

BOULDER COUNTY PARKS AND OPEN SPACE

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spring 2014



Images

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The mission of the Boulder County Parks and Open Space Department is to conserve natural, cultural and agricultural resources and provide public uses that reflect sound resource management and community values.

COVER PHOTO: Sunrise on the Ludlow Property; photo by Robert Alexander

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DISCOVER BOULDER COUNTY

Larry Colbenson and Sheryl Kippen

IN CLOSING

Craig Sommers, Rachel Gehr, Pascale Fried

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EDITORS

Rachel Gehr and Pascale Fried

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A Day in the Life

of a Parks and Open Space Project Manager

A project coordinator is a professional who ensures that people and resources devoted to completing a goal are used appropriately. They typically juggle a combination of responsibilities, including managing and communicating among team members, coordinating meetings, preparing bids and proposals, and oversight of project progress.

I've often wondered what my duties are; the above definition fits pretty well, though there are countless other duties I perform that are not covered in this broad definition. Typically, those undefined tasks are the most enjoyable.

A couple months ago, I was asked to prepare a project to repair breached sections of the Saint Vrain Creek due to the September 2013 floods. I worked with our administrative, agriculture, natural resource and purchasing staff preparing bid documents. With a few last minute changes from FEMA and the Army Corps of Engineers, the work was ready to bid. After weeks of bid preparation, the time had finally come to hold a pre-bid meeting with prospective contractors. On my drive into work on the day of the pre-bid meeting, under a starry sky and -5 temperatures, I was wondering how to conduct a meeting outside in 0 degree weather. After thoughts of postponing the meeting and waiting for better weather, I knew Doug Dunn (Water Resource Specialist) and David Hirt (Plant Ecologist) were as eager as I was to get the project started.

Once in the office, I considered options for holding the meeting. After chatting with staff, it was decided to conduct the meeting indoors and cover the basic items. When the meeting finished, we'd make an offer to go on-site. Although the indoor meeting went well, folks in the construction business like to see first-hand what type of work they're getting into. We had our plan and proceeded to conduct our meeting. Once we answered the last contractor's inquiry, everyone bundled up and headed to the work area.

With 15 bidders in tow, we herded the group to the first work site. Dressed like the little brother from the film *A Christmas Story*, everyone trudged through the snowy landscape. Given the arctic conditions and temperatures, I was surprised at the enthusiasm, interest and courage of this frozen group of folks. After trekking to additional breached sites and answering another dozen or so questions, it was time to head to warmer conditions.

Back in the office, staff debriefed the pre-bid meeting. We discussed the contractor's questions and our answers. We also considered timing of the bid award, project start dates, coordinating our schedules for construction monitoring, work site access, removal of woody debris in the creek, and what warm item we brought for lunch.

Once bids were received, staff spent a week reviewing them and the qualifications of contractors. Then there were the non-glamorous tasks of calling on references, bid recommendation to the Department Director and County Commissioners, bid award, and contract preparation with administrative staff. Finally, the project is ready for the phase I enjoy...field work!

by Barry Shook, one of three project managers at Boulder County Parks and Open Space



Staff from FEMA, the Army Corps of Engineers and Parks and Open Space examine St. Vrain Creek flooding issues.

A Workforce of Thousands

by Pascale Fried

"The true meaning of life is to plant trees, under whose shade you do not expect to sit." - Nelson Henderson

This year marks the 40th anniversary of National Volunteer Week, demonstrating the enduring importance of recognizing our country's volunteers for their vital contributions. National Volunteer Week, April 6 -13, is a time to celebrate people doing extraordinary things through service.

The week draws the support and endorsement of the president and congress members, governors, mayors and municipal leaders, as well as corporate and community groups across the U.S.



Top photo: Ruth Newell shares information on how the pioneers kept tidy at school program called "Pretty Is."

Above: Volunteers help construct trail at Betasso Preserve.

The Boulder County Parks and Open Space volunteer program began in 1975 when the department was formed, and has a rich legacy of connecting residents with the county's natural and cultural heritage. Involving volunteers makes our department stronger and more productive. Volunteer naturalists, cultural history volunteers, and park patrollers provide opportunities for volunteers to educate neighbors about the county's rich natural and cultural legacy. Long-term, ongoing volunteer programs use groups of volunteers for skilled tasks such as wild-life monitoring, gardening, livestock care and crew leading. Wild Work projects are often one-time events that engage residents in labor-intensive projects while teaching them about natural resource management on open space properties.

Volunteers By the Number

With the cooperative efforts of department staff, local companies and special interest groups, many county residents experience hands-on opportunities of land stewardship. Here's a brief and impressive snapshot of the level of community engagement we see within Parks and Open Space and Extension Services:

Grand Total:

Volunteers in 2013	4,452
Volunteer Hours	59,868

Parks and Open Space (excluding Extension)

Volunteers in 2013	4,008
Volunteer Hours	33,284 hours

These volunteers included natural resource monitors, naturalists, Walker Ranch homestead and Agricultural Heritage Center volunteers, Citizen Ranger Corps, angler hosts, mountain bicycle patrollers, crew leaders, Left Hand Outdoor Challenge teens, Partnership Program groups, and one-time (episodic) volunteers who attended outdoor work projects.

Extension Boulder County (excluding Parks and Open Space)

Volunteers in 2013	444
Total Hours	26,584

These volunteers included 4-H, master gardeners, wildlife masters, small acreage management volunteers, Boulder County Fair volunteers and fair board, native plant masters, energy masters and master food safety advisors.

For those volunteers reading this article, we want to extend special thanks for your contributions. Volunteers are an integral part of a thriving community and you make a tremendous impact on the quality of life in Boulder County—thank you!

Open Space Wildlife Policy: Soon to take Flight

by Ernst Strange

Hundreds of species of birds, mammals, reptiles, fish, and amphibians live in or migrate through Boulder County, and most of those at one time or another eat, rest, sleep, cross through, breed, or have their young on county open space properties. From the tops of windy mountains to the low dips of wetlands and everywhere in between, wildlife can be found across the entire spectrum of Boulder County's ecosystems.

In fact, as a land management agency, Boulder County Parks and Open Space facilitates the protection, preservation, and, at times, enhancement and restoration of wildlife populations and the habitat that they depend upon. However, as a public agency with multiple goals (i.e. preservation of rural and agricultural lands, protection and restoration of cultural resources, providing for quality recreational opportunities, and the protection and preservation of natural resources, including wildlife and their habitats), open space staff must constantly find the balance amongst varied and occasionally competing interests.

Wildlife Policy Offers Guidance

Department staff regularly make management decisions that can potentially have either positive or undesirable effects on wildlife species and their habitat. For example, when a new trail is proposed, what distance should it be placed away from an active raptor nest? On an agricultural property, how do you manage wildlife that may damage the farmer's harvest? How is wildlife considered in an ecological restoration project? Even in an area with suitable habitat and limited development, questions still arise about which type of wildlife habitat should have management priority. Sometimes, the habitat needs of one species compete with those of another species. For example, think about a dense forest versus open woodland versus grassland and the species that depend on each. Which one should we manage for?

These questions and many more will be sorted out by staff and the public in the Boulder County Parks and Open Space Wildlife Policy.

The Wildlife Policy is part of an initiative started by the Parks and Open Space Department in 2006. Since that time, Parks and Open Space has been working on the creation of a series of policy documents for various resources and land uses

important to the citizens of Boulder County. The primary goal of the policies is to serve as an essential link between the Boulder County Comprehensive Plan and property-specific management plans. The Comprehensive Plan sets forth the overarching goals and guiding policies for open space within the county, including providing wide-ranging guidance on the acquisition and management of open space. Property-specific management plans provide the vision and detailed management goals, objectives, and strategies (such as where to place trails and facilities, the location of significant natural and cultural resources,

and any other property-specific management actions) for a given open space property (e.g. Rabbit Mountain, Betasso Preserve, or Hall Ranch).

The policies, in contrast, will provide management direction for the particular resource or land use across all county open space properties. This may include what types of management can and cannot occur on county open space, what tools are available for management, and how priorities are set and decisions made for the specific resource or land use. One of the primary benefits of the policies, therefore, is to help streamline the decision making

process and management activities across all county open space properties by not having to reconsider certain management actions on a site-by-site basis. This will allow for uniform management across all properties and lets both staff and the public know what management is considered acceptable and appropriate on county open space.

An example from the Forest Management Policy is the objective that states "Use prescribed fire for public safety, natural fuels reduction, and ecological benefits." This means that Parks and Open Space can utilize prescribed fire on any of its forested properties if it is deemed necessary, appropriate, safe, and follows all federal, state, and local laws. Whether to allow prescribed fire, therefore, does not need to be revisited in every management plan.

The Wildlife Policy will specifically address how the department protects, manages, and enhances wildlife habitat and species.



A golden eagle soars in the skies above Heil Valley Ranch

Policies: From Cropland to Visitor Use

Policies created to date include the 2009 Conservation Easement Policy, 2010 Forest Management Policy, 2011 Cropland Policy and 2012 Water Policy. Future policies will include a Grassland and Shrubland Policy (in progress), a Cultural Resource Policy (in progress), and a Visitor Use Policy in addition to the Wildlife Policy.

The Wildlife Policy will specifically address how the department protects, manages, and enhances wildlife habitat and species. Topics within the policy may potentially include wildlife species of special concern; wildlife habitat protection, restoration, and enhancements; reintroduction, relocation and removal of wildlife; human-wildlife conflict; wildlife monitoring and adaptive management; wildlife habitat conservation areas; visitor use effects on wildlife; hunting; impacts to wildlife of other management activities such as forestry and agriculture; wildlife research; and collaboration, among other potential topics.

The Flood Effect:

In August 2013, an interdisciplinary team of Parks and Open Space staff conducted the initial planning meeting for the Wildlife Policy to begin discussing the overall purpose, need, and scope of the policy. However, due to the September 2013 floods and subsequent changes in department priorities and work plans, the Wildlife Policy has been put on hold. It is anticipated that planning for the policy will occur over the next two to three years with plenty of opportunity for public engagement. The planning team will work to create a policy that benefits the county's open space properties, its wildlife, and the citizens of Boulder County.

A Public Process

Parks and Open Space looks forward to working with the public on this significant and essential policy document. To stay informed about the planning process and future meetings, visit www.BoulderCountyOpenSpace.org and sign up for the planning e-mail list under "Management Plans and Policies" or contact Ernst Streng, Resource Planner, at estrenge@bouldercounty.org.



Clockwise:

A mountain lion and a mule deer both seen at Hall Ranch.

A fox at Wall Street.

Visitors enjoy looking for wildlife at Mud Lake.

Rocky Roots: Bald Mountain's Name

by Sally Weir



About five miles up Sunshine Canyon, just outside of Boulder, is a summit that has been marked by human use for over one hundred years. Bald Mountain Scenic Area supported pioneers and early homesteaders in livestock grazing, logging and mining pursuits from the late 1800s into the 1930s. Today, a reminder of the human history of the area can be seen near the park's entrance where a wooden livestock chute still stands. But perhaps a more enduring human legacy left behind on the landscape is the name of the mountain itself.

This particular Bald Mountain is one of hundreds of summits of the same name in the country. There are over 300 Bald Mountains in the United States, close to 30 in Colorado and four in Boulder County alone. Maps compiled by the United States Geological Survey (USGS) as early as 1902 name the county's three other peaks, but it is not until an updated map was issued in 1957 that Sunshine Canyon's Bald Mountain received an official name alongside its marked elevation of 7,168 feet.

Geologic Inspiration

It is unclear who first used the name Bald Mountain but the source of their inspiration seems clear—its summit is quite bare and denuded of vegetation compared to the ponderosa pine forests skirted beneath it. This is due primarily to the geology

of the area. The mountain is largely composed of a rock known as Boulder Creek granodiorite that formed deep beneath the earth's surface and was subsequently uplifted into its present mountainous form. The rock weathers slowly, producing a thin, course layer of nutrient-poor soil that is incapable of supporting many larger plant species. The isolated, prominent, and solitary topography of the peak also exposes it to incredible winds that sweep over the summit at speeds over one hundred miles per hour. In such an environment it is immensely challenging for young tree seedlings to survive. What does grow here is low to the ground and resilient to the onslaught of winds and exposure.

Beauty Beyond the Name

Geologic processes that take place on time scales well beyond that of a human lifetime made this mountain bald long before any pioneer gave it a name. Today we can enjoy these geologic influences upon the land by taking in the rewarding view from the summit. A circular vista encompasses the Great Plains, Boulder Canyon, Sunshine Canyon, as well as the snowy peaks of the Continental Divide. The beauty of the panorama speaks for itself—all words, and names, left far behind.

Reducing Fire Hazards at Mud Lake

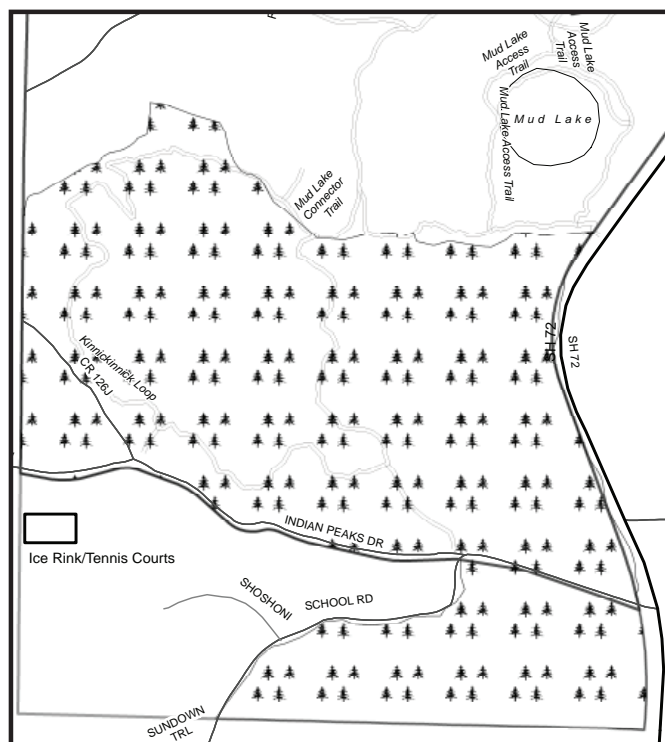
by Ashley Garrison

In 2014, the Boulder County Parks and Open Space Department is treating approximately 100 acres at Mud Lake Open Space for wildfire fuel reduction.

The hazardous fuels reduction treatment plan was approved in the 2004 Mud Lake Management Plan, and the 2010 FEMA Pre-Disaster Mitigation Grant awarded in 2013. Hazardous fuel reduction was also recommended by the 2011 Nederland Community Wildfire Protection Plan as part of a community-wide effort to reduce risk of wildfire and protect critical infrastructure.

Project Area

The treatment area, located on the southern portion of the open space property, is bounded by Indian Peaks Road to the south, State Highway 72 to the east, the property boundary to the west and the ridge-break to the north. The open space area is about 80 acres. The remaining 20 acres to be treated is a conservation easement owned by the Town of Nederland, south of Indian Peaks Road.

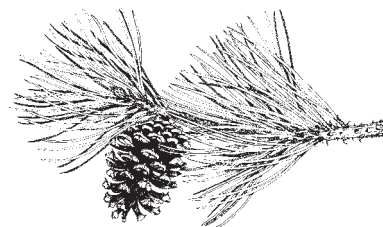


The Mud Lake Open Space treatment area is shown by the trees on the map.

Treatment Plan

The project began in February and could continue until mid-April. Operations will start up again in October in order to complete the project by mid-December 2014.

The south side of Mud Lake Open Space is heavily infested with dwarf mistletoe. This parasitic plant is endemic to the upper montane life zone, but has reached levels that negatively affect site productivity, stunting tree growth and increasing fire danger by forming dense 'witch's brooms' that can capture embers and increase fire intensity. Pines (lodgepole, limber and ponderosa) with multiple dense, heavy witch's brooms and trees with active mistletoe growth are the highest priority for removal. The intent of the hazardous fuels reduction treatment is to remove a majority of the trees with the worst mistletoe infection and fire hazard. Since mistletoe is widespread across the project area there will be several large openings created. The end result will be a forest favorable to aspen regeneration, pine stands with little or no active mistletoe, and increased species diversity. This will reduce the risk of crown fire spreading throughout or across the project area.



Treatment Goals

The main objectives of the treatment are to reduce tree volume by 30 percent; retain and expand aspen, Douglas-fir, spruce and limber pine; reduce dwarf mistletoe by at least 50 percent; and retain and perpetuate old-growth forests and woodlands, including large diameter trees.

Slash and activity fuels will be piled and burned in the next two to three years. In some especially windy areas, slash may be scattered to protect soil and tree regeneration. Logs will be used as fuel for the Boulder County biomass boilers. Harvesting will take place during the winter/cold months to minimize resource impact.

This treatment will build on the work done by the Nederland community, Parks and Open Space and other partners to reduce hazardous fuels and improve forest health.

A Farming Legacy Continues

by Jennifer Kemp

On a cold and wet October day in 2012, participants in the Boulder County Parks and Open Space Fall Ag Tour descended from two charter buses onto an extremely muddy sugar beet field. There to greet them was Famuer Rasmussen Jr. and his farm crew, all smiling despite the rain dripping down their necks. The original plan was for Famuer to speak briefly to the participants about the sugar beet harvesting process, then have them spend the bulk of the time watching the digger scoop up sugar beets, clean them off and deposit them in the large trucks waiting to deliver them to the Western Sugar Cooperative in Fort Morgan. Despite his protestations that he would likely have little to talk about, Famuer's story about how he came into farming and how he has successfully grown his business easily occupied the 45 minutes allocated to his portion of the tour.

Farming from the Very Beginning

Famuer is a third generation Boulder County farmer, and as he tells it, sugar beets have been a part of his life from the beginning. Famuer's father was in the middle of digging sugar beets when his mother went into labor with him, and he's never been too far away from a sugar beet field since then. Famuer started driving tractors for his father when he was nine years-old, and in high school he started to farm for his uncle, Howard Rasmussen. In his early 20s, Famuer decided to try his own hand at farming by renting a 40-acre property on Highway 52 outside of Longmont and borrowing equipment from his father and uncle. Another farm came up for lease shortly after that, and Famuer added it to his growing enterprise. In 1990, Boulder County Parks and Open Space (BCPOS) acquired the second parcel as part of its agricultural property portfolio, and Famuer's long-term and successful relationship with the county began.

In the last 28 years, Famuer has gone from renting 40 acres of privately held property to farming approximately 1,000 acres of BCPOS property and an additional 200 acres of private cropland. Like many of the farmers who still operate in the

county, Famuer runs a diversified commodity crop program that includes rotating fields of sugar beets, hard red winter wheat, corn, silage, shell corn, alfalfa and Coors malt barley. Along with Western Sugar Cooperative and Coors, Famuer sells his products to ConAgra in Commerce City and Front Range Dairy in Fort Lupton, and the resulting wheat, sugar, milk and beer can be found on most super market shelves long the Front Range.

Over the years, Famuer has consistently found ways to use resources more efficiently and works with National Resource Conservation Service (NRCS) to test new techniques and growing methods. Working with BCPOS and NRCS, Famuer installed his first center pivot irrigation system, which allowed him to transition that farm away from furrow irrigation and to see significant reduction in water usage for that particular field. He has since added two more pivots to his farms and is incorporating other conservation management practices such as strip till, drift reducing nozzles, high level integrated pest manage-

ment and hay harvesting that better flushes out wildlife. Many of these efforts were funded through an Environmental Quality Incentives Program (EQIP) Air Quality contract aimed at reducing high nitrogen levels being recorded in Rocky Mountain National Park. All of these efforts resulted in Famuer and his wife, Carmen Gibson, winning the 2013 NRCS Colorado Farmer Conservationists of the Year award.

Farmland For Years to Come

When asked what the BCPOS program has meant for farmers and agriculture in Boulder County, Famuer

reflected that many of the current farmers grew up on these properties and have always known them as farmland. The program gives farmers a way to earn a living and lets them remain together as friends and neighbors. Famuer complimented an "all-around great program" and in turn, the staff at BCPOS would like to applaud an all-around great farmer. Efforts by Famuer and the other 80 agriculture tenants have ensured that county agricultural land will remain healthy and productive for many years to come.



Famuer Rasmussen Jr., a Parks and Open Space ag tenant, spoke to participants during an ag tour. Even in the rain, people enjoyed listening to him for nearly 45 minutes as he recalled how he got started farming and about his business today.



NATURE DETECTIVES

Spring 2014

Dig Badger Dig

Badger ambled across the grassy field, pausing now and then to sniff the spring air. She smelled Coyote's scent on the breeze. Coyote wasn't far away, but he didn't worry her. Badger had a bold and feisty attitude. And, she had sharp, pointy teeth. She expected Coyote would back off any fight if she opened her mouth in a full-throated snarl.

She was a typical American badger, oddly squat and chunky, longhaired and rather mop-shaped. As Badger walked, the long guard hairs on her coat almost brushed the ground. She only weighed as much as a house cat, but she had strong muscles in her neck and shoulders, muscles for digging.



Pull Out and Save

Ignoring Coyote, Badger stopped at a hole and sniffed the prairie dog odors wafting from the tunnel entrance. Sometimes on the hunt for prairie dogs she pushed rocks and dirt over exit holes to shut off escape for her prey, but today she didn't take the time. She was in a hurry to get back to her three babies. She'd left them huddled together in their grassy nest in a den she'd dug deep underground at the end of a long burrow.



Hunting Success

Badger started digging with her small but tough fore paws. Her front toes, with their two-inch-long claws, quickly enlarged the rodent hole to badger-size. Her back paws, built with short, shovel-like claws, flung dirt high into the air behind her.

Dinner for two

Coyote saw the dirt flying and knew it meant dinner. He trotted over to another hole in the tunnel system. Coyote got there just in time to grab a fleeing prairie dog. A second prairie dog saw Coyote and turned back into the hole. Badger was there to snatch her hard-earned prey. Her hunger satisfied, Badger exited the tunnel. Someday, she'd enlarge this burrow enough to use as a cozy sleeping den, but now she needed to scurry home.

Digging for Dinner

American badgers will eat nearly anything they come across on their rambling search for food, but they seem to prefer small burrowing rodents. They use their keen sense of smell and sharp hearing to find and dig up underground prey. They dine on prairie dogs, ground squirrels, mice and other small rodents. Young rabbits, ground-nesting birds, eggs and snakes are also on the menu. Sometimes they eat seeds and grains. Insects and worms are often prey for younger badgers.

Badger Babies Are Born in Spring

Like puppies and kittens, badgers are born with little fur and their eyes stay closed for a month. After about six weeks, they venture outside the burrow. They play rough attack games with each other and their mom. Badger dads have nothing to do with their care. Soon their mom will take them hunting with her and by fall they will leave her. Except when they live with their moms or for a short time when they find a mate, badgers live alone. Some survive as long as 10 to 14 years but most live only 4 to 5 years. Young badgers can fall prey to golden eagles, coyotes, bobcats, cougars or dogs.



Mom badgers usually stay in one den while their babies are tiny.

Badgers on the Move

Badgers without babies typically move often. During the summer, they may travel 5 to 8 miles each night, and snooze in a different burrow each day. These furry digging experts leave a trail of burrows behind them as they go about their work. They are active all year, but they wander less during the winter. They don't hibernate, but they go into a deeper sleep for days at a time when the weather is really freezing and stormy.

Badgers Are Community Home Builders

Empty burrows are rarely unoccupied for long. Badgers may re-use their old burrows. Coyotes and foxes take advantage of prebuilt badger dens to raise their families. Burrowing owls and skunks will too. Rattlesnakes and other grassland reptiles find shelter from heat and cold, summer and winter, in badger-dug tunnels.



Story Book Cute

Wild badgers are not what you'd call cuddly, yet they are featured characters in many illustrated stories. Their comical short, wide bodies, cute round ears and colorful faces make them especially fun to draw. White-tipped guard hairs cover fuzzy underfur, giving badgers a grizzled look. The white stripe running from their black nose over the top of their head and the vivid white, dark brown and black markings on their faces look appealing.

Effective Defense Tactics

Like skunks, weasels and other members of their family, badgers have stinky scent glands at the base of their tail. Phew! Badgers bravely snarl, growl, hiss and lunge at attackers. Mom badgers defending their babies have chased people up trees, made bears go away and warned off coyotes.

It is hard for any animal to get a bite hold on a badger. Badgers have burly, muscular necks and shoulders. If another animal does manage to grab it, all is not lost. Thick, loose neck skin allows a badger to wriggle around to face its attacker. Strong jaws and sharp teeth coupled with a brave and bold nature usually allow adult badgers to avoid becoming prey.

Mighty Diggers Still in Danger

Badgers' stocky, flat bodies are designed for underground survival and super fast digging. They have see-through, second eyelids they can close to keep dirt out of their eyes and still see in front. They can dig themselves out of view in three minutes or less. They dig faster than two people with shovels. It is said they can dig through pavement and concrete. They dig for protection from weather and predators and to find prey.

Above ground, they risk getting run over by cars, poisoned, trapped or shot. When farming and human building activities expand into their habitat, badgers and their prey are often pushed out.



Badger Matching Game

Match the words in the first column with their definition in the second column.

- | | |
|----------------|---|
| 1) Burrow | A) Patches of colored hair, scales or skin on an animal |
| 2) Guard hairs | B) Space where animals find food, shelter and water |
| 3) Underfur | C) An animal that hunts other animals to eat |
| 4) Prey | D) Long outer hairs designed to protect animals from wind, rain and snow |
| 5) Predator | E) Front paws on an animal, the opposite of hind paws |
| 6) Habitat | F) Fuzzy hairs that provide insulating warmth beneath the outer guard hairs |
| 7) Markings | G) An animal that is hunted by another animal for food |
| 8) Fore paws | H) A tunnel or hole in the ground where an animal finds shelter |



Search for Signs of Badgers

Hunt for their two-inch paw tracks. They walk pigeon-toed so the front paw prints curve in toward each other. Marks from their super-long claws often show on the front paw tracks.

Search for badger holes near prairie dog towns or other open spaces on the grassy plains. A few badgers also make their homes in the foothills and mountain parks. A very few can even be found in high alpine meadows. Badgers seek out areas with sandy or soft soil for digging and where prey animals can be found easily.

Look for a hole that is twice as wide as it is high because the badger entrance is, well, badger-shaped. The opening is about 10 inches wide and only about 5 inches tall.



In areas close to human populations, badgers are most active at night, but they might be seen any time of day. The best chance to spot one is at dawn or dusk.

Answers: 1H, 2D, 3F, 4G, 5C, 6B, 7A, 8E

American Avocet, *aka* “Blue Shanks”

by Maggie Haseman

Looking through binoculars or a spotting scope at one of the ponds on open space you might see a distinctive bird strolling on slender bluish-gray legs. Its nickname is “blue shanks,” but the more commonly used name for this bird is American avocet.

It’s easy to spot these birds, but still a treat when one appears in your view. The American avocet is medium-sized – 18 to 20 inches tall. This bird’s body has a distinctive, black and white striped pattern on its posterior and flanks, while the abdomen and underbelly are white.

The long beak, one of its defining features, is what gives the American avocet its scientific name, *Recurvirostra americana*. In Latin, “recurv” means upcurved, and “rostrum” means “beak of a bird” which comes from the word for a prow of ancient Roman ships.

Generally, American avocets will search for their meal of aquatic plant life and animals such as insects and crustaceans using a sweeping motion of their bills, but they are also known to probe into mud in search of food. Additionally, these birds will venture into deeper water and dabble much like a duck would. American avocets commonly feed solitarily but may feed in flocks – a line of birds advancing abreast.

A year in the life of an American avocet begins and ends with migration. Northbound migration occurs from March to May. American avocets prefer open water and marshy spring and summer habitats such as lakes and ponds throughout the central plains of the United States, including the Rocky Mountain region and southern Alberta and Saskatchewan. Some non-breeding one-year-olds return to the breeding grounds where they hatched in the spring.

American avocets are monogamous birds that find mates in the springtime through elaborate courtship behavior. In his pre-copulation display, the male preens himself with water, gradually gaining intensity to the point of frenzied splashing just before he mounts the female. After copulating, the pair intertwines their necks and runs forward in an elaborate, ritualized display of territory establishment and self-defense.

A Simple Home

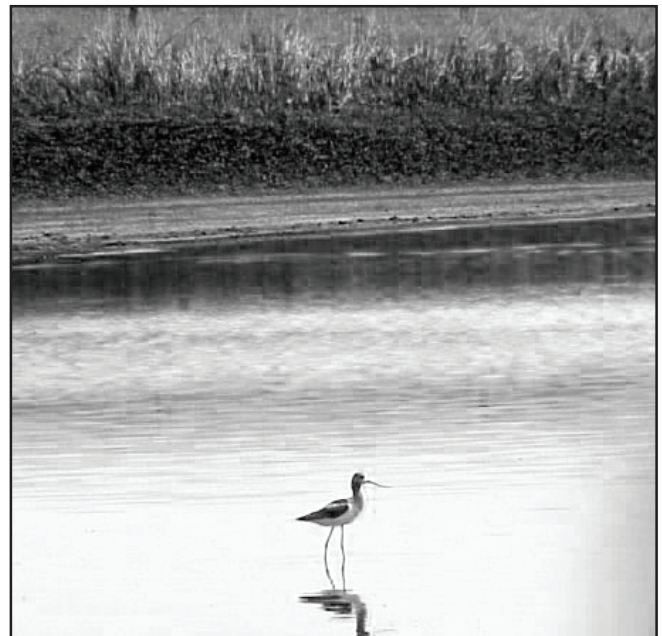
These birds nest in colonies from April to June. Nest construction consists of creating mere depressions on the sand, platforms on mudflats or a scrape on the ground. Occasionally, the nest will be lined with grass or other vegetation, feathers, pebbles or other small objects, but generally the nest is unlined as if the bird sees covering the ground as wasted motion. Should the water level rise, the breeding pair will raise the nest up a foot or more with sticks, weeds, bones and feathers to keep the eggs above water.

A female will have three to four eggs during the nesting season. The parents take turns incubating the eggs for 23 to 29 days. Parasitism is rather common in avocet communities. Eggs of other wetland species such as black-necked stilts and common terns are often found in American avocet nests. American avocets will lay their eggs in the nest of another American avocet or other species of wetland birds. The precocial, downy young can leave the nest soon after hatching with the ability to run, swim and feed themselves. Both parents will tend the chicks for 28 to 35 days after hatching until they learn to fly.

When threatened, an American avocet can be aggressive, especially near nesting areas. One dramatic anti-predator display is a dive-bombing action. One or more birds swoop down on intruders, performing a synchronized aerial mobbing attack, narrowly missing the predator. Another territorial protection these birds perform is advancing in a teetering gait, as if on a tightrope, toward the approaching terrestrial predator, with wings outstretched spanning 28 to 36 inches. Further displays include high-piercing “keeek-keeek-keeek” cries of displeasure, acting as if crippled, crouching as if incubating, then moving to crouch in a new location, and a begging-for-pity performance.

Where to Look

If you have never seen an American avocet, you’ll likely see them at Walden Ponds Wildlife Habitat and Stearns Lake at Carolyn Holmberg Preserve at Rock Creek Farm this spring.



An American avocet wades in at Walden Ponds Wildlife Habitat.

Visitors at Betasso: Balancing Needs

by Michelle Bowie

In 1976, Betasso Preserve made history as the county's first major open space purchase. Easily accessible from the Front Range, the property quickly became a popular destination. By 1985, it was estimated that around 3,000 people visited Betasso Preserve annually. As years passed, visitation continued to increase. Today, up to 70,000 people visit each year.

Promoting Peace

People travel to Betasso Preserve for a variety of activities, some of the most popular being hiking, mountain biking and running. By the early 1990s, the public voiced concerns over visitor conflict and safety due to the high number of mountain bikers using the trail. In response, signs warning mountain bikers to be cautious, a re-route of a section of trail, increased educational efforts about trail etiquette, directional requirements for bikers, and other efforts were implemented to reduce conflict on the trail.

However, due to the different visitor expectations that accompany activities, along with consistently high visitation and steep narrow trails, additional efforts to reduce conflicts and increase safety were needed. To address the issue, an alternative day use regulation was implemented in 2001.

This regulation allows mountain bikers to use the trails five days a week, but prohibits mountain bike use on Wednesdays and Saturdays. This provides two days a week when park visitors, who were uncomfortable sharing the trail with mountain bikes, can enjoy the trail.

After the regulation was implemented, a survey of visitors was conducted in fall 2002 to gauge the community's response to the new rule. The results of the survey found that 67 percent of the people interviewed supported the regulation, including many mountain bikers. Based in part on this data, the Board of County Commissioners in 2003 voted to extend the alternate day use regulation.

In 2007, the department acquired the Benjamin property which expanded the size of Betasso Preserve and began a planning process to update the Betasso Preserve Management Plan. The plan, which included new multiple use trails and the continuation of the alternative day use regulation, was adopted in 2009 by the Board of County Commissioners. In 2011 and 2012, approximately four miles of multi-use trail were added to Betasso Preserve with the opening of the Benjamin Loop and Fourmile Link trails.

With the addition of new trails, it was important to re-evaluate visitor support for the alternative day use regulation. Department managers want to ensure that we continue to reflect the present needs and desires of open space users.

Study Results

This past summer, you may have seen people at Betasso Preserve requesting surveys from visitors. Boulder County Parks and Open Space staff and senior tax workers collected 458 surveys at Betasso Preserve, with a response rate of 86 percent.

Surveys were collected at three main park access points: the main trailhead, the Betasso Link trail, and the Fourmile Link trail. Survey collection was attempted on weekdays and weekends, and during both biking and non-biking days. The last two survey shifts scheduled were canceled in mid-September due to extensive flooding and road closures in Boulder County.

Sixty-eight percent of visitors surveyed support the alternative day use regulation. Since the majority of visitors continue to show support for the alternative day use regulation, it will remain in effect (Betasso Link trail exempt). Furthermore, user conflict on the trails at Betasso Preserve will continue to be assessed on a regular basis.

Share the Trail

So take a hike amongst the fragrant pines, enjoy the scenic views on a run, or bike across the blooming meadows. And during your visit to this park and others, please take care to practice good trail etiquette. You can help reduce conflict by considering the needs of others on the trail and engaging in polite and constructive communication with your fellow visitors.

The full report is available on the Boulder County Parks and Open Space website here: www.BoulderCountyOpenSpace.org/betassostudy



Visitors enjoy mountain biking at Betasso Preserve.

Discover Boulder County *calendar of events*

Wildflower Slide Shows

Thursday, April 10; 7 p.m. - 8:30 p.m.

**Louisville Public Library, 951 Spruce Street, Louisville
-and-**

Wednesday, May 21; 7 p.m. - 8:30 p.m.

Lafayette Public Library, 775 west Baseline Rd. Lafayette

Join volunteer naturalists for a slide program to kick off the spring wildflower season! You'll learn about a variety of wildflowers, where and when to look for them, and some interesting facts about some of our native plants.

Wildflower Hikes

Wildflower Hike at Legion Park

Saturday, May 3; 10 a.m. - noon

Legion Park Open Space; east Boulder on Arapahoe Road; 0.5 mile west of 75th Street

Join volunteer naturalists for a leisurely spring stroll through the pinyon and ponderosa pines at Legion Park. Besides having a great view of the Continental Divide, this park is a wonderful place for early season wildflowers.

Wildflower Hike at Rabbit Mountain

Saturday, May 17; 10 a.m. - noon

Rabbit Mountain Open Space; NE of Lyons on north 55th Street; meet at group picnic shelter

Join volunteer naturalists for a moderate 2-mile hike to learn about the variety of wildflowers at Rabbit Mountain.

Wildflower Hike at Betasso Preserve

Saturday, May 24; 10 a.m. - noon

Betasso Preserve; Boulder Canyon (Highway 119) to Sugarloaf Road; follow signs to Betasso Preserve; meet at group picnic shelter

Join volunteer naturalists for a wildflower hike in the beautiful foothills. We will hike about 1.5-miles through forest and meadows in search of spring wildflowers, enjoying beautiful vistas along the way.



Chickweed at Heil Valley Ranch



Raising Backyard Chickens

Saturday, March 1; 1 p.m. - 3:00 p.m.

-and-

Sunday, April 6; 1 p.m. - 3:00 p.m.

Agricultural Heritage Center; 8348 Ute Hwy 66, Longmont

Have you ever wanted to raise your own chickens? Now that many cities are allowing backyard chickens, you can! It's easy to get started. Learn step-by-step about coops, different breeds of chickens, the lifecycle of a chicken, and going organic. Open to all ages. Come and meet our flock of Barred Rocks and New Hampshire Reds, including our beautiful rooster, Rocky.

Junior Ranger Adventures

Saturday, March 1; 11 a.m. - 1 p.m.

Mud Lake Open Space; 2 miles north of Nederland on County Road 126; meet at parking lot kiosk

The Boulder County Parks and Open Space Rangers discovered evidence that Bigfoot is living at Mud Lake! Bigfoot has no problem surviving the cold winter months outdoors because he's an expert at winter survival skills. Bigfoot wants you to be safe and prepared for winter weather, too. You will help the rangers search for Bigfoot, follow his footprints and become an expert at winter survival!



Junior Ranger Adventures is perfect for kids aged 5-12, but all family members are welcome. A parent or guardian must be present.

If you have questions, contact Ranger Erin O'Leary at 720-352-7041 or ehartnett@bouldercounty.org. Pre-registration required.

Please visit www.BoulderCountyOpenSpace.org/register

Discover Boulder County *calendar of events*

Story in the Rocks - The Geology of Boulder County **Monday, March 3; 7 p.m. - 8:30 p.m.** **Louisville Public Library, 951 Spruce Street, Louisville**

The geologic history of Boulder County goes back nearly two billion years, and rocks contain chapters of earth history that can be read like pages in a book. Join volunteer naturalist Roger Myers for this slide program and learn how to read the story in the rocks and interpret our dramatic landscape.

Birds of Prey Driving Tours **Saturday, March 8; 10 a.m. - 1 p.m.** **-and-**

Sunday, March 23; 10 a.m. - 1 p.m.
Registration is limited; meeting location will be provided to registered participants

Join volunteer naturalists for a driving tour of some of Boulder County's best areas to view birds of prey, or raptors. We will carpool from our meeting place searching for raptors, learning about habitat, and working on our observation and identification skills. Dress for the weather, and bring lunch, binoculars, a spotting scope, and a bird field guide if you have them. The tour is geared for adults and older children. Register by emailing lcolbenson@bouldercounty.org, or calling 303-678-6214 by the Thursday before each tour.

The Hidden World of Bird Nests **Saturday, March 15; 10 a.m. - noon** **Registration is limited; meeting location will be provided to registered participants**

Bird nests range from a scrape on the ground to intricately woven hanging nests. Nests in many trees and shrubs remain largely unseen until leaves drop in the fall. Join volunteer naturalists for an easy end-of-winter walk in search of some of these diverse structures created by amazing avian architects. Bring binoculars and a bird field guide if you have them. Register by emailing lcolbenson@bouldercounty.org, or calling 303-678-6214 by Thursday, March 13.

On the Wing: A Birds-Eye View of Boulder County Weather **Wednesday, March 19; 7 p.m. - 8:30 p.m.** **George Reynolds Branch, Boulder Public Library, 3595 Table Mesa Drive, Boulder**

Join volunteer naturalist Phil Ecklund for a look at Boulder County's unique weather from the perspective of a glider pilot. From soaring thunderheads to "flying saucer" clouds and powerful winds off the Continental Divide, the weather is anything but predictable along the Front Range. Phil will share his years of experience in observing and flying through Colorado's changeable weather with in-flight and time-lapse images.



Spring Has Sprung! **Saturday, March 22; 10 a.m. - noon** **Hall Ranch Open Space; One mile west of Lyons on Highway 7; meet at the group picnic shelter near the upper parking lot**

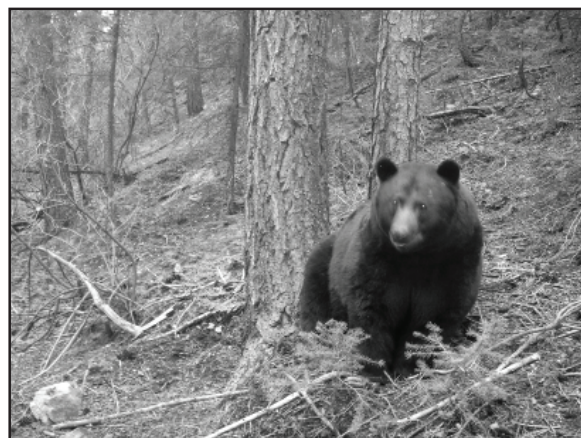
What's blooming? Who's singing? Who's having babies? Join volunteer naturalists on a leisurely 2-mile hike and celebrate the beginning of spring by looking and listening for signs of new life along the trail. Learn the importance of the sun at equinox in linking and timing these vibrant displays of new beginnings.

Who are the Owls? **Monday, March 24; 7 p.m. - 8:30 p.m.** **Longmont Public Library, Meeting Rooms A & B, 4th Avenue and Emery Street**

Owls have been regarded with fascination and awe throughout recorded history and across many cultures. Over half of the owls recorded in the U.S. have been seen in Boulder County, and most of those owls nest here. Join volunteer naturalists to explore these fascinating and diverse creatures, and learn about the adaptations that make them such expert hunters.

Spring Awakening—Bears in our Backyard **Saturday, March 29; 10 a.m. - 11:30 a.m.** **Betasso Preserve; Boulder Canyon (Highway 119) to Sugarloaf Road; follow signs to Betasso Preserve; meet at group picnic shelter**

Black bears are part of our landscape. In spring, as daylight hours grow and temperatures warm, bears and their cubs emerge from winter dens. Join volunteer naturalists to explore how bears survive the winter and become active again in the spring. We'll also learn how to live safely in bear country. Please be prepared for early spring weather.



This bear was captured on film by a trail camera near the Benjamin Trail.

Discover Boulder County *calendar of events*

Rattlesnake Hike

Saturday, April 12; 10 a.m. - 12:30 p.m.

Rabbit Mountain Open Space; NE of Lyons on north 55th Street; meet at group picnic shelter

Enjoy a moderate 2-mile spring hike and learn about this fascinating reptile found in the plains and foothills. Volunteer naturalists will share information about the western rattlesnake, and how to be safe in rattlesnake country.

Doc Susie—Early Colorado Lady Doctor

Saturday, April 12; 11 a.m. - noon

Walker Ranch Homestead; 8999 Flagstaff Road, about 7 miles west of Boulder

Learn about Dr. Susan Anderson, or “Doc Susie,” the first woman doctor in Fraser, Colorado. She arrived there in 1907 and practiced medicine until 1956. Hear about Doc Susie’s life, her patients and career in medicine, struggles, triumphs, and the changes she saw over the years.

Forest and Fire Ecology Hike

Sunday, April 13; 10 a.m. - noon

Bald Mountain Scenic Area; 5 miles west of Boulder on Sunshine Canyon Drive (Mapleton Ave. in Boulder city limits)

Join volunteer naturalists for an easy one-mile hike to learn about the role of fire in ponderosa pine ecosystems, and forest management practices that can lessen the effects of wildfires. You will also see evidence of the 2010 Fourmile Canyon fire, learn about some of the rehabilitation efforts that have been employed, and observe how the landscape recovers over time.

The Mystery of Bird Migration Slide Program

Tuesday, April 22; 7 p.m. - 8:30 p.m.

Longmont Public Library, Meeting Rooms A & B, 4th Avenue and Emery Street, Longmont

Some birds are seen year-round, some in summer or winter, and some birds visit only briefly in spring or fall. Learn why birds make seasonal journeys, how they know when and where to go and what brings them back year after year. Join volunteer naturalists Larry Arp and Vicki Braunagel to explore these and other mysteries surrounding the world of bird migration.

The Mystery of Bird Migration Bird Walk

Saturday, April 26; 8 a.m. - 10 a.m.

Registration is limited; meeting location will be provided to registered participants

Join volunteer naturalists Larry Arp and Vicki Braunagel to explore the joys of bird watching during prime migration season! Learn tips for recognizing different types of birds, including songbirds, ducks and waterfowl, wading birds, raptors, and more. Please be prepared for a slow-paced walk of up to 2 miles. Bring binoculars and a bird field guide if you have them. Register by emailing lcolbenson@bouldercounty.org, or calling 303-678-6214 by Thursday, April 24.

Spring Heritage Day at the Walker Ranch Homestead Sunday, April 27; 10 a.m. - 3 p.m.

Walker Ranch Homestead; 8999 Flagstaff Mountain Road, approximately 7.5 miles west of Boulder on Flagstaff Road

Spring is a new beginning – planting gardens, repairing buildings, bringing baby animals into the world. That was also true for local ranch families in the 1880s. Join us at the Walker Ranch homestead for a peek into pioneer living in springtime. Smell what’s cooking in the log house, chat with the blacksmith, and experience hands-on traditional activities with costumed volunteers.



A costumed volunteer prepares samples of butter, freshly churned at the event.

All Programs

All ages are welcome unless otherwise noted.

NO PETS PLEASE! Be prepared for cool temperatures and muddy trail conditions. Bring drinking water and dress in layers.

For information about these programs, or to arrange a volunteer-led program, for your group, please call 303-678-6214.

Discover Boulder County *calendar of events*

I Spy Beaks and Feet!

Wednesday, April 30; 10 a.m. - 11 a.m.

Walden Ponds Wildlife Habitat Area; 75th Street between Valmont Road and Jay Road, Boulder; meet at group picnic shelter near Cottonwood Marsh

Birds eat a lot of different foods—seeds, insects, fish, and other animals. Join volunteer naturalists to learn how a bird's beak and feet help them find and eat their favorite foods. We will watch for local birds and find out where they live, eat, and have babies. This program is for preschool children and their families



Birding Boulder County through the Seasons

Tuesday, May 6; 7 p.m. - 8:30 p.m.

Lafayette Public Library, 775 West Baseline Road, Lafayette

Join volunteer naturalists to learn about birding year-round. This program will explore where to find and how to identify some of our local birds, from the plains to the alpine. You will also learn about the many challenges birds face and how they adapt. This seasonal story of birds takes you through an amazing range of ecosystems and habitats, and you will also learn about some of the migratory birds that return to or pass through Boulder County during the year.

Geology of Rabbit Mountain

Saturday, May 10; 9 a.m. - 1 p.m.

Rabbit Mountain Open Space; NE of Lyons on North 55th Street; meet at group picnic shelter

Volunteer naturalists Dick Pratt and Roger Myers will lead a moderate 2-mile hike at Rabbit Mountain where you will learn about the unusual geology of the area. We'll also watch for spring wildflowers, soaring raptors, and other wildlife. Bring lunch, water, sunscreen, closed-toed hiking shoes/boots, and binoculars if you have them. This program is geared for adults.

Let's Talk Chickens

Sunday, May 11; 1 p.m. - 3 p.m.

Agricultural Heritage Center; 8348 Ute Hwy 66, Longmont

Join volunteer Barb Kirchner as she shares experiences and lessons learned from raising her own chickens. Learn why chickens have been popular as pets and livestock for centuries and how they are suited to your backyard today. Kids and adults can learn how to walk, talk, and act like a chicken. Bring your kids and questions to this informal drop-in hen party!

Crafts and Trades of Olden Days

Sunday, May 18; 10 a.m. - 3 p.m.

Agricultural Heritage Center; 8348 Ute Highway 66, west of Longmont

If you were a pioneer settler and there were no stores in the area, how would you get the things you needed for your family? Learn about old-fashioned jobs and the traditional arts and crafts that went into making what was needed for life down on the farm. See a blacksmith in action, try your hand at candle-dipping and working with a drop spindle!



Fossils and Flowers

Sunday, May 18; 9:30 a.m. - noon

Meeting location will be provided to registered participants.

Join volunteer naturalists Megan Bowes and Sue Hirschfeld for a short, moderately strenuous hike to explore a landscape created by folding and faulting as the Rocky Mountains uplifted 65 million years ago. You will see fossilized evidence of the Cretaceous seas that once inundated this area, as well as some of the earliest blooming wildflowers in Boulder County. Register by emailing lcolbenson@bouldercounty.org, or calling 303-678-6214 by Thursday, May 15.

Nature Hikes for Seniors

Enjoy a guided nature hike for seniors every month.

For more information, call 303-678-6214.

Programs begin at 10 a.m. and end at noon.

Thursday, March 27; Agricultural Heritage Center

Thursday, April 24; Walden Ponds Wildlife Habitat Area (meet at the group picnic shelter at Cottonwood Marsh)

Thursday, May 29; Mud Lake Open Space

Senior Fish-off



Friday, April 26th; 6:30 a.m. to 10 a.m.
Wally Toevs Pond at Walden Ponds Wildlife Habitat;
on 75th St, between Valmont Rd. and Jay Road, Boulder

Prizes will be awarded for heaviest rainbow trout, most experienced (oldest) angler, best fishing hat, and best fishing joke. The trout have fattened up and are biting!

- Open to all Boulder County seniors 64 years and older
- All anglers must sign in—no fishing before 6:30 a.m. Valid 2014 Colorado fishing license required
- Live bait and artificial flies/lures permitted—bring your own fishing gear
- Wheelchair-accessible fishing pier is available

For more information, contact Michelle Bowie at 303-678-6219 or mbowie@bouldercounty.org

Get Muddy

When trails are muddy, please:

- Use a trail before 10 a.m.
- Visit another park that has hard-surface trails
- Stay on the trail—go through the mud. Shortcutting switchbacks and bypassing mud puddles greatly increases erosion, widens trails and destroys vegetation.

Pick the Right Trail

In wet conditions, consider using hard-surface trails at lower elevations like Coal Creek Trail, Boulder Creek Path or the St. Vrain Greenway Trail.

Travel through mud, not around it!

Boots, bikes and horses clean fast, but trails take years to heal.

Check current trail conditions before you go!
Visit www.BoulderCountyOpenSpace.org

Volunteer Recovery: Your Chance to Help

This spring, Boulder County Parks and Open Space will sponsor volunteer work projects to help with recovery from the 2013 flood.

Visit www.BoulderCountyOpenSpace.org/wildwork to learn more about the work as well as register for projects during March, April and May.

There will be two kinds of flood- related projects:

- Clean-up projects will involve moving and hauling debris and trash from the flood out of the riparian areas and agricultural properties.
- Restoration projects will focus more on the reclamation of the areas and properties.

For details, contact Craig Sommers at 303-678-6216 or WildWorkVolunteers@bouldercounty.org.



Volunteers help clear debris from the 2013 flood.

Driving Tours: Flood-Damaged Open Space Properties

Join Parks and Open Space staff for a guided tour of three flood-damaged open space properties: Heil Valley Ranch's southern trailhead, Western Mobile and Pella Crossing. Learn about plans to repair facilities and open damaged trails. Be prepared for a short hike at each property. Registration required since we will travel in county vans. Minimum age is 10 with accompanying adult.

Flood tours take place from 1 p.m. - 3 p.m.

- Friday, March 7
- Saturday, March 8
- Friday, April 4
- Thursday, April 24

Register at www.BoulderCountyOpenSpace.org/register
Registered participants will be given meeting location



PARKS & OPEN SPACE DEPARTMENT
5201 St. Vrain Road
Longmont, CO 80503
303-678-6200

www.BoulderCountyOpenSpace.org

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NOTE: Please visit www.BoulderCountyOpenSpace.org/trails for information about properties that may be closed due to the 2013 flood.

