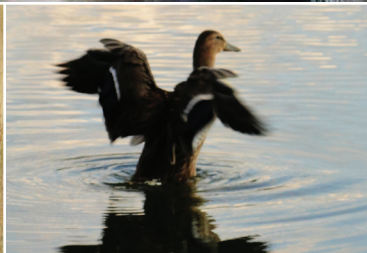


C O L O R A D O P A R K S & W I L D L I F E

Great Outdoors Colorado Wildlife Annual Report



FISCAL YEAR 2011-12 ANNUAL REPORT



**Colorado Parks and Wildlife
Fiscal Year 2011-12
Annual Report
Investments of Great Outdoors Colorado
Wildlife Purpose Funding
January 2013**

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Executive Summary

Great Outdoors Colorado has been a dedicated and reliable source of funding for wildlife, park, trail and open space projects across the state since 1992. One-quarter of the Colorado Lottery proceeds received by Great Outdoors Colorado are directed to wildlife management programs, including initiatives to protect and enhance wildlife habitat, conserve wildlife species, provide wildlife education programs to Colorado citizens and visitors and establish wildlife viewing opportunities.

Great Outdoors Colorado has provided more than \$200 million in wildlife purpose funding to Colorado Parks and Wildlife. Consistent with the vision of Great Outdoors Colorado supporters and Colorado voters, Colorado Parks and Wildlife has developed innovative and effective wildlife programs and is recognized as a national leader in wildlife management. The partnership has produced significant results, including:

- The permanent protection of approximately 310,000 acres of important wildlife habitat;
- The development and implementation of two dozen recovery plans for more than 50 declining wildlife species;
- The creation of innovative adult and school-based wildlife education programs;
- The establishment of hundreds of wildlife viewing sites and dozens of wildlife festivals across the state.

Highlights

Colorado Parks and Wildlife uses GOCO Wildlife Purpose funding to support a wide variety of programs, management activities, and capital projects throughout the state. CPW makes every effort to use GOCO funding in a way that results in “on the ground” enhancements – tangible impacts that protect and enhance wildlife habitat, protection of native species, wetlands conservation and educational experiences for the citizens of Colorado.

During FY 2011-12 Great Outdoors Colorado financial support helped Colorado Parks and Wildlife:

- Identify 147 potential viewing sites on 13 driving loops for the Northwest Colorado Birding Trail and published the Northwest Colorado Birding Trail Guide. This guide not only highlights the bird viewing opportunities, but gives some historical and geographic information of the surrounding area.
- Protect more than 26,000 acres of wildlife habitat through 6 conservation easements and 1 fee title acquisition. This included shortgrass prairie habitat, habitat for Greater and Gunnison Sage Grouse, big game migration corridors and habitat, angling, and habitat for species of concern.
- Participated with the Colorado Department of Education to rewrite the Colorado Environmental Education Plan. The document was adopted by the Colorado State Board of Education in December 2012, and outlines strategies to support the education of an environmentally literate citizenry. The adoption of this plan sets the stage for coordination and cooperation among schools, districts, and community partners.
- Provide data and comments to the US Fish and Wildlife Service as part of the agency’s review of listing petitions for Gunnison’s sage-grouse, greater sage-grouse and boreal

toad. This information is imperative for decisions to be made on species status and in identifying other species that may require protection within Colorado.

- Improve wildlife habitat on more than 54,000 acres of private lands in partnership with the Rocky Mountain Bird Observatory and the Natural Resources Conservation Service.
- Successfully establish, for the first time ever, reproduction of Arkansas darter and bluehead sucker at the Native Aquatic Species Restoration Facility.

The following report illustrates the wide variety of wildlife-related efforts undertaken by the Colorado Parks and Wildlife from July 1, 2011 through June 30, 2012 with financial support from Great Outdoors Colorado.

Colorado Parks and Wildlife Summary of FY 2011-12 Funding Request Great Outdoors Colorado Wildlife Purpose Funds	
Base Funding	
Habitat Protection	\$4,087,966
Species Protection	\$3,525,000
Wildlife Education	\$715,000
Wildlife Viewing	\$367,000
Interest Expense	\$100,000
Annual Base Funding Total	\$8,794,966
Legacy Funding	
Colorado Wildlife Habitat Protection Program	\$6,200,000
Legacy Grant Funding Total	\$6,200,000
Grand Total	\$14,994,966

Base funding request amounts shown in the chart above includes extended and reobligated grants, in addition to “base funds” requested through the annual investment plan. Legacy funding amounts shown in the chart above reflect awards approved during FY 2011-12. The chart above does not reflect actual expenditures during FY 2011-12.

Financial information on individual grants in the following report reflects base fund expenditures by Colorado Parks and Wildlife during FY 2011-12 as well as expenditures from multi-year capital grants and Legacy Grants.

References to and descriptions of Colorado Parks and Wildlife habitat protection, species conservation, wildlife education and wildlife viewing programs in the following report are limited to those that received wildlife purpose funding.

Great Outdoors Colorado and Colorado Parks and Wildlife

Article XXVII of the Colorado Constitution – the Great Outdoors Colorado Program approved by Colorado voters in 1992 -- reads in part as follows:

(1) The people of the State of Colorado intend that the net proceeds of every state-supervised lottery game operated under the authority of Article XVIII, Section 2 shall be guaranteed and permanently dedicated to the preservation, protection, enhancement and management of the state's wildlife, park, river, trail and open space heritage, except as specifically provided in this article. Accordingly, there shall be established the Great Outdoors Colorado Program to preserve, protect, enhance and manage the state's wildlife, park, river, trail and open space heritage. The Great Outdoors Colorado Program shall include:

(a) Wildlife program grants which:

(I) Develop wildlife watching opportunities;

(II) Implement educational programs about wildlife and wildlife environment;

(III) Provide appropriate programs for maintaining Colorado's diverse wildlife heritage;

(IV) Protect crucial wildlife habitats through the acquisition of lands, leases or easements and restore critical areas; ...

Great Outdoors Colorado (GOCO) is a vital funding source for many Colorado Parks and Wildlife initiatives, helping Colorado to become a national leader in a range of wildlife management, education and viewing programs. The comprehensive approach to wildlife management described in Article XXVII reaches millions of Coloradans by promoting wildlife education outreach and information for citizens all of ages, supporting efforts to stop and reverse the loss of threatened or endangered species or species of concern, achieving long-term protection of important wildlife habitat, and engaging “non-consumptive” wildlife recreationalists, sportsmen, and the general public to be active stewards of Colorado’s wildlife heritage.

On June 14, 2011, the Great Outdoors Colorado Board approved Colorado Parks and Wildlife’s annual funding plan for wildlife programs for FY 2011-12 in the amount of \$8,794,966. As described in this report, GOCO funds are applied across the four categories of grants listed in Article XXVII – habitat protection, species protection, wildlife education and watchable wildlife. On October 10, 2011, the Great Outdoors Colorado Board approved an award of \$6,200,000 for the Colorado Wildlife Habitat Protection Program (CWHPP). When all funding sources, including Colorado Parks and Wildlife funds, federal funds, private contributions and other matching funds are taken into account, the projects and programs described in this report represent an investment of more than \$25 million in Colorado’s wildlife resources in FY 2011-12.

HABITAT PROTECTION

Colorado Parks and Wildlife reaches Habitat Protection goals through a wide variety of programs, or work packages. These programs include the acquisition and management of wildlife habitat, administering and protecting water rights, land use comments, digital mapping services, and habitat improvements on public and private lands. In FY 2011-12, GOCO funding provided important support to these programs. A total of 35.02 full-time equivalents (FTEs) were allocated to habitat protection programs, of which GOCO funding supported 3.8 FTEs, or 10.8%. A summary of program expenditures and individual program activities and achievements for habitat protection is provided below.

FY 2011-12 HABITAT PROTECTION SUMMARY	
GOCO FUNDING PLAN GRANT	FY 2011-12 GOCO EXPENDITURES
Colorado Wildlife Habitat Protection Program (1,2)	\$6,135,325.00
Land Acquisition	\$261,752.00
Acquire High Priority Habitat – O&A	\$598,349.00
Enhance Habitat on Lands and Water	\$525,000.00
GIS Habitat Information	\$450,000.00
Wetlands Conservation	\$606,588.51
TOTAL	\$8,577,014.51
FTE	3.80
<small>(1) Total actual FY 2011-12 CPW expenditures for the CWHPP in COFRS were \$6,087,325. This figure includes a prior year credit of \$48,000 reflecting an accounting adjustment for a duplicated expenditure in the prior year. The duplicate expenditure was not included in the GOCO billing report in the prior fiscal year and therefore the credit to correct it is excluded from the FY 2011-12 GOCO amounts. (2) Post closing adjustment to GOCO funding for LK Sheridan was made in FY 2011-12 and a credit for \$1,765,000, offset by due diligence charges of \$53,500 was applied.</small>	

ACQUIRE HIGH PRIORITY HABITAT

Colorado Wildlife Habitat Protection Program

Through the Colorado Wildlife Habitat Protection Program (CWHPP), Colorado Parks and Wildlife (CPW) and Great Outdoors Colorado work with land trusts and landowners to protect important wildlife habitat. The goals of CWHPP include preventing the further decline of Colorado’s wildlife species, meeting species conservation goals to help recover declining species – thereby reducing the necessity of listing species under the federal Endangered Species Act – and protecting important big game winter habitat and migration corridors. Recent CWHPP acquisitions have also increasingly included public access provisions -- a breakthrough benefit considered impossible at the outset of the CWHPP initiative. Funding for the CWHPP comes from a variety of sources, including Wildlife Cash and Habitat Stamp funds, federal State Wildlife Grants and GOCO Wildlife Purpose funds. In 2011-12, more than 26,000 acres were protected and acquired.

Habitat protection is often a top priority in species recovery plans. In 2003, the impact of habitat protection efforts was illustrated in the U.S. Fish and Wildlife Service (USFWS) decision not to list the mountain plover as threatened or endangered, an action based in part on the successes of

Colorado’s habitat protection efforts. The long-term and perpetual protection afforded through CWHPP easements -- and associated management plans for those lands -- was cited by USFWS as important steps by Colorado that influenced the decision not to list the mountain plover.

FY 2011-12 CWHPP Acquisitions

Brush Mountain Ranch

The 3,097-acre Brush Mountain Ranch provides important habitat, migration corridors and calving and fawning areas for mule deer and elk, and habitat for other species including moose, bear, pronghorn, sandhill crane, bald eagle and Columbian sharp-tailed grouse. The property is adjacent to the Routt National Forest and 5,000 acres of private land covered by a conservation easement held by the Rocky Mountain Elk Foundation.



Brush Mountain Ranch Acquisition Financing	
GOCO Wildlife Purpose Funds	\$1,936,500
Wildlife Cash/Habitat Stamp	\$385,349
Landowner Contribution*	\$1,568,500
Total	\$3,890,349

*Appraised value minus acquisition costs

Coyte Ranch

Coyte Ranch is located approximately five miles south of Coalmont, Colorado, in Jackson County. The conservation easement held by Cattlemen’s Agricultural Land Trust (CCALT) conserves 2,240 acres of critical winter range and migration corridors for big game species and important habitat for sage-dependent species such as greater sage-grouse. The property is adjacent to the Rabbit Ears State Wildlife Area and within a High Priority Habitat Acquisition Area identified in the Colorado Wildlife Action Plan.

From the *Jackson County Star* – August 23, 2012
 “Unique Set of Partners Preserves Local Ranch”



“The project represents a landmark agreement between agricultural and wildlife interests. “It’s no secret that wildlife interests and ranchers don’t always see eye to eye on things, but we are finding that conservation efforts like this, which protect both incredible wildlife habitat and productive ranchland, are one way to bridge that gap” said Chris West, CCALT executive director.” ...

“The Coyte Ranch property provides important migratory corridors and range for wildlife, as do many of the private lands in the area” said Josh Dilley, district wildlife manager for CPW in North Park. “Managing wildlife can’t be accomplished without the cooperation of private landowners.”

Coyte Ranch Acquisition Financing	
GOCO Wildlife Purpose Funds	\$910,000
Wildlife Cash/Habitat Stamp	\$590,000
Landowner Contribution*	\$571,000
Total	\$2,071,000

Miller Creek Ranch

The 3,115-acre Miller Creek Ranch is located 12 miles east of Meeker. The perpetual conservation easement and perpetual hunting access easement on the property protect the largest remaining section of greater sage-grouse occupied range for the Meeker/White River population. The property also provides important habitat and migration corridors and calving and fawning areas for mule deer and elk, and habitat for other species including black bear, mountain lion and dusky (blue) grouse. The property is adjacent to the White River National Forest and to a portion of the LK Ranch LK property which is also protected by a conservation easement and allows limited public access.



Miller Creek Ranch Acquisition Financing	
GOCO Wildlife Purpose Funds	\$2,111,277
Wildlife Cash/Habitat Stamp	\$399,123
Wildlife Cash/Habitat Stamp - Public Access Easement	\$400,000
Total	\$2,910,400

Bedford Ranch

The Bedford Ranch is located 35 miles southwest of Grand Junction. The conservation easement protects two abutting parcels (400 acres and 840 acres) for a total of 1,240 acres. The property borders Luster Basin State Habitat Area on the north and BLM land on the south and is in the High Priority Habitat Acquisition Area on Piñon Mesa in Mesa County.



The property hosts important elk calving and deer fawning grounds and late spring/early winter habitat for both deer and elk. The rim frontage of this property on the Unaweep Canyon boundary makes the property an active migration travel corridor. Additionally, it is important habitat for Gunnison Sage Grouse, Blue Grouse and other game birds, raptors, small game, and mountain lion.

Bedford Ranch Acquisition Financing	
GOCO Wildlife Purpose Funds	\$1,235,000
Wildlife Cash/Habitat Stamp	\$391,831
Landowner Contribution*	\$1,140,000
Total	\$2,766,831

Dan Noble State Wildlife Area (SWA) – Hughes Parcel

The 80-acre Hughes fee title acquisition, now part of the Dan Noble SWA, is adjacent to the New Beginnings Ranch State Habitat Area (SHA) and Uncompahgre National Forest, and in the immediate vicinity of the 350 acres previously acquired from Elk Creek Land Company. The acquisition protects mule deer and elk winter range and migration corridors, and also protects an important migration corridor between the Naturita Creek drainage on the Uncompahgre National Forest and the Dan Noble SWA. There are documented Gunnison Sage Grouse on the Hughes property, which expands Gunnison Sage Grouse habitat at Dan Noble SWA.



Dan Nobel SWA – Hughes Parcel Acquisition Financing	
GOCO Wildlife Purpose Funds	\$240,000
Wildlife Cash/Habitat Stamp Funds	\$6,315
Landowner Contribution*	\$36,500
Total	\$282,815

Karney Ranch

The Karney Land & Cattle, Inc.'s 13,578 acre ranch is located in Bent County, Colorado, approximately ten miles northeast of Las Animas, Colorado. The property contains several sections of State Land Board land and is located just north of the John Martin Reservoir SWA. The Karney Ranch property provides CPW with a perpetual public access easement for hunting,



fishing and wildlife viewing. The Karneys also conveyed a perpetual conservation easement to The Nature Conservancy on the remaining 10,658 acres not previously subject to a 2007 perpetual conservation easement also held by TNC. The ranch lies within the Indian Lakes Conservation Area identified by The Nature Conservancy’s Central Shortgrass Prairie Ecoregional Plan. Additionally, the property lies within two conservation areas identified by the Colorado Natural Heritage Program -- the Central Arkansas Playas and the Central Shortgrass.

Karney Ranch Acquisition Financing	
GOCO Wildlife Purpose Funds	\$145,800
Wildlife Cash/Habitat Stamp – Public Access Easement	\$774,200
Wildlife Cash/Habitat Stamp – Closing Costs	\$2,070.50
Landowner Contribution*	\$411,200
Total	\$1,333,270.50

Smith Rancho

Smith Rancho consists of more than 14,000 acres of high quality wildlife habitat in Routt County. The conservation easement in this acquisition covers 3,582 acres and is held by The Nature Conservancy. Combined with two other conservation easements already held by TNC, the total protected land on the ranch is approximately 8,524 acres.



Smith Rancho lies among several large protected ranches, including the Wolf Mountain Ranch (over 16,000 protected acres), Carpenter Ranch (900 protected acres), and Red Hawk Ranch (1,000 acres). The Smith Rancho property is the highest priority protection area in CPW Area 10. The property’s habitat values include providing important migration corridors, winter range, and severe winter range for the largest elk herd in Colorado, as well as for mule deer. In addition, the

property contains 17 bird species classified by CPW as Species of Greatest Conservation Need, including Gunnison sage-grouse. Approximately 1,000 acres of the easement are greater sage-grouse habitat. Columbian sharp-tail grouse also are abundant, and sandhill crane have been documented nesting in the riparian habitat on the ranch.

Smith Rancho Acquisition Financing	
GOCO Wildlife Purpose Funds	\$1,530,000
Wildlife Cash/Habitat Stamp	\$272,750
Landowner Contribution*	\$1,951,000
Total	\$3,753,750

Real Estate Administration:

Across the state, Colorado Parks and Wildlife owns more than 325 State Wildlife Areas and manages more than 635,000 acres for habitat and recreational values. In addition, CPW leases approximately 485,000 acres of State Trust Lands, protecting additional wildlife habitat and providing the public with opportunities to hunt, fish and view wildlife. Colorado Parks and Wildlife’s Real Estate Unit has a central role in developing new protections for important wildlife habitat through the CWHPP, opening new public recreational access and monitoring existing property interests.

Colorado Parks and Wildlife took the following actions related to real estate administration during FY 2011-12:

- Reviewed and ranked 58 proposals in response to the CWHPP Request for Proposals.
- Provided acquisition support for 9 CWHPP projects, including baseline condition reports and management plans.
- Closed on 32 real estate transactions, including 6 conservation easements.
- Managed more than 380 active leases and term agreements.
- Monitored 152 CPW-owned conservation easements.
- Completed 50 Payment In Lieu of Taxes (PILT) and county impact assistance grant (IAG) transactions. GOCO was not billed for PILT, only the administration to ensure all real estate transactions occur.

ENHANCE HABITAT ON LAND AND WATER

Habitat Management:

Colorado Parks and Wildlife conserves and enhances wildlife habitat on lands and waters it owns, leases or holds an easement over. CPW works with private landowners, sportsmen, agricultural and conservation organizations to educate them and assist in evaluating what funds are available through the Farm Bill and Conservation programs. Projects and funds are based on the eligibility and funding from federal sources.

Colorado Parks and Wildlife took the following actions related to habitat management during FY 2011-12:

- Added new biologists to the Private Lands Wildlife Biologists Program (PLWBP), bringing the total in the state to twelve. Assigned one PLWBP biologist to focus exclusively on wetland projects on the South Platte River and in North Park.
- In partnership with the Rocky Mountain Bird Observatory and the Natural Resources Conservation Service, implemented 227 habitat projects enhancing more than 54,000 acres.
 - Hosted 18 workshops on wildlife habitat programs for landowners involving 335 participants.
 - Supported habitat enhancements on more than 15,000 acres of greater sage-grouse habitat.
 - Continued focus on enhancement and conservation of lesser prairie chicken through the Lesser Prairie Chicken (LEPC) Special Initiative.
- Performed Russian olive and tamarisk removal on the Republican River Drainage.
- Improved habitat conditions on 7,200 acres of State Wildlife Areas.
- Performed maintenance on or constructed 14,350 feet of access trails.
- Treated approximately 6,700 acres of weeds.



Water Programs:

Colorado Parks and Wildlife's Water Resources Unit oversees programs that protect in-stream flows on more than 8,500 miles of streams and in 486 natural lakes in the state, manages and protects CPW-owned water rights for recreational reservoirs, fish hatcheries and State Wildlife Areas (SWAs), and develops the data and expertise needed to protect water quality through Water Quality Control Commission proceedings.

Colorado Parks and Wildlife took the following actions related to water programs during FY 2011-12:

- Added nearly 16,000 records to RiverWatch water quality database.
- Provided RiverWatch data to the Water Quality Control Division for 303(d) impaired list data calls for the San Juan, Gunnison, and Dolores Rivers, the first time impairment hearings have used macroinvertebrate data.

- Collected data on 40 stream segments for instream flow protection.
- Presented recommendations on 15 stream segments to the Instream Flow Program workshop and proposed initial or continuing field data collection on an additional six segments.
- Provided technical assistance to the Colorado Water Conservation Board to evaluate three in jury with mitigation proposals and two instream flow water right acquisition proposals.
- Reviewed and commented on the water rights aspects of 18 proposed wetlands projects.
- Developed water rights and operations manuals for 5 State Wildlife Areas.
- Worked to finalize permanent water augmentation plans for the Shavano, Mt. Ouray, Monte Vista and Native Aquatic Species Restoration Facility (NASRF) fish hatcheries. Secured additional water augmentation supplies for the Poudre hatchery. Initiated feasibility assessment of well development at the Bellvue and Watson hatcheries.

See attached Colorado Parks and Wildlife press release – “Students, scientists team up on stream survey” – discussing a RiverWatch survey involving Campo School students, The Nature Conservancy and private landowners.

Wildlife for Future Generations Trust Fund:

In 2001 and 2006, the GOCO Board authorized contributions totaling \$1,016,326.90 to the Wildlife for Future Generations Trust Fund (WFGTF). Interest earned on these funds is used for stewardship activities on properties acquired in part with GOCO funds. Interest earned and the funds expended from the WFGTF are outside and separate from DOW’s annual funding request.

During FY 2011-12, the GOCO portion of the WFGTF earned \$15,536.57 of interest, and \$48,580.77 was expended. Expended funds were leveraged with Federal Aid funding from the U.S. Fish and Wildlife Service on fencing, signage and access projects on six State Wildlife Areas acquired in part with GOCO funding, including the Miller Ranch, Tarryall Creek Ranch and Parshall Divide parcel at the Hot Sulphur Springs State Wildlife Area.

Since 2001, GOCO-funded expenditures from the WFGTF have totaled \$209,173.74. Overall expenditures out of the Trust Fund, including those from the Wildlife Cash-funded portion created in July 2000, amount to \$1,431,465.80.

GIS HABITAT INFORMATION

Colorado Parks and Wildlife’s Geographic Information System (GIS) Unit provides state-of-the-art products, services and analysis to customers inside and outside of CPW. The GIS Unit acquires, maintains and distributes digital and other forms of data on wildlife habitat. Habitat protection in the face of expanding pressure from energy development continues to be a mainstay of the GIS unit’s land-use impact and habitat protection work. House Bill 07-1298 mandated the consideration of wildlife concerns in the oil and gas permit application process, which has resulted in significant ongoing demand for GIS habitat analysis, application development and maps. These maps assist energy and residential development to minimize impacts on wildlife, provide monitoring and trending capabilities on at-risk species, provide vital wildlife datasets through interactive mapping, and provide information to the public for accessibility to approved access points.

Colorado Parks and Wildlife took the following actions related to GIS habitat information work during FY 2011-12:

- Developed maps and models for CPW consultations on approximately 50 energy development proposals and more than 100 other land use comments.
- Developed and distributed new public access maps for approximately 20 State Wildlife Areas, 30 State Trust Lands, and all Walk-in and Big Game Access properties which are available to the public.
- Updated critical GIS datasets for greater sage-grouse, Gunnison sage-grouse, lesser prairie-chicken, and Columbian and plains sharp-tailed grouse. Aggregated data is available to the public.
- Updated GIS datasets for “species of greatest conservation need” identified in the Colorado Wildlife Action Plan such as boreal toad, Townsend’s big-eared bat, white-tailed ptarmigan and native cutthroat trout.
- Initiated work on a comprehensive, web-accessible Colorado Fishing Atlas which is currently in the review stages and will be available to the public.
- Completed the development of a decision support system for energy development planning, habitat protection and mitigation efforts in the Colorado-New Mexico border region with the Western Governors Association Wildlife Council and New Mexico Game and Fish.

WETLANDS CONSERVATION

The Colorado Parks and Wildlife’s (CPW) Wetlands Program, established in 1997, conserves wetland and riparian habitats and their ecological functions for the benefit of wildlife. Major goals of the program are to improve the status of declining or at-risk species, and to improve the abundance and distribution of ducks and opportunities for waterfowl hunting. In cooperation with conservation organizations, private landowners and other state and federal agencies, the Wetlands Program has protected, restored or enhanced approximately 285,000 acres of wetlands and adjacent habitats.



Funding for wetland and riparian habitat improvement projects is issued through competitive grants. Each year, notification of funds availability is made to conservation partners, local governments, and CPW staff to solicit projects for wetlands conservation.

Applications are reviewed by local partnerships and CPW regional and statewide committees for project approval. Approved projects may include strategic planning for wetland habitat conservation, wetland creation, enhancement and restoration projects, and project-related expertise such as site evaluation, design, construction, and biological assessments. The Wetlands Program also facilitates partnerships through local Focus Area Committees and conducts

wetland project monitoring and evaluation. Many projects are on public lands, expanding opportunity for public wildlife viewing and education.

Colorado Parks and Wildlife took the following actions related to wetlands conservation during FY 2011-12:

- Restored or enhanced 1,486 acres of wetlands and riparian areas and 2,751 acres of adjacent uplands in 25 projects.
- Awarded new grants totaling approximately \$1.0 million for 19 projects on private and public lands. When completed, the projects will improve more than 2,870 acres of wetland and riparian habitat, and benefit more than 20 at-risk wildlife species and eight waterfowl species.
- Partnered with the Colorado Natural Heritage Program and Environmental Protection Agency on wetland mapping and field assessments in the North Platte, lower South Platte, and lower Arkansas Basins. The projects will add to CPW's GIS database on wetland locations, help develop new tools to assess wetland conditions and threats, and document wetland use by priority wildlife species.

SPECIES PROTECTION

Colorado Parks and Wildlife’s wildlife conservation efforts strive to maintain or develop healthy populations of the full range of hunted, fished and non-game wildlife species. For species conservation work supported in part with Great Outdoors Colorado funding, a primary objective is to develop and implement strategies to protect and recover declining species, with the goal of averting federal listings of Colorado species under the federal Endangered Species Act and the difficult land use, water development and other restrictions often associated with a threatened or endangered determination.

The Colorado Wildlife Action Plan is a comprehensive catalogue of the status of knowledge and understanding of the state’s wildlife species, the threats they face, and strategies to lessen those threats. While Colorado Parks and Wildlife is the state’s principal wildlife conservation agency, partnerships with other local, county, state and federal agencies, landowners, wildlife conservation and sportsman organizations – along with the support of individual citizens -- are critical to protecting and enhancing Colorado’s wildlife resources. Many of the programs supported with GOCO funding help develop and put in place these invaluable partnerships. These efforts are vital to ensuring that Colorado species do not completely disappear and assist in validating the data to maintain and/or increase species presence in Colorado.

Colorado Parks and Wildlife reaches the Species Protection grant goals through a wide variety of programs, or work packages, including continued species research, surveys, reintroduction, tracking, propagation, recovery plan development and other aspects of broad-based conservation and recovery programs. In FY 2011-12, a portion of GOCO funding was used to support these programs. A total of 52.04 full-time equivalents (FTE) were expended on species conservation programs, of which GOCO funding supported 4.91 FTE, or 9.4%. A summary of program expenditures, and individual program activities and achievements for species conservation is provided below.

FY 2011-12 SPECIES PROTECTION SUMMARY	
GOCO FUNDING PLAN GRANT	FY 2011-12 GOCO EXPENDITURES
Threatened and Endangered Species Recovery	\$500,000.00
Native Species Protection	\$2,449,999.98
Propagation of Aquatic Species at Risk	\$575,000.00
TOTAL	\$3,524,999.98
FTE	4.91

THREATENED AND ENDANGERED SPECIES RECOVERY

Canada Lynx:

The Canada lynx occurs throughout the boreal forests of northern North America. Colorado represents the southern-most historical distribution of lynx, where the species occupied the higher elevation, montane forests in the state. Lynx were extirpated or reduced to a few animals in the state by the late 1970s, most likely due to predator control efforts such as poisoning and trapping. Given the separation of Colorado from the nearest northern population, CPW considered

reintroduction as the only viable option to attempt to reestablish the species in the state and resolve Endangered Species Act-related issues.

Colorado's lynx reintroduction effort began in 1997, with the first lynx released in the state in 1999. Overall, 218 wild-caught lynx from Alaska and Canada were released in southwestern Colorado. The goal of the Colorado lynx reintroduction program was to establish a self-sustaining, viable population of lynx in the state. The program has been successful in meeting the seven criteria necessary for achieving a viable population, and efforts are now focused on monitoring.

Colorado Parks and Wildlife took the following actions related to the lynx recovery program during FY 2011-12:

- Evaluated a monitoring strategy across the lynx core area in southwest Colorado that relies on remote cameras at sites in wilderness areas and snow tracking in all other areas. The results of the study will form the basis for a state-wide lynx monitoring program scheduled to begin in the fall of 2013.

Black-footed Ferret:

Once thought to be extinct, the black-footed ferret is making a comeback in Colorado and other western states since a small colony of the species was discovered in the early 1980s. The black-footed ferret is listed as an endangered species at both the state and federal level.

Since 2001, approximately 125 ferrets have been reintroduced at two locations in Colorado – Coyote Basin west of Rangely, and in the BLM's Wolf Creek Management Area near Dinosaur National Monument. However, since the summer of 2008, black-footed ferrets suffered a setback in Colorado due to an outbreak of sylvatic plague. Very few ferrets are believed to have survived the plague epizootic.

Colorado Parks and Wildlife took the following actions related to black-footed ferret recovery work during FY 2011-12:

- As a result of the continuing impact of the plague epizootic, Colorado did not request an allocation of captive-bred ferrets for release in 2011-12.
- Continued disease monitoring, through sampling of fleas from prairie dog burrows, at the Wolf Creek and Coyote Basin Management Areas
- Conducted sylvatic plague vaccine field safety trials at two field sites. Research efforts will continue with sylvatic plague vaccine field efficacy trials scheduled to begin at 9 study areas in Colorado in 2013.

Piping Plover and Least Tern:

Piping plover and least tern were listed as endangered under the federal Endangered Species Act in 2003 and 1990 respectively. Colorado does not have critical habitat designated for either species or specified recovery goals. Small nesting populations of least tern and piping plover are associated with a limited number of irrigation reservoirs in southeastern Colorado.

Colorado Parks and Wildlife took the following actions related to piping plover and least tern conservation work during FY 2011-12:

- Monitored piping plover and least tern nests at five sites at John Martin and Adobe Creek Reservoirs.
- Surveyed nests for number of eggs and successful fledging. 15 piping plover fledged from 18 hatched eggs. 7 least tern fledged from 16 hatched eggs.
- Cleared vegetation from a trench at John Martin Reservoir to create a moat protecting piping plover nest from predation from snakes and coyotes. Constructed a field fence in shallow water at Adobe Creek to protect a piping plover nest from coyote predation.
- Organized nearly 150 hours of volunteer time during Memorial Day and Fourth of July holidays to patrol and enforce nesting closures.
- Partnered with the US Army Corps of Engineers to organize viewing opportunities of piping plover for members of the Denver Audubon Society and for a limited number of Bent on Birding festival participants.

See attached Colorado Parks and Wildlife press release – “Beach closures to protect rare birds” – discussing piping plover and least tern nest protection efforts in southeast Colorado.

Peregrine Falcon:

Peregrine falcons were delisted under the federal Endangered Species Act in 1999. A post-delisting monitoring plan was included as part of the USFWS delisting determination. The plan calls for five monitoring periods, taking place every three years. The next federally-mandated monitoring effort is scheduled for 2015, the last of such undertakings.

Colorado Parks and Wildlife took the following actions related to the Peregrine falcon recovery program during FY 2011-12:

- Conducted federally-required monitoring surveys on 28 eyries to contribute to the national post-delisting monitoring analysis.
- Compiled survey results and provided them to USFWS for inclusion in national survey results.
- Included monitoring results in the CPW raptor database for land use comments and for HB 1298 oil and gas impacts.
- Conducted consultations to strengthen population-level monitoring locally and nationally.

Mexican Spotted Owl:

The Mexican spotted owl was listed as threatened under the Endangered Species Act in 1993. Critical habitat was designated by the USFWS for the owl species in 2004. Colorado Parks and Wildlife personnel participate on the Mexican Spotted Owl Recovery Team, which submitted a Final Draft Recovery Plan to USFWS in June 2011.

Colorado Parks and Wildlife took the following actions related to the Mexican spotted owl during FY 2011-12:

- Partnered with the US Forest Service and the US Bureau of Land Management to conduct annual Mexican spotted owl surveys.

- Coordinated with federal land management agencies on the establishment of Protected Activity Centers (PAC) for the Mexican spotted owl. A PAC is an approximately 600-acre buffer surrounding the nest and/or roost sites.
- Finalized the Mexican Spotted Owl Recovery Plan which is scheduled to be published in the Federal Register by January 2013.

Greenback Cutthroat Trout:

Thought to be extinct in 1937, numerous populations of greenback cutthroat trout have since been discovered through extensive survey work. The historic range for greenback cutthroat trout lies almost entirely within Colorado, in the headwaters of the South Platte and Arkansas Rivers. Many of those waters have been reclaimed and restocked with pure greenback cutthroat trout. The success of recovery efforts led to the 1978 downlisting of greenback cutthroat trout from endangered to threatened under the federal Endangered Species Act.

However, the taxonomic status of greenback cutthroat trout is currently being evaluated on several fronts following publication of a study that questioned the genetic integrity of source populations used in greenback cutthroat trout recovery efforts.

Colorado Parks and Wildlife took the following actions related to greenback cutthroat trout recovery work during FY 2011-12:

- A collaborative effort headed up by researchers at the University of Colorado combined an exhaustive survey of cutthroat trout stocking records with DNA analysis of 19th century museum specimens to establish a baseline characterization of the native diversity and distribution of cutthroat trout in Colorado. Findings from this study will require the USFWS to reconsider recovery goals and objectives for the greenback cutthroat trout. This study results were published in the fall 2012 edition of the journal *Molecular Ecology*.
- A study led by the Larval Fish Laboratory at Colorado State University compared visual characteristics of specimens collected across the southern range of cutthroat trout to specific molecular markers to determine if any physical traits are associated with those same taxonomic groups.
- Recovery team partners continue to conduct range-wide surveys of genetic purity of Colorado’s cutthroat trout populations to help guide future recovery efforts.

Upper Colorado River Endangered Fish Recovery Program:

Colorado Parks and Wildlife shares responsibility for recovering populations of the Colorado pikeminnow, razorback sucker, bonytail and humpback chub with the U.S. Fish and Wildlife Service and other federal and state agencies. The Division will continue sampling, monitoring and restocking as part of its obligations under the recovery program.



Colorado Parks and Wildlife took the following actions related to Upper Colorado River Endangered Fish Recovery Program during FY 2011-12:

- Stocked more than 5,500 bonytail in Debeque

- Canyon on the Colorado River and in the Green River in Dinosaur National Monument.
- Continued participation with Recovery Program development of recovery plans and status assessments of Colorado pikeminnow and humpback chub.
- Conducted northern pike and smallmouth bass removal operations on nearly 100 miles of the Colorado River and tributaries, and nearly 50 miles of the Yampa River. Removed more than 3,000 non-native fish from the rivers, including nearly 1,000 northern pike from the Yampa River and more than 750 smallmouth bass from the Colorado River.
- Documented the impact of non-native fish removal efforts in critical habitat areas of the Colorado and Yampa Rivers.

NATIVE SPECIES PROTECTION

Greater Sage-Grouse (GRSG):

The Colorado Greater Sage-Grouse Conservation Plan was adopted in March 2008 by Colorado Parks and Wildlife and four federal agencies to facilitate the conservation of greater sage-grouse (GRSG) and their habitats in Colorado. The Conservation Plan is guided by the philosophy that local work groups – made up of private landowners, public agency representatives, and other interested stakeholders -- have a pivotal role in greater sage-grouse conservation efforts, which typically cross jurisdictional and ownership boundaries.

On March 5, 2010, the US Fish and Wildlife Service announced a “warranted but precluded” listing for the greater sage-grouse under the federal Endangered Species Act. The decision adds the species to the list of candidate species under the ESA, but precludes formal protections because of “the need to address other listings of higher priority.” The USFWS assigned the greater sage-grouse a listing priority number of 8, which is a relatively lower priority compared to most other species on the list.

*In September 2011, the USFWS was directed by a court order to make listing decisions on nine federal Candidate Species occurring in Colorado. The court order reflects an agreement between USFWS and environmental groups to make a final listing determination for 251 identified species that are currently listed as “warranted but precluded”. Environmental groups charged that a “warranted but precluded” designation left species in a legal limbo in which the species were identified as federal candidate species but received no federal protections available under the Endangered Species Act. **For greater sage-grouse, the court order mandates a proposed listing decision by 2015.***

Colorado Parks and Wildlife took the following actions related to greater sage-grouse conservation work during FY 2011-12:

- Provided supplemental information to the USFWS in response to a February 2012 data call, including findings from projects completed since the previous data call in March 2011.
- Conducted spring 2012 lek counts which indicate a slight increase in the overall population of greater sage-grouse within Colorado since 2009. Only one of the six populations had a slight decrease in numbers, the North Eagle/South Routt population.



- Conducted research on various aspects of GRSG populations and habitats including seasonal habitat use, potential effects of GPS transmitters on survival and behavior, male lek attendance, bird demographic responses to oil and gas development, and the effectiveness of techniques to rapidly restore sagebrush and other native vegetation following disturbance from well pads and pipelines. The model for seasonal habitats has been completed.
- Conducted habitat treatments in the North Eagle/South Routt population with 2 piñon juniper removal projects totaling 535 acres and an agricultural lands restoration project that includes sagebrush seeding on 631 acres.
- Participated as a Cooperating Agency with the BLM Sage-Grouse Environmental Impact Statement for Colorado. This state-specific EIS is part of BLM's National Sage-Grouse Planning Strategy.
- Participated on the USFWS Conservation Objectives Team, charged with defining the degree to which threats to the greater sage-grouse need to be ameliorated so that the species is no longer in danger of extinction or likely to become in danger of extinction.
- Developed preliminary high priority and general habitat maps for greater sage-grouse across their range in Colorado as part of the BLM National Planning Strategy for Greater sage-grouse.
- Monitored vegetative response to five different approaches to restoring habitat conditions impacted by energy development activities. The research project involved approximately 350 plots at 20 sites in a mix of low, medium and high elevations in the Piceance Basin.
- Deployed GPS transmitters on 47 male greater sage-grouse in northwestern Colorado.
- Discovered 16 new leks as part of other greater sage-grouse research projects.

Gunnison Sage-Grouse (GUSG):

In September 2010, the U.S. Fish and Wildlife Service published a “warranted but precluded” listing decision for Gunnison sage-grouse. According to the USFWS, Gunnison sage-grouse warrants protection under the Endangered Species Act, but a threatened or endangered listing is precluded by higher priority actions and lack of resources. The USFWS assigned a listing priority number of 2, which places the Gunnison’s Sage Grouse at the top of the Service’s nationwide listing priorities.

Gunnison sage-grouse is included in the September 2011 court order directing USFWS to make listing decisions on 251 federal candidate species, including nine occurring in Colorado. Currently, this listing is in Public Comment and closes March 13, 2013. As information becomes available, decisions and/or findings will be posted on the CPW Website.

Gunnison sage-grouse (GUSG) occupy a small fraction of their historical range, having been extirpated by habitat conversion from much of their historical distribution in southwest Colorado, southeast Utah, and northern New Mexico. Currently, the estimated GUSG range-wide population of 4,032 birds in Colorado is near the population target of 4,500 birds called for in the 2005 Rangewide Conservation Plan. However, only the Gunnison population is meeting the individual population goal; all other satellite populations are well below their respective targets.

Colorado Parks and Wildlife took the following actions related to Gunnison sage-grouse work during FY 2011-12:

- Responded to an unofficial data call associated with the U.S. Fish and Wildlife Service postponement of the proposed listing decision for Gunnison Sage-Grouse until December 30, 2012.
- Initiated an aggressive trap and transplant effort for three satellite populations. All transplanted birds were trapped from the core Gunnison Basin population and fitted with radio-transmitters. Monitoring will continue to document habitat use and survival rates.
- Completed the final field season for the two-year predator control project in the San Miguel Basin, focusing on hens and chicks/yearling survival.
- Completed or put in final stages 16 Candidate Conservation Agreement with Assurances (CCAA), covering more than 33,600 acres. An additional 17 CCAs were pending completion, covering 27,500 acres.
- Signed on as a supporting agency on the BLM's Candidate Conservation Agreement with the US Fish and Wildlife Service in the Gunnison Basin. The purpose of the CCA is to design conservation measures addressing 4 major issues on BLM lands: grazing, recreation, development and habitat fragmentation. Additionally, Gunnison and Saguache counties will sign as supporting local governments.

Lesser Prairie-Chicken:

The lesser prairie-chicken is an upland nesting grassland bird present in regions of Kansas, Colorado, Oklahoma, New Mexico and Texas. Once present in large numbers, the lesser prairie-chicken population and its original distribution have declined significantly since 1800.

Colorado's population is currently estimated to number fewer than 200 breeding birds, located largely on private ranches south of Holly, east of Eads and south of the Cimarron River in the very southeastern corner of the state. The largest concentration of lesser prairie-chicken in the state, located on the Comanche National Grassland near Campo, has declined in recent years.

The lesser prairie-chicken is listed as threatened in Colorado and is currently a candidate species for listing under the federal Endangered Species Act. The lesser prairie-chicken (LEPC) listing priority was raised to a 2 in December 2008, the highest priority a species can attain before becoming a federally threatened or endangered species.

Lesser prairie-chicken was included in the September 2011 court order directing USFWS to make listing decisions on 251 federal candidate species, including nine occurring in Colorado. Lesser prairie chickens were proposed as Threatened by the US Fish and Wildlife Service on December 11th, 2012.

Colorado Parks and Wildlife took the following actions related to lesser prairie-chicken conservation work during FY 2011-12:

- Continued to actively engage with the lesser prairie-chicken Interstate Working Group (LPCIWG). Conducted a rangewide aerial survey, which estimated the total population size at approximately 37,000 individuals.
- Continued development of a rangewide management plan, scheduled for completion by March 2013. The rangewide management plan will set population goals for lesser-prairie chicken in four major ecoregions.
- Negotiated with the oil and gas, windpower, and electrical transmission industries to develop mechanisms (e.g., CCAs, Habitat Conservation Plans) to avoid, minimize and mitigate for development impacts on lesser prairie-chicken habitat.

- Conducted an experiment, with the Natural Resource Conservation Service, to evaluate plant establishment and resulting vegetative composition from seed mixes currently recommended in Conservation Reserve Program (CRP) plantings.
- Protected and enhanced 58,500 acres of lesser prairie-chicken habitat through the NRCS' State Acres for Wildlife Enhancement (SAFE) program and CPW's LEPC Habitat Improvement Program.
- Conducted population surveys, identifying a total of 161 birds and 17 active leks in Baca, Prowers and Cheyenne counties.

White-tailed Ptarmigan:

In 2010, the white-tailed ptarmigan was petitioned to be listed as threatened under the federal Endangered Species Act. The predominant argument in the petition is that climate change is adversely affecting the species' dependence on alpine habitats.

White-tailed ptarmigan were included in the September 2011 court order directing USFWS to make listing decisions on 251 federal candidate species, including nine occurring in Colorado. On June 5, 2012 the USFWS made a positive 90 day finding that substantial information exists to warrant a more intensive 12 month status review for white-tailed ptarmigan.

Colorado Parks and Wildlife took the following actions related to white-tailed ptarmigan conservation work during FY 2011-12:

- Conducted statewide occupancy surveys to develop a baseline distribution of the white-tailed ptarmigan. The surveys demonstrated that white-tailed ptarmigan are widely dispersed across the state in suitable habitats, with little change from historic distributions.
- Developed a long-term statewide monitoring program for white-tailed ptarmigan to model changes in occupancy, as well as incorporating demographic parameters to estimate population size, survival and reproductive output. This type of long-term monitoring will allow CPW to track changes in distribution and rate of population change through time.

Boreal Toad:

The boreal toad is listed as endangered by the State of Colorado. Infection by the chytrid fungus *Batrachochytrium dendrobatidis* (Bd) appears to be the major cause of boreal toad declines within Colorado and elsewhere throughout the species' range. An interstate recovery plan was completed in February 2001. The criteria for de-listing the boreal toad in Colorado includes establishment of at least two breeding populations in each of nine areas of historic distribution, and at least 25 breeding populations statewide.

In 1995 the USFWS found the Southern Rocky Mountain population of boreal toad to be "warranted but precluded" for federal listing and placed it on the candidate list. In a subsequent review in 2005 the Service determined that the Southern Rocky Mountain population was not significantly different from other boreal toad populations and removed it from the candidate list. On May 25, 2011, several conservation groups petitioned the Fish and Wildlife Service to again consider the boreal toad for federal listing, based on two 2009 genetic studies claiming to show that an "Eastern population" -- roughly comparable but not identical to the Southern Rocky Mountain population -- constituted a distinct population segment.

A 90-day finding on the new petition, issued on April 12, 2012, stated that listing the Eastern population as a “distinct population segment” may be warranted, but that substantial information for listing the Southern Rocky Mountain Population was not found. A more extensive review through a 12-month finding was announced.

Colorado Parks and Wildlife took the following actions related to boreal toad conservation work during FY 2011-12:

- Provided petition comments to the USFWS indicating that the boreal toad’s status in Colorado remains stable, as indicated by the number of known active breeding sites, although the chytrid fungus continues to impact populations.
- Identified 13 new breeding sites, bringing the number of known sites to 101, of which 49 are considered active.
- Tested samples from 41 breeding sites and 4 unknown-status or translocation sites for the presence of chytrid fungus.
- Continued a study to increase the reliability and accuracy of the statistical basis for detection of new breeding sites.
- Exported 2,100 tadpoles to New Mexico to assist with reintroduction efforts. Reared 63 toadlets for universities to facilitate ongoing *Bd*-resistance research.
- Received 39 eggs from an environmentally precarious site in Utah, which produced 24 toadlets that will be transferred to Henry Doorly Zoo in Omaha, NE.
- Demonstrated the ability to tag tadpoles with coded wire tags and documented high retention of the tags, leading to the possibility of distinguishing stocked tadpoles from naturally produced tadpoles at translocation sites.

Northern Leopard Frog:

Northern leopard frogs are historically one of the most widespread frogs in North America. However, in the western U.S., populations of northern leopard frog have declined dramatically in abundance and geographic distribution. On June 30, 2009, the U.S. Fish and Wildlife Service (USFWS) determined that enough evidence was presented in response to a listing petition to open a more detailed 12-month status review of the northern leopard frog for possible threatened or endangered listing. The proposed listing would cover northern leopard frog populations in Colorado and 18 other states west of the Mississippi.

On October 3, 2011, the U.S. Fish and Wildlife Service determined that listing the northern leopard frog as threatened or endangered was not warranted based on an evaluation of the status of the species across the 19 western states included in its range.

Colorado Parks and Wildlife took the following actions related to northern leopard frog conservation work during FY 2011-12:

- Conducted a small number of follow-up population surveys. A major, multi-year survey was completed prior to 2011 in anticipation of the federal listing review; however, CPW continues to build information on long-term population trends.
- Collaborated with the City of Boulder to eradicate non-native bullfrogs from a pond complex inhabited by a strong population of leopard frogs. The success of the project will take several years to completely assess.

Gunnison's, Black-tailed and White-tailed Prairie Dogs:

Colorado is home to three prairie dog species -- the Gunnison's prairie dog (GUPD), black-tailed prairie dog (BTPD), and the white-tailed prairie dog (WTPD). Although there are similarities among the species, each is unique in habitat requirements, sociality, and conservation needs.

In 2008, the USFWS determined that four populations of the GUPD in the San Luis Valley, South Park, Gunnison Valley and in Southeastern Colorado were "warranted but precluded" from listing. On May 26, 2010, the USFWS completed a similar review of the WTPD, concluding that a listing of the species as threatened or endangered under the Endangered Species Act was not warranted.

Gunnison's prairie dog was included in the September 2011 court order directing USFWS to make listing decisions on 251 federal candidate species, including nine occurring in Colorado. For the Gunnison's prairie dog, the USFWS will make a proposed listing decision by September 2014.

Highlights of activities in support of GUPD, BTPD and WTPD during FY 2011-12 include:

- Initiated and completed a genetics study in collaboration with researchers at the University of Colorado, Boulder. Review of this information will determine if two subspecies of the Gunnison's prairie dog exist.
- Collected fleas from prairie dogs trapped for the genetics project to evaluate plague potential within colonies.
- Dusted GUPD colonies with an insecticide - deltamethrin - in areas of conservation concern to try to maintain viable populations and protect colonies from plague outbreaks.
- Completed GUPD and WTPD occupancy monitoring. Occupancy monitoring for Gunnison's prairie dog has been performed three times and white-tailed prairie dog monitoring two times. Both populations are stable.
- Collaborated with the US Geological Survey's National Wildlife Health Center to evaluate the use of an experimental bait for delivery of an oral vaccine for sylvatic plague. Research on the vaccine's efficacy and duration of immunity began in 2011 at CPW's Foothills Wildlife Research Facility in Fort Collins. Field safety and efficacy trials are scheduled to begin in Colorado in the summer of 2013.



Eastern Plains Native Fish Conservation:

Of the 38 species of fish native to the eastern plains, eight are extirpated and another 12 are state endangered, threatened, or species of special concern. Although these fish are highly tolerant of the original harsh physical and chemical conditions of plains streams -- including fluctuating flows, high temperatures and low oxygen -- the fish are not tolerant of channel drying caused by recent droughts and other habitat degradation. Should potential climate change result in further drying and warming of the region, increased groundwater pumping and water diversion will further reduce habitat for eastern plains fish species.

Colorado Parks and Wildlife took the following actions related to eastern plains native fish conservation work during FY 2011-12:

- Continued a flathead chub movement study on Fountain Creek and the Arkansas River. More than 13,000 flathead chub have been tagged with passive integrative transponder tags. Mobile reading arrays are being used to detect fish movement through the system.
- Conducted a large scale study in the South Platte River basin to identify the physical, thermal and potential flow regime related barriers to fish movement, including aerial surveys.
- Evaluated the effects of irrigation recharge flows on native fish species in the South Platte River on the Tamarack State Wildlife Area.
- Identified and sampled permanent pools on the Pawnee National Grassland. Plains topminnow and northern redbelly dace were reintroduced at four of the ponds. Additional ponds may be treated for nonnative fish and have native species reestablished.
- Examined potential interactions of mosquitofish and northern redbelly dace through laboratory studies.
- Completed a genetic study of Arkansas darter.
- Completed a study of reintroduction success of Arkansas darters. Findings from this effort were published in Transactions of the American Fisheries Society in September, 2012.
- Stocked approximately 38,000 plains minnow into the Arkansas River, the first ever stocking of this species.
- Stocked more than 1,300 Suckermouth minnow into the Arkansas River, also a first-time event. Stocked fish were individually marked with coded wire tags in an effort to better understand survival and behavior of this species, about which little is known.
- Stocked or translocated three other plains fish species—Arkansas darter, northern redbelly dace and plains topminnow—into a total of 11 different waters in the South Platte and Arkansas basins.
- Completed more than 140 individual site surveys for native fishes in the plains portions of the South Platte, Arkansas and Republican basins, many in potential high priority native fish conservation areas.

Mountain Whitefish:

One of only two salmonids native to Colorado, the mountain whitefish was historically found only in the Yampa and White River drainages in northwestern Colorado. Significant population declines in the Yampa River in the late 1990s spurred interest in this relatively unstudied species. A working group was established in January 2009 to direct future mountain whitefish research efforts to discover why the declines occurred.

Colorado Parks and Wildlife took the following actions related to mountain whitefish conservation work during FY 2011-12:

- Conducted electrofishing surveys on the Yampa, White, Colorado, and Roaring Fork Rivers to estimate abundance of mountain whitefish.
- Secured additional flows in the Elk River to protect whitefish population stricken by drought.
- Evaluated the effects of drought with lab-based thermal tolerance experiments. The study findings were accepted for publication in the journal Transactions of the American Fisheries Society.
- Evaluated the sensitivity of mountain whitefish embryo, larvae and fry to three metals -- cadmium, zinc, and copper.

Colorado River Cutthroat Trout

Colorado Parks and Wildlife has partnered with other state and federal land management and wildlife agencies in Colorado, Wyoming, and Utah to form the Colorado River Cutthroat Trout Conservation Team. Extensive collaborative work implemented by this team led the US Fish and Wildlife Service to determine that the subspecies did not warrant listing in 2007 under the Endangered Species Act – a position that was upheld by the courts in 2012. As part of this multi-state Agreement, Colorado Parks and Wildlife biologists are charged with monitoring, managing, and reestablishing populations of native cutthroat trout to Colorado’s Western Slope.

Colorado Parks and Wildlife took the following actions related to Colorado River cutthroat trout recovery work during FY 2011-12:

- Used new molecular tests to evaluate purity and lineage of 106 cutthroat trout populations across the state.
- Completed reclamation and repatriation of Woods Lake near Telluride to develop a new wild brood lake for Colorado River cutthroat trout.
- Completed reclamation of Hermosa Creek near Durango.
- Stocked progeny of pure Colorado River cutthroat trout from North Elk Creek into three reclaimed lakes in the Flat Tops Wilderness. The lakes will provide refugia if the incursion of non-native fish and parasites into other populated areas cannot be curtailed.
- Developed broodstock of aboriginal Roan Plateau fish from a wild spawn operation on Roan Creek, using molecular methods to identify pure parents.

Colorado River Native Fishes (“Three species”):

The Colorado River drainage hosts three native fish species (bluehead sucker, flannelmouth sucker, and roundtail chub, collectively referred to as the “three species”) that are the subjects of a Rangewide Conservation Agreement and Strategy, of which Colorado is a signatory. Review of historical literature and data records suggest that each of the three species may now occupy 50% or less of the known maximum extent of historical range. A primary underpinning for many of the conservation actions outlined in the Rangewide Agreement is to determine present species distribution as a basis for measuring future progress in protecting the three species.

In addition, the bluehead and flannelmouth sucker species are prone to hybridization with non-native sucker species (e.g.; white sucker, longnose sucker) that appear to be expanding their range in western Colorado. Genetic and morphological characterization of existing populations is an important conservation action so threats of hybridization can be measured.

Colorado Parks and Wildlife took the following actions related to three species conservation work during FY 2011-12:

- Initiated multi-year sampling to define present native ranges of the three species.



- Collected more than 200 fin tissue samples from three species fish for genetic analysis.
- Collected more than 500 pectoral fin ray samples for age and growth analysis to identify environmental conditions conducive to spawning and recruitment success.
- Collected 30 mature bluehead suckers from the San Miguel River for use as Southwest Region broodstock at the Native Aquatic Species Restoration Facility.
- Collected 25 pure and hybrid sucker specimens for use in sucker identification workshops. Facilitated the organization of one such workshop for CPW and Colorado State University biologists.

Rio Grande Cutthroat Trout:

Rio Grande cutthroat trout range further south than any other cutthroat trout, historically occupying waters as far as southern New Mexico. In Colorado, the species' range is confined to the headwaters of the Rio Grande surrounding the San Luis Valley. As with other subspecies of cutthroat trout, widespread introductions of non-native salmonids over the last century have served to limit the distribution of Rio Grande cutthroats to isolated headwater streams and lakes.

As of May 2009, Rio Grande cutthroat trout are considered “warranted but precluded” for listing under the federal Endangered Species Act. ***For Rio Grande cutthroat trout, the court order mandates a proposed listing decision by 2014.***

Colorado Parks and Wildlife took the following actions related to Rio Grande cutthroat trout recovery work during FY 2011-12:

- Continued extensive work with the Rio Grande Cutthroat Trout Conservation Team, comprised of tribal, state and federal agencies, to develop a scientifically rigorous conservation strategy that may suffice to preclude federal listing.
- Discovered a new Rio Grande cutthroat trout population in El Perdido Creek suspected to be genetically pure; testing is underway to confirm genetic status.
- Confirmed genetic purity of Rio Grande cutthroat trout population in Bernardino Creek discovered in FY 2010-11. Collected genetic samples from 8 additional populations believed to be pure but not previously tested.
- Conducted 9 population surveys in 8 streams to evaluate status of important conservation populations.
- Stocked 35 miles of Casais and Placer Creeks with Rio Grande cutthroat trout.
- Conducted pre-project feasibility assessments at 3 streams to evaluate potential to remove non-native trout and re-establish Rio Grande cutthroat trout.

Bats/Inactive Mines:

In Colorado and elsewhere in the West, a dearth of knowledge surrounds the status, population biology, and habitat requirements of bats. For example, 13 of Colorado's 18 species of bats are known to use abandoned mines as roost sites, but roosting habitat needs for bats are poorly understood.

The ongoing Abandoned Mine Lands closure programs, administered by the Colorado Division of Reclamation, Mining, and Safety, the Bureau of Land Management and the U.S. Forest Service, are intended to eliminate public safety risks at Colorado's estimated 5,100 inactive hardrock mines. However, methods historically used to close mines did not allow for continued

use of the mines by bats. Loss of roosting habitat could have devastating effects on some bat populations.

For more than 20 years, the Bats/Inactive Mines Program has worked to evaluate the bat roost potential of mines scheduled for closure, identify important bat roosts, and protect these roosts by the installation of bat gates, which allow access for bats to roosting habitat in the mines, while providing for public safety.



Colorado Parks and Wildlife took the following actions related to the Bats/Inactive Mines program during FY 2011-12:

- Evaluated 103 mines, including 53 on BLM and USFS lands, and 50 on private lands.
- Conducted 226 mine surveys, including 10 detector, 65 capture, 84 video, and 67 pre-surveys.
- Documented 44 bat roosts, including two new roosts of Townsend's big-eared bat, a State Species of Special Concern.
- Recommended 14 bat gate projects to BLM and USFS and the Division of Minerals and Geology. Completed 4 bat gate projects in Boulder, Gilpin, Chaffee and Rio Blanco Counties.

Bats – White-nose Syndrome

White-nose syndrome (WNS) is an emerging fungal disease of North American bat species. Since 2006, WNS is believed responsible for the deaths of at least 1 million hibernating bats in caves and inactive mines in northeastern states. Although WNS has not yet been detected in Colorado, 18 bat species native to the state are considered susceptible to the disease. At this time, priorities for CPW in response to the threat of WNS are active surveillance of known roosting sites based on factors such as proximity to the closest known WNS-positive site, potential migratory stopovers, proximity to maternity roosts, specific species of bats present and others.

Colorado Parks and Wildlife took the following actions related to White-nose syndrome work during FY 2011-12:

- Updated the White-nose Syndrome Response Plan as well as the White-nose Syndrome Surveillance Plan and Protocol.
- Visited more than 100 sites in the winter of 2011-12 to develop vital baseline information. The initial results indicate about 50% of surveyed bat hibernation sites in Colorado are within the temperature and humidity ranges of the fungus that causes White-nose Syndrome.
- Required holders of scientific collection permits to adhere to the most recent guidelines for WNS disinfection requirements, including a complete prohibition on the use of equipment in Colorado that has been used in bats surveys in known WNS areas.

See attached Colorado Parks and Wildlife press release—“Researchers monitoring Colorado bat populations” – discussing White-nose Syndrome response efforts in Colorado.

American Pika:

In May 2009, the USFWS released a 90-day finding that the American pika may be warranted for listing as Threatened or Endangered under the federal Endangered Species Act, citing climate change as a primary threat. In February 2010, a 12-month finding determined that the American pika was not warranted for listing.

CPW conducted extensive statewide surveys for pika in 2008 and found them to be well distributed throughout the state. Researchers documented 303 occupied pika sites in suitable habitat, including 93% of historical sites sampled prior to 1980.

Colorado Parks and Wildlife took the following actions related to American pika conservation work during FY 2011-12:

- Developed a Predicted Range Model that estimated that 12 percent of the state may provide suitable habitat for the species.
- Implemented a long-term monitoring program for pika to evaluate changes in occupancy and correlate documented changes with precipitation and temperature data to help evaluate climate impacts on pika distribution.
- Joined with Rocky Mountain Wild, the Denver Zoo and Mountain Studies Institute in the Pika Citizen Science Project to help complete and enhance the long-term monitoring of pika statewide. Volunteers conduct surveys on an annual basis following a defined CPW protocol as part of a long-term study in which sites can be monitored indefinitely, using a core protocol that does not vary.

Frisco Creek Rehabilitation Center:

The Frisco Creek Rehabilitation Center was acquired in 2004 with funding support from Great Outdoors Colorado. The facility housed lynx prior to reintroduction release, and currently rehabilitates wildlife that have suffered injuries, including orphaned black bear, mountain lion, lynx and birds of prey.

Colorado Parks and Wildlife took the following actions related to wildlife rehabilitation at the Frisco Creek facility during FY 2011-12:

- Received 37 orphan black bear cubs, 35 of which were successfully returned to the wild.
- Received 2 mountain lion kittens, both successfully rehabilitated and returned to the wild.
- Took in 2 Canada lynx, both successfully rehabilitated and returned to the wild.
- 32 Raptors, two of which were transferred to other facilities for continued rehabilitation, and 13 of which were returned to the wild.

Other Native Species Work:

Colorado hosts an estimated 960 wildlife species, including mammals, birds, fish, reptiles, amphibians, mollusks and crustaceans. In November 2006, Colorado's Wildlife Action Plan was finalized, identifying 210 priority wildlife species, and 13 priority habitat types, as well as potential conservation actions to benefit the priority species and habitats. The plan also seeks to coordinate planning, partnership building, project design and implementation among the many state, federal, local and private organizations involved to varying degrees in wildlife conservation in Colorado.

As described in this report, Colorado Parks and Wildlife has multi-faceted efforts that focus on specific species, such as Gunnison sage-grouse or Colorado River cutthroat trout. CPW also has less-intensive programs for some species, and other species may be assessed as part of broader, more encompassing efforts, such as the Small Mammals Atlas or Breeding Bird Survey.

Colorado Parks and Wildlife took the following actions related to species identified in Colorado's Wildlife Action Plan not otherwise addressed in this section during FY 2011-12:

- Prioritized all Tier 1 Species of Greatest Conservation Need listed in the Colorado Wildlife Action Plan.
- Monitored 190 Columbian sharp-tailed grouse leks.
- Monitored 25 plains sharp-tailed grouse leks.
- Conducted trapping surveys for New Mexico Jumping Mouse at 5 sites.
- Maintained or improved 20 acres of least tern habitat.
- Continued work with the interstate Mexican Wolf Recovery Team to assure Colorado is excluded from the updated recovery plan since the state is not in the subspecies' historic range. The updated plan is slated for public release in 2013.
- Neared completion of a Habitat Conservation Plan for the Southwestern willow flycatcher in the San Luis Valley.

PROPAGATION OF AQUATIC SPECIES AT RISK

Colorado Parks and Wildlife opened the Native Aquatic Species Restoration Facility (NASRF) in Alamosa during the summer of 2000, the first state-owned native fish hatchery in the country. Construction was funded in part by Great Outdoors Colorado and on-going operations continue to be supported by GOCO. Ten fish species are currently reared at the facility, along with boreal toads. Most of the fish produced by the NASRF support recovery programs for the Upper Colorado River and for eastern plains waters. Stocking of threatened or endangered fish is often the most effective means for reestablishing viable populations of the species and is an important component of recovery plans.

The NASRF provides valuable refugia for several fish species and assures a diversity of populations and genetics of the rare fish at the facility. In addition, NASRF performs groundbreaking research on optimal water temperatures, water pH, feeding regimes and other factors for each species to survive, grow, and spawn in captivity. More than 250 aquaria and eight outdoor ponds are home to the one dozen fish species at NASRF.

Colorado Parks and Wildlife took the following actions related to the propagation of aquatic species at risk during FY 2011-12:

- Produced and stocked approximately 12,000 boreal toad tadpoles.
- Produced more than 185,000 fish, including approximately 50,000 plains minnow, 10,000 northern redbelly dace, 62,500 Rio Grande chub, 80,000 roundtail chub and 5,500 bonytail chub.
- Stocked fish in 25 river and stream segments, including the first reintroduction of plains minnow to the Arkansas River.
- Held more than 10,000 bluehead suckers and 16,000 bonytail chub in grow-out production.
- Established, for the first time, successful reproduction of Arkansas darter and bluehead sucker. The NASRF received the initial bluehead suckers in 2009-10.
- Provided broodstock refugia for 740 boreal toads, 120 bonytail chub, and 53 bluehead sucker, and genetic refugia for 450 southern redbelly dace and approximately 10,000 northern redbelly dace.



WILDLIFE EDUCATION

Colorado Parks and Wildlife applies GOCO funding to a number of formal and informal wildlife education programs for youth and adults. A total of 12.03 FTEs were expended on wildlife education programs by Colorado Parks and Wildlife; GOCO funding supported 2.14 FTE, or 17.8%.

FY 2011-12 WILDLIFE EDUCATION SUMMARY	
GOCO FUNDING PLAN GRANT	FY 2011-12 GOCO EXPENDITURES
Wildlife Education	\$554,000
River Stewardship	\$161,000
TOTAL	\$715,000
FTE	2.14

WILDLIFE EDUCATION

Colorado Parks and Wildlife education programs combine school-based education on wildlife concepts -- including wildlife management, habitat needs and conservation -- with hands-on and field-based learning opportunities for students. With concern increasing over the loss of connection of our nation's youth to the outdoors and natural resources, Colorado Parks and Wildlife's education programs strive to instill stewardship skills and ethics in students across the state. Information contained within this section is intended to capture the highlights of the past year and the continued efforts to connect and educate people about wildlife throughout the State. Detailed information regarding the volunteer and education programs offered throughout CPW can be found at <http://wildlife.state.co.us/Volunteer/Pages/Volunteer.aspx>.

Colorado Youth Corps Association:

The Colorado Youth Corps Association (CYCA) is a statewide coalition of ten accredited youth conservation corps that seeks volunteer opportunities for approximately 1,800 youth. For more than a decade, CYCA crews have worked with Colorado Parks and Wildlife on angler education clinics, fence removal or repair at State Wildlife Areas, non-native invasive weed control, riparian habitat improvement projects, irrigation enhancement projects, trail repair and construction, and hatchery maintenance projects across Colorado. CYCA work crews learn first-hand about wildlife and habitat stewardship while developing job skills and experience that help them in future employment. With the help of CYCA crews, Colorado Parks and Wildlife is able to undertake valuable wildlife projects that might otherwise be delayed.

Colorado Youth Corps Associate crews assisted or undertook the following wildlife projects during FY 2011-12:

- Assisted with 9 angling clinics in the Denver metro area.
- Worked on a new shooting range in the San Luis Valley.
- Removed noxious weeds, tamarisk and Russian olives at 8 State Wildlife Areas.
- Repaired or removed fencing at 5 State Wildlife Areas.

- Completed 3 in-stream habitat improvement projects.
- Repaired and constructed new trails at 2 State Wildlife Areas.

Educator Training and Support:

Training educators to teach students, of all ages, about Colorado’s wildlife resources using the Project WILD, Aquatic Project WILD, Flying WILD, Archery in the School, Growing Up WILD and other curriculum products created by the Association of Fish and Wildlife Agencies (AFWA) Conservation Education Strategy. These materials are also incorporated into the Teaching Environmental Science Naturally (TEN) teacher institutes hosted in communities around the state. Once trained, the educators reach thousands of Colorado students in schools and in non-formal education settings every year. The following are the Educator Outreach Program highlights for FY 2011-12:

- Hosted 52 Wildlife Educator Workshops, featuring Project WILD and other curriculum materials, reaching more than 900 educators in the state through nearly 650 hours of workshop contact time.
- Maintained partnerships with more than 120 volunteer facilitators that implement Project WILD, TEN and other professional development workshops.
- Created and hosted an on-line webinar for 60 participants across the United States to train educators how to use the Association of Fish and Wildlife Agencies’ Conservation Education materials.
- Worked in partnership with the Colorado Department of Education to host focus groups and re-write the Colorado Environmental Education Plan that was legislated in 2010 as part of the Colorado Kids Outdoors legislation (HB10-1131).
- Served as a main partner for Get Outdoors Colorado efforts. Supported creations of kids’ pages for the Get Outdoors Colorado program. Worked with 100+ partners to coordinate exhibitor presence at National Get Outdoors Day Denver – an event that served over 9,000 people (mostly families) in 2012.



- Provided check-out wildlife education materials (e.g.; “critter crates”) for hundreds of Colorado teachers to use in their classrooms across the state.
- Provided Activity Backpacks at state parks to be checked out. These packs help turn an ordinary hike into a learning adventure in nature! The interactive packs will include: two large bug boxes, magnifiers, various guide books (covering birds, insects, wildflowers and pond or tree life depending on the park), binoculars and a nature journal.
- Developed and implemented a new workshop model, training high school students from Warren Tech in Boulder County to teach wildlife education to elementary students. The workshop was developed in partnership with Boulder County Open Space.
- Initiated email distribution of Colorado Connections to approximately 2,500 educators across the state. The newsletter connects teachers to professional development, grant opportunities and other opportunities for educators interested in Conservation Education.
- Partnered with US Forest Service, Colorado Parks and Recreation Association, and several non-profit organizations and local governments to develop a Get Outdoors Colorado website, to provide a resource for Coloradoans interested in connecting with outdoor recreation opportunities in the state. The site is scheduled to launch in January 2013.

RIVER STEWARDSHIP

Angler Education:

The Angler Education Program has grown significantly over the past 17 years. Started in 1994 as a small urban fishing program designed to teach 600 kids how to fish, the current program has grown to a statewide program with nearly 350 fishing clinics and events, reaching in excess of 35,000 participants annually. A total of 17,000 free fishing rods were distributed at angling events throughout Colorado during FY 2011-12. More than 100 different federal, state, local, regional agencies and non-profits groups have partnered or participated in clinics and events, including:

- U.S. Forest Service
- U.S. Fish and Wildlife Service
- Colorado Sportsmen Wildlife Fund
- Environmental Learning for Kids
- Colorado Walleye Association
- Colorado Women Flyfishers
- Boys and Girls Clubs
- Big Brothers Big Sisters
- Girl Scouts/Boy Scouts
- 4H Sportfishing Extension Program
- Police and Sheriff Departments Statewide
- Ute and Southern Ute Mountain Indian Tribes
- Orvis
- Eagle Claw/Wright and McGill

Colorado Parks and Wildlife took the following actions related to the angler education program during FY 2011-12:

- Participated in numerous “Get Outdoors” activities including: the National Get Outdoors Day Celebration, National Hunting and Fishing Day Celebration, advanced fly fishing and ice fishing clinics and family fishing events at State Parks.
- Conducted or assisted partner groups in holding more than 100 fishing clinics, involving 5,000 participants, at Lake Leehow, a facility in southwest Denver dedicated to teaching youth and their families fishing skills.
- Employees and volunteers staffed the International Sportsman Expo Youth Fishing Pond for the fourth year in a row. More than 2,400 youth caught fish during the four days of the show.
- Education staff worked with the state fish hatchery system to standardize educational outreach messages.
- Partnered with the Colorado Sportsmen Wildlife Fund on fishing clinics in communities from Glenwood Springs to the Grand Junction/Delta area.
- Employees led an Angler Recruitment and Retention Committee tasked with coordinating efforts to encourage fishing across the state.
- Created a Fishing Instructor Program in the northeast region to expand CPW’s capacity to hold angling clinics.



WATCHABLE WILDLIFE

Colorado Parks and Wildlife reaches Watchable Wildlife goals through a wide variety of programs, or work packages. These programs involve the development and support of viewing opportunities such as wildlife festivals, viewing sites, and viewing skills workshops -- often partnering with local governments -- as well as volunteer programs. In FY 2011-12, a portion of the GOCO funding was used to support these programs. A total of 2.55 FTE were expended on watchable wildlife programs by CPW; GOCO funding supported 2.47 FTE, or 96.9%.

FY 2011-12 WATCHABLE WILDLIFE SUMMARY	
GRANT NAME	FY 2011-12 GOCO EXPENDITURES
Wildlife Viewing	\$343,248.75
Wildlife Viewing – Capital	\$44,307.40
Total	\$387,556.15
FTE	2.47

WILDLIFE VIEWING

Colorado Parks and Wildlife’s Watchable Wildlife programs reach out to a significant segment of Colorado’s population that does not hunt or fish but who are interested in the state’s wildlife resources. Watchable Wildlife programs also inform millions of citizens and visitors of the many program and project building blocks that support and preserve the wildlife viewing opportunities that they are able to enjoy. These efforts provide a range of Watchable Wildlife programs to citizens that might not otherwise have the opportunity to learn about wildlife management and issues in the state.



In Colorado, more than 1.2 million individuals, residents and nonresidents alike, take more than 4 million trips to view wildlife annually. The significant state and local economic impact of wildlife watching activities – generating an estimated \$1.2 billion in annual economic activity and supporting nearly 13,000 jobs in Colorado – has laid the groundwork for a new and expanded set of partners for CPW wildlife programs.

Wildlife Viewing Festivals and Events:

An estimated 170,000 people took part in more than 25 wildlife viewing events or festivals across Colorado in FY 2011-12. CPW Watchable Wildlife program staff was involved in planning for or assisting with the following wildlife festivals and events during FY 2011-12:

- Monte Vista Crane Festival
- Greater Prairie Chicken viewing -- Wray
- Bald Eagle Days -- Pueblo Reservoir
- Garden of the Gods Bighorn Sheep Festival Day -- Colorado Springs
- Hummingbird Festival -- Colorado Springs
- Eckert Crane Festival
- Snow Goose Festival -- Lamar

- Gunnison Sage-Grouse Festival -- Gunnison
- Mountain Plover Festival -- Karval
- Bighorn Sheep Festival -- Georgetown
- Greater Sage-Grouse lek tours -- Walden
- Ute Mountain Birding Festival – Cortez

Colorado Parks and Wildlife took the following additional actions related to wildlife festivals during FY 2011-12:

- Partnered with the National Park Service to coordinate the Bent on Birding festival with Bent's Old Fort's "Transportation Days", resulting in a significant increase in overall activities and attendance.
- Expanded CPW's presence at two wildlife festivals in the southwest region – The Eckert Crane Festival and the Gunnison Sage-Grouse Festival.

See attached Colorado Parks and Wildlife press release – “Georgetown Bighorn Sheep Fest Nov. 12” – discussing the Georgetown Bighorn Sheep Festival.

Watchable Wildlife with Partners:



Colorado Parks and Wildlife works closely with many outside organizations to incorporate watchable wildlife viewing and educational information into their projects and initiatives. Among such partners are state and local park departments, scenic and historic byway organizations, local Chambers of Commerce, land trusts and others.

Colorado Parks and Wildlife took the following actions related to watchable wildlife with partners during FY 2011-12:

- Initiated work to establish the Northwest Region Colorado Birding Trail. First year activities included site descriptions, driving loop designations, and informational meetings for CPW staff. Identified 147 possible sites and 13 driving loops.
- Hosted the 3rd annual Grand Mesa Moose Day with the US Forest Service at the Grand Mesa Visitor Center. Approximately 450 attendees received information on viewing, safety around moose, and moose viewing activities for kids.
- Designed and printed “Moose in Area” posters and moose-snowmobile conflict flyers to be distributed by Northwest Region personnel.
- Co-sponsored greater sage-grouse viewing tours in the Craig area with the Colorado Environmental Coalition.
- Printed 20,000 Southeast Colorado Birding Trail guides.
- Installed four birding trail gateway kiosks in Eads, Granada, Springfield and Fowler.
- Installed interpretive signs at 11 campgrounds and entrance signs at 7 State Wildlife Areas, including Karval, Clear Creek Reservoir, Kinney Lake and Brush Hollow Reservoir.
- Provided an educational booth as part of “Pedal the Plains”.

- Developed a special advertising insert for Audubon magazine in partnership with the Colorado Tourism Office, Southwest Colorado, the town of Aspen, and Canyons and Plains.

Volunteer Programs:

Colorado Parks and Wildlife’s Volunteer Program helps provide a skilled and knowledgeable workforce to augment programs and initiatives. Volunteers assist in a full range of activities, from customer service in offices and on State Wildlife Areas to field work helping with species surveys.

Nearly 750 volunteers worked on 239 CPW projects in FY 2011-12, providing 51,000 hours of work, or the workload of approximately 24.5 FTE. Volunteers donated time and energy worth more than \$1.1 million to the CPW’s wildlife programs.

Colorado Parks and Wildlife benefitted from the following volunteer efforts during FY 2011-12:

- More than 1,000 hours assisting fishing clinics.
- More than 4,300 hours as hosts for CPW fish hatchery tours and at State Wildlife Areas.
- 1,500 hours in bighorn sheep population count projects.
- 700 hours conducting in-stream fish population surveys (i.e.; electroshocking).
- More than 1,000 hours transporting injured animals to wildlife rehabilitators.

WATCHABLE WILDLIFE – CAPITAL

Watchable Wildlife on State Wildlife Areas:

Colorado Parks and Wildlife completed the following watchable wildlife capital projects on state wildlife areas during FY 2011-12:

- Installed 6 interpretive kiosks at Lake Avery on the Oak Ridge SWA, including maps, regulations and information for visitors.
- Supplemented material costs for an Eagle Scout bridge construction project on Leatha Jean Stassen SWA.
- Designed and purchased interpretive mountain goat signage (e.g.; “Do not feed or harass the mountain goats”).
- Initiated work on an ADA-accessible path and viewing blind on the Shriver-Wright State Wildlife Area. Partners in the project include the Rio Grande Headwaters Trust, the US Bureau of Land Management and the Southwest Conservation Corps.

OUTDOOR DISCOVERY CENTER

The proposed Outdoor Discovery Center (ODC) is a facility to be located adjacent to a new regional Colorado Parks and Wildlife office in Gunnison. The ODC will provide a hands-on outdoor experience for Colorado citizens and visitors in the heart of the Gunnison Valley, a popular destination for a wide variety of outdoor enthusiasts. The ODC, to be located on a nine-acre parcel of land along the Tomichi Creek east of Gunnison, will include wildlife and natural resource educational displays, as well as instruction facilities that will give visitors an introduction to Colorado's varied outdoor recreation opportunities.

On October 8, 2010, the Great Outdoors Colorado Board approved a grant of \$400,000 for design and engineering work on the Outdoor Discovery Center.

FY 2011-12 OUTDOOR DISCOVERY CENTER SUMMARY	
GRANT NAME	FY 2011-12 GOCO EXPENDITURES
Outdoor Discovery Center	\$400,000
Total	\$400,000
FTE	0

An architecture and design firm was contracted with by CPW to develop plans for the ODC, and preliminary designs were prepared. However, as a result of changing financial conditions, the ODC is on indefinite hold and other capital projects have been put on hold, delayed or cancelled.



4/30/2012
Division of Wildlife

Students, scientists team up on stream survey

SPRINGFIELD, Colo. - A team of 20 Campo School students armed with sharp eyes and nets helped scientists learn more about a rare Eastern Plains fish community last week by participating in an aquatic life survey on the East Fork of Carrizzo Creek as it runs through the Sikes Ranch in southeastern Colorado.

Working alongside Colorado Parks and Wildlife biologists, the students collected fish stunned by a mild electric shock, netted them and then recorded data such as species, size and location. Fish were also collected using trap nets, dip nets and seines. The information will be used to help develop management goals for the property.

"This is a fun science project that gave students an experience that will have a long-lasting impact," said Chris Pague, lead scientist for the Nature Conservancy of Colorado, which partnered with the state agency on the project. "The Sikes Ranch is a unique piece of property with amazing pools and streams. Some of the fish and plants found here are not found anywhere else in the state."

The 7,100-acre ranch, located between the small communities of Pritchett and Kim, consists of shortgrass prairie, riparian woodlands, rocky outcrops, shrublands, marshes and an Eastern Plains stream. The headwaters of the East Fork of Carrizo Creek provide a critical and unique riparian corridor for migrating waterfowl and amphibians as well as native prairie fishes. The property also has three crop circles irrigated from well water that provide feeding areas for mule deer and white-tailed deer as well as several species of birds including quail and lesser prairie chicken.

Management goals could include protecting portions of the water with fences and managing grazing to ensure water is delivered to livestock while protecting the vegetation and stream banks.

"Without the efforts of landowners like the Sikes, Coloradans would not enjoy the remarkable wildlife heritage we have today," said District Wildlife Manager Aaron Bartleson of Springfield. "This research will paint a clear picture of how amphibians and fish are doing in this area. We can use this data to work with the Sikes family and the Conservancy to help protect this important habitat."

The stream survey by the Conservancy and Colorado Parks and Wildlife is part of a broader conservation effort to protect the Sikes Ranch and provide recreation for Coloradoans. The Nature Conservancy will place a conservation easement on 7,100 acres of the ranch, which will help support the family's bottom line while precluding future development. Once that's completed, Colorado Parks and Wildlife will place a public access easement on the land, which means people can hike to observe wildlife and hunt in the area.

"We're thrilled we can provide this opportunity to connect people with the landscape," added Bartleson "Some of life's best memories are made outdoors."

The Nature Conservancy is a leading conservation organization working around the world to protect ecologically important lands and waters for nature and people. To date, the Conservancy and its more than 1 million members have helped protect 130 million acres worldwide. Visit The Nature Conservancy on the Web at www.nature.org/Colorado.



4/3/2012
Division of Wildlife

Beach closures to protect rare birds

LAMAR, Colo. - Colorado Parks and Wildlife officials are asking visitors to John Martin, Adobe Creek and Nee Gronda Reservoirs for help in protecting two rare shorebirds that nest in Colorado.

As in previous years, parks and wildlife managers will be closing access to some shoreline areas to protect the nests of least terns and piping plovers. The closures, which may be several acres in size, will run from early April through mid-August.

"These are little birds that are really good at blending into sandy shorelines," explained Mike Smith, Conservation Biologist for Colorado Parks and Wildlife in the Lamar area. "We'll have volunteers and staff biologists marking off the nesting areas, but we also ask visitors to be on the lookout for their hard-to-see nest scrapes and eggs."

The least tern is a small, swallow-like bird with black outer wing feathers that is sometimes seen diving head-first into the water after fish. The smallest of the North American terns, it can be identified by its distinctive black crown, white forehead and black-tipped yellow bill. Both Colorado and the federal government have designated the least tern as an endangered species.

The piping plover is a tiny shorebird with pale brown plumage and a black bar across the forehead. Piping plovers typically nest on sandy lakeshore beaches or on river sandbars that are free of vegetation, relying on their cryptic coloration as camouflage from predators. The piping plover is listed as a threatened species by the state of Colorado and under the federal Endangered Species Act.

Protecting nesting areas along recreational shorelines is the most effective way to support the recovery of least tern and piping plover populations, biologists say. In Colorado, the least tern and piping plover are found only in the southeast part of the state. They can also be found in other states with adequate shore nesting habitat.

Smith said that closed areas will be marked off with temporary fencing and orange baling twine. Physically disturbing a closed area, allowing dogs to run off leash or violating road closures can result in citations for offenders. Areas around the reservoirs will be patrolled by rangers and wildlife managers with Colorado Parks and Wildlife. A pamphlet explaining the closure areas is available at the John Martin Reservoir State Park entrance station and volunteers will be working to educate visitors about the protections that are in place.

John Martin Reservoir State Park is located in Bent County, near the town of Las Animas. John Martin Reservoir provides boating, waterskiing and wind watersport activities as well as fishing for walleye, bass, yellow perch, crappie and catfish. A state parks pass is required for entry.

Adobe Creek Reservoir, also known as Blue Lake, straddles the Kiowa-Bent county line and is

surrounded by the Adobe Creek Reservoir State Wildlife Area. In addition to boating and camping, Adobe Creek Reservoir offers anglers the opportunity to fish for walleye, crappie, tiger muskie, bass and blue gill.

Nee Gronda Reservoir is one of several small lakes that make up the Queens State Wildlife Area in Kiowa County. Nee Gronda provides some fishing opportunity, but the other reservoirs in the wildlife area are currently dry or unfishable.

Anyone interested in volunteering to protect nesting shorebird sites or to educate summer visitors about the birds is encouraged to contact Jena Sanchez, Volunteer Coordinator for Colorado Parks and Wildlife in Colorado Springs at 719-227-5204 or at jena.sanchez@state.co.us.

Additional information about least terns can be found at <http://wildlife.state.co.us/WildlifeSpecies/Profiles/Birds/Pages/LeastTern.aspx>.

Additional information about piping plover can be found at <http://wildlife.state.co.us/WildlifeSpecies/Profiles/Birds/Pages/PipingPlover.aspx>.

Information about John Martin Reservoir State Park can be found online at <http://www.parks.state.co.us/Parks/JohnMartinReservoir/Pages/John%20Martin%20Reservoir.aspx>



1/30/2012
Division of Wildlife

Researchers monitoring Colorado bat populations

DENVER - Colorado Parks and Wildlife researchers have seen no sign of the deadly white-nose syndrome in Colorado's bat populations but say monitoring and help from the public will still be needed in 2012.

"Many bat populations are found in caves and mines on private land," explained Tina Jackson, who heads the bat conservation work of Colorado Parks and Wildlife. "As we did last year, we'd like the public to let us know if they find dead bats this winter."

Bats typically hibernate during Colorado's cold winter months but bats affected by white-nose syndrome may move toward cave entrances or leave hibernation sites entirely. Bats that die near cave entrances or are found outside of caves during the winter months are also of interest to researchers and wildlife managers.

"We're asking anyone who sees unusual bat activity or finds dead bats this winter to contact us so that we can test to determine what's going on," Jackson explained.

In addition, wildlife researchers are also conducting winter and spring surveys to assess bat populations and sample for disease.

White-nose syndrome is named for the white, powder-like material seen on the nose, ears, and wings of infected bats. Without any natural protections, white-nose syndrome can wipe out 95 percent of a bat colony in a couple of years. It has been predicted that white-nose syndrome could eliminate little brown bats in the northeastern U.S. within 16 years.

White-nose syndrome has not been found in Colorado. Since being first documented in 2007 in a cave in New York, white-nose syndrome has spread to 19 states and four Canadian provinces. The U.S. Fish and Wildlife Service estimates that white-nose syndrome has resulted in the death of up to 6.7 million bats in North America. In 2010, a bat found in a cave in northwestern Oklahoma, less than 200 miles from the Colorado border tested positive for the fungus.

Scientists are still learning about white-nose syndrome, which strikes bats during hibernation, when bat immune systems effectively shut down, allowing the fungus to become established. Bats in colonies infected with white-nose syndrome arouse from hibernation more frequently than uninfected populations, possibly because of irritation, hunger or thirst. The increased number of arousals from hibernation quickly depletes the bat's fat reserves and results in starvation. The fungus also causes significant damage to the wings, affecting the health of the bat and perhaps compromising their ability to fly and capture insects.

Colorado is home to at least 18 species of bats, 13 of which are believed to hibernate in the state. Bats that migrate to warmer climates for the winter are not believed to be affected by white-nose syndrome. All the bat species found in Colorado are insect eaters, in some cases eating thousands

of insects a night. This diet of night-flying insects makes bats important for the control of agricultural and human pests. Bats are also important to the underground environments they roost in, bringing energy into these mostly closed systems in the form of guano.

The public is asked to not disturb hibernating bats and to respect cave closures. While the public is asked to avoid going near bat caves and abandoned mines, people are being asked to report if they see any signs of white-nose syndrome. Signs include:

- Bats moving to the openings of the hibernation site during the winter
- Bats leaving hibernation sites in the winter, especially on cold days
- Bats with a white powder-like material on their nose, ears or wings
- Dead bats

Members of the public who see any active or dead bats this winter are asked to report that information to a special phone line (303-291-7771) or e-mail address (Wildlife.Batline@state.co.us). Because bats also can be affected by other health problems, including rabies, people should use precautions such as disposable gloves or an inverted plastic bag when handling bat carcasses. The public is also advised not handle live bats that appear to be ill.

For more information on white-nose syndrome, visit:
<http://wildlife.state.co.us/Research/WildlifeHealth/WNS/>

The U.S. Fish and Wildlife Service has photos of white-nose syndrome affected bats in the eastern United States available on its website at: <http://www.fws.gov/whitenosesyndrome/photos.html>



10/21/2011
Division of Wildlife

Georgetown Bighorn Sheep Fest Nov. 12

GEORGETOWN, Colo. -- The clash of ram's horns will reverberate through the canyon as Georgetown celebrates the sixth annual Georgetown Bighorn Sheep Festival honoring Colorado's state mammal on Nov. 12. The celebration is scheduled during the peak of bighorn sheep breeding season when displays of dominance are at their peak.

Nestled next to I-70 and a corridor claiming the largest herd of bighorn sheep in the state, Georgetown is set to celebrate this treasured animal and help visitors learn about the habits and nature of these home-grown, high-altitude rock climbers.

"During the breeding season, November and December, bighorn sheep display some of their most interesting behaviors," said Mary McCormac, Education Coordinator for the northeast region at Colorado Parks and Wildlife. "From clashing horns to lip curls, the sheep put on a good show for wildlife watchers and Georgetown provides the ideal location to see the sheep in action!"

Trained CPW volunteers will be on hand at the bighorn sheep viewing station to help viewers locate the sheep, as well as offer a cup of hot cider or cocoa and a brief lesson on these majestic mammals. Friends and families can enjoy the FREE educational programs and numerous activities provided throughout the day.

Activities:

- Climb like a bighorn sheep on the climbing wall provided by the Colorado Army National Guard
- Make sheep horns of your own to take home or get your face painted like a sheep - showcase all in the noon parade led by Elbert the Bighorn
- Learn about bighorn behavior while dancing the bighorn sheep hokey pokey with Elbert the Bighorn
- Sit by the fire, listen to live music, and visit partner organization booths in the park
- Try Tommyknocker's own bighorn sheep brew, Butt Head Bock Lager, or snack on festival fare in the park
- Shop for wildlife-related art, gifts, crafts, and other merchandise in downtown Georgetown
- Enjoy mountain views and learn about Georgetown's history and bighorn sheep on a Georgetown Loop Railroad tour

Presentations:

- 11 a.m.: *Catching Poachers: A Behind-the-Scenes Look at Protecting Colorado's Wildlife*
- 1:30 p.m.: *Bighorn Sheep of Georgetown*

-2:30 p.m.: *Winter Bird Feeding*

Festival Activities Guide:

See the final schedule of events at

<http://wildlife.state.co.us/SiteCollectionDocuments/DOW/Viewing/PDF/GTownBighornSheepFestival2011.pdf>
or pick up a schedule on-site at the Gateway Visitor Center or the Georgetown Community Center. All of these events are free.

Georgetown is located just less than an hour west of Denver on I-70. Programs and activities take place in several venues throughout town, but most are on 6th Street.

WHAT: Georgetown Bighorn Sheep Festival: A Saturday of free family-friendly and wildlife fun.

WHERE: Town of Georgetown: One hour west of Denver on I-70.

WHEN: Saturday, November 12, 2011, 10 a.m. to 4 p.m.

CONTACT: Mary McCormac, NE Region Education Coordinator, 303-291-7328 or mary.mccormac@state.co.us

For more comprehensive information regarding data compiled, results and/or ongoing monitoring, and accomplishments of CPW, please visit the websites listed in the table below.

Program	Web address
Colorado Wildlife Heritage Protection Initiative	http://wildlife.state.co.us/WILDLIFESPECIES/Pages/WildlifeSpecies.aspx
Wetlands Program	http://wildlife.state.co.us/LandWater/Pages/LandWater.aspx
Geographic Information System (GIS)	http://wildlife.state.co.us/Maps/Pages/Maps.aspx
Data Sets for CPW Species	http://www.arcgis.com/home/search.html?q=Colorado%20Parks%20and%20Wildlife&t=groups
Private Lands Programs	http://wildlife.state.co.us/LandWater/Pages/LandWater.aspx
Species Recovery	http://wildlife.state.co.us/WILDLIFESPECIES/Pages/WildlifeSpecies.aspx
Species Research	http://wildlife.state.co.us/WILDLIFESPECIES/Pages/WildlifeSpecies.aspx
Conservation Plans	http://wildlife.state.co.us/WILDLIFESPECIES/Pages/WildlifeSpecies.aspx
Mexican Spotted Owl Recovery Plan	http://www.fws.gov/southwest/ES/Documents/R2ES/MSO_Recovery_Plan_First_Revision_Dec2012.pdf
Gunnison Sage Grouse	http://wildlife.state.co.us/SiteCollectionDocuments/DOW/Commission/2013/Feb/ITEM21-GUNNISONSSAGEGROUSE.pdf
Youth and Teacher Education	http://wildlife.state.co.us/Education/Pages/Education.aspx
Angler Clinics & Education	http://wildlife.state.co.us/Fishing/Pages/Fishing.aspx
Volunteer Program	http://wildlife.state.co.us/Volunteer/Pages/Volunteer.aspx
Wildlife Viewing	http://wildlife.state.co.us/WILDLIFESPECIES/Pages/WildlifeSpecies.aspx

**FY 2011-12 CROSS-REFERENCE CHART
FOR GOCO LOG NUMBERS
AND COLORADO PARKS AND WILDLIFE WORK PACKAGES**

GRANT NAME	GOCO LOG NUMBERS	CPW WORK PACKAGE NUMBERS
Acquire High Priority Habitat	10150, 11150, 11151	0320, 0330
Enhance Habitat on Lands and Water	11152	0350, 0360, 0370, 0380, 0438
GIS Habitat Information	11154	0450, 0461
Wetlands Conservation	9153, 10153, 11153	0436
Colorado Wildlife Habitat Protection Program	8729	0320
Threatened and Endangered Species Recovery	11157	0810, 0815, 0820, 0830, 0835, 0841, 0842, 0850, 0860, 0870, 0880, 0662, 0710
Native Species Protection	11156	0560, 0638, 0639, 0641-0652, 0656-0660, 0663-0666, 0670, 0680, 0686
Propagation of Aquatic Species at Risk	11155	0570
Youth Education	11158	6130, 6140, 6150, 6160, 6260, 6290, 6581
River Stewardship	11160	6420
Wildlife Viewing	8161, 9161, 11162	5110, 5210, 5260, 5310
Outdoor Discovery Center	11149	7210
Interest Expense	11163	N/A