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Biological Resources of El Paso County



Photo by Mike Bonar/elkriverphotography.com



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National Customer Service Center 1-800-344-WILD

Colorado Field Office (303) 236-4773

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National Headquarters General Questions (202) 761-0011

Southern Colorado Regulatory Office (719) 543-9459

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Mike Bonar/elkriverphotography.com

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Updated: 2013

Springtime is coming when we start hearing the familiar drumming on the gutter at five in the morning. The culprit is usually a northern flicker. Many think that this bird is confused by banging on metal instead of wood but, in actuality, it is maximizing the qualities of its surroundings.

When a flicker pecks on the metal on our houses, he is staking out his territory or attempting to attract a mate. This is called drumming and generally occurs from March to June. While annoying, this activity does not typically cause damage to homes.



Geoff Tischbein/CDOW



Dave Menke/USFWS

Flickers can also use our homes and surrounding trees to excavate a cavity for nesting. According to the Migratory Bird Treaty Act, if a nest is found, it is illegal to destroy that nest, harm any eggs or young, or chase away the adults.

Watch until the young birds have left the nest and then seal up the hole. If you continue to have issues with flickers insistent upon nesting in your house, consider putting up a flicker nesting box. If the flicker moves into the box, it will stop pecking on your house. Additionally, as flickers are territorial, if you have one nesting pair, they will tend to keep other nesting pairs away.

Northern Flickers



Female



Male

Flicker (*Colpates auratus*) Facts

- Flickers are woodpeckers
- Often seen on the ground eating ants and beetles
- Clutch size is typically 5-8 eggs
- Very colorful with red moustaches (on males), black bibs on the upper breast, black spots on the lower breast, horizontal black bars on the back, red shafts on the flight feathers, bright white rumps visible in flight

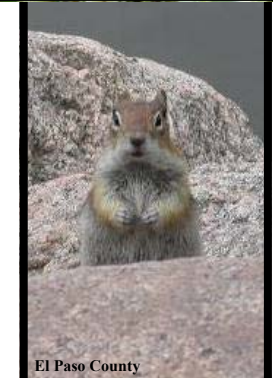
Biological Resources of El Paso County

Located in east-central Colorado, El Paso County encompasses more than 2,158 square miles and is located at the interface of the Rocky Mountains and the great plains. Elevation within El Paso County ranges from around 5,100 feet near the southern border at Black Squirrel Creek to 14,110 feet on the summit of Pikes Peak.

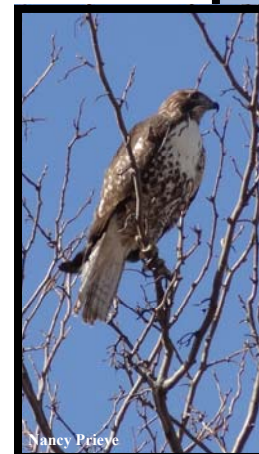
This significant elevational variation provides for a wide array of biological diversity within the Pikes Peak region. Habitat within the county ranges from the grassy plains in the east to the alpine tundra found on Pikes Peak, and within these habitats species range from pronghorn and rattlesnakes, to black bears and mountain lions, to bighorn sheep and pika. El Paso County's diversity provides its citizens unending opportunities to observe and partake in the natural wonders present at every turn.



El Paso County



El Paso County



Nancy Prieve



El Paso County



While it is easy to see the need to care for and protect the eagles, deer and Rocky mountain columbine, the value of the smaller, not so easily observed plant and animal species is less prominent. The world is shared with other creatures, and the stewardship of this planet is our responsibility.



Have you ever stood in reverence of the beauty of Pikes Peak, taking in the glory of America's mountain? Marveled at the majesty of a bald eagle soaring high above? Or, enjoyed the fluttering of songbirds delicately balancing on the feeder outside your window? These are examples of our natural heritage.

Citizens of Colorado are extremely lucky in that our natural resources encompass ecosystems ranging from tallgrass prairie to alpine peaks, rugged canyons to sagebrush deserts, and dense forests to open tundra. Within each of these unique ecosystems, we are given the opportunity to glimpse into the lives of the living things that inhabit them.



Bats are amazing, unique animals. They are the only true flying mammals and, contrary to popular belief, actually have good eyesight. Their ability to fly at night depends on echolocation, a type of "radar" that allows them to "see" through the emission and analysis of reflected sound. Bats worldwide provide an invaluable service to humankind by eating literally tons of insects every night.



Numbering over 1,000 species, bats range from the tiny bumblebee bat weighing less than a penny to the giant flying foxes with wing spans of over six feet. Eighteen species of bats are known to inhabit Colorado, all of which are insectivorous. More information related to these species can be found on the Colorado Division of Parks and Wildlife website.



Bats can occasionally become a problem if they begin roosting in a building. In order to address this issue, locate and seal off the access point or points. This should be done in the fall or winter in order to avoid needlessly killing any babies that may be present in the building. Despite many unfounded fears, bats are good animals to have in your neighborhood as they consume large quantities of insects. However, remember that bats do have the potential to carry rabies and should not be handled.

Bats



Nancy Prieve

Bat Facts

- More than two-thirds of all bat species hunt insects
- A single little brown bat can eat up to 1,000 mosquito-sized insects in a single hour
- Other bat species feed on the fruit or nectar of plants, playing a vital role in pollination and seed dispersal
- Bananas, avocados, dates, figs, peaches, mangoes, durian, cloves, cashews, carob and balsa wood all depend on bats for seed dispersal
- A small percentage of bats eat fish, mice, frogs or other small vertebrates
- Only three species, all in Latin America, feed on blood, lapping rather than sucking from small cuts made on their prey
- The anti-coagulant in vampire bat saliva is a very potent blood-clot dissolver utilized in the treatment of human stroke victims
- Mother bats typically raise only one pup per year

There are numerous practical reasons why the protection of species and their habitats is important to humankind. The natural world exists within a complex network of delicately balanced plants and animals. It is unknown to what extent the removal of just one species will affect that balance. An example is a car engine. It may go for a long time with various parts leaking and faltering, but at some point, the failure of one part, even a seemingly inconsequential one, may leave you stranded.



A diverse natural world is important to agriculture. Worldwide, the consumption of mass quantities of insects by bats minimizes the need for chemical insecticides. Undiscovered plants may exist which could hold future solutions to food shortages.



Healthy natural diversity lends itself to advances in medicine. A cure for cancer or Alzheimer's may lie in the chemicals present in that nondescript plant on the hillside. If it is gone forever, we will never know. Numerous cancer-fighting drugs have already been developed from wild plants, and the venom of tarantulas has proven useful in providing chemicals for possible treatments of neurological disorders such as Parkinson's disease.



The health of plants and animals provide indicators of the health of the world in which we, too, live. If species are extinguished, no matter how insignificant they may seem, we will never know what opportunities may have been lost.

Federally Threatened and Endangered Species



Patrick Kobayashi/USFWS

The United States Congress passed the Endangered Species Act (ESA) (16 U.S.C.A §§1531-1543) in 1973 in order to protect various species of plants, invertebrates, fish and other wildlife from extinction. Protections under the ESA extend to the habitats on which these species depend, as well.

The ESA is administered at the federal level by the U.S. Fish and Wildlife Service (terrestrial and freshwater species) and the National Marine Fisheries Service (marine species).



USFWS



Gary Peeples/USFWS



Noel Snyder/USFWS

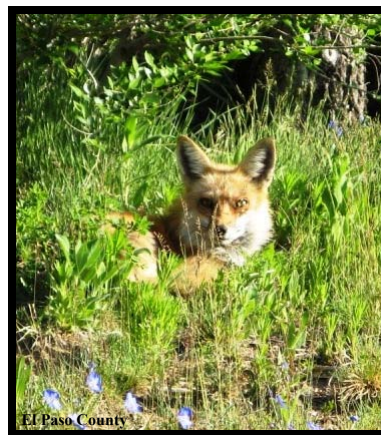
Under the ESA, a species may be listed as either endangered if it is in danger of extinction throughout all or a significant portion of its range or threatened if it is likely to become endangered within the foreseeable future.

The ESA makes it unlawful for anyone to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect a listed animal or significantly modify its habitat. Following are the three listed species having the greatest potential to be encountered within El Paso County.



Ryan Hagerty/USFWS

Red Fox (*Vulpes vulpes*) Facts



El Paso County

- Four species of fox are found in Colorado: red, gray, swift and kit
- Red foxes are the species most commonly found in urban areas
- Red foxes eat rodents, rabbits and birds
- Red fox litters typically consist of four pups

Striped Skunk (*Mephitis mephitis*) Facts

- Four species of skunk are found in Colorado: striped, eastern spotted, western spotted and hog-nosed
- Striped skunks typically have seven young per litter
- Striped skunks are the species most commonly found in urban areas
- Skunks eat mice, carrion, fruit, insects, larvae, birds and eggs



Washington DC Library



Nancy Prieve

Raccoons/Foxes/Skunks

As with coyotes, these are species that have adapted well to urban settings and human presence. While they can be fun to watch wandering around the yard, it is important to remember they are not cuddly pets and should be given the respect of any wild animal. These species can also pose very real threats to domestic pets. Common sense should be exercised in limiting attractants to these species such as trash and pet food. Wild animals should not be fed as a means of attracting them to your yard, as this activity places both pets and the wild animals themselves into dangerous situations.

Raccoons (*Procyon lotor*) Facts



- Black face masks
- Bushy ringed tails
- 2-3 feet long including the tail
- Weigh 8-22 pounds
- Will eat almost anything
- Typically rinse/manipulate their food before eating it
- Litters consist of 3-4 young



Preble's Meadow Jumping Mouse (Threatened)

The Preble's meadow jumping mouse (*Zapus hudsonius preblei*) (Preble's mouse) is a small rodent approximately nine inches long with very long hind feet designed for jumping. The Preble's mouse is nocturnal with a diet of insects, seeds, fungi and fruit.



Habitat for the species consists of well-vegetated riparian corridors and adjacent upland habitats. Riparian corridors within the Air Force Academy are examples of good quality Preble's mouse habitat. The species is found in the foothills along the eastern edge of the Front Range from southeastern Wyoming to Colorado Springs.



The Preble's mouse was listed as a threatened species under the ESA in May 1998 due to habitat loss and degradation caused by agricultural, residential, commercial and industrial development.

In July 2008, ESA protections for the species were removed for Wyoming populations but remained in place for Colorado populations. In August 2011, ESA protections were reinstated for the Preble's mouse in Wyoming, providing for protection of the species throughout its range. Currently, any ground-disturbing activities within El Paso County that occur within 300 feet of a stream or the edge of the 100-year floodplain, whichever is greater, must address the Preble's mouse. Project proponents planning work within these areas should contact the U.S. Fish and Wildlife Service's office in Denver with details regarding the proposed project.

Mexican Spotted Owl

(Threatened)

The Mexican spotted owl (*Strix occidentalis lucida*) (Spotted owl) is a large bird ranging in size from 16-19 inches long. As in many owl species, females tend to be larger than males. The Spotted owl is mottled with irregular brown and white spots on its head, back and abdomen. This is the only species of large owl with dark eyes.



Spotted owl habitat consists of rocky canyons and old-growth forested mountains. The species ranges in scattered areas from southern Utah and Colorado to central Mexico. Colorado Breeding Bird Atlas historical records indicate possible breeding populations occurring in the southern base of Pikes Peak.



The Spotted owl was listed as a threatened species under the ESA in 1993 due to low population numbers and habitat loss. Proposed projects in the southwestern portion of El Paso County that may disturb forested mountains or rocky canyons should be assessed for the presence of Spotted owls.



While observing mule deer is usually a desirable experience, they can become a problem when feeding in urban areas. For those attempting to grow ornamental plants or gardens, deer can become a problem as those plants are often desirable food sources. If you live in areas frequented by deer, there are numerous species of plants that are beautiful as well as undesirable to deer.



The Colorado State Extension office website at <http://www.ext.colostate.edu/pubs/natres/06520.html> maintains a list of common ornamental species and their desirability to deer.

Fencing is another option for addressing deer problems. Please be aware that fencing can pose an incredible threat to wildlife. Deer and other animals that get hung up on improper fencing die terrible deaths. The Colorado Division of Parks and Wildlife has prepared a brochure with descriptions of effective, yet wildlife-friendly fencing.

Additionally, please be aware that it is illegal to distribute feed or salt blocks to big game animals.



Mule Deer



Mule Deer (*Odocoileus hemionus*) Facts

- Colorado is home to the largest subspecies of mule deer
- Occupy all ecosystems in Colorado from grasslands to alpine tundra
- Yearlings typically produce one fawn while healthy older females produce twins
- White-tailed deer can also be found in El Paso County

White-tailed Deer

White-tails differ from mule deer in that they have smaller ears, antlers with a single main beam bearing smaller tines, and broad, white tails.



Greenback Cutthroat Trout (Threatened)

The greenback cutthroat trout (*Oncorhynchus clarki stomias*) (Greenback trout) was named as Colorado's state fish in 1994. The species has dark, round spots on its sides and tail and gets its name from the blood-red stripes on each side of the throat.



While the species historically ranged throughout the mountain and foothill regions of the Arkansas and South Platte river systems, it is currently found in only a handful of headwater streams in these drainages. Within El Paso County, Greenback trout are found in two creeks located on the side of Pikes Peak.



The Greenback trout was listed as an endangered species in 1973 due to the introduction of non-native trout species, over-harvest and habitat alternation. The success of breeding projects led to the downlisting of the species from endangered to threatened in 1978.

Other Federally Listed Species in El Paso County



As well as the previous three species, the U.S. Fish and Wildlife Service lists several additional threatened and endangered species for El Paso County. Although historical records for these species within El Paso County exist, the environment has changed to the extent that these species are likely extirpated from the county. Despite the unlikelihood of encountering these species, all protections afforded under the ESA are still extended to them. These species include the whooping crane (*Grus americana*) (endangered), piping plover (*Charadrius melodus*) (threatened), least tern interior population (*Sterna antillarum*) (endangered) and Ute-ladies' tresses orchid (*Spiranthes diluvialis*) (threatened).



As with bears, problems with coyotes generally result from the animal having lost its fear of humans. Coyotes are extremely adaptable adjusting well to urban settings. The availability of food, water and shelter make urban settings desirable to coyotes. Removing potential food sources – trash, pet food and pets themselves – can aid in minimizing coyote problems. Coyotes will typically shy away from humans unless they are overly habituated to people.

Cats should be kept indoors and dogs leashed when walking or penned/supervised when in the yard. If approached by a coyote, make yourself larger by waving your arms and shout in a loud voice while backing away slowly. Do not turn and run as this may initiate a predatory instinct in the coyote.



It is important to remember that, while these animals can present a danger, many other things in our daily lives pose a far greater threat. More people die annually in the United States from domestic dog attacks than from black bears, mountain lions or coyotes. With a little common sense and responsibility, we can peacefully co-exist and enjoy the amazing creatures that occasionally wander into our lives.



More information on coyotes in Colorado can be found on the Colorado Division of Parks and Wildlife website.

Coyotes



Coyote (*Canis latrans*) Facts

- Members of the dog family
- About four feet long and weigh 30 to 40 pounds
- Will eat almost anything
- Usually have litters of three to twelve pups
- Both parents feed and protect their young
- Can run up to 40 mph

Federally Listed Candidate Species

In addition to threatened and endangered species, the U.S. Fish and Wildlife Service maintains a list of candidate species. These species are plants and animals for which there is sufficient information on their biological status and threats to propose them as either threatened or endangered under the ESA, but the development of a proposed listing regulation is precluded by other higher priority activities. Public and private conservation efforts are often put into place for candidate species in an attempt to avoid future threatened or endangered listings. These early, pro-active conservation efforts allow for greater management options for the species, lower recovery costs and the avoidance of the increased restrictions associated with a threatened or endangered listing. El Paso County currently has two species on the federal candidate list.



Arkansas Darter (Candidate Species)

The Arkansas darter (*Etheostoma cragini*) is a small, approximately 2½ inch long fish in the perch family. Arkansas darters have a brown body with black specks on the back, a dark spot beneath the eye, 12-14 vertical stripes along the side of the body and a white belly, except in breeding males which have an orange belly. The species is found within the Arkansas River basin. Within El Paso County, distribution of Arkansas darters includes Big Sandy, Black Squirrel, Chico, Jimmy Camp and Fountain Creeks. Threats to the species include water diversion and impoundment, impacts to streams and wetlands from livestock grazing and stream pollution.



Gunnison's Prairie Dog (Candidate Species)



The Gunnison's prairie dog (*Cynomys gunnisoni*) is one of five prairie dog species native to North America. Prairie dogs are considered keystone species creating habitat in the form of burrows which are utilized by many wildlife species, providing a food source for numerous predators, and improving habitat quality by aerating the soil and allowing for water penetration into the ground.

Gunnison's prairie dogs differ from the more common black-tailed prairie dogs in that they are smaller bodied, have whitish-gray tipped tails and are true hibernators. Gunnison's prairie dogs also tend to allow for more vegetative growth in their colonies than do black-tailed prairie dogs who tend to snip all vegetation to the ground. Within El Paso County, Gunnison's prairie dogs can be found near Monument. Threats to the species include extermination programs and plague, which was actually introduced to prairie dogs by humans, thus explaining their lack of resistance to the disease.



Mountain lions, while typically shy and elusive around humans, can pose a potential threat to people and pets. Mountain lions are increasingly encountered along the Front Range as we move further into their territory.

If you encounter a mountain lion, do not run as this will make you appear as prey. Instead, stand your ground, talk calmly yet firmly and make yourself look bigger by waving your arms in the air while backing slowly away. If a mountain lion attacks, fight back.



When walking in mountain lion country, keep children close and pets on leash as small children and pets appear as prey to mountain lions. Keep pets indoors at night. More information on mountain lions in Colorado can be found on the Colorado Division of Parks and Wildlife website.



Mountain Lions



Mountain Lion (*Felis concolor*) Facts

- Other names include puma, cougar, catamount and panther
- The largest cat north of Mexico
- Can be up to six feet long and weigh 130 pounds
- Deer are the major source of prey
- Will hide large carcasses and feed on them for several days
- Usually have litters of two to three kittens
- Solitary animals
- Occasionally reported on the eastern plains

Species Recently Proposed for Listing

A strict legal rulemaking process is followed in the listing of particular species as federally threatened or endangered. Included in this process is the collection and review of all available biological data on a species. Due to the number of species currently under threat, the time required to list a species and limitations in resources in addressing listed species, it is necessary to have a priority system regarding proposed species. Under this system, species are ranked first by the magnitude of the threat followed by the immediacy of the threat and finally by taxonomic distinctiveness. Within El Paso County, there have recently been three species that were under review for proposed listings. These are the mountain plover, northern leopard frog and black-tailed prairie dog. Upon review, it was determined that the listing of all three species was not warranted.

Mountain Plover



The mountain plover (*Charadrius montanus*) is a small, terrestrial shorebird similar in shape to a killdeer, only lacking the black breast band present in most other plovers. The mountain plover is found on dry shrublands, shortgrass prairie, barren agricultural fields and other sparsely vegetated areas including prairie dog towns and heavily grazed areas.

In 1999 and 2002, the U.S. Fish and Wildlife Service proposed listing this species as threatened. This proposal was withdrawn in 2003 then reopened in 2010 listing numerous potential threats to the species including the conversion of native prairie grasslands to cultivation and the loss of prairie dog colonies. In May 2011, it was determined that the species was not threatened or endangered due to the fact that breeding populations were larger than previously thought.



Northern Leopard Frog

The northern leopard frog (*Rana pipiens*) is a 2-4" long brown or green-colored frog with dark spots on its back and legs. Leopard frogs live in aquatic habitats next to streams and rivers, wetlands, ponds/pools, wet meadows and open fields near wetlands.



In October 2011, the U.S. Fish and Wildlife Service determined that listing the northern leopard frog was not warranted based on the fact that, although the species had experienced reductions in historical range, it generally remained widespread and common.

Black-tailed Prairie Dog



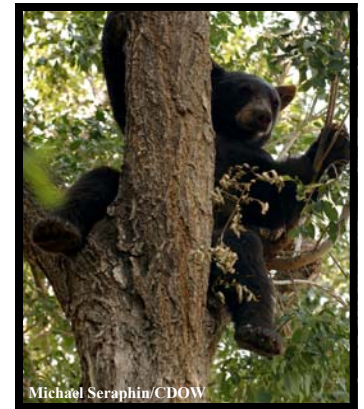
The black-tailed prairie dog (*Cynomys ludovicianus*) is one of five species of prairie dog occurring in North America. As the name suggests, the black-tailed prairie dog can be identified by the black tip on the tail. Historical habitat ranges for black-tailed prairie dogs are between 80

to 100 million acres. Current estimates of occupied habitat for the species are around 2.1 million acres. The significant decrease in these acreages led to a petition to list the black-tailed prairie dog as a threatened or endangered species in 2007. In 2009, the U.S. Fish and Wildlife Service announced that the listing of the species was not warranted at the present time.



Black bears are commonly encountered in the foothills of the Pikes Peak region. If you encounter a black bear, try to stay calm. Do not attempt to feed or approach the bear in any manner. Instead, slowly back away speaking calmly so that you do not surprise or startle the bear.

A black bear will typically avoid humans if allowed a proper escape route. Problems with bears are generally a result of humans acting inappropriately, which results in bears that have lost their fear of humans. While people think that they are helping the bear by providing it with food and enjoying watching it raid the garbage can, they are actually contributing to its demise, as these habituated bears often become problem bears and must be destroyed.



To avoid contributing to the death of these wonderful creatures:



- (1) Do not feed bears. This includes allowing them access to birdseed and hummingbird feeders.
- (2) Store garbage where bears cannot get to it.
- (3) Bring in pet food at night.
- (4) Clean off outdoor grills.

More information related to black bears in Colorado can be found on the Colorado Division of Parks and Wildlife website.

Black Bears



Black Bear (*Ursus americanus*) Facts

- Color can range from black to pale brown to blond
- Typically weigh between 100 to 450 pounds
- Diet of berries, nuts, grasses, forbs, insect larvae, small mammals and carrion
- Usually give birth to two or three cubs every other year
- Cubs stay with their mother for the first year
- Can go without food for up to seven months during hibernation
- Can run up to 35 mph
- There are no known grizzly bears living in Colorado

State-Listed Threatened and Endangered Species



In addition to federal listings for species, the state of Colorado also maintains a list of threatened, endangered and species of concern. This list identifies individual species in need of conservation and helps focus resources on priority species. Conserving species prior to the imposition of a federal listing results in easier management of the species, lower costs and helps avoid the cumbersome requirements associated with listing at the federal level. While state-listed species do not impose restrictions on land use or other activities, the possession or sale of state-listed species is subject to criminal penalties.

The state's list currently contains 31 threatened/endangered species and 43 species of concern and includes such species as the kit fox, Townsend's big-eared bat, American peregrine falcon, burrowing owl and boreal toad. This list can be found on the Colorado Division of Parks and Wildlife website.



Critical Biological Resources

In addition to identifying individual species in need of conservation measures, it is also useful to identify areas/locations in need of protection. In 2000 and 2001, the Colorado Natural Heritage Program completed survey work in order to identify areas of high biological significance within El Paso County.

Through this survey, forty Potential Conservation Areas were identified within the county, which further aids in the prioritization of conservation efforts and allocation of the limited resources available within El Paso County. These sites have been identified for a variety of reasons including the presence of rare or imperiled plant and animal species, utilization of the site by imperiled species and the presence of rare plant communities.

The following is a list of El Paso County's Potential Conservation Areas identified in the Colorado Natural Heritage survey as well as areas identified in the El Paso County Parks Master Plan dated June 2013. These areas are identified based on their unique biological characteristics. Most exist on private land, and their inclusion on this list does not imply public access.



Local Wildlife



El Paso County's unique location at the interface between the great plains and the Rocky Mountains provides viewing opportunities for our abundant natural resources while resulting in the occasional conflict with those same resources. In dealing with wildlife, remember that the wild creatures trying to live their lives are not cuddly playthings nor monsters bent on our destruction. A healthy respect is integral in making interaction with our wild neighbors an enjoyable and safe experience for all species involved.

In order to be accepted as a conservation easement, a property must possess at least one of the conservation values identified by the Internal Revenue Service.



These include (1) the preservation of land areas for the general public's outdoor recreation and education, (2) the protection of a relatively natural habitat for fish, wildlife, or plants or a similar ecosystem, (3) the preservation of open space (including farmland and forest land) where such enjoyment is for the scenic enjoyment of the general public, and (4) the preservation of an historically important land area or certified historic structure.

The presence of a conservation easement does not make the land public and does not, unless authorized by the landowner, allow public access. El Paso County currently holds over 30 conservation easements, providing permanent protection to nearly 2,500 acres.



Potential Conservation Areas within El Paso County

Creeks

Cascade Creek
Monument Creek
Severy Creek
Big Sandy Creek at Calhan
Boehmer Creek
Chico Creek
West Kiowa Creek at Elbert
Fountain and Jimmy Camp Creeks
West Bijou Creek
Black Squirrel Creek



Playas

Buffalograss Playas
Schriever Playas
Bohart Playas
Rasner Ranch Playas

Mountains

Pikes Peak
Blue Mountain
Cheyenne Mountain
Ben Lomand Mountain

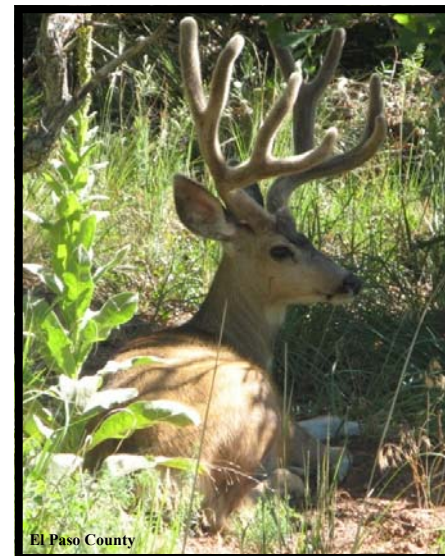


Conservation Easements

A conservation easement is a voluntary agreement between a landowner and a government agency or land protection agency that limits the amount of development that can occur on a property. Under this agreement, the landowner maintains ownership of the property.



Landowners typically enter into conservation easements because they want to protect their property from unwanted future development while maintaining ownership of their property.



In addition to the protection of their land, landowners may receive state and federal tax benefits for the donation. Properties placed under conservation easements are protected in perpetuity.



Roads

Potential conservation area identified by the road that traverses it

Judge Orr Road
Edison Road
Hanover Road
Marksheffel Road
Squirrel Creek Road



Canyons

Aiken Canyon
Cheyenne Canyon



Locations

Identified by
geologic features

Signal Rock Sandhills
Chico Basin Dunes
Fremont Fort
Riser at Calhan
Table Rock
Sand Creek Ridge
Elephant Rock
Corral Bluffs
Spruce Hill



Migratory Bird Treaty Act



The Migratory Bird Treaty Act (MBTA) was passed in 1918. This Act, in conjunction with several international Conventions, provided for the international protection of migratory birds. Under the MBTA, it is illegal to hunt, pursue, take, capture, wound, kill, possess, sell, purchase or

transport any migratory bird or any part, nest or egg of any such bird unless granted by a permit issued through the Department of the Interior. Over 1,000 species are protected under the MBTA, including 58 species that are legally hunted as game birds. The MBTA is administered by the U.S. Fish and Wildlife Service.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (BGEPA) was passed in 1940. This Act prohibits anyone, without a permit issued by the Secretary of the Interior, from pursuing, shooting, shooting at, poisoning, wounding, killing, capturing, trapping, collecting, molesting or disturbing bald or golden eagles including their parts, nests or eggs.



Areas

Squirrel Creek School
Truckton-Edison
East Chico Basin Ranch
Farish Recreation Area
Olney Prairie
Black Forest
Pineries at Black Forest
Monument Southeast
Fox Run Grasslands
Manitou South

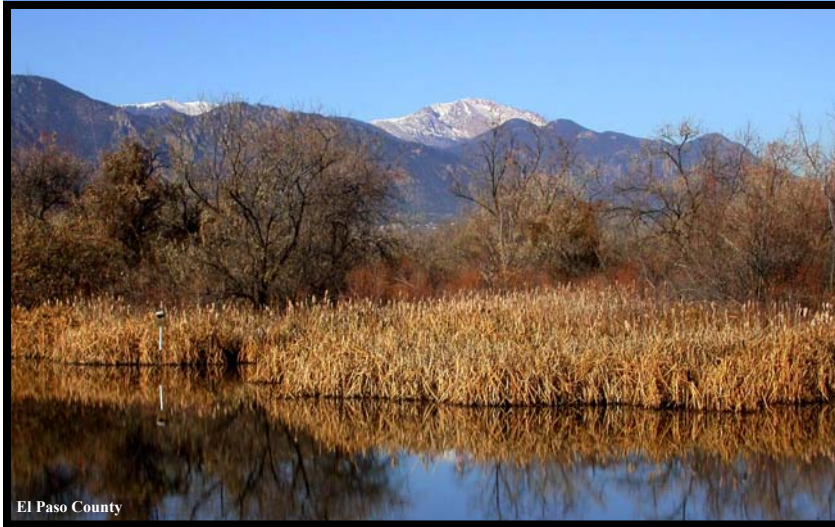


Other

Big Johnson Reservoir
Cave of the Winds
(aka Manitou North)
Drake Lake
Front Range Foothills
Forest Lakes
(aka Monument Creek Tributaries)



Wetlands



Wetlands come in many shapes and sizes, and although wetlands are often wet, they are not always wet year-round. In Colorado, wetlands can be found in the form of marshes, wet meadows, seeps, springs, rivers, lakes, ponds, swamps, fens, bogs and playas, and can range in size from a few square feet surrounding a spring, to acres of wet meadows, to miles alongside a creek. Wetlands within Colorado comprise less than two percent of the landscape, yet are utilized by over three-quarters of the state's species.



Protection of Wetlands

In the United States, wetlands are protected under Section 404 of the Clean Water Act. According to the Clean Water Act, "wetlands are areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas." In broader terms, three elements must be present to have a wetland: (1) water must be present for at least part of the growing season, (2) hydric (wetland) soils must be present, (3) hydrophytic vegetation must be present.



The U.S. Army Corps of Engineers is the lead federal agency responsible for the administration of the Clean Water Act as it pertains to wetland permitting. It is illegal under the Clean Water Act to fill wetlands without proper permitting. If a proposed project may impact a wetland, the project proponent must contact the U.S. Army Corps of Engineers prior to conducting any activities that disturb the wetland. The U.S. Army Corps of Engineers will work with the landowner on a project design that will avoid and minimize wetland impacts, as well as give direction on any permitting or mitigation that may be required for unavoidable wetland impacts.

Types of Wetlands



Fish and wildlife habitat

Wetlands provide for an incredible diversity of animal and plant species that depend on these areas for food, habitat and shelter. While wetlands comprise only about five percent of the land area in the lower 48 states, more than a third of the threatened and endangered species live only within wetlands, and twenty percent more utilize wetlands at some point in their lives.



In Colorado, it is estimated that wetlands comprise less than two percent of Colorado's land area but provide benefits to over three-quarters of the state's species, including waterfowl and several declining species.



Marshes are periodically saturated, flooded, or ponded with water and characterized by soft-stemmed vegetation adapted to wet soil conditions. Marshes are further broken down into tidal or non-tidal designations. Non-tidal marshes are the most common wetlands in North America. Within Colorado, playas and wet meadows are good examples of marsh-type wetlands.



Swamps are wetlands fed primarily by surface water and are dominated by trees and shrubs. Swamps are further classified as forested or shrub.

Bogs are freshwater wetlands characterized by spongy peat deposits, evergreen trees and shrubs with a sphagnum moss-covered floor. Bogs receive all or most of their water from precipitation. In Colorado bogs are uncommon, generally occurring at the higher subalpine elevations.



Fens are groundwater-fed peat-forming wetlands covered by grasses, sedges, reeds and wildflowers. Willows are also commonly found in fens. Fens differ from bogs in that they receive moisture from groundwater.

Value of Wetlands

For many decades, wetlands were thought of as wastelands. Great effort went into draining or filling the “wasteland” areas to create what was thought of as more functional land to be used for agriculture, residential or industrial uses. It is currently estimated that fifty percent of the world’s wetlands have been lost. However, as we have learned more about the world in which we live, the true value and functions of wetlands have begun to be realized.



Flood control

The vegetation and soil present in wetlands act as sponges slowing the momentum of surging water, thus reducing erosion and flood levels and protecting adjacent and downstream properties from flood damage. Wetlands are particularly valuable in urban areas where impermeable surfaces present stormwater control issues. Wetlands provide an area where water from these surfaces can slow and soak into the ground.

Improve water quality

As water slows upon entering a wetland, suspended sediments drop down onto the wetland floor. Chemicals present in the water get absorbed by plant roots and microorganisms. A healthy wetland, therefore, acts as a filter removing sediment and pollutants from the water, ultimately making the water safer for drinking, swimming and supporting plants and animals. In some areas, artificial wetlands have been constructed to utilize this filtering quality in the treatment of stormwater and wastewater.

Erosion control

The location of wetlands along shorelines and stream banks helps to minimize the erosive effects of water during storm events. Healthy wetland vegetation typically has strong root systems that hold soil in place, absorb the water’s energy and slow the current.



Groundwater recharge

When water enters a wetland it is slowed, thus allowing for groundwater recharge. As water shortages continue to threaten the west, this replenishment ability of wetlands has become increasingly appreciated.

Recreation

Wetlands are important locations for many recreational activities including hiking, fishing, hunting, bird watching and photography. Billions of dollars are spent annually in the U.S. in pursuit of these pastimes.



Commercial benefits

A wide range of products are commercially harvested from wetlands including fish, shellfish, cranberries, timber and wild rice, as well as some medicines. Wetlands provide important food supplies, shelter and breeding grounds for both marine and freshwater fish species.