. One estimate



Cooperators family Assisting in the release of Arkansas Darters. Photo by Katy Fitzgerald, USFWS.



Shortgrass prairie, receiving well-needed moisture during an afternoon thundershower. Photo by Katy Fitzgerald, USFWS.

states that 95% of riparian habitat in western North America has been lost, altered, or anthropogenically degraded (Ohmart 1994).

Stream corridors play a critical role in the life-cycle of grassland dependent species, amphibians, plains native fishes, and neotropical migratory birds. Over 60 percent of neotropical species use riparian areas in the West as stopover areas during migration or for breeding habitat (Kreuper 1993). There are at least 195 species of birds that are confirmed riparian breeders, according to the Colorado Breeding Bird Atlas (Kingery 2000). Native eastern plains fishes are believed to be declining because of impacts to eastern plains tributaries.

Riparian restoration practices revolve around grazing management, and include practices such as fencing, rotational grazing, and alternative water sources. Techniques also include in-stream channel stability and removal of invasive species. The desired habitat outcome is to reduce erosion, restore hydrology and stream function. It promotes a diversity of plant species and plant structure within the stream, riparian corridor, and associated uplands.

Grassland Management

The focus area targets short-grass prairie, a small area of

transitional mixed-grass prairie, and sandy soil areas characterized by sand sagebrush habitat. Lesser prairie-chicken and other high-priority grassland species have the potential to benefit from grassland management and restoration in this area. The majority of the habitat impacts in this focus area, within the grassland mosaic, are a result of fragmentation, habitat composition shifts and habitat quality degradation.

While this area is still considered rural on a larger scale, it is significantly fragmented by various land use patterns including dry-land and irrigated farming, wind power and oil and gas development. Roads and other infrastructure associated with human populations have increased over time. These represent substantial impacts for species requiring large tracts of unbroken grassland. CPW and the U.S. Forest Service inventories show a downward trend in many fish and wildlife species populations within the state. There has been a significant effort among locally-based state and Federal entities to improve habitat for these species at risk (e.g., lesser prairie-chicken).

Anecdotal information from lesser prairie-chicken lek surveys in CO conducted by CPW and Rocky Mountain Bird Observatory show a strong correlation between bird use and existing Conservation Reserve



Pronghorn Doe and Fawn in Native Prairie. Photo by Katy Fitzgerald, USFWS.

Program (CRP) fields. There has been much success in neighboring Kansas, with interseeding native forbs and legumes into existing CRP fields. This practice has been implemented by the PFW program and other partners in the core of the lesser prairie-chicken range (Prowers, Baca and Kiowa counties) over the last five years. The next challenge is to improve the quality of native sand sagebrush communities to assure there are habitat links between these CRP and well-conditioned rangelands.

Grazing management practices are believed to play a critical role in proper rangeland conditioning. The push to maximize forage yield is potentially driving ecosystems from a diverse mixed-grass and/or sand sagebrush community to a higher percentage short-grass composition within remnants of sagebrush or mixed-grass. This shift may be a contributing factor to both grassland fragmentation issues and brood success. NRCS is offering a range-wide Lesser Prairie Chicken Initiative (LPCI) to encourage targeted range management to improve habitat condition. The PFW program has played a guiding role to establish program parameters that address CO specific species requirements.

The desired impacts of restoration are improved grassland structure and diversity, reduction of fragmentation pressures, and an

increase in numbers of mature birds during annual surveys.

Playa Restoration

Playas are a prevalent wetland type in this short-grass prairie ecosystem. Playas are ephemeral lakes located on clay soils away from stream channels in short-grass prairie or cultivated fields. They are usually circular depressions with no external drainage that are seasonally flooded. Some playas may be dry for multiple years, but most playas experience several wet-dry cycles each growing season creating an unpredictable and rapidly changing hydro-period. Plant species and communities in playas are adapted to this type of environment and change accordingly, which in turn influences faunal diversity. More than 340 species of plants have been identified in playas (Haukos and Smith 2003). Playas provide cover and native forage (seeds and invertebrates) important to the survival of waterfowl and other migrating and wetland dependent birds. More than 200 bird species, including waterfowl, shorebirds, and other waterbirds are known to use playas during breeding, wintering, or migratory seasons (PLJV 2003). Playas are the primary source of recharge for the Ogallala Aquifer, and may possibly be the exclusive source of recharge (PLJV 2003). It is estimated there are 7,500 playa basins in

eastern CO alone, with basin size varying from 0.25 acre to 65 acres (Hutton 2004). These prairie-based wetlands support a rich community of birds, mammals, amphibians, invertebrates, and plants. They also provide critical migration habitat for waterfowl and shorebirds.

Most playas are found on privately owned native range and farmlands. The impacts that threaten these basins include altered hydrology, upland erosion, sedimentation, overgrazing, pesticide/fertilizer runoff, excess nutrients, and overloading of contaminants from feedlot effluent. Restoration practices routinely implemented include managing livestock use via exclusion or establishment of a grazing system (fencing, alternate water source development, and management). Techniques include restoring hydrological function via filling livestock watering pits within the basin, and re-establishment of native vegetation both within the wetland and in immediately adjacent farmed uplands.

Desired habitat improvements include reduced erosional deposition, improved water quality, better wetland function, increased plant species diversification, stronger plant structure, and increased food production (seeds, macroinvertebrates, and amphibians).

Priority species for the Southeast Colorado include:

- Lesser prairie-chicken (Candidate)
- Northern pintail
- Ferruginous hawk
- Mountain plover
- American avocet
- Long-billed curlew
- Burrowing owl
- Loggerhead shrike
- Arkansas darter (Candidate)
- Black-tailed prairie dog
- Plains leopard frog
- Massasauga rattlesnake



*Restored playa basin Las Animas County, Colorado.
Photo by Katy Fitzgerald, USFWS.*

Southeast Focus Area Five Year Targets

Five Year Targets:

- Wetland Restoration /Enhancement 1000 acres
- Upland Restoration /Enhancement 1250 acres
- Stream Restoration /Enhancement 14 miles
- LPC Fence Marking 20 miles of fence markers distributed.

Partnerships:

- Number of new landowner partners: 50
- Other Partners: 15-20
- Number of Technical Assistance: 560 staff days
- Youth Engagement (RAW) 500 staff hrs
- Percentage leveraging (ratio Service to Partner): 1:3

Estimated Biological Outcomes: Colorado - Southeastern Colorado Focus Areas, 2012-2016

Species (and habitat)	Current Acres	Future Acres	Carrying Capacity current	Carrying Capacity Future	Change in Carrying Capacity	% Goal Current	% Goal Future	Change % Goal
Shorebirds - Nonbreeding								
Playa - Wet	300.00	448.00	2,220.00	3,315.20	1,095.20	0.12	0.18	0.06
Riverine Systems - Floodplain marsh	25.00	50.00	24.05	48.10	24.05	0.00	0.00	0.00
Riverine Systems - River channel	250.00	250.00	185.00	185.00	0.00	0.01	0.01	0.00
						0.13	0.19	0.06
Shorebirds - Nonbreeding Wetland Totals			2,429.05	3,548.30	1,119.25			
Waterfowl - Nonbreeding (Fall)								
Playa - Wet	300.00	448.00	128,400.00	191,744.00	63,344.00	1.15	1.71	0.56
Riverine Systems - Floodplain marsh	25.00	50.00	33,400.00	66,800.00	33,400.00	0.30	0.60	0.30
Riverine Systems - River channel	250.00	250.00	12,500.00	12,500.00	0.00	0.11	0.11	0.00
Waterfowl - Nonbreeding Fall Wetland Totals			174,300.00	271,044.00	96,744.00	1.56	2.42	0.86
Waterfowl - Nonbreeding (Spring)								
Playa - Wet	300.00	448.00	128,400.00	191,744.00	63,344.00	0.35	0.52	0.17
Riverine Systems - Floodplain marsh	25.00	50.00	33,400.00	66,800.00	33,400.00	0.09	0.18	0.09



The San Luis Valley (SLV), spanning approximately 100 miles north to south and 60 miles east to west at its widest point, is considered to be one of the largest and highest inter-mountain valleys on the continent with an average elevation of 7,700 feet. Numerous high-quality wetland and wet meadow habitats are found in the SLV. However, increased human development and landscape modifications have resulted in degradation and loss of wetland habitat throughout the SLV. The greatest potential for wetland and wet meadow habitat restoration and enhancement activities in the SLV lies in voluntary agreements with private landowners. The SLV is well known for

its quality waterfowl nesting habitat and large numbers of breeding pairs. Therefore, habitat restoration and enhancement activities focus on providing quality habitat. Habitat restoration and enhancement provides important migration, foraging, escape, and resting areas for these species. Other high-priority Federal trust species that benefit from these projects include northern harrier, marsh wren, American bittern, and northern leopard frog.

Riparian habitat restoration and enhancement activities focus on regeneration of native vegetative communities associated with the rivers and streams in the SLV. Historic and current land use practices, such as livestock grazing, have impacted the regeneration of cottonwoods, willows, and shrubs within riparian areas. Primary habitat objectives are to restore riparian areas so they will contain a suitable mixed-age class of cottonwoods with a dense understory of willow and other native shrubs. These areas provide high-quality habitat for a wide array of neotropical songbirds including the Federally endangered southwestern willow flycatcher.

Habitat restoration for native fishes (e.g., Rio Grande cutthroat trout, Rio Grande sucker, and Rio Grande chub) is a high priority. Of particular importance is restricting movement of non-native fish species into habitats occupied by native fish through the construction of fish movement barriers. An additional priority is removing and / or replacing detrimental barriers, such as improperly placed culverts, which may restrict access to critical habitats for native fish.

The SLV is within the jurisdictional boundary of the Intermountain West Joint Venture. Other land management units in the area include three National Wildlife Refuges (Alamosa, Baca, and Monte Vista); Great Sand Dunes National Park and Preserve; Blanca Wetland Management Area, owned and managed by the Bureau of Land Management; numerous CPW State Wildlife Areas; and TNC's 100,000 acre Medano-Zapata Ranch. Additionally, numerous perpetual conservation easements are held throughout the SLV by DU, USDA-NRCS, Rocky Mountain Elk Foundation, Colorado Open Lands, and numerous local land trusts.



Wetlands throughout the San Luis Valley are critical nesting and migration habitat for many high-priority waterbird species such as these white-faced ibis. Photo by Corey Kanuckel, USFWS.

Priority species for the SLV Focus Area include:

- Mallard
- Cinnamon teal
- Northern pintail
- White-faced ibis
- Sandhill crane
- American avocet
- Wilson's phalarope
- Long-billed curlew
- Black-necked stilt
- Southwestern willow flycatcher (Endangered)
- Rio Grande Sucker
- Rio Grande Chub
- Rio Grande Cutthroat
- American Bittern
- Northern leopard frog

San Luis Valley Focus Area Five Year Targets

- Upland Restoration / Enhancement: 400 acres
- Wetland Restoration / Enhancement: 1,700 acres
- Riparian / Stream Restoration / Enhancement: 30 miles
- Fish barriers constructed: 3

Partnerships

- Number of new landowner partners: 50
- Other Partners: 10
- Number of Technical Assistance: 250 staff days
- Percentage leveraging (Ratio Service to Partner): 1:4

Related Plans

- North American Waterfowl Management Plan (USFWS)
- United States Shorebird Conservation Plan (USFWS)
- North American Waterbird Conservation Plan (USFWS)
- Partners in Flight
- Colorado's Comprehensive Wildlife Conservation Strategy (CDWP)
- North American Bird Conservation Initiative (USFWS)
- Intermountain West Joint Venture Coordinated Bird Conservation Plan
- Coordinated Bird Conservation Plan for Western Colorado (CDWP)
- Southwestern Willow Fly-catcher Recovery Plan (USFWS)
- Conservation Plan for Rio Grande Cutthroat Trout (CDWP)
- Rio Grande Sucker Recovery Plan (CDWP)
- Ducks Unlimited Colorado Conservation Plan: 2003-2012
- San Luis Valley Community Wetlands Strategy (Local)
- San Luis Valley Waterbird Plan (CDWP)
- Southern Rocky Mountains: An Ecoregional Assessment and Conservation Blueprint
- September 2001 (TNC, Neeley et al 2002)



*Fencing projects help restore native prairie, while also helping to manage grazing along riparian areas.
Photo by Rick Schnaderbeck, USFWS.*



Constructed fish barrier to protect a population of Rio Grande Cutthroat trout. USFWS Photo.

South Platte Focus Area



The South Platte Focus Area is located in portions of Weld, Arapaho, Morgan, Logan, Phillips, and Sedgwick counties in northeastern Colorado. The floodplain and tributaries of the lower South Platte River, along with associated uplands, are interests within the focus area.

Although much of the land has been altered by agricultural practices and water development, producers are interested in restoring these lands to benefit wildlife and increase their profitability. Restoration of seasonal emergent wetlands, and associated uplands, is a primary conservation objective. Migratory waterbird species, along with a host of other wetland-dependent species, will benefit from these efforts. Additionally, projects which include a groundwater augmentation component will also contribute to improved Platte River flows through the “Big Bend” reach in Nebraska, benefiting ESA Federally listed species such as whooping crane, pallid sturgeon, piping plover, and interior least

tern. Several CPW State species of concern fishes, including suckermouth, brassy, and plains minnows are continued targets for conservation. Floodplain wetland restoration, grazing system establishment (fencing, alternate water supply, rotation) and re-seeding of native grasses and forbs will likely constitute the majority of PFW program activities. Identified threats to conservation include the spread of invasive noxious weeds, fragmentation due to oil and gas drilling, development, increased demand for water by municipalities, and inflation of land prices.



*Contractors restoring the natural form and function of a prairie stream section.
Photo by Matt Filsinger, USFWS.*

Priority species in the South Platte Ecosystem Focus Area include:

- Mallard
- Northern pintail
- Mountain plover
- American avocet
- Wilson's phalarope
- Northern Leopard Frog
- Common Garter Snake



Spring migrants using PFW program wetland restoration / ground water augmentation project site. Photo by Matt Filsinger, USFWS.

South Platte Focus Area Five Year Targets

Habitat

- Upland Restoration / Enhancement: 4,000 acres
- Wetland Restoration / Enhancement: 1,200 acres
- Riparian / Stream Restoration / Enhancement: 15 miles

Partnerships

- Number of new landowner partners: 35
- Other Partners: 15
- Number of Technical Assistance: 400 staff days
- Percentage leveraging (Ratio Service to Partner): 1:4

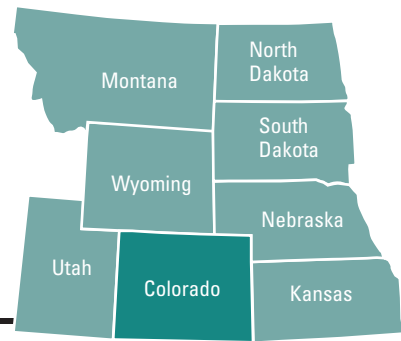


*Wetland restoration and ground water augmentation project.
Photo by Matt Filsinger, USFWS.*

Estimated Biological Outcomes: Colorado - South Platte Focus Areas, 2012-2016

Species (and habitat)	Current Acres	Future Acres	Carrying Capacity current	Carrying Capacity Future	Change in Carrying Capacity	% Goal Current	% Goal Future	Change % Goal
Shorebirds - Nonbreeding								
Other wetlands - Emergent marsh	200.00	500.00	1,480.00	3,700.00	2,220.00	0.08	0.21	0.13
Other Wetlands - Moist-soil unit	1.00	200.00	3.89	777.00	773.12	0.00	0.04	0.04
Other Wetlands - Saline	200.00	300.00	2,220.00	3,330.00	1,110.00	0.12	0.19	0.07
Playa - Wet	50.00	200.00	370.00	1,480.00	1,110.00	0.02	0.08	0.06
Playa - Wet pit only	50.00	1.00	3.70	0.07	-3.63	0.00	0.00	0.00
Riverine Systems - Floodplain marsh	1.00	100.00	0.96	96.20	95.24	0.00	0.01	0.01
Riverine Systems - River channel	100.00	1.00	74.00	0.74	-73.26	0.00	0.00	0.00
Shorebirds - Nonbreeding Totals			4,152.55	9,384.01	5,231.47	0.22	0.53	0.31
Waterfowl - Nonbreeding (Fall)								
Other wetlands - Emergent marsh	200.00	500.00	267,200.00	668,000.00	400,800.00	2.39	5.97	3.58
Other Wetlands - Moist-soil unit	1.00	200.00	374.08	74,816.00	47,441.92	0.00	0.67	0.67
Other Wetlands - Saline	200.00	300.00	267,200.00	400,800.00	133,600.00	2.39	3.58	1.19
Playa - Wet	50.00	200.00	21,400.00	85,600.00	64,200.00	0.19	0.76	0.57
Riverine Systems - Floodplain marsh	1.00	100.00	1,336.00	133,600.00	132,264.00	0.01	1.19	1.18
Riverine Systems - River channel	100.00	1.00	5,000.00	50.00	-4,950.00	0.04	0.00	-0.04
Riverine Systems - Warmwater Slough	100.00	150.00	42,800.00	64,200.00	21,400.00	0.38	0.57	0.19
Waterfowl - Nonbreeding Fall Totals			605,310.08	1,427,066.00	821,755.92	5.40	12.74	7.34
Waterfowl - Nonbreeding (Spring)								
Other wetlands - Emergent marsh	200.00	500.00	267,200.00	668,000.00	400,800.00	0.73	1.82	1.09
Other Wetlands - Moist-soil unit	1.00	200.00	561.12	112,224.00	111,662.88	0.00	0.31	0.31
Other Wetlands - Saline	200.00	300.00	367,200.00	400,800.00	133,600.00	0.73	1.09	0.36
Playa - Wet	50.00	200.00	21,400.00	85,600.00	64,200.00	0.06	0.23	0.17
Riverine Systems - Floodplain marsh	1.00	100.00	1,336.00	133,600.00	132,264.00	0.00	0.36	0.36
Riverine Systems - River channel	100.00	1.00	5,000.00	50.00	-4,950.00	0.01	0.00	-0.01
Riverine Systems - Warmwater Slough	100.00	150.00	42,800.00	64,200.00	21,400.00	0.12	0.17	0.05
Waterfowl - Nonbreeding Spring Totals			605,497.12	1,464,474.00	858,976.88	1.65	3.98	2.33
Waterfowl - Nonbreeding (Winter)								
Cropland - Corn	100.00	1.00	66,800.00	668.00	-66,132.00	0.10	0.00	-0.01
Cropland - Wheat	100.00	1.00	66,800.00	668.00	-66,132.00	0.10	0.00	-0.10
Riverine Systems - Warmwater slough	100.00	150.00	42,800.00	64,200.00	21,400.00	0.06	0.10	0.04
Waterfowl - Nonbreeding Winter Totals			176,400.00	65,536.00	-110,864.00	0.26	0.10	-0.16

Colorado Statewide Goals



Improve Information Sharing and Communication

Internal Communication:

- Continue to invite other Service divisions and operational functions to attend and participate in annual PFW staff meetings to foster cross-program cooperation and information exchange.
- Maintain regular communications (at least bi-monthly) with Ecological Services Field Supervisor and National Wildlife Refuge System Zone Supervisor.
- Field staff associated with a NWR will attend refuge staff meetings at least bi-monthly and provide PFW program updates.
- Field trips for Washington and Regional office program managers will be arranged by the PFW State Coordinator at least once each FY to view projects and meet cooperators.

External Communication:

- Maintain, and if possible, improve the Colorado PFW program's long-standing partnership with the CPW. Seek to expand habitat types and species which can be addressed with CPW funds.
- Seek out new funding partners to increase the programs financial stability.
- Continue bi-monthly meetings with the USDA – NRCS State Conservationist and CPW Private Lands Coordinator.
- Maintain Colorado PFW staff presence in the two NRCS offices (Sterling and Colorado Springs) currently providing office space. This arrangement has resulted in net habitat gains and productivity for both agencies.
- Community-Based Partnerships: Many rural communities or groups strive to sustain their family operations, community viability, and to provide opportunity to their youth. The techniques related to this approach are largely opportunistic and strive to mesh the goals of the community or landowners with those of the program. The end goal is the building of community trust in the program, a means for the community to interact effectively with the USFWS, and to approach habitat restoration on a landscape and temporal scale.
- Specific examples of implementation include; participation in wetland focus area committees, landowner organizations (i.e. Three Rivers Alliance) and the Ranching and Wildlife (RAW) youth program.
- Maintain and expand PFW program assistance and collaboration with organizations pursuing North American Wetland Conservation Act and other grant programs.
- Invite State, NGO, local cooperators, and landowners on field trips arranged by the PFW program State Coordinator at least once each FY to view projects and meet cooperators.
- 80% of Colorado PFW projects will have accompanying photos.
- Colorado PFW staff will participate in local workshops/meetings as needed to increase landowner interest in habitat restoration.

Enhance Our Workforce

- All six PFW staff will be given the opportunity to acquire a minimum of 40 hours of training each year.
- This may include classes, conference/workshop attendance, and informational visits to other programs (Service, state, ngo).
- Training will be targeted to accomplish two primary functions: 1) improve program operations, and 2) improve career opportunity options for staff.
- There is a need on Colorado's western slope for a PFW program field biologist. Such a position would provide better service to existing and potential cooperators in the area.
- The PFW program would benefit from an entry-level biological technician position to assist in project management and evaluation. This position would provide a career ladder within the PFW program.
- In accordance with the Employee Performance Appraisal System, performance awards will be given and special achievement awards will be used to recognize specific notable staff efforts.

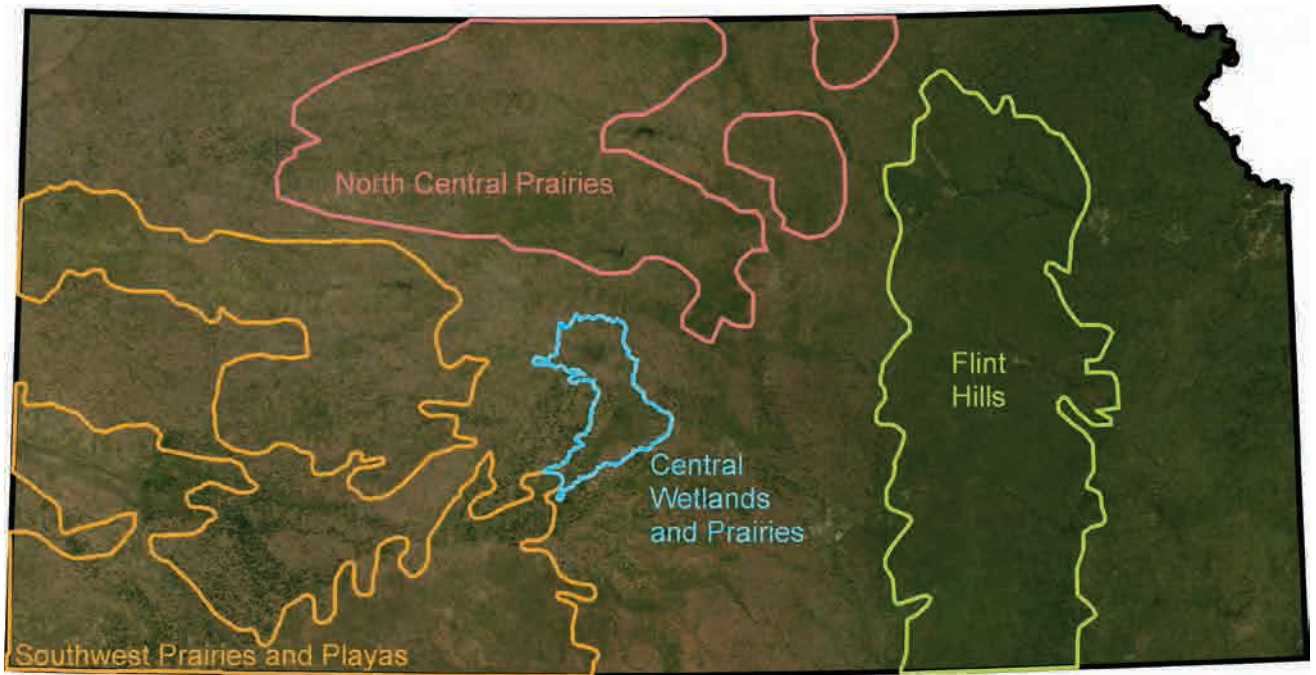
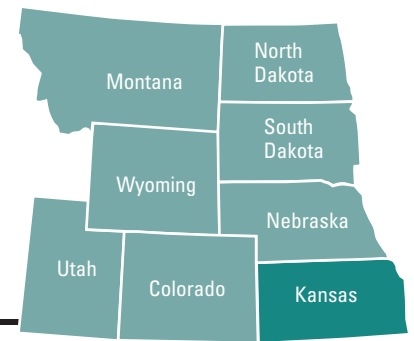
Increase Accountability

- Projects will be entered into HabITS as soon as the Wildlife Extension Agreement, Grant Agreement, Coop Agreement, or similar instrument has been obligated.
- The PFW State Coordinator will ensure HabITS data entries are accurate and timely.
- Each PFW program field biologist will annually inspect / monitor a minimum of 5 projects within respective assigned focus areas.



Karval, Colorado High School Ranching and Wildlife (RAW) students instructing 5th graders.
Photo by Katy Fitzgerald, USFWS.

Kansas



Kansas Partners Program Conservation Focus Areas

Introduction and Overview

Kansas is known as the “Prairie State.” Often, people will drive through and have the perception of miles and miles of nothing, not even a tree. The lack of trees, cities, and crop fields, or rather, the presence of vast intact grasslands is exactly what makes Kansas unique. This feature provides an extraordinary view of the past and what the landscape can continue to look like in the future. The fact that someone can drive and see only miles and miles of unaltered terrain is beautiful to many. A landscape void of trees, forms the unique character of the prairie and hosts a vast amount of native wildlife.

Certain areas of Kansas represent the last stronghold of Tallgrass prairie on the continent. Many of these areas are so large they are

visible on global satellite images. It is within this prairie landscape, where PFW program is needed. With 97% of the state in private ownership (Kansas Department of Wildlife and Parks 2008), there are ample opportunities for the PFW program to assist ranchers and farmers with voluntary fish and wildlife habitat restoration projects. Over time, invasive species, fragmentation, and poor land management have led to degradation and loss of prairie habitats, contributing to the decline of numerous Federal trust species. Through educational efforts and the application of appropriate land management strategies, the remaining 17 million acres of native vegetation can provide much needed habitat for these resources. Some of the facts and information used to describe Kansas land areas were inspired by passages from

“Natural Kansas” edited by Joseph T Collins, University Press of Kansas.

Focus Area Selection

Through continued communication with our conservation partners we established four focus areas for the KS PFW program. The Southwest Kansas Prairies and Playas, North Central Prairies, Flint Hills, and Central Wetlands and Prairies prioritize our conservation efforts. Using Geographic Information Systems (GIS) technologies, we incorporated datasets created by conservation partners that included; species habitat models, strategic plans, satellite imagery, and statewide landuse/landcover data to create our focus areas.



Kansas Native Prairie. USFWS Photo.

Southwest Prairies and Playas Focus Area



The Southwest Prairies and Playas Focus Area is a complex and diverse landscape composed

of mixed-grass, shortgrass, sand prairie and sage-steppe that extend throughout western and south central Kansas. Portions of this focus area are also home to the highest densities of playa lakes in the state. Physiographic regions within this focus area include the Red Hills, the Smoky Hills, the Arkansas River Lowlands and the High Plains of Kansas. Each of these regions is defined by unique soil characteristics, topography and plant communities. The Red

Hills and Smoky Hills comprise the mixed-grass portion of this focus area. The red-colored Permian soil of the Red Hills with its many buttes and mesas supports Kansas' second largest intact tract of native prairie (second only to the Flint Hills). The Smoky Hills, so named for their dark shales that produce a "smoky" heat haze when viewed by settlers approaching from the east, comprises rolling to nearly level Tallgrass and mixed grass prairie.



Red Hills are an area dominated by mixed-grass and sand-sage prairie within the Southwest Kansas Prairies and Playas Focus Area. Photo by Greg Kramos, USFWS.



Eastern red cedar is a major threat to Kansas prairies and is controlled through mechanical removal and periodic fire. Photo by Tony Ifland, USFWS.

Within this focus area the Smoky Hills can be considered a transition zone between the Tallgrass and shortgrass prairies. Just south of the Smoky Hills lie the Arkansas River Lowlands. This area includes sand and sandsage prairies composed of sandy soils supporting grassland covered (and at times exposed) sand dunes. Finally, the short-grass prairie portion of this area includes the High Plains region. To some, this area seems a bleak and featureless expanse. Early settlers stated “You can see so far...it hurts”. The High Plains are more functionally dynamic than a cursory view can assess. The geology of the High Plains paints a picture of river borne sands and gravels, windblown silts, volcanic ash beds and diatomite deposits. The diversity of the Southwest Kansas Prairies and Playas Focus Area topography, geology and plant communities supports a multitude of Federal trust species. From waterfowl and shorebirds using its playa lakes, to lesser prairie-chickens inhabiting its grasslands, the wildlife species that occur in this area can be as diverse as the landscape, making this a high priority for conservation.

Threats of fragmentation and invasive species are major concerns. Two of the key priorities for the program in this focus area are controlling invasive trees such as Eastern red cedar and promoting proper prairie management. This will be done in cooperation with several partners and through organized grazing groups such as the Comanche Pool Prairie Resource Foundation (Comanche Pool). The Comanche Pool is a producer driven interest group that promotes proper grassland management throughout the Red Hills. Ranching is one of the major land-use patterns in this focus area and ranchers have been receptive to conservation strategies that also incorporate their overall objectives. The lesser prairie-chicken, who's numbers have dropped by over 90% since the 1800's, is just one of the species the PFW program is working to conserve in the area.

Across western Kansas, depressions that formed years ago, store precious water from seasonal rains and provide a temporary oasis to wildlife on the semi-arid landscape. When flooded, these depressions, called playas, attract ducks, geese, shorebirds, and waterbird species such as mallards,

Canada geese, greater yellowlegs, long-billed dowitchers, whooping cranes and sandhill cranes. Playas provide important migratory stop-overs for these birds to rest and refuel, some traveling thousands of miles between breeding grounds and wintering sites. Precipitation is inconsistent in the playa region and drought is a common occurrence. Playa lakes may be the most important wetland habitat type for birds in the region. The KS PFW program is working with producers to increase awareness of the value playas hold and assists landowners in establishing a wetland buffer to help maintain these sites.

From the waterways of the Arkansas, Cimmaron and Smoky Hill rivers to the spring-fed streams that dissect the Red Hills, the Southwest Kansas Prairies and Playas Focus Area is home to many aquatic and riparian species. Through proper prairie management PFW program staff and their conservation partners have already detected increased flows and better riparian habitat conditions due to the installation of proper grazing systems, fire return intervals and invasive woody species removal.



The Southwest Kansas Prairies and Playas focus area contains some of the best habitat for lesser prairie-chickens, such as this male performing on a lek. Photo by Greg Kramos, USFWS.

Priority species

- Lesser prairie-chicken
- Ferruginous hawk
- Grasshopper sparrow
- Loggerhead shrike
- Cassin’s sparrow
- Western burrowing owl
- Northern pintail
- Long-billed curlew
- American bittern
- Upland sandpiper
- American avocet
- Whooping crane
- Texas horned lizard
- Arkansas shiner (Threatened)
- Arkansas darter (Candidate)

Southwest Kansas Prairies and Playas Focus Area Five Year Targets

Upland Restoration/Enhancement	15,000 acres
Wetland Restoration/Enhancement	40 acres
River Miles	2 miles

Partnerships

Landowners	40
Technical Assistance	125/days

The primary objective for KS PFW in the Southwest Kansas Prairies and Playas focus area is to coordinate with USDA, KDWP, TNC, and other conservation partners to enhance/restore native habitat on large tracts of land in order to provide adequate habitat for Federal trust species. This collaboration enables KS PFW program to work with organized producers such as the Comanche Pool Resource Foundation on large tracts of land owned by several landowners involved with many different programs, all with common goals.

Cost-share	3% (KDWP)
	34% FWS Funds
	58% Landowners and In-Kind
	5% Other Partners

Implementation strategy: Both upland and wetland objectives will be met by conducting technical assistance and on-the-ground conservation efforts on private land within this focus area. Many stream and wetland areas are in need of enhancement and/or restoration and will be a primary target for the KS PFW program. One of the top conservation practices promoted by the program is prescribed fire. Through the organization of burn associations our cooperators can share information, equipment, and techniques with others in the conservation community to better facilitate the enhancement/management of our native prairies. The KS PFW program will deliver information concerning how to get involved with these conservation efforts through landowner workshops, other organizations, such as the Comanche Pool, and the communication of participating landowners.

North Central Prairies Focus Area



The North Central Kansas Prairies focus area is considered a transition zone between the Tallgrass and shortgrass prairies within the state. The Tallgrass on the eastern edge, mixed-grass in the middle and short-grass to the west. The Smoky Hills is the primary physiographic region within this focus area. Many theories exist that attempt to explain where the Smoky Hills got their name. One historian suggests they were named for their dark shales that produce a “smoky” heat haze observed by settlers as they approached from the east. Other tales include a vast grove of cottonwoods along the Smoky Hill river that when seen from afar looked like clouds or “smoke” in the distance. This region also contains abundant outcrops of sandstone and limestone. The sandstone and limestone rock, as well as lack of rainfall, helped to keep much of this area in prairie. This landscape still contains some large tracts of high quality Tallgrass and mixed-grass prairie that are used



Greater prairie-chickens, such as these males competing on a lek, can be found in mixed and Tallgrass prairies in Kansas.

Photo by Greg Kramos, USFWS.

primarily for grazing. These native prairie pastures provide important seasonal habitat for migrating birds such as the Baird’s sparrow. They also provide crucial nesting and brood rearing habitat for grassland nesting birds such as the upland sandpiper, grasshopper sparrow and the greater prairie-chicken. Portions of this area contain some of the highest densities of greater prairie-chickens in the state.

Threats of fragmentation and invasive species are a major concern. Proper grazing management systems and fire return intervals are two major conservation priorities in this area. The program has been successful in delivering these priorities due to

increased cooperation with several partners, especially organized grazing groups such as the Smoky Hills Grazers. It is a producer driven interest group that promotes proper grassland management throughout the region. Ranching is one of the major land-use patterns in this focus area and ranchers have been receptive to conservation strategies that also incorporate their overall objectives.

Historically, the Smoky Hill, Saline and Solomon Rivers along with their associated tributaries provided in-stream and riparian habitat to multiple Federal trust species within this focus area. As demonstrated in other parts of Kansas, proper prairie management



This landscape photo is indicative of the Smoky Hills also known as “post rock” country due to the use of limestone fence posts used by early settlers. Photo by Tony Ifland, USFWS.

through the installation of grazing systems, appropriate fire return intervals and invasive woody species removal can provide secondary benefits to riverine habitats via increased flows and overall conditioning. The endangered Topeka shiner once occurred within many reaches of these rivers and is a priority species for this focus area.

Priority Species

- Upland sandpiper
- Ferruginous hawk
- Black tern
- American avocet
- Loggerhead shrike
- Western burrowing owl
- Bobolink
- Rusty blackbird
- Northern harrier
- Greater prairie-chicken
- Topeka shiner (Endangered)
- Grasshopper sparrow
- Bell's vireo
- Short-eared owl

North Central Kansas Prairies Focus Area Five Year Targets

Upland Restoration/Enhancement	15,000 acres
Wetland Restoration/Enhancement	80 acres
River Miles	3
Partnerships	
Landowners	40
Technical Assistance	75/days

The primary objective for Kansas PFW in the North Central Kansas Prairies focus area is to coordinate with USDA, KDWPT, TNC and other conservation partners to enhance/restore native habitat on large tracts of land in order to provide adequate habitat for Federal Trust Species. This collaboration enables Kansas PFW program to work with organized producers such as the Smoky Hills Grazers on large tracts of land owned by several landowners involved with many different programs, all with common goals.

Cost-share	40% FWS Fund
	40% Landowner
	20% Other Partners (NGO, KDWPT)

Implementation strategy: Both upland and wetland objectives will be met by conducting technical assistance and on-the-ground conservation efforts on private land within this focus area. Many stream and wetland areas are in need of enhancement and/or restoration and will be a primary target for the program. One of the top conservation practices promoted by PFW is prescribed fire. Through the organization of burn associations our cooperators can share information, equipment and techniques with others in the conservation community to better facilitate the enhancement/management of our native prairies. The KS PFW program will deliver information concerning how to get involved with these conservation efforts through landowner workshops, other organizations such as the Smoky Hills Grazers and the communication of participating landowners.



The Tallgrass prairie is the most altered ecological community in North America. Of the 142

million acres that once covered the American heartland, less than 3% remain. The greater Flint Hills area of Kansas is by far the largest Tallgrass prairie landscape on the continent, with more acres remaining in Kansas than in all the other prairie states and provinces combined. The shallow soils and rough terrain managed to keep the plow and other disturbances to a minimum. Even so, a sizable

portion of the Flint Hills has been degraded by invasive plants, urban sprawl, woody encroachment, and continued prairie fragmentation. Physiographic regions within this focus area include: the Flint Hills uplands, characterized by multiple layers of flint that quickly wore out settlers' plows due to flint being harder than steel. The Osage Cuestas, made from alternating layers of limestone and shale form

what resembles a slightly collapsed staircase across the landscape. The Chautauqua Hills, derived from prehistoric sandstones that support dense groves of post and blackjack oak forest due to the porous sandstone's ability to retain water. Lastly, the Glaciated Region at the northern end of the Flint Hills comprised of rolling hills containing glacial till composed of quartzite and other rocks transported by glaciers from the Great Lakes region.

Ranching is king in the Flint Hills, due to the fact there are over 3 million acres of intact native grassland, making it ideal for grazing. The ranching community in the Flint Hills has many threats. One which weighs heavy on ranchers minds are the presence of invasive species, such as *Sericea lespedeza*, and the encroachment of trees like Osage orange and eastern red cedar. These invasive species add to fragmentation and threaten heterogeneity within native grassland plant communities. The PFW program is working with several partners to control woody invasives and maintain heterogeneity within the Flint Hills by promoting burning, grazing, and

invasive species control strategies. Leading these efforts is the Tallgrass Legacy Alliance (TLA). The TLA has enhanced over 150,000 acres of Tallgrass prairie in the Flint Hills and is essential to changing ranchers philosophies about grassland management within the area.

In 2010, the Service initiated the Flint Hills Legacy Conservation Area program which will voluntarily enroll landowners into perpetual easements to further conserve intact portions of the area. The amount of support that the PFW program provides in the Flint Hills Legacy Conservation Area will prove critical to its future success. The program looks forward to cooperating with the Flint Hills Legacy Conservation Area by providing technical assistance to prospective easement holders as well as helping to deliver habitat restoration projects on private lands already enrolled in the program.



*Burning is an important part of the culture in the Flint Hills Focus Area. Education and communication concerning proper application are PFW program goals.
Photo by Tony Ifland, USFWS*



Sunset in the Flint Hills focus area. Cattle are an extremely important conservation tools and with proper management lead to healthy grasslands. USFWS photo.

Priority Species

- Greater prairie-chicken
- Short-eared owl
- Burrowing owl
- Upland sandpiper
- American golden-plover
- Black rail
- Dickcissel
- Bobolink
- Henslow’s sparrow
- Cerlean warbler
- Regal fritillary butterfly
- Topeka shiner (Endangered)
- Mead’s milkweed (Threatened)

Flint Hills Focus Area Five Year Targets

Upland Restoration/Enhancement	35,000 acres
Wetland Restoration/Enhancement	100 acres
River Miles	2

Partnerships

Landowners	50
Technical Assistance	125/days

The primary objective for Kansas PFW in the Flint Hills Focus Area is to coordinate with USDA, KDWP, TLA, TNC, KGLC and other conservation partners to enhance/restore native habitat on large tracts of private land and provide support to the National Wildlife Refuge System in the Flint Hill Legacy Conservation Area easement program.

Cost-share	20% Grants
	33% FWS Funds
	33% Landowners and In-Kind
	13% Other Partners (NGO, KDWP)

Implementation strategy: Both upland and wetland objectives will be met by conducting technical assistance and on-the-ground conservation efforts on private land within the focus area. Many stream and wetland areas are in need of enhancement and/or restoration and will be a primary target for the program. One of the top conservation practices promoted by the KS PFW program is prescribed fire. Through the organization of burn associations our cooperators can share information, equipment and techniques with others in the conservation community to better facilitate the enhancement/management of our native prairies. PFW program staff will provide information concerning how to get involved with these conservation efforts through landowner workshops, and other outreach opportunities, in partnership with landowners and various partner organizations and agencies.

Central Wetlands and Prairies Focus Area



In central Kansas, the Arkansas River flows between the Smoky Hill River (to the north) and the Cimarron River (to the south). Over time, as the “Ark” (as it is called in Kansas) adjusted its course, it deposited vast amounts of sand and gravel creating a massive alluvial fan in the heart of the mixed-grass prairie of Kansas. These grass covered sand dunes associated with the river comprise the Great Bend Prairie. At the

north end of this alluvial fan exists a unique geological phenomenon that includes closed depressional wetlands at Cheyenne Bottoms and a little to the south at Quivira National Wildlife Refuge (NWR). Both of these wetland complexes have been designated as RAMSAR Wetlands of International Importance. Cheyenne Bottoms and Quivira NWR are jointly considered one of the eight wonders of Kansas. From shorebirds to waterfowl, these wetlands are considered one of the most important stopover points for a multitude of Federal trust species including the sandhill crane and Federally endangered whooping crane. These wetlands also provide breeding habitat for the American avocet and black-necked stilt.

The wetlands however, are not the only conservation priority in the area. The landscape surrounding both Cheyenne Bottoms and Quivira NWR include portions of the Great Bend Prairie. These grasslands support priority species such as the dickcissel, burrowing owl, short eared-owl and the upland sandpiper.

Proper prairie management and invasive species control are conservation priorities in this area. This focus area is a new addition to the Kansas PFW Strategic Plan and we look forward to partnering with landowners within this focus area to deliver grassland, riparian and wetland centered technical assistance and restoration.



Wetlands within the Central Kansas Prairies and Playas Focus Area provide important stop over habitat for many migratory birds, including the endangered Whooping crane. Photo by Ryan Hagerty, USFWS

Priority Species

- Whooping crane
- American avocet
- Black-necked stilt
- Black rail
- Loggerhead shrike
- Grasshopper sparrow
- Dickcissel
- Western burrowing owl
- Short eared owl
- Snowy plover
- Northern pintail
- American bittern
- Upland sandpiper
- Greater prairie-chicken
- Arkansas shiner (Threatened)
- Arkansas darter (Candidate)
- Checkered garter snake

Central Wetlands and Prairies Focus Area Five Year Targets

Upland Restoration/Enhancement 1000
 Wetland Restoration/Enhancement 100
 River Miles 2

Partnerships

Landowners 8
 Technical Assistance 40/days

The primary objective for Kansas PFW program in the Central Kansas Wetlands and Prairies Focus Area is to coordinate with USDA, KDWPT, TLA, KGLC, TNC and other conservation partners to enhance/restore native habitat on large intact landscapes in order to provide adequate habitat for Federal trust species.

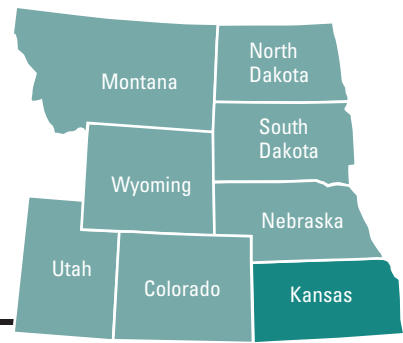
Cost-share 40% FWS Fund
 40% Landowner
 20% Other Partners (NGO, KDWPT)

Implementation strategy: Both upland and wetland objectives will be met by conducting technical assistance and on-the-ground conservation efforts on private lands within this focus area. Many stream and wetland areas are in need of enhancement and/or restoration and will be a primary target for PFW program staff. One of the top conservation practices promoted by the program is prescribed fire. Through the organization of burn associations our cooperators can share information, equipment and techniques with others in the conservation community to better facilitate the enhancement/management of our native prairies. PFW will deliver information concerning how to get involved with these conservation efforts through landowner workshops, coordination with other organizations (e.g., the KGLC) and the communication with participating landowners.



The Kansas Grazing Lands Coalition is a strong partner for Kansas PFW and organizes multiple events to conduct education and outreach for cooperators and conservation partners (such as Fall Tour 2007 above) throughout Kansas. Photo courtesy of Tim Christian, KGLC.

Kansas Statewide Goals



Improve Information Sharing and Communication

The Kansas PFW program staff has an excellent relationship with many partners and interest groups. It is of highest priority to maintain these relationships. This will be done through semi-annual coordination meetings with NRCS, Pheasants Forever, and KDWP staff. In addition the Kansas PFW program staff will continue to be active members of the state technical committee and sub-committee members for the Conservation Reserve Program, Wetland Reserve Program, Grassland Reserve Program, Environmental Quality Incentive Program and Wildlife Habitat Incentive Program. KS PFW program staff will continue to be active with NGOs, such as, the Comanche Pool, Tallgrass Legacy Alliance, Smoky Hill Grazers, The Kansas Grazing Lands Coalition, TNC, Pheasants Forever, National Wild Turkey Federation and Kansas Alliance for Wetlands and Streams. This will be accomplished through attending meeting/conferences/workshops, leading tours and being involved in educational programs across the state. KS PFW program staff will continue to maintain information concerning habitat restoration efforts and technical assistance that will be input into the PFW program HABITS database.

Measurable Objectives

- Participate in 45 workshops, ranch tours, conferences or meetings involving or partners in Kansas
- Contribute to 10 media events involving the Kansas PFW
- Participate in 10 Semi-annual Coordination meetings with NRCS and KDWP staff.
- Sponsor or assist in 15 rancher conferences, workshops or tours throughout Kansas.

Enhance Our Workforce

The KS PFW program staff is responsible for large geographic areas and must have the knowledge to accurately answer questions about a wide variety of subjects.. These range from agriculture, water law, wildlife management, invasive species control, plant identification, contracts and grazing systems. PFW staff is required to have a broad knowledge-base of habitat types within their focus area. This is obtained through experience, mentoring and training. Providing appropriate training is required to maintain a highly-motivated staff.

Measurable Objectives

- KS PFW staff spend 40 hours in another KS PFW biologist's area to exchange techniques, ideas and problems.
- Work with KS PFW staff to update Individual Development Plan and provide opportunities to achieve goals identified within the Plan.
- Annually assist PFW staff in scheduling pertinent training for the most recent habitat techniques.
- Semi-annual staff meeting to provide policy updates, issues of concern across the state and guest speakers.
- Annual award recognition for outstanding accomplishments

Increase Accountability

Increase Accountability

The KS PFW program will use many factors in ranking projects, such as contribution to Federal trust species or Kansas Species of Concern and proximity to National Wildlife Refuges. Projects within the identified four conservation focus areas will be given the highest priority.

Measurable Objectives

- Increase the amount of photos entered into HabITS by 10%
- Provide summary updates to partners at semi-annual coordination meeting
- Work with FWS-HAPET office to develop KS PL GIS database
- Work with universities and extension service to increase monitoring and reporting of research/PFW sites

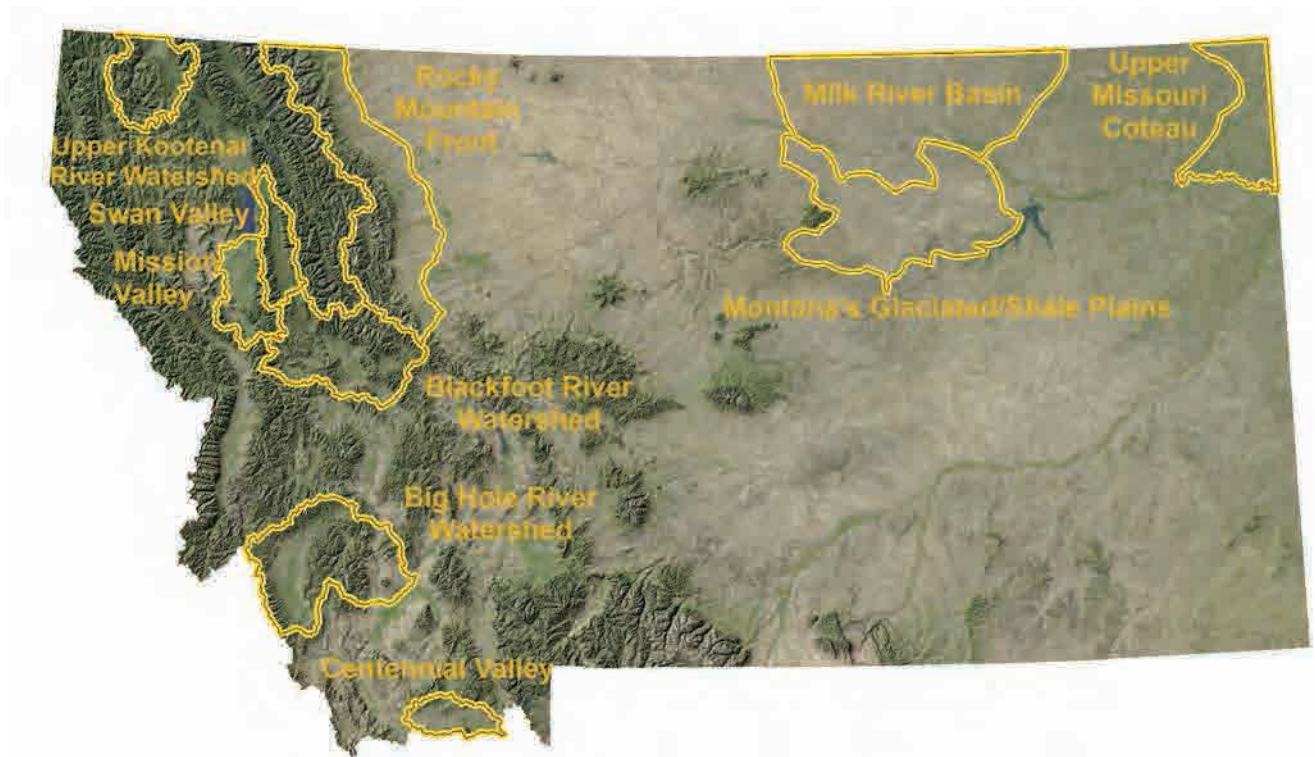
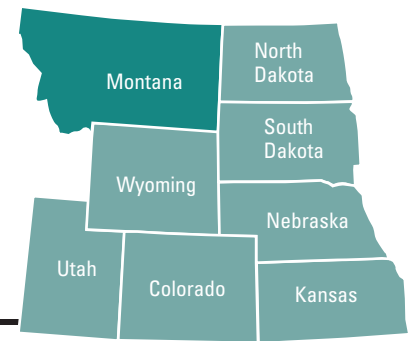
External Factors

The conversion of native prairie is a major factor that the PFW program has to anticipate. Whether it is conversion to cropland, cool-season grasses, or urban development, all are real threats to native prairie and may cause fragmentation of large intact grasslands. How much of this actually occurs depends on the ever-changing agricultural community. Continuing drought cycles will also impact the number of projects that landowners may be able to complete. They may not be able to leverage funds for projects if profits are small. Also, an increase in fuel prices drastically impacts contractor prices and reduces the number of acres the PFW program is able to fund.



KS PFW Staff working closely with cooperator on restoration plan. Photo by Heather Johnson, USFWS

Montana



Montana Partners Program Conservation Focus Areas

Introduction and Overview

In a perfect world, there would be enough time and money to address every conservation issue. Instead we face a growing list of imperiled species, habitat degradation, elevated risks to intact landscapes and limited budgets. These constraints demand an overall approach based on 'conservation triage' defined here as the prioritization of landscapes to which limited resources are allocated to maximize biological return on investment (Bottrill et al. 2008, 2009).

Once seen as a defeatist, conservation triage is now viewed as a new approach that targets limited resources at critical conservation issues. In contrast, providing palliative care to severely

degraded landscapes tends to stretch limited resources even further. Indeed, the conservation paradigm has shifted in scale and practice from small and reactive to large and proactive. This approach allows practitioners to implement landscape conservation before the opportunity to do so is lost.

Landscape planning has typically been a biological endeavor but the real key to implementing lasting conservation is working with people to maintain rural lifestyles that are compatible with biological goals. Community-based conservation originated in the 1980s in response to criticism of major international organizations for designing and implementing conservation with little input from local communities (Chambers 2007). The rise of community-based conservation also

resonated in the U.S. as agencies explored a related, but somewhat independent, trend away from top-down, regulatory-based and expert-driven resource management toward voluntary, incentive-based conservation with broad public and community inclusion in land management programs (Weber 2000, Wondolleck and Yaffee 2000). Today, community-based conservation has evolved from a theoretical argument against actions that exclude humans to integrated approaches that embrace equally the societal and biological aspects of conservation (Horwich and Lyons 2007).

The Montana Partners for Fish and Wildlife (MT PFW) program began discussing the merits of conservation focus areas in the mid 1990's. In 1999, the MT

PFW program developed its first strategic plan using intact habitats as the basis for selecting conservation focus areas. In FY 2007, the Montana Step-Down Strategic Plan refined the conservation planning process. The 2007 Plan identified geographic planning areas, selected priority focal species for each geographic planning area, analyzed biological models and incorporated other scientifically based conservation plans. The process included a robust outreach effort.

In FY 2007, this comprehensive, multi-step approach initially identified 18 potential MT PFW conservation focus areas. Final selection was completed by in-depth analysis of the 18 areas using the following filters; public/private land patterns, proximity to FWS field stations, existing community-based partnerships, intact landscapes, and threats. This led to the selection of 10 priority conservation focus areas encompassing 11% of the private lands in Montana.

For the 2012-16 planning cycle, MT PFW has adopted a 10-step approach for selecting conservation focus areas. These steps provide filters for designating the most important areas to invest limited time and resources.

In application, the PFW program model of biological planning begins by locating focus areas within broad geographic areas. Geographic areas are similar to eco-regions in that they cover relatively large areas that contain geographically and climatically distinct assemblages of natural communities and fish

A 10-step Conservation Focus Area (CFA) approach.

- Use geographic areas or ecoregions as a foundation for planning.
- Select a representative set of focal species.
- Initiate biological planning by compiling in a geographic information system all relevant habitat and population data for focal species.
- Identify initial overlap in conservation plans between state, federal, and nongovernment partners.
- Consult with partners to view strengths and weaknesses in biological data.
- Draft initial set of CFAs.
- Use landscape intactness and public/private ownership patterns to compare draft CFAs.
- Assess existing community-based conservation groups already working in identified CFAs.
- Evaluate realized and potential future threats to CFAs.
- Formally select final set of CFAs.

and wildlife species, in contrast to jurisdictional lines for management such as state or county boundaries (Bailey 1995). We began by dividing Montana into four distinct areas; Prairie Potholes, Great Plains, Upper Missouri/Yellowstone Watershed and the Upper Columbia Watershed.

We then selected focal species for each distinct geographic area. Focal species help provide a practical bridge between single- and multiple-species approaches to wildlife conservation and management (Mills 2007). However, with 1.5 million identified species, practitioners face major challenges implementing conservation actions in a way that is logistically, financially and politically feasible. One viable solution is to develop inference about the larger community or landscape based on a subset of species in the system. Six categories of focal species including keystone, trend detector, umbrella,

indicator, species of special concern and flagship were used collectively to move beyond single-species management towards landscape scale conservation.

For the MT PFW Strategic Plan, we further refined the Focal Species concept by establishing four specific selection criteria. Those include: 1) Landscape Species (Mills 2007); 2) Species that are data rich as described by Service Strategic Habitat Conservation Model; 3) Species that one or more of our partners are actively monitoring to establish biological outcomes related to restoration, management and protection activities at the population level; 4) Politically, socially, and logistically attainable on private lands in Montana as determined by the MT PFW program and our 2011 Science Advisors (Dr. Naugle – University of Montana, Dr. Vest – Intermountain West Joint Venture, and Sean Fields – Habitat and Population Evaluation and Assessment Team).

A three tiered process was then developed for each geographic area to further refine our Focal Species selection. These tiers are defined as: Tier 1 (Primary Species): A species that meets all four categories for prioritization; Tier 2 (Secondary Species): A species that does not meet one of the four categories used for prioritization, or is a Tier 1 species for only a small segment of larger geographic area (e.g., grizzly bear on the Rocky



Table I lists the MT PFW 2012-16 Strategic Plan focal species by tier.

	Prairie Pothole	Great Plains	Upper Missouri	Upper Columbia
TIER 1	Sage-grouse	Sage-grouse	Sage-grouse	
				Grizzly bears
				Bull trout
	Mallard			
			Arctic grayling	
TIER 2	Piping plover			
	B.T. prairie dog	B.T. prairie dog		
		Pallid sturgeon		
	Ws. C. trout		Ws. C. trout	Ws. C. trout
			Trumpeter swan	Trumpeter swan
	Bull trout			
	Grizzly bears			
TIER 3	L. B. curlew	L. B. curlew	L. B. curlew	L. B. curlew
			Grizzly bears	
			Y.S.C trout	
	Mixed Grass Grassland Bird Suite*	Mixed Grass Grassland Bird Suite*		
	Mountain plover	Mountain plover		

* McCowan’s longspur, Chestnut-collared longspur, Sprague’s pipit & Baird’s sparrow

Mountain Front within the prairie pothole area), trumpeter swan in the Centennial Valley within the upper Missouri area, and Westslope cutthroat trout in the Blackfoot Watershed in the upper Columbia area); Tier 3 (Science Need): A Landscape Species lacking empirical data to apply the Strategic Habitat Conservation Model for on-the-ground delivery within a geographic area.

Once geographic areas and focal species had been selected, biological planning and conservation design follow. Biological planning is the systematic application of scientific knowledge about species and habitat conservation (Johnson et al. 2009c). Planning includes articulating measurable population objectives for selected focal species, identifying what may be limiting populations below desired levels and compiling models that describe how populations are expected to respond to specific conservation actions (on-the-ground delivery). Conservation design is a rigorous GIS-based mapping process that predicts patterns in the landscape and develops species-

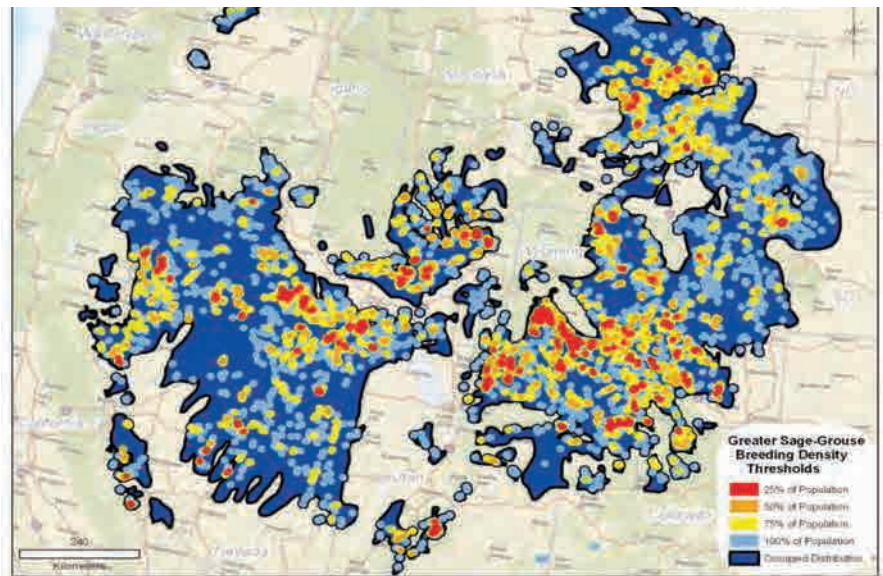


Figure 1. Range-wide breeding sage-grouse density areas represent spatial locations of 25%, 50%, 75% and 100% of the known breeding population differentiated by color. Because colors are additive, red and orange represents 50% of the breeding population in 10% of the range.

specific models, associated habitat objectives and maps of biodiversity and species richness. The maps are produced by applying empirical models to spatial data (Johnson et al. 2009c). The empirical models displayed in a spatial data format will be the basis for prioritizing conservation delivery as well as

linking biological outcomes to habitat outcomes.

Figure 1 tells us where to work in a landscape but it doesn’t address limiting factors. Furthermore, it does not link biological outcomes to habitat outcomes. Our goal is to complete



Figure 2. Number of grizzly bear conflicts within the Blackfoot focus area pre (1998-2003) and post (2003 to present) with conflict reduction activities implemented.

that link for all Tier 1 species during this five year strategic planning timeline. For example, an explicit objective for greater sage-grouse in the Glaciated Shale Plain Focus Area might read; “Increase the Sage-Grouse Populations by 10% over the next five years.” Accomplishing this biological outcome will entail implementing grazing management on 30,000 acres of privately owned sage-steppe habitat resulting in a 5 cm average increase in cover height. This will equate to an 8% increase in nest success and a 10% increase in the sage-grouse population (Walker et al. 2007, Doherty et al. 2009).

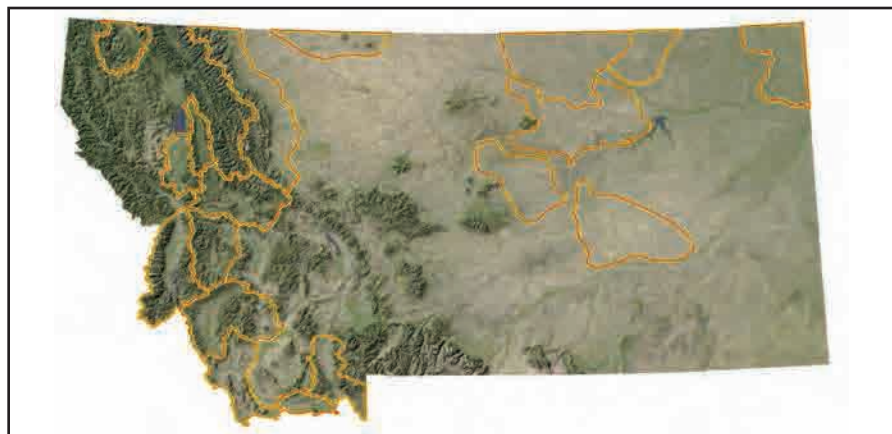
mortalities were management related, where bears are removed due to livestock depredation (Servheen, 2011). Research shows that these mortalities are a direct result of human/grizzly bear conflicts. By mapping the known conflicts within the Blackfoot River Watershed Focus Area and working proactively to address those issues we can track biological outcomes in the form of reduced conflicts and mortalities. MT PFW program conservation delivery activities that address conflict reduction include removal of dead livestock carcasses, protecting spring calving areas and installing power fencing around apiaries (bee hives).

Another example of linking conservation delivery to biological objectives is our work with grizzly bears in the upper Columbia and prairie pothole geographic areas. The Northern Continental Divide Ecosystem (NCDE) grizzly bear population is increasing at an annual rate of 3% and the overall population is estimated at approximately 900 bears (Servheen, 2011). There were 232 mortalities documented between 2000 and 2010 with 49% of those deaths occurring on private lands (Servheen, 2011). Eighteen percent of the

The next step involved consultation with other conservation professionals. First, the MT PFW program draft focus areas were compared to other biologically-based conservation plans that cover the same geographic areas. One example is the Montana Comprehensive Wildlife Plan. Key conservation partners were asked to review data layers and discuss data gaps prior to selecting the focus areas.

We then developed a draft of potential MT PFW focus areas. For this plan, the PFW program and its partners identified 18 potential focus areas across Montana. Next, draft focus areas were evaluated by assessing landscape intactness and public-private ownership patterns. If focus areas have equivalent values after the sixth step, priority is given to landscapes with large tracts of native vegetation that are embedded within ≥50 percent public ownership or where private landowners own relatively large parcels.

The next filter involved assessing viable community-based conservation groups working within the identified focus areas. We believe working with watershed, place-based interest or other non-profit organizations is a key component to a successful private lands program. When high biological values align with community values there is fertile ground for effective conservation delivery at the landscape scale.



Biologically Significant Areas Based on Focal Species



Ten final Montana PFW program Focus Areas.

At this point, threats are assessed. Evaluating potential habitat fragmentation threats from residential subdivision, energy development and sodbusting is an important step in focus area selection process. We put this step towards the end of the process as we believe using threats too early in the planning stage typically leads to reactive rather than proactive conservation and poses the risk of bypassing conservation opportunities within intact landscapes. The MT PFW focus area selection process addressed threats only after previous filters had been used and all other biological, scale and ownership factors were equal. This approach generated focus areas with high biological values and low or moderate threat levels. The focus area model seeks to abate threats by delivering proactive conservation and working in relatively intact areas to address threats before they create irreversible resource damage. The final step in the process was formal selection of focus areas. The PFW program selected 10 focus areas

covering 23% of Montana's land ownership (12 percent public and 11 percent private). The PFW program will set targets and goals to restore and enhance habitats on the private land, working with partners who will make their emphasis the public land within the focus areas.

Over the next 5 years, the ten MT PFW focus areas will include a Site Specific Plan that displays empirical models in spatial data form. These plans will be the basis for prioritizing conservation delivery actions that link biological outcomes to habitat outcomes. The Kootenai River Focus Area has completed the first step in the process by developing population objectives for bull trout, identifying private lands habitat limiting factors and prioritizing on-the-ground projects. The plan also reviews limiting factors influencing population objectives, identifies selection criteria for on-the-ground habitat restoration projects and develops a protocol to monitor success.

Selecting specific places to work using a biologically-based, thorough, and systematic approach is critical to implementing community-based landscape conservation. The Montana PFW program believes that selection of appropriate focus areas based on scientifically-sound strategies constitutes approximately 20 percent of the recipe for success. The remaining 80 percent of this new conservation paradigm and its value in practice come from hiring staff with specific skills and aligning the program with goal-oriented partners who assist in implementation of these common goals.

Upper Missouri Coteau Focus Area



The Upper Missouri Coteau Focus Area is located in extreme northeast Montana. This region was entirely glaciated and is part of the prairie pothole region of the Midwest United States and Canada. The landscape was dominated by rolling mixed-grass native prairie and glaciated pothole wetlands. The region has an agricultural-based economy with small grain farming and livestock ranching as the dominant land uses.

A significant amount of native prairie has been converted to cropland and wetland drainage has been a common occurrence. A portion of the Missouri Coteau lies in the northern and eastern portions of the focus area. The Coteau is very rolling with a very high wetland density. Conversion

of prairie to cropland and wetland drainage have occurred to a lesser extent on the Coteau than other parts of the focus area, but are still significant threats. The focus area provides critical habitat for numerous Federal trust species including migratory birds (waterfowl, shorebirds, wading birds, colonial nesting birds, grassland passerines) and Federally listed threatened, endangered, and candidate species such as piping plover (Threatened) and Sprague's pipit (Candidate).

The Upper Missouri Coteau Focus Area encompasses about 1 million acres. It is predominantly in private ownership, with an interspersed of State school section lands and national wildlife refuge lands (Medicine Lake National Wildlife Refuge and Waterfowl Production Areas). Ownership is 91% private and 9% public.

Key partners in the Upper Missouri Coteau include the USDA Natural Resources Conservation Service (NRCS); Fort Peck Tribes; Montana Fish, Wildlife and Parks (MFWP); North American Wetlands Conservation Act (NAWCA); DU;

TNC; and private landowners.

The PFW Program will develop a Site Specific Plan for mallards and piping plovers by year two of this planning effort. PFW program restoration activities will be guided by the plan and will likely concentrate on restoring wetland and grassland systems that will have tangible biological outcomes for mallards. Specific activities will likely also include seeding marginal cropland back to native prairie species, and developing prescribed grazing systems to enhance grassland and wetland habitat. Project activities will also be designed specifically to directly benefit piping plovers. These include removal of mammalian predator den sites (abandoned buildings, junk piles, rock piles) near nesting beaches, creation of new nesting beaches by spreading gravel along select shorelines of alkali lakes, and development of prescribed grazing systems to restrict cattle access to nesting beaches during the nesting and brood-rearing seasons.



Wetland habitat restoration project. USFWS photo.

PRIORITY	UPPER MISSOURI COTEAU FOCAL SPECIES
TIER 1	Mallard, Piping Plover
TIER 2	
TIER 3	Long-billed Curlew, Mixed Grass Grassland Bird Suite

Upper Missouri Coteau Focus Area Five Year Targets	
• Wetland Acres Restored/Enhanced	500 acres
• Upland Acres Restored/Enhanced	7,500 acres
• Stream Miles Restored/Enhanced	2.0 miles
• Fish Passage	0
Partnerships	
• # of Agreements	40
• Cost-Share Ratio	1:1
• Technical Assistance	120 total staff days



Removal of junk pile (artificial predator den sites) along Piping Plover nesting beach. USFWS photo.

Milk River Basin Focus Area



The Milk River Basin Focus Area, located in north central Montana, is part of a larger landscape known locally as the “Hi-Line.” The region is bordered on the south by the Milk River and on the north by prairie Canada. This focus area has relatively high densities of palustrine wetlands and intact tracts of mixed-grass native prairie. Ranching and farming are the primary land-uses. Oil and gas production is increasing throughout the focus area.

Prior to European settlement, this “sea of grass” was inhabited by bison, pronghorn, elk, deer,

grizzly bear, gray wolf, swift fox, and black-tailed prairie dog along with a myriad of grassland birds. Today, the Milk River focus area remains a critically important landscape for numerous Federal trust species. Black-tailed prairie dogs and greater sage-grouse are common. The focus area provides critical habitat for a number of declining migratory bird species including; long-billed curlew, McCown’s longspur, chestnut-collared longspur, Sprague’s pipit, and Baird’s sparrow. Recent telemetry studies show that the Milk River Basin is a key corridor for greater sage- grouse and pronghorn antelope during seasonal north-south migrations. Canadian populations of sage-grouse and pronghorn were documented migrating through the Milk River Basin Focus Area to the Missouri River Breaks in the winter of 2011.

The Milk River Basin Focus Area encompasses about 2.5 million acres. Land ownership is a mixture

of private land, National Wildlife Refuge lands (Bowdoin NWR) and Waterfowl Production Areas, BLM, State school section lands and private non-profit conservation lands. Ownership is comprised of 65% private land and 35% public land.

Key partners in the Milk River Basin include; MFWP, DU, Pheasants Forever (PF), Bureau of Land Management, TNC, NRCS, Tribes and private landowners.

North American Wetland Conservation Act (NAWCA) funding has been an important conservation delivery funding source for habitat projects in the Milk River Basin. We expect this trend to continue. A Standard Grant proposal submitted for the 2012 funding cycle recently received the highest score in the Nation.

The Milk River Basin field biologist position is currently vacant.



Aerial photo of the Milk River Basin. USFWS photo.



Prairie grassland restoration project in the Milk River Basin Focus Area. USFWS Photo.

Budget uncertainties dictate that the position will remain vacant for an undetermined time period. This situation will impact PFW conservation delivery activities. A robust partnership exists in this focus area and the coalition will be exploring creative ways to maintain momentum. One option could be to pool resources to establish a shared position in the Milk River Basin. PFW activities will concentrate on restoring and enhancing wetland and native prairie habitat for migratory birds as well as candidate, threatened and endangered species.

Under the MT PFW Focal Species criteria; two Tier 1 focal species have been selected for the Milk River Basin; greater sage-grouse and mallard. The site specific plan developed for the Milk River Basin will link habitat projects to explicit population objectives for these two species. Refer to the MT PFW Strategic Plan Introduction for a detailed explanation on the process used to select and prioritize focal species.

PRIORITY	MILK RIVER BASIN FOCAL SPECIES
TIER 1	Greater sage-grouse, Mallard
TIER 2	Piping Plover, Black-tailed Prairie Dog
TIER 3	Long-billed Curlew, Mixed Grass Grassland Bird Suite, Mountain Plover

Milk River Basin Focus Area Five Year Plan	
• Wetland Acres Restored/Enhanced	250 acres
• Upland Acres Restored/Enhanced	1,000 acres
• Stream Miles Restored/Enhanced	5 miles
• Fish Passage	0
Partnerships	
• # of Agreements	25
• Cost-Share Ratio	1:1.5
• Technical Assistance	60 total staff days

Rocky Mountain Front Focus Area



The Rocky Mountain Front Focus Area is a spectacular and expansive landscape at the juncture of the Rocky Mountains and the western margin of the Northern Great Plains. The abrupt change from rolling native grasslands to rugged mountain topography produces significant elevational and climatic gradients, creating amazing species and habitat diversity. The transition from alpine tundra and montane forest to foothills and mid-grass prairie includes incredible stream and riparian habitat. Glaciated wetlands are scattered throughout the Rocky Mountain Front. The species diversity is

remarkable. It includes some of the best remaining grizzly bear habitat in the lower-48 States. Breeding and migratory use by migratory birds is unmatched. Livestock ranching has been the primary land-use since settlement.

The Rocky Mountain Front Focus Area encompasses about 2.6 million acres. This focus area is a mixture of public and private land, including Service Waterfowl Production Areas; Montana Fish, Wildlife and Parks Wildlife Management Areas and Department of Natural Resources and Conservation lands; Blackfeet tribal lands; TNC and Boone and Crockett Club's private preserves; and privately owned ranch and farm land. Ownership is 49% private and 51% public.

Key partners in the area include the USDA - Forest Service, USDA - NRCS, Blackfeet Nation, MFWP, Montana Department of Natural Resources and Conservation, TNC, county conservation districts, four county weed control districts,

the Sun and Teton Watershed groups, the Rocky Mountain Front Weed Roundtable, the Boone and Crockett Club, and the NAWCA program.

The MT PFW program, working closely with many partners on the Front will develop a Site Specific Plan for grizzly bears over the next 3 years. PFW restoration activities will be guided by the plan and will likely concentrate on restoring riparian habitats that will have tangible biological outcomes for grizzly bears. We will also focus our efforts on wetland restoration and upland management projects including invasive species management benefiting mallards and grizzly bears. Restoration projects will also focus on in-stream habitats important to bull trout and westslope cutthroat trout.



Private landowners with previous Service Director, Sam Hamilton. USFWS photo.

PRIORITY	ROCKY MOUNTAIN FRONT FOCAL SPECIES
TIER 1	Bull Trout, Grizzly Bears, Mallards
TIER 2	Westslope Cutthroat Trout
TIER 3	Long-Billed Curlew

Rocky Mountain Front Focus Area Five Year Plan	
• Wetland Acres Restored/Enhanced	75 acres
• Upland Acres Restored/Enhanced	4,000 acres
• Stream Miles Restored/Enhanced	6.0 miles
• Fish Passage	0
Partnerships	
• # of Agreements	25
• Cost-Share Ratio	1:1
• Technical Assistance	120 total staff days



Rocky Mountain Front. USFWS photo.

Upper Kootenai River Watershed Focus Area



The Upper Kootenai River Watershed Focus Area is an international watershed encompassing nearly 18,000 square miles of northwest Montana, British Columbia, and Alberta. The Kootenai River originates in British Columbia, and the river flows 485 miles through the steep mountain terrain and agricultural flat land.

The watershed contains important fluvial and adfluvial populations of native bull trout (Federally threatened under the ESA). The upper Kootenai is a designated core area for the recovery of bull trout listed in the Service, Bull Trout Critical Habitat plan. The area is

also home to healthy populations of native westslope cutthroat trout, grizzly bear (Federally threatened under ESA), gray wolf, wolverine, Canada lynx, and many migratory bird species of conservation concern. Land use consists of logging, livestock production, recreation and tourism. The Upper Kootenai River Watershed Focus Area encompasses about 750,000 acres. This area is a mixture of private lands, national forest lands, state forest lands, State school section lands, and crown lands.

Key partners in the Upper Kootenai River Watershed include the Kootenai River Network; MFWP; U.S. Forest Service; British Columbia Ministry of Environment; Environmental Farm Plan, British Columbia, CA; Trout Unlimited (TU), Alberta, CA; Montana Department of Environmental Quality; Bonneville Power Administration; Glen Lake Irrigation District; Lincoln Conservation District; Plum Creek Timber Company; Mainstreams, British Columbia, BC; East

Kootenai Conservation Program, British Columbia, CA. The MT PFW program has completed a Site Specific Plan for the Upper Kootenai River Watershed. The plan sets the stage for developing population objectives for bull trout, identifying private lands habitat limiting factors, prioritizing on-the-ground projects to address limiting factors and meeting population objectives. It also framed delivering tangible on-the-ground habitat restoration projects, and working with our partners to monitor success and evaluate the Site Specific Plan. Based on the plan, activities will concentrate on restoring in-stream and riparian habitats for native salmonids, in particular bull trout. Projects will also focus on wetland, riparian and upland habitat projects that will benefit grizzly bear, a Tier 1 species for the Kootenai. Due to the international configuration of the basin, strong trans-boundary coordination is necessary to improve fish and wildlife populations.



Darris Flannigan, Landowner, Rox Rogers, PFW Biologist, Tamara McCandless, former Chief of the Branch of Habitat Restoration. USFWS photo.

PRIORITY	KOOTENAI RIVER WATERSHED FOCAL SPECIES
TIER 1	Bull Trout, Grizzly Bears
TIER 2	Westslope Cutthroat Trout
TIER 3	Long-Billed Curlew

The Upper Kootenai River Watershed Focus Area Five Year Targets

- Wetland Restoration / Enhancement: 50 acres
- Upland Restoration / Enhancement: 1,500 acres
- River / Stream Restoration/Enhancement: 18 miles
- Fish Passage 3 Structures

Partnerships

- Number of new landowner partners (landowner agreements) 30
- Percentage of leveraging (ratio of Service to Partner) 1: 1
- Technical Assistance 150 total staff days



Bull Trout Recovery Team inspecting MT PFW program fish screen on Grave Creek. USFWS photo.

Mission Valley Focus Area



The Mission Valley Focus Area is a glacially gouged remnant of 12,000 years past. It is located in Lake County of western Montana and is within the exterior boundaries of the Flathead Indian Reservation of the Confederated Salish and Kootenai Tribes. The southern shore of Flathead Lake defines the northern boundary with the main stem of the Flathead River to the west. The Jocko River watershed forms the southern boundary and the magnificent Mission Mountains

tower above the eastern valley edge. The Valley floor is covered with glaciated wetlands. Wildlife and fish species inhabiting the Mission landscape are diverse and abundant. The wetlands and grasslands attract breeding and migrating waterfowl, shorebirds, raptors, and passerine birds. The streams and spring creeks are home to native westslope cutthroat trout and bull trout. Grizzly bear are regularly observed in the Valley.

The Mission Valley Focus Area encompasses about 600,000 acres. Land ownership patterns in this area are a mixture of private, tribal, Service refuges and waterfowl production areas and state wildlife management areas. Ownership is comprised of 92% private land and 8% public land. Key partners in the Mission Valley include; Confederated Salish and Kootenai

Tribes, MFWP, NRCS, DU, PF, TU, Lake County Conservation District and private landowners.

The PFW program, working closely with the Confederated Salish and Kootenai Tribes, will develop a Site Specific Plan for native salmonids. MT PFW program restoration activities will be guided by the plan and will likely concentrate on restoring in-stream and riparian habitats, with tangible biological outcomes for bull trout and westslope cutthroat trout. We will also focus our efforts on wetland restoration and management projects that benefit the Rocky Mountain population of trumpeter swans. Restoration projects will also focus on important grizzly bear habitat and will involve restoration and enhancement of riparian, wetland, and upland habitats.



Underwater photo of bull trout. Photo by National Geographic.



Mission Valley wetlands. USFWS photo.

PRIORITY	MISSION VALLEY FOCAL SPECIES
TIER 1	Bull Trout, Grizzly Bears Trumpeter Swans
TIER 2	Westslope Cutthroat Trout
TIER 3	Long-Billed Curlew

Mission Valley Focus Area Five Year Targets	
<ul style="list-style-type: none"> • Wetland Acres Restored/Enhanced • Upland Acres Restored/Enhanced • Stream Miles Restored/Enhanced • Fish Passage 	<p>350 acres 2500 acres 15 miles 3 Structures</p>
Partnerships	
<ul style="list-style-type: none"> • # of Agreements • Cost-Share Ratio • Technical Assistance 	<p>25 1: 1 150 total staff days</p>

Blackfoot River Watershed Focus Area



The headwaters of the Blackfoot River begins atop the Continental Divide at Roger's Pass and flows 132 miles westerly to its confluence with the Clark Fork River near Missoula, Montana. The watershed totals 1.5 million acres and is nestled between the Continental Divide, Bob Marshall/Scapegoat Wilderness and Garnet Mountain Range. Land ownership is extremely diverse with public lands covering much of the higher mountainous elevations, while highly productive private lands are located in the foothills and valley floor. The Blackfoot Valley was shaped by glacial ice and a large glacial lake. Geologic, hydrologic, and topographic features combine to produce a wide array of plant

and animal communities. Wetland features include; glacial lakes, ponds, bogs, fens, basin-fed creeks, spring creeks, large rivers, scrub/shrub riparian areas and cottonwood forests. The uplands are dominated by native grasslands, sagebrush-steppe, aspen groves and conifers. Fish and wildlife assemblages are highly diverse. The watershed is home to grizzly bear, gray wolf, wolverine, Canada lynx, elk, deer and moose. High priority species of breeding migratory birds include such species as trumpeter swan, sandhill crane, long-billed curlew, red-necked grebe, common loon, great gray owl, and Brewer's sparrow. The Blackfoot has maintained its rural lifestyle with livestock ranching and timber production being the predominant land-use.

The Blackfoot River Watershed Focus Area encompasses about 1.5 million acres. Land ownership patterns in this focus area are a mixture of private, Plum Creek Timber, U.S. Forest Service, Bureau of Land Management, Service Waterfowl Production

Areas, MFWP Wildlife Management Units, TNC preserve and State school section lands. Ownership is comprised of 35% private land and 65% public land.

Key partners in the Blackfoot River Valley Watershed are members of The Blackfoot Challenge, a community-based organization that includes over 500 landowners and 160 partner organizations. These members support the overall work and mission of the Blackfoot Challenge with a mission of protecting and restoring natural resources and rural ways of life for present and future generations.

MT PFW program activities will continue to concentrate on restoring and enhancing in-stream and riparian habitats that link habitat outcomes with biological outcomes benefiting bull trout and westslope cutthroat trout. For example, westslope cutthroat trout have averaged a 59% increase in total numbers on stream restoration projects three years after restoration. Bull trout redd numbers in the North Fork of the



Autumn on the Blackfoot River. USFWS photo.

Blackfoot have increased from 8 redds in 1989 to 86 redds in 2010 after reconstruction of all five irrigation diversions, screening of all the ditches and entering into in stream flow agreements on three of the ditches.

MT PFW program activities within the Blackfoot will also focus on preventative activities to reduce grizzly bear conflicts (see introduction for more details). Continued prioritization of key grizzly bear habitats and conflict locations will guide our preventative fencing and carcass pick-up programs.

Wetland restoration and management activities will be guided by our trumpeter swan habitat suitability study completed in 2005. This joint study between the Service, MT FWP and the University of Montana assessed the 30,000 wetlands in the Blackfoot Valley ranking suitability for nesting trumpeter swans. Reintroduction of trumpeter swans in the Blackfoot began in 2006 with territory establishment happening in 2009 and nesting occurring in 2011, including on two PFW program restored wetlands. The plan calls for reintroduction until we have 7 nesting pairs for three consecutive years.



Public participation in Adopt-A-Swan Program (re-introduction). USFWS photo.

PRIORITY	BLACKFOOT RIVER WATERSHED FOCAL SPECIES
TIER 1	Bull Trout, Grizzly Bears Westslope Cutthroat Trout Trumpeter Swans
TIER 2	
TIER 3	Long-Billed Curlew

Blackfoot River Watershed Focus Area Five Year Targets	
<ul style="list-style-type: none"> Wetland Acres Restored/Enhanced Upland Acres Restored/Enhanced Stream Miles Restored/Enhanced Fish Passage 	<p>150 acres 2800 acres 14 miles 8 Structures</p>
<p>Partnerships</p> <ul style="list-style-type: none"> # of Agreements Cost-Share Ratio Technical Assistance 	<p>25 1:2 175 total staff days</p>

Big Hole River Watershed Focus Area



The Big Hole River Watershed Focus Area is the highest and widest mountain valley in southwest Montana. Much of the valley floor lies above 6,000 feet. The Big Hole River emanates from the Beaverhead Mountains and winds for nearly 156 miles to its confluence with the Beaverhead River to create the Jefferson. The Big Hole terrestrial and aquatic habitats are dominated by sagebrush-steppe grasslands, irrigated hay lands, willow-dominated riparian communities, small tributary streams and the Big Hole River. The valley floor is largely privately-owned with livestock and hay production being

the primary land-use. The Big Hole River is considered a “blue-ribbon” wild trout fishery and is one of the last free-flowing rivers in the West. The Big Hole River provides critical habitat for one of the nation’s last remaining fluvial Arctic grayling populations. In addition, the Watershed is home to a myriad of migratory birds. Greater sage-grouse, Canada lynx, wolverine, elk and a large Shiras moose population also inhabit the Big Hole.

The Big Hole River Focus Area encompasses about 1.8 million acres. Land ownership patterns in this focus area are a mixture of private, U.S. Forest Service, Bureau of Land Management and state lands. Ownership is comprised of 27% private land and 73% public land.

Key partners in the Big Hole River Watershed include; Arctic Grayling Recovery Program, Big Hole Watershed Committee, MT FWP, NRCS, MT Department of Environmental Quality, MT Department of Natural Resources

and Conservation, TNC, U.S. Forest Service, Bureau of Land Management, Environmental Protection Agency, TU and private landowners.

PFW program activities will concentrate on restoring and enhancing in-stream and riparian habitats for fluvial Arctic grayling. In-stream flows will also be augmented through PFW program projects. Many of these projects are completed as part of landowner plans under the Arctic Grayling Candidate Conservation Agreement with Assurances (CCAA). Over half of the private land in the upper valley is enrolled in the CCAA. Upland and wetland restoration and enhancement projects will benefit sage-grouse, a variety of migratory birds, Federally threatened, endangered, and candidate species. Under the MT PFW Program focal species criteria; two Tier 1 focal species that have been selected for the Big Hole Watershed include Arctic grayling and greater sage-grouse. The site specific plan developed for the Big Hole



The Big Hole River. USFWS Photo.



Restored wetland in the Big Hole Focus Area. USFWS photo.

Watershed will link habitat projects to explicit population objectives for these two species. For a detailed explanation of the process used to select and prioritize focal species, refer to the MT PFW Strategic Plan Introduction.

PRIORITY	BIG HOLE RIVER WATERSHED FOCAL SPECIES
TIER 1	Arctic Grayling Greater sage-grouse
TIER 2	Westslope Cutthroat Trout, Trumpeter Swans
TIER 3	Long-Billed Curlew Grizzly Bear

Big Hole Watershed Focus Area Five Year Targets	
• Wetlands Restored/Enhanced	110 acres
• Uplands Restored/Enhanced	12,000 acres
• Stream Miles Restored/Enhanced	43 miles
• Fish Passage	10 structures
Partnerships	
• # of Agreements	30
• Cost-Share Ratio	1:3.5
• Technical Assistance	150 total staff days

Centennial Valley Focus Area



The Centennial Valley Focus Area is a large, high-elevation, undeveloped watershed in Beaverhead and Madison Counties. The Red Rock River meanders through the broad valley floor and lies north and east of the Continental Divide along the Montana-Idaho border. The Centennial Mountains form the south boundary and the rolling foothills of the Gravelly Mountain Range extend to the north. In the heart of the valley lies the 45,000 acre Red Rock Lakes National Wildlife Refuge. The largest wetland complex in the Greater Yellowstone Ecosystem

is found in the Centennial Valley. The uplands are dominated by sagebrush, native grasslands, and willow-dominated riparian areas. There are approximately 100,000 acres of private land in the Centennial. Ranching is the dominant land-use. Native fish and wildlife are abundant, highlighted by populations of trumpeter swan, grizzly bear, gray wolf, moose, sandhill crane, Yellowstone cutthroat trout and Arctic grayling.

The Centennial Valley Focus Area encompasses about 360,000 acres. Land ownership patterns in this area are a mixture of private, National Wildlife Refuge, U.S. Forest Service, Bureau of Land Management and state lands. Ownership is comprised of 29% private land and 71% public land.

Key partners in the Centennial Valley Focus Area include; Arctic Grayling Recovery Program, Centennial Valley Landowners Association, MT FWP, NRCS,

U.S. Forest Service, Bureau of Land Management, TNC, DU, and private landowners. PFW program activities will concentrate on restoring and enhancing wetland, stream and riparian areas, and uplands for native fish, migratory birds, Federally listed threatened, endangered, and candidate species with special emphasis given to Arctic grayling, greater sage-grouse and trumpeter swan.



Fluvial Arctic grayling. Photo by Mark Conlin©



Centennial Valley Focus Area. USFWS photo.

PRIORITY	CENTENNIAL VALLEY FOCAL SPECIES
TIER 1	Arctic Grayling Greater sage-grouse, Trumpeter Swans
TIER 2	Westslope Cutthroat Trout
TIER 3	Long-Billed Curlew Grizzly Bear

Centennial Valley Focus Area Five Year Targets	
• Wetlands Restored/Enhanced	100 acres
• Uplands Restored/Enhanced	7,500 acres
• Stream Miles Restored/Enhanced	5 miles
• Fish Passage	5 structures
Partnerships	
• # of Agreements	10
• Cost-Share Ratio	1:2
• Technical Assistance	90 total staff days

Montana's Glaciated/Shale Plains Focus Area



The Glaciated Shale Plains Focus Area is an extensive region in north central Montana, characterized by undulating plains dominated by sagebrush-steppe and mixed-grass native prairie. Large river systems include the Milk and Missouri Rivers with smaller prairie streams and accompanying riparian habitat scattered through drier uplands. Moderate to high densities of pothole-type wetlands are dispersed across the focus area. Black-tailed prairie dogs are abundant. Key migratory bird species found in the focus area include mountain plover, burrowing owl, greater sage-grouse, ferruginous hawk, chestnut-collared longspur, Sprague's pipit and long-billed curlew. Livestock production and farming are the primary land-uses.

The Glaciated/Shale Plains Focus Area encompasses about 2.5 million acres. Land ownership is a checkerboard of public and private lands. Charles M. Russell National Wildlife Refuge lies at the southern boundary of the focus area and BLM manages numerous large allotments. The Matador Ranch, a 60,000 acre preserve owned by TNC, lies in the heart of the focus area. Private ownership is dominated by large working ranches. Ownership is 37% private and 63% public lands.

Key partners in the Glaciated Shale Plains Focus Area include the Rancher Stewardship Alliance, MT FWP, NRCS, Bureau of Land Management, TNC, DU and private landowners.

NAWCA funding has been an important conservation delivery funding source for habitat projects in the Glaciated Shale Plains.

We expect this trend to continue. A Standard Grant proposal submitted for the 2012 funding cycle recently received the highest score in the Nation.

The Glaciated Shale Plains PFW program field biologist position is currently vacant. Budget uncertainties have precluded the hiring of a biologist and it's likely that the position will remain vacant in the short-term. This situation will impact PFW conservation delivery activities. A robust partnership exists in this focus area and the coalition will be exploring creative ways to maintain momentum with private landowners.

Under the MT PFW program focal species criteria, two Tier 1 focal species have been selected for the Glaciated Shale Plains, including greater sage-grouse and mallard. When the Site Specific Plan is developed for the Glaciated Shale Plains, it will link habitat projects to explicit population objectives for these two species. For a detailed explanation on the process used to select and prioritize focal species, refer to the MT PFW Strategic Plan introduction.

PFW program activities will concentrate on restoring and enhancing upland and wetland habitats for migratory birds, Federally listed threatened, endangered, and candidate species. Greater sage-grouse is a Tier 1 focal species in this focus area. MT PFW staff will work with NRCS to help implement habitat projects in the Glaciated Shale Plains under the Sage-Grouse Initiative (SGI). Montana sage-grouse Core Area #2 is located in the Glaciated Shale Plains Focus Area and research on populations, habitat quality, migration corridors and threats indicate that conservation delivery in this core area should be a top-priority for conservation delivery practitioners. An SGI shared position began work in this focus area in FY 2012. On the Matador Ranch Preserve, which lies in the heart of this focus area, TNC has established an innovative grass-banking system with neighboring

landowners. This project has increased the conservation "footprint" in south Phillips County to nearly 300,000 acres. The PFW program will continue to work on habitat projects with grass-bank participants in the next 5 years.



Montana's Glaciated/Shale Plains Focus Area. USFWS photo.

PRIORITY	MONTANA'S GLACIATED/SHALE PLAIN FOCAL SPECIES
TIER 1	Arctic Grayling Greater sage-grouse, Trumpeter Swans
TIER 2	Westslope Cutthroat Trout
TIER 3	Long-Billed Curlew Grizzly Bear

Montana's Glaciated/Shale Plain Focus Area Five Year Targets	
<ul style="list-style-type: none"> • Wetlands Restored/Enhanced • Uplands Restored/Enhanced • Stream Miles Restored/Enhanced • Fish Passage 	<p>250 acres 5,000 acres 5 miles 0 structures</p>
Partnerships	
<ul style="list-style-type: none"> • Cost-Share Ratio • Technical Assistance 	<p>1: 0.5 60 total staff days</p>

Swan River Watershed Focus Area



The Swan River Watershed is part of the Interior Columbia River Basin Area which includes the larger Columbia Basin and the Upper Missouri/Yellowstone rivers watersheds. Swan River originates at Gray Wolf Lake in the Mission Mountains and flows through Swan Lake at the northern end of the valley, before entering the Flathead Lake Watershed, ultimately flowing into the Columbia River System. Swan River Watershed lies at the western edge of the Crown of the Continent Ecosystem (CoCE) which is the last remaining ecosystem that still supports the full assemblage of large mammalian

predators including grizzly bear, gray wolf, wolverine, and Canada lynx. Within the CoCE, an exceptional diversity of wetland types occurs including major riparian areas, smaller riparian tributaries, glacial prairie potholes, lakes, bogs, fens, swamps, and boreal peatlands. The lowlands support over 170 different species of wetland plants. Along the elevation gradient, large expanses of fescue grasslands phase into alpine meadows or sagebrush-steppe, which then transition into montane forests consisting of white pine, Douglas-fir, and ponderosa pine. These transitional zones of valley floors to montane forests are extremely important to fish and wildlife.

The continued presence of large expansive intact habitat and historic wildlife corridors, along the Swan Valley, would benefit Federal trust species such as the grizzly bear, gray wolf, wolverine, pine martin and Canada lynx. Migratory birds such as harlequin duck,

common loon, red-necked grebe, black tern, olive-sided flycatcher, peregrine falcon, greater sandhill crane and trumpeter swan would flourish. Westslope cutthroat trout and bull trout will continue to thrive. Additionally, the Swan Valley provides excellent habitat for black bear, elk, mule deer, white-tailed deer, moose, mountain lion, bobcat, coyote, wolverine, fisher, and a wide variety of small mammals. It also provide habitat for the Federally threatened howellia aquatilis, or water howellia.

The Swan River Watershed Focus Area encompasses approximately 470,000 acres. Until recently the valley bottom had a large checkerboard ownership between the U.S. Forest Service and Plum Creek Timber Company (PCTC). TNC and Trust for Public Lands purchased the remaining PCTC lands as part of the Montana Legacy Project and transferred the bulk of the ownership to state and federal partners. Today ownership



Swan River and Swan Mountain Range. USFWS photo.



Grizzly bear sow with cubs along glaciated wetland in the Swan River Watershed. USFWS photo.

is comprised of 10% private lands and 90% public lands with the U.S. Forest Service, Montana State Forest and the Services’ Swan River National Wildlife Refuge as the large public owners.

Key partners in the Swan River Valley Focus Area include private landowners, MT FWP, MT Department of Natural Resource and Conservation, U.S. Forest Service, Swan Ecosystem Center, Northwest Connections, Swan Valley Community Council, Missoula County, TNC, Trust for Public Lands, Vital Ground, and the

Montana Reliance.

The PFW program, working closely with the Swan Ecosystem Center and Northwest Connections, will develop a Site Specific Plan for the Swan River Watershed. PFW restoration activities will be guided by the plan and will likely concentrate on restoring in-stream and riparian habitats that will have tangible biological outcomes for

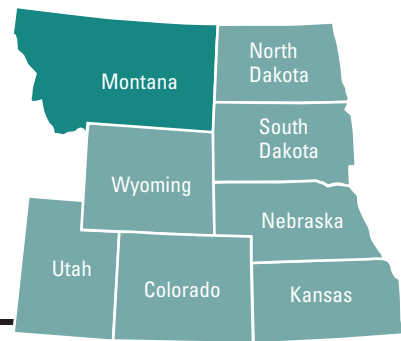
bull trout and westslope cutthroat trout. We will also focus our efforts on wetland restoration and management projects that benefit the Rocky Mountain population of trumpeter swans. Restoration projects will also focus on important grizzly bear habitat and will involve restoration and enhancement of riparian, wetland and upland

PRIORITY	SWAN RIVER WATERSHED FOCAL SPECIES
TIER 1	Bull Trout, Grizzly Bears
TIER 2	Westslope Cutthroat Trout, Trumpeter Swan
TIER 3	

Swan River Watershed Focus Area Five Year Targets	
• Wetlands Restored/Enhanced	150 acres
• Uplands Restored/Enhanced	640 acres
• Stream Miles Restored/Enhanced	8 miles
• Fish Passage	4 structures
Partnerships	
• # of Agreements	20
• Cost-Share Ratio	1: 1
• Technical Assistance	150 total staff days

Montana Statewide Goals

habitats.



Improve Information Sharing and Communication

The MT PFW program operates under the principle that successful community-based, landscape conservation is multi-dimensional, working across spatial, temporal, ecological, and social scales. Communication, collaboration and outreach with conservation partners is an integral part of a successful conservation delivery program. To be successful, the program will strive to maintain, build and strengthen relationships with internal and external partners.

5-Year Targets:

- Organize and participate in 100 (20/yr.) landowner/watershed meetings, conferences or workshops throughout Montana;
- Enter into 12 Cooperative Agreements, Contribution Agreements or Memorandums of Understanding with partners or landowner based groups in MT; Sponsor or directly assist in 10 field tours that promote the MT PFW program;
- Assist in five National Conservation Training Center courses as instructors or guest speakers;
- Host five coordination meetings with Montana Fish, Wildlife & Parks to assure program consistencies;
- Attend 12 Natural Resource Conservation Service State Technical Committee meetings;
- Participate in 10 Congressional staff meetings regarding the MT PFW Program;
- Provide 15 MT PFW program updates to Regional and Washington FWS offices;
- Hold 10 MT PFW program staff meetings to improve internal communication;
- Initiate 10 media events/stories related to MT PFW program activities.

Enhancing Our Workforce

All MT PFW program staff will be provided an opportunity to acquire 40 hours of training each year. This training may include the following categories:

- Technical Proficiency: restoration techniques (i.e. Rosgen), GIS, Candidate Conservation Agreements/Safe Harbor/ESA Recovery
- Enhancing Cooperative Community Conservation
- Leadership
- Communication
- Congressional Operations
- Administrative Procedures

Training needs will be met through internal and external training facilities. Montana PFW staff will be encouraged to take advantage of the USFWS National Conservation Training Center, workshops, seminars, and other continuing education opportunities.

Currently Milk River Basin, Glaciated Shale Plains and Swan River Valley focus areas are unstaffed. If new field biologists are added to these focus areas, they will be trained and mentored by senior MT PFW program staff.

In accordance with the USFWS EPAP system, performance and special achievement awards will be used to recognize exceptional projects and employees.

Increase Accountability

Objectives:

- By 2015 develop site specific plans for each MT PFW focus area. These plans will be developed in consultation with the MT HAPET Office and will include GIS layers, data sets, and habitat assessments. Key partners will also be engaged in this process;
- Field biologists will GPS all new habitat projects;
- Create GIS layer of all MT PFW program habitat projects;
- By 2017, each MT PFW program focus area will have at least one peer reviewed biological assessment. These assessments may be conducted by universities, U.S. Geological Survey, The MT Natural Heritage Program, MT FWP, USFWS Research Centers or conservation organizations;
- The MT PFW State Coordinator and HabITS Coordinator will ensure that HabITS data entries are timely and accurate.

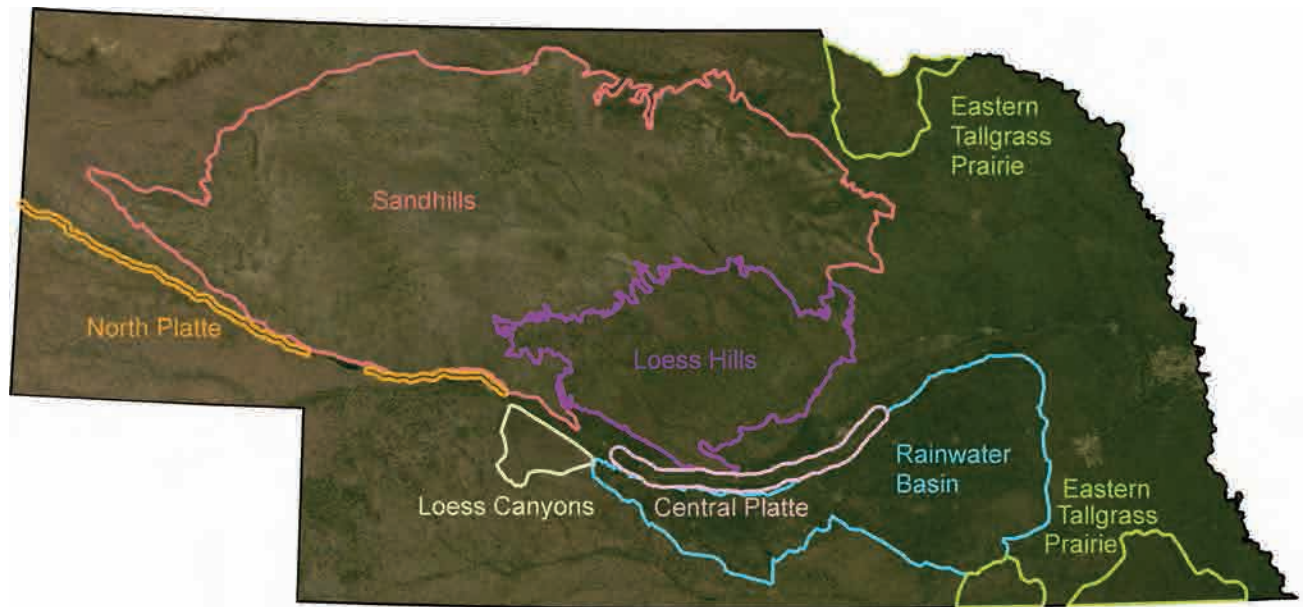
External Factors:

Generally, the ten MT PFW program conservation focus areas identify intact landscapes with a ranching-based economy. The economic and social pressures to develop or fragment these areas could have a significant impact on our ability to deliver an effective PFW program.

Global climate change accompanied by persistent droughts and rapid snowmelt could affect project availability and the response of Federal trust species to PFW program restoration projects.

Other external factors that could have adverse effects on the MT PFW program include budget shortfalls, personnel turnover, changing Service leadership, and restrictive policies.

Nebraska



Nebraska Partners Program Conservation Focus Areas

Introduction and Overview

Nebraska is strategically located in the heart of the central Great Plains and the Central Flyway. Its landscapes, and thus its wildlife resources are highly diverse and very dynamic due to geographic location, hydrology, and other physical properties. Approximately 97% of Nebraska is in private ownership with over 48,000 farms and ranches covering nearly 46 million acres (93% of the total land area). A significant share of Nebraska's overall biological diversity occurs on private lands and the conservation of Nebraska's diverse flora and fauna is largely dependent upon private landowners. Through the NE PFW program, the Service works with its diverse group of dedicated partners to provide technical and

financial assistance to help farmers and ranchers realize their goal of making their land a better place for fish and wildlife while sustaining profitable farming and ranching.

The NE PFW program set lofty habitat goals for the Partners Program Strategic Plan for 2007-2011. Thanks to the numerous private landowners who voluntarily entered into landowner agreements to restore, enhance, and manage habitat on their land for Federal trust species (and our numerous conservation partners) the program was very successful and accomplished 291 new projects throughout Nebraska's conservation focus areas over the 5-year strategic plan period of performance (2007-2011). Nebraska's private landowners continue to be our most

important partner and none of the habitat projects could have been accomplished without their interest and desire to conserve and restore habitat on their lands.

The overall objectives of the NE PFW program are to work cooperatively with landowners and other partners throughout the state to restore and maintain habitat for Federal trust species. This is completed while maintaining biological diversity through the careful selection, design and implementation of restoration projects. PFW provides technical assistance to landowners and our partners involved in the implementation of key conservation programs. Our main emphasis for FY 2012-2016 will be to continue to develop successful partnerships to restore wetland, grassland,

riverine, and riparian habitat on private lands. The program will continue to work with private landowners and other partners to help prevent the need for further listing of species as Federally endangered or threatened.

The NE PFW program will continue to focus its delivery in ecosystems or watersheds where efforts will accomplish the greatest biological benefits per conservation dollar expended. We will also focus on restoring and maintaining the functionality of natural communities and ecological systems as a way to ameliorate potential effects of climate change. Projects will be prioritized, planned and designed to address current stressors (e.g., invasive species, habitat fragmentation, lack of fire, changes in hydrologic regimes) that will be most exacerbated by climate change. The NE PFW program will continue to work with our partners to provide high quality migration habitat for migratory birds (e.g., waterbirds, waterfowl, shorebirds, wading birds, listed species, grassland birds) and high quality prairie grassland habitat for grassland nesting birds and the numerous other species of plants and animals that depend on these systems for their survival.

To more successfully implement the program throughout Nebraska, we have revisited our existing conservation focus areas and have made adjustments for the FY 2012-2016 strategic plan. Changes to our conservation focus areas were made based on numerous criteria. These include habitat loss, future threats, analysis of habitat functions and values along with benefits to Federal trust species. Proximity to Service lands and other protected areas, available funding, staff, and partner goals were also evaluated.

GIS data layers and habitat/species modeling efforts were utilized to refine the focus areas and will be used to prioritize projects for target species/habitats. Primary data sources included the various GIS land coverages and species/habitat models developed by Rainwater Basin Joint Venture GIS Team and

the Nebraska Bird Partnership. In addition, habitat actions proposed for Nebraska's conservation focus areas are closely aligned with the goals of numerous existing national, regional, state and local conservation plans.

A high priority will continue to be given to projects located in four of our original focus areas that are recognized as being of international importance to wildlife. These include projects located within the Rainwater Basin area of south-central Nebraska, the Big Bend reach of the central Platte River, the Sandhills in north-central Nebraska, and the North Platte River valley. In addition, portions of the Eastern Tallgrass Prairie, Loess Canyons, and the Loess Hills/Loup River systems have also been identified as conservation focus areas. While the Missouri and Republican rivers are no longer identified as conservation focus areas, they will continue to be high-priority for PFW program staff in terms of providing technical assistance to other partners in their efforts to deliver conservation programs in those areas.

In November, 2005, the Service approved the Nebraska Natural Legacy Project which is Nebraska's Comprehensive Wildlife Action Plan. The original plan was developed with the collaboration of over 500 biologists/conservation practitioners, citizens and private landowners. A twenty-member partnership team that included representatives from major conservation, agricultural, and tribal organization guided the planning efforts. The Nebraska Natural Legacy Project represents Nebraska's comprehensive strategy to conserve at-risk and other wildlife species throughout Nebraska. The Natural Legacy Project identifies over 500 species of animals and plants that are considered at-risk. It lists key threats to those species, conservation actions needed to overcome threats and priority research and survey needs. Forty biologically unique landscapes were identified that provide the best opportunities to conserve the

majority of Nebraska's biological diversity.

A second edition (Schneider et. al 2011) of the plan was developed, which included some minor changes in the boundaries of existing biologically unique landscapes. During the 5-year review of the original plan, NE PFW program staff participated in the numerous conservation practitioner workshops, public input meetings, and partnership team meetings held during the spring and summer of 2010. The original plan and the draft second edition were used in this planning effort to assist in the identification of conservation focus areas. PFW conservation focus areas include all or portions of numerous biologically unique or important migratory bird landscapes identified in Nebraska's revised wildlife action plan.

Partner Coordination:

The priorities for the PFW program were developed in coordination with our diverse group of funding partners including the Nebraska Game and Parks Commission (NGPC), Rainwater Basin Joint Venture (RWB JV), Sandhills Task Force (STF), Platte River Whooping Crane Trust, Ducks Unlimited (DU), USDA Natural Resource Conservation Service (NRCS), The Nature Conservancy (TNC), Northern Prairie Land Trust, Rocky Mountain Bird Observatory (RMBO), Platte River Basin Environments (PRBE), National Audubon Society's Rowe Sanctuary, Pheasants Forever (PF), private landowners, and numerous other groups and organizations located throughout the state.

An overall priority of the NE PFW program is to continue to develop successful partnerships with private landowners and other agencies and organizations to improve habitat on private land throughout Nebraska. PFW also works in coordination with the National Wildlife Refuge System to implement conservation actions that compliment Service lands. In addition, we coordinated with other Service program staff including the Nebraska Ecological Services (ES)

Field Office and the RWBJV Office to ensure that restoration projects provide the greatest biological benefit for Federal trust species.

Input on general PFW program direction, conservation focus areas, priority focal species, and future strategies/activities was solicited from key partners during a stakeholders meeting held in Nebraska on April 28, 2011. The stakeholder meeting was well attended and included representation from 17 different groups and organizations. In addition, representatives from 4 different Service programs were present (Nebraska ES Field Office, Rainwater Basin Wetland Management District Office, RWBJV Office, and the PFW program). A stakeholder survey was provided to 45 stakeholders soliciting their input regarding the PFW program and the new 5-year strategic plan.

Rainwater Basin Focus Area



The Rainwater Basin wetland complex encompasses 6,150 square miles and occupies parts of 21 counties in south-central Nebraska. The area is characterized by flat to gently rolling loess plains with poor surface water drainage, resulting in closed watersheds that drain into low-lying wetlands. Precipitation from intense summer storms and runoff from winter

snowfall fill these playa wetlands providing critical important fall and spring habitat for migratory waterfowl. Recent GIS analysis of historic soil surveys, National Wetlands Inventory (NWI), and SSURGO data indicate that at the time of settlement, approximately 11,000 individual playa wetlands comprising 204,000 wetland acres existed across the Rainwater Basin landscape. Approximately 1,000 semi-permanent and seasonal wetlands totaled nearly 70,000 acres and over 10,000 temporary wetlands accounted for an additional 134,000 acres. It has been determined that less than 10 percent of these seasonal wetlands and 22 percent of the temporary wetland acres remained in 1982. A large percentage of the remaining wetlands have been impacted by hydrologic modifications within the footprint of the wetland and/or its watershed and from invasive plant species (e.g., reed canary grass, hybrid cattail, and river bulrush).

The Rainwater Basin Focus Area is identified as an important migratory bird landscape in Nebraska's revised Comprehensive Wildlife Action Plan. The Rainwater Basin is also identified in the North American Waterfowl Management Plan as a waterfowl habitat area of major concern in North America and is recognized as the focal point of the Central Flyway spring migration corridor. In 1991, the North American Waterfowl Management Plan Committee officially recognized the Rainwater Basin as the 8th area in the United States to receive official Joint Venture status. The overall goal of the RWBJV is to restore

and maintain sufficient wetland habitat in the Rainwater Basin to assist in meeting population objectives identified in the North American Waterfowl Management Plan (Gersib et al. 1992).

The Rainwater Basin is recognized as an internationally important spring staging area for waterfowl. The Central Flyway narrows at the Rainwater Basin as birds migrate north from their wintering grounds. Millions of ducks and geese stop annually in the basin to feed and roost during their spring migration. Approximately 90% of the mid-continent white-fronted goose population, 50% of the mid-continent population of mallards, and 30% of the continent's northern pintail population stop in the Rainwater Basin each spring. A major focus of the RWBJV is to annually provide wetland-derived forage in quantities sufficient to meet the nutritional needs (4.4 billion kilocalories) of the estimated 7 million ducks and 1.5 million geese that stop in the Rainwater Basin area during the spring migration.

In addition, approximately 300,000 shorebirds, comprising more than thirty species use the Rainwater Basin. These include the Baird's sandpiper, stilt sandpiper, lesser and greater yellowlegs, and some of the largest known concentrations of buff-breasted sandpiper. The Rainwater Basin also serves as important migration habitat for

Priority Species

- Greater white-fronted goose
- Hudsonian Godwit
- Mallard
- Dunlin
- Northern pintail
- American bittern
- Blue-winged teal
- Black tern
- Whooping crane (Endangered)
- Grasshopper sparrow
- Bald eagle
- Dickcissel
- Lesser yellowlegs
- Sprague's pipit
- Upland sandpiper



Waterfowl utilizing Rainwater Basin wetland. USFWS photo.

Rainwater Basin Focus Area Five-year Targets

- Wetlands Restored/Enhanced: 1,825 acres
- Uplands Restored/Enhanced: 250 acres
- Watershed Enhancements: 40 pit fills

Implementation strategy for habitat objectives: NE PFW program will continue to work cooperatively with private landowners and its diverse group of partners to restore, enhance, and manage wetland and upland habitat throughout the Rainwater Basin for the benefit of migratory waterbirds (waterfowl, wading birds, shorebirds) and endangered species (e.g., whooping cranes), and grassland nesting birds. The current draft implementation plan for the RWBJV identifies a goal of restoring approximately 730 acres of wetland habitat each year through the use of short-term conservation programs (wetlands under 10-year conservation agreements). This goal will assist in meeting the nutritional requirements of the millions of ducks and geese that use the Rainwater Basin each spring. The NE PFW program wetland target will constitute 50 percent (365 acres/year) of the Joint Venture's short-term conservation program goals. For example, to assist in meeting the Joint Venture's goal of filling 75% of the pits affecting long-term conservation land, a target of eight watershed enhancement projects (pit fills) per year have been identified as a PFW goal. No upland goals have been established by the JV for short-term conservation programs, however, to provide some level of buffer for restored wetlands, 75 acres of upland habitat is targeted per year.

Specific habitat actions include: (a) restoring wetland hydrology (silt removal, filling pits, plugging drains, installing low-level berms and water control structures); (b) removing and controlling invasive species (e.g., reed canary grass, undesirable woody species, hybrid cattails); and (c) restoring and managing native grassland habitat (cropland conversion, reseeding, prescribed management).

Partnerships

- Number of new landowner partners: 50 landowners
- Amount of technical assistance: 300 staff days
- Percentage of leveraging: 70% or more of non-PFW program sources

Implementation strategy for partnership objectives: NE PFW program will continue to focus its efforts on maintaining existing successful partnerships and develop new partnerships to restore wetland and upland habitat throughout the Rainwater Basin. New partners will primarily be landowners who have an interest in restoring and maintaining wetland and upland habitat. PFW program will continue to provide a significant level of technical assistance to USDA NRCS in the delivery of the Wetlands Reserve Program (WRP) and Wildlife Habitat Incentives Program (WHIP) in the Rainwater Basin. Staff will also work closely with employees from the RWBJV, NGPC, DU, and other groups and organizations to assist in the delivery of habitat conservation programs. NE PFW program will continue to secure a high proportion of non-Partners Program funding sources for Rainwater Basin wetland and upland habitat restoration projects.

Rainwater Basin Habitat/Species Models and Decision Support Tools

Numerous habitat/species models and GIS land coverage databases have been developed for use in the Rainwater Basin. Below is a list of models/GIS land coverage databases, and other decision support tools that were used to help identify habitat targets for the Rainwater Basin Focus Area. These models along with other decision support tools will be used to prioritize habitat restoration projects for the target species.

- Rainwater Basin Wetland Complex Waterfowl Habitat Use Model
- Rainwater Basin Pit Fill Prioritization Model
- Whooping Crane Habitat Suitability Index Model for the Rainwater Basin
- Rainwater Basin Bio-Energetics Model
- Wetland Reserve Program Model

Related Plans

- Rainwater Basin Joint Venture Implementation Plan
- The Nebraska Natural Legacy Project
- North American Waterfowl Management Plan
- U.S. Shorebird Conservation Plan
- North American Waterbird Conservation Plan
- Partners in Flight – North American Landbird Conservation Plan
- Ducks Unlimited Nebraska Conservation Plan
- Conserving the Biological Diversity of the Central Mixed-Grass Prairie
- Platte/Kansas Rivers Ecosystem Plan
- Nebraska Wetlands Priority Plan

state and Federally listed species (e.g., whooping cranes), wading birds, and neotropical migratory birds. Rainwater Basin wetlands and adjacent upland areas also provide habitat to hundreds of species of plants, butterflies, reptiles, amphibians and mammals.

Primary partners in the Rainwater Basin Focus Area include the RWBJV, NGPC, DU, Natural Resource Districts, NET, USDA NRCS, and numerous private landowners located throughout the Rainwater Basin.

Central Platte River Focus Area



The Central Platte River Focus Area extends approximately 90 miles from Lexington to Chapman. The combination of broad open river channels, its shallow braided character, adjacent wet meadows, and abundant food supplies attract millions of migratory birds each

year. The Big Bend reach of the central Platte River provides important habitat for fish and wildlife resources of national and international significance. The Central Platte River Focus Area is identified as a biologically unique landscape in Nebraska's Comprehensive Wildlife Action Plan. This stretch is also the focus of the Platte River Recovery Implementation Program (PRRIP) which is a cooperative effort between the states of Nebraska, Colorado, Wyoming, and the Department of the Interior (DOI) to address water and habitat needs



Sandhill cranes in low light along the Platte River. USFWS photo.



Central Platte Riverine wetland restoration project located in Hall County, Nebraska. Photo by Shawn Harder of Harder Dozer and Scraper, contractor for project.

of four Federally threatened and endangered species.

The central Platte River provides critical migration habitat for the endangered whooping crane as well as spring staging habitat for 80% of the world's sandhill crane population. Its sandbars are breeding habitat for the threatened piping plover and endangered least tern. Millions of waterfowl utilize it for migration and wintering habitat. Over 300 bird species have been observed along the Platte River, and over 140 species are known to nest along the river. The central Platte River also provides a variety of habitat types (e.g., backwaters, sloughs, side channels) for a diverse fish community (e.g., western silvery minnow, plains topminnow, flathead chubs, and speckled chubs). The Platte River provides year-round habitat for numerous species of plants (e.g., western prairie fringed orchid), invertebrates (e.g., American burying beetle, regal fritillary butterfly), shellfish, amphibians, mammals (e.g., river otter), and reptiles (USFWS 2006).

The central Platte River is also considered to be one of the most endangered waterways in the United States. Open riverine channel and wet meadow grassland

habitats for Federally listed species (i.e., whooping cranes, interior least terns and piping plovers) shorebirds, waterfowl, and waterbirds have diminished over the decades. Native grassland nesting birds, and other native fish and wildlife species have declined substantially throughout the Platte River watershed during the last 100 years. The Platte River once consisted of riverine and palustrine wetlands located within the active floodplain and channels of the river. An increase in scrub-shrub and forested areas has occurred at the expense of active open riverine channel habitat, riverine wetland habitat (e.g., backwaters, sloughs, and side channels), and adjacent wet meadow/grassland habitat. A large percentage (i.e., 60 - 80 percent) of the open riverine/sandbar and 55 percent of the wet meadow habitat has been lost in the Big Bend reach of the central Platte River due to agricultural conversion, development, and hydrologic changes (Sidle et al 1989). Other threats include invasion of exotic species (e.g., phragmites, purple loosestrife, eastern red cedar, smooth brome, reed canary grass) gravel mining, and residential and commercial development.

The NE PFW program and its Platte River partners have actively worked on over 160 projects throughout this focus area to restore and maintain riverine habitat for the target species. Primary partners in the Central Platte River Focus Area include the Platte River Whooping Crane Trust, Audubon's Rowe Sanctuary, NGPC, DU, TNC, NET, Prairie Plains Resource Institute, National Fish and Wildlife Foundation (NFWF), and numerous private landowners located along the central Platte River.

Priority Species

- Greater white-fronted goose
- Northern pintail
- Sandhill crane
- Whooping crane (Endangered)
- Least tern (Endangered)
- Piping plover (Threatened)
- Bald eagle
- Lesser yellowlegs
- Upland sandpiper
- Grasshopper sparrow
- Henslow's sparrow
- Northern river otter
- Plains topminnow
- Western prairie fringed orchid (Threatened)

Central Platte River Focus Area Five-year Targets

- Riverine Roosting Habitat Restoration/Enhancement: 7.5 miles
- Riverine Slough and Backwater Habitat Restoration: 10 miles
- Upland Grassland Restoration/Enhancement: 1,250 acres
- Wetland/Wet Meadow Restoration/Enhancement: 1,250 acres

Implementation strategy for habitat objectives: The NE PFW program will continue to work with landowners along the central Platte River with key Platte River partners to restore, enhance, and manage the ecological functions and values of riverine/grassland habitat throughout this focus area. Specific habitat actions include: (a) restoring riverine backwater, wetland slough, and sandbar habitats; (b) clearing and controlling undesirable woody and other invasive vegetation from riverine and grassland habitats; (c) restoring and managing native wet meadow and grassland habitat by establishing diverse stands of native prairie plants; and (d) maintaining active riverine habitats by disking and mowing riverine channels, sandbars, and islands.

Partnerships

- Number of new landowner partners: 25 landowners
- Amount of technical assistance: 250 staff days
- Percentage of leveraging: 70% or more of non-PFW program sources

Implementation strategy for partnership objectives: The PFW program will focus its efforts on developing new partnerships to restore riverine habitat throughout the central Platte River. New partners will primarily be landowners who are interested in restoring and maintaining riverine habitats for Federal trust resources. Nebraska PFW staff will work closely with the Platte River Whooping Crane Trust, NGPC, DU, Audubon's Rowe Sanctuary, PRRIP, TNC, Prairie Plains Resource Institute, and other groups and organizations to assist in the restoration of riverine habitats in a strategic manner. PFW will also provide technical assistance to USDA's NRCS in the delivery of USDA conservation programs throughout the Platte River corridor. The program will work with its Platte River partners to secure a high proportion of non-Partners Program funding sources for central Platte River habitat restoration projects.

Central Platte River Habitat/Species Models and Decision Support Tools

Below is a list of both existing and future models/GIS land coverage databases, and other decision support tools that will be used to prioritize habitat restoration projects for the target species along the central Platte River.

- Cooperative Whooping Crane Tracking Project GIS
- Whooping Crane Habitat Suitability Index Models
- Wet Meadow/Grassland GIS Land Coverage Databases
- Invasive Species GIS Land Coverage Database
- Central Platte River GIS Vegetative Mapping Database
- Sandhill Crane Surveys and Distribution Maps
- Least Tern and Piping Plover Surveys

Related Plans

- The Nebraska Natural Legacy Project
- U.S. Shorebird Conservation Plan
- North American Waterbird Conservation Plan
- Partners in Flight – North American Landbird Conservation Plan
- Ducks Unlimited Nebraska Conservation Plan
- Conserving the Biological Diversity of the Central Mixed-Grass Prairie
- Habitat Management, Restoration, and Acquisition Plan for the Big Bend Reach of the Platte River in Central Nebraska
- Platte River Recovery Implementation Program
- Whooping Crane Recovery Plan
- Great Lakes and Northern Great Plains Piping Plover Recovery Plan
- Recovery Plan for the Interior Population of the Least Tern
- Western Prairie Fringed Orchid Recovery Plan
- Platte/Kansas Rivers Ecosystem Plan
- Nebraska Wetlands Priority Plan

Sandhills Focus Area



The Sandhills of Nebraska is a 19,600-square-mile sand dune formation covered by native grasses in north-central Nebraska. The Sandhills represents the largest contiguous tract of grassland remaining in the United States and the largest stabilized sand dune area in the Western Hemisphere. The hydrology associated with sand dunes has created a vast groundwater reservoir and 1.3 million acres of wetlands. This high wetland to grassland ratio (1:10 acres) provides excellent habitat for resident and migratory wildlife and the abundance of wetlands and grasslands makes the area important to both wildlife and ranching. Ranching is the primary economic use, with approximately 94% of the land in private ownership.

The Sandhills are identified in the North American Waterfowl Management Plan as a waterfowl habitat area of major concern in North America and are considered to be the best duck production

area south of the prairie pothole region. The Sandhills Focus Area encompasses numerous biologically unique landscapes (e.g., Cherry County Wetlands, Sandhills Alkaline Lakes, Dismal Headwaters, Elkhorn Headwaters, Upper Loup Rivers) identified in Nebraska's Comprehensive Wildlife Action Plan. In 1991, a sixteen member task force was formed, made up of local Sandhills ranchers and representatives from the Service, NGPC, TNC, USDA NRCS, Nebraska Cattlemen, and the North Central Resource Conservation and Development. The goal of the STF is to work cooperatively with state and federal conservation agencies, non-government organizations, and landowners to enhance the natural resources in the Sandhills by supporting wildlife and profitable ranching.

The Sandhills remain as one of the best examples of a functioning prairie landscape in the country. Approximately 700 native plant species have been documented, including several at-risk species such as blowout penstemon, marsh marigold, and bog bean. The area provides habitat for 55 species of mammals, 75 species of fish, and 27 species of amphibians and reptiles. Over 300 species of resident and migratory birds have been documented, including large

numbers of waterfowl, shorebirds, wading birds, and other wetland and grassland dependent species. The Sandhills are considered to be an important breeding site for many native nesting birds including: sharp-tailed grouse, greater prairie chicken, long-billed curlew, upland sandpiper, vesper sparrow, lark bunting, grasshopper sparrow, western meadowlark, American avocet, trumpeter swan, black tern, ferruginous hawk, and numerous species of ducks.

The NE PFW program and its Sandhills partners have worked with over 150 landowners throughout this focus area to restore and enhance wetland, riparian, stream, and native grassland habitats. Major partners in this focus area include the numerous ranchers, STF, NGPC, NET, USDA NRCS, Nebraska Cattlemen, Weed Management Areas, and TNC.



Trumpeter swans nesting in the Nebraska Sandhills Focus Area. Photo by Matt Filsinger, USFWS.

Sandhills Focus Area Five-Year Targets

- Stream/Riparian Habitat Restoration/Enhancement: 25 miles
- Upland Habitat Restoration/Enhancement: 50,000 acres
- Wetland/Wet Meadow Restoration/Enhancement: 5,000 acres

Implementation strategy for habitat objectives: The STF has been a key partner in the successful delivery of the PFW program throughout the focus area over the past 20 years. Program staff will continue to cooperatively work with the STF and its diverse group of partners to work with ranchers to restore and enhance wetland, riparian, stream, and native grassland habitat throughout this area. Specific habitat actions include developing and implementing grazing management plans and wetland, riparian, and stream restorations projects throughout high priority areas. These projects will be conducted to enhance the wetland-grassland ecosystem in a way that sustains both profitable private ranching and floral/faunal diversity.

Partnerships

- Number of new landowner partners: 40 landowners
- Amount of technical assistance: 250 staff days
- Percentage of leveraging: 70% or more of non-1121 (PFW program) sources

Implementation strategy for partnership objectives: NE PFW will focus its efforts on maintaining existing partnerships and developing new partnerships to enhance and restore wetland and grassland habitat throughout the area. New partners will primarily be ranchers and other private landowners who are interested in enhancing this unique ecosystem for both Federal trust resources and the local ranching community. Program staff will continue to work closely with the STF, NGPC, and other groups and organizations to assist in the restoration of wetland, upland, and stream habitats. In addition, the program will continue to provide technical assistance to USDA NRCS in the delivery of USDA conservation programs. Staff will work with partners to secure a high proportion of non-PFW program funding sources for habitat restoration and enhancement projects.

Sandhills Habitat/Species Models and Decision Support Tools

Below is a list of both existing and future models/GIS land coverage databases, and other decision support tools that will be used to prioritize habitat restoration projects for the target species throughout the Sandhills.

- Trumpeter Swan Landscape –Level Habitat Use Model for the Sandhills
- Prairie Grouse Habitat Use Models
- American Burying Beetle Habitat Use Model – Sandhills
- Long-Billed Curlew Habitat Suitability Model
- Cooperative Whooping Crane Tracking Project GIS
- Sandhills Wetland Complex Model
- Wet Meadow/Grassland GIS Land Coverage Databases
- Eastern Red Cedar GIS Land Coverage Database
- Nebraska Bird Partnership HABS Model/Databases

Related Plans

- Sandhills Management Plan
- Nebraska Natural Legacy Project
- North American Waterfowl Management Plan
- Ducks Unlimited Nebraska Conservation Plan
- Conserving the Biological Diversity of the Central Mixed-Grass Prairie
- U.S. Shorebird Conservation Plan
- North American Waterbird Conservation Plan
- Platte/Kansas Rivers Ecosystem Plan
- Partners in Flight – North American Landbird Conservation Plan
- Nebraska Wetlands Priority Plan

Priority Species

- Trumpeter swan
- Northern pintail
- Long-billed curlew
- Greater prairie-chicken
- American bittern
- American avocet
- Upland sandpiper
- Black tern
- Burrowing owl
- Grasshopper sparrow
- Whooping crane (Endangered)
- American burying beetle (Endangered)
- Western prairie fringed orchid (Threatened)
- Blowout penstemon (Endangered)



*Long-billed curlew in the Nebraska Sandhills Focus Area.
Photo by Matt Filsinger, USFWS.*

North Platte River Focus Area



The North Platte River and its associated wetlands contain important habitats for a diverse group of wildlife species. Wet meadows, freshwater and alkaline wetlands, river channels, backwater sloughs, oxbows, sandbars, and riverine islands provide important habitats for migrating, wintering, and breeding waterfowl, shorebirds, and waterbirds. It also supports grassland nesting birds, Federally threatened and endangered species, and numerous other wetland/riverine-dependent species. Over 225 migratory bird species have been documented using habitats found along the North Platte River valley including the Federally listed whooping crane, least tern, and piping plover. The focus area also provides habitat for 2 million ducks and 500,000 geese which utilize the North Platte River valley to rest and feed during their annual migration. North Platte River wetlands provide important migration habitat for shorebirds and the adjacent alkaline meadows support unique assemblages of

insects including tiger beetles, dragonflies, and butterflies. Riverine wetlands located throughout the valley also provide important habitat for numerous species of plants, amphibians, reptiles, and mammals including the state listed northern river otter.

The North Platte River Focus Area includes portions of two biologically unique landscapes (the North Platte River Wetlands and the Platte Confluence) as identified in Nebraska's Comprehensive Wildlife Action Plan. This focus area includes the North Platte River channel and the associated freshwater and alkaline wetland complexes within the river valley extending 180 miles from the Nebraska - Wyoming state line to North Platte, Nebraska. Habitat conditions along the North Platte River have degraded as a result of dams, diversions, altered hydrology, consumptive use, and the establishment of invasive species throughout the river corridor. River channels and adjacent riverine wetlands have narrowed and become heavily vegetated with undesirable woody and herbaceous vegetation (e.g., Russian olive, phragmites, reed canary grass, eastern red cedar).

The overall goal for this focus area is to continue to work with private landowners restoring and enhancing riverine habitat (uplands and wetlands) for Federal trust fish and wildlife resources along the North Platte River. The NE PFW program and its North Platte River partners have actively worked with approximately one hundred landowners in this area to restore and enhance riverine habitat for the target species. Primary partners include the numerous private landowners, NGPC, PRBE, DU, USDA NRCS, and the NET.

Priority Species

- Trumpeter swan
- Whooping crane (Endangered)
- Mallard
- Upland sandpiper
- Northern pintail
- Burrowing owl
- American bittern
- Grasshopper sparrow
- Bald eagle
- Northern river otter
- Sandhill crane
- Wilson's phalarope

North Platte River Focus Area Five-year Targets

- Riverine Slough and Backwater Habitat Restoration: 10 miles
- Riverine In-Channel Habitat Restoration/Enhancement: 15 miles
- Upland Restoration/Enhancement: 1,000 acres
- Wetland/Wet Meadow Restoration/Enhancement: 2,000 acres

Implementation strategy for habitat objectives: The PFW program will work with landowners and its North Platte River partners to restore and enhance riverine/grassland habitat throughout the area. Specific habitat actions include: (a) clearing Russian olive, eastern red cedar, phragmites, and other undesirable invasive woody and herbaceous vegetation from river channels, islands, and accretion land; (b) restoring backwater sloughs and other wetlands through excavation and installation of water control structures; and (c) restoring floodplain wet meadow/grasslands by clearing invasive vegetation, renovating wetlands, and developing grazing management systems (fencing, alternate sources of water, etc.) to re-establish and maintain diverse stands of native prairie plants.

Partnerships

- Number of new landowner partners: 35 landowners
- Amount of technical assistance: 250 staff days
- Percentage of leveraging: 70% or more of non-PFW program sources

Implementation strategy for partnership objectives: A primary emphasis of the program will be to ensure that existing successful partnerships are maintained and that new partnerships to restore riverine wetland and upland habitat throughout this focus area are formed. New partners will primarily be North Platte River landowners who are interested in restoring and maintaining riverine habitats for Federal trust fish and wildlife species. PFW program staff will continue to work closely with the NGPC, PRBE, DU, and other groups and organization to assist in the delivery of habitat projects on private lands throughout the North Platte River valley. PFW program will continue to provide a significant level of technical assistance to USDA NRCS in the delivery of WRP and WHIP in this focus area. The program will continue to secure a high proportion of non-PFW funding sources for North Platte riverine wetland and upland habitat restoration projects.

North Platte River Habitat/Species Models and Decision Support Tools

Below is a list of both existing and future models/GIS land coverage databases, and other decision support tools that will be used to prioritize habitat restoration projects for the target species throughout the North Platte River valley.

- Wet Meadow/Grassland GIS Land Coverage Databases
- North Platte River GIS Vegetative Mapping Database
- Trumpeter Swan Landscape –Level Habitat Use Model
- Prairie Grouse Habitat Use Models
- Eastern Red Cedar GIS Land Coverage Database
- Nebraska Bird Partnership HABS Model/Databases
- Cooperative Whooping Crane Tracking Project GIS
- Sandhill Crane Surveys and Distribution Maps
- Least Tern and Piping Plover Surveys



Northern river otters using habitat restoration project along the North Platte River. USFWS photo.



North Platte River post-restoration wetland adjacent to the main channel. USFWS photo.

Related Plans

- Nebraska Natural Legacy Project
- Ducks Unlimited Nebraska Conservation Plan
- Ecoregion-Based Conservation in the Central Shortgrass Prairie
- Partners in Flight – North American Landbird Conservation Plan
- Platte/Kansas Rivers Ecosystem Plan
- U.S. Shorebird Conservation Plan
- North American Waterbird Conservation Plan
- Nebraska Wetlands Priority Plan

Loess Canyons Focus Area



The Loess Canyons Focus Area is located in the mixed-grass prairie ecosystem of Nebraska and is identified as a high-priority biologically unique landscape in Nebraska's Comprehensive Wildlife Action Plan. The Loess Canyons occur along the south side of the Platte River in Lincoln, Dawson, and Frontier counties and consist of rolling to steep loess grass covered hills and canyons. The Loess Canyons grasslands have been heavily invaded by eastern red cedar and exotic cool-season

grasses. It has been estimated that 36 percent of the Loess Canyons landscape has been invaded by eastern red cedars in a relatively short period of time and continues to increase at a rate of greater than two percent annually. At this rate a large percentage of the region's mixed grass prairie will be invaded in the very near future.

The Loess Canyon prairie landscape provides important habitat for hundreds of species of plants, state and Federally listed species, grassland nesting birds, insects, reptiles, amphibians and mammals. The Loess Canyons contain one of the largest known populations of the Federally endangered American burying beetle.

The NE PFW program and its Loess Canyon partners have actively worked with approximately 40 landowners throughout this focus area under the previous strategic plan. During FY 2012-2016, the PFW program will continue to cooperate with our partners to work with additional Loess Canyon landowners to restore and maintain grassland habitat for Federal trust wildlife resources. Potential partners in the Loess Canyons include the numerous private landowners located throughout the Loess Canyons, NGPC, PF and Quail Forever, USDA NRCS, NET, Rocky Mountain Elk Foundation (RMEF), and the National Wild Turkey Federation (NWTf).



Habitat restoration through removal of invasive eastern red cedar. The fallen trees are tightly stacked against standing cedars to increase burn temperatures during management fires. USFWS photo.

Priority Species

- Greater prairie-chicken
- Swainson's hawk
- Upland sandpiper
- Burrowing owl
- Bell's vireo
- Grasshopper sparrow
- American burying beetle (Endangered)



American Burying Beetle with tag. USFWS photo.

Loess Canyons Five-year Targets

- Upland Restoration/Enhancement: 10,000 acres

Implementation strategy for habitat objectives: The NE PFW program will continue to work with its Loess Canyon partners to control invasive species, improve grassland conditions, and to promote biodiversity by restoring and enhancing important habitats throughout this area. Specific habitat actions include: (a) clearing eastern red cedar and other undesirable invasive vegetation from grassland habitats; (b) implementing planned grazing systems to reduce exotic cool-season grasses and improve native plant diversity and vigor; and (c) maintaining restored areas through the use of prescribed management.

Partnerships

- Number of new landowner partners: 25 landowners
- Amount of technical assistance: 125 staff days
- Percentage of leveraging: 70% or more of non-PFW program sources

Implementation strategy for partnership objectives: NE PFW program staff will continue to work with its partners to develop and implement habitat restoration projects on private lands throughout this area. New partners will primarily be landowners who value grassland habitats. Along with financial assistance, the program will provide technical assistance to our conservation partners in their efforts to deliver habitat projects throughout this focus area. A primary emphasis will be placed on assisting private landowners with removing invasive species and restoring grassland habitats for Federal trust species. A high proportion of non-PFW program funding sources will be secured for habitat restoration projects throughout the Loess Canyons.

Loess Canyons Habitat/Species Models and Decision Support Tools

Below is a list of both existing and future models/GIS land coverage databases, and other decision support tools that will be used to prioritize habitat restoration projects for the target species throughout the Loess Canyons.

- Loess Canyon GIS Vegetative Mapping Database
- Prairie Grouse Habitat Use Models
- Eastern Red Cedar GIS Land Coverage Database
- Nebraska Bird Partnership HABS Model/Databases
- American Burying Beetle Habitat Use Model – Loess Canyons

Related Plans

- Nebraska Natural Legacy Project
- Conserving the Biological Diversity of the Central Mixed-Grass Prairie
- Partners in Flight – North American Landbird Conservation Plan
- Terrestrial Natural Communities of Nebraska
- The Recovery Plan for the American Burying Beetle



The Loess Prairie is being invaded by eastern red cedar trees. The Nebraska PFW program works with private landowners to control the cedar trees, as well as other invasive species. USFWS photo.

Central Loess Hills and Loup River Systems Focus Area



The Central Loess Hills and Loup River Systems Focus Area is located in the mixed-grass prairie ecoregion of Nebraska. It includes two new habitat sub-areas (the Central Table Playas and the Lower Loup rivers) as priorities for FY 2012-2016. This NE PFW focus area includes two high-priority biologically unique landscapes identified in Nebraska's Comprehensive Wildlife Action Plan (i.e., the Central Loess Hills and the Lower Loup Rivers).

The Central Loess Hills consist of rolling to steep loess hills dissected by the valleys of the Loup Rivers. Portions of the Central Loess Hills have been heavily invaded by eastern red cedar and exotic cool-season grasses. The Central Loess Hills landscape provides important habitat for hundreds of species of plants, state and Federally listed species, grassland nesting birds,

migratory waterbirds, insects, reptiles, amphibians and mammals. Playa wetlands are scattered throughout the flat tablelands of the Central Loess Hills and are used by whooping cranes and numerous species of waterbirds during migration. The Central Table Playa wetland complex includes a series of shallow playa wetlands located in portions of Custer, Dawson, Lincoln, and Logan counties.

The Lower Loup River System includes the lower reaches of the Middle Loup, North Loup, South Loup, and Loup rivers. The Loup rivers originate from springs and maintain a fairly constant year-round flow. The Loup River system contains important habitats for a diverse group of wildlife species. Wet meadows, palustrine/riverine wetlands, river channels, backwater sloughs, oxbows, and sandbars provide important habitats for migrating, wintering, and breeding waterbirds; grassland nesting birds; Federal and state threatened and endangered species (e.g., whooping cranes, least terns, piping plovers, western prairie fringed orchids, white lady's slipper); and numerous other wetland/riverine-dependent species. Riverine wetlands located throughout the valleys also provide important habitat for numerous

species of other plants, amphibians, reptiles, and mammals including the state listed northern river otter.

The overall goal for this focus area is to work with private landowners to restore and enhance grassland and wetland habitats for Federal trust fish and wildlife species found throughout the Loess Hills, Central Table Playas, and the Lower Loup rivers. Primary partners in the Central Loess Hills and Loup River Systems focus area include numerous private landowners, NGPC, PF and Quail Forever, DU, USDA NRCS, NWTf, RWBJV and the NET.

Central Loess Hills and Loup River Systems Focus Area Five-year Targets

- Upland Grassland Restoration/Enhancement: 5,000 acres
- Wetland/Wet Meadow Restoration/Enhancement: 750 acres
- Riverine Habitat Restoration (sloughs and backwaters): 5 miles
- Riverine Roosting Habitat Restoration/Enhancement: 5 miles

Implementation strategy for habitat objectives: The NE PFW program will work with its partners to control invasive species, improve grassland conditions, and to promote biodiversity by restoring and enhancing important habitats throughout this area. Specific habitat actions include: (a) clearing eastern red cedar and other undesirable invasive vegetation from grassland habitats; (b) implementing planned grazing systems to reduce exotic cool-season grasses and improve native plant diversity and vigor; and (c) restoring hydrology to playa and riverine wetlands.

Partnerships

- Number of new landowner partners: 25 landowners
- Amount of technical assistance: 125 staff days
- Percentage of leveraging: 70% or more of non-PFW program sources

Implementation strategy for partnership objectives: NE PFW program staff will continue to work with its partners to develop and implement habitat restoration projects on private lands throughout this area. New partners will primarily be landowners who value grassland, wetland, and riparian habitats. Along with financial assistance, the PFW program will provide technical assistance to our other conservation partners in their efforts to deliver habitat projects throughout this focus area. A primary emphasis will be placed on assisting private landowners with removing invasive species and restoring grassland, wetland, and riverine habitats. A high proportion of non-PFW program funding sources will be secured for Central Loess Hills and Loup River Systems focus area habitat restoration projects.

Central Loess Hills Loup River Systems Habitat/Species Models and Decision Support Tools

Below is a list of both existing and future models/GIS land coverage databases, and other decision support tools that will be used to prioritize habitat restoration projects for the target species throughout the Loess Hills and Loup River Systems focus area.

- Prairie Grouse Habitat Use Models
- Whooping Crane Habitat Use Models
- Cooperative Whooping Crane Tracking Project GIS
- Central Table Playas Wetland/Waterfowl Model
- Wet Meadow/Grassland GIS Land Coverage Databases
- Eastern Red Cedar GIS Land Coverage Database
- Nebraska Bird Partnership HABS Model/Databases

Related Plans

- Nebraska Natural Legacy Project
- Conserving the Biological Diversity of the Central Mixed-Grass Prairie
- Partners in Flight – North American Landbird Conservation Plan
- Terrestrial Natural Communities of Nebraska
- Ducks Unlimited Nebraska Conservation Plan



Nebraska PFW riverine wetland slough restoration and invasive species removal project located along the Loup River. USFWS photo.

Nebraska Eastern Tallgrass Prairie Focus Area



The Eastern Tallgrass Prairie Focus Area includes three high priority biologically unique

landscapes identified in Nebraska's Comprehensive Wildlife Action Plan. This area includes the Sandstone Prairies, Southeast Prairies, and the Verdigre-Bazile Creek Watershed, all located in the Tallgrass prairie ecoregion of Nebraska. The Sandstone Prairies and Southeast Prairies include the bluffs and breaks along the Little Blue River and Rose Creek in Jefferson and Thayer counties and the rolling hills of portions

of Richardson, Pawnee, Johnson, and Gage counties. The Verdigre-Bazile Creek Watershed includes the watershed of the Verdigris and Bazile creeks in Cedar, Knox, Holt, and Antelope counties. The northern portion of this focus area also includes the Missouri River and its associated habitats. In addition, it has been expanded to include the land that lies within the confluence of the Verdigre-Bazile, Lower Niobrara, and Missouri Rivers and

now includes a portion of eastern Boyd County.

Primary partners in the Eastern Tallgrass Prairie Focus Area include the NGPC, Northern Prairies Land Trust, Northeast Nebraska Resource Conservation and Development, NET, USDA NRCS, PF, Audubon Nebraska, TNC, Natural Resource Districts, Santee Sioux Tribe of Nebraska, Missouri River Futures, and numerous private landowners.

Priority Species

- Wood duck
- Mallard
- Greater prairie-chicken
- Upland sandpiper
- Grasshopper sparrow
- Henslow's sparrow
- Massasauga rattlesnake
- Regal fritillary butterfly
- Western prairie fringed orchid (Threatened)
- Bald eagle
- Plains topminnow

Eastern Tallgrass Prairie Five-year Targets

- Upland Grassland Restoration/Enhancement: 12,500 acres
- Wetland/Wet Meadow Restoration/Enhancement: 500 acres

Implementation strategy for habitat objectives: The NE PFW program will continue to work with its partners to control invasive species, restore and improve native grassland conditions, and to promote biodiversity by restoring and enhancing important habitats. Additional opportunities may arise to work with our partners to restore riverine wetlands and wet meadow habitats along the confluence area of the lower Niobrara and Missouri Rivers. Specific habitat actions include: (a) removing invasive species (e.g., eastern red cedar, smooth brome, Kentucky bluegrass); (b) facilitating landscape scale increases in heterogeneity by implementing innovative management strategies made possible by the removal of trees; (c) improve habitat conditions on large tracts of intact grassland by reducing fragmentation; (d) demonstrating sustainable management of grasslands and associated native woodlands; (e) restoring native plant communities by improving native plant diversity and vigor; and (f) restoring riverine backwater, wetland slough, and other riverine (e.g., river channels, sandbars, islands, riparian) and palustrine wetland habitats.

Partnerships

- Number of new landowner partners: 35 landowners
- Amount of technical assistance: 125 staff days
- Percentage of leveraging: 70% or more of non-PFW program sources

Implementation strategy for partnership objectives: PFW staff will work with its partners to develop and implement habitat restoration projects on private lands throughout this focus area. New partners will primarily be landowners located throughout the landscape who are interested in restoring and maintaining native grassland habitats for Federal trust fish and wildlife species. Along with financial assistance, PFW will also provide technical assistance for habitat projects. Emphasis will be placed on assisting private landowners with removing invasive species and restoring grassland and wetland habitats. A high proportion of non-PFW program funding sources will be secured for habitat restoration projects throughout this focus area.

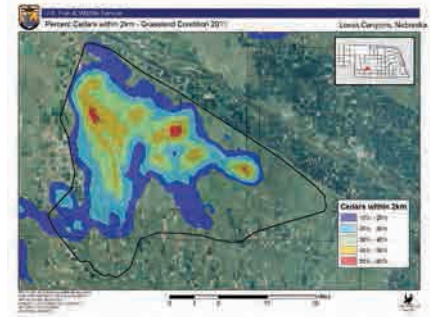
Eastern Tallgrass Prairie Habitat/Species Models and Decision Support Tools

Below is a list of both existing and future models/GIS land coverage databases, and other decision support tools that will be used to prioritize habitat restoration projects for the target species throughout the Eastern Tallgrass Prairie focus area.

- Greater Prairie-Chicken Habitat Use Models
- Grassland/Wet Meadow GIS Land Coverage Databases
- Eastern Red Cedar GIS Land Coverage Database
- Invasive Species GIS Land Coverage Database
- Massasauga Habitat Use Data
- Nebraska Bird Partnership HABS Model/Databases



Nebraska PFW program habitat restoration project overlooking the Niobrara River Valley just upstream of the confluence with the Missouri River. Project involved mechanical cutting eastern red cedars. USFWS photo.



Example of planning map to assist NE PFW with targeted delivery. USFWS photo.

Related Plans

- Nebraska Natural Legacy Project
- Partners in Flight – North American Landbird Conservation Plan
- Terrestrial Natural Communities of Nebraska
- Conserving the Biological Diversity of the Central Mixed-Grass Prairie
- Conservation in a Highly Fragmented Landscape: the Central Tallgrass Prairie Ecoregional Conservation Plan



Planning meeting with NE PFW staff and partners. USFWS photo.

Nebraska Statewide Goals



Improve Information Sharing and Communication

Effective internal and external communication and collaboration continues to be critical to the success of the PFW program in Nebraska. An overarching objective of the program is to maintain and enhance communication and collaboration with our diverse group of internal and external partners. Information sharing and communication is an essential part of conservation and Nebraska PFW program staff will continue to make efforts to increase awareness of the program and the Service's mission, while informing the public on the importance of conserving species and habitats on private lands.

Five-year Targets

- Actively participate in 50 landowner/watershed meetings, site visits, conferences and/or workshops.
- Make 25 presentations at local, state, and national meetings, conferences, and workshops.
- Conduct 75 field tours and site visits to habitat restoration projects throughout the state to exchange information regarding restoration techniques and funding opportunities.
- Participate in five congressional staff meetings regarding the Nebraska PFW program.
- Actively participate in the USDA NRCS technical committee, USDA conservation program sub-committees, and WRP Bio-Engineering Teams.
- Continue to coordinate with the NGPC to deliver habitat restoration projects on private lands throughout our conservation focus areas.
- Collaborate and coordinate with the Nebraska ES Field Office, Refuge offices located throughout Nebraska, Desoto NWR, and the RWBJV Office.
- Continue to improve communications with our partners by maintaining a strong presence in a wide variety of work groups and committees and participate with numerous Nebraska stakeholders in the development of strategic landscape planning efforts throughout Nebraska.
- Conduct 5 school field trips or outdoor educational activities in support of the Director's priority to re-connect America's youth to the outdoors.

Enhance Our Workforce

The NE PFW program fully funds five full-time private lands positions (including the state coordinator). PFW program biologists are extremely dedicated to working with private landowners and our partners to restore Federal trust resources on private lands. In order to maintain a high level of professionalism and to better accomplish the Service's goal of conserving fish, wildlife, plants and their habitats, NE PFW staff will continue to participate in numerous training opportunities (e.g., formal training, workshops, seminars, conferences). This will lead to improved program operations (habitat restoration techniques, GIS, partnership development), and to improve career opportunities (research, evaluation, communication, policy). In addition, PFW program staff will have an opportunity to spend time working with other staff biologists outside of their primary areas of responsibility to share ideas, methods, and build support. This will allow a better understanding about what is occurring in other parts of the state, region, and country. Our efforts to successfully meet targets is largely dependent on our ability to maintain a highly effective workforce and to provide both financial (dirtwork funds) and technical support (staffing) to our partners throughout our conservation focus areas.

Increase Accountability

- Ensure that NE PFW program staff has the opportunity to acquire a minimum of 40 hours of training a year.
- Maintain a highly-skilled and motivated staff.
- Maintain close coordination, at least biweekly, among the NE PFW state coordinator and PFW field staff.
- In accordance with the Service's Employee Performance Appraisal System, performance and special achievement awards will be used to recognize exceptional projects and achievements.

Increase Accountability

The NE PFW program state coordinator will continue to serve as Project Officer and fiduciary for all PFW program funds. These include cooperative agreements, grants and other funding agreements. The state coordinator will also continue to work closely with the Nebraska Field Office's Administrative Officer, Regional Office staff, and Nebraska PFW program staff, to ensure that all appropriate procedures and guidelines are followed and necessary paperwork is completed for projects.

To ensure habitat restoration projects provide the greatest biological benefit for Federal trust species, NE PFW personnel will use habitat/species models, GIS land cover databases, and other decision support tools provided by the RWBJV and the Nebraska Bird Partnership offices to help guide delivery of future conservation practices to benefit species of conservation concern throughout NE PFW focus areas.

Five-year Targets

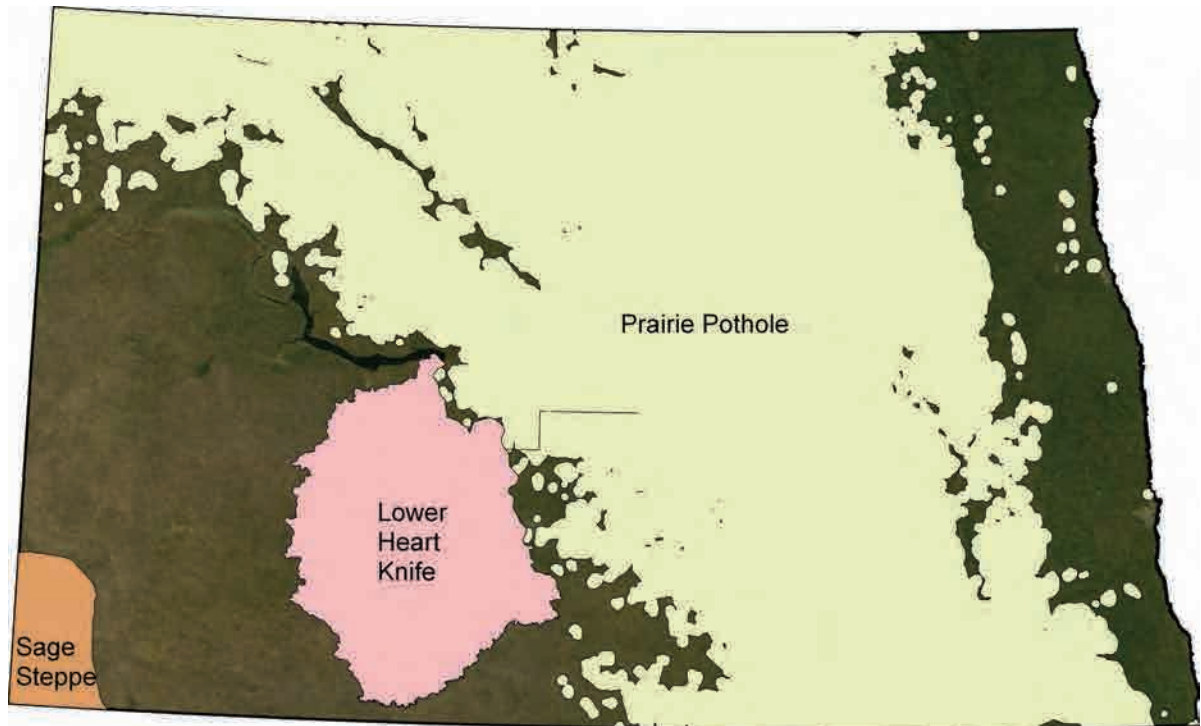
- The NE PFW program will work with the RWBJV GIS Team and other partners to:
- Develop GIS coverage and associated databases for NE PFW focus areas.
- Develop and field test habitat/species models that will assist in more strategically targeted PFW program conservation efforts.
- The PFW program state coordinator will ensure that all new projects are accurately entered into HabITS by the established due date for each FY.
- NE PFW staff will continue to provide the state coordinator with accurate information regarding technical assistance efforts throughout their areas of responsibility for inclusion into HabITS.
- Program field staff will be equipped with digital cameras to increase the number of before, during, and after construction photos for projects. The goal is to increase the number of projects that are entered into HabITS with associated photos.

External Factors

External factors may influence the NE PFW program's ability to meet our 5-year targets. The single largest factor is the ability of our staff to maintain strong and lucrative partnerships, throughout the state, in the face of difficult economic times.

In addition, NE PFW program focus areas include both relatively intact landscapes with ranching as the primary land use, and highly modified landscapes that are primarily in row crop production. The economic and social pressures associated with a rapidly changing agricultural economy could have a significant impact on the program's ability to deliver effectively. Additional external factors that could potentially influence program efforts include the accelerated rate of occurrence of invasive species and the placement and location of utility-scale wind turbines, oil pipelines, and associated infrastructure. Others include, potential changes to ecological processes associated with climate change and environmental factors such as flooding or prolonged drought.

North Dakota



North Dakota Partners Program Conservation Focus Areas

Introduction and Overview

The Prairie Pothole Region (PPR) is legendary as North America's foremost producer of ducks. North Dakota, the top duck producing state in the Nation, lies in the heart of this region. Wetland densities in North Dakota commonly reach as high as 100-150 wetlands per square mile, making it not only an important breeding area for ducks, but also a key breeding and migratory area for over 70 wetland-dependent migratory bird species. With over 90% of North Dakota lands in private ownership, the North Dakota Partners for Fish and Wildlife (PFW) program is one of the U.S. Fish and Wildlife Service's (Service) most important programs in restoring and maintaining wetland and grassland habitat for migratory bird populations in the Central Flyway.

Since 1987, the PFW program has used Federal and donated private funds and acquired North American Wetland Conservation Act (NAWCA) grant dollars to restore, create, and enhance wildlife habitat on more than 265,000 acres of private land in the state (equal to 417 square miles). While the majority of PFW program projects are implemented in strategically-focused areas of important habitat, the PFW program boasts projects in all 52 counties of North Dakota. This is in cooperation with over 2,000 farmers and ranchers, who themselves have donated over \$500,000 in direct payment and hands-on work to develop new habitat and to initiate conservation-oriented agricultural practices that benefit wildlife.

Partnership Involvement in Plan Development

The PFW program coordinated efforts with other federal and state agency, and major non-governmental organization (NGO), stakeholder partners who have been involved in the PFW program strategic plan to date. The PFW program also involved the Service's Ecological Services, Realty, and Fisheries divisions in the PFW focus area determination process. Input provided by the combined expertise of these external and internal partners contributed to the PFW program's identification of focus areas for North Dakota.

Prairie Pothole Region Focus Area



The area that makes up the PPR focus area is 25,382,160 acres, or 56% of the North Dakota land area. The PPR is legendary in its continental importance to waterfowl and other migratory birds. This focus area is the “best of the best” in terms of wetland density in the U.S., with prairie/wetland complexes in densities of up to 150 wetland basins per square mile. These wetland prairie complexes can support greater than 100 duck pairs per square mile. The PPR is currently the priority area for Service Realty acquisitions, as well as for Ducks Unlimited

(DU), a major NGO partner. It is also a North Dakota State Wildlife Action Plan focus area.

Once a vast region of mixed-grass prairie and small, shallow wetlands, the PPR is now an agrarian system dominated by cropland. Changes in land use have, for the most part, been detrimental to the migratory birds that use the PPR. Particularly in the eastern portion of the PPR, many wetlands have been drained or degraded, and the loss of native prairie has been extensive. Despite these losses, millions of wetlands and large tracts of native prairie still remain. The PPR is one of the most important migratory bird habitats in the Western Hemisphere. It is the backbone of North America’s “duck factory” and supplies critical habitat for many wetland and grassland-dependent migratory birds.

Priority Species

- Mallard
- Northern Pintail
- Gadwall
- Northern Shoveler
- Blue-winged Teal
- Canvasback
- Redhead
- Lesser scaup
- Piping plover (Endangered)
- Upland sandpiper
- Sora rail
- Marbled godwit
- Black tern
- Common tern
- LeConte’s sparrow
- Grasshopper sparrow
- Baird’s sparrow
- Sprague’s pipit
- Ferruginous Hawk
- Short-eared owl
- Sedge wren



Wetland densities in North Dakota commonly reach as high as 100-150 wetlands per square mile. USFWS photo.

Prairie Pothole Region Focus Area Five Year Targets

Habitat

- Wetland Restoration: 1,000 acres
- Wetland Establishment: 200 acres
- Grassland Restoration: 8,000 acres
- Grassland Enhancement: 25,000 acres

Partnerships

- Number of new landowner partners: 200 landowners
- Amount of technical assistance: 200 staff days

PFW program staff provide a significant level of technical assistance, through close coordination with USDA, North Dakota Game and Fish Department, and various NGO's, to promote and assist landowners with Farm Bill conservation programs including the Conservation Reserve (CRP), Wetlands Reserve (WRP), Wildlife Habitat Incentives (WHIP), Environmental Quality Incentives (EQIP), and Grassland Reserve (GRP) programs. This level of involvement is estimated to require approximately 200 staff days over the next five years.

- Percentage of leveraging

25% FWS Funds
35% NAWCA Grant Funds
20% Landowner Cash and In-kind
20% Other Partner (NGO, NDGF)

Related Plans

North American Waterfowl Management Plan
 U.S. Shorebird Conservation Plan
 Northern Prairie and Parkland Waterbird Conservation Plan
 Prairie Pothole Joint Venture Implementation Plan
 North Dakota State Wildlife Action Plan



Grassland habitat was restored on 205 acres of cropland, protecting and enhancing 39.2 acres of embedded prairie pothole wetlands already protected by a perpetual Service easement. USFWS photo.

Lower Heart/Knife River Focus Area



The area that makes up the Lower Heart/Knife River Focus Area is 3,498,703 acres, or 8%, of the North Dakota land area. This focus area is characterized by transitional zones of mixed cropland and grassland that are threatened by cropland conversion. A PFW program priority is to assist landowners in maintaining their lands in grassland agriculture, primarily accomplished by providing needed water sources (wetland establishment).

The focus area is arid to semi-arid and mostly non-glaciated. Relatively few natural wetlands exist on the landscape. Land use in the area is primarily livestock production, and numerous wetlands have been established for livestock and wildlife. This area of mixed grass prairie has been dramatically altered in the last 100 years, due primarily to human intervention. Once common, native grasslands are seriously threatened and many bird species are declining. The goal of the PFW program is to assist landowners in maintaining their lands in grassland agriculture, primarily by providing needed water sources (wetland establishment).

Focal species for the Lower Heart/Knife River Focus Area include:

- Mallard
- Northern Pintail
- American Wigeon
- Canvasback
- Ferruginous hawk
- Marbled godwit
- Black-billed cuckoo
- Short-eared owl
- Burrowing owl
- Loggerhead shrike
- Sedge wren
- Sprague's pipit
- Baird's sparrow
- Grasshopper sparrow
- Chestnut-collared longspur
- Bobolink



Committee and planning meetings are critical for the PFW program to meet its targets in the Lower Heart/Knife River Focus Area. USFWS Photo.

Lower Heart/Knife Rive Focus Area Five Year Targets

- Wetland Establishment: 400 acres
- Grassland Establishment: 400 acres
- Grassland Enhancement: 3,000 acres
- Riparian Restoration: 3 miles

Partnerships

- Number of new landowner partners: 150 landowners
- Amount of technical assistance: 150 staff days

PFW staff provide a significant level of technical assistance, through close coordination with USDA, North Dakota Game and Fish Department, and various NGO's, to promote and assist landowners with Farm Bill conservation programs including CRP, WRP, WHIP, EQIP, and GRP. This level of involvement is estimated to require approximately 150 staff days over the next five years.

-Percentage of leveraging =

25% FWS Funds
60% NAWCA Grant Funds
12% Landowner Cash and In-kind
3% Other Partner (NGO, NDGF)

Related Plans

North American Waterfowl Management Plan
U.S. Shorebird Conservation Plan
Northern Prairie and Parkland Waterbird Conservation Plan
Northern Great Plains Joint Venture Implementation Plan
North Dakota State Wildlife Action Plan



ND PFW Biologist gets assistance from NRCS Soil Scientists and their soil sampling truck to determine whether a site has suitable material for dam construction on a PFW wetland creation project. USFWS Photo.

Sage-Steppe Focus Area



The area that makes up the Sage-Steppe Focus Area is 705,124 acres, or 1.5% of the North Dakota land area. This area is characterized primarily by transitional zones of short-grass prairie intermixed with sagebrush in the extreme southwest corner of the state. While almost one-third of the area is in public owned grasslands, the remaining 72% is in privately owned and utilized as pasture. Several threats to sustaining these grazing lands include exotic species invasions, unsustainable

grazing systems and sodbusting. A PFW program priority is to assist landowners in maintaining their lands by promoting healthy rangelands, better plant diversity and invasive weed management. Other planned projects are more specific to sage-grouse management such as planting cropland to native grass-sagebrush mixes and removal of fencing and tagging fences with markers to avoid collisions near sage-grouse leks. This focus area will enhance the opportunity for the PFW program to strengthen its conservation commitment with other organizations and state agencies committed to managing greater sage-grouse and other migratory birds of concern.

Priority Species

- Greater sage-grouse
- Burrowing owl
- Sprague's pipit
- Baird's sparrow Grasshopper sparrow
- Brewer's sparrow
- McCown's longspur
- Chestnut-collared longspur
- Loggerhead shrike



Greater sage-grouse. USFWS photo.

Sage-Steppe Focus Area Five Year Targets

- Upland restoration: 200 acres
- Upland enhancement: 1,500 acres

Partnerships

- Number of new landowner partners: 10 landowners
- Amount of technical assistance: 40 staff days

PFW staff provide a significant level of technical assistance, through close coordination with USDA, North Dakota Game and Fish Department, and various NGO's, to promote and assist landowners with Farm Bill conservation programs including CRP, WHIP, EQIO, and GRP. This level of involvement is estimated to require approximately 40 staff days over the next five years.

-Percentage of leveraging =

60% FWS Funds
30% Landowner Cash and In-kind
10% Other Partner (NGO, NDGF)

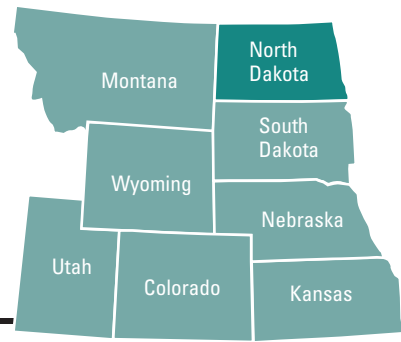
Related Plans

Birds of Conservation Concern-USFWS Report
 North American Landbird Conservation Plan
 Northern Great Plains Joint Venture Implementation Plan
 North Dakota State Wildlife Action Plan



Typical greater sage-grouse habitat in North Dakota. USFWS photo

North Dakota Statewide Goals



Improve Information Sharing and Communication

Five Year Targets

Communication and outreach are integral to the success of the PFW program. In this regard, the program has two primary objectives:

- Maintain and develop strong and positive partnerships.
- Increase landowner interest in the PFW program.

In 2005, the ND PFW program asked cooperating landowners how they heard about the program. With 400 responses cooperating landowners heard about the PFW program in the following ways:

Prior cooperator, or heard from a neighbor or saw the project	33%
PFW outreach (news articles, direct mailings, presentations)	25%
Referral from a USDA County Office	20%
Referral from a partner organization or agency	12%
Informed by PFW or refuge staff when considering a Service easement	10%

The ND PFW program will use these findings as the basis for strategies to improve information sharing and communication over the next five years. Strategies for the two objectives will be outlined in a PFW program Outreach Plan, developed and maintained by the PFW State Coordinator, on an annual basis.

Components of the Outreach Plan will include, at a minimum:

- Measurable objectives for PFW field biologists to revisit prior cooperators;
- Measurable objectives for news article, direct mailing, and participation / presentation tasks with agricultural groups;
- Establishment of demonstration sites in highly-visible areas;
- Measurable objectives for contact events and program updates with partners, particularly USDA, North Dakota Game and Fish Department, and DU at the state and local level, and;
- Development and use of outreach materials to promote the PFW program.

Enhance Our Workforce

PFW program staff are some of the most dedicated and highly-motivated personnel in the Service. Their positions require that they have a general knowledge of many aspects of wildlife management, agriculture, contract negotiation and administration, as well as excellent skills in working with people, particularly landowners. Providing adequate training opportunities and maintaining high morale are integral to retaining a highly-skilled, highly-motivated PFW program workforce.

Five Year Targets

- Annually assist PFW staff to plan and schedule training opportunities.
- Maintain close coordination, at least biweekly, among the PFW state coordinator, North Dakota refuge program supervisors, and PFW staff.
- Increase all-staff meetings from one to a minimum of two, or more, per year.
- Continue sharing weekly schedules / comments among staff.
- Continue to provide high quality project training and materials to PFW staff.
- Initiate a statewide traveling PFW award program to annually recognize the most accomplished PFW program staff person.

Increase Accountability

The PFW program will direct its efforts in identified geographic focus areas, and prioritize habitat restoration projects based on the level of contribution to the conservation of Federal trust resources. Consideration will also be given to state-listed species of concern and related habitat needs as identified in the North Dakota State Wildlife Action Plan.

Five Year Targets

- Provide more frequent and in-depth summary updates to major partners.
- Increase the number of return visits made to prior cooperators to assure completed projects are functioning as intended, gather anecdotal information on wildlife use, and cooperate in additional projects that will enhance what has already been done.
- Increase HabITS reporting speed, efficiency, and photo submission.
- Continue entering PFW program projects into the GIS data layers and work with the HAPET office to develop models depicting the benefits of PFW program projects.

Biological Outcomes

Estimated waterfowl breeding pair and recruitment benefits for USFWS Partners for Fish and Wildlife wetland and grassland projects in North Dakota focus areas for 2012-2016 (June 2011).

Background: The North Dakota PFW program continues to work closely with a variety of wildlife researchers to quantify biological outcomes in specific PFW focus areas. Most notably, PFW staff have collaborated with the USFWS Region 6 HAPET office to assess duck recruitment and habitat protection outcomes in the PFW Prairie Pothole focus area of North Dakota. Published data and peer reviewed HAPET models were used to model recruitment and habitat protection benefits for five key waterfowl species (mallard, gadwall, blue-winged teal, northern shoveler and northern pintail). It is estimated that PFW projects completed in the next five years will result in positive recruitment and habitat protection benefits to over 350,000 ducks during the term of the associated Wildlife Extension Agreements. More specific recruitment outcomes are described by conservation practice type in the following table.

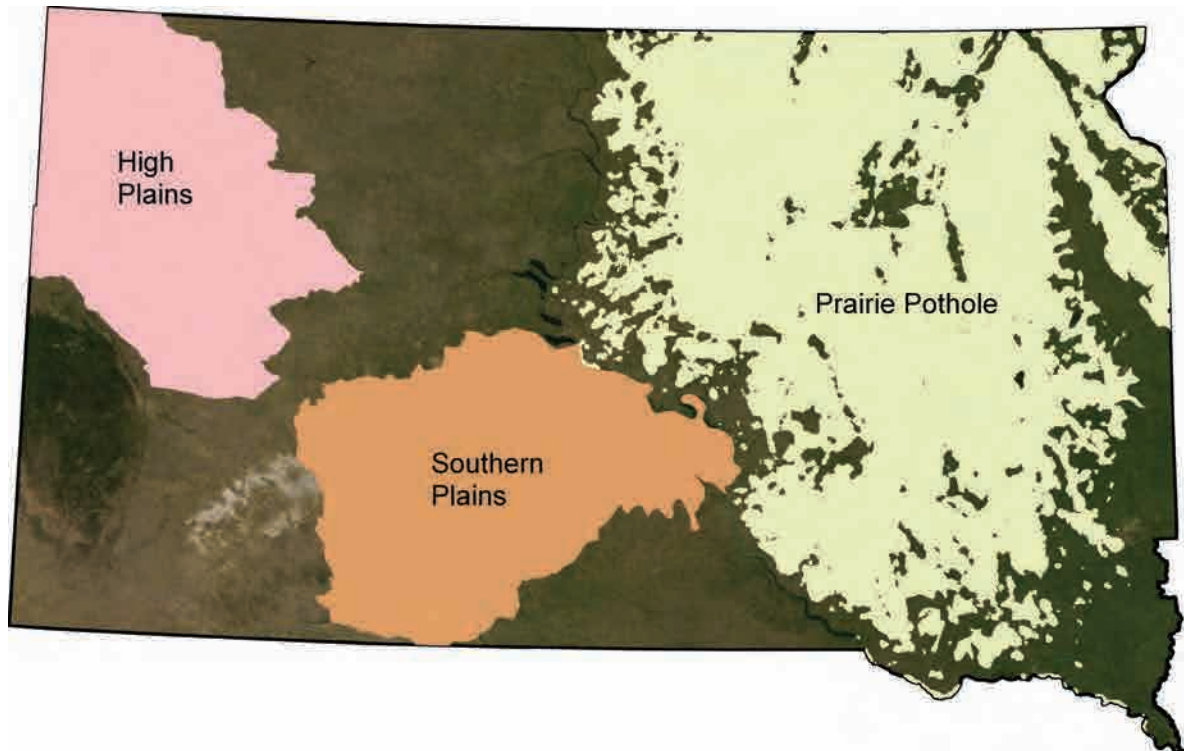
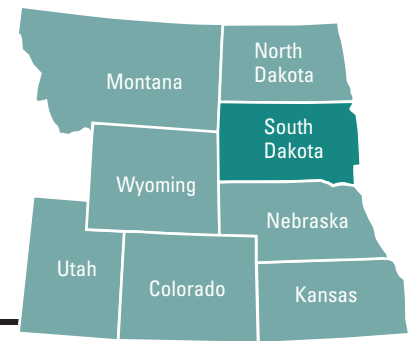
Estimated Waterfowl Breeding Pair and Recruitment Benefits - North Dakota Focus Areas, 2012-2017

State	Focus Area	Project Type	Class	Target Acres	Term (Yrs)	Annual Pairs ¹	Cumulative Pairs ²	Annual Productivity ³	Cumulative Productivity ⁴
North Dakota									
	> 25 Breeding Duck Pairs East River								
		Wetland Restoration							
			Temporary	50	10	44	440	56	560
			Temporary	150	99	132	13,068	167	16,533
			Seasonal	75	10	77	770	98	980
			Seasonal	225	99	232	22,968	294	29,106
			Semipermanent	125	10	77	770	97	970
			Semipermanent	375	99	230	22,770	291	28,809
			Totals	1,000		792	60,786	1,003	76,958
		Wetland Creation	Semipermanent	200	30	123	3,690	155	4,650
			Totals	200		123	3,690	155	4,650
		Grassland Restoration ⁵	New	4,000	10			868	8,680
				4,000	99			868	85,932
			Totals	8,000				1,736	94,612
		Grassland Enhancement ⁶	Maintenance	25,000	10			5,425	54,250
			Totals	25,000				5,425	54,250
		Grand Totals				9,150		83,190	
						2,460		3,100	
						52,866		144,180	
			Cumulative				64,476		230,470

Considerations

1. Duck breeding pair values per acre of wetland were estimated for each focus area by summing the number of total pairs for the focus area by wetland class, and dividing by the total acres of wetland for the respective class.
2. The estimated cumulative value of wetland related private lands projects for breeding pairs is $PAIRS = ((Acres\ of\ Wetland) * (Pair\ Value) * (Agreement\ Duration))$.
3. Recruits related to the acres of wetland restored or created by private lands projects are calculated using the estimated number of pairs benefiting from wetland projects and subsequent recruitment derived from Four Square Mile Breeding Waterfowl data. Recruits related to the acres of grassland restored or protected from loss by implementing grazing systems (i.e., enhanced) were derived from scenarios of grassland change using the mallard model for areas in central North and South Dakota and subsequent changes in duck recruitment.
4. The estimated cumulative recruitment value of wetland and grassland related private lands projects for ducks is $WETLAND\ PROJECT\ BASED\ RECRUITS = ((Number\ of\ Breeding\ Duck\ pairs) * (Recruitment\ Value) * (Agreement\ Duration) - (\#\ of\ PAIRS\ because\ there\ are\ no\ 1st\ year\ benefits))$; $GRASSLAND\ PROJECT\ BASED\ RECRUITS = ((Acres\ of\ Grassland) * (Recruitment\ Value) * (Agreement\ Duration))$.
5. Recruits associated with grassland restoration are considered new recruits to the population.
6. Recruits associated with grassland enhancement (i.e., grazing systems) are considered existing recruits protected for the duration of the agreement.

South Dakota



South Dakota Partners Program Conservation Focus Areas

Introduction and Overview

Focus Area Selection:

South Dakota's current focus areas are primarily derived from utilizing updated biological and spatial data to refine and improve our ongoing focus on high-priority wetland and grassland landscapes. Most notably, updated data on breeding waterfowl distribution from the Region 6 Habitat and Population Evaluation Team (HAPET) were used as the basis for developing our Prairie Pothole Region (PPR) focus area. Likewise, updated data on the locations of greater sage-grouse leks were used to refine the boundaries of the High Plains Focus Area. The Southern Plains Focus Area boundary was also slightly adjusted to work with key partners in high-priority grassland areas. South Dakota's landscape is largely

defined by rolling grasslands interspersed with a wide variety of wetland and riparian features. The primary philosophy of the South Dakota (SD) PFW program in all three focus areas is to maintain and restore this unique mix of habitats by providing conservation solutions that work for both landscapes and landowners. SD PFW focus areas are a composite result of this philosophy and ongoing conservation work with over 5,000 landowners. In most cases the technical demarcation of focus area boundaries formalized and fine-tuned broader PFW conservation initiatives that have been ongoing for over 20 years. A variety of long term data sets and GIS layers are utilized to continually refine and assess our efforts. Primary data sources included the National Wetlands Inventory (NWI), various

GIS landuse coverages, South Dakota Agricultural Statistics Service information, the South Dakota Comprehensive Wildlife Conservation Plan (SDGFP 2005) and waterfowl breeding pair distribution maps developed by the Region 6 USFWS HAPET office.

Partner Coordination:

Since the program's inception, the SD PFW program has implemented over 5,600 individual Wildlife Extension Agreements (WEAs) with landowners throughout the state. Continual coordination with our landowner partners is the central theme in all of our partner outreach efforts. We rely heavily on the input and advice of individual landowners and their associated organizations to guide many of our strategic planning and funding initiatives. As a

result, the SD PFW program has a long history of collaborating with a wide variety of funding partners to develop conservation actions for priority habitats. Most notable among these efforts is the development of multi-partner grant initiatives funded via the North American Wetlands Conservation Act (NAWCA). Since 1991, the SD PFW program has served as a catalyst to bring together dozens of funding partners and hundreds of landowners to work in biologically based NAWCA project areas. These NAWCA projects play a vital role in formulating our PFW focus areas. Along with private landowners, we continue to consult with other key partners to guide the PFW program efforts throughout the state. Most recently, we coordinated with a variety of stakeholders in the spring of 2011 as we developed the FY 2012-2016 update to the Region 6 PFW strategic plan.

Prairie Pothole Region Focus Area



Prairie Pothole Region Focus Area- (15,680,616 acres)

Focus Area Description and Justification:

The Prairie Pothole Region (PPR) Focus Area is comprised of the glaciated portion of the state that has a documented potential to host at least 20 breeding duck pairs per square mile. This determination is based on 22 years of HAPET survey data of five keystone waterfowl species-mallards, northern pintails, blue-winged teal, northern shovelers and gadwalls. Much of the landscape of the PPR Focus Area is characterized by high wetland densities, large grassland tracts and diverse bird communities. The Prairie Coteau hills in the northeast portion of the focus area contain some

of the largest remaining tracts of northern Tallgrass prairie in the U.S. (USFWS 2000). The western portion of the focus area is dominated by the Missouri Coteau which has been documented to host some of the highest breeding ducks densities in all of North America. The biological core of the Missouri Coteau is a contiguous tract of over 2,000 square miles of relatively unfragmented grassland-wetland habitat that can host over 100 breeding duck pairs per square mile during optimum habitat conditions. This is the largest tract of such high-quality habitat in the U.S. and has been identified as a critically important waterfowl breeding region (PPJV 2005).

Preserving the PPR focus area as a viable “recruitment source” for all suites of prairie nesting birds has been identified as an urgent priority of the USFWS, Delta Waterfowl and DU. While many of the habitat actions in this focus area are designed to conserve waterfowl breeding habitat, they also have direct benefits to the entire spectrum of ground nesting birds. These mutual conservation benefits are especially vital to grassland nesting passerines which are widely considered to be one of the most imperiled bird guilds in North America (Peterjohn and Sauer 1999). In addition to its nationally recognized importance for breeding waterfowl, this focus area hosts hundreds of species of plants, butterflies, reptiles, amphibians and mammals.

It is widely believed that the most viable technique for conserving the unique habitats of this region is to forge new and accelerated partnerships with the local ranching community (Higgins et al. 2002). In an effort to save the grassland character of this focus area, the SD PFW program has joined a diverse cadre of partners to foster a sustainable grassland economy based on family livestock ranching. The SD PFW program has developed an integrated system of habitat conservation programs designed to simultaneously benefit the grazing lands needed by ranchers and the vital wetland

and grassland landscapes needed by a wide variety of Federal trust species. Specific PFW program habitat actions include restoring grasslands and wetlands, implementing beneficial grazing systems, and creating wetlands. SD PFW program also provides technical assistance to support voluntary conservation easements. The efforts of the SD PFW program are largely based upon the broad strategies and goals of the North American Waterfowl Management Plan (NAWMP 2004), the National Partners in Flight Plan (Rich et al. 2004, Pashley et al. 2000), the northern plains/pothole portion of the U.S. Shorebird Conservation Plan (Skagen and Thompson 2001) and the North American Waterbird Conservation Plan (Beyersbergen et al. 2004, Kushlan et al. 2002). All of these conservation efforts endorse strategically targeted landscape-scale habitat work as an effective vehicle for conservation, especially for birds. For example, the 2004 northern prairie and parkland portion of the North American Waterbird Conservation plan notes that two priority habitat needs are to (1) “prevent wetland loss through legal protection, acquisition, and conservation easements”, and (2) “prevent upland loss through legal protection, agricultural program incentives, acquisition and conservation easements.” Likewise, the 2000 northern mixed-grass prairie portion of the national Partners in Flight plan (Pashley et al. 2000) notes that “Maintenance of large un-fragmented grassland ecosystems is the conservation objective for the coteau areas where agriculture is not dominant.” The SD PFW program strives to further this philosophy primarily by partnering with family ranchers.

Along with its biological significance, this region is also widely recognized as the national focal point for the ongoing debate regarding the loss of native prairie. Thousands of acres of native prairie are annually converted to cropland in this focus area. The conversion of native prairie grasslands to cropland has recently drawn a wide degree of interest from academia (Conner et al. 2001), ecologists

(Ogg 2006), policy analysts (GAO 2003, GAO 2007 and CRS 2007) and wildlife conservationists (Higgins et al. 2002). The PFW program actively works with all interests in the area to promote sustainable land uses that benefit both landowners and landscapes. The primary goal of the PFW program is to maintain and restore the landscape characteristics associated with high bird recruitment in the face of a rapidly changing agricultural landscape. Primary partners in the SD PPR

- Priority Species**
- Bobolink
 - Black tern
 - Marbled godwit
 - Mallard
 - Blue-winged teal
 - Northern pintail
 - Gadwall
 - Northern shoveler
 - American avocet
 - Topeka shiner
 - Western meadowlark
 - LeConte's sparrow
 - Chestnut-collared longspur
 - Virginia rail
 - Grasshopper sparrow
 - Dickcissel
 - Wilson's phalarope
 - Sedge wren
 - Ferruginous hawk
 - Dakota skipper

South Dakota Prairie Pothole Region Focus Area Five Year Targets

- Grassland Restoration = 4,500 acres
- Grassland Enhancement = 105,000 acres
- Wetland Restoration = 1,100 acres
- Wetland Establishment = 450 acres

Implementation strategy for habitat objectives: Grassland objectives will be met by expanding the number of projects completed with livestock producers, primarily cattle ranchers. Wetland objectives will be primarily addressed by restoring wetlands in partnership with landowners who own and manage land for non-agricultural purposes or for ranching. A special emphasis will be placed on integrating wetland and grassland restoration projects with Service perpetual conservation easements.

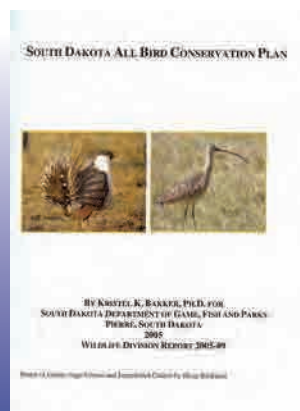
Partnerships

- Number of new landowner partners = 350 landowners
- Amount of technical assistance = 300 staff/days
- Percentage of leveraging = 70% or more of non-1121 sources

Implementation strategy for partnership objectives: New partners will primarily be landowners who value grassland and wetland habitats. Along with financial assistance, the SD PFW program also provides a significant degree of technical assistance for habitat projects. A primary emphasis will be placed on assisting ranchers with developing grazing management plans for their operations. The SD PFW program will continue to secure a high proportion of "non-1121" funding sources for habitat projects. This will be accomplished through a combination of grant writing, non-federal partner contributions and requiring some degree of landowner input for most projects.

Focus Area include DU, PF, the South Dakota Association of Conservation Districts, the East Dakota Water Development District, the South Dakota Izaak Walton League, the Sisseton-

Wahpeton Sioux Tribe, Northern Prairies Land Trust, the South Dakota Grassland Coalition, the South Dakota Department of Game, Fish and Parks, and hundreds of landowners.



The Prairie Pothole Joint Venture Implementation Plan and the South Dakota All Bird Conservation Plan play an integral role in guiding PFW philosophy and project implementation in the South Dakota PFW PPR Focus Area.



Much of the South Dakota PPR Focus Area is characterized by large grassland tracts with high wetland densities. USFWS Photo.



The South Dakota PPR Focus Area annually serves as vital breeding and migration habitat for millions of waterfowl. Photo by Dennis Larson, NRCS.



PFW wetland establishment in the South Dakota PPR Focus Area. USFWS Photo.



PFW wetland restoration in the South Dakota PPR Focus Area. USFWS Photo.



PFW grassland restoration in the South Dakota PPR Focus Area. Photos by Bob Speck.



PFW grassland restoration in the South Dakota PPR Focus Area. USFWS Photo.

South Dakota Southern Plains Focus Area



Focus Area Description and Justification:

The South Dakota Southern Plains Focus Area is characterized by large native grassland tracts and some of the highest natural wetland densities in western South Dakota (Rieger et al. 2006). This area was slightly adjusted from previous years to work with key partners in additional high priority grassland areas. PFW efforts are largely based upon the conservation goals of the North American Waterfowl Management Plan (NAWMP 2004), the National Partners in Flight Plan (Rich et al. 2004, Pashley et al. 2000), the Northern Great Plains Joint Venture concept Plan (NGPJV 2001) and the Northern Great Plains Joint Venture (NGPJV) Implementation plan (Pool and Austin 2006). All of these plans endorse landscape-scale habitat work as an effective vehicle for conservation, particularly for migratory birds.

Working with ranchers to maintain and restore grasslands is widely noted as the most effective way to conserve trust species habitat in this region. The 2001 concept plan for the Northern Great Plains Joint Venture (NGPJV 2001) notes that-“Preservation of a ranching lifestyle is considered critical to maintaining prairie ecosystems because of the dependence on grass and other natural features.” Likewise, the Partners in Flight conservation plan (Pashley et al. 2000) for this portion of South Dakota notes that “Maintenance of a ranching economy here is compatible with the needs of grassland birds and should be the highest conservation priority.”

The SD PFW program supports this philosophy by providing a wide

variety of conservation options to assist ranchers in meeting their grassland stewardship goals. Specific conservation practices cost-shared by the SD PFW program include rotational grazing systems, native grassland restorations and wetland establishments. Ground nesting songbirds, shorebirds and waterfowl receive particularly high benefits from PFW grassland conservation efforts.

A diverse group of partners have joined SD PFW in conserving this unique landscape by fostering a sustainable grassland economy based on livestock ranching. Primary partners in this effort include DU, PF, the South Dakota Association of Conservation Districts, the North Central Resource Conservation and Development Association, the Lower Brule Sioux Tribe, the South Dakota Department of Game, Fish and Parks, and hundreds of landowners. Together we strive to

maintain a viable grassland-wetland landscape that meets the long term needs of the landscape and landowners.

Priority Species

- Long-billed curlew
- Northern pintail
- Short-eared owl
- Lark sparrow
- Lark bunting
- Chestnut-collared longspur
- Savannah sparrow
- American wigeon
- Black-tailed prairie dog
- Wilson’s phalarope
- Virginia rail
- Ferruginous hawk
- Black-footed ferret

South Dakota Southern Plains Focus Area Five Year Targets

- Grassland Restoration = 600 acres
- Grassland Enhancement = 15,000 acres
- Wetland Establishment = 600 acres

Implementation strategy for habitat objectives: Wetland objectives will be primarily addressed by creating multiple purpose wetlands that provide trust species benefits and provide ranchers with additional options for livestock water and grazing management. Grassland objectives will be met by expanding the number of grazing management projects completed with livestock producers, primarily cattle ranchers.

Partnerships

- Number of new partners = 190 landowners
- Amount of technical assistance = 150 staff/days
- Percentage of leveraging = 60% or more of non 1121 sources

Implementation strategy for partnership objectives: New partners will primarily be landowners who value grassland habitats for livestock grazing. Along with financial assistance, the SD PFW program also provides a significant degree of technical assistance for habitat projects. A primary emphasis will be placed on assisting ranchers with developing grazing management plans for their operations. The SD PFW program will continue to secure a high proportion of “non-1121” funding sources for our habitat projects. This will be accomplished through a combination of grant writing, non-federal partner contributions and requiring some degree of landowner input for most projects.



PFW wetland establishment in the Southern Plains Focus Area. USFWS photo.

Before

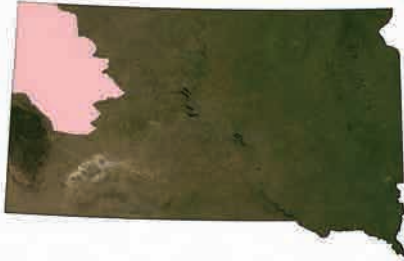


After



PFW grassland restoration in the Southern Plains Focus Area. USFWS photos.

South Dakota High Plains Focus Area



Focus Area Description and Justification:

The South Dakota High Plains Focus Area is characterized by large native grassland tracts interspersed with a wide variety of riparian features (Rieger et al. 2006). The northwest portion of this area is the only region of South Dakota containing sagebrush communities. The FY 2012-2016 strategic plan boundary of the High Plains Focus Area was updated slightly from previous years, based on new location data for greater sage-grouse leks. SD PFW program efforts within this focus area are closely aligned with the conservation goals of the North American Waterfowl Management Plan (NAWMP 2004), the National Partners in Flight Plan (Rich et al. 2004, Pashely et al. 2000), the Northern Great Plains Joint Venture Concept Plan (NGPJV 2001), the Northern Great Plains Joint Venture Implementation Plan (Pool and Austin 2006). All of these bird conservation efforts endorse landscape scale habitat work as an effective vehicle for bird conservation.

The SD PFW program works hard to implement this concept by working closely with local ranchers. For example, wetland creations provide wildlife habitat and also serve as a vital tool for supporting a ranch-based grassland economy. The 2001 concept plan for the Northern Great Plains Joint Venture (NGPJV 2001) notes that “Shallow-water impoundments provide several positive benefits to the NGPJV landscape. In the broadest terms, they help to keep ranchers in the business of growing grass instead of converting grasslands to tillage agriculture.” Other typical conservation actions

offered via the PFW program in the High Plains Focus Area include riparian fencing, rotational grazing systems and native grassland restorations.

Primary partners assisting the SD PFW program in the High Plains Focus Area include DU, PF, the South Dakota Association of Conservation Districts, the North Central Resource Conservation and Development Association, the National Fish and Wildlife Foundation, the South Dakota Department of Game, Fish and Parks, and hundreds of landowners.

Priority Species

- Sprague’s pipit
- Chestnut-collared longspur
- Northern pintail
- American wigeon
- Greater sage-grouse
- Long-billed curlew
- Brewer’s sparrow
- Black-billed cuckoo
- Upland sandpiper
- Grasshopper sparrow

South Dakota High Plains Focus Area Five Year Targets

- Grassland Restoration = 300 acres
- Grassland Enhancement = 10,000 acres
- Wetland Establishment = 300 acres

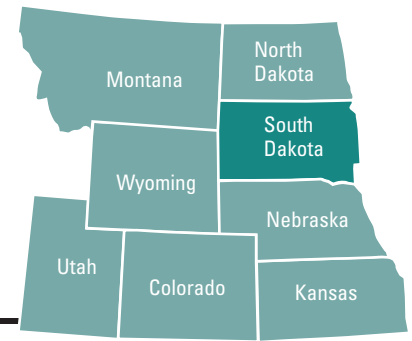
Implementation strategy for habitat objectives: Riparian objectives will be reached by continuing to expand riparian based partnerships throughout the focus area. Specifically, the PFW program will continue to work closely with local conservation districts to identify strategic riparian restoration locations and funding opportunities. Wetland objectives will be primarily addressed by establishing multiple purpose wetlands that provide trust species benefits and provide ranchers with additional options for livestock water and grazing management. Grassland objectives will be met by expanding the number of grazing management projects completed with livestock producers, primarily cattle ranchers. In addition to direct benefits to conservation, PFW wetland and grassland projects can also play an important role in moderating any potential future effects of climate change (Milmoie and Forman 2008). For example, managed grasslands have the ability to retain carbon (Conant 2010) and provide the most favorable watershed conditions for maintaining wetland hydrology (Voldseth et al. 2009).

Partnerships

- Number of new partners 110 landowners
- Amount of technical assistance = 75 staff/days
- Percentage of leveraging = 60% or more of non-1121 sources

Implementation strategy for partnership objectives: New partners will primarily be landowners who value grassland and riparian habitats. Along with financial assistance, the SD PFW program also provides a significant degree of technical assistance for habitat projects. A primary emphasis will be placed on assisting ranchers with developing grazing management and riparian deferment plans for their operations. The SD PFW program will continue to secure a high proportion of “non-1121” funding sources for our habitat projects. This will be accomplished through a combination of grant writing, non-federal partner contributions and requiring some degree of landowner input for most projects.

South Dakota Statewide Goals



Improve Information Sharing and Communication

Objectives:

- Actively participate in 50 meetings, conferences or workshops throughout South Dakota.
- Actively participate in, or sponsor, 15 landowner-based field tours throughout South Dakota.
- Actively participate in 20 NRCS technical committee meetings or associated sub-committee meetings throughout South Dakota.
- Actively participate in 5 Congressional outreach activities or briefings.
- Participate in, or facilitate, 5 media events/stories on private lands conservation in South Dakota.
- Participate in the meetings of, or provide information to the Prairie Pothole Joint Venture or the Northern Great Plains Joint Venture at least 15 times collectively.
- Participate in, or facilitate, 10 school field trips or other environmental education events.

Implementation Strategy: As in previous years, the primary vehicle for improved communication with landowner groups will be the ongoing relationship between the SD PFW program and the South Dakota Association of Conservation Districts. PFW program routinely participates in county level conservation district functions and this relationship is the basis of many multi-partner funding agreements. In addition, the SD PFW program will remain very active in the NRCS state technical committee. Specifically, PFW program personnel are standing members of the sub-committees for the WRP, GRP, WHIP, EQIP, and CRP. The SD PFW program will continue to improve communications at the regional and national levels by maintaining a strong presence in a wide variety of work groups and committees. Specifically, PFW employees are standing members of the Services' Farm Bill Working Group, the Northern Great Plains Working Group and the technical committees of both the Prairie Pothole and Northern Great Plains Joint Ventures.



PFW wetland establishment in the High Plains Focus Area. Photo by Steve Fairbairn, USFWS.

Enhance Our Workforce

Objectives:

- Annually provide each PFW biologist 40 hours of training on a wide variety of topics including, but not limited to, habitat conservation, GIS techniques, career development and natural resource conservation policy.
- Annually provide award recognition for two key PFW accomplishments.
- Strategically place new PFW biologists in initial positions where they can be effectively mentored by senior PFW staff.

Implementation Strategy: Most PFW training needs will be met through the annual PFW staff meeting. Annual PFW program training provides a mix of policy updates, technical training and guest presentations. These sessions also have input from key partners throughout South Dakota. Ad hoc meetings and training sessions will be held as necessary. The current PFW staffing chart has biological science technician positions approved for key locations throughout the state. These positions are currently all vacant. In the future, when staffing these positions, a primary consideration will be locating new staff where they can best be mentored by senior PFW field biologists.



American avocet on a PFW wetland establishment in the High Plains focus area. Photo by Steve Fairbairn, USFWS.



PFW Biologist Jennifer Briggs working with landowners on a grassland conservation tour. USFWS Photo.

Increase Accountability

Objectives:

- Complete 5 annual narratives documenting PFW activities throughout South Dakota.
- Annually enter 200-300 new PFW projects into the HAPET-PLGIS and integrate this same data into HabITS.
- Coordinate with HAPET to complete 20 shorebird surveys in the PPR Focus Area.
- Increase the degree of PFW program evaluation in the Northern Great Plains Joint Venture by working with HAPET to annually conduct waterfowl and shorebird surveys on 100 PFW projects.
- Consult on 5 University-level research projects with direct benefits to the PFW program and/or trust-species conservation.
- Increase the number of HabITS entries with associated photos by 5% each year.

Implementation Strategy: The SD PFW program will continue to actively develop and maintain a full GIS coverage and associated database of all historic PFW projects in South Dakota. In addition, all new PFW projects will annually be entered into a HAPET managed GIS system. This information will then be the basis for quantifying trust species benefits of PFW projects. The SD PFW program will work closely with the Region 6 HAPET office to model species benefits. Initial benefits will be quantified for PFW wetland and grassland projects and their use by mallard, gadwall, blue-winged teal, northern shoveler and northern pintail in the PPR focus area (see attached table quantifying biological outcomes). SD PFW program staff will also continue to work closely with HAPET staff to assess the benefits of restored or enhanced wetlands to waterfowl and shorebirds in the High Plains and Southern Plains focus areas. In addition, SD PFW program staff have a long history of coordinating with researchers at South Dakota State University. This relationship will continue with a proximate emphasis on grassland management techniques that are both economically viable and ecologically sustainable. Assurances will be taken that all PFW field staff have state-of-the-art digital cameras and a renewed emphasis will be placed on increasing the number of PFW projects photographed during the course of completing annual waterfowl and shorebird surveys.

The South Dakota PFW program has digitized habitat features on over 5,600 Wildlife Extension Agreements. This information is used to evaluate the biological outcomes of current PFW projects and to provide a strategic basis for the implementation of future projects. USFWS photo.

An example of strategic targeting of PFW projects is the distribution of USFWS grassland easements and PFW projects closely correlated with high quality breeding habitat for bobolink. Analysis and map provided by Neal Niemuth, Region 6 HAPET office.

External Factors

The agricultural landscape of South Dakota is going through a period of significant change (SDASS 2010). Economic and technological realities are continuing to transform much of the northern great plains from native grassland used for ranching to tillage agriculture (Hoekstra et al. 2005, Rashford et al. 2010). While this type of landscape change is occurring throughout all of the northern great plains, the pattern is particularly evident in South Dakota. In a 2007 report published by the United States Government Accountability Office it was noted that "... from 1982-1997, 1.69 million acres of cropland in South Dakota were enrolled in the Conservation Reserve Program, while during the same period, 1.82 million acres of grassland in South Dakota were converted to cropland." The continued conversion of grassland to cropland has also been accompanied by a westward expansion of drainage tile. The external economic factors that are driving these types of landscape change also directly impact the PFW program's ability to forward grassland and wetland conservation. The conservation philosophy of the SD PFW program is largely based upon working with family ranchers who have a shared vision of grassland and wetland conservation. This type of landowner-based partnership is widely supported as the most efficient way to conserve the remaining intact grassland/wetland landscapes of the Northern Great Plains (Higgins et al. 2002). However, the effectiveness of this strategy can be impacted by the external realities of a rapidly changing agricultural economy.



SD PFW staff regularly participate in grazing workshops sponsored by the South Dakota Grassland Coalition. USFWS Photo.



SD PFW will continue to participate in a wide variety of stakeholder meetings, events and field trips. SD PFW staff participated in a April 29, 2011 visit to South Dakota by Secretary of the Interior Ken Salazar. As part of the visit Secretary Salazar signed a WEA to implement a rotational grazing management plan. Pictured left to right at the WEA signing ceremony: Secretary of the Interior Ken Salazar, Lyle Perman (landowner) and Allen Olson (PFW biologist). USFWS photo.



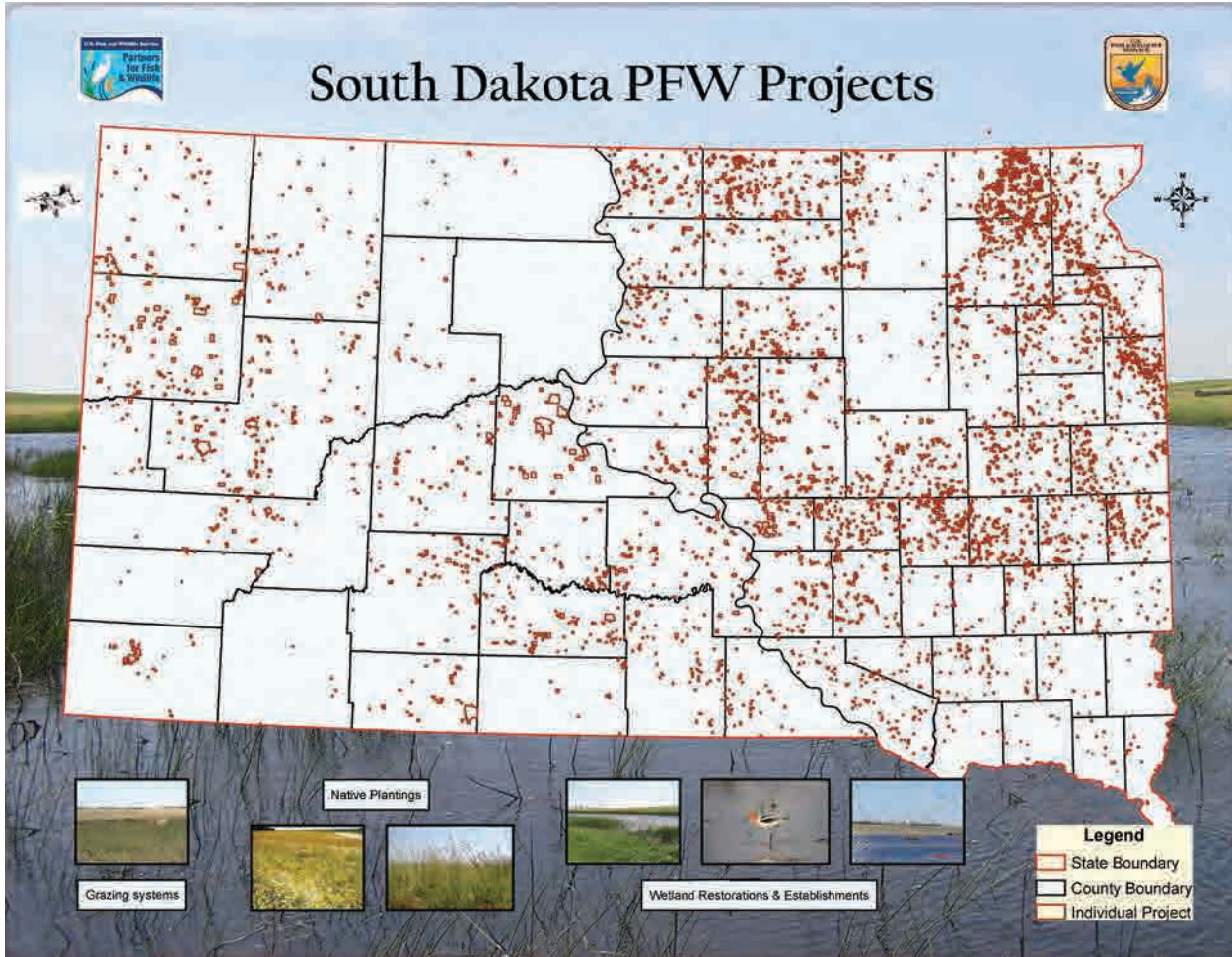
SD PFW will continue to recognize and support the full spectrum of landowner and NGO conservation partners. At the 2011 Pheasant Fest in Omaha, PFW recognized Pheasants Forever (PF) staff members Joe Duggan and Ron Leathers for their outstanding support. Pictured from left to right: Howard Vincent- PF president and CEO, Heather Johnson- Region 6 PFW Coordinator, Joe Duggan- PF vice-president of corporate relations, Colleen Duggan, Ron Leathers- PF national grants coordinator and Kurt Forman- SD PFW coordinator. Photo by Matt Filsinger, USFWS.



SD PFW staff meet annually to receive training in the latest habitat restoration techniques. USFWS Photo.



Boyd Schulz of the South Dakota PFW program works with Dave Steffen of the South Dakota Grassland Coalition during a PFW-sponsored grazing workshop and training event. USFWS Photo.



This map represents SD PFW projects from 1987-2011 signifying 25 years of tremendous success. Boyd Schulz, USFWS.



New economic realities in agriculture continue to play a central role in defining landscape change throughout the Northern Great Plains. USFWS Photos.

Biological Outcomes

Estimated waterfowl breeding pair habitat and recruitment benefits for USFWS PFW wetland and grassland projects implemented in 2012-2016 in the South Dakota Prairie Pothole Focus Area (Data prepared by USFWS Region 6 HAPET office, June 2011)

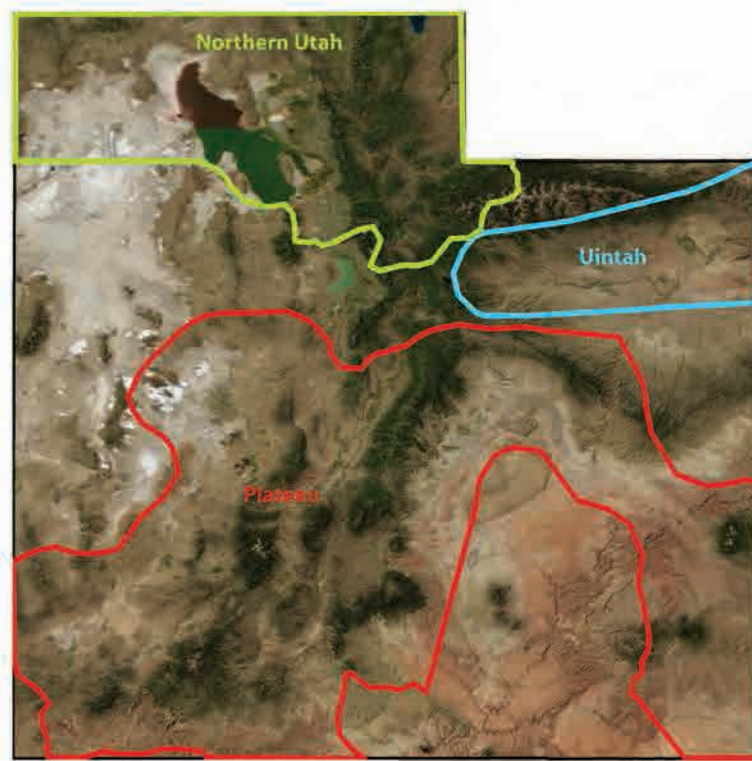
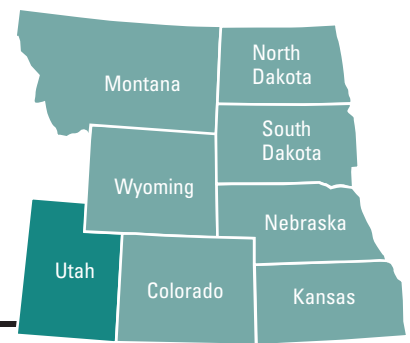
Background: The South Dakota PFW program continues to work closely with a variety of wildlife researchers to quantify biological outcomes in specific PFW focus areas. Most notably, PFW staff have collaborated with the USFWS Region 6 HAPET office to assess duck recruitment and habitat protection outcomes in the PFW Prairie Pothole Focus Area of South Dakota. Published data and peer reviewed HAPET models were used to model recruitment and habitat protection benefits for five key waterfowl species (mallard, gadwall, blue-winged teal, northern shoveler and northern pintail). It is estimated that PFW projects completed in the next five years will result in positive recruitment and habitat protection benefits to over 350,000 ducks during the term of the associated Wildlife Extension Agreements. More specific recruitment outcomes are described by conservation practice type in the following table.

Estimated Waterfowl Breeding Pair and Recruitment Benefits - South Dakota Focus Areas, 2012-2017									
State	Focus Area	Project Type	Class	Target Acres	Term (Yrs)	Annual Pairs ¹	Cumulative Pairs ²	Annual Productivity ³	Cumulative Productivity ⁴
				Cumulative		64,476		230,470	
South Dakota	> 25 Breeding Duck Pairs East River	Wetland Restoration							
		Temporary		143	10	205	2,050	259	2,590
		Temporary		77	99	110	10,890	140	13,860
		Seasonal		214	10	303	3,030	384	3,840
		Seasonal		117	99	166	16,434	210	20,790
		Semipermanent		357	10	514	5,140	271	2,710
		Semipermanent		192	99	115	11,385	146	14,454
		Totals		1,100		1,413	48,929	1,410	58,244
		Wetland Creation	Semipermanent	450	10	270	2,700	342	3,420
		Totals		450		270	2,700	342	3,420
		Grassland Restoration	New	1,665	10			361	3,610
				2,835	99			615	60,885
		Totals		4,500				976	64,495
		Grassland Enhancement	Maintenance	105,000	10			22,785	227,850
		Totals		105,000				22,785	227,850
Grand Totals				1st 10 Years		16,830		255,130	
				Remaining Years		34,799		98,879	
				Cumulative		51,629		354,009	

Considerations

1. Duck breeding pair values per acre of wetland were estimated for each focus area by summing the number of total pairs for the focus area by wetland class, and dividing by the total acres of wetland for the respective class.
2. The estimated cumulative value of wetland related private lands projects for breeding pairs is $PAIRS = ((Acres\ of\ Wetland) * (Pair\ Value) * (Agreement\ Duration))$.
3. Recruits related to the acres of wetland restored or created by private lands projects are calculated using the estimated number of pairs benefiting from wetland projects and subsequent recruitment derived from Four Square Mile Breeding Waterfowl data. Recruits related to the acres of grassland restored or protected from loss by implementing grazing systems (i.e., enhanced) were derived from scenarios of grassland change using the mallard model for areas in central North and South Dakota and subsequent changes in duck recruitment.
4. The estimated cumulative recruitment value of wetland and grassland related private lands projects for ducks is $WETLAND\ PROJECT\ BASED\ RECRUITS = ((Number\ of\ Breeding\ Duck\ pairs) * (Recruitment\ Value) * (Agreement\ Duration) - (\#\ of\ PAIRS\ because\ there\ are\ no\ 1st\ year\ benefits))$; $GRASSLAND\ PROJECT\ BASED\ RECRUITS = ((Acres\ of\ Grassland) * (Recruitment\ Value) * (Agreement\ Duration))$.
5. Recruits associated with grassland restoration are considered new recruits to the population.
6. Recruits associated with grassland enhancement (i.e., grazing systems) are considered existing recruits protected for the duration of the agreement.

Utah



Utah Partners Program Conservation Focus Areas

Introduction and Overview

Utah is the 13th largest state in the nation with approximately 20% of the land base being privately owned (Utah facts 2011). This private landownership represents reasonable program potential with approximately 16,980 square miles or 10,867,200 acres being privately owned.

Utah is the second driest state in the nation with 13" of average annual precipitation (Water facts 2011). This dry climate makes lakes, streams, and springs extremely important areas for both human and wildlife species. Privately owned property along these water-rich areas provide valuable habitat for Federal trust species and opportunities for the PFW

program. Sagebrush steppe habitat associated with low precipitation zones is another valuable habitat type for numerous Federal trust species, such as the greater sage-grouse.

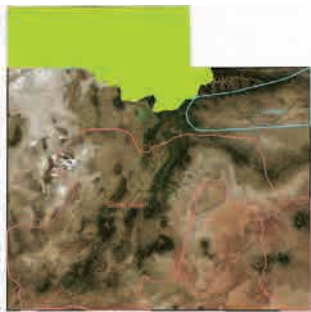
Some of the threats to key habitats include invasive species, developmental pressure, channel alterations, along with past and current land use practices.

Focus areas were developed using the following criteria:

- Species Diversity and Trust Responsibility
- Intact Landscapes
- Threats
- Public Land – Private Land relationships and patterns
- Partnership Opportunities

The original strategic plan developed for 2007-2011 had more individual focus areas with some of the areas adjoining each other. This FY 2012-2016 plan, condensed these smaller focus areas into two specific focus areas and added a new one. Previous focus areas were consolidated because similar key species were commonly found across borders. The original focus areas that were merged had similar habitat types and species of interest. The new focus areas contain a combination of private and public property with core areas for specific wildlife species occurring within the boundaries. PFW biologists will concentrate their efforts in these strategic areas.

Northern Utah Focus Area



This focus area contains the watershed for the Bear River, the Ogden River, and a portion of the Jordan River. These three watersheds contribute the majority of the water for the Great Salt Lake which terminates in a closed basin. This area has 68% private ownership comprised primarily of farming, ranching, private wetland management areas, and municipalities. Northern Utah has diverse habitat types influenced primarily by changes in elevation and precipitation. Wetland habitats

found within this area are often associated with the Great Salt Lake and the valley corridor of the Bear River. The value of the wetland complexes in this area was recognized and designated as a site of hemispheric importance by the Western Hemispheric Shorebird Reserve Network (WHSRN). This designation is defined as an area having at least 500,000 shorebirds annually and at least a 30% species biographic population. These wetlands are also vitally important to a number of waterfowl with approximately 50% of all U.S. nesting cinnamon teal using the area, along with the greatest concentration of redheads in North America occurring in the Great Salt Lake region (Bellrose).

The upland portions at lower elevations are dominated by sagebrush intermixed with grassland areas and provide valuable habitat to greater sage-grouse, sharp-tailed grouse, pygmy rabbits and other upland species.

Moving higher in elevation the vegetation changes to spruce, fir, and aspen dominated communities. Interspersed throughout the area are stream/riparian communities which are important to native fish and neotropical migrants.

Priority Species

- Cinnamon teal
- Redhead
- Bonneville cutthroat trout
- Least chub
- Greater sage-grouse
- Columbian sharp-tailed grouse
- Long-billed curlew
- White-faced ibis
- Yellow warbler



Stream restoration project Utah PFW. USFWS photo.

Northern Utah Focus Area Five Year Targets

- Upland Restoration/Enhancement: 8,625 acres
- Riparian Restoration/Enhancement: 10 miles
- Wetland Restoration/Enhancement 500 acres
- In-stream Structures: 10

Partnerships

- New landowner partners: 55
- Other new partners: 10
- Amount of technical assistance: 250 staff days
- Percentage of leveraging (ratio Service to Partner): 1:3



Great Salt Lake in Utah. USFWS photo.

Plateau Focus Area



This focus area is 20% privately owned with the predominate use being grazing or irrigated farmland. The other 80% of the land mass is managed by the Forest Service, BLM and National Park Service. There are three physiographic regions within this focus area. They are the Colorado Plateau, the

Great Basin, and the transition zone between the Colorado Plateau and the Great Basin. The landscape consists of a wide variety of habitat types with upland areas consisting of sagebrush, pinyon-juniper, and aspen conifer communities. Streams and rivers with riparian habitats occur throughout the area with some localized wetland habitat interspersed throughout valley bottoms. This area contains numerous species that are Federally threatened and endangered. The endangered species found within this focus area include the southwestern willow flycatcher, humpback chub, and virgin chub. Stream and riparian restoration efforts on private property benefitting these species will be implemented whenever

possible. The only populations of the threatened Utah prairie dog are found within this landscape and upland work on private property will be a priority when opportunities arise.

Priority Species

- Southwestern willow flycatcher (Endangered)
- Bonneville and Colorado River cutthroat trout
- Bonytail (Endangered)
- Colorado pikeminnow (Endangered)
- Woundfin (Endangered)
- Gunnison's sage-grouse
- Greater sage-grouse
- Utah prairie dog (Endangered)



Cinnamon teal in Great Salt Lake focus area. USFWS photo.



Geologic formation in Utah containing a riverine system. USFWS photo.

Plateau Focus Area Five Year Targets

Primary Habitat Restoration and Enhancement Efforts

- Upland
- Seeding/vegetative manipulation
- Invasive Species Control
- Grazing Management
- Stream and Riparian
- Channel restoration
- Riparian Plantings
- Invasive Species Control
- Grazing Management
- Removal of fish barriers
- Installation of fish screens
- Wetland Management and Enhancement
- Repair/installation of dikes and water control structures
- Invasive Species Control
- Grazing Management

Five Year Targets

- Wetlands Restored/Enhanced – 35 acres
- Uplands Restored/Enhanced – 10,000 acres
- Stream/riparian – 4 miles

Partnerships

- | | |
|--|----------------|
| 1) Number of private landowners | 30 |
| 2) Number of new partners (in addition to landowners) | 3 |
| 3) Percentage of leveraging (ratio of Service to Partners dollars) | 1:3 |
| 4) Technical Assistance | 150 Staff Days |

Uintah Focus Area



land areas consisting of sagebrush, pinyon-juniper, and aspen conifer communities. Scattered within the area are streams and rivers with riparian habitats and wetlands associated with the rivers. The Colorado pikeminnow, Bonytail, and Colorado River cutthroat trout are found within this focus area.

Priority Species

- Greater sage-grouse
- Bonytail (Endangered)
- Colorado pikeminnow (Endangered)
- Colorado River cutthroat trout

This focus area is 31% privately owned and contains two physiographic regions. The two regions are the Colorado Plateau and the Middle Rocky Mountains. The landscape is comprised primarily of up-



Project partners standing at a water control structure used to manage a wetland restoration. USFWS photo.

Uintah Focus Area Five Year Targets

Primary Habitat Restoration and Enhancement Efforts

- Upland
- Seeding/vegetative manipulation
- Invasive Species Control
- Grazing Management
- Stream and Riparian
- Channel restoration
- Riparian Plantings
- Invasive Species Control
- Grazing Management
- Fish barrier removal
- Installation of fish screens
- Wetland Management and Enhancement
- Repair/installation of dikes and water control structures
- Removal of dikes to restore connectivity of river floodplains
- Invasive Species Control
- Grazing Management

Five Year Targets

This focus area is not currently staffed so the target is primarily realized through technical assistance. The technical assistance will be accomplished utilizing a joint position that will have a sole emphasis of targeting Federal Farm Bill funding to benefit greater sage-grouse. There is also potential to work with the state, the Colorado River recovery efforts, and the Fisheries Assistance Office to deliver projects benefitting the Federally threatened and endangered fish species found in the Colorado river and tributaries located within this focus area.

Partnerships

Develop at least one new partner in addition to the private landowners each year.
Percentage of leveraging (ratio of Service to Partners dollars) 1:3

Related Plans

- Intermountain West Joint Venture Coordinated Bird Conservation Plan Version 1.1 (IMWJV, 2005)
- United States Shorebird Conservation Plan (May 2001)
- Waterbird Conservation for the Americas, North American Waterbird Conservation Plan (Version 1)
- Coordinated Implementation Plan for Bird Conservation in Utah (Utah, 2005)
- Partners in Flight physiographic regions. (Pashley, 2000)
- Utah Comprehensive Wildlife Conservation Strategy (Gorell, 2005)
- Range-Wide Conservation Agreement and Strategy for Bonneville Cutthroat Trout (Lentsch 2000)
- Conservation Assessment of Greater Sage-Grouse and Sagebrush Habitat (Connelly, 2004)
- Status Assessment and Conservation Action Plan for the Long-billed Curlew (*Numenius americanus*) BTP-R6012-2009
- Bear River Conservation Action, The Nature Conservancy 2010.
- North American Waterfowl Plan (NAWP, 2004)
- Boreal toad (*Bufo boreas boreas*) Conservation plan in the State of Utah (Hogrefe, 2005)
- Conservation agreement and strategy for least chub (*Iotichthys phlegethontis*) in the State of Utah (Bailey, 2005)
- Conservation Agreement and Strategy for Spotted Frog (Perkins, 1998)
- Gunnison's sage-grouse (*Centrocercus minimus*) Conservation Plan San Juan County Utah



Sagebrush-steppe is a major habitat type within the Uintah Focus Area. USFWS photo.

Utah Statewide Goals



Improve Information Sharing and Communication

Objective: Collaborate and share information and concerns with our partners, stakeholders, potential future partners, decision-makers, and others to protect, restore, and enhance trust resources.

- 1) Complete a yearly annual report detailing number of technical assistance contacts.
- 2) Attend coordination meetings which include; state technical committee meetings for Farm Bill implementation, Intermountain West Joint Venture (IWJV) yearly meeting, sage-grouse working group meetings, and local Utah partners for conservation development working groups.
- 3) Coordinate with other Service offices, Natural Resources Conservation Service (NRCS), Trout Unlimited (TU), Ducks Unlimited (DU), Conservations districts, and Utah Department of Natural Resources offices to consolidate efforts for Service trust species.

Enhance Workforce

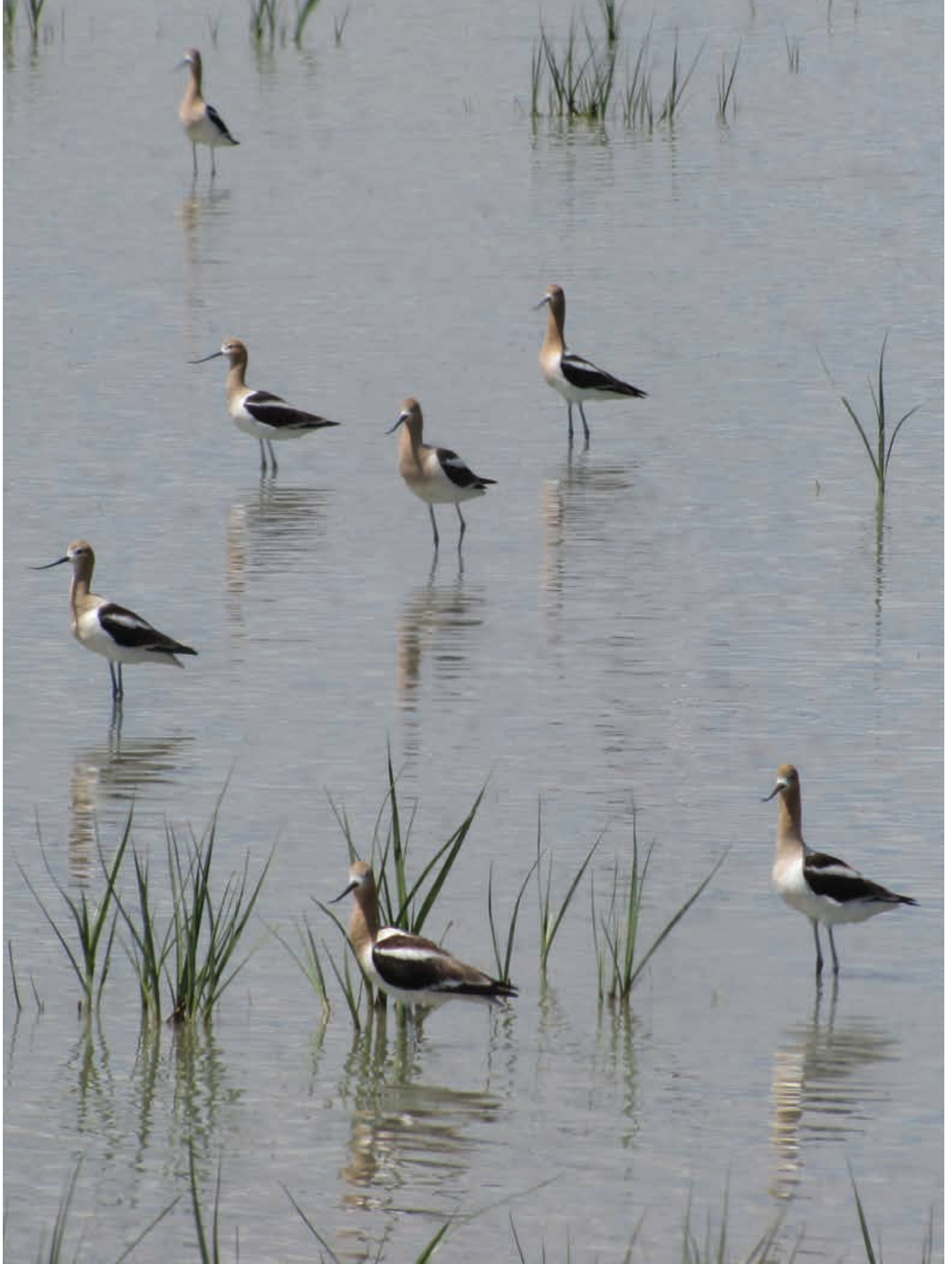
Objective: Maintain and support PFW program staff to insure successful implementation of the PFW program and achieve on the ground results for Federal trust species.

- 1) Insure all employees attend a minimum of 40 hours of training each year
 - a) Media and public outreach training
 - b) Grant writing training
 - c) Resource orientated training such as GIS, Census techniques, etc.
- 2) Leadership program
 - a) Attend leadership training and share experiences through job shadowing
 - b) Temporary details to work with other programs and branches within and outside the Service.
 - 3) Ensure IDP's and employee performance appraisal plans are reviewed and implemented with input from the employees.

Increase Accountability

Objective: Measure, assess, and report the effectiveness, efficiency, and fiscal integrity of the PFW program in Utah.

- 1) Achieve 90% of habitat accomplishments within established HabITS focus area polygons.
- 1) 100% of projects linked to trust species in HabITS.
- 2) Projects reported in HabITS will have some type of photo associated with the project
 - a) 75% will contain pre and post restoration photos in HabITS.
 - b) The pre and post restoration photos will be entered into HabITS within three years of project completion.
- 3) Have a follow-up site inspection on 50% of the projects within 3 years of project completion and have the reports entered into HabITS .
- 4) 90% accuracy for data entry into HabITS.
- 5) Complete 100% HabITS data entry by date requested each FY.



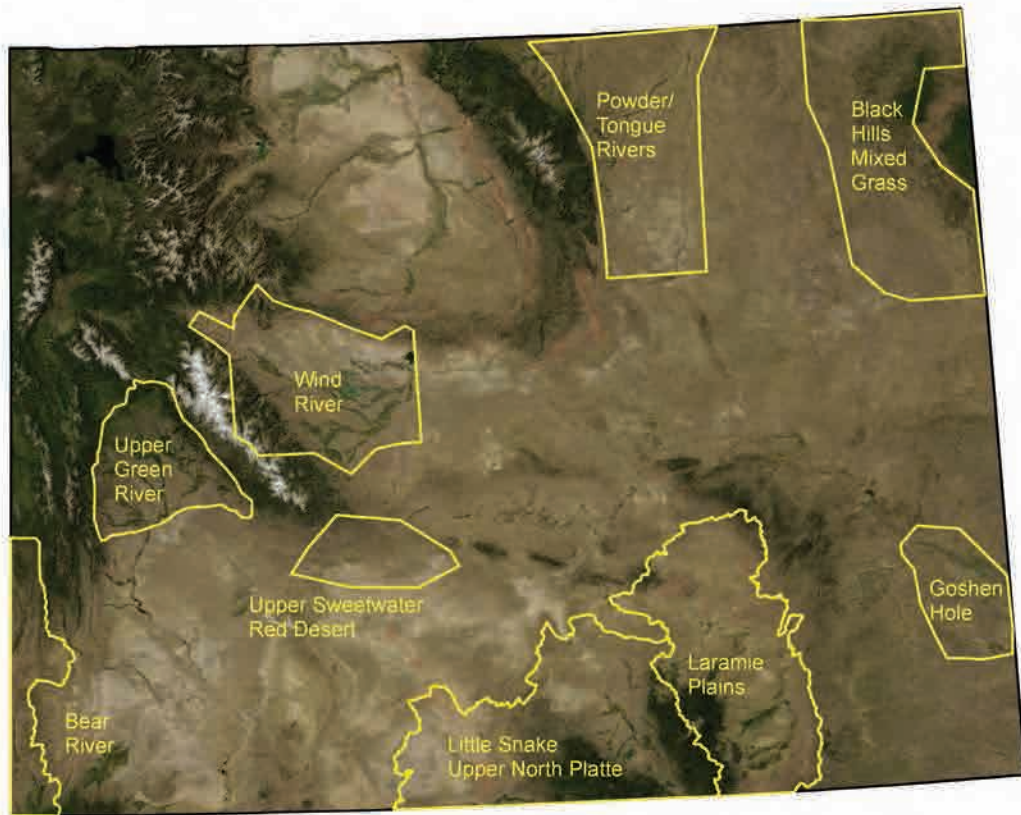
American avocets utilizing a restoration in the Great Salt Lake focus area. USFWS photo.



Utah PFW staff re-seeding a riparian area immediately after heavy equipment restoration work. USFWS photo.



Wyoming



Wyoming Partners Program Conservation Focus Areas

Introduction and Overview

The PFW program has been actively restoring fish and wildlife habitat in Wyoming since 1988. Emphasis has been on building partnerships between various federal, state, local and Tribal governments, conservation organizations, agricultural interests and private landowners. Wyoming (WY) PFW program provides technical and financial assistance for landowners within designated priority areas for on-the-ground habitat developments. Projects are conceived based on Federal trust species habitat needs, landowner and conservation partner interests, and site potential. PFW program staff members are co-located within

local resource offices and work one-on-one with private landowners and other partners to design, permit, and implement a variety of habitat projects for Federal trust species. Major types of habitat restoration, creation, and enhancement activities within our priority areas include:

Wetland Restoration, Enhancement and Establishment

Wetland habitat projects include restorations and enhancements of both natural and created wetlands for the benefit of migratory waterfowl, wading and shorebirds. Natural wetland restorations generally involve restoration of historic hydrology, while created

wetlands often incorporate agricultural water which provides a consistent source to manage for a variety of wetland water regimes. In northeast Wyoming, stock ponds often serve a dual purpose as a livestock water source and shallow water wetlands for migratory bird productivity. Through the combined efforts of over 100 partners more than 5,381 acres of wetland habitats have been restored, established, and enhanced since 1988.

Upland Restoration and Enhancement

Using livestock as the tool of choice, upland enhancements most commonly include improvements in grazing management that allow landowners greater flexibility in

livestock management. This results in improved plant health and/or species composition and habitat for a wide variety of native sagebrush/grassland wildlife. Landowners also receive assistance with developing a grazing management plan for their operation. Mechanical vegetation treatments such as seeding, mowing, disking, and aeration are often combined with grazing management to enhance upland areas. Over 171,000 acres of upland habitat improved, enhanced or restored have been completed since 1998.

Stream Restoration and Enhancement

Stream habitat improvement projects have been closely tied with fish passage and screening to reduce fish entrainment into irrigation systems. Large rock and log in-stream structures are commonly used to restore or

enhance stream habitat features promoting stream bed and bank stability. Since 1998, more than 28 miles of intensive in-stream treatments have been installed for the benefit of native fish.

Fish Passage and Screening

Fish passage or screening projects involve updating irrigation diversion structures to improve native fishes' ability to migrate up and downstream, while reducing the number of fish stranded in irrigation systems. A landowners' ability to utilize water rights is maintained and often enhanced through installation of permanent, low maintenance diversions and delivery improvements. Seven irrigation diversion fish screens have been completed in association with twenty-six fish passage projects.

Riparian Enhancement

Improving livestock grazing management is the primary tool for riparian restorations and enhancements. Developing off-stream livestock water sources and/or fencing riparian areas as separate pastures from uplands are two common approaches to increase management flexibility, with an emphasis on increased plant production in the riparian area. Increasing native riparian plants improves stream bank stability while providing benefits for livestock production as well as fish and wildlife. PFW grazing management projects have improved 168 miles of riparian habitat.

The Wyoming Landscape

Wyoming is biologically and geographically rich as the place



Sonnicant Lake, in the Wind River Range, headwaters to Little Wind River. USFWS photo.



Large working cattle ranch, providing good forage for cattle production as well as wildlife habitat. USFWS photo.

where the Great Plains meets the Rocky Mountains. The Great Plains forms the eastern third of Wyoming while the remaining Rocky Mountains are separated into the Southern and Middle Rockies by a unique eco-region known as the Wyoming Basin. Interrupted by hills and low mountains, the basin area of Wyoming is a broad westward extension of grassland and shrub land more commonly known as sage-steppe. John C. Fremont (1845), a lieutenant in the Army Corps of Topographical

Engineers described the sage-steppe region of Wyoming as “One of the prominent characteristics in the face of this country is the extraordinary abundance of sage. As the country increased in elevation on our advance west, they increased size...rendering progress of our carts rough and slow.” Known as the “rooftop” of watersheds, all but one of Wyoming’s five major rivers originates within Wyoming boundaries and flows into neighboring states. The Continental

Divide extends diagonally across the state from northwest to south central sending melt water in the direction of both the Atlantic and Pacific Oceans. With the majority of precipitation coming in the form of snow, the mountains provide a seasonal reservoir of water for aquatic systems.

Agricultural lands are an important part of Wyoming’s landscape. Private and Tribal land ownership totals over 29.2 million acres of relatively intact fish and wildlife



Habitat Fragmentation and Energy development in the Wyoming Range are significant threats to species conservation. USFWS photo.



habitat. Agricultural operations average 3,761 acres, with livestock grazing being the predominant land use. These large landscapes are traditionally viewed as a “good cattle country” but are also becoming recognized for their important wildlife habitat and open space values.

Wyoming has always had more acres than people, starting with emigrants passing through the “big desert” on their way to the West coast. The 1870 census counted only 9,700 hearty souls willing to stay. Currently, the 2010 census lists Wyoming as the least populated state at 416,000 people. This relative long-term isolation coupled with rugged landscapes, large livestock operations, and plenty of open space has maintained rich fish and wildlife resources. In recent years, rapid domestication of the landscape is occurring from industrial and urban expansion. More than 800 species of fish and wildlife consider Wyoming home, with 279 identified as Species of Greatest Conservation Need (SGCN) in the Wyoming State Comprehensive Wildlife Conservation Plan (WSCWC). Of the 279 (SGNC), approximately 15% are listed due to known threats and stressors, while the remaining 85% are as a result of insufficient information to assess conservation status (WSCWC).

Plan Development

The WY PFW program incorporated input and advice from internal and external stakeholders in five major areas. These included: 1) project priorities 2) focus area boundaries 3) target species lists 4) plans and data sets 5) staffing. Our federal, state and local government partners, non-profit partners, and landowners were engaged in the process at several levels with agency coordination and local workgroup gatherings and through an informal outreach request. Priority areas were initially developed with local input and based on large-scale watersheds. As technology and information transfer improved with time, especially remote sensed habitat

and species mapping, focus areas became much more refined. Development of focus areas was a mix of local landowner and resource professionals working knowledge of the landscape, priority species of partners, habitat and species data sets and partnership opportunities, largely driven by our Federal trust resource responsibilities.

Selection criteria for focus area designation included:

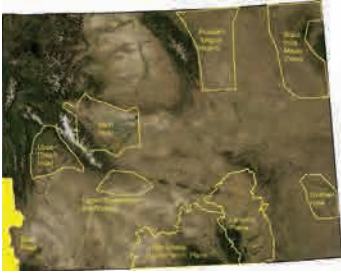
- Federal Trust Species and Associated Habitats
- Partners Species of Concern
- Private /Public Ownership Patterns
- Habitat Fragmentation and Loss
- Partnership Opportunities
- Tribal Trust Responsibilities
- Refuge and Unique Habitats
- Important Priorities of our Partners

Through the refinement process some minor boundary modifications were made to existing focus areas with one major addition of a new focus area, the Little Snake River/ Upper North Platte. Six of the nine focus areas are staffed with PFW biologists or jointly-funded range ecologist positions. With growing concerns over habitat fragmentation and loss of keystone species like the greater sage-grouse, additional emphasis on sage steppe has shifted program priorities necessitating a re-tooling of existing workforce. A limited presence is maintained in un-staffed priority areas to continue building program awareness and maintaining partner relationships until such time additional program expansion is possible.

Related Plans

- Wyoming State Wildlife Action and Strategic Habitat Plan
- Wyoming Landscape Conservation Initiative (WLCI)
- Wyoming Sage-Grouse Core Area Strategy
- USFWS - A Plan for the Management of Fish and Wildlife Resources on the Wind River Reservation
- North American Waterfowl Management Plan
- U.S. Shorebird Conservation Plan
- North American Waterbird Conservation Plan
- Inter-mountain West Joint Venture (IWJV) Implementation Plan
- National Fish Habitat Action Plan (NFHAP)
- USFWS Refuge Comprehensive Conservation Plans
- Local Workgroup Priorities and Plans
- Coordinated Resource Management Plans
- UT, WY TNC Rocky Mountain Eco-regional Plan and Wyoming Basins Ecoregional Plans (TNC)
- The Nature Conservancy’s Bear River Conservation Action Plan
- Audubon – Important Bird Areas of Wyoming
- Ducks Unlimited, Inc, Wyoming: the Platte River and Rainwater Basin Initiative in the Southern Great Plains and the High Country Wetlands initiative in the Northern and Southern Rockies
- Western Native Trout Initiative – A Plan for Strategic Action

Bear River Focus Area



The Bear River Focus Area encompasses about 836,000 acres, of which 53% is private land and 47% is public. Wet meadow and willow-dominated habitats of the Bear River floodplain make up the heart of this area, while surrounding uplands are mostly comprised of sage-steppe and foothills shrublands. A complex of over 40,000 acres of riparian wetlands in the focus area has been identified by the Wyoming Bird Habitat Conservation Partnership, and others, as high-priority for conservation. These wetlands, mostly maintained by flood-irrigation practices, provide breeding and migratory habitat for a diversity and abundance of waterfowl, shorebirds, and waterbirds. However, urban expansion and removal of traditional water rights from the land are ongoing and signify a future threat to these habitats. PFW program activities seek to compensate for these threats through wetland restoration and enhancement of existing wetlands.

Mountain snowmelt provides water for not only wetlands and irrigation, but supports several native fish species in rivers and streams of the area. A notable example is the Bonneville cutthroat trout, native only to tributaries of the Great Salt Lake. Threats to native fish include stream modification, urban expansion, declining riparian health, and de-watering. The program seeks to benefit fish by removing fish passage barriers and preventing fish entrainment into canals, improving stream stability with natural channel design, and enhancing riparian vegetation.

Conservation concerns for sage-steppe species such as greater sage-grouse have heightened the priority for upland projects in the Bear River Focus Area. Approximately 30% of the focus area is state-designated area for greater sage-grouse. Core areas

are the highest priority areas for sage-grouse conservation and encompass 85% of known sage-grouse populations in Wyoming. PFW program projects to improve upland habitat for the benefit of sage-steppe wildlife species include vegetative treatments and grazing management projects to promote desirable grass-forb-shrub plant communities.

Priority Species

- Greater sage-grouse
- White-faced ibis
- Sandhill crane
- Northern pintail
- Redhead
- American bittern
- Yellow-billed cuckoo
- Bonneville cutthroat trout
- Leatherside chub

Bear River Focus Area Five Year Targets

- Stream enhancement: 10,000 ft
- Riparian enhancement: 10 miles
- Wetland restoration/enhancement: 500 acres
- Upland enhancement: 2000 acres
- Fish passage: 8 units

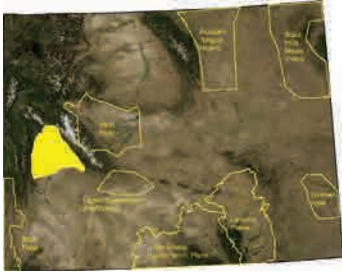
Partnerships

- Number of private landowners: 15
- Amount of technical assistance: 40 staff days
- % of leveraging (ratio Service to Partner): 1:4



Bear River Wetland Restoration. USFWS photo.

Upper Green River Focus Area



The Upper Green River Focus Area encompasses 1.23 million acres, 44% of which is privately owned. It is bordered by the Wind River Mountain range to the North and East, the Gros Ventre and Wyoming Mountain ranges to the North and West, and the mesa lands to the South. It is a biologically diverse and complex landscape, ranging from 13,000-foot peaks and alpine habitats to 7,000-foot high elevation desert. The Upper Green River is well known for the critical habitat it provides for large ungulates and predators, including grizzly bear, moose, elk, mule deer, and pronghorn antelope.

Over half of the focus area is contained within a wetland complex identified by the Wyoming Bird Habitat Conservation Partnership as high-priority for conservation. The glacially formed potholes and lakes are especially unique and striking among the 53,000 acres of wetlands in the valley. The wetlands provide breeding habitat and migration corridors for waterfowl, shorebirds, and waterbirds, including trumpeter swan and common loon. However, a significant increase in the human population has occurred in this area, due to an increase in recreational rural landowners and the oil and gas boom of the Pinedale Anticline and the Jonah Field. Wetland habitats have become threatened due to drainage, nutrient loading, and subdivision. The USDA Natural Resources Conservation Service and several private land trusts have been working in this area to secure conservation easements that will maintain open space and intact landscapes.



Top: Wetland diversity within sage dominated plant community of the Upper Green River Focus Area. USFWS Photo.

Bottom: Low-density subdivision leading to fragmentation. USFWS photo.



Grazing system leads to positive habitat improvements for sage grouse, while benefitting cattle production. Photo by Matt Filsinger, USFWS.

Extensive ribbons of riparian habitat exist along the Green and New Fork rivers and their tributaries, providing important multi-layered vegetative structure for migrating and resident riparian birds and other wildlife. Riparian areas occupy only 2-3% of the land surface in Wyoming, yet 75% of wildlife depend on them for all or part of their life cycles. PFW program has enhanced 4.1 miles of this important habitat since 2000 with off-stream water development and/or fence construction to manage livestock grazing. The streams and rivers that flow through these riparian habitats are home to native fishes such the Colorado River cutthroat trout, mountain whitefish, and mountain sucker. Irrigation diversions, road crossings, and dewatering threaten fish in the focus area. Projects that directly benefit fish in this focus area include stream habitat restorations and fish passage improvements.

Conservation concerns for sage-steppe species such as greater sage-grouse have heightened

the priority for upland projects in the Upper Green River Focus Area. Approximately 56% of the focus area is state-designated core area for greater sage-grouse. Projects to improve upland and wet meadow habitat for the benefit of sage-steppe wildlife include vegetative treatments and grazing management projects to promote desirable grass-forb-shrub plant communities.

Priority Species

- Common loon
- Trumpeter swan
- Lesser scaup
- Cinnamon Teal
- Long-billed curlew
- Greater sage-grouse
- Golden Eagle
- Green-tailed towhee
- Willow flycatcher
- Colorado River cutthroat trout
- Roundtail chub
- Pygmy rabbit

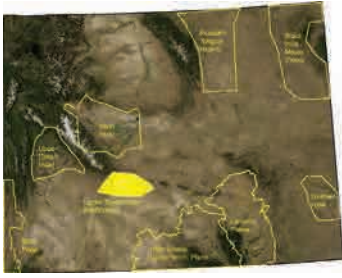
Upper Green River Focus Area Five Year Targets

- Stream enhancement: 10,000 ft
- Riparian enhancement: 10 miles
- Wetland restoration/enhancement: 80 acres
- Upland enhancement: 2000 acres
- Fish passage: 5 units

Partnerships

- Number of private landowners: 15
- Amount of technical assistance: 30 staff days
- % of leveraging (ratio Service to Partner): 1:4

Upper Sweetwater Red Desert Focus Area



The 706,000-acre Upper Sweetwater River/ Red Desert Focus Area is in a high elevation desert characterized by sagebrush-steppe containing numerous playa wetlands, springs, ephemeral and perennial streams, and riparian corridors. Riparian corridors are either dominated by a shrub layer of willow, thin leaf alder and chokecherry or herbaceous layer of sedge, rush and grass species.

Land ownership is 93% public and 7% private. Like much of the West, rivers, streams, lakes and wetlands are in private ownership. Primary land use is livestock grazing and a unique feature of this landscape is the lack of fencing which benefits migratory big-game animals like moose, elk and antelope. However, it leaves landowners and land managers little control over grazing patterns and during the warm summer months livestock migrate off the large expanse of uplands and move closer to permanent water sources such as riparian corridors, wet meadows, and playa lakes. Much of the PFW program work has concentrated on grazing management infrastructure to provide greater operational flexibility for landowners while minimizing the influence of fencing on wildlife.

More than 350,000 acres of this focus area would be considered “core sage-grouse area” containing one of the highest concentrations of sage-grouse in the state. Along with improving sagebrush/grass plant communities for suitable nesting habitat, PFW program projects are aimed at improving wet meadow and riparian habitat quality for brood rearing and late summer habitats for sage-grouse chicks. Improperly designed road and associated crossings, irrigation diversions, and historic gold mining practices have all contributed to stream channel, wet meadow and riparian degradation. Stream restoration have been completed for native fishes with the indirect benefit of raising the water table and bank storage resulting in improvements to wetland, wet meadow and riparian habitat.



Oregon slough riparian fencing project provides secure sage-grouse brood rearing habitat with benefits to migratory waterbirds. USFWS photo.



Achieving grazing management objectives of rest rotation benefitting sage steppe species by utilizing high tensile electric fence. USFWS photo.

Upper Sweet Water/ Red Desert Focus Area Five Year Targets

- Stream enhancement: 10,000 ft
- Riparian enhancement: 10 miles
- Wetland restoration/enhancement: 10 acres
- Upland enhancement: 10,000 acres
- Fish passage: 0 units

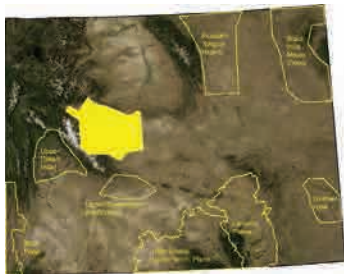
Partnerships

- Number of private landowners: 3
- Amount of technical assistance: 20 staff days
- % of leveraging (ratio Service to Partner): 1:4

Priority Species

- Lesser scaup
- Cinnamon Teal
- American Avocet
- Wilson's Phalarope
- Willet
- Ferruginous hawk
- Greater sage-grouse
- Willow flycatcher
- Veery
- Meadow pussytoes (Antennaria arcuata)

Wind River Focus Area



Granite peaks, glaciers, tilt bed foothills, broad valley floor, prehistoric rock art and spiritual sites characterize the Wind River basin. The Wind River Range contains 25 of Wyoming's 38 named glaciers, including Gannett Glacier. The Range is noted to have the highest concentration of glaciers within the lower 48 states within the U.S. The melting water from these glaciers provides late season flows for over 3,000 miles of low elevation perennial streams. As a result, the basin is one of the leading agricultural regions in

the state with more than 260,000 acres of irrigated crop and hay lands. Sagebrush and grassland make up the majority of the area at 1.7 million acres with livestock production being the primary land use in the valley. Of the total land in this priority area, tribal lands make up 63%, private 27% and public 10%.

Included in the 2.1 million acre Wind River Focus Area is the Wind River Reservation, Ocean Lake Drift Plain and Upper Wind River Drainage. The heart of the focus area is the Wind River Reservation. In 1998, a Memorandum of Understanding (MOU) was signed between the USFWS, Shoshone and Arapaho Tribes to jointly work on habitat projects for tribal designated fish and wildlife species of cultural importance. The Tribes have identified an extensive number of culturally significant fish and wildlife species covering a broad spectrum of habitat types including wetland, sagebrush-

steppe, woody riparian and riverine habitats.

Shaped by glaciation, the Wind River Mountains contain high elevation lakes and wetlands providing breeding habitat for waterfowl including; ring-necked ducks, lesser scaup, and bufflehead. The valley floor holds 43,618 acres of palustrine emergent wetlands, either associated with river floodplains, flood irrigation wastewater or wind-blown depressions. Higher density wetlands occur in three distinctive locations and individual wetland priority areas have been established for the Wind River. Since 1998, partnering activities have led to more than 1,100 acres of wetland habitat being restored on private and tribal lands.

Declining native fish populations are largely a result of non-native introductions, habitat degradation, dewatering, and fish barriers. The most intact native fish



Wind River Focus Area Petroglyph.
USFWS Photos.



Popo Agie River Valley Riparian Projects.
USFWS Photo.

assemblages reside in fragmented populations or are constricted to headwater environments where public ownership and relative inaccessibility have moderated detrimental impacts. Restoration of lower elevation habitat and improving fish passage and minimizing fish entrainment are the three primary elements to

maintaining healthy tribal fisheries. (Pochop et al. 1990).

Priority Species

- Lesser scaup
- Ring-necked duck
- Trumpeter swan
- American avocet
- Wilson’s phalarope
- Bald eagle
- Golden eagle
- Greater sage-grouse
- Willow flycatcher
- Yellowstone cutthroat trout
- Ling
- Sauger
- Gray wolf
- Grizzly bear

Wind River Focus Area Five Year Targets

- Stream enhancement: 5,000 ft
- Riparian enhancement: 20 miles
- Wetland restoration/enhancement: 300 acres
- Upland enhancement: 10,000 acres
- Fish passage: 2 units

Partnerships

- Number of private landowners: 20
- Amount of technical assistance: 50 staff days
- % of leveraging (ratio Service to Partner): 1:5

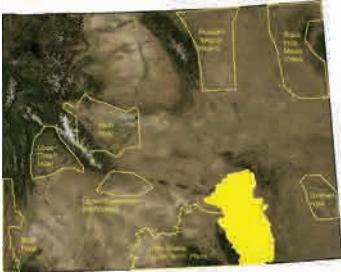


Wind River Focus Area wetland restoration project . USFWS photo.



Wind River Focus Area- Bull Lake Creek Fish Screen. USFWS Photo.

Laramie Plains Focus Area



Positioned between the Laramie and Medicine Bow mountain ranges, the Laramie Plains Focus Area encompasses 2.5 million acres of high elevation mixed-grass prairie interspersed with Wyoming big sage communities, saltbush flats, greasewood, aspen, and pine. Land use consists primarily of livestock production; the area only supports a combined total of 136,000 acres of irrigated hay and croplands.

The Shirley Basin lies within the northern two-thirds of the conservation area. The basin consists of more than 101,000 acres of wetland scattered throughout

intact grasslands. The vast expanse of grassland habitat offers an enormous conservation opportunity, especially for the management and protection of greater sage-grouse, mountain plover, and black-footed ferrets, which were reintroduced into the area in 1991.

The southern portion of the Laramie Plains contains Mortenson Lake, Hutton Lake, and Bamforth National Wildlife Refuges. These refuge lands, each no greater than 2,000 acres, surround the community of Laramie to the northwest, west, and southwest. Hutton Lake and Bamforth were established under the Migratory Bird Conservation Act. The PFW program is working on private land to compliment the conservation efforts on these public lands, using a landscape-scale approach to meet shared partner goals.

Mortenson Lake was established under the Endangered Species Act (ESA) to protect the endangered Wyoming Toad which was extirpated from its historic range

by the early 1990's and recently reintroduced into the Refuge as well as restored wetlands and wet meadows of the PFW program's Buford Foundation Project. A Safe Harbor Agreement for Wyoming toads has been completed for the entire area. The Wyoming toad recovery team is planning to expand reintroduction sites in the coming five years. The PFW program will continue to assist with recovery efforts for the Wyoming toad as opportunities become available.

One of the best ways to help the largest number of native Wyoming species is to maintain or improve grassland and riparian habitats. Area ranches historically ran large-scale sheep operations and are now transitioning to cattle. PFW program is working with landowners to establish grazing management plans and providing much needed infrastructure such as interior fencing and off-site water development to provide operational flexibility and management.

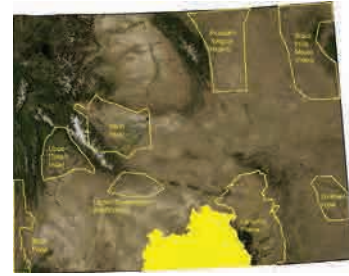


Cattle being used as a management tool on Wyoming PFW project in the Laramie Plains Focus Area. USFWS photo.



American avocet on a PFW restoration project within the Laramie Plains Focus Area. USFWS photo.

Little Snake Upper North Platte Focus Area



The Little Snake River/Upper North Platte Focus Area lies within an ecological transition point between the Southern and the Northern Rocky Mountains. This area contains the Sierra Madres (max. elev. 10,000 ft) which is recognized for its diverse plant communities that include aspen, mixed mountain shrub, sagebrush-steppe, Gambel's oak, and conifer plant communities. Wet river valleys filled with remnant oxbow lakes serve as important areas for breeding and migratory birds. A preliminary reconnaissance report conducted in the early 1960's by the Service identified this as an important waterfowl area with the recommendation for wetland acquisition. Harry B. Crandell, wildlife biologist, "This is a very good area and we should try our best to get something for waterfowl here."

The Little Snake and the Upper Platte Rivers, the two predominate tributaries, are lined with cottonwood riparian habitat. Farther west is a high elevation desert (6,000 ft elev.) that consists of an extensive ridge and basin system with outcrops of sandstone, clay, and shales. Lower elevation ridges are frequently covered with a mosaic of juniper woodland that transition to mesic upland scrub plant communities. Private lands (~30%) within this focus area are typically intermixed in a checker-board fashion with Federal (~64%) and state lands (~6%). This co-mingling of land ownership necessitates strong working relations with a variety of partners.

The Little Snake River/Upper North Platte focus area supports the only Gamble oak population in

Priority Species

- Greater sage-grouse
- Lesser scaup
- Northern pintail
- Mountain plover
- American avocet
- Wilson's phalarope
- Ferruginous hawk
- Warbling vireo
- White-tailed prairie dog
- Black-footed ferret (Endangered)
- Wyoming toad (Endangered)
- Preble's meadow jumping mouse (Threatened)

Laramie Plains Focus Area Five Year Targets

- Stream enhancement: 7,000 ft
- Riparian enhancement: 30 miles
- Wetland restoration/enhancement: 100 acres
- Upland enhancement: 70,000 acres
- Fish passage: 1 units

Partnerships

- Number of private landowners: 30
- Amount of technical assistance: 50 staff days
- % of leveraging (ratio Service to Partner): 1:5



Landscape photo highlighting the diversity of the Little Snake River/Upper North Platte Focus Area. USFWS photo.



Battle Creek restoration project completed by WY PFW program. USFWS photo.

the state. Gibben’s beardtongue, a rare plant, can be found in two locations within the area. Presently, the only known breeding population of Columbia sharp-tailed grouse in Wyoming exists here. Thirty-nine percent of this occupied range lies within lands that are privately owned. In addition, the area is very important for numerous Species of Greater Conservation Need (SGCN) as identified by the Wyoming Game and Fish Department, including seven species of fish, four species of amphibians, two reptile species, seventeen bird species, eleven bat species, and nine mammal species.

Even though this has been identified as a new focus area, over the past ten years, PFW has worked on two river systems to eliminate fish barriers and improve stream function. More than 12 miles of in-stream restoration activities have been completed for the benefit of native fishes. Efforts will continue to focus on providing fish passage, maintaining in-stream flows, and habitat improvement for

both cold water Colorado cutthroat trout, and species such as bluehead sucker, flannelmouth sucker, and roundtail chub. Wetland and upland projects place heavy emphasis on providing breeding and migratory habitat for Federal trust avian species. Projects vary from wetland restoration and creation to assisting with the development of range management plans and providing much needed upland infrastructure to enhance rangelands for both livestock and wildlife use.

Priority Species

- Lesser scaup
- Northern pintail
- American avocet
- Wilson’s phalarope
- Greater sage-grouse
- Columbian sharp-tailed grouse
- Golden eagle
- Sage thrasher
- Colorado cutthroat trout
- Bluehead sucker
- Flannelmouth sucker
- Roundtail chub

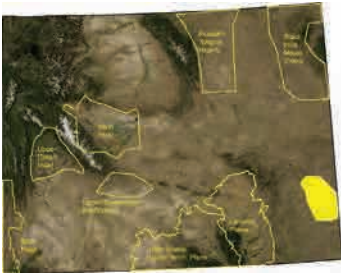
Little Snake Upper North Platte Focus Area Five Year Targets

- Stream enhancement: 20,000 ft
- Riparian enhancement: 35 miles
- Wetland restoration/enhancement: 75 acres
- Upland enhancement: 25,000 acres
- Fish passage: 5 units

Partnerships

- Number of private landowners: 35
- Amount of technical assistance: 50 staff days
- % of leveraging (ratio Service to Partner): 1:6

Goshen Hole Focus Area



Goshen Hole is a great widening of the North Platte Valley defined by a 400-500 foot escarpment to the west and south. A part of the Great Plains, the land is undulating to rolling and predominant land cover is short and mixed-grass. Goshen Hole Focus Area has a land mass of 861,000 acres, of which 15 % is used for irrigated cropland, 15% for dry land cropland, and 60% rangeland. Farmland is concentrated in the center of the lowland and contains the highest wetland densities. Interior wetlands often rely on irrigation water to provide hydrologic inundation. Drought and obsolete irrigation water delivery systems continue to be the largest wetland threats. Program emphasis has been on restoring wetland and adjacent short-grass upland habitats for an assortment of ground nesting species, including mountain plovers, long-billed curlew, McCown's longspur, grasshopper sparrow, and a variety of waterfowl species.

Wyoming Steering Committee for the Intermountain West Joint Venture has identified Goshen Hole as one of the top wetland complexes in the state. Springer Reservoir, Bump-Sullivan Reservoir, and Table Mountain State Wildlife Management Areas (WHMA) are at the core of this complex. This is one of three unstaffed focus areas.



Pictures highlighting wetland restorations in the Goshen Hole focus area. USFWS photos.

Priority Species

- Northern pintail
- Lesser scaup
- American avocet
- Wilson's phalarope
- Mountain plover
- Long-billed curlew
- Golden eagle
- McCown's longspur
- Grasshopper sparrow
- Prebles's jumping mouse (Threatened)

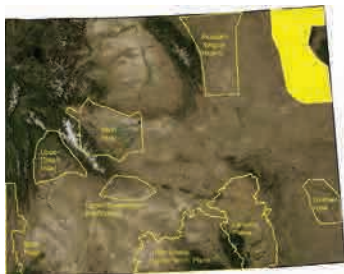
Goshen Hole Focus Area Five Year Targets

- Stream enhancement: 0 ft
- Riparian enhancement: 1 mile
- Wetland restoration/enhancement: 30 acres
- Upland enhancement: 200 acres
- Fish passage: 0 units

Partnerships

- Number of private landowners: 3
- Amount of technical assistance: 3 staff days
- % of leveraging (ratio Service to Partner): 1:3

Black Hills Mixed Grass Focus Area



Taking in the portions of Crook and Weston counties, Black Hills Mixed-Grass Focus Area contains the forest edge and periphery grasslands around the Black Hills. Being the largest priority area in the state at 2.9 million acres and 78% in private ownership, plenty of habitat development opportunities exist for imperiled grassland species. The southern extent includes a small segment of Thunder Basin National Grasslands, known for ferruginous hawk, swift fox, greater sage-grouse, burrowing owl, and black-tailed prairie dog. More than 6,500 miles of riverine habitat and 14,000 acres of

woody riparian habitats exist within the area. PFW efforts have concentrated on grassland and riparian habitats in the form of livestock fencing, water developments, and grazing management plans. Water developments include constructing multi-purpose wetlands, water gaps, wells, pipelines, and water troughs. Main threats are in the form of habitat fragmentation from sub-division and extraction industries. This is one of three unstaffed focus areas.

Black Hills Mixed Grass Focus Area Five Year Targets

- Stream enhancement: 0 ft
- Riparian enhancement: 1 miles
- Wetland restoration/enhancement: 10 acres
- Upland enhancement: 500 acres
- Fish passage: 0 units

Partnerships

- Number of private landowners: 3
- Amount of technical assistance: 3 staff days
- % of leveraging (ratio Service to Partner): 1:3

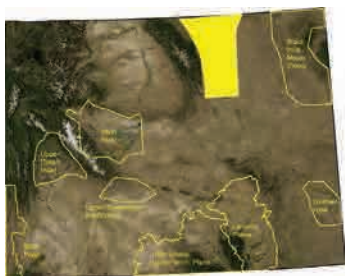


Priority Species

- Northern pintail
- Blue-winged teal
- Wilson’s phalarope
- Mountain plover
- Long-billed curlew
- Burrowing owl
- Brewer’s sparrow
- Greater sage-grouse
- Swift fox
- Black-tailed prairie dog

Crook County wetland and grassland restoration in the Black Hills Mixed-Grass focus area. USFWS photo.

Powder/Tongue River Focus Area



Starting at the eastern slope of the Big Horn Mountains and extending to the Powder River, this area receives considerably more summertime precipitation and more closely resembles the southern Rockies in vegetative composition. Mixed-grass and sagebrush make up more than 92% of the area and roughly 80% is in private ownership. Wetlands are commonly found in association with floodplain and riparian habitats. The Powder River is distinctive in that it's one of the few remaining rivers that has not been blocked by dams or irrigation diversions. The Powder River has remained relatively intact with unique fish species like the sturgeon chub adapted to high turbidity and low summertime flows.

Since 1998, PFW and its partners have improved or enhanced more than 26,100 acres of upland habitat and 47 miles of riparian habitat with livestock fencing, off-site water developments, and grazing management systems. With concerns over habitat loss and fragmentation in the county, the Johnson County Sagebrush Habitat Improvement Project was initiated in 2005. Rangeland and habitat inventories were conducted to develop grazing management plans to benefit greater sage-grouse and a host of other sagebrush-obligate species. This is one of the three unstaffed focus areas.

Priority Species

- Northern pintail
- Wood duck
- Sandhill crane
- Greater sage-grouse
- Sage thrasher
- Bairds sparrow
- Shovelnose sturgeon



Aerial view of stream and oxbow slough restoration. USFWS photo.



Restored wetland in the Powder/Tongue River Focus Area. USFWS photo.

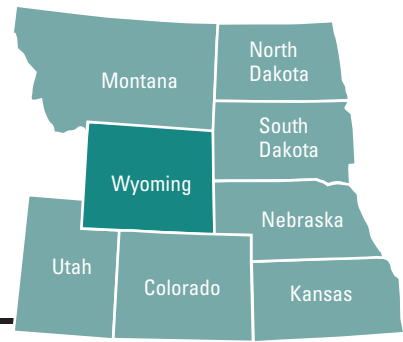
Powder/Tongue River Focus Area Five Year Targets

- Stream enhancement: 1,000 ft
- Riparian enhancement: 2 miles
- Wetland restoration/enhancement: 20 acres
- Upland enhancement: 2000 acres
- Fish passage: 0 units

Partnerships

- Number of private landowners: 5
- Amount of technical assistance: 5 staff days
- % of leveraging (ratio Service to Partner): 1:5

Wyoming Statewide Goals



Improve Information Sharing and Communication

WY PFW program's preferred advertising method has been by "word of mouth" between our cooperating landowners. Our project approach varies; at times the PFW program is the driver, initiating and delivering projects while at other times we are the passenger supporting successful ongoing work of our partners. Information transfer is three-tiered, including landowner or project level, local partner level and state partner level. At the state level, numerous annual coordination opportunities exist with our partners including USDA State Technical Committee meetings, Fish and Wildlife Agency Coordination, and non-governmental and association partner meetings and conventions. Local partner level coordination occurs on a more routine basis with a variety of active work groups, agency and local government meetings and forums. Landowner or project level coordination is the one-on-one habitat project management that incorporates the landowner's working knowledge with other resource professionals at the planning, design, permitting and implementation levels. Wyoming PFW program works with schools by participating in the local science fair judging, participating in outdoor classroom experiences held around the state, and serving as instructors for teacher continuing education classes.

Implementation:

- Work with partners and stakeholders on individual planning documents.
- Provide partners with an annual accomplishment report.
- Use farming and ranching industry associations and publication.
- Initiate state level landowner and/or partner award/recognition program.
- Support existing, and explore new, opportunities for long term funding options.
- Refine local project priorities through established local workgroup settings.
- Provide resource information at workshops, conventions and coordination meetings.



Example of oxbow restoration project. USFWS Photo.

Enhance Our Workforce

Program success depends upon our most valuable asset—PFW staff, who bring to the table an incredible amount of knowledge, skill and dedication. We will continue to build on this foundation and deliver habitat conservation effectively by improving workforce capacity when necessary and developing and improving strong technical and leadership skills of existing staff to meet the needs of our conservation partners and trust resource responsibilities. Facilitating a wide array of terrestrial and aquatic habitat projects requires a substantial investment of staff time in working with conservation partners, as well as a high degree of expertise in a wide range of technical disciplines. We will continue to strengthen our partnerships, habitat delivery, and customer service in an effort to restore and conserve habitat in an ever-changing landscape.

Implementation:

- Refine and implement a strategic workforce plan to ensure that the correct skills are in the right location to deliver an efficient and effective habitat conservation program.
- Seek-out partnership efforts that develop and share employee skills across conservation partner lines.
- Review annual career development guidance and training programs for staff and ensure resources are available to improve habitat conservation delivery, partnership development, and leadership skill sets.
- Continue coordination with other Federal, State, and local government units, tribes, and non-governmental partners to utilize available training and development opportunities to maintain technical excellence in an environment of rapidly expanding knowledge and technology.



PFW hosted Laramie Plains wetland tour. USFWS Photo.

Increase Accountability

It is essential that the PFW program keep track of resource conditions and habitat activities over time to effectively deliver high-priority and quality habitat projects at a landscape level. The measures or indicators primarily used for monitoring include: structural function, habitat response, and biological outcomes. Structural evaluations examine performance and design objectives for practices such as in-stream rock/ log structures or wetland water control structures. Habitat response is principally focused on expected outcomes like plant community health, wetland function, or constructed stream features. Biological outcomes are based upon species response to habitat improvements. Costs for habitat restoration projects vary greatly across the state and from year to year. In order to maintain a cost-efficient program, annual restoration costs will be monitored and evaluated. Accurately determining habitat projects costs will ensure equitable and reliable sources of funding, timely project delivery, and quality habitat projects.

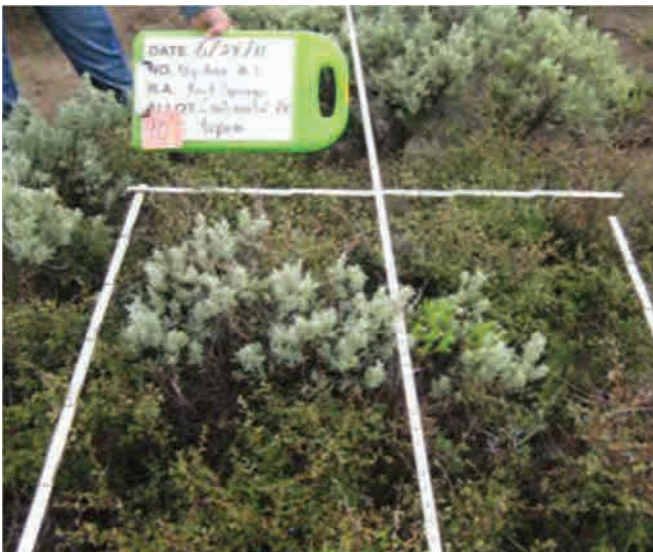
Implementation:

- Refine annual project status review process for completed projects.
- Continue to incorporate creative partnerships to assist with monitoring, for example, employ the assistance of local birding groups to collect biological data and in return expand birding opportunities on lands available through willing landowners.
- Maintain and refine methods of monitoring and evaluating project costs, which include internal review of all previous fiscal year PFW program habitat projects within Wyoming and published statewide annual cost analysis of conservation practices by our conservation partners.

External Factors:

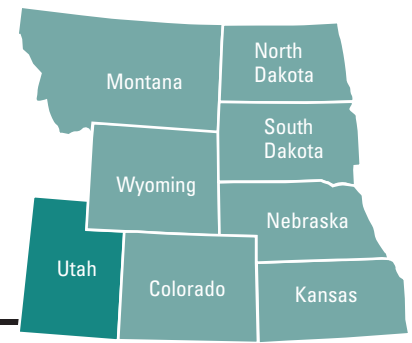
Factors beyond the control of the Wyoming PFW program that could affect progress towards accomplishing long-term habitat goals and objectives include the following:

- Extreme weather, climate fluctuations, and environmental change that affect ecological processes and local economies.
- Fluctuating habitat conservation funding.



Landowner monitoring vegetation response to validate grazing system. Photos by Rob Hellyer.

Regional Summary



Regional Objectives

- Maintain intact landscapes to benefit suites of Federal trust species
- Restore or enhance habitat for threatened, endangered, and candidate species
- Restore and enhance habitat for Native species of trout
- Restore and enhance habitat for migratory birds of conservation concern, as identified in the Service's migratory bird conservation plans (e.g.'s, United States Shorebird Conservation Plan, North American Waterfowl Management Plan)
- Keep the populations of Federal Trust species at stable population levels to avoid costly recovery efforts
- Build upon the goals and objectives of the National Wildlife Refuge System by restoring and enhancing private lands adjacent to Service lands.
- Seek out opportunities to maximize private lands restoration efforts by working with partners to leverage resources.
- Be proactive and visionary in determining the threats to Federal Trust species and focusing efforts to restore or enhance private lands that can reduce those threats.

Regional Conservation Habitat Five-year Targets

- | | |
|--|---------------|
| • Wetland Restoration/Enhancement: | 21,965 acres |
| • Wetland Establishment: | 1,950 acres |
| • Upland Restoration/Enhancement: | 520,790 acres |
| • River/Stream/Riparian Restoration/Enhancement: | 468 miles |
| • Fish Passage: | 87 structures |

Key Strategic Activities

- Work closely with new Service and DOI initiatives to ensure on-the-ground delivery of habitat projects is tied specifically with agency and departmental goals. These include, but are not limited to America's Great Outdoors, Landscape Conservation Cooperatives, and Strategic Habitat Conservation.
- Continue involvement, and seek new opportunities, with community-based conservation partnerships such as the Tallgrass Legacy Alliance, Comanche Pool Prairie Resource Foundation, Blackfoot Challenge, Sandhills Task Force.
- Continue to promote program hallmarks that emphasize trust, respect, honesty, integrity, flexibility, and open communication with all partners.
- Maintain delegation of authority for landowner agreement development at the field level.
- Work cross-program to benefit high-priority Federal trust species.

Broaden and Strengthen Partnerships

The PFW program has achieved incredible success over the past 25 years, working with hundreds of outstanding partners throughout the region. Countless numbers of agency, tribal, conservation organization, industry, and private landowners have partnered with the PFW program to put habitat restoration projects on-the-ground. These efforts have helped to recover threatened, endangered and candidate species, while also working to keep “common species common”. Monitoring activities accomplished by many of our great partners will provide us the ability to know what biological outcomes have occurred as a result of our habitat improvement projects. We also extend a huge thank-you to our many internal Service partners who have assisted us in accomplishing our goals. Their guidance and leadership have helped the PFW program staff maximize efficiencies and work towards the greatest good for Service trust resources.

The state fish and wildlife agencies have been working on updating their State Wildlife Conservation Plans. The Region 6 Partners Program has been working closely with them as we both update our strategic plans in order for us to weave their high priority goals into our plan and maximize resources as well as successes for shared priority species. The Partners program will assist the state agencies with the implementation of their plans by strengthening partnerships, assisting with technical assistance, and working on joint projects to help leverage resources within shared conservation focus areas.

The Region 6 Partners Program works closely with Tribal partners, providing both technical and financial assistance to support many projects. With a lot of Tribal land in Region 6 within PFW program focus areas, these projects have provided tremendous fish and wildlife benefits while also assisting Tribal landowners with desired habitat goals. Tribal partnerships have always been strong in Region 6, however the PFW program will continue to place emphasis on enhancing these partnerships.

Regional Partnership Five-year Targets

- Number of new landowner partners: 2,067
- Number of new additional partners: 85
- Amount of Technical Assistance: 6,516 staff days

Landscape-level Conservation Partnerships

The Partners Program will continue to stay very involved with many landscape-level community based conservation partnerships throughout the region. Due to the fact the Mountain-Prairie Region has most states with private land ownership as its largest percentage, community based partnerships with private landowners is key to meeting conservation goals. Many of the Region 6 Partners Program focus areas are in areas with very little development but increasing pressures and threats. Urban sprawl continues to threaten rural agricultural communities in the Mountain-Prairie states. The Partners Program has been involved with many landscape-scale partnerships working to maintain rural lifestyles and support wildlife conservation efforts. The new Landscape Conservation Cooperatives are partnerships we will be involved in, working together to determine the science needs to support management actions on the ground, for high priority fish and wildlife species. The LCCs cross both regional boundaries as well as international boundaries in Region 6. We will work closely with the LCC coordinators to ensure our efforts work to compliment shared priorities. The Region 6 Partners Program will also continue to be very active with the NRCS special initiatives to support high-priority fish and wildlife species. A few examples include the Sage Grouse Initiative, Lesser Prairie Chicken Initiative and Northern Plains Migratory Bird Habitat Initiative. Within the Sage Grouse Initiative, the Region 6 PFW program is supporting 9 shared positions as three-year terms (FY 2012 – 2014) as part of the Strategic Watershed Action Team, and two additional 2-3 year term positions. The Partners Program, at a minimum, will provide financial assistance for the three years, while also providing training and mentoring to ensure the best possible outcome for sage-grouse.

Improve Information Sharing and Communication

The Region 6 Partners Program has recognized that the only way to restore habitat for high priority fish and wildlife species is to work with a broad range of partners. PFW program biologists in Region 6 have made trust, respect, honesty, flexibility, and open communication the cornerstones of the program. Partners Program field biologists are highly skilled individuals with a willingness to share all of their expertise with private landowners, and their many partners, to achieve common goals. These efforts are accomplished in a variety of formal and information ways, depending on the needs of the partners.

Although financial assistance to accomplish habitat restoration and enhancement accomplishments on-the-ground is 80% or more of what we do, PFW field biologists also provide a tremendous amount of technical assistance to private landowners, agencies, Tribal entities, non-government organizations, and industry. While often difficult to quantify, the results can be seen in a multitude of ways. During the next five years, technical assistance will have an emphasis on assisting NRCS and FSA with Farm Bill Conservation programs and also providing outreach and education to landowners who are interested in perpetual conservation easements with the Service. The PFW program has many repeat customers that often leads to landowners interested in perpetual conservation easements. In addition, landowners that enter into perpetual conservation easements are interested in the PFW program conducting additional habitat restoration projects on their land, once they are certain they will “keep the green side up” in perpetuity. The PFW program is therefore referred to as the “book ends” when we discuss their role in the delivery of conservation easements.

The PFW program habitat restoration accomplishments continue to be one of the best recovery tools for at-risk species on private lands. PFW biologists work closely with Service Endangered Species, Fisheries, and Migratory Bird Management program staff to determine habitat needs of these key species. The PFW program then determines the best types of habitat restoration projects to facilitate their recovery. Through cross-program communication and collaboration, the PFW program will continue to assist other programs in sharing information with private landowners about all Service programs. In addition, the PFW program will lead habitat restoration and enhancement activities that benefit the identified priority species for these programs. PFW program biologists and managers will work with the science community (both internal and external partners) to determine biological outcomes of these on-the-ground activities, using the most advanced models, mapping and other science-support tools available.



PFW program biologists share ideas with Ecological Services botanist on ways the program can help recover endangered plants in Utah. Photo by Heather Johnson, USFWS.

Enhancing our Workforce

The Region 6 PFW program is a national role model, often accomplishing 50% of the Nation's accomplishments and hundreds of private landowner agreements annually. Region 6 has been fortunate in that many of the state PFW programs in the Mountain-Prairie Region are fully staffed and operating at capacity. However, some states are below operational capacity for truly effective program delivery. The PFW program was able to successfully staff key focus areas to address the gaps in sagebrush-steppe focus areas during the previous 5-year strategic plan. A high priority need within this planning period is an additional biologist in Kansas to address Tallgrass and mixed grass prairie species needs that cannot be fully accomplished with the current staff in place now. Species that would benefit include, but are not limited to lesser prairie-chicken, greater prairie-chicken, grasshopper sparrow, upland sandpiper, Arkansas darter and Mead's milkweed. The second priority, if funding becomes available, would be to add a PFW biologist in the Glaciated/Shale Plain Focus Area in Montana. This is a key focus area for greater sage-grouse, Mallard, piping plover, black-tailed prairie dog, long-billed curlew and mountain plover.

The Service has a new Financial Business Management System that may require the PFW program to shift FTEs to additional contracting support, in order to process Wildlife Extension Agreements and ensure prompt payments to our landowners. Currently, staff are trained and role mapped to various roles to obligate and process agreements. It will take at least a full year to know whether the current structure will be sufficient to continue to provide the current high level of customer service to our landowners.

The PFW program in Region 6 has a long history of staff staying with the program until they retire. Because of this, we now have many employees within the program who are getting close or eligible to retire. It is critically important that we recognize this and look for ways to ensure we have some trainee positions and opportunities to mentor them under experience PFW biologists. As funding becomes available, the PFW program would like to add 2-3 trainee biologists to the program.

The PFW program in Region 6 is uniquely positioned to assist many other Service programs with their conservation goals. While a significant number of states in this country have an exploding human population base, the Mountain-Prairie states have experienced a much slower growth rate. The eight states that make up Region 6 are relatively large in size, with a primarily agricultural or rural focus. There are large contiguous blocks of priority wildlife habitat that is owned and operated by working cattle ranches. These intact landscapes host a tremendous amount of wildlife and have prevented many species from being listed as Threatened or Endangered and, in fact, share credit for having kept common species common.

The loss of these habitats would be devastating to various Service goals and objectives, and the American people. The PFW program has been a huge catalyst to keeping these natural landscapes intact – funding through private landowner agreements has kept rural communities alive by assisting with sustainable rural lifestyles and a viable agricultural community. In a time of declining budgets, the Service needs to focus on doing the right things in the right places. As such, emphasis needs to be placed on working in intact landscapes, where the biggest difference can be made. Efforts need to be focused, and where private landowner funds have been made available, these funds need to be spent wisely. Geographic focus areas have been identified, where high priority efforts have, and will continue to, take place.

Training will be a requirement for all employees within the PFW program. Leadership and guidance will be provided by supervisors to encourage Individual Development Plans that provide a vision for the employee's future and opportunities for each PFW program employee to be challenged and on the cutting edge of the restoration techniques, partnership development, mapping capabilities, management, and policy. Each employee will have training identified in their performance elements and supervisors will meet with their employees regularly to ensure training opportunities have been identified and deadlines for registration have been met.

Increase Accountability

Region 6 will continue to have a Regional HabITS Database Coordinator active on the National HabITS Working Group. In addition, the Regional HabITS Database Coordinator will work closely with State Coordinators, and other field staff who are providing entrees in HabITS, to ensure quality control and quality assurance. The Region 6 PFW program has strong Regional Directorate support to put PFW program funding on-the-ground for private land habitat restoration. The PFW program has made, and will continue to make, a strong commitment to ensure PFW program National policy is met and that private land habitat restoration continues to be the purpose and goal of the program. Regional, statewide and focus area program reviews will be conducted to ensure policy is being met and best management practices are being implemented across all focus areas in the region.

Partners for Fish and Wildlife Act

Congress signed the Partners for Fish and Wildlife Act on October 6, 2006. The Act has led to excellent opportunities to provide assistance to private landowners and meet the mission of the Service. Region 6 will continue to work across program lines to ensure habitat restoration funds are supporting the highest priority needs of at-risk fish and wildlife species. In addition, they will continue to seek advice from new science-based partnerships, such as the Landscape Conservation Cooperatives, to ensure the PFW program is using the best available science to determine where to work on the landscape and how to best apply on-the-ground habitat restoration techniques to maximize our biological outcomes.

PFW program will continue to establish new partnerships with non-governmental organizations and universities to monitor and measure the successes of PFW habitat restoration projects and their effectiveness and increasing populations of high-priority Federal trust species.

There were many strong supporters of the Partners for Fish and Wildlife Act including several of our long-term PFW program partners. These long-term partners, and many new PFW partners, will continue to be recognized for their support. Innovative ways to recognize partners will be developed and implemented, ensuring our partners are aware that each accomplishment of the PFW program is a shared accomplishment with them and they deserve the credit and thanks.

With the PFW program celebrating its 25th anniversary in 2012, this is a good time to step back and look at where we have come and evaluate how we can be even more effective in the future. The Region 6 PFW program has always had the philosophy that we are constantly seeking to “raise the bar”. This philosophy will not change as we strive to meet or exceed all identified goals and objectives within this plan.



The PFW program is working with key partners, at a landscape-scale to restore and enhance habitat for greater sage-grouse and other sagebrush obligate species. Photo by Heather Johnson, USFWS.



Mindee Meade and David Kimble, WY PFW program biologists, discuss a new project in the Green River Basin. Photo by Heather Johnson, USFWS.

Appendix A:

Stakeholders

Colorado

- Key landowners
- U.S. Fish and Wildlife Service internal partners (including Refuges, Fisheries, Ecological Services, Migratory Birds)
- USDA Natural Resources Conservation Service
- Colorado Division of Wildlife
- Ducks Unlimited
- Karval Community Alliance
- The Nature Conservancy
- Colorado Open Lands
- Rocky Mountain Bird Observatory
- South Park Wetland Focus Group
- Owl Mountain Partnership
- Pheasants Forever Incorporated
- Playa Lakes Joint Venture
- Intermountain West Joint Venture

Kansas

- Key landowners
- U.S. Fish and Wildlife Service internal partners (including Refuges, Fisheries, Ecological Services, Migratory Birds)
- USDA Natural Resources Conservation Service
- Kansas Department of Wildlife and Parks
- The Kansas Grazing Lands Coalition
- The Nature Conservancy
- Pheasant Forever Incorporated
- Kansas Livestock Association
- National Wild Turkey Federation
- Kansas Farm Bureau
- Farm Service Agency
- Comanche Pool Prairie Resource Foundation
- Kansas Association of Conservation Districts
- Tallgrass Legacy Alliance
- Ducks Unlimited
- Watershed Management Institute
- Westar Energy
- Smoky Hills Grazers
- US Army Corp of Engineers
- Playa Lakes Joint Venture
- Kansas National Wildlife Refuge Project Leaders
- Fort Riley Conservation Team
- Kansas Biological Survey
- Kansas Department of Health and Environment

Montana

- Key landowners
- U.S. Fish and Wildlife Service internal partners (including Refuges, Fisheries, Ecological Services, Migratory Birds)
- USDA Natural Resources Conservation Service
- Montana Fish, Wildlife and Parks
- Blackfoot Challenge
- Kootenai River Network
- Trout Unlimited
- Ducks Unlimited
- The Nature Conservancy

- Pheasants Forever Incorporated
- Prairie Pothole Joint Venture
- Northern Great Plains Joint Venture
- Intermountain West Joint Venture
- Bureau of Land Management
- Montana Wetlands Legacy
- Sonoran Institute

Nebraska

- Key private landowners
- USFWS Nebraska Partners for Fish and Wildlife Program
- USFWS Ecological Service Field Office (Nebraska)
- USFWS Rainwater Basin Wetland Management District
- USFWS Fort Niobrara/Valentine National Wildlife Refuge
- USFWS Rainwater Basin Joint Venture Office
- USFWS Desoto National Wildlife Refuge
- USDA Natural Resources Conservation Service
- Nebraska Game and Parks Commission
- Nebraska Forest Service
- Sandhills Task Force
- Nebraska Cattleman
- National Audubon's Lillian Annette Rowe Sanctuary
- Platte River Whooping Crane Maintenance Trust
- Ducks Unlimited
- The Nature Conservancy
- Northern Prairie Land Trust
- Rocky Mountain Bird Observatory
- Platte River Basin Environments, Inc.,
- Nebraska Land Trust
- National Wild Turkey Federation
- Nebraska Forest Service
- Prairie Plains Resource Institute
- Pheasants Forever, Inc. and Quail Forever
- Nebraska Natural Legacy
- Nebraska Bird Partnership

North Dakota

- Key landowners
- U.S. Fish and Wildlife Service internal partners (including Refuges, Fisheries, Ecological Services, Migratory Birds)
- Ducks Unlimited
- Pheasants Forever Incorporated
- USDA Natural Resources Conservation Service
- North Dakota Game and Fish Department
- Prairie Pothole Joint Venture
- Northern Great Plains Joint Venture
- Delta Waterfowl Association
- North Dakota Natural Resources Trust
- Audubon Dakota
- The Nature Conservancy
- North Dakota Action Group
- North Dakota Wildlife Federation

South Dakota

- Key landowners
- U.S. Fish and Wildlife Service internal partners (including Refuges, Fisheries, Ecological Services, Migratory Birds)
- South Dakota Izaak Walton League
- Northern Prairies Land Trust
- Ducks Unlimited
- East Dakota Water Development
- Lower Brule Sioux Tribe
- Sisseton-Wahpeton Sioux Tribe
- Bennett County Pheasants Forever
- South Dakota Wildlife Federation
- Rocky Mountain Bird Observatory
- South Dakota Department of Environment and Natural Resources
- South Dakota Grassland Coalition
- Pheasants Forever Incorporated
- North Central Resource Conservation and Development Association
- South Dakota Association of Conservation Districts
- South Dakota Department of Game, Fish and Parks
- Six County Conservation Districts
- Belle Fourche River Watershed Partnership
- Prairie Pothole Joint Venture
- Northern Great Plains Joint Venture

Utah

- Key landowners
- U.S. Fish and Wildlife Service internal partners (including Refuges, Fisheries, Ecological Services, Migratory Birds)
- Ducks Unlimited
- Farm Bureau
- USDA Natural Resources Conservation Service
- The Nature Conservancy
- Trout Unlimited
- Utah Association of Conservation Districts
- Utah Division of Natural Resources
- Intermountain West Joint Venture

Wyoming

- Key landowners
- U.S. Fish and Wildlife Service internal partners (including Refuges, Fisheries, Ecological Services, Migratory Birds)
- Wind River Indian Reservation
- USDA Natural Resources Conservation Service
- Wyoming Game and Fish Department
- Ducks Unlimited
- Trout Unlimited
- Audubon Wyoming
- Hellyer Limited Partnership
- Intermountain West Joint Venture
- Northern Great Plains Joint Venture

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Appendix C:

Glossary of Terms

Baseline: Characterizes existing conditions before an action begins. Establishes a benchmark against which the success of the activity or project can be measured.

Candidate Species: Any species for which the U.S. Fish and Wildlife Service has enough information to propose the species for listing under the Endangered Species Act.

Conservation: Any single or group of actions or decisions that are made to support the fish and wildlife values of a habitat. For the purposes of this document, it is intended to be an all inclusive term including (but not limited to) restoration, enhancement, establishment, maintenance, protection, monitoring, outreach, coordination, assessment, and education for fish and wildlife habitat values.

Conservation Focus Area: For the purpose of this document, priority private land habitat areas within the Mountain-Prairie Region where the Partners for Fish and Wildlife program will direct most of its program activities over the next five years (2007-2011).

Effectiveness: Determines whether the activity or project has had the desired effect on selected indicators or performance criteria.

Endangered Species: Any species which is in danger of extinction throughout all or a significant portion of its range, and is federally listed as “endangered” under the Endangered Species Act.

Enhancement: The manipulation of physical, chemical, or biological characteristics of existing habitat to change specific functions.

Establishment: The manipulation of physical, chemical, or biological characteristics of a habitat to create and maintain habitat that did not previously exist.

Federal Trust Resources: The group of species including migratory birds, threatened and endangered species, inter-jurisdictional fish, marine mammals, and species of international concern, for which the Service has a specific legal mandate.

Federally Listed Species: A species that has been given federal protection in accordance with Section 4 of the Endangered Species Act.

Focus Area: See Conservation Focus Area.

G1: Regarding the NatureServe global conservation status ranks, a G1 species is “critically imperiled,” or at risk of extinction due to extreme rarity, very steep declines, or other factors.

G2: Regarding the NatureServe global conservation status ranks, a G2 species is “imperiled,” or at a high risk of extinction due to a very restricted range, very few populations, steep declines, or other factors.

Habitat Improvement: Any habitat restoration, enhancement, or establishment intended to increase the suitability of an area for a species or community.

Imperiled: Any species that is at high risk for extinction due to a very restricted range, few populations, steep declines, or other factors.

Invasive Species: A species that grows and spreads rapidly, establishes over large areas, and persists in areas where it is not wanted. A nonnative (alien, exotic) invasive species is one that has been introduced to a location outside its native or natural range.

Maintenance: The periodic additional work involving the manipulation of the physical, chemical, or biological characteristics present that is critical for the continuing success of a restoration process.

Monitoring: The collection and assessment of repeated observations or measurements over time to evaluate the effectiveness of actions.

Partnership: A group of people and/or organizations that have formed a relationship to promote an activity or idea.

Protection: A long-term action to safeguard habitats of significant importance to fish and wildlife species.

Restoration: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning the natural functions to lost or degraded landscapes.

Science-based: Founded in information that has been subject to the application of an objective scientific methodology, generally assumed to include rules for concept formation, observation, experimentation, and the validation of hypotheses, and enhanced by review of peers with expertise in the subject matter.

