

***PRAIIRE AND WETLANDS FOCUS AREA  
STRATEGIC PLAN***

**PREPARED BY:**

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**and the**

**PRAIRIE AND WETLANDS FOCUS AREA COMMITTEE**

**FUNDED BY:**

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## **PURPOSE OF THE PRAIRIE AND WETLANDS FOCUS AREA STRATEGIC PLAN**

The Prairie and Wetlands Focus Area (PWFA) Strategic Plan has been created to assist land managers, agency representatives, and private landowners in the conservation and management of prairie and wetlands habitats across eastern Colorado. The strategic plan explains the history behind the formation of focus areas by describing the international and national conservation plans that are the driving force for bird conservation. The strategic plan also describes the different organizations and programs that help ensure the implementation of these plans.

The PWFA Strategic Plan has been written with the premise that conservation begins at the local level. The strategic plan will assist those interested in conserving prairie and wetland habitats and associated wildlife and plant species within the shortgrass prairie ecosystem. The information necessary to formulate a project proposal, to obtain partnerships, to receive funding, and implement and complete a project are described. Descriptions are given of current projects or those that have recently been completed within the focus area. Funding sources and potential partners for projects are provided.

The PWFA Strategic Plan is a working document and thus information will be updated and added as it becomes available. Future changes to the strategic plan may represent new management practices, research findings, outreach and educational opportunities, and more efficient processes for writing conservation project proposals, and applying for project funding.

# **PRAIRIE AND WETLANDS FOCUS AREA STRATEGIC PLAN**

## **INTRODUCTION**

Wetland Focus Areas were initiated in Colorado in the 1990's to implement the North American Waterfowl Management Plan (NAWMP) and to facilitate wetlands conservation in the Colorado Division of Wildlife (CDOW) Wetlands Program. In 1996 the Arkansas River/Playa Lakes Wetlands Focus Area Strategic Plan was written. The plan encompassed five counties in southeastern Colorado (Las Animas, Baca, Bent, Prowers, and Kiowa). These were the same counties incorporated in the Playa Lakes Joint Venture (PLJV) boundary. In 2002 the Southeastern Colorado Wetlands Focus Area boundary was expanded to include most of eastern Colorado south of the South Platte River drainage, corresponding to an expansion of the PLJV boundary.

In 2004, the name of the focus area was changed to the Prairie and Wetlands Focus Area to better represent the full extent of the vision and mission for the area. The PWFA Committee was created to facilitate the development of prairie and wetland conservation projects that provide ecological, wildlife, and societal benefits. The Committee's strategy for prairie and wetland conservation is based on four premises:

- Recognition of the importance of prairie and wetland habitat types in eastern Colorado and the environmental and human induced processes that create and maintain these habitats. The Committee realizes the importance of applying a landscape strategy to conserve healthy highly functioning ecosystems of all types that are geographically distributed throughout eastern Colorado.
- Recognition that prairies and wetlands are important to the ecological health of the region, that they are centers for biological diversity, and provide habitat for a large number of the region's wildlife.
- Recognition that hydrological functions of wetlands are ecologically significant and socio-economically important to eastern Colorado residents. Wetlands are typically the most productive and diverse communities within arid landscapes such as eastern Colorado. Wetlands help sustain water flows in streams and rivers, recharge ground water supplies, act as temporary storage areas for flood water, and slow the flow of water allowing impurities to settle, thereby cleansing the water. Protecting hydrological functions conserves ecological integrity, and society benefits through life support and economic savings.
- Recognition of the importance of prairie habitats and their contributions and impacts on adjacent wetlands and humans by providing wetland buffering, nutrient cycling, wildlife habitat, biodiversity, energy resources, livestock grazing, and recreation.

The committee is a voluntary partnership involving public and private individuals, state and federal agencies, and organizations. The committee identifies and conserves quality prairie and wetland habitats distributed across the eastern Colorado landscape through project development and implementation. It is open to any person or organization with interest in prairie and wetlands conservation, enhancement, and restoration. The committee creates a comfortable working environment for forming partnerships for conservation. Our vision and mission are accomplished through the sharing of

information, assisting in project development, pursuing financial support, and providing outreach opportunities and education.

### **VISION STATEMENT**

The Prairie and Wetlands Focus Area Committee envisions conserving, enhancing, and restoring prairie and wetland habitats that sustain the natural integrity of the eastern Colorado ecosystem, including healthy human communities.

### **MISSION STATEMENT**

The Prairie and Wetlands Focus Area Committee will provide a forum for state, federal, and private partners to facilitate voluntary and proactive conservation of prairie and wetland habitats.

### **GOALS AND STRATEGIES FOR PRAIRIE AND WETLANDS CONSERVATION**

To achieve the mission of the PWFA committee, a set of goals and strategies has been developed. Many of the goals and strategies are similar to those developed by other wetland focus area committees. A table with the mission, goals, and strategies has been created in Appendix A.

#### **Goal 1. Conserve prairie and wetland habitats (quantity, quality, and diversity) to maintain and enhance existing biodiversity.**

##### *Strategies*

- Assist in identification and development of new conservation project proposals.
- Provide recommendations for prairie and wetland restoration, enhancement, and management for improved habitat conditions.
- Encourage development and implementation of management plans for new and existing projects.
- Promote the application of adaptive management strategies to existing conservation projects.
- Conserve ecologically significant private wetlands through partnerships, conservation easements, incentive programs, and other appropriate methods.
- Restore and enhance existing public and private wetlands through agency funding programs, planned projects within agencies, and other means available.
- Promote the use of native and site appropriate vegetation in restoration projects.
- Review project proposals that were not accepted for funding and modify or resubmit for funding.

**Goal 2. Promote application of existing and new programs for prairie and wetlands conservation.**

*Strategies*

- Promote integration of prairie and wetland conservation practices into state, federal, and private programs including the U.S. Department of Agriculture Farm Bill.
- Encourage participation of committee members in technical planning meetings such as Natural Resources Conservation Service Watershed Working Groups.
- Promote and support federal, state, and private programs that conserve and enhance prairie and wetland habitats such as Colorado Species Conservation Partnership Program and CDOW Wetlands Program.
- Facilitate cooperation and integration among programs and partners for enhanced capacity for leveraging funds and broadening the scope of projects delivered.

**Goal 3. Promote project tracking to facilitate monitoring and evaluation of projects.**

*Strategies*

- Cooperate with CDOW Wetlands Program Monitoring and Evaluation Project (WMEP) run by RMBO.
- Work to Implement PLJV's tracking database within the focus area.
- Promote and support inventory and monitoring of prairie and wetland habitats and associated species.
- Encourage implementation of research into conservation projects.
- Work with partners to develop monitoring programs, evaluation methods, and/or management plans for each project using WMEP as a model.

**Goal 4. Increase quality and accessibility of information and technical resources for prairie and wetland conservation.**

*Strategies*

- Maintain and update a list of all species within the area listed as endangered, threatened, or species of concern.
- Identify priority habitats or species groups for conservation.
- Work to make technical resources available through workshops, training, and resource guides for conservation partners to aid in project development and deliveries.
- Periodically revise and update the strategic plan.

**Goal 5. Increase awareness of prairie and wetlands conservation in local and regional communities.**

*Strategies*

- Develop printed materials for public distribution.
- Work with PLJV and CDOW to prepare and publish news articles.
- Organize and host workshops and tours for public participation.
- Support prairie and wetland awareness in school systems.

- Support CDOW Watchable Wildlife opportunities and interpretive programs.
- Participate in local conservation group activities.
- Create a website page for focus area information.
- Develop relationships with communities such as counties and municipalities.



## **IMPLEMENTATION OF CONSERVATION PLANS**

The PWFA committee facilitates implementation of four major bird conservation plans. Three of these plans are international in scope, the NAWMP, North American Waterbird Conservation Plan (NAWCP) and Partners in Flight (PIF). The fourth plan is the United States Shorebird Conservation Plan (USSCP). In addition, the committee facilitates the North American Bird Conservation Initiative (NABCI) by stimulating coordination among the plans, and fostering greater cooperation among the partners.

### **The North American Waterfowl Management Plan**

The NAWMP was signed by the United States and Canada in 1986 as a strategy for cooperation in the conservation of waterfowl between the two countries. It was created to conserve habitats important to waterfowl and to improve scientific understanding of waterfowl populations and habitat interactions. The Plan was updated in 1994 and Mexico joined the conservation effort. In 1998 the Plan was again updated recognizing that waterfowl conservation is linked to a wide range of social economic policies and programs and other international wildlife conservation interests (NAWMP 1998).

In 1998 the plan was updated, emphasis was placed on creating projects and conservation opportunities that would benefit a wider variety of organisms, beyond waterfowl. It was encouraged that the NAWMP work more explicitly with other avian conservation initiatives such as the USSCP and PIF. Following this international direction, many joint ventures re-evaluated their priorities and decided to incorporate all bird species and other wildlife conservation as part of their vision.

The plan was again updated in 2004 and is presented in two documents, the “Strategic Guidance” and the “Implementation Framework”. The Strategic Guidance document discusses the commitment to future conservation efforts, emerging trends, waterfowl population objectives, increasing scientific knowledge, institutional organization, and future challenges. The Implementation Framework document supplies the technical information for use by biologists and land managers.

Through NAWMP based-partnerships, more than \$2.2 billion has been invested to conserve, enhance and/or restore more than 8 million acres of habitat (USFWS 2003a). Within the PWFA nine species of waterfowl have been identified by the NAWMP for species conservation (Table 1).

### **North American Waterbird Conservation Plan**

The NAWCP was initiated in 1998. Its mission is to create a cohesive, multi-national voluntary partnership for conserving and managing waterbirds and associated habitats throughout North America by maintaining healthy populations, distributions, and habitats throughout their breeding, migratory, and wintering ranges (Banks 2001). The plan covers 210 species of waterbirds utilizing aquatic habitats in 29 nations throughout North America, Central America and the Caribbean (NAWCP 2002). Eleven waterbird species have been identified as using habitat and in need of conservation within the PWFA (Table 1).

Four goals have been developed to achieve the mission of the plan. They are;

- species and population – ensure sustainable distributions, diversity, and abundance of waterbird species throughout their historical and naturally expanding ranges
- habitat – protect, restore, and manage sufficient high quality habitat and key sites for waterbirds throughout the year to meet species and population goals
- education and information – ensure conservation information is available to decision makers, land managers, the public, and those whose actions affect waterbird populations and habitats
- coordinating and integration – ensure coordinated conservation efforts continue, are guided by common principles, and result in integrated and mutually supportive conservation actions.

### **Partners in Flight**

In 1990, the National Fish and Wildlife Foundation brought together representatives from federal, state, and local government agencies, foundations, conservation groups, the academic community and industry to form an organization to address land bird population declines. Through this effort PIF was created. The primary mission of the organization has three premises:

- help species at risk before they become imperiled, protect species that are endangered or threatened, and aid in recovery,
- keep common birds common,
- facilitate voluntary partnerships for birds, habitat, and people.

PIF has been instrumental in bird conservation planning with over 52 plans completed across the continent (Banks 2001) including a “Land Bird Conservation Plan” for Colorado (PIF 2000). The plan identifies four physiographic areas within Colorado (Central Shortgrass Prairie, Southern Rocky Mountains, Colorado Plateau, and Wyoming Basin).

The Prairie and Wetlands Focus Area lies within the Central Shortgrass Prairie Physiographic Area. Within this physiographic area the main conservation issues identified in the plan are habitat loss and habitat alteration with 14 priority species identified, more than any other habitat in Colorado (PIF 2000).

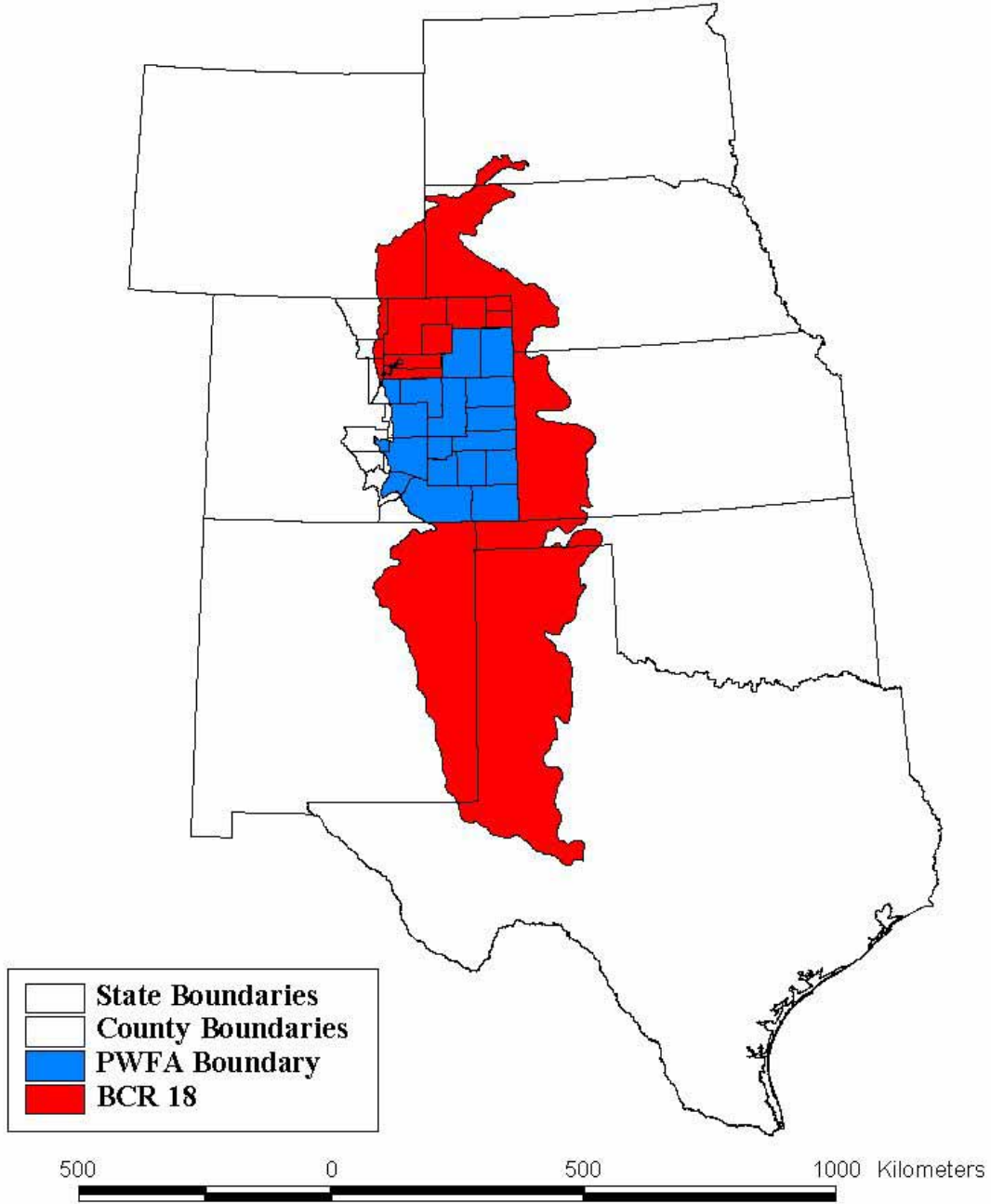
### **North American Bird Conservation Initiative - Bird Conservation Regions (BCR's)**

The NABCI was created to ensure the viability of North America's native bird populations through increasing the effectiveness of existing and new initiatives, enhancing coordination among initiatives, and increasing cooperation among three national governments. The goal of NABCI is to deliver all types of bird conservation through regionally based partnerships, biologically driven conservation, and landscape-oriented conservation and partnerships (NABCI 2000a).

Across the United States land managers have established ecological regions for bird conservation and management through the NABCI. The NABCI – Bird Conservation Regions (BCRs) have become a common unit for regional conservation activities (NABCI 2000b). The Prairie and Wetlands Focus Area lies within Bird Conservation

Region 18 – Shortgrass Prairie, an ecological unit having similar bird communities, habitats, and resource issues (Figure 1).

**Figure 1. Bird Conservation Region 18 and the Prairie and Wetlands Focus Area/PLJV Colorado Boundary**



### **United States Shorebird Conservation Plan**

The USSCP was initiated in 1996 and completed in 2000. The plan was created through a partnership of organizations throughout the United States committed to shorebird conservation. The plan is a habitat-based national framework for the conservation of shorebirds and their associated habitats. The national goal of the plan is to ensure stable and self-sustaining shorebird populations distributed throughout their ranges (Banks 2001). The plan identifies the needs for critical habitat conservation, key research studies, and proposed education and outreach programs (USSCP 2001).

Eleven regions were identified for management of shorebirds based on habitat types and management issues. The plan also incorporates the NABCI - BCRs. Eleven regional working groups were formed and each region now has an individual plan specific to the shorebirds within that area and their associated habitat objectives. The plans were created to assist land and wildlife managers in integrating shorebird management with conservation plans for other species. The PWFA lies within the Central Flyway - Central Plains/Playa Lakes Region, BCR 18, and Shortgrass Prairie (USSCP 2001). Twenty-two shorebird species have been identified for conservation within the PWFA (Table 1).

## **PARTNERSHIPS THAT IMPLEMENT THE MAJOR CONSERVATION PLANS**

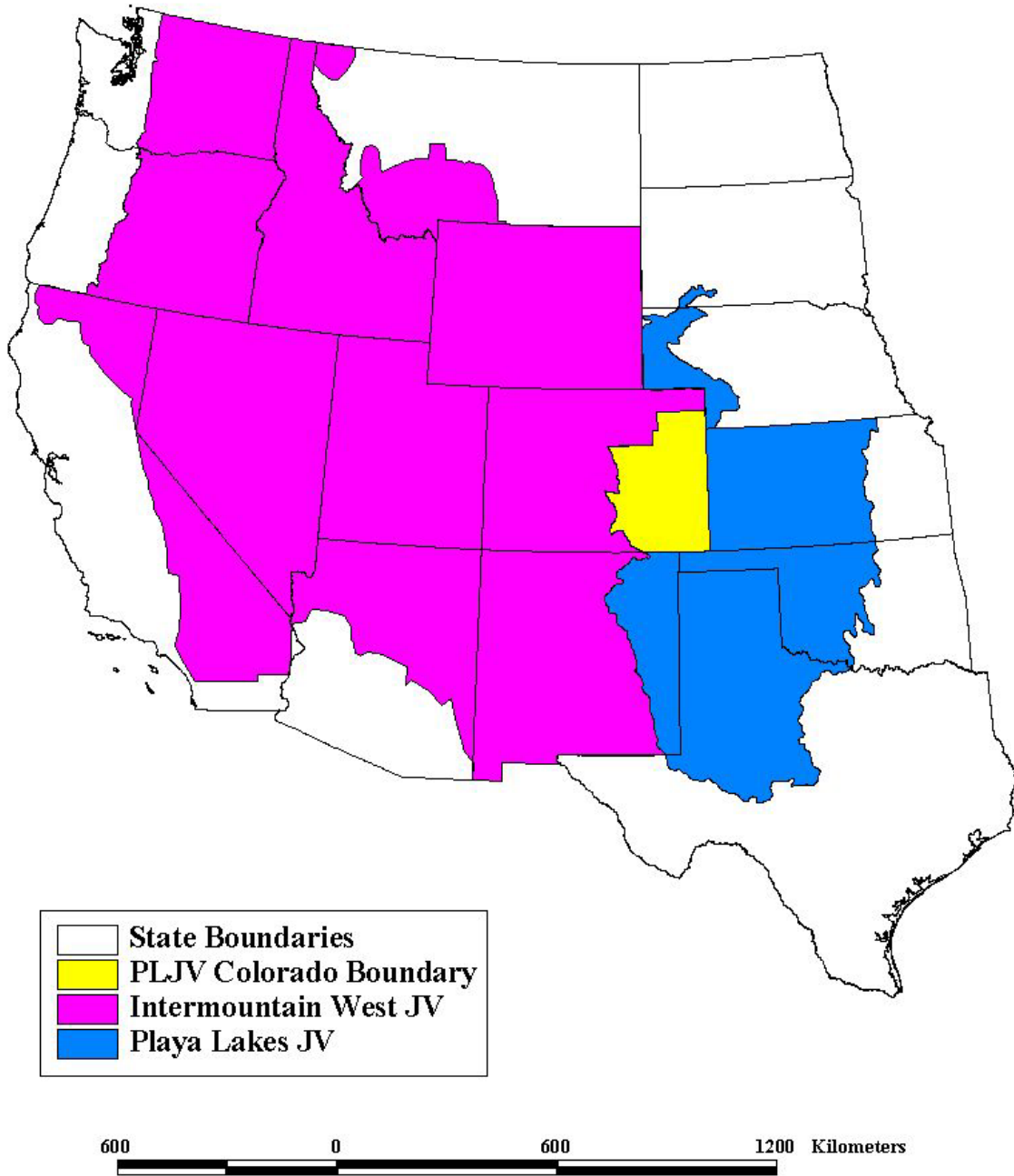
### **Habitat Joint Ventures**

The NAWMP established regional habitat-based partnerships called “Joint Ventures” to implement the conservation of migrating birds and their habitat through regional voluntary, non-regulatory partnerships. These partnerships are comprised of individuals, corporations, conservation organizations, and federal, state, and local agencies dedicated to habitat conservation. Habitat Joint Ventures develop implementation plans focusing on geographical regions that are areas of concern identified in the NAWMP (USFWS 2003b) as well as NAWCP, PIF, NABCI, and USSCP.

Colorado lies within two Habitat Joint Ventures, the Intermountain West Joint Venture (IWJV) which includes western and northeastern Colorado, and the PLJV which includes most of eastern Colorado (Figure 2). Habitat Joint Venture projects include education and outreach, research, conservation, restoration, and enhancement of wetland and associated upland habitats.

- Education and outreach efforts include conducting public relations, landowner workshops and teacher training, developing K-12 educational resources, and creating printed, broadcast, and online informational materials.
- Research includes monitoring bird abundance, chronology and response to habitat conditions, geographic information system development, evaluating habitat enhancement activities and studying wetland conditions.
- Conservation strategy is habitat acquisition through the use of conservation easements, leases, and management agreements with private landowners.
- Restoration projects include, but are not limited to, playa lakes, wetlands, riparian areas, and grasslands.
- Habitat enhancement activities include rest/rotational grazing practices, seasonal flooding of active crop lands, and construction of nesting islands, installing buffers, removing sediment, filling pits, and building structures for waterfowl and songbirds.

**Figure 2. Intermountain West and Playa Lakes Joint Venture Boundaries**



### **Playa Lakes Joint Venture**

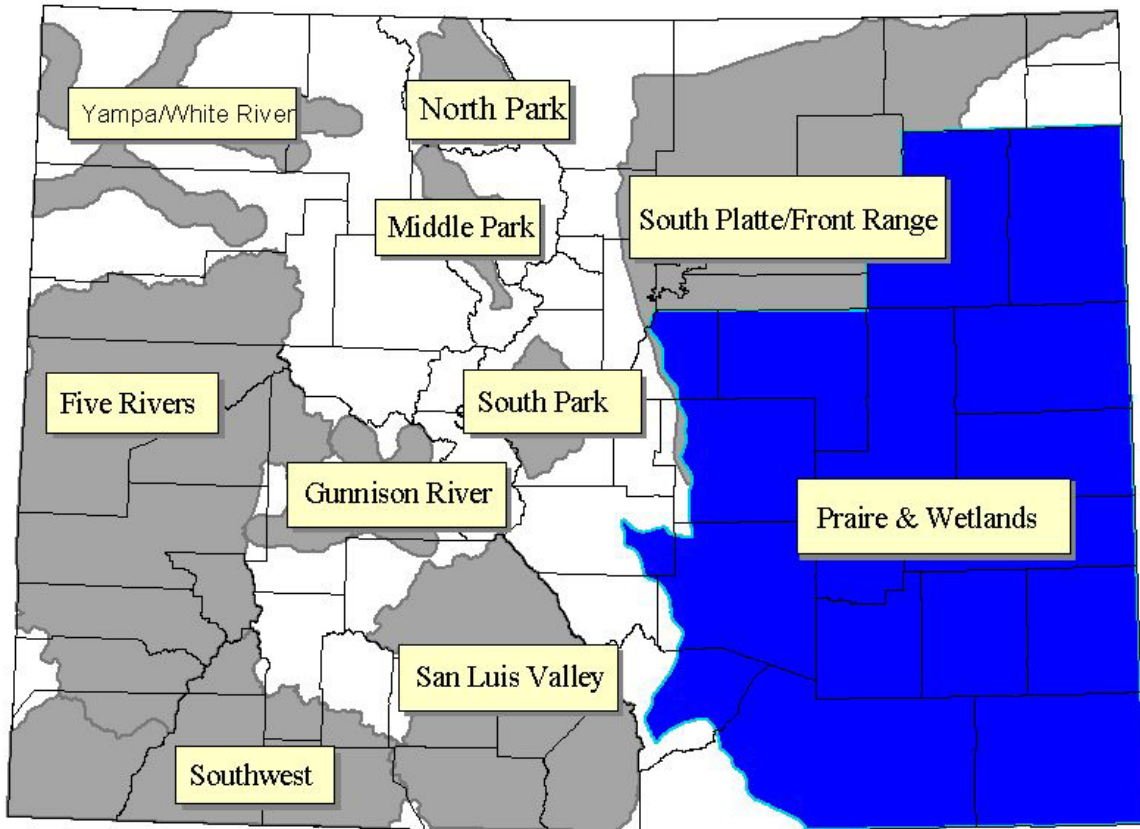
The mission of the PLJV is to facilitate partnerships that work toward sustainable landscapes for the benefit of birds, other wildlife, and humans. The PLJV partnership is committed to the conservation of playa basins, saline lakes, marshes, riparian areas, and associated watersheds through cooperative efforts with landowners. The PLJV strives to implement successful management and conservation of all bird species breeding, wintering, and/or migrating through the PLJV management area (PLJV 2003). Since 1986 the Playa Lakes Joint Venture has committed more than \$50,000,000 toward the conservation, restoration, and enhancement of more than 100,000 acres (USFWS 2003c). The PLJV provides several funding opportunities for prairie and wetland habitat conservation. To learn more about their program please refer to PLJV's website in Appendix B and information in Appendix C and D.

### **Wetland Focus Areas**

Wetland Focus Areas were introduced in 1986 by the NAWMP to focus efforts on wetlands in need of conservation. Ten Wetland Focus Areas were formed across the state of Colorado (Figure 3). Today, with the vision of a landscape approach to conservation and management of ecosystems, the PWFA boundary has been expanded to include 17 counties.



**Figure 3. Colorado's Wetland Focus Area Boundaries**



Each Wetlands Focus Area has a working group or committee comprised of local farmers, ranchers, wetland enthusiasts, and federal, state, and local agencies concentrating their conservation efforts on a specific geographic area. Each committee has a strategic plan which serves as a tool to guide conservation efforts within the focus area. The strategic plan provides information on partners, funding opportunities, species of conservation concern, and habitats within the focus area.

The PWFA committee is presently represented by the following organizations and government agencies, and by private landowners. The composition of the group is dynamic and expected to grow in the future. For a description of each organization and agency and their website address refer to Appendix B.

Audubon of Colorado	Pheasants Forever
Colorado Division of Wildlife	Pikes Peak Area Council of Government
Colorado Farm Bureau	Playa Lakes Joint Venture
Colorado Open Lands	Private Landowners
Colorado State University Cooperative Extension	Pueblo County Department of Planning
Colorado Wildlife Heritage Foundation	City of Pueblo
Ducks Unlimited	Quail Unlimited
Environmental Defense	Rocky Mountain Bird Observatory
Kiowa County Economic Development Foundation	Rocky Mountain Farmers Union
Land Stewardship Consulting, Inc.	Southeast Colorado Enterprise Development Inc.
National Park Service	The Nature Conservancy
National Wild Turkey Federation	Town of Limon
Natural Resources Conservation Service	U.S. Forest Service – Comanche National Grasslands
Palmer Foundation Land Trust	USFWS – Partners for Fish and Wildlife

### **Colorado Division of Wildlife Wetlands Program and Wetlands Initiative**

In 1997 the CDOW established a Wetlands Program to increase efforts to identify and conserve wetland habitats for all wetland-dependent birds and other wildlife. The key objective of the program is to conserve 100,000 acres of biologically significant wetlands and associated uplands by the year 2005 (CDOW 2001).

Five goals have been identified for the Wetlands Program (CDOW 2001). These are:

- Conserve wetland-dependent wildlife through incentives and voluntary means.
- Conserve wetland habitat by use of one or all of the following actions: restoration, enhancement, management, and acquisition (fee title or conservation easement) by a conservation entity such as a land trust, an individual, a non-government organization, or a government entity.
- Establish and foster wetland conservation partnerships between the CDOW, communities, non-governmental agencies, and private landowners.

- Assist Colorado communities in generating a wetlands conservation strategy for their community upon their request.
- Encourage interaction, cooperation, and partnering among wetland conservation participants and provide a statewide wetlands strategy that identifies opportunities to make wetlands conservation programs in Colorado work better.

The wetlands funding process Wetlands Initiative (WI) is an important funding opportunity for wetland and upland habitat conservation within the focus area. All projects submitted to the Wetlands Initiative are evaluated by the focus area project review committee with applicable projects forwarded to the CDOW Wetlands Program Coordinator. Projects that are not recommended for WI funding may get assistance from other funding sources. Feedback received from the review committee can also be used to re-write and submit the proposal to WI funding in the future. This program provides major funding opportunities for prairie and wetlands habitat conservation within the PWFA. Please refer to Appendix C for program information, project funding sources, and persons to contact if you are interested in submitting a project proposal for funding or if you have an idea for a project. The wetlands funding program WI application is presently being updated. Please contact the PWFA committee chairperson for the latest version of the application.

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Another important aspect of the WI program is the criteria for selecting projects. These criteria should be used as a guideline when considering a project for the WI program as well as other funding sources (Appendix D). The criteria is used to screen out proposals that are not biologically significant or do not provide state or regionally significant wetland benefits (GWFAS 2001).

These criteria will be used by the PWFA project review committee when reviewing project proposals. While its main focus is on wetlands, it provides a solid base of questions that can be applied to all types of projects within the PWFA that conserve the shortgrass prairie ecosystem.

A project tracking system also has been created to identify the effectiveness of approved projects within the PWFA. The Wetlands Monitoring and Evaluation Project (WMEP) is a strategy employed to provide feedback to conservation partners on the effectiveness of various conservation strategies and projects. The WMEP is run by Rocky Mountain Bird Observatory and includes a team that visits project sites pre- and post-delivery and provides a comprehensive project tracking database for the statewide program. Please contact Rocky Mountain Bird Observatory for more information on the project.

## **PROJECTS WITHIN THE PRAIRIE AND WETLANDS FOCUS AREA**

Many habitat conservation, restoration, and enhancement projects have occurred within the PWFA. Federal, state, and private organizations provide funding and assistance for projects in Colorado. Projects range from grazing management and fencing on a one acre playa to easements as large as 14,000 acres. Each funding source has specific guidelines for writing and submitting a project proposal as well as submission dates, project review dates, and final funding appropriation dates. Information on funding sources is located in Appendix C. This information is subject to change, thus it is recommended that people contact the relevant program representative for the most current information.

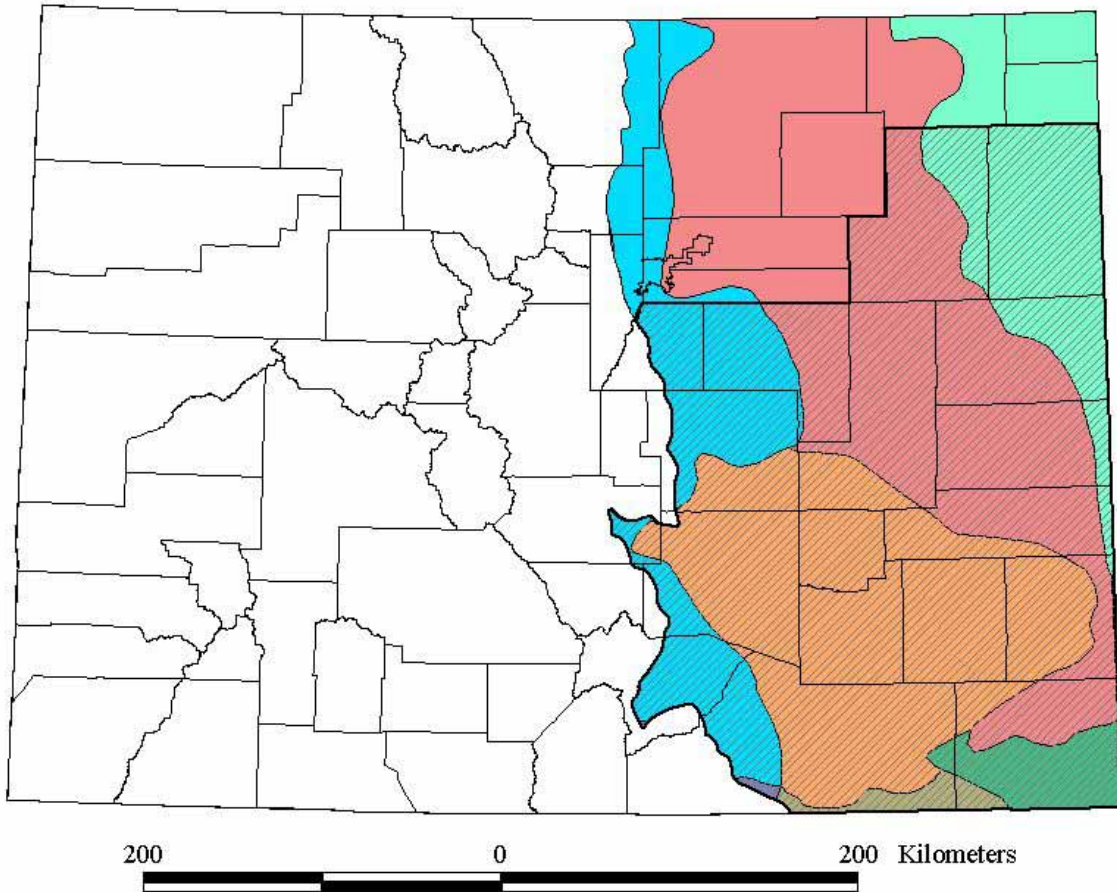
A list of projects that have recently been completed, are currently under progress, or will occur when funding becomes available is in Appendix E. This list is being updated continuously. It is the intent of the PWFA committee that all projects occurring in the PWFA will be combined in one database that will be available to all resource representatives.

## **PHYSICAL CHARACTERISTICS WITHIN THE PWFA**

There are many ecological land classifications used by land managers. For the purposes of this strategic plan the classification system developed by the Natural Resources Conservation Service (NRCS) will be used. This system details land use, elevation and topography, climate, water, soils, and potential natural vegetation. This section was developed to increase efficiency when writing a proposal for a project within the PWFA and should be used by land managers and private landowners to describe the land base where the project is located.

The PWFA lies within multiple major land resource ecological areas. The area is divided into three major land regions: Western Great Plains, Central Great Plains, and Rocky Mountain and Forest Region. Within these regions, physical and climatic conditions warrant further division into sub-regions. In general the majority of the landscape is characterized by shortgrass prairie. Figure 4 identifies these geographical areas. The following text was taken from the NRCS website “Soil Information for Environmental Modeling and Ecosystem Management” (NRCS 1998).

**Figure 4. Major Land Resource Areas within the Prairie and Wetlands Focus Area**



## Western Great Plains Region

This region has three sub-regions: *Central High Plains*, *Upper Arkansas Valley Rolling Plains*, and the *Pecos-Canadian Plains and Valleys*. The last sub-region only covers the southern border of Las Animas and Baca Counties.

The *Central High Plains* are undulating to rolling plains moderately dissected by streams. Native vegetation is short- to mid-grass prairie with major species including; blue grama with pricklypear, buffalograss, western wheatgrass, threeawn, and sand dropseed. Cottonwood trees are common along major waterways.

The average annual precipitation is 13 to 17 inches, with the area receiving the maximum precipitation from mid-spring to late autumn. The average freeze-free period is 120-160 days but can be as long as 180 days near the southern boundary.

Native vegetation and dry-farming areas receive water from the low and erratic precipitation. Most of the area is covered by Ustoll and Argid soils. Sand and gravel in many areas yield adequate ground water for livestock and domestic uses. Where shale bedrock is near the surface, ground water is scarce and normally of poor quality. Large rivers provide most of the irrigation water with the remainder obtained from wells. Farming by irrigation produces corn, alfalfa, sugar beets, and vegetables. Meadow areas are used for hay or pasture. The main dry land agriculture crop is winter wheat. Grazing is extensive throughout this area.

*The Upper Arkansas Valley Rolling Plains* is primarily native shortgrass prairie with flood plains and terraces along the Arkansas River. The land is undulating to rolling plains with wide bands of steep slopes bordering several of the larger tributaries of the Arkansas River. Blue grama with galleta, cholla, threeawn, ring muhly, and alkali sacaton are the major plant species on the prairie. Cottonwood trees are found along the major streams. Mixed stands of pinyon and juniper are found in areas with stoney and rocky soils. Understory species in these areas is similar to those on the prairie. From east to west the elevation increases gradually from 3,608 to 6,232 feet.

The average annual precipitation is 10 to 15 inches, with wide fluctuations from year to year. Maximum precipitation is from mid-spring through late autumn. The average freeze-free period is from 140 to 160 days.

Water is scarce on the prairie due to low and erratic precipitation. The Arkansas River and a few of its tributaries provide water for irrigation in valleys. Ground water in sand and gravel areas provides water for livestock, domestic use, and some irrigation. Where shale is near the surface ground water is scarce. Most of the soils are Argids.

Cattle ranching and farming are the main land use activities. Alfalfa, sugar beets, grain sorghum, melons, seed crops, corn, small grains, onions, and other vegetables are the main crops. The main dry land agriculture crop is winter wheat.

The small amount of area in Colorado encompassed by the *Pecos-Canadian Plains and Valleys* has a few areas of forest vegetation but it is primarily plains grassland vegetation. The area is similar to the above great plains sub-regions.

### **Central Great Plains Region**

The Central Great Plains Region is comprised of two sub-regions: the *Central High Tableland* in the northeast and east and the *Southern High Plains* in the southeast corner.

The *Central High Tableland* topography is smooth loess-mantled tableland with slopes that are nearly level to gently rolling. Some of the major valleys are bordered by steep slopes. Along the Arkansas River and a few of its tributaries, there are broad level flood plains and terraces. Native vegetation is short grass prairie with blue grama and buffalo grass as the dominant species. Sideoats grama, blue grama, hairy grama, and little bluestem grow on the steeper dissected areas. Elevation ranges from 2,624 to 3,936 feet, increasing from east to west.

The average annual precipitation fluctuates widely from year to year with an annual average of 16 to 21 inches, the maximum occurring in late spring through early autumn. The average freeze-free period is 140-185 days. The dryland crop water source is low and erratic precipitation. Irrigation water is obtained from the Arkansas and Republican Rivers. Soils are mainly Ustolls.

It is a dryfarming area with winter wheat as the main crop, and small grains, grain sorghum, alfalfa, and hay crops also planted. Along the Republican and Arkansas River, corn, grain sorghum, and sugar beets are grown extensively.

The *Southern High Plains* area extends into approximately half of Baca County. This sub-region is very similar to the surrounding area with a native shortgrass community characterized by blue grama and buffalo grass. Land use activities are ranching and farming with crops being the same as listed above.

### **Rocky Mountain and Forest Region**

This region covers the western border of the PWFA. It is comprised of two sub-regions in Colorado: *Southern Rocky Mountain Foothills* and *Southern Rocky Mountains*. The *Southern Rocky Mountains* sub-region only covers a portion of southeastern Las Animas County.

The *Southern Rocky Mountain Foothills* sub-region is rugged hills and low mountains in narrow bands. The area is strongly dissected and many places have large streams flowing eastward from the Rocky Mountains. Native vegetation is transitional between grasslands and forests. Shortgrass prairie vegetation consists of grama, needlegrass, bluegrass, and sod-forming wheatgrass intermixed with shrubs (e.g. mountain mahogany and antelope bitterbrush). The overstory contains ponderosa pine, Douglas-fir, pinyon, and juniper on hillsides. Riparian areas contain blue spruce, alder, narrowleaf cottonwood, birch, and willow.

The average annual precipitation varies from 5 to 20 inches. Winter precipitation is low, increasing from spring to midsummer and decreasing again in autumn. The average freeze-free period is 120-160 days but shorter at higher elevations. Streams provide water but in other areas water is scarce.



Ranching and farming are predominant land uses with grassland and woodland used for grazing, and hay, pasture, and feed grains grown in irrigated valleys. Soils are Ustolls, Borolls, and Boralfs.

The portion of the *Southern Rocky Mountain* area within Las Animas County is mainly grassland with open woodland. Shortgrass prairie, sagebrush, and other shrubs grow on the slopes and in valleys. Lodgepole pine, aspen, ponderosa pine are major trees of the lowland forests.

### **Wetland Habitats within the Prairie and Wetlands Focus Area**

Wetlands are a vital ecological component within the shortgrass prairie ecosystem of eastern Colorado. Because of their importance to the focus area and the high priority wetlands conservation is given by international, national, and regional conservation plans, and the amount of funding opportunities available, a separate section on wetland characteristics is appropriate. The following information should be used by land managers and private landowners when reviewing wetland habitats for possible project proposals and funding within the PWFA.

There are many types of wetlands throughout the world and several different classification systems. The Colorado Natural Heritage Program in cooperation with CDOW and the Environmental Protection Agency has completed the Statewide Wetlands Classification and Characterization Final Report (CNHP 2003). Information from this report can be used for some site specific descriptions of wetlands and associated plant species. However it does not constitute a uniform or complete sample of the state's wetland diversity and covers only a certain range of habitats and geographic areas of the state. The system is described here for future use and in hopes that land managers and private landowners will begin to learn the classification for future wetland identification and management.

For the purposes of this strategic plan the following general information and definitions of wetlands will be used to identify and describe the eight types of wetland habitats within the focus area. The majority of information on wetland types was taken from the South Platte River, Colorado Wetland Focus Area Strategy (SPWFAC 2002).

Conservation concerns for several of the wetland habitats described below have been identified by the PLJV (PLJV 2003). As more research is conducted on wetlands in Colorado and conservation concerns identified, they will be added to the strategic plan to guide future project proposals and management of wetlands within the shortgrass prairie.

A wetland is a low-lying area that is saturated with moisture long enough and frequently enough to have developed unique characteristics related to plants, soils, wildlife, and the water source. Several key functions and defining characteristics are common among all wetlands: support of wetland plants, is saturated or covered by shallow water at some time during the growing season and/or its soil contains little or no oxygen as a result of saturation (CDOW 2001). These transitional habitats occur between upland and aquatic environments where the water table is at or near the surface of the land, or where the land is covered by shallow water (SLVCWS 2000). The exact number of wetlands in Colorado

is not known but it is estimated that 1 million acres of wetlands remain. The amount of wetland acreage located within the PWFA is not known.

### ***Submerged Aquatic Wetland***

Submerged aquatic wetlands are natural or artificial small permanent ponds with semi-permanent flooding. The wetlands are dominated by submerged vegetation that can be native or non-native. Examples of freshwater submerged aquatic vegetation found in Colorado include common waterweed, curly pondweed, southern naiad, and water stargrass (CRC 2004).

### ***Emergent Marsh***

Emergent marshes occur on mineral or fine-grained organic soils predominantly in poorly drained areas with seasonal or semi-permanent flooding. They may have varying water levels throughout the year but there is usually standing water in the fall (WM 2004). Typically there is no canopy or shrub layer and the dominant vegetation is cattail or bulrush.

### ***Wet Meadow***

Wet meadows occur primarily on flat riverine floodplains with silty loam topsoils. Surface water is usually absent but they have seasonally high water tables. Dominant vegetation is grasses, sedges, and rushes. These wetlands are in flat to gently rolling topography occurring in areas of influence of riverine plains and are composed of salt meadow and wet meadow range sites. Although classified as wetlands, these areas can have upland soils and vegetation widely interspersed. Marshland, meadows, and upland habitats are commonly found within a few feet of each other.

Salt meadow vegetation is mainly grasses, with a small percent of forbs and shrubs. The shrub component is primarily four-winged saltbrush and willows. Wet meadow areas are dominated by rushes, spike-rushes, sedges, and grasses (SPWFAC 2002).

### ***Riverine Wetlands/Riparian Areas***

Riverine wetlands/riparian areas occur along river channels, streams, and associated flowing water wetlands. They are usually an ecotone between aquatic and upland ecosystems and are periodically influenced by flooding. They have their own distinct vegetation and soil characteristics (Mitsch and Gosselink 1993). Man-made areas include irrigation canals and ditch systems.

Conservation concerns for riparian habitats include loss or change of hydrology, fragmentation of corridors, invasion of exotic species, and lack of cottonwood regeneration. Many riparian areas in the Great Plains have changed drastically from their original state of exposed sand, grasslands, and occasional trees. Today these areas have dense woodlands of native and exotic species. This change in plant community structure increased benefits to some species of birds but has become detrimental to some species that originally occupied these areas (PLJV 2003).

### ***Warm Water Seeps, Springs, and Sloughs***

Warm water seeps, springs, and sloughs are an important subset of riverine wetlands. They are return-flow streams that do not normally freeze. This category includes seep

ditches and toe drains below reservoirs. These habitats provide vital wildlife habitat. In winter, warm-water sloughs provide thermal cover and food resources. These wetlands are created when warm, subsurface water enters remnant meander scars or oxbows.

A conservation concern is water development that can alter the hydrology of these sloughs causing them to become choked with silt and vegetation, thus diminishing their value (SPWFAC 2002).

### ***Lakes and Reservoirs***

Lakes and reservoirs are large, deep water bodies with wave-formed shorelines that lack emergent vegetation. Reservoirs may have highly fluctuating water levels. Water levels are crucial in wetland habitats including rivers and reservoirs because they impact the availability of suitable habitat for different wetland-dependent species. Water levels controlled by humans are also a conservation concern. When water levels are decreased in some areas such as Two Buttes Reservoir, loss of suitable habitat for waterfowl occurs. When water levels are increased in some wetlands it creates a loss of suitable habitat for beach-nesting birds (PLJV 2003).

These areas can provide habitat for large concentrations of waterfowl and other birds when ice and drought make smaller waterbodies unavailable. Reservoirs can provide important breeding areas for marshbirds. A conservation concern is the decrease of water flow into reservoirs, which limits the availability of standing water and decreases their value to birds (PLJV 2003).

### ***Playa Lakes***

Playas are ephemeral lakes located on clay soils away from stream channels in shortgrass prairie or cultivated fields. They are usually circular depressions in areas with no external drainage that are seasonally or less often flooded. Unaltered playas have no surface inlets or outlets (SPWFAC 2002). 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 hydroperiod. Plant species and plant communities in playas are adapted to this changing environment and change accordingly, which in turn influences faunal diversity. When flooded, playas contain submergent and emergent aquatic species similar to other wetlands. When playas are dry the plant community is characterized by species found in surrounding uplands and prairie habitats. 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, cranes, and other migratory birds are known to use playas during the 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.

Approximately 2,500 playa lakes have been identified in eastern Colorado (Hutton pers. comm. 2004). Conservation concerns with playas include sedimentation, pesticide and fertilizer runoff, excess nutrients and/or contaminants from feedlot effluent, oil field water dumping, altered grazing, hydrologic cycles, and alteration of basins. Most playas

are privately owned and landowner participation in the joint venture is crucial to conserving the playas (USFWS 2003d).

***Artificial Wetlands and Shallow-water Impoundments***

Artificial wetlands are constructed to provide shallow water habitats dominated by annual seed producing plants. Temporary flooding usually occurs in spring and autumn. Ponds are often created by damming small drainages and contour levees are used to create shallow-water areas for wildlife. Most are created for livestock water. Most stock ponds are less than 2 acres with some as small as ¼ acre. Some stock ponds have steep edges (pit-like), limiting habitat availability for shorebirds and songbirds. Stock ponds may provide important habitat when playas are dry or frozen. Conservation of these small habitats includes management practices that reduce consumption and trampling of food plants desirable to birds and reduce water turbidity (PLJV 2003).

## **PRIORITY SPECIES THAT UTILIZE THE PWFA**

Wildlife and plant species and associated conservation and management are critical components in maintaining the shortgrass prairie ecosystem. Many wildlife and plant species of conservation concern have been identified by international, national, federal, state, and private agencies and organizations. The following information was compiled to assist land managers and private landowners when considering project proposals.

Categories include federal and state listings of species and where appropriate listings have been identified under the NAWMP, PIF, NAWCP, USSCP and CNHP. Many references were used to compile the information on species. They include the plans listed above whose citations can be found at the end of this document, personal communication with biologists with expertise in this area, the CNHP website for species listings ([www.cnhp.colostate.edu/list.html](http://www.cnhp.colostate.edu/list.html)), and several books including,

- Amphibians and Reptiles in Colorado (Hammerson 1999)
- Mammals of Colorado (Fitzgerald et. al 1994)
- Colorado Birds (Andrews and Righter 1992)
- Colorado Breeding Bird Atlas (Kingery 1998).

The bird listings have been broken down into six tables to simplify identification of species with habitat associations listed. The vascular plant list is quite extensive so it has been listed in Appendix F. Due to the extensive definitions related to species listing by federal, state, and other organizations a “key” has been created with all the associated listing groups and definitions (Appendix G). These tables are to be used as a guide as species listings can change. Please check federal, state, and other listings for the most recent information when writing your project proposal.

In addition to federal and state endangered, threatened or species of concern listings and species listed under international and national conservation plans, there are many wildlife species that are of primary importance to human populations. An example of an upland game species that is important within the PWFA is the Wild Turkey. Two subspecies of Wild Turkey are found in eastern Colorado. The Rio Grande Wild Turkey can be found in associated habitats across eastern Colorado while Merriam’s Wild Turkey can be found in pocket populations.

Ducks Unlimited, Pheasants Forever, Quail Unlimited, and The National Wild Turkey Federation promote the conservation of important species like the Wild Turkey and their associated habitats and the preservation of our hunting heritage. These organizations support conservation efforts through funding of projects and by assisting landowners and communities with management efforts. These organizations were established to ensure conservation of wildlife habitats and recreation opportunities for millions of Americans through hunting opportunities, photography, and bird watching. Information on these organizations and opportunities for projects can be found in Appendix B and C.

While this strategic plan has identified many species listed by federal and state agencies and other organizations, all wildlife species are important to the conservation of prairie and wetland ecosystems. While conservation efforts may be guided by the necessity to

preserve species listed in the tables below, management guidelines for projects should focus on conserving, enhancing, and restoring habitat and associated species for the betterment of the ecosystem as a whole.

**Table 1. Birds**

***Waterfowl***

		State		Federal Agencies				Bird Conservation Plans							
Species	Common Name	Colorado		T&E	USFWS BCC			PIF				NAWMP		Habitat	PWFA Use/Comments
		T&E/SC	CNHP		Nat'l	BCR 18	USFS	CO BCP PA 36	CO BCP PA 62	SAD BCR 18 breed	SAD BCR 18 winter	Continent	WCR 18		
<i>Anas americana</i>	American Wigeon										IIA	MH		All wetlands, except WM	B,M,W few breed. recs. for PWFA
<i>Anas platyrhynchos</i>	Mallard										IIA	H	H-NB	All wetlands	B,M,W, R
<i>Anas discors</i>	Blue-winged Teal											MH		All wetlands	B
<i>Anas cyanoptera</i>	Cinnamon Teal											MH		All wetlands	B
<i>Anas acuta</i>	Northern Pintail										IIA	H	H-NB	All wetlands	B,M,W
<i>Aythya valisineria</i>	Canvasback										IIC	MH		All wetlands, except WM	M
<i>Aythya americana</i>	Redhead										IIC	IIC		All wetlands, except WM	M,W rare breeder PWFA
<i>Aythya affinis</i>	Lesser Scaup											H		All wetlands, except WM	M,W
<i>Bucephala clangula</i>	Common Goldeneye											MH	MH-NB	All wetlands, except WM	M,W
<i>Bucephala islandica</i>	Barrow's Goldeneye		S2B											All wetlands, except WM	M,W

**NAWMP COLUMN:** North American Waterfowl Management Plan

Continent = Level of Concern for population throughout North America

MH = moderately high

H = high

WCR 18 = Waterfowl Conservation Region 18 (Southern Rockies and Colorado Plateau)

H-NB = high non-breeding concern

MH-NB = Moderately High non-breeding concern

## Waterbirds and Marshbirds

		State		Federal Agencies				Bird Conservation Plans						
Species	Common Name	Colorado		T&E	USFWS BCC		USFS	PIF			NAWCP continent	Habitat	PWFA Use/ Comments	
		T&E/SC	CNHP		Nat'l	BCR 18		CO BCP PA 36	CO BCP PA 62	BCR 18 breed				SAD BCR 18 winter
<i>Podiceps nigricollis</i>	Eared Grebe										M	SA,EM,LR,AW	B,W	
<i>Aechmophorus occidentalis</i>	Western Grebe										M	SA,EM,LR,AW	B	
<i>Aechmophorus clarkii</i>	Clark's Grebe											SA,EM,LR,AW	B	
<i>Pelecanus erythrorhynchos</i>	American White Pelican		S1B									LR	B,M	
<i>Botaurus lentiginosus</i>	American Bittern					X					M	EM,WM,RA	B,W	
<i>Nycticorax nycticorax</i>	Black-crowned Night-Heron										M	SA,EM,RA,LR,AW	B,W= uncommon	
<i>Egretta thula</i>	Snowy Egret		S2B								H	SA,EM,RA,LR,AW	B	
<i>Plegadis chihi</i>	White -faced Ibis		S2B									EW,WM,WWS, LR,IA	B	
<i>Laterallus jamaicensis</i>	Black Rail				X							WM	B = rare Bent Co.	
<i>Grus canadensis</i>	Greater Sandhill Crane	SC	S2B,S4N									EM,WM,P,IA,DLA	M	
<i>Grus americanus</i>	Whooping Crane	E	SNAN	E								EM,WM,P,IA,DLA	M= rare	
<i>Sterna forsteri</i>	Forster's Tern		S2B,S4N									EM,LR	B,M	
<i>Sterna antillarum</i>	Least Tern	E	SB1	E	X		X					RA,LR	B	
<i>Chlidonias niger</i>	Black Tern					X					M	All wetlands	M,B=probable in EM	

**NAWCP COLUMN:** North American Waterbird Conservation Plan

NAWCP continent = Level of Concern for population throughout North America

M = Moderate Concern

H = High Concern



## Shorebirds

		State		Federal Agencies				Bird Conservation Plans								
Species	Common Name	Colorado		T&E	USFWS BCC			PIF				USSCP		Habitat	PWFA Use/Comments	
		T&E/SC	CNHP		Nat'l	BCR 18	USFS	CO BCP PA 36	CO BCP PA 62	SAD BCR 18 breed	SAD BCR 18 winter	National	Plains /Playa			
<i>Pluvialis dominica</i>	American Golden Plover												HC	X	WM,LR,P,AW	M
<i>Charadrius alexandrinus</i>	Snowy Plover	SC	S1B		X	X					I		HI	X	LR,P,AW	B,M
<i>Charadrius melodus</i>	Piping Plover	T	S1B	T			X				I		HI	X	LR,P,AW	B,M
<i>Charadrius montanus</i>	Mountain Plover	SC	S2B		X	X	X	X			I		HI	X	SG,DLA	B,M
<i>Himantopus mexicanus</i>	Black-necked Stilt		S3B												EM,WM,P, LR,IA	B,M
<i>Recurvirostra americana</i>	American Avocet										IIC			X	EM,LR,P,WM	B,M
<i>Tringa melanoleuca</i>	Greater Yellowlegs														LR,P,AW	M
<i>Tringa solitaria</i>	Solitary Sandpiper				X	X							HC		LR,P,AW	M
<i>Catoptrophorus semipalmatus</i>	Willet		S1B							X					WM,LR,P,AW	M
<i>Actitis macularia</i>	Spotted Sandpiper														RA,WWS,LR,AW,P	B,M
<i>Bartramia longicauda</i>	Upland Sandpiper				X			X			IIC		HC	X	MG	B,M
<i>Numenius phaeopus</i>	Whimbrel												HC		WM,LR,P,AW	M
<i>Numenius americanus</i>	Long-billed Curlew	SC	S2B		X	X	X	X			I		HI	X	SG,P,LR,AW	B,M
<i>Limosa haemastica</i>	Hudsonian Godwit												HC	X	WM,LR,P,AW	M
<i>Limosa fedoa</i>	Marbled Godwit				X								HC		WM,LR,P,AW	M
<i>Calidris pusilla</i>	Semipalmated Sandpiper													X	WM,LR,P,AW	M
<i>Calidris mauri</i>	Western Sandpiper												HC	X	WM,LR,P,AW	M
<i>Calidris minutilla</i>	Least Sandpiper													X	WM,LR,P,AW	M
<i>Calidris fuscicollis</i>	White-rumped Sandpiper													X	WM,LR,P,AW	M
<i>Calidris bairdii</i>	Bairds Sandpiper													X	WM,LR,P,AW	M
<i>Calidris melanotos</i>	Pectoral Sandpiper													X	WM,LR,P,AW	M
<i>Calidris himantopus</i>	Stilt Sandpiper													X	WM,LR,P,AW	M
<i>Limodromus scolopaceus</i>	Long-billed Dowitcher													X	WM,LR,P,AW	M
<i>Gallinago gallinago</i>	Wilson's Snipe														WM,RA	B,M
<i>Phalaropus tricolor</i>	Wilson's Phalarope		S4B, S4N		X						I		HC		WM,EM,P,AW	B,M
<i>Phalaropus lobatus</i>	Red-necked Phalarope														WM,EM,P,AW	M

USSCP COLUMN: United States Shorebird Conservation Plan

National = National species prioritization categories

HC = Species of high concern

HI = Species is highly imperiled

Plains/Playa = Central Plains/Playa Lakes Shorebird Planning Region (Contains BCR's 18,19,20,21 & 36)

X = Priority species for Central Plains/Playa Lakes Shorebird Planning Region

### Raptors

		State		Federal Agencies				Bird Conservation Plans					
Species	Common Name	Colorado		T&E	USFWS BCC			PIF				Habitat	PWFA Use/ Comments
		T&E/SC	CNHP		Nat'l	BCR 18	USFS	CO BCP PA 36	CO BCP PA 62	BCR 18 breed	BCR 18 winter		
<i>Ictinia mississippiensis</i>	Mississippi Kite									I		RA,WL	B,M
<i>Haliaeetus leucocephalus</i>	Bald Eagle	T	S1B,S3N	T						IIC		RA,LR	B,M,W
<i>Circus cyaneus</i>	Northern Harrier				X	X	X	X		IIA	I	WM,RA,SG, MG,AG	B,M,W
<i>Buteo swainsoni</i>	Swainson's Hawk				X			X		I		All uplands	B,M
<i>Buteo regalis</i>	Ferruginous Hawk	SC	S3B,S4N		X	X	X	X		I	I	SG,SS	B,M,W
<i>Aquila chrysaetos</i>	Golden Eagle									IIA		SG,SS	B,M,W
<i>Falco mexicanus</i>	Prairie Falcon				X	X		X		I	I	SG,MG,SS,PJ	B,M,W
<i>Athene cunicularia</i>	Burrowing Owl	T			X	X	X	X		I	I		
<i>Asio otus</i>	Long-eared Owl										I	WL,AG, PJ,MG,SG	B,M,W
<i>Asio flammeus</i>	Short-eared Owl		S2B		X		X	X	X	IIC	IIC	MG,SG,SS	B,M,W

### Upland Game Birds

		State		Federal Agencies				Bird Conservation Plans							
Species	Common Name	Colorado		T&E	USFWS BCC			PIF				Habitat	PWFA Use/ Comments		
		T&E/SC	CNHP		Nat'l	BCR 18	USFS	CO BCP PA 36	CO BCP PA 62	BCR 18 breed	BCR 18 winter				
<i>Tympanuchus cupido</i>	Greater Prairie Chicken		S3					X	X			I	I	MG,SS,AG	R, n.PWFA Washington, Yuma, Kit Carson Counties
<i>Tympanuchus pallidicinctus</i>	Lesser Prairie Chicken	T	S2	C	X	X	X	X				I	I	MG,SS	R s.PWFA, Kiowa, Prowers, Baca Counties
<i>Callipepla squamata</i>	Scaled Quail											I	I	SS,SG,PJ	R
<i>Colinus virginianus</i>	Northern Bobwhite												IIA	AG,SS,RA,WL	R

## Landbirds

		State		Federal Agencies			Bird Conservation Plans						
Species	Common Name	Colorado		USFWS BCC			PIF				Habitat	PWFA Use/ Comments	
		T&E/SC	CNHP	T&E	Nat'l	BCR 18	USFS	CO BCP PA 36	CO BCP PA 62	BCR 18 breed			BCR 18 winter
<i>Coccyzus americanus</i>	Yellow-billed Cuckoo		SNA	C	X		X					RA, WL	B
<i>Phalaenoptilus nuttallii</i>	Common Poorwill											PJ	B
<i>Archilochus alexandri</i>	Black-chinned Humingbird									X		PJ,RA,WL	B- Las Animas Co.
<i>Melanerpes lewis</i>	Lewis's Woodpecker				X	X	X	X	X	I	I	PJ,RA,WL	R
<i>Melanerpes erythrocephalus</i>	Red-headed Woodpecker				X					IIIB	I	RA,WL	B, Occ. W
<i>Contopus sordidulus</i>	Western Wood-Peevee											RA,WL,PJ	B
<i>Sayornis saya</i>	Say's Phoebe									IIA		AG,WL,PJ,RA	B
<i>Tyrannus vociferans</i>	Cassin's Kingbird											PJ,RA,WL	B
<i>Tyrannus verticalis</i>	Western Kingbird									IIIA		All uplands	B
<i>Lanius ludovicianus</i>	Loggerhead Shrike				X		X			IIA		AG,SG,PJ,WL	B
<i>Vireo bellii</i>	Bell's Vireo				X	X		X		I		WL,RA	B Yuma Co.
<i>Vireo plumbeus</i>	Plumbeous Vireo											PJ,RA	B SW PWFA
<i>Gymnorhinus cyanocephalus</i>	Pinyon Jay											PJ	R
<i>Pica hudsonia</i>	Black-billed Magpie										IIA	All uplands	R
<i>Corvus cryptoleucus</i>	Chihuahuan Raven									IIA	IIA	SG,PJ,WL,AG	R
<i>Eremophila alpestris</i>	Horned Lark									IIIA		SG,AG,MG,SS	R
<i>Baeolophus ridgwayi</i>	Juniper Titmouse											PJ	R SW PWFA
<i>Salpinctes obsoletus</i>	Rock Wren											PJ,MG,SG	B Canyons, rocky outcrops
<i>Pipilo chlorurus</i>	Green-tailed Towhee								X			PJ,RA	B, SW PWFA
<i>Pipilo maculatus</i>	Spotted Towhee										IIA	PJ,RA,WL	B
<i>Aimophila cassinii</i>	Cassin's Sparrow				X	X	X	X		I		SS,SG	B
<i>Aimophila ruficeps</i>	Rufous-crowned Sparrow		S2									PJ,SG	B, SW PWFA
<i>Spizella breweri</i>	Brewers Sparrow				X		X		X	IIIB		SS,SG	B, Require shrubs
<i>Chondestes grammacus</i>	Lark Sparrow									IIA		All uplands	B
<i>Calamospiza melanocorys</i>	Lark Bunting					X	X	X		I		SG,MG,SS,AG	B
<i>Ammodramus savannarum</i>	Grasshopper Sparrow				X		X	X		IIA		MG,SS	B
<i>Calcarius mccownii</i>	McCown's Longspur		S2B		X	X	X	X		I		SG,MG	B,W rare breeder in PWFA
<i>Calcarius ornatus</i>	Chesnut-collared Longspur		S1B		X	X	X			I		SG,MG	B,W rare breeder in PWFA
<i>Passerina amoena</i>	Lazuli Bunting								X			PJ,RA	B
<i>Spiza americana</i>	Dickcissel				X					IIC		MG,AG	B
<i>Dolichonyx oryzivorus</i>	Bobolink									IIC		AG,IA	B rare breeder in PWFA
<i>Sturnella neglecta</i>	Western meadowlark									IIIA	IIA	SG,MG,SS,AG	R
<i>Xanthocephalus xanthocephalus</i>	Yellow-headed Blackbird									IIC		EM,WM,IA	B
<i>Icterus parisorum</i>	Scott's Oriole											PJ	B SW PWFA

**Table 2. Mammals**

Species	Common Name	State		Federal Agencies			Habitat	Counties
		Colorado		T&E	USFS	BLM		
		T&E /SC	CNHP					
<i>Neotoma micropus</i>	Southern Plains Woodrat		G5S3				SG Prickly-pear, cholla	Baca, Bent, Las Animas, Otero, Prowers
<i>Cynomys ludovicianus</i>	Black-tailed Prairie Dog		G4S4	C	X		SG, MG	All
<i>Nyctinomops macrotis</i>	Big Free-tailed Bat		G5S1			X	Cliff crevices, buildings	Otero, El Paso
<i>Perognathus flavescens caryi</i>	Plains Pocket Mouse Subsp		G5T3T4S3				SG, MG, SS, AG, PJ	All Counties
<i>Mustela nigripes</i>	Black-footed Ferret	E	G1S1				SG, MG, Prairie Dog Colonies	All Counties (Historic)
<i>Tadarida brasiliensis</i>	Brazilian Free-tailed Bat		G5S1				Cliff Crevices, mines, caves SG, PJ	Las Animas, Baca, Huerfano
<i>Conepatus leuconotus</i>	Common Hog-nosed Skunk		G4S1		X		PJ, canyonlands	Baca, El Paso
<i>Blarina hylophaga</i>	Short-tailed Shrew		G5SH				RA	Yuma
<i>Vulpes velox</i>	Swift Fox	SC	G3S3		X		SG, MG	All Counties
<i>Zapus hudsonius preblei</i>	Meadow Jumping Mouse Subsp	T	G5T2S1	LT			RA	El Paso, Elbert
<i>Cynomys gunnisoni</i>	Gunnison's Prairie Dog		G5S5				Grass/shrubland	El Paso, Las Animas
<i>Pappogeomys castanops</i>	Yellow-faced Pocket Gopher		G5G4				SG, AG	El Paso, Pueblo, Lincoln, Kiowa, Prowers, Bent, Baca, Otero, Las Animas, Huerfano
<i>Plecotus townsendii pallescens</i>	Townsend's Big-eared Bat Subsp		G4T4S2		X	X	PJ, Shrubland, Cliff crevices, buildings	El Paso, Las Animas, Pueblo, Baca
<i>Thomomys bottae howelli</i>	Botta's Pocket Gopher Subsp		G5T4S3				AG, PJ, shrublands	El Paso, Pueblo, Las Animas, Baca, Huerfano
<i>Dipodomys ordii priscus</i>	Ord's Kangaroo Rat Subsp		G5T4T5S3				SG, MG, PJ	All Counties
<i>Perognathus fasciatus infraluteus</i>	Olive-backed Pocket Mouse Subsp		G5TNRS2?				MG, shrub-grass steppe	Elbert, El Paso, Huerfano
<i>Thomomys bottae cultellus</i>	Botta's Pocket Gopher Subsp		G5T3QS3				AG, PJ, shrublands	Las Animas
<i>Spermophilus spilosoma cryptospilotus</i>	Spotted Ground Squirrel Subsp		G5T4S1				MG, SG, SS	All Counties
<i>Spilogale putorius</i>	Eastern Spotted Skunk		G5S2				AG, WL	Lincoln, Prowers, Yuma
<i>Reithrodontomys montanus montanus</i>	Plains Harvest Mouse Subsp		G5T3T4SH				SG, MG, RA	All Counties

**Table 3. Amphibians**

Species	Common Name	State		Federal Agencies			Habitat	Counties
		Colorado		T&E	USFS	BLM		
		T&E /SC	CNHP					
<i>Rana pipiens</i>	Northern Leopard Frog	SC	G5S3		X	X	All wetlands	Cheyenne, Elbert, El Paso, Huerfano, Kiowa, Kit Carson, Las Animas, Lincoln, Pueblo, Washington
<i>Bufo debilis</i>	Green Toad	-	G5S2				SG	Baca, Bent, Las Animas, Otero
<i>Hyla arenicolor</i>	Canyon Treefrog	SC	G5S2			X	Canyon RA, PJ, Cottonwoods	Las Animas
<i>Gastrophryne olivacea</i>	Great Plains Narrowmouth Toad	SC	G5S1				Canyon RA, AW	Baca, Las Animas
<i>Rana blairi</i>	Plains Leopard Frog	SC	G5S3		X	X	All wetlands	Baca, Bent, Cheyenne, Crowley, Elbert, Kiowa, Las Animas, Lincoln, Otero, Prowers, Pueblo
<i>Acris crepitans</i>	Northern Cricket Frog	SC	G5SH			X	All Wetlands	Yuma
<i>Scaphiopus couchii</i>	Couch's Spadefoot	SC	G5S1				SG	Otero

**Table 4. Reptiles**

		State		Federal Agencies				
Species	Common Name	Colorado					Habitat	Counties
		T&E /SC	CNHP	T&E	USFS	BLM		
<i>Sistrurus catenatus</i>	Massasauga	SC	G3G4S2		X	X	SG, MG, SS	Bent, Cheyenne, Crowley, El Paso, Kiowa, Lincoln, Otero, Pueblo
<i>Thamnophis cyrtopsis</i>	Blackneck Garter Snake		G5S2?				RA, Canyonlands	Baca, Bent, Las Animas, Otero, Pueblo,
<i>Rhinocheilus lecontei</i>	Longnose Snake		G5S1?				SG, MG, SS, RA	Baca, Bent, Cheyenne, Kiowa, Las Animas, Otero, Prowers
<i>Elaphe guttata</i>	Great plains Rat Snake		G5S3				RA, WL	Bent, Pueblo
<i>Kinosternon flavescens</i>	Yellow Mud Turtle	SC	G5S1				RA, AW	Baca, Bent, Prowers, Yuma
<i>Eumeces multivirgatus epipleurotus</i>	Variable Skink		G5T5S3				Montane PJ	Las Animas (CO)
<i>Aspidoscelis neotesselatus</i>	Triploid Colorado Checkered Whiptail		G2QS2				Canyon/grassland transition, PJ	El Paso, Las Animas, Otero, Pueblo
<i>Sonora semiannulata</i>	Ground Snake		G5S3				SG, rocky outcrops	Baca, Bent, Las Animas, Otero
<i>Phrynosoma modestum</i>	Roundtail Horned Lizard		G5S1				SG	Las Animas, Otero
<i>Eumeces multivirgatus multivirgatus</i>	Northern Many-lined Skink		G5T5S4				SG, MG, AG, prairie dog colonies	Lincoln
<i>Leptotyphlops dulcis</i>	Texas Blind Snake	SC	G5S1				PJ, canyonland	Baca, Las Animas
<i>Phrynosoma cornutum</i>	Texas Horned Lizard	SC	G4G5S3			X	SG	Baca, Bent, Kiowa, Las Animas, Lincoln, Otero, Prowers, Pueblo
<i>Lampropeltis getula</i>	Common Kingsnake	SC	G5S1			X	RA, AG	Bent, Otero
<i>Tropidoclonion lineatum</i>	Lined Snake		G5S3		X		SG, MG, RA, AG	Baca, Bent, Cheyenne, Elbert, Las Animas, Lincoln, Otero, Prowers
<i>Thamnophis proximus</i>	Western Ribbon Snake		G5SH				Permanent water	Baca

**Table 5. Fishes and Mollusks**

Species	Common Name	State		Federal Agencies			Counties/Native Basin
		Colorado		T&E	USFS	BLM	
		T&E /SC	CNHP				
<i>Cottus beldingi</i>	Paiute Sculpin	-	G5-SU	-			-
<i>Phoxinus erythrogaster</i>	Southern Redbelly Dace	E	G5-S1	-	X		Fremont, Pueblo
<i>Etheostoma cragini</i>	Arkansas Darter	T	G3-S2	C			Elbert, El Paso, Fremont, Lincoln, Prowers, Pueblo, AR
<i>Ameriures melas</i>	Black Bullhead						AR, RE
<i>Hybognathus Hankinsoni</i>	Brassy minnow						RE
<i>Campostoma Anomalum</i>	Central Stoneroller						AR, RE
<i>Ictalurus punctatus</i>	Channel Catfish						AR, RE
<i>Semotilus Atromaculatus</i>	Creek Chub						RE
<i>Pimephalus promelas</i>	Fathead minnow						AR, RE
<i>Platygobio gracilis</i>	Flathead Chub						AR
<i>Dorosoma cepedianum</i>	Gizzard Shad						AR, RE
<i>Lepomis cyannellus</i>	Green Sunfish						AR, RE
<i>Rhinichthys cataractae</i>	Longnose Dace						AR, RE
<i>Lepomis Humilis</i>	Orangespotted Sunfish						AR, RE
<i>Etheostoma specabile</i>	Orangethroat Darter						RE
<i>Fundulus zebrinus</i>	Plains killifish						AR, RE
<i>Hybognathus placitus</i>	Plains Minnow						AR, RE
<i>Fundulus sciadicus</i>	Plains Topminnow						RE
<i>Cyprinella lutrensis</i>	Red Shiner						AR, RE
<i>Notropis straminus</i>	Sand Shiner						AR, RE
<i>Phoxinus erythrogaster</i>	Southern Redbelly Dace						AR
<i>Noturus flavus</i>	Stonecat						RE
<i>Phenacobius mirabilis</i>	Suckermouth Minnow						AR, RE
<i>Catostomus mirabilis</i>	White Sucker						AR, RE
<i>Phoxinus eos</i>	Northern Redbelly Dace	E	G5-S1		X		Douglas
<i>Anodonta grandis</i>	Giant Floater Mollusk	-	G5-S1				Kit Carson, Pueblo
<i>Valvata sincera</i>	Mossy Valvata Mollusk		G5-S3				Fremont
<i>Ferrissia walkeri</i>	Cloche Ancyliid Mollusk		G4G5-S3				Fremont
<i>Acroloxus coloradensis</i>	Rocky Mountain Capshell	SC					
<i>Anodontoides ferussacianus</i>	Cylindrical papershell	SC					

**Natural Basins:**

AR = Arkansas River  
 RE = Republican River

**Table 6. Insects**

		State		Federal Agencies			
Species	Common Name	Colorado					Counties
		T&E /SC	CNHP	T&E	USFS	BLM	
<i>Incisalia fotis</i>	Early Elfin		G3G4S2S3				-
<i>Atrytone arogos</i>	Arogos Skipper		G3G4S2				Yuma
<i>Satyrium fuliginosum</i>	Sooty Gossamer Wing		G4S3				-
<i>Phragmatobia assimilians</i>	Large Ruby Tiger Moth		G5SNR				-
<i>Stinga morrisoni</i>	Morrison's Skipper		G4G5S3S4				-
<i>Proserpinus flavofasciata</i>	Yellow-banded Day Sphinx		G4S1				-
<i>Polites origenes</i>	Cross-line Skipper		G5S3				El Paso
<i>Callophrys mossii schryveri</i>	Moss's Elfin		G3G4T3S2S3				Douglas, Elbert, Fremont
<i>Atrytonopsis hianna</i>	Dusted Skipper		G4G5S2				El Paso, Pueblo
<i>Amblyscirtes simius</i>	Simius Roadside Skipper		G4S3				El Paso, Fremont, Huerfano, Otero, Pueblo
<i>Cicindela macra macra</i>	A Tiger Beetle		G5T5S1?				-
<i>Zestusa dorus</i>	Short-tailed Arizona Skipper		G5S1				-
<i>Decodes stevensi</i>	Stevens' Tortricid Moth		GNRS1				-
<i>Euphilotes rita coloradensis</i>	Colorado Blue		G3G4T2T3S2				Baca, Crowley, El Paso, Elbert, Fremont, Las Animas, Lincoln, Pueblo, Washington
<i>Boloria selene sabulocollis</i>	Sandhill Fritillary		G5T2S1S2				Elbert
<i>Gomphus cornutus</i>	null		G4S1?				-
<i>Cicindela nebraskana</i>	A Tiger Beetle		G4S1?				Douglas, El Paso
<i>Sphinx perelegans</i>	A Sphinx Moth		G4G5S1?				-
<i>Cicindela lepida</i>	Little White Tiger Beetle		G4S3				Bent, Otero, Prowers
<i>Tetragoneuria petechialis</i>	Stripe-winged Baskettail		G4S2				-
<i>Pyrgus ruralis</i>	Two-banded Skipper		G5S3				-
<i>Callophrys mcfarlandi</i>	Sandia Hairstreak		G4S1				-
<i>Ethmia monachella</i>	Lost Ethmiid Moth		GHS				-
<i>Celastrina humulus</i>	Hops Feeding Azure		G2G3S2				Douglas, El Paso
<i>Acronicta albarufa</i>	Barrens Daggermoth		G3G4SH				-
<i>Cicindela obsoleta santaclarae</i>	A Tiger Beetle		G5T5S1?				-
<i>Progomphus obscurus</i>	Common Sanddragon		G5S1S2				-
<i>Cicindela formosa gibsoni</i>	A Tiger Beetle		G5T1S1				-
<i>Libellula subornata</i>	null		G4S4				-
<i>Hemileuca hera magnifica</i>	A Buckmoth		G5T3S1				-
<i>Hemileuca grotei diana</i>	A Buckmoth		G4T3T4S2				El Paso
<i>Argia alberta</i>	Paiute Dancer		G4S1S2				-
<i>Rhithrogena flavianula</i>	null		G1S1				-
<i>Sphinx separate</i>	A Sphinx Moth		G4G5S1?				-



**Insects cont'd**

		State		Federal Agencies			
Species	Common Name	Colorado					Counties
		T&E /SC	CNHP	T&E	USFS	BLM	
<i>Somatochlora ensigera</i>	Lemon-faced Emerald		G4S1				-
<i>Notonecta unifasciata</i>	A Backswimmer		GNRS1				-
<i>Hemileuca oliviae</i>	A Buckmoth		G5S3S4				-
<i>Phyciodes batesii</i>	Tawny Crescent		G4SNA				-
<i>Hemileuca neumoegeni</i>	A Buckmoth		G4S1				-
<i>Euphyes bimacula</i>	Two-spotted Skipper		G4S2				Kit Carson
<i>Speyeria idalia</i>	Regal Fritillary		G3S1		USFS		Kit Carson
<i>Aeshna persephone</i>	Persephone's Darner		G3SU				-
<i>Paratrytone snowi</i>	Snow's Skipper		G5S3				-
<i>Erebia pawlowskii demmia</i>	Demmia Alpine		G5T3S2				-
<i>Eurystrymon favonius ontario</i>	Northern Hairstreak		G4T4S1				Las Animas
<i>Sympetrum madidum</i>	Red-veined Meadowfly		G4S1				-
<i>Euphilotes rita emmeli</i>	Desert Buckwheat Blue		G3G4T2S1				-
<i>Polites rhesus</i>	Rhesus Skipper		G4S2S3				Baca, Pueblo
<i>Proserpinus juanita</i>	A Sphinx Moth		G4G5S3S4				-
<i>Coloradia doris</i>	null		G5S3S4				-
<i>Isoperla jewetti</i>	null		GHS				-
<i>Anisota oslari</i>	Oslar's Oakworm Moth		G2G4S1				-
<i>Oecetis immobilis</i>	Longhorned Caddisfly		GNRS1				-
<i>Sagenosoma elsa</i>	A Sphinx Moth		G4S1?				Las Animas
<i>Proctacanthus sp. 1</i>	null		G1?S1?				-
<i>Somatochlora hudsonica</i>	Hudsonian Emerald		G5S2S3		USFS		-
<i>Hesperia leonardus Montana</i>	Pawnee Montane Skipper		G4T1-S1	LT			Douglas
<i>Hesperia ottoe</i>	Ottoe Skipper		G3G4-S2		USFS		Douglas
<i>Erynnis martialis</i>	Mottled Dusky Wing		G3G\$-S2S3				Douglas

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## APPENDICES

## Appendix A. Prairie and Wetlands Focus Area Strategic Plan Mission, Goals, and Strategies.

### MISSION

**To provide a forum for federal, state, and private partners to facilitate voluntary and proactive conservation of prairie and wetland habitats.**

<b>GOAL 1. Conserve a sufficient quantity, quality, and diversity of prairie and wetland habitats to maintain and enhance existing biodiversity.</b>	<b>GOAL 2. Promote application of existing and new programs for prairie and wetlands conservation.</b>	<b>Goal 3. Promote project tracking to facilitate monitoring and evaluation of projects.</b>	<b>Goal 4. Increase quality and accessibility of information and technical resources for prairie and wetland conservation.</b>	<b>Goal 5. Increase awareness of prairie and wetlands conservation in local and regional communities.</b>
<b>STRATEGIES</b>	<b>STRATEGIES</b>	<b>STRATEGIES</b>	<b>STRATEGIES</b>	<b>STRATEGIES</b>
<p>Assist in identification and development of new conservation project proposals.</p> <ul style="list-style-type: none"> <li>•</li> </ul> <p>Provide recommendations for prairie and wetland restoration, enhancement, and management for improved habitat conditions.</p> <ul style="list-style-type: none"> <li>•</li> </ul> <p>Encourage development and implementation of management plans for new and existing projects.</p> <ul style="list-style-type: none"> <li>•</li> </ul> <p>Promote the application of adaptive management strategies to existing conservation projects.</p> <ul style="list-style-type: none"> <li>•</li> </ul> <p>Conserve ecologically significant private wetlands through partnerships, conservation easements, incentive programs, and other appropriate methods.</p> <ul style="list-style-type: none"> <li>•</li> </ul> <p>Restore and enhance existing public and private wetlands through agency funding programs, planned projects within agencies, and other means available.</p> <ul style="list-style-type: none"> <li>•</li> </ul> <p>Promote the use of native and site appropriate vegetation in restoration projects.</p> <ul style="list-style-type: none"> <li>•</li> </ul> <p>Review project proposals that were not accepted for funding and modify or resubmit for funding.</p>	<p>Promote integration of prairie and wetland conservation practices into state, federal, and private programs including the U.S. Department of Agriculture Farm Bill.</p> <ul style="list-style-type: none"> <li>•</li> </ul> <p>Encourage participation of committee members in technical planning meetings such as Natural Resources Conservation Service Watershed Working Groups.</p> <ul style="list-style-type: none"> <li>•</li> </ul> <p>Promote and support federal, state, and private programs that conserve and enhance prairie and wetland habitats such as Colorado Species Conservation Partnership Program and CDOW Wetlands Program.</p> <ul style="list-style-type: none"> <li>•</li> </ul> <p>Facilitate cooperation and integration among programs and partners for enhanced capacity for leveraging funds and broadening the scope of projects delivered.</p>	<p>Cooperate with CDOW Wetlands Program Monitoring and Evaluation Project (WMEP) run by RMBO.</p> <ul style="list-style-type: none"> <li>•</li> </ul> <p>Work to Implement PLJV’s tracking database within the focus area.</p> <ul style="list-style-type: none"> <li>•</li> </ul> <p>Promote and support inventory and monitoring of prairie and wetland habitats and associated species.</p> <ul style="list-style-type: none"> <li>•</li> </ul> <p>Encourage implementation of research into conservation projects.</p> <ul style="list-style-type: none"> <li>•</li> </ul> <p>Work with partners to develop monitoring programs, evaluation methods, and/or management plans for each project using WMEP as a model.</p>	<p>Maintain and update a list of all species within the area listed as endangered, threatened, or species of concern.</p> <ul style="list-style-type: none"> <li>•</li> </ul> <p>Identify priority habitats or species groups for conservation.</p> <ul style="list-style-type: none"> <li>•</li> </ul> <p>Work to make technical resources available through workshops, training, and resource guides for conservation partners to aid in project development and deliveries.</p> <ul style="list-style-type: none"> <li>•</li> </ul> <p>Periodically revise and update the strategic plan.</p>	<p>Develop printed materials for public distribution.</p> <ul style="list-style-type: none"> <li>•</li> </ul> <p>Work with PLJV to prepare and publish news articles.</p> <ul style="list-style-type: none"> <li>•</li> </ul> <p>Organize and host workshops and tours for public participation.</p> <ul style="list-style-type: none"> <li>•</li> </ul> <p>Support prairie and wetland awareness in school systems.</p> <ul style="list-style-type: none"> <li>•</li> </ul> <p>Support CDOW Watchable Wildlife opportunities and interpretive programs.</p> <ul style="list-style-type: none"> <li>•</li> </ul> <p>Participate in local conservation group activities.</p> <ul style="list-style-type: none"> <li>•</li> </ul> <p>Create a website page for focus area information.</p> <ul style="list-style-type: none"> <li>•</li> </ul> <p>Develop relationships with communities such as counties and municipalities.</p>

## Appendix B. Organizations and Agencies Represented on the Prairie and Wetlands Focus Area Committee.

### Audubon of Colorado

Audubon's mission is to conserve and restore natural ecosystems, focusing on birds, other wildlife, and their habitats for the benefit of humanity and the earth's biological diversity.

The national network of community-based nature centers and chapters, scientific and educational programs, and advocacy on behalf of areas sustaining important bird populations, engage millions of people of all ages and backgrounds in positive conservation experiences.

**Website: [www.auduboncolorado.org](http://www.auduboncolorado.org)**

### Colorado Division of Wildlife

The Colorado Division of Wildlife is responsible for management of the state's 960 wildlife species. It regulates hunting and fishing activities by issuing licenses and enforcing regulations. The Division also manages more than 230 wildlife areas for public recreation, conducts research to improve wildlife management activities, provides technical assistance to private and other public landowners concerning wildlife and habitat management, and develops programs to protect and recover threatened and endangered species.

The Division has increased its emphasis on wetlands and wetland dependent wildlife protection and management. In 1997 it launched a Wetlands Program taking the approach that much wetlands conservation can be achieved by voluntary and incentive-based mechanisms involving landowners and local communities.

**Website: [www.wildlife.state.co.us](http://www.wildlife.state.co.us)**

### Colorado Farm Bureau

Colorado Farm Bureau and the American Farm Bureau Federation were originally formed in 1919 with the purpose to make the business of farming more profitable, and the community a better place to live. The Farm Bureau is a free, independent, non-governmental, voluntary organization of farm and ranch families united for the purpose of analyzing their problems and formulating action to achieve education improvement, economic opportunity, and social advancement to promote the national well-being.

The Colorado Farm Bureau mission is to correlate and strengthen the member county Farm Bureaus; support the free enterprise system and protect individual freedom and opportunity; promote, protect and represent the business, economic, social and educational interests of farmer/rancher members and their communities; and to enhance the agricultural industry in Colorado.

**Website: [www.colofb.com/index.php](http://www.colofb.com/index.php)**

### Colorado Open Lands

The mission of Colorado Open Lands is to preserve the significant open lands and diminishing natural heritage of Colorado through private and public partnerships, innovative land conservation techniques, and strategic leadership. Colorado Open Lands partners with landowners, national, state-wide, and local land trusts, foundations, corporations, and government entities.

Since 1981, *Colorado Open Lands* has permanently protected over 63,000 acres of Open Space in Colorado and holds 50 conservation easements. Land has been protected in 27 counties across Colorado including productive agricultural land, threatened view-sheds, community buffers, vital watersheds, and critical wildlife habitat.

**Website: [www.coloradoopenlands.org](http://www.coloradoopenlands.org)**

### **Colorado State University Cooperative Extension**

The Colorado State University Cooperative Extension serves the community by connecting the public with the research, information and expertise of the land-grant university. They provide information and expertise for the 4-H/Youth Program, agriculture, family/consumer updates, horticulture, natural resources, and nutrition resources.

**Website:** [www.ext.colostate.edu/](http://www.ext.colostate.edu/)

### **Colorado Wildlife Heritage Foundation**

The mission of the Colorado Wildlife Heritage Foundation is to ensure a wildlife legacy for Colorado today and tomorrow by securing and managing funds for wildlife projects. This includes funding projects for wildlife recovery, education, restoration and preservation of habitat, research, and response to wildlife emergencies.

**Website:** [wildlife.state.co.us/cwhf](http://wildlife.state.co.us/cwhf)

### **Ducks Unlimited**

The mission of Ducks Unlimited (DU) is to fulfill the annual life cycle needs of North American waterfowl by protecting, enhancing, restoring, and managing important wetlands and associated uplands. In the U.S. alone, DU has helped to conserve nearly 1.3 million acres of waterfowl habitat.

**Website:** [www.ducks.org](http://www.ducks.org)

### **Environmental Defense**

Environmental Defense is dedicated to protecting the environmental rights of all people, including future generations. Among these rights are clean air, clean water, healthy food and flourishing ecosystems. Environmental Defense is a non-profit organization representing more than 400,000 members. The organization links science, economics, and law to create innovative, equitable, and cost-effective solutions to society's most urgent environmental issues.

**Website:** [www.environmentaldefense.org](http://www.environmentaldefense.org)

### **Kiowa County Economic Development Foundation**

The mission of the Kiowa County Economic Development Foundation (KCEDF) is to actively promote and manage growth and development of Kiowa County while preserving the unique rural atmosphere and quality of life inherent throughout the history of Kiowa County. The KCEDF is a non-profit organization guiding development and progress for Kiowa County.

**Website:** [www.kcedf.org](http://www.kcedf.org)

### **Land Stewardship Consulting, Inc.**

The mission of Land Stewardship Consulting, Inc. is to provide integrated and practical land stewardship advice that landowners and managers will use to maintain or improve the biodiversity and other conservation values of their lands. The agency was founded in 1998.

**Website:** [www.landstewardshipconsulting.com/text.html](http://www.landstewardshipconsulting.com/text.html)

### **National Park Service – Bent’s Old Fort National Historic Site and Sand Creek Massacre National Historic Site**

The Bent’s Old Fort National Historic Site preserves and interprets the history of the fort through education programs, activities, and special events. Bent’s Old Fort National Historic Site was designated in June 1960. The fort was built in 1833 by William and Charles Bent, along with Ceran St. Vrain to trade with the southern Cheyenne and Arapaho Indians and trappers. It served as the staging area for Colonel Stephen Watts Kearney’s “Army of the West” during the war with Mexico in 1846. Archeological excavations and original sketches, paintings and diaries were used in the fort’s reconstruction in 1976.

**Website:** [www.nps.gov/beol/](http://www.nps.gov/beol/)

The Sand Creek Massacre National Historic Site was authorized on November 7, 2000 to recognize the national significance of the massacre in American history, and its ongoing significance to the Cheyenne and Arapaho people and descendants of the massacre victims. The establishment of the national historic site will occur when the NPS acquires enough land to provide for the preservation, commemoration, and interpretation of the Sand Creek Massacre. Until enough land has been acquired the site will not be open to the public.

**Website:** [www.nps.gov/sand/](http://www.nps.gov/sand/)

### **National Wild Turkey Federation**

The mission of the National Wild Turkey Federation (NWTF) is the conservation of the American Wild Turkey and the preservation of our natural hunting heritage. The NWTF was founded in 1973 at a time when it was estimated that only 1.3 million turkeys remained and an estimated 1.5 million turkey hunters. Today due to NWTF partnerships with federal, state, and provincial wildlife agencies there are over 6.4 million Wild Turkeys and 2.6 million turkey hunters. The NWTF has 500,000 members in 50 states Canada, and 11 other foreign countries.

**Website:** [www.nwtf.org](http://www.nwtf.org)

### **Natural Resources Conservation Service**

The mission of the Natural Resources Conservation Service (NRCS) is to provide leadership in a voluntary partnership effort to help people conserve, maintain, and improve our natural resources and environment.

The NRCS has 70 years of experience assisting owners of America’s private land with conserving natural resources. Their expertise is also used by local, state, and federal agencies and policymakers. Their partnership with local conservation districts serves almost every county in the nation, and the Caribbean and Pacific Basin.

**Website:** [www.co.nrcs.usda.gov](http://www.co.nrcs.usda.gov)

### **Palmer Land Trust**

The Palmer Land Trust is a public non-profit land trust composed of individuals, families, and businesses dedicated to the voluntary permanent protection of open space, agricultural, scenic, and natural lands in Southeastern Colorado. The Trust works on behalf of the community with private landowners and public agencies. By preserving diverse, undeveloped, private and public lands in Southeastern Colorado, they secure habitat for wildlife and native plants, support agriculture and ranching on family lands, provide recreational opportunities, protect important historical sites, and maintain scenic vistas for the benefit of present residents and future generations.

**Website:** [www.palmerfoundation.org](http://www.palmerfoundation.org)



### **Pheasants Forever**

The mission of Pheasants Forever is to protect, restore, and enhance wildlife habitat by establishing and maintaining local and regional projects; develop, distribute and foster conservation education; introduce and advance prudent conservation policy; and acquire and preserve critical habitat through public land acquisition open to public hunting.

Pheasants Forever have developed more than 2.7 million acres of pheasant and other wildlife habitat since inception. There are 600 chapters completing over 25,000 projects annually. The program includes more than 4,000 educators promoting conservation through the Leopold Education Project.

**Website: [www.coloradopf.com](http://www.coloradopf.com)**

### **Pikes Peak Area Council of Government**

The Pikes Peak Area Council of Government (PPACG) is a voluntary organization of local governments serving a regional community. The governing body is composed of elected officials from participating local governments, and memberships are open to all general purpose local governments in the Pikes Peak Region. The council serves as a vehicle to ensure cooperative action in dealing with matters that cross local political boundaries.

The PPACG is active in regional planning to assist local elected officials in making coordinated decisions affecting the development of all geographic areas of the region. The PPACG serves as the Area Agency on Aging, Metropolitan Planning Organization, and Water Quality Planning Agency for the region, and lead agency for air quality planning in the urbanized portions of El Paso and Teller Counties.

**Website: [www.ppacg.org/Admin/whatis.htm](http://www.ppacg.org/Admin/whatis.htm)**

### **Playa Lakes Joint Venture (PLJV)**

The mission of Playa Lakes Joint Venture is to conserve playa lakes, other wetlands and associated landscapes through partnerships for the benefit of birds and other wildlife and people. PLJV works through habitat-based partnerships comprised of individuals, corporations, conservation organizations and local, state, and federal agencies.

**Website: [www.PLJV.ORG](http://www.PLJV.ORG)**

### **Private Landowners**

Private landowners are essential to the success of the PWFA mission. Much of the land in eastern Colorado is owned and managed by private individuals and families, some of which have been land stewards for generations. Their working knowledge and experience is invaluable and a critical element for the success of the focus area. Only with their support for prairie and wetlands conservation, restoration, and enhancement will the PWFA committee achieve its goal of conserving these habitats across the region.

### **Pueblo County Department of Planning**

The mission of the Pueblo County Department of Planning is to promote the health, safety, welfare, and quality living environment of Pueblo County residents and visitors by encouraging compatible and sustainable land use development within unincorporated Pueblo County. This is accomplished through long-range planning, developing and implementing land development policies, as well as administering and enforcing land use regulations.

Land use changes and growth will continually alter the unincorporated areas of Pueblo County. The Department will be required to process an ever-increasing number of land use applications, authorizations, and issues. To meet these challenges, the Department will: advocate sound planning practices; continuously review, improve, and update land use regulations and policies; and incorporate interagency and interdepartmental cooperation and communication, training, and information management technologies.

**Website:** [www.co.pueblo.co.us/planning](http://www.co.pueblo.co.us/planning)

### **City of Pueblo – Department of Planning and Community Development**

The mission of the City’s Department of Planning and Community Development is to create in partnership with the citizens of Pueblo, a uniquely different Colorado community through the development of a variety of quality places which accommodate a diversity of life styles.

**Website:** [www.pueblo.us](http://www.pueblo.us)

### **Quail Unlimited**

Quail Unlimited is active in the conservation of quail species throughout the United States. They work to improve quail habitat through plantings, prescribed burns, sponsoring research projects, conducting wildlife surveys in cooperation with federal and state wildlife agencies, and paying for contract labor.

**Website:** [www.qu.org](http://www.qu.org)

### **Rocky Mountain Bird Observatory**

Rocky Mountain Bird Observatory (RMBO) was founded in 1988 as a not-for-profit organization whose mission is the conservation of Rocky Mountains and Great Plains birds and their habitats. The Observatory promotes a broad, balanced approach to bird conservation and accomplishes its mission through science, outreach, and education.

In the 15-year history of RMBO, we have completed more than 70 scientific projects. The RMBO has contracted for more than \$10 million for bird conservation projects with federal and state resource management agencies and numerous private organizations. RMBO is nationally recognized for its leadership in bird conservation and currently conducts projects in nine western states and Mexico.

**Website:** [www.rmbo.org](http://www.rmbo.org)

### **Rocky Mountain Farmers Union**

The Rocky Mountain Farmers Union (RMFU) was founded in 1908 and serves the interests of independent family farmers and ranchers throughout Colorado, New Mexico, and Wyoming. The organization focuses on improving the well-being of family producers and their communities through legislation, cooperation, and education with the belief that stable farm and ranch families are the foundation of healthy rural communities. The parent organization, National Farmers Union, provides a powerful voice for independent producers across the United States. Through the RMFU affiliation, members have the opportunity to participate in national conferences, workshops, and grassroots lobbying in Washington, D.C.

As a family organization, there are activities and educational opportunities available for all ages, from toddlers to senior citizens. Multi-generational involvement is encouraged, as the organization melds the value of experience with the importance of developing young leaders.

**Website:** [www.rmfu.org](http://www.rmfu.org)

### **Southeast Colorado Enterprise Development, Inc.**

The mission of the Southeast Colorado Enterprise Development is to challenge citizens of Baca, Bent, Crowley, Kiowa, and Prowers Counties to continually reach for superior social and economic characteristics by utilizing natural resources to the fullest potential in cooperation with a multi-agricultural economy and assert a vigorous campaign for esthetic improvements to enhance business recruitment and retention.

**Website:** [www.seced.net/](http://www.seced.net/)

### **The Nature Conservancy**

The Nature Conservancy (TNC) is an international, non-profit conservation organization dedicated to preserving species and their habitats by buying the lands needed to ensure their survival. The mission of TNC is to preserve plants, animals, and natural communities that represent the diversity of life on earth by protecting the lands and waters they need to survive. TNC has protected many habitats, including wetlands, through its many conservation projects.

**Website:** [www.nature.org/wherewework/northamerica/states/colorado](http://www.nature.org/wherewework/northamerica/states/colorado)

### **Town of Limon**

The town of Limon is located in Lincoln County and serves approximately 24,000 vehicles a day traveling Interstate 70 during the summer. The town has restaurants, motels, vehicle services, and a municipal airport. The town has an active community with a heritage in farming and ranching.

**Website:** [www.townoflimon.com](http://www.townoflimon.com)

### **U.S. Fish and Wildlife Service – Partners for Fish and Wildlife**

The mission of the U.S. Fish and Wildlife Service's Partners for Fish and Wildlife is to work with others to conserve, protect, and enhance fish and wildlife and their habitats for the continuing benefit of the American people. Technical and financial assistance is offered to private landowners to voluntarily restore wetlands and other fish and wildlife habitats on their land.

**Website:** [www.r6.fws.gov/pfw/colorado/co2.htm](http://www.r6.fws.gov/pfw/colorado/co2.htm)

### **U.S. Forest Service - Comanche National Grasslands**

The mission of the U.S. Forest Service is to lead in the conservation and wise use of the nation's forests and grasslands. The Comanche National Grasslands encompass 435,707 acres in Baca, Otero, and Las Animas Counties. The Grasslands are managed for many uses and values including livestock grazing, wildlife habitat, recreation, and mineral production. The primary recreational uses are hiking, picnicking, horseback riding, and visits to the Lesser Prairie Chicken viewing blind and guided tours of the Picket Wire Canyon lands.

**Website:** [www.fs.fed.us/r2/psicc/about/](http://www.fs.fed.us/r2/psicc/about/)

## Appendix C. Funding and Assistance Programs Available for Projects.

Organization	Program	Objectives	Application Process/Deadline	Contact
National Wild Turkey Foundation	Guzzlers for Turkeys	Provides funds for protecting or creating water sources, riparian enhancement, and wet meadow enhancement for wildlife in Wild Turkey habitat. Currently there is \$6,000 set aside for each of the western states.	Continuous – Submit projects by end of November to local chapter of NWTF. Evaluation in December. Projects approved are funded next calendar year. In June of same year review of projects approved and not funded or not approved initially.	Stan Baker (Regional Biologist) 435-259-0341 <a href="mailto:skbaker@citolink.net">skbaker@citolink.net</a> www.nwtf.org  Mike Storey (CO President) 719-686-0563 <a href="mailto:gobbledott@yahoo.com">gobbledott@yahoo.com</a> or nwtfcolorado.org
	Southern Great Plains Riparian Initiative	To restore and maintain proper functioning riparian ecosystems in the southern Great Plains by assisting landowners and communities with management efforts.	Continuous - Submit projects by end of November to local chapter of NWTF. Evaluation in December. Projects approved are funded next calendar year. In June of same year review of projects approved and not funded or not approved initially.	Stan Baker (Regional Biologist) 435-259-0341 <a href="mailto:skbaker@citolink.net">skbaker@citolink.net</a>  Mike Storey (CO President) 719-686-0563 <a href="mailto:gobbledott@yahoo.com">gobbledott@yahoo.com</a> or nwtfcolorado.org
	State Chapter Super Funds	Funds set aside for good wildlife habitat enhancement projects. Proposals can be submitted with local chapters throughout Colorado.	Continuous - Submit projects by end of November to local chapter of NWTF. Evaluation in December. Projects approved are funded next calendar year. In June of same year review of projects approved and not funded or not approved initially.	Mike Storey (CO President) 719-686-0563 <a href="mailto:gobbledott@yahoo.com">gobbledott@yahoo.com</a> or nwtfcolorado.org
Pheasants Forever	Pheasant Habitat Improvement Program	Cost shares for creation of survival cover for pheasants; cooperative program with CDOW.	Continuous	www.coloradopf.com
Quail Unlimited	Challenge Grants/ Standing Crop Purchases/ Water Site Development	Practice wise management and conservation of wild quail as valuable and renewable resource. Partners with U.S. Forest Service on Challenge Grants to increase healthy quail populations in forests and grasslands.	Continuous	Harvey Bray 719-561-3825 <a href="http://www.qu.org/main/habitat/habitatinformation.cfm">www.qu.org/main/habitat/habitatinformation.cfm</a>
Colorado Wildlife Heritage Foundation	Wetland Conservation	Online project application system links funding sources with projects.	Variable	Karin Ballard 303-291-7212 <a href="mailto:karin.ballard@state.co.us">karin.ballard@state.co.us</a> <a href="http://wildlife.state.co.us/CWHF/">http://wildlife.state.co.us/CWHF/</a>
The Nature Conservancy & CDOW	GOCO Legacy Grant/CHIP/Farm Bill/PCL	Preserving Colorado Landscapes. 20 priority areas for North Fork easement.	Early Fall	Shane Briggs (CDOW Coordinator) 303-291-7510

Organization	Program	Objectives	Application Process/Deadline	Contact
Playa Lakes Joint Venture (PLJV)	PLJV/Conoco Phillips Grants	Grants up to \$25,000 for outreach, education, habitat enhancement, habitat protection, or research on selected topics.	November 15 and April 15, annually	Bill Goosmann 303-291-7158
	North American Wetlands Conservation Act (NAWCA)	Supports cooperative and multi-sited projects to conserve wetlands and dependant wildlife through acquisition, restoration, and/or enhancement; Standard grant up to \$1,000,000; Small grant to \$50,000. Emphasizes benefits to particular bird species and high levels of matching funds (>1:1). ( <a href="http://northamerican.fws.gov/NAWCA/grants.htm">http://northamerican.fws.gov/NAWCA/grants.htm</a> )	Small grant: December 1, 2004. Standard grant: March and July 2004	Bill Goosmann 303-291-7158  Mike Carter 303-926-0777 <a href="http://www.pljv.org">www.pljv.org</a> *This website has additional information on other funding opportunities.
Rocky Mountain Bird Observatory	Prairie Partners	Provides technical assistance (identification) for grassland bird species and management recommendations. Forms partnerships with other organizations to find financial incentives for habitat enhancement work. Provides tools for conservation including "Pocket Guide to Prairie Birds", and stock tank ladders for wildlife conservation, etc.	N/A	Tammy VerCauteren 970-482-1707 <a href="mailto:tammy.vercauteren@rmbo.org">tammy.vercauteren@rmbo.org</a> <a href="http://www.rmbo.org">www.rmbo.org</a>  Seth Gallagher 970-482-1707 <a href="mailto:Seth.gallagher@rmbo.org">Seth.gallagher@rmbo.org</a>
CO Department of Natural Resources, Division of Wildlife (CDOW)	Cooperative Habitat Improvement Program (CHIP)	Provides 85% cost share for wildlife habitat improvements. Landowner must maintain wildlife habitat for a minimum of 10 years. \$75,000 statewide for small riparian fencing; private projects very flexible; ≤\$4,000/landowner/year	Year Round	Shane Briggs (State Coordinator) 303-291-7510  Casey Cooley 719-227-5227  Kevin Kaczmarek 719-336-6606
	Colorado Species Conservation Partnership (CSCP)	Species protection and land conservation incentives including conservation easements, leases, and management agreements; Partnership between GOCO, CDOW, private landowners, and NGO's.	Variable	Ken Morgan 303-291-7404 <a href="http://www.wildlife.state.co.us/habitat/cscp/">www.wildlife.state.co.us/habitat/cscp/</a>
	Habitat Partnership Program (HPP)	Develop partnerships and provide payments for habitat management projects that reduce conflicts between big game animals and livestock.		Tim Davis (State Coordinator) 970-472-4341 <a href="http://wildlife.state.co.us/HPP/">http://wildlife.state.co.us/HPP/</a>
	Wetlands Initiative - Wetlands Funding Process	Funds for all phases of creation, restoration, and protection of wetlands and riparian areas and associated uplands.	Continuous – Projects selected early in each calendar year.	Bill Goosmann 303-291-7158 <a href="mailto:bill.goosmann@state.co.us">bill.goosmann@state.co.us</a>

Organization	Program	Objectives	Application Process/Deadline	Contact
CO Department of Natural Resources, Division of Wildlife (CDOW)	Communities Wetlands Strategies	Provides the opportunity for communities that request it to receive information and assistance in planning wetlands protection and developing a wetlands strategy. The EPA 104-b-3 Grant Program provides some of the funding.		Bill Goosmann 303-291-7158 <a href="mailto:bill.goosmann@state.co.us">bill.goosmann@state.co.us</a>
	Colorado Waterfowl Stamp Program "Duck Stamp"	Involves the administration of the Colorado Duck Stamp Program that is funded primarily by Colorado Duck Stamp sales, DU MARSH funds, contributions from other project participants, and DOW funds. This project delivers wetlands protection projects with an emphasis on waterfowl.		
	Technical Assistance	Provide technical assistance to landowners on WHIP, EQIP, CRP, CSP, and GRP.	Continuous	Raquel Wertsbaugh, Pueblo 719-543-8386 ext. 3 <a href="mailto:Raquel.wertsbaugh@co.usda.gov">Raquel.wertsbaugh@co.usda.gov</a>  Ed Schmal, Fort Morgan 970-867-8568 ext. 110 <a href="mailto:Edward.schmal@co.usda.gov">Edward.schmal@co.usda.gov</a>  Chanda Pettie, Monte Vista 719-543-8386 ext. 3 <a href="mailto:Chanda.pettie@co.usda.gov">Chanda.pettie@co.usda.gov</a>  Grant Beauprez, Burlington <a href="mailto:Grant.beauprez@co.usda.gov">Grant.beauprez@co.usda.gov</a>
U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS)/Farm Service Agency (FSA)	Conservation Reserve Program (CRP)	To reduce soil erosion, increase wildlife habitat and protect ground and surface water. Offers annual rental payments for 10-15 year contracts.	Continuous and periodic sign-ups.	Jeff Burwell 720-544-2811 <a href="mailto:jeffrey.burwell@co.usda.gov">jeffrey.burwell@co.usda.gov</a>  Gene Backhaus 720-544-2868 <a href="mailto:eugene.backhaus@co.usda.gov">eugene.backhaus@co.usda.gov</a> <a href="http://www.nrcs.usda.gov/programs/crp">www.nrcs.usda.gov/programs/crp</a>  Lynette DiFeo (FSA) 720-544-2894 <a href="mailto:Lynette.defeo@co.usda.gov">Lynette.defeo@co.usda.gov</a>
	CP 23 – Wetlands Restoration	Targets land located within the 100 year floodplain.	Sign-up continuous until 2007 or acreage is capped.	
	CP 23A – Wetlands Restoration Non-Floodplain	Targets land not located in the 100 year floodplain. Pays landowners to stop cropping on isolated wetlands, specifically playa lakes, and establish grass buffers around them. 1,600 wetland acres eligible in Colorado for restoration.	Sign-up continuous until 2007 or acreage is capped. Colorado allocated 100,000 acres for the program.	
	CP 27 - Farmable Wetlands	Protects farmed and previously converted wetlands. Pays landowners to stop farming wetlands and establish grass buffers around them. Up to 10 acres in size and payment limited to first five acres. Buffers can be up to three times the wetland acreage with total project site limited to 40 acres.	Sign-up continuous with Colorado allocated 100,000 acres for the program.	
NRCS	Conservation Security Program (CSP)	Provides payments for producers who historically have practiced good stewardship on their agricultural lands and incentives for those who want to do more. Will be offered to about 1/8 of potential participants each year on a "rotating watershed basis"- as funding allows.	Annual sign-up to be announced. Final rule expected in January 2005.	Dennis Alexander 720-544-2805 <a href="mailto:dennis.alexander@co.usda.gov">dennis.alexander@co.usda.gov</a> <a href="http://www.nrcs.usda.gov/programs/csp">www.nrcs.usda.gov/programs/csp</a>  Gary Finstad 720-544-2820 <a href="mailto:Gary.finstad@co.usda.gov">Gary.finstad@co.usda.gov</a>

Organization	Program	Objectives	Application Process/Deadline	Contact
NRCS	Environmental Quality Incentives Program (EQIP)	Provides technical, financial, and educational assistance for eligible structural or vegetative practices. All projects must have approved conservation plan and commit to 5-10 year period.	Continuous	Dennis Alexander 720-544-2805 dennis.alexander@co.usda.gov <a href="http://www.nrcs.usda.gov/programs/eqip">www.nrcs.usda.gov/programs/eqip</a>
	Grassland Reserve Program (GRP)	Helps landowners to protect grasslands from conversion to other land uses, while maintaining the area as grazing land. Funded 7 projects in Fiscal Year 2004 (from 54 easement applications and 300+ management agreements).	Continuous	Dennis Alexander 720-544-2805 dennis.alexander@co.usda.gov  Gary Finstad 720-544-2805 Gary.finstad@co.usda.gov
	Wildlife Habitat Incentives Program (WHIP)	Technical and financial assistance for wildlife habitat development practices on private lands; Cost-share payments under 5-10 yr agreements for uplands, wetlands, riparian, and aquatic habitats.	Continuous	Dennis Alexander 720-544-2805 dennis.alexander@co.usda.gov <a href="http://www.nrcs.usda.gov/programs/whip">www.nrcs.usda.gov/programs/whip</a>
	Wetland Reserve Program (WRP)	Restores and protects wetlands through easements or agreements. Cost-sharing and technical assistance is provided for the restoration. Wetlands must be restorable and suitable for wildlife benefits.	Continuous	Dennis Alexander 720-544-2805 dennis.alexander@co.usda.gov <a href="http://www.nrcs.usda.gov/programs/wrp">www.nrcs.usda.gov/programs/wrp</a>
	Farm and Ranch Lands Protection Program	Permanent agreement for private land that contains prime farmland or other unique resources and is subject to a pending easement from an eligible entity.	Continuous	
U.S. Fish and Wildlife Service	Private Stewardship Grants Program	Provides competitive grants and other assistance to conservation organizations or individuals conducting local conservation efforts for federally listed or candidate species.		Pat Mehlhop 303-236-7400 <a href="http://www.endangered.fws.gov/grants/private_stewardship.html">www.endangered.fws.gov/grants/private_stewardship.html</a>
	Partners for Fish and Wildlife Program	Offers technical and financial assistance to private landowners to voluntarily restore wetlands and other fish and wildlife habitats. Ten year agreements with 75% cost-share on most practices.	Continuous	Katy Fitzgerald 719-456-0120 x4  Bill Noonan 303-275-2435
	Neotropical Migratory Bird Conservation Act	Matching grants program (3:1) for projects that promote the conservation of neotropical migratory birds in the United States, Latin America, and the Caribbean. Promotes research, outreach, and monitoring.	January 1, 2004 (RFP just released)	David Klute (303)291-7320 david.klute@state.co.us <a href="http://birdhabitat.fws.gov/NMBCA/eng_neo.htm">http://birdhabitat.fws.gov/NMBCA/eng_neo.htm</a>

Please refer to the "Stewardship Resource Guide for Private Lands in Eastern Colorado" (2003, Rocky Mountain Bird Observatory) for more information on programs.



## **Appendix D. Wetlands Initiative Criteria for Selecting Projects.**

The following criteria for selecting projects are called “The Significant Filter” and were developed through the CDOW Wetlands Initiative. The function of the process is to screen out proposals that are not biologically significant or do not provide state or regionally significant wetland benefits (GWFAS 2001). The PWFA committee will use the criteria as a basis to develop an evaluation process specific to prairie and wetlands conservation within the focus area.

### **I. ECOLOGICAL**

#### **A. UNIQUENESS**

1. Is there a Colorado Natural Heritage Program Biodiversity Ranking available for the project area?
2. Is the wetland type rare in the area?

#### **B. WETLAND VALUES AND FUNCTIONS**

1. How does the project preserve, restore, enhance, or create wetland functions and values such as:
  - a. flood control
  - b. water quality
  - c. erosion control
2. Does the project buffer or benefit a nationally significant site?
3. Does the project provide needed ecological values to the surrounding landscape? How does the project site relate to the overall landscape needs?
4. Does the project restore historic wetland values and functions to an area in which they have been lost, reduced, or degraded?
5. Will the resulting benefits be local, regional, statewide, or national in scope?
6. Will a significant percentage of wetlands in the focus area (or equivalent) benefit?

### **II. WILDLIFE**

#### **A. ENDANGERED OR DECLINING SPECIES**

1. How does the project benefit declining species and/or sensitive species and/or endangered species; and does the project advance the goals of existing conservation programs/projects.
2. How does the project benefit declining/sensitive/endangered habitats?

#### **B. NON-ENDANGERED AND DECLINING SPECIES**

1. How will the project enhance the diversity and abundance of wetlands wildlife?
2. How does the project produce positive benefits to species?
3. How does the project advance the goals of the North American Waterfowl Management Plan?
4. How does the project advance the goals of the U.S. Shorebird Conservation Plan?
5. How does the project advance the goals of the North American Waterbird Conservation Plan?
6. How does the project advance the goals of the Partners in Flight Land Bird Conservation Plan for Colorado?

### **III. SOCIETAL**

#### **A. URGENCY, JEOPARDY, AND OPPORTUNITY**

1. What is the overall urgency of the project?
2. Is this a unique opportunity in time to conserve the parcel?
3. What is the management urgency of the project?
4. Why does the parcel need to be conserved?
5. What is the immediacy and nature of the threat to the parcel?
6. What is the consequence if the parcel is not conserved right now?

#### **B. CATALYST AND DEMONSTRATION VALUES**

1. Does the project demonstrate unique or important tools, techniques, or processes that further the missions of the Wetlands Initiative partnership?

2. Will the completion of the project promote other projects in this area or other similar projects in the state?
3. Does the conservation project enhance the economic viability and ecological sustainability of the project area?

#### **C. RECREATION**

1. What are the values of the site for wildlife viewing, photography, angling, hunting?
2. Are there potential adverse impacts and what are they?

### **IV. STRATEGIC**

#### **A. SITE CHARACTERISTICS AND PROJECT INTEGRITY**

1. What are the current and anticipated land uses of the area surrounding the project site?
2. Are the anticipated land uses of the site compatible with the project goals?
3. What water rights are necessary to conserve the parcel's attributes?
4. What are the existing land-use practices on the site?
5. Is the site owned by the project proponent, or who currently owns the site?
6. What are the public access attributes of the site and are they compatible with the project?
7. Is the project viable and defensible for the long term?

#### **B. LEVERAGING**

1. Does the project lend itself to leveraging funds by the Partners?
2. Is there opportunity to leverage funds at the Focus Area Committee level?
3. Is there opportunity to leverage non-federal monies?
4. Is there opportunity to leverage federal monies?
5. Does the project incorporate working with a variety of organizations to acquire lands and/or to restore and manage critical wildlife habitats?

#### **C. STEWARDSHIP**

1. What are the provisions for stewardship or management practices required to support the project?
2. How will stewardship be funded, implemented, and monitored?
3. Will the long-term stewardship provide continued conservation to meet the goals and objectives of the project?

#### **D. INTEGRATED PLANNING**

1. Is the project compatible with existing local, regional, state, and federal plans?
2. How does the project incorporate working with a variety of organizations to acquire lands and to restore and manage critical wildlife habitats?
3. How does the project adhere to CDOW Watchable Wildlife project guidelines?
4. How does the project advance CDOW goals of providing comprehensive wildlife education?
5. Does the project clearly advance the goals of the Wetlands Initiative partnership?
6. Does the project clearly advance the goals of the PLJV Master Plan?
7. Does the project provide open space benefits such as scenic values and what are they?

#### **E. PROJECT SUPPORT**

1. Does the project have local Wetland Focus Area Committee community support?
2. Does the project have the support of a Wetlands Initiative Partner?
3. Does the project have legislative support?

#### **F. EDUCATION**

1. Does the project provide education opportunities?

**Appendix E. Current and Pending Projects within the Prairie and Wetlands Focus Area.**

COUNTY	TYPE	ACRES	PARTNERS	FUNDING SOURCES	STATUS/TIME SPAN OF PROJECT	DESCRIPTION
Baca	Wetland	3 wet	PFW	PFW	Project complete. Initiated 2004.	Wetland exclusion.
Baca	Riparian	4.5 miles	PFW	PFW	Project complete.	Fence construction.
Baca	Playa/ Wetland	7.6 wet	PFW	PFW	Fenced off two wetlands. Rest of work in progress.	Two wetland restorations, playa fencing, and alternative water source.
Baca, Lincoln, Crowley	Shortgrass	20,000 acres	CDOW	CSCP which is LIP (DOI) and GOCO Legacy		Two large projects in shortgrass. Perpetual conservation easement for landscape level projects.
Bent	Riparian	63.2 wet	PFW, CDOW		Fence built. Working to receive funding for tamarisk control.	Exclusion fencing.
Bent	Riparian/ Shortgrass	160 alfalfa 65 riparian	RMBO, PFW, CDOW, NWTF, Bent Co SCD	USFWS (PSGP), PFW, CDOW, NWTF	Grant Received September 2004 from PSGP. Ownership change in progress. Working with landowner to set restoration goals and apply for a Colorado Forest Service grant for tamarisk control.	Native shortgrass prairie restoration and tamarisk removal along the Purgatoire River.
Elbert	Riparian	2.1 miles 42 acres wet	CDOW, PFW	CHIP/PFW	Completed.	Enhancement of riparian corridor. Fencing and grazing management along Horse Creek.
El Paso	Playa	20 playa	RMBO, PSGP, PFW, CDOW	USFWS (PSGP) CHIP, PFW	Funding secured.	Pit removal from playa and alternate water development for cattle. Well drilling completed. Playa fencing for grazing management.
El Paso/ Pueblo	Riparian	19 miles	TNC	NAWCA, SLB, CODOA	Chico Basin Ranch, Tamarisk control. Grant completed. Additional funding needed for tamarisk-Russian olive control. 19 miles completed and approximately 18 miles left in watershed.	Control of tamarisk; fencing; alternative water sources.
Kiowa	Wetland/ Reservoir		CDOW		Zimmerman Easement. Funding being sought.	Easement for Least Tern and Piping Plover, and other waterfowl.
Kiowa	Wetland/ Reservoir		CDOW		Bowman/Rogers Easement. Funding for habitat maintenance being sought.	Easement for Neegronda Reservoir.
Kiowa	Wetland/ Reservoir		CDOW		Temple Easement.	Easement for Neesopah Reservoir for Least Tern and Piping Plover, and other waterfowl.
Kiowa	Wetland/ Reservoir		CDOW		Tinnes Easement.	Easement for Neesopah Reservoir for Least Tern and Piping Plover, and other waterfowl.

COUNTY	TYPE	ACRES	Partners	FUNDING SOURCES	STATUS/TIME SPAN OF PROJECT	DESCRIPTION
Kiowa	Wetland	800 acres	KCEDF, CDOW, CSFS		Developing plans and management strategies, looking for funding, securing partners.	Conservation of wetland on parcel of land to be developed.
Kit Carson	Riparian		PFW		Working with landowner to define goals.	Fencing project.
Las Animas/Pueblo	Riparian	242 acres 8 river miles	RMBO, PFW, CDOW, NWTF	PSGP, NWTF, CDOW	PSGP funding secured. Partial funding received from NWTF. Technical assistance by Tamarisk Coalition. Additional funding being sought.	Tamarisk removal along Apishapa River.
Las Animas, Otero, Bent	Riparian	To Be Determined	USFS, Colorado State Forest Service, TNC, numerous others		Not currently funded. Comanche National Grassland has completed some Tamarisk control. RC&D, DOD, COSFS, Southeast Colorado Water Conservancy Dist., counties, and others are interested. Seeking other interested partners and funding.	Tamarisk control for Purgatoire River and tributaries from Trinidad to John Martin.
Lincoln	Cropland/ Riparian	66 cropland 50 wet 2,000 shortgrass 2 playas	RMBO, PFW, CDOW, NRCS	CHIP, EQIP, CWF, PFW	Contract signed summer 2003. Funding secured. Fencing and water development still being implemented.	Reseed cropland to native grassland. Circle planted to native grass, cross fence and alternate water source being developed and expanded. Grazing plan being developed, playa fencing, and site monitoring.
Lincoln	Riparian	127 wet	PFW, CDOW	CHIP, PFW	Project completed 2003.	Fence construction and site monitoring.
Lincoln	Playa	64 acres	RMBO, PFW, CDOW	PSGP, CHIP, PFW, CDOW, PLJV	Most funding sources secured. Seeking funding from PLJV.	Fence buffer around 23 acre playa including a 23 acre land buffer, and site monitoring.
Prowers	Wetland	8 acre basin	PFW, RMBO		Wetland restored fall 2003. Exclusion fencing/tamarisk control, contract still under negotiation. Seeking Playa Lakes Joint Venture (PLJV) grant. Not currently funded.	Wetland restoration, fence construction, and tamarisk control.
Prowers	Playa	3.25 wet	PFW, RMBO		Funded by PLJV. Education/Outreach grants for 2-day teacher workshop and playa curriculum development. Work ongoing.	Conservation and Education 2004.
Prowers	Wetland/ Riparian		CDOW		Grenada – Moist soil impoundments need to be completed (seal pond bottoms).	Tamarisk removal (Garlon 4). Tamarisk control for Arkansas River drainage from Rocky Ford to state line.

<b>COUNTY</b>	<b>TYPE</b>	<b>ACRES</b>	<b>Partners</b>	<b>FUNDING SOURCES</b>	<b>STATUS/TIME SPAN OF PROJECT</b>	<b>DESCRIPTION</b>
Pueblo	Prairie/ canyon	2,000 acres	PFW, RMBO, NRCS	PSGP, EQIP	Funding secured.	Rotational grazing system through cross fencing on CRP land.
Yuma	Riparian/ Upland	22 acres	PFW, CDOW	CHIP	Funding secured.	Enhancement of riparian corridor. Fencing and grazing management along S. Fork Republican River downstream from Bonny Reservoir.
Yuma	Wetland/ Riparian	8 miles	TNC, CDOW	NAWCA	Completed.	Easement on the Arickaree River.

**Appendix F. Vascular Plants Found Within The PWFA Listed As Endangered, Threatened, or Other Conservation Concern.**

SCIENTIFIC_NAME	COMMON_NAME	GLOBAL	STATE	USES	FED_SENS	CO	COUNTY
<i>Nuttallia densa</i>	Arkansas Canyon Larkspur	G2	S2		BLM		Fremont
<i>Askellia nana</i>	Dwarf Hawksbeard	G5	S2	-	-	-	Huerfano
<i>Draba macounii</i>	Macoun's Whitlow-grass	G3G4	SU	-	-	-	-
<i>Delphinium ramosum</i> var. <i>alpestre</i>	Colorado Larkspur	G2	S2	-	-	-	Fremont, Huerfano, Las Animas
<i>Hypoxis hirsuta</i>	Yellow Stargrass	G5	SH	-	-	-	El Paso, Las Animas
<i>Packera pauperula</i>	Balsam Ragweed	G5	S1	-	-	-	-
<i>Papaver kluanensis</i>	Alpine Poppy	G5T3T4	S3S4	-	-	-	-
<i>Astragalus calycosus</i> var. <i>scaposus</i>	Torrey's Milkvetch	G5T3?	S2	-	-	-	-
<i>Hermidium alipes</i> var. <i>pallidum</i>	null	G4	S1	-	-	-	-
D	American Currant	G5	S2	-	-	-	Douglas, El Paso
<i>Oreocarya cana</i>	Mountain Cat's-eye	G5	S2	-	-	-	Washington
<i>Cirsium scapanolepis</i>	Mountain-slope Thistle	G1Q	S1	-	-	-	-
<i>Stellaria irrigua</i>	Altai Chickweed	G4?	S2	-	-	-	Huerfano, Las Animas, Pueblo
<i>Oenothera grandis</i>	null	G5?	S1	-	-	-	-
<i>Abronia nana</i>	Dwarf Sand Verbena	G4	S1	-	-	-	-
<i>Lomatium foeniculaceum</i> ssp. <i>macdougalii</i>	Desert-parsley	G5T4T5	S1	-	-	-	Las Animas
<i>Forsellesia planitierum</i>	Texas Greesebush	G4	S1	-	-	-	-
<i>Chenopodium cycloides</i>	Sandhill Goosefoot	G3	S1	-	USFS	-	El Paso, Las Animas, Pueblo
<i>Pellaea atropurpurea</i>	Purple Cliff-brake	G5	S2S3	-	-	-	Baca, El Paso, Las Animas
<i>Cirsium modestum</i>	null	GHQ	SH	-	-	-	-
<i>Carex crawei</i>	Crawe Sedge	G5	S1	-	-	-	El Paso
<i>Thelypodium sagittatum</i>	Slender Thelypody	G4	S1	-	-	-	-
<i>Abutilon incanum</i>	Hoary Mallow	G5	S1	-	-	-	-
<i>Asclepias involucrata</i>	Dwarf Milkweed	G5	S1	-	-	-	Fremont, -
<i>Grindelia arizonica</i>	Arizona Gumweed	G4	S2	-	-	-	-
<i>Silphium integrifolium</i>	null	G4G5	SH	-	-	-	-
<i>Townsendia fendleri</i>	Fendler's Townsend-daisy	G2	S1	-	-	-	-
<i>Artemisia pattersonii</i>	Patterson's Wormwood	G3G4	S3	-	-	-	-
<i>Cheilanthes wootonii</i>	Wooton's Lip Fern	G5	S1	-	-	-	Fremont, Las Animas
<i>Sagittaria graminea</i>	null	G5	S1	-	-	-	-
<i>Erocallis triphylla</i>	Dwarf Spring Beauty	G4?	S2	-	-	-	-
<i>Isoetes occidentalis</i>	Western Quillwort	G4G5	S1S2	-	-	-	-
<i>Phacelia incana</i>	Hoary Phacelia	G3G4	S1	-	-	-	-
<i>Carex peckii</i>	Peck Sedge	G4G5	S1	-	-	-	Douglas, Pueblo

SCIENTIFIC_NAME	COMMON_NAME	GLOBAL	STATE	USESA	FED_SENS	CO	COUNTY
<i>Chionophila jamesii</i>	Rocky Mountain Snowlover	G4?	S3S4	-	-	-	-
<i>Lilium philadelphicum</i>	Wood Lily	G5	S3S4	-	-	-	-
<i>Mimulus ringens</i>	Square-stem Monkeyflower	G5	SH	-	-	-	-
<i>Draba grayana</i>	Gray's Peak Whitlow-grass	G2	S2	-	USFS	-	Huerfano
<i>Woodsia plummerae</i>	Plummer's Cliff Fern	G5	SU	-	-	-	El Paso
<i>Astragalus lutosus</i>	Dragon Milkvetch	G4	S3S4	-	-	-	-
<i>Poliomintha incana</i>	Purple Sage	G5	S1	-	-	-	-
<i>Cleomella angustifolia</i>	Northern Rhombo-pod	G5	S1	-	-	-	-
<i>Eriogonum pauciflorum</i> var. <i>pauciflorum</i>	Few-flowered Wild Buckwheat	G5T5	S1	-	-	-	-
<i>Diphasiastrum alpinum</i>	Alpine Clubmoss	G5	S1S2	-	-	-	-
<i>Aquilegia chrysantha</i> var. <i>rydbergii</i>	Golden Columbine	G4T1Q	S1	-	BLM/USFS	-	Fremont, El Paso
<i>Truellum sagittatum</i>	Arrow-leaved Tearthumb	G5	S1	-	-	-	-
<i>Spiranthes diluvialis</i>	Ute Ladies' Tresses	G2	S2	LT	-	-	El Paso
<i>Chamaesyce parryi</i>	null	G5	S1	-	-	-	-
<i>Viola pedatifida</i>	Prairie Violet	G5	S2	-	-	-	Douglas, El Paso, Elbert, Fremont, Huerfano, Las Animas, Pueblo
<i>Aquilegia saximontana</i>	Rocky Mountain Columbine	G3	S3	-	-	-	El Paso, Pueblo
<i>Phacelia denticulata</i>	Rocky Mountain Phacelia	G3?	S3?	-	-	-	-
<i>Sarcostemma crispum</i>	Twinevine	G4G5	S1	-	-	-	Fremont, Las Animas
<i>Urtica gracilis</i> ssp. <i>holosericea</i>	null	G5TNR	S1	-	-	-	-
<i>Juncus brevicaudatus</i>	Narrow-panicked Rush	G5	S1	-	-	-	El Paso
<i>Erigeron nematophyllus</i>	null	G3	S2?	-	-	-	-
<i>Pediomelum cuspidatum</i>	null	G4	S1	-	-	-	-
<i>Phacelia splendens</i>	Eastwood Phacelia	G3	S3	-	-	-	-
<i>Herrickia horrida</i>	Canadian River Spiny Aster	G2?	S1	-	-	-	Las Animas
<i>Botrypus virginianus</i> ssp. <i>europaeus</i>	Rattlesnake Fern	G5	S1	-	-	-	El Paso
<i>Echinocereus reichenbachii</i> var. <i>perbellus</i>	Lace Hedgehog Cactus	G5TNR	S1	-	-	-	Las Animas, Otero,
<i>Astragalus plattensis</i>	Platte River Milkvetch	G5	S1	-	-	-	Washington, Yuma
<i>Astragalus sparsiflorus</i>	Front Range Milkvetch	G3?	S3?	-	-	-	-
<i>Caesalpinia repens</i>	Creeping Rush-pea	G2	S1	-	-	-	-
<i>Conopholis alpina</i> var. <i>mexicana</i>	Squaw-root	G5T5	S1	-	-	-	-
<i>Cleomella palmerana</i>	Rocky Mountain Rhombopod	G3G4	S3	-	-	-	-
<i>Naumburgia thyrsoflora</i>	Tufted Loosestrife	G5	SH	-	-	-	-
<i>Eriophorum gracile</i>	Slender Cottongrass	G5	S2	-	BLM/USFS	-	Las Animas
<i>Campanula aparinoides</i>	Marsh Bellflower	G5	SH	-	-	-	-
<i>Reverchonia arenaria</i>	null	G4G5	S1	-	-	-	-

SCIENTIFIC_NAME	COMMON_NAME	GLOBAL	STATE	USES	FED_SENS	CO	COUNTY
<i>Asclepias macrotis</i>	Long-hood Milkweed	G4	S2	-	-	-	Las Animas
<i>Heterocodon rariflorum</i>	Western Pearl-flower	G5	SH	-	-	-	-
<i>Gilia sinistra</i>	Left-hand Gilia	G4G5	S1	-	-	-	-
<i>Halimolobos virgata</i>	Virgate Halimolobos	G4	S1?	-	-	-	-
<i>Polystichum scopulinum</i>	Crag Holly Fern	G5	S1	-	-	-	-
<i>Draba exunguiculata</i>	Clawless Draba	G2	S2	-	USFS	-	El Paso
<i>Oryzopsis contracta</i>	An Indian Ricegrass	G3G4	SU	-	-	-	-
<i>Cirsium griseum</i>	null	GUGHQ	SH	-	-	-	-
<i>Portulaca parvula</i>	Dwarf Purslane	G5	S1	-	-	-	Las Animas
<i>Leptodactylon watsonii</i>	Watson's Prickly-phlox	G3G5	S2	-	-	-	-
<i>Draba rectifracta</i>	Mountain Whitlow-grass	G3?	S2	-	-	-	Huerfano
<i>Lomatium eastwoodiae</i>	Eastwood Desert-parsley	G3	S3S4	-	-	-	-
<i>Muhlenbergia thurberi</i>	null	G3G4Q	SNR	-	-	-	-
<i>Carex torreyi</i>	Torrey Sedge	G4	S1	-	-	-	El Paso
<i>Oenopsis sp. 1</i>	Pueblo Goldenweed	G1G2	S1S2	-	-	-	Fremont, Pueblo
<i>Prunus angustifolia</i>	null	G5	S1	-	-	-	-
<i>Helenium microcephalum</i>	Small-head Sneezeweed	G5?	S1	-	-	-	-
<i>Aletes anisatus</i>	Rocky Mountain Aletes	G3	S3S4	-	-	-	-
<i>Eustoma grandiflorum</i>	Showy Prairie Gentian	G5	S3S4	-	-	-	-
<i>Nuttallia chrysantha</i>	Golden Blazing Star	G1G2	S1S2	-	BLM	-	Fremont, Pueblo
<i>Goodyera repens</i>	Dwarf Rattlesnake-plantain	G5	S3S4	-	-	-	-
<i>Zosterella dubia</i>	Grassleaf Mud-plantain	G5	S1	-	-	-	-
<i>Drymaria effusa</i> var. <i>depressa</i>	Spreading Drymaria	G4T4	SNR	-	-	-	-
<i>Prunus gracilis</i>	null	G4G5	S1	-	-	-	-
<i>Anagallis minima</i>	Chaffweed	G5	S1	-	-	-	-
<i>Oenothera harringtonii</i>	Arkansas Valley Evening Primrose	G2	S2	-	USFS	-	El Paso, Fremont, Huerfano, Las Animas, Otero, Pueblo
<i>Liatrix squarrosa</i> var. <i>glabrata</i>	null	G5TNR	S1	-	-	-	-
<i>Penstemon crandallii</i> ssp. <i>procumbens</i>	null	G4T2Q	SU	-	-	-	-
<i>Telesonix jamesii</i>	James' Telesonix	G2G3	S2?	-	-	-	El Paso
<i>Pellaea wrightiana</i>	Wright's Cliff-brake	G5	S2	-	-	-	Baca, Las Animas
<i>Ipomopsis congesta</i> ssp. <i>crebrifolia</i>	Compact Gilia	G5T3T4	S1	-	-	-	-
<i>Besseyia wyomingensis</i>	Kittentail	G5	S1	-	-	-	-
<i>Nama hispidum</i>	Rough Fiddleleaf	G4	S1	-	-	-	-
<i>Myriophyllum verticillatum</i>	Whorled Water-milfoil	G5	S1	-	-	-	-
<i>Ptilagrostis porterii</i>	Porter Feathergrass	G3G5T2	S2	-	BLM/USFS	-	El Paso



SCIENTIFIC_NAME	COMMON_NAME	GLOBAL	STATE	USES	FED_SENS	CO	COUNTY
<i>Dichanthelium acuminatum</i> var. <i>sericeum</i>	A Grass	G5TNR	S1	-	-	-	-
<i>Selaginella weatherbiana</i>	Weatherby's Spike-moss	G3G4	S3S4	-	-	-	-
<i>Carex gravida</i> var. <i>lunelliana</i>	Lunell's Heavy-fruited Sedge	G5TNRQ	SU	-	-	-	-
<i>Oenopsis foliosa</i>	Single-head Goldenweed	G2G3	S2	-	-	-	Las Animas
<i>Descurainia ramosissima</i>	Villa Grove Tansy-mustard	G3?	S3?	-	-	-	-
<i>Heterotheca latifolia</i>	null	G5T5	S1	-	-	-	-
<i>Botrychium pallidum</i>	Pale Moonwort	G3	S2	-	-	-	Huerfano
<i>Penstemon teucrioides</i>	Germander Beardtongue	G2G3Q	S2S3	-	-	-	-
<i>Liatris ligulistylis</i>	Gay-feather	G5?	S1S2	-	-	-	El Paso, Las Animas
<i>Agastache foeniculum</i>	Lavender Hyssop	G4G5	S1	-	-	-	Huerfano, Las Animas, Pueblo
<i>Liatris lancifolia</i>	Gay-feather	G4	S1	-	-	-	-
<i>Argythamnia humilis</i>	null	G5	SH	-	-	-	-
<i>Oxytropis parryi</i>	Parry's Crazy-weed	G5	S1	-	-	-	Huerfano
<i>Phacelia integrifolia</i>	Gyp Phacelia	G4	S1	-	-	-	-
<i>Penstemon jamesii</i>	James' Beard-tongue	G4	S1	-	USFS	-	-
<i>Corispermum navicula</i>	A Bugseed	G1?	S1	-	-	-	-
<i>Desmodium rigidum</i>	Rigid Tick-trefoil	GNRQ	SX	-	-	-	-
<i>Grammica umbellata</i>	null	G5	S1	-	-	-	-
<i>Vernonia fasciculata</i> ssp. <i>corymbosa</i>	Fascicled Ironweed	G5TNR	S1	-	-	-	-
<i>Bolophyta tetraeuris</i>	Barneby's Fever-few	G3	S3	-	-	-	Fremont, Las Animas, Pueblo
<i>Asplenium platyneuron</i>	Ebony Spleenwort	G5	S1	-	-	-	Baca, Las Animas, Otero
<i>Tonestus lyallii</i>	Lyall Haplopappus	G5	S1?	-	-	-	-
<i>Senecio sphaerocephalus</i>	Rough-head Groundsel	G4G5	S2	-	-	-	-
<i>Oreocarya stricta</i>	Erect Cryptanth	G3	S3	-	-	-	-
<i>Botrychium echo</i>	Reflected Moonwort	G3	S3	-	-	-	El Paso, Huerfano
<i>Heuchera richardsonii</i>	Richardson Alum-root	G5	S1	-	-	-	Douglas, Fremont, El Paso
<i>Carex oreocharis</i>	A Sedge	G3	S1	-	-	-	El Paso
<i>Botrychium lineare</i>	Narrowleaf Grapefern	G1	S1	C	USFS	-	El Paso
<i>Enceliopsis nudicaulis</i>	Nakedstem	G5	S1	-	-	-	-
<i>Guilleminea densa</i>	null	G5	S1	-	-	-	-
<i>Penstemon harbourii</i>	Harbour Beardtongue	G3	S3S4	-	-	-	-
<i>Lepidium integrifolium</i>	null	G1G2	S1S2	-	-	-	-
<i>Krigia biflora</i>	Two-flowered Dwarf Dandelion	G5	S1	-	-	-	-
<i>Nolina texana</i>	Texas Beargrass	G5	S1	-	-	-	Las Animas
<i>Dimorphocarpa wislizeni</i>	Spectacle-pod	G4G5	SNR	-	-	-	-
<i>Hesperochiron pumilus</i>	Dwarf Hesperochiron	G4	SH	-	-	-	-

SCIENTIFIC_NAME	COMMON_NAME	GLOBAL	STATE	USES	FED_SENS	CO	COUNTY
<i>Mentzelia multicaulis</i> var. <i>multicaulis</i>	null	G3T2T3	SU	-	-	-	-
<i>Cheilanthes standleyi</i>	Standley's Cloak Fern	G4	S1	-	-	-	Las Animas
<i>Cypripedium calceolus</i> ssp. <i>parviflorum</i>	American Yellow Lady's-slipper	G5	S2	-	USFS	-	El Paso, Las Animas, Pueblo
<i>Amorpha nana</i>	Dwarf Wild Indigo	G5	S2S3	-	-	-	El Paso, Las Animas
<i>Alsinanthe stricta</i>	Rock Sandwort	G5	S1	-	-	-	Huerfano (CO)
<i>Lesquerella calcicola</i>	Rocky Mountain Bladderpod	G2	S2	-	-	-	El Paso, Huerfano, Las Animas, Pueblo
<i>Cheilanthes eatonii</i>	Eaton's Lip Fern	G5?	S2	-	-	-	Baca, El Paso, Fremont, Las Animas, Pueblo
<i>Penstemon eriantherus</i>	Crested Beardtongue	G4	SU	-	-	-	-
<i>Camissonia andina</i>	Mountain Camissonia	G4	S1	-	-	-	-
<i>Mesynium aristatum</i>	Bristle Flax	G5	SH	-	-	-	-
<i>Nama dichotomum</i>	Livemore Fiddleleaf	G4	S1	-	-	-	El Paso
<i>Callitriche heterophylla</i>	Large Water-starwort	G5	S1	-	-	-	-
<i>Eriogonum brandegeei</i>	Brandegee Wild Buckwheat	G1G2	S1S2	-	BLM/USFS	-	Fremont, El Paso
<i>Crocanthemum bicknellii</i>	Frostweed	G5	S2	-	-	-	-
<i>Mertensia humilis</i>	null	G3	S1	-	-	-	-
<i>Draba crassa</i>	Thick-leaf Whitlow-grass	G3	S3	-	-	-	Huerfano, Pueblo
<i>Oreoxis humilis</i>	Pikes Peak Spring Parsley	G1	S1	-	-	-	El Paso
<i>Asplenium resiliens</i>	Black-stemmed Spleenwort	G5	S1	-	-	-	Baca, Las Animas
<i>Eucephalus perelegans</i>	Nuttall Aster	G5	S1	-	-	-	-
<i>Pediomelum megalanthum</i>	Large-flowered Breadroot	G4?	S3S4	-	-	-	-
<i>Nuttallia speciosa</i>	Jeweled Blazingstar	G3?	S3?	-	-	-	-
<i>Carex sartwellii</i>	Sartwell's Sedge	G4G5	S1	-	-	-	-
<i>Bothriochloa springfieldii</i>	Springfield Bluestem	G4?	S1	-	-	-	-
<i>Heuchera hallii</i>	Front Range Alum-root	G3	S3	-	-	-	-
<i>Draba smithii</i>	Smith Whitlow-grass	G2	S2	-	USFS	-	Las Animas
<i>Grindelia fastigiata</i>	Pointed Gumwed	G3	S3?	-	-	-	-
<i>Festuca campestris</i>	Big Rough Fescue	G4?	SH	-	USFS	-	Huerfano
<i>Cirsium araneans</i>	null	GHQ	SH	-	-	-	-
<i>Nuttallia sinuata</i>	Wavy-leaf Stickleaf	G3	S2	-	-	-	-
<i>Corydalis caseana</i> ssp. <i>brandegeei</i>	Sierra Corydalis	G5T3T4	S3S4	-	-	-	-
<i>Pellaea suksdorfiana</i>	Smooth Cliff-brake	G5T4?	S2	-	-	-	Las Animas
<i>Nuttallia cronquistii</i>	Cronquist's Stickleaf	G3?Q	S2S3	-	-	-	-
<i>Botrychium simplex</i>	Least Moonwort	G5	S1	-	-	-	El Paso
<i>Oenopsis engelmannii</i>	Engelmann Goldenweed	G3	S3?	-	-	-	-
<i>Commelina dianthifolia</i>	Birdbill Day-flower	G5	S1?	-	-	-	El Paso, Fremont, Las Animas
<i>Nama densum</i>	Matted Fiddleleaf	G5	S1	-	-	-	-

SCIENTIFIC_NAME	COMMON_NAME	GLOBAL	STATE	USES	FED_SENS	CO	COUNTY
<i>Smilax lasioneura</i>	Carrion-flower	G5	S3S4	-	-	-	-
<i>Silphium laciniatum</i>	Compass-plant	G5	SH	-	-	-	-
<i>Lepidium integrifolium</i> var. <i>heterophyllum</i>	null	G1G2T1T2	S1S2	-	-	-	-
<i>Castilleja lineata</i>	Marsh-meadow Indian-paintbrush	G4?	S1	-	-	-	Las Animas
<i>Vernonia baldwinii</i> ssp. <i>interior</i>	Baldwin Ironweed	G5TNR	S1	-	-	-	-
<i>Packera debilis</i>	Rocky Mountain Ragwort	G4	S1	-	-	-	-
<i>Orophaca aretioides</i>	Cushion Orophaca	G4	S1	-	BLM	-	-
<i>Opuntia heacockiae</i>	null	G2G3Q	S2S3	-	-	-	-
<i>Delphinium robustum</i>	Wahatoya Creek Larkspur	G2?	S2?	-	-	-	Huerfano, Las Animas
<i>Penstemon crandallii</i> ssp. <i>atratus</i>	null	G4T3	SU	-	-	-	-
<i>Botrychium campestre</i>	Prairie Moonwort	G3	S1	-	USFS	-	Yuma
<i>Mesyniopsis kingii</i>	Yellow Flax	G5	SU	-	-	-	-
<i>Mahonia haematocarpa</i>	Colorado Mahonia	G5	SH	-	-	-	-
<i>Lesquerella alpina</i> ssp. <i>alpina</i>	null	G5T4	SNR	-	-	-	-
<i>Trillium ovatum</i>	Western Wake-robin	G5	S3S4	-	-	-	-
<i>Potentilla ambigens</i>	Southern Rocky Mountain Cinquefoil	G3	S1S2	-	-	-	El Paso
<i>Abronia carletonii</i>	Carleton's Sand Verbena	G4	S1	-	-	-	-
<i>Malaxis monophyllos</i> ssp. <i>brachypoda</i>	White Adder's-mouth	G4Q	S1	-	USFS	-	El Paso
<i>Asclepias hallii</i>	null	G3	S3	-	-	-	-
<i>Muscaria monticola</i>	Tundra Saxifrage	G5T5	S1	-	-	-	Huerfano
<i>Cirsium osterhoutii</i>	null	GUGHQ	SH	-	-	-	-
<i>Astragalus piscator</i>	Fisher Towers Milkvetch	G2G3	S1	-	BLM	-	Yuma
<i>Botrychium hesperium</i>	Western Moonwort	G3	S2	-	-	-	Huerfano
<i>Astragalus saurinus</i>	Dinosaur Milkvetch	G3	SNR	-	-	-	-
<i>Juncus brachycephalus</i>	Small-headed Rush	G5	S1	-	-	-	El Paso
<i>Pyrola picta</i>	Pictureleaf Wintergreen	G4G5	S3S4	-	-	-	-
<i>Aletes lithophilus</i>	Rock-loving Neoparrya	G3	S3	-	BLM	-	Huerfano
<i>Hedyotis nigricans</i>	Narrowleaf Bluet	G5	S1	-	-	-	-
<i>Sapindus drummondii</i>	Soapberry	G5T5	S1	-	-	-	Baca, Las Animas
<i>Asclepias oenotheroides</i>	Zizotes Milkweed	G4G5	S1	-	-	-	Las Animas
<i>Astrolepis cochisensis</i>	Scaly Cloak Fern	G5?	S1	-	-	-	-
<i>Crassula aquatica</i>	null	G5	SH	-	-	-	-
<i>Penstemon cyathophorus</i>	Middle Park Penstemon	G3	S3S4	-	-	-	-
<i>Astragalus chloodes</i>	Grass Milkvetch	G3	SNR	-	-	-	-
<i>Penstemon angustifolius</i> var. <i>vernalensis</i>	Vernal Narrow-leaf Penstemon	G5T3	S1	-	-	-	-
<i>Botrychium lanceolatum</i> var. <i>lanceolatum</i>	Lance-leaved Moonwort	G5T4	S3	-	-	-	-

SCIENTIFIC_NAME	COMMON_NAME	GLOBAL	STATE	USES	FED_SENS	CO	COUNTY
<i>Oxybaphus rotundifolius</i>	Round-leaf Four-o'clock	G2	S2	-	-	-	Fremont, Las Animas, Pueblo
<i>Astragalus cerussatus</i>	A Milk-vetch	G3	S3S4	-	-	-	-
<i>Ambrosia linearis</i>	Plains Ragweed	G3	S3	-	-	-	El Paso, Elbert, Kiowa, Lincoln, Pueblo
<i>Anemone riparia</i>	White-flowered Anemone	G5T4T5	SH	-	-	-	-
<i>Elatine triandra</i>	Longstem Water-wort	G5	S1	-	-	-	-
<i>Aletes tenuifolius</i>	Slender Parsley	G4	S3	-	-	-	-
<i>Monolepis pusilla</i>	Red Poverty-weed	G5	SH	-	-	-	-
<i>Woodsia neomexicana</i>	New Mexico Cliff Fern	G4?	S2	-	-	-	Baca, Douglas, El Paso, Fremont, Las Animas, Pueblo
<i>Prosopis glandulosa</i>	Honey Mesquite	G5?	S1	-	-	-	-
<i>Botrychium lunaria</i>	Common Moonwort	G5	S3	-	-	-	-
<i>Adiantum capillus-veneris</i>	Southern Maiden-hair	G5	S2	-	-	-	Las Animas
<i>Virgulus novae-angliae</i>	New England Aster	G5	S1	-	-	-	-
<i>Astragalus oocalycis</i>	Arboles Milkvetch	G4	S3	-	-	-	-
<i>Minuopsis nuttallii</i>	Nuttall Sandwort	G5	S1	-	BLM	-	-
<i>Unamia alba</i>	Prairie Goldenrod	G5	S2S3	-	-	-	El Paso
<i>Triodanis leptocarpa</i>	Slim-pod Venus' Looking-glass	G5?	S1	-	-	-	-
<i>Grindelia inornata</i>	Colorado Gumweed	G2?	S2?	-	-	-	Baca, Las Animas, Otero, Pueblo
<i>Stillingia sylvatica</i>	null	G5	S1	-	-	-	-
<i>Cirsium oreophilum</i>	null	GUQ	SH	-	-	-	-
<i>Dicoria wetherillii</i>	null	G4T2?Q	SU	-	-	-	-
<i>Asclepias uncialis sensu stricto</i>	Dwarf Milkweed	G3?T2T3	SNA	-	USFS	-	Baca, Bent, Cheyenne, El Paso, Huerfano, Kit Carson, Las Animas, Otero, Prowers, Pueblo
<i>Heterosperma pinnatum</i>	null	G5?	S1	-	-	-	-
<i>Carex molesta</i>	Troublesome Sedge	G4	S1	-	-	-	-
<i>Mertensia alpina</i>	Alpine Bluebells	G4?	S1	-	-	-	El Paso
<i>Boechera gunnisoniana</i>	A Rock Cress	G3	S3	-	-	-	-
<i>Physaria bellii</i>	Bell's Twinpod	G2	S2	-	-	-	El Paso
<i>Oenothera longissima</i>	Long-stem Evening-primrose	G4	S1	-	-	-	-
<i>Potentilla subviscosa</i>	null	G4?	S1	-	-	-	-
<i>Asclepias stenophylla</i>	Narrow-leaved Milkweed	G4G5	S2	-	-	-	-
<i>Nuttallia pterosperma</i>	null	G3G5	S3?	-	-	-	-
<i>Potamogeton diversifolius</i>	Waterthread Pondweed	G5	S1	-	-	-	-
<i>Boechera oxylobula</i>	A Rock Cress	G3	S3	-	-	-	-
<i>Hackelia besseyi</i>	null	G2G3	SNR	-	-	-	-
<i>Carex leptalea</i>	Bristle-stalk Sedge	G5	S1	-	USFS	-	El Paso
<i>Argyrochosma fendleri</i>	null	G3	S3	-	-	-	-

SCIENTIFIC_NAME	COMMON_NAME	GLOBAL	STATE	USES	FED_SENS	CO	COUNTY
Stanleya albescens	Arizona Prince-plume	G3	S3	-	-	-	-
Astragalus coltonii var. moabensis	Colton Milkvetch	G4T3?	S2	-	-	-	-
Asplenium septentrionale	Grass-fern	G4G5	S3S4	-	-	-	-
Astragalus americanus	null	G5	SH	-	-	-	-
Frasera coloradensis	Colorado Green Gentian	G3	S3	-	-	-	Baca, Bent, Las Animas, Prowers
Cymopterus planosus	Rocky Mountain Wavewing	G3	S3S4	-	-	-	-
Oxybaphus decumbens	Great Plains Four-o'clock	G5	S1	-	-	-	-
Astragalus brandegeei	Brandegee milkvetch	G3G4	S1S2		BLM		Fremont
Viola selkirkii	Selkirk Violet	G5?	SH		USFS		Douglas
Onoclea sensibilis	Sensitive Fern	G5	SH				Douglas
Gaura neomexicana ssp. Coloradensis	Colorado Butterfly Weed	G3T2	S1	LT			
Asplenium platyneuron	Ebony Spleenwort	G5	S1				Fremont
Penstemon degeneri	Degener Beardtongue	G2	S2		BLM/USFS		Fremont
Carex saximontana	Rocky Mountain Sedge	G5	S1				Douglas
Grindelia inornata	Colorado Gumweed	G2?	S2?				Fremont

## Appendix G. Key to Priority Species Charts.

(As defined in [http://www.cnhp.colostate.edu/ftp\\_meta/element\\_2003.pdf](http://www.cnhp.colostate.edu/ftp_meta/element_2003.pdf))

### **STATE COLUMN:**

**T&E/SC:** As designated by the state of Colorado, Colorado Division of Wildlife's Wildlife Commission's regulations

T = Threatened: those species or subspecies of native wildlife whose prospects for survival or recruitment within this state are in jeopardy, as determined by the Commission.

E = Endangered: those species or subspecies of native wildlife which, as determined by the Commission, are not in immediate jeopardy of extinction but are vulnerable because they exist in such small numbers, are so extremely restricted in their range, or are experiencing such low recruitment or survival that they may become extinct.

SC = Special Concern: those species or subspecies of native wildlife that have been removed from the state threatened or endangered list within the last five years; are proposed for federal listing (or are a federal listing "candidate species") and are not already state listed; have experienced, based on the best available data, a downward trend in numbers or distribution lasting at least five years that may lead to an endangered or threatened status; or are otherwise determined to be vulnerable in Colorado.

**CNHP:** Colorado Natural Heritage Program

***Species are ranked on the following scales:***

G = Global

N = National

S = Sub national/State/Province

***The basic ranks used to classify species are:***

1 = Critically Imperiled (Example: G1 = Globally Ranked Critically Imperiled)

2 = Imperiled (Example: N2 = Nationally Ranked Imperiled)

3 = Vulnerable to Extirpation (Example: S3 = State Ranked Vulnerable to Ext.)

4 = Apparently Secure

5 = Demonstrably Widespread, Abundant, and Secure

***Other CNHP codes:***

T = Intraspecific Taxon (trinomial) - The status of the subspecies or varieties (taxa) are indicated by a "T-rank" following the species' global rank (Example: G2T1 = Globally Imperiled Species with Subspecies or Variety in Question Critically Imperiled)

SU = Unrankable - Currently unrankable due to lack of information or due to substantially conflicting information about status or trends

NR = Reported - Element reported in the nation or sub nation but without a basis for either accepting or rejecting the report, or the report not yet reviewed locally. Some of these are very recent discoveries for which the program hasn't yet received first-hand information; others are old, obscure reports.

? = Inexact or Uncertain - Denotes inexact or uncertain numeric rank (Example: SE? = Uncertain Sub national Exotic Rank).

SH = Possibly Extirpated or Extinct (Historical) - Element occurred historically, and there is some expectation that it may be rediscovered. Its presence may not have been verified in the past 20 years.

NA = Accidental - Accidental or casual in the nation or sub nation, in other words, infrequent and outside usual range.

Q = Indicates uncertainty about taxonomic status

SNAN = Ranked as accidental in the state during the non-breeding season

### **FEDERAL COLUMN:**

**T&E:** As designated by the U.S. Fish & Wildlife Service (58 Federal Register 51147, 1993) & (61 Federal Register 7598.1996)

E = Endangered: defined as a species, subspecies, or variety in danger of extinction throughout all or a significant portion of its range.

T = Threatened: defined as a species, subspecies, or variety likely to become endangered in the foreseeable future throughout all or a significant portion of its range.

LT = Listed Threatened: defined as a species, subspecies, or variety likely to become endangered in the foreseeable future throughout all or a significant portion of its range.

C = Candidate: taxa for which substantial biological information exists on file to support proposals to list them as endangered or threatened, but no proposal has been published yet in the Federal Register.

**USFS:** U.S. Forest Service (Forest Service Manual 2670.5)

X = Sensitive: those species identified by the Regional Forester for which population viability is a concern as evidenced by:

Significant current or predicted downward trends in population numbers or density.

Significant current or predicted downward trends in habitat capability that would reduce a species' existing distribution.

**BLM:** Bureau of Land Management (BLM Manual 6840.06D)

X = Sensitive: those species found on public lands, designated by a State Director that could easily become endangered or extinct in a state. The protection provided for sensitive species is the same as that provided for C (candidate) species.

Birds: Because of the various bird conservation initiatives the birds have been segmented into groups, see the "Literature Cited" for more information on specific plans. Additional bird rankings are as follows:

**USFWS BCC:** US Fish and Wildlife Service, Birds of Conservation Concern

Nat'l: X = Species on national concern list which occur in the Focus Area

BCR18: X = Species on Region 18 list (Shortgrass Prairie) that occur in the Focus Area

### **BIRD CONSERVATION PLAN COLUMN:**

**PIF (ALL BIRDS):** Partners in Flight

CO BCP PA 36: Colorado Partners in Flight, Bird Conservation Plan, Physiographic Area 36 (Central Shortgrass Prairie)

CO BCP PA 62: Colorado Partners in Flight, Bird Conservation Plan, Physiographic Area 62 (Southern Rocky Mountains)

X = Priority species for that Physiographic Area

BCR18 breed = rank for breeding species

BCR18 winter = rank for wintering species

PIF BCR Rankings:

I = Tier I = High Overall Priority = conservation concern throughout range

II = Tier II = High Regional Priority = Moderate overall Priority

A = experiencing declines in a core area of the species range

B = species occurs in BCR proportionately higher than in other BCR's

C = populations are particularly sensitive to threats occurring in the BCR

### **ALL OTHER PLANS SEE KEY BELOW TABLES**

**HABITAT COLUMN (ALL BIRDS):** See Physical Characteristics within the PWFA for more detailed description

*Wetlands:*

SA = Submerged Aquatic

EM = Emergent Marsh

WM = Wet Meadow

RA = Riverine Wetlands/ Riparian Areas

WWS = Warm Water Seep, Springs & Sloughs

LR = Lakes and Reservoirs

P = Playas

AW = Artificial Wetlands & Shallow-water Impoundments

*Uplands:*

SS = Sand sage

SG = Shortgrass Prairie

MG = Mixed grass Prairie

PJ = Pinyon/Juniper

WL = Woodlots, Shelterbelts etc...

AG = Areas under general agricultural practices, farmyards, fencerows, roadside ditches etc...

IA = Irrigated Agricultural Cropland

DL = Dry-land Agricultural Cropland

### **PWFA USE COLUMN (ALL BIRDS):**

B = Breeding

W = Wintering

M = Migrating

R = Resident





