



2023 Annual Report

Recreation & Facilities

Staff

Jarret Roberts

Trails

Andy Tyler

Tristan Stone

Chris Trujillo

Kristopher Mitchell

Max Phinney

Bryce Ramsey

Christopher Ullom

Volunteer Coordination

George Carter

Joanna Daloisio

Grounds

Jeff Cox

Chase Stewart

Darrin Cole

Casey Kennedy

Kayla Greco

Michael Aurich

Signs

Mary Rolf

Caleb Dixon

Urban Forestry

Cathy Thiltgen

Mary Tiernan

Buildings and Historic Preservation

Will Towel

Mike Lohr

Brian Bartel

Mike Bunn

Aidan Mills

Douglass Fowler

Brian Bertin

Emily Ruff

Shop, Safety, and Fleet

Joe Thiltgen

Sara Miligan

and our amazing
seasonal team

2023 was a great year for the Recreation and Facilities Division. Volunteer numbers continued to bounce back to pre-Covid levels, we finished work upgrading one of our most used trailheads, we completed a reroute that will protect nesting Golden Eagles, we opened the to-be-named trail at Tolland Ranch, did



Repaired Steps on Nighthawk Trail

major structural repairs to historic buildings such as the McIntosh Barn, increased the accessibility of the Mud Lake Trail, improved overall ADA (Americans with Disabilities Act) accessibility at our trailheads, reduced our trail maintenance backlog, added fishing amenities, completed a major bank restoration at Twin Lakes, mowed more than 100 miles of trail, maintained trees and vegetation at our trailheads and beyond, welcomed a new safety/shop/fleet position, updated the department's employee emergency manual, and brought to life an amazing table from the ashes of the heil fire for the county attorney. This is just a small sample of the inspiring work done by the recreation and facilities team, and illustrates how lucky we are to have such an amazing, passionate, dedicated, and hardworking group. A huge thank-you to each team member, volunteer, and person who contributed in 2023 to keeping our open spaces, welcoming, accessible, and fun to visit.

-Jarret Roberts, Recreation and Facilities Division Manager



Volunteers on Wapiti trail reroute

Trails

Trails Crew Overview

In 2023, the Boulder County Parks and Open Space (BCPOS) trails crew worked on a variety of projects from the plains to the mountaintops. Here are some of the projects and work the group completed:



Niwot Loop Culvert (before)



Completed (after)

Niwot Loop Bridge

- Trails technicians installed temporary foundational stabilization supports and rip-rap to prevent a long-term closure.
- Thanks to the department's project management team, the crew was able to hire a consultant to evaluate the scoured-out bridge piers and provide repair recommendations.

Niwot Loop Culvert Crossing

- The trails crew found innovative ways to achieve the project goals while reducing the overall project cost by nearly half the original budget.
- The ongoing partnership with Boulder County Transportation Department was a huge help as they hauled the pre-cast sections to the site.
- In total, demolition, construction, and reclamation took five weeks, and the project was completed in April.
- Our landscape architects drafted the construction plan set and our in-house engineer provided engineering specifications.

Fourmile Link Maintenance

- The trails crew identified the need for maintenance efforts to address timber checks, adding additional steps & rip rap above the stone staircase on the Fourmile Link Trail and has begun planning effort that will lead to construction in 2024 or later.
- The project includes grade reversal maintenance on the Benjamin Loop.

Rabbit Mountain Maintenance

- Trails technician, Bryce Ramsey led the planning and maintenance of the project and engagement of our youth corps affinity group.

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- The project added stone-timber checks and armoring, imported road base to fill in heavily eroded sections.

Hall Ranch Trail Maintenance

- Trails technician, Max Phinney led extensive planning and maintenance of three miles of trail at Hall Ranch. This work primarily the Nighthawk Trail with the support of seasonal staff and his youth corps team.
- They installed timber/stone checks, armoring, and added additional drainage points.



Drainage crossing on the newly rerouted Wapiti Trail

Heil Wapiti Reroute at Heil Ranch

- The trails team worked with wildlife staff to provide an alternative route to the access road because of new closures aimed at protecting a relocated golden eagle nesting site.
- Trails technician Kristopher “Mitch” Mitchell & field supervisor Tristan Stone partnered on the design, planning, and construction.
- Despite a later-than-anticipated start, the crew nearly completed the entire 1-mile reroute, including three of the four structured turns in 2023. One structure and reclamation remains for 2024.

Trail at Tolland Ranch

- Trails technicians, Max Phinney and Christopher Ullom partnered with Eldora Mountain Ski Resort to complete the installation of new gates, snow fencing, and signs at Deadman’s Gulch.
- Field supervisor Chris and division manager, Jarret Roberts brought members of the BCPOS Board of Trustees to visit the trail at Tolland Ranch, which was nearly completed this year. Highline Earthworks LLC completed work on the Eldora Mountain Resort side. Remaining work on the West-Magnolia side will be completed in the summer of 2024.

Workforce

- The trails team completed thirty tasks completed including in their workforce tracking including: graffiti removal, clearing downed trees, erosion repairs, gate repairs, and other miscellaneous tasks.

Regional Snow Removal

- The trails crew annually clears 12 miles of regional sidewalk routes for the transportation department.

Contracted Trail Projects

- Field supervisor Tristan Stone, worked with a contractor to design the repair needed for a section of the Boulder Canyon Trail that is being eroded by the creek. Additionally, he worked to develop the scope of work for a major bridge decking repair at Hall Ranch.
- Field supervisor Chris Trujillo, developed a contract for managing Boulder Canyon vegetation clearing, with work expected to happen in 2024. Additionally, designs and work with the adjacent Home Owners Associations (HOAs) have started for the 2024 Legend Ridge trail resurfacing project.

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Seasonal Hiring

- 2023 required three rounds of hiring to get to eight seasonal staff.

Trainings

- Bryce Ramsey and Christopher Ullom both obtained their Class A Commercial Drivers Licenses.

Additional Small Projects and 2024 Project Planning

- Planning for Monarch retaining wall
- Planning for Imel-Rock Creek Trail reroute
- Planning Walker Ranch Loop maintenance
- Planning for Hall Ranch trail maintenance
- Planning for Hall Ranch bridge reconstruction
- Planning for the completion and official opening of the trail at Tolland.
- Twin Lakes boardwalk and timber steps completed.
- Helped move 20 tons of road base at the lower section of the Picture Rock trail to help with erosion.



Tree across Overland Loop

Trails by the Numbers

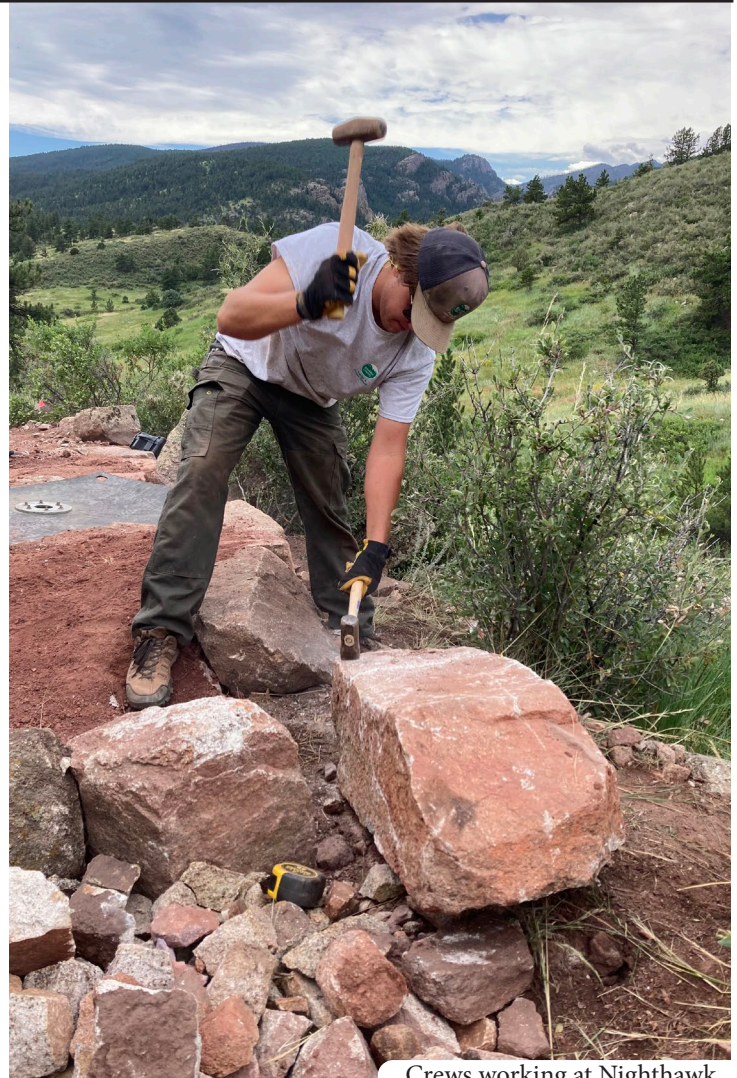
In addition to many small projects across the entire trail system, the trails group focused efforts on two larger projects. One, a major trail re-route of a section of the Wapiti Trail at Heil Ranch and the other, significant work to reduce the backlog of maintenance on the Nighthawk Trail at Hall Ranch. Here are a few of the highlight numbers from those projects:

Wapiti Trail reroute at Heil Valley Ranch

- ½ mile of corridor, about 70 foot wide, was cut through the standing dead trees from the recent fire.
- 24.4 tons of eight-inch- wide Colorado red sandstone was moved and placed for retaining walls.
- 7 tons of one to one-and-a-half inch rock was brought in for back fill of retaining walls.
- 30 tons of road base was used as trail tread.
- 4,500 feet of trail was cut in.

Youth Corps' Work on the Nighthawk Trail

- Brushed three miles.
- Cleaned 80 drains.
- 53 timber check-steps were installed on eroded sections of the trail.



Crews working at Nighthawk

Volunteers

The Recreation & Facilities (RAF) Division completed 31 volunteer work projects in 2023. These projects included 401 volunteers who contributed a total of 1,610 hours of service. The majority of these hours spent working on trail improvement projects and performing routine trail maintenance.

Rabbit Mountain

At Rabbit Mountain, our focus was on improving sections of trail prone to closures due to muddy conditions. Volunteers constructed 230 linear feet of raised turnpike, moved over 40 tons of fill material and rocks to fortify trail surfaces, and restored 5,000 square feet of disturbed plant habitat. RAF staff also worked with three different Boy Scouts seeking their Eagle Scout rank. Over the course of three projects led by the prospective Eagle Scouts, volunteers constructed 15 sub-grade checks to fix 100 linear feet of deeply cupped trail tread. Finally, volunteers removed 645 feet of old agricultural fencing, which not only improved the aesthetics of the trail but improved safety for wildlife, as deer and elk could easily become tangled or injured in the fence.

Accomplishments

- Total projects: 31
- Total number of volunteers: 401
- Volunteer service hours: 1,610
- Raised Turnpike Built: 230 linear feet
- Old fence removed: 1,274 linear feet
- Trail modified to be made accessible: 700 feet
- Area reseeded: 5,000 square feet



Volunteers brave the cold at Rabbit Mountain.

Heil Valley Ranch

At Heil Valley Ranch, volunteers got involved in the Wapiti Trail reroute by bench cutting new trail tread and moving downed trees and debris to make work easier for Boulder County Trails staff. In the Altona Schoolhouse area, volunteers focused their efforts on wildlife conservation and habitat improvement. Our team removed 629 linear feet of old agricultural fencing, mitigating hazards to wildlife, and constructed two elk jumps to facilitate safe wildlife passage in areas where fencing could not be removed because of delineations for property boundaries.

Mud Lake

In addition to working with members of the public during volunteer events, RAF staff collaborated with TeamWorks, a local youth program that helps develop skills in leadership, work ethic, and responsibility through outdoor conservation projects. Together, we began construction on a stone retaining wall to improve a 700 ft section of trail to make it more accessible to people with mobility issues, particularly wheelchair users. This trail improvement project was designed using the Forest Service Trail Accessibility Guidelines (FSTAG). While it won't meet ADA regulations, the finished project will provide a more user-friendly experience for trail users of all abilities, while preserving the natural character of the trail.



Eroded section of Rabbit Mountain Trail



Volunteers working at Rabbit Mountain



Same section after volunteer work

Buildings & Historic Preservation

The buildings and historic preservation workgroup completed a number of jobs in 2023, mostly focusing on structures on our Priority Historic Preservation (PHP) List, which reflects BCPOS's most valuable historic buildings. After completing work on 14 different structures in 2023, the team is on pace to have the PHP list completed in 2024. Priority preservation work included Barret House foundation repairs, Betasso Blacksmith shop completion, Dorothy Rogers cabin and shed repairs, Ramey House maintenance, Agricultural Heritage



Major structural repairs to the McIntosh Barn

Center (AHC) maintenance, McIntosh Barn foundation repairs, Stroh Dickens Barn painting, Moore House roof repairs, and the Ramey House reroof, just to name a few. We also worked with the Boulder County Youth Corps in the reconstruction of a historic cattle chute as well as some fencing and outbuilding repairs on the Braly property.

BHP has put our new portable sawmill to work over the course of 2023, milling more than 85% of all lumber needed for historic preservation. The team has become quite adept with the mill and can produce more than 1,000 board feet per day. In 2023, we milled approximately 20,000 board feet, which was all used in our historic preservation efforts.

In addition to the historic preservation workload, the team was able to build a new shade pergola for our resident draft horses at the Agricultural Heritage Center as well as a changing structure for the indigenous groups using the Southdown property at Ron Stewart Preserve. The team also spent close to 2,000 hours responding to internal requests and emergent work, mostly consisting of maintenance on historic buildings.

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We also felled the logs, milled the lumber, and custom-built a live edge table for the county attorney's office as a special request.

Historic Preservation Projects:

- Dorothy Rogers outbuildings
- St. Vrain sort yard outbuildings
- Clark privy
- Moore house roof
- Ramey house and garage roof
- Stroh Dickens barn painting
- McIntosh Barn structural repairs
- Barret House foundation repairs
- Agricultural Heritage Center annual maintenance
- Braly cattle chute, fencing and maintenance
- Betasso Blacksmith's Shop completion
- Harney Lastoka Farm outbuildings Maintenance

New Construction:

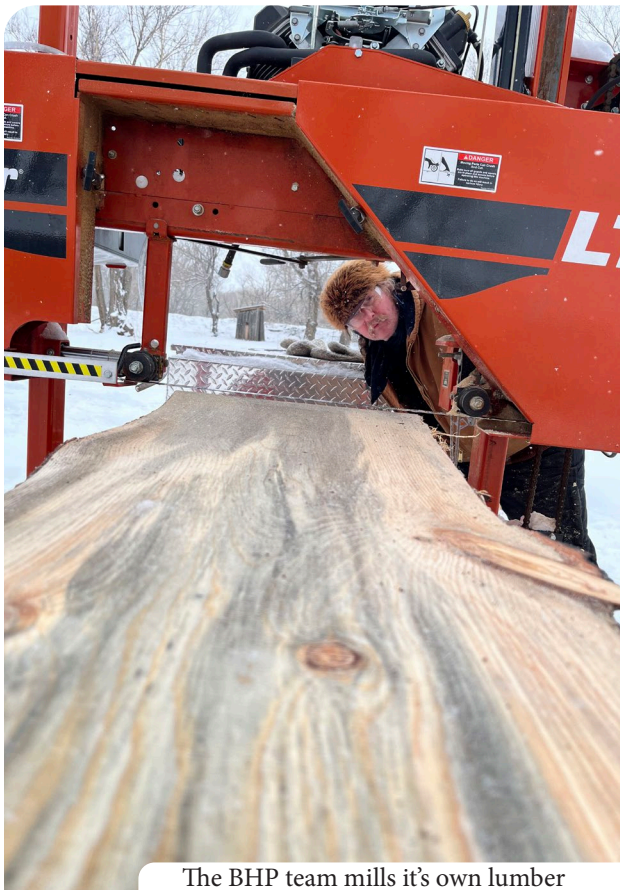
- Southdown Indian Mountain changing structure
- AHC horse pergola
- Custom table for county attorney



A new pergola provides shade for animals at the AHC



The BHP team delivers a table made of milled lumber salvaged from the Cal-Wood Fire.



The BHP team mills it's own lumber



The Betasso Blacksmith repaired

Trailhead Maintenance



Seasonal trailhead maintenance crew staining the Beech restroom

One of the prominent maintenance backlog items addressed by the trailhead Maintenance (THM) crew during the 2023 season was the completion of the stone sealing project. We were able to seal the stone of 8 properties at our park trailheads, including the exterior of the restrooms, information kiosks, and some picnic shelters, for longevity purposes.

Mud Lake had a major staining effort take place in the fall of 2023. During an All-Staff workday, the trailhead restroom, information kiosk, and picnic shelter received a fresh coat of stain to the wood exteriors and log work of these structures.

The Beech Shelter also got a facelift with the skilled help of the BHP crew. Staff resurfaced and applied a new exterior coating to the wooden support posts of the structure. This required the posts to bare wood up to a uniform height on each post and then applying a high-quality weather-resistant product to reseal that wood and give it a nice new look.

Additional staining efforts in 2023 included many touch-up spots throughout our park system, especially in areas where sun and wind exposure to certain parts of a structure causes



Beech Shelter pre and post sanding and staining

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the wood to be susceptible to exterior damage. We also completed full staining applications on all wood exteriors of three trailheads, including Pella Crossing, Mud Lake, and Beech.

Other miscellaneous THM projects included BearSaver bin installation, restroom door refinishing and repainting at Rabbit Mountain, tile work in restrooms, interior window frame painting, plexiglass window pane replacements, and picnic shelter grill repainting.

Starting in 2023, the THM crew began the process of mitigating the extensive list of noncompliant ADA issues at the trailhead restrooms, starting with the repositioning of the interior restroom grab bars located near the toilet risers. We were able to relocate 47 grab-bar units deemed noncompliant to the appropriate heights and distances from the wall and other wall-mounted items so that they were within the regulation parameters.



The THM Crew sands the Beech Shelter in preparation for staining

Grounds

The grounds team was involved in many different projects Throughout 2023. Assignments ranged from construction and major improvement projects to heavy maintenance and light maintenance. Here is an overview of accomplished tasks:



Twin Lakes fence installat

Construction

- Twin Lakes: bank restoration
- Stearns Lake: fishing amenities
- Cottonwood Marsh: fishing amenities
- Ethel Harrold: access road
- Wapiti Trailhead: stone curbing completion
- Wapiti Access Road: emergency erosion repair
- Carolyn Holmberg Preserve: stream restoration
- Installation of six memorial benches

CAST Projects

- Southdown: infrastructure
- Stearns Lake: drainage and infrastructure
- Anne U. White: wall installation
- Cottonwood Marsh: parking expansion and drainage
- Mud Lake: parking expansion and drainage

Heavy Maintenance

- Trailhead grading with extensive work done at Walker Loop access road, Betasso Preserve, Mud Lake, Upper Geer Canyon access road, Eagle Wind access road; Money Road maintenance and repair.
- Mowing: 100+ miles of regional trails, mountain trails, and prairie trails mowed and maintained. All trailheads mowed and trimmed on a set schedule.



Twin Lakes bank restoration



Mud Lake trailhead expansion

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Cottonwood Marsh parking expansion and drainage

Light Maintenance

- Irrigation: charging system in the spring, maintenance throughout the season, and winter blowouts at the Agricultural Heritage Center, Kerr Community Gardens, Goodhue Farmhouse, Homestead, and Lefthand Valley Grange.
- Trailhead maintenance throughout the county: cold patch and pothole repair, fencing installation and repair, curbing installation and maintenance, bollard installation and maintenance, gate installation and repair, culvert and swale cleanouts.
- Snow marker seasonal installation and removal at Goodhue House, Walker Ranch Loop, Meyers Gulch, Mud Lake, Caribou Ranch and Betasso Preserve.
- Worked with the youth corps at Walker Ranch Loop and Meyers Gulch repairing and installing post-and-dowl fencing and timbers, removing irrigation, and repairing fences at Cottonwood Marsh.
- Graffiti removal on benches, bollards, and bridges.



Walker Ranch Loop access road improvement



Road and trail resurfacing

Urban Forestry

In 2023, urban forestry (UF) planted 29 trees at six locations across Boulder County. We also transplanted 30 shrubs at the Saint Vrain Sort Yard. These trees and shrubs joined the 400 existing small trees maintained in our trailheads. We used 1,520 cubic feet of mulch to insulate the trees, retain moisture and add nutrients to the soil. We used 207,360 gallons of water to sustain our nonirrigated trees through the help of our seasonal staff. As the year came to an end, and the trees were prepped for winter, we treated 102 evergreen trees with antidesiccant to help prevent moisture loss during the winter. We wrapped 215 smooth-barked and struggling trees to help protect them from sun scalding. We completed crown-raising pruning at Pella Crossing, Walden Ponds, Goodhue Farmhouse, and BCPOS office.

The spring and early summer was cooler and wetter than average. Midsummer heat combined with these conditions to promote increased insect and disease issues. The UF team diagnosed and monitored these issues throughout the year.

We performed additional projects outside of small tree maintenance, completing 3.82 acres of rotational pruning through contracted work; rejuvenated the turf at the AHC and Goodhue Farmhouse through aeration, fertilization, and minor irrigation changes; planted annual flowers at AHC and the Nederland Mining Museum; completed pruning around benches for fishing activities at Walden Ponds, pruned and maintained the shrubs at Goodhue; applied compost tea soil injections and foliar applications on 40 oaks and 27 maples at our trailheads; cleaned up the lilacs and other small shrubs at Altona Schoolhouse; and completed our

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Cathy Thiltgen clears Cottontail Trail.



Trees are planted at Heil Valley Ranch

Small Tree Trailhead Totals

Location	Irrigated	Supplementally Watered	Not Watered	Total Trees	New Plantings	Anti-Desiccant	Winter Wrap	Winter Water (gal) *	Summer Water (gal)**	Mulch (ft ³)***
AHC	57	8	-	65	3	8	46	720	5,760	180
Heil/Altona	-	67	-	67	1	41	15	6,030	48,240	268
Hall	-	-	27	27	-	0	0	0	0	0
Pella	-	29	-	29	-	2	18	2,610	20,880	116
Suitts	-	4	-	4	-	0	4	360	2,880	16
Lagerman	-	30	9	39	3	8	22	2,700	21,600	152
LHVG	59	28	-	87	-	42	31	2,520	20,160	348
Centerbridge	-	6	-	6	-	0	6	540	4,320	24
Twin Lakes Res	-	-	4	4	-	0	0	0	0	16
Homestead	2	-	2	4	-	0	0	0	0	16
Walden	-	31	-	31	-	0	24	2,790	22,320	124
Kerr	4	3	-	7	-	0	3	270	2,160	28
Stearns	-	-	3	3	-	0	2	0	0	12
Goodhue	5	23	-	28	1	1	20	2,070	16,560	112
Niwot Loop	-	3	-	3	-	0	0	270	2,160	12
POS Office	-	4	-	4	2	0	4	360	2,880	16
SV Log Storage	-	20	-	20	19	0	20	1,800	14,400	80
Totals	127	256	45	428	29	102	215	23,040	184,320	1,520

*Average 30 gallons/tree for 6 months, watering 1 time every other month

Total/water/year 207,360

**Average 30 gallons/tree for 6 months, watering 4 times per month

***Average 4ft³/tree

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statement of qualifications contracting process, securing continuing services tree vendors for five years. We joined forces with plant ecology and weeds workgroups again this year to divert 47 tons of chipped tree material from landfills. The wood chips were delivered to leased farms for use in composting operations and soil rejuvenation.

A major piece of equipment, the bucket truck, was out of service for the majority of 2023. UF adapted to the change and utilized contracted vendors to perform a variety of tree care services. We identified and managed contracted tree care services at eight BCPOS locations total of \$23,195.

The team planted five trees and 75 shrubs in 2022. UF usually plants 20-40 new trees each year. Tree varieties are selected for drought tolerance and hardiness as a conservation effort and to adapt to climate change. Young trees are given supplemental water until they become established, which can range from three to more than six years. Tree watering is labor-intensive and has been affected by recent drought conditions. In 2022, UF decided to plant only five trees in an effort to maintain the current inventory of young trees to a healthy standard.

Planting fewer trees allowed the team to concentrate on safety-focused tree pruning in trailheads and trail corridors. Tree risk assessments were performed in-house, and contracts were written to mitigate the documented concerns. The work was implemented in house, where accessible, or through local tree care companies.

Tree Continuing Services Contract Work

Season	Location	Trees Pruned	Trees Removed	Risk Assessment Completed	Area (ac)	Cost
Spring	No Contract Work	-	-	-	-	-
Fall	Tally Ho Ct	-	1	N	0.07	\$2,130
	Heil Valley Ranch	14	1	N	2.53	\$8,921
	AHC	-	1	N	0.06	\$1,120
	Erin Arsenault	1	-	N	0.09	\$3,600
	Niwot Loop	9	-	N	0.42	\$2,240
	Red Fox Hills	-	3	N	0.06	\$1,152
	Hall	2	-	N	0.21	\$1,152
	Pella	5	-	N	0.37	\$2,880
Total		31	6		3.82	\$23,195



Pruning at Kerr Community Gardens



Mary Tiernan planting at Goodhue Farm



Volunteer event at Marlatt property

Signs

Large Property Sign Replacements

The Ruth Roberts street-side property sign and the Kerr Community Gardens entry sign were both replaced this year. These large signs, made of high-density urethane, are sandblasted and hand painted by 20/20 Communications Signs in Boulder.



Kerr Community Gardens Entry Sign after Replacement

Mud Lake Sign Additions & Updates

There were 18 long awaited updates were completed at Mud Lake Open Space. The signage supports the additions of the Sherwood Forest and Chickadee trails. Trail wayfinding, regulatory, and kiosk maps were included in this project.

Bilingual Signage

Across the county, 57 Welcome/Bienvenido signs were installed as deployments of the BCPOS Sign Standards and Messaging Manual. These very important signs announce and welcome visitors to recreational opportunities at access points. Six Mile Fold, Niwot trails, and 104th Street Trail were included in this project.

Sign Shop Expansion

The BCPOS sign shop moved into its new location on the second floor of the parks building. The new space includes a second full-time workstation, a 6-foot-by-8-foot work bench, and new material storage opportunities. The larger workspace will allow sign staff to work on all sign fabrication at one time.



Bilingual signage newly installed on the Niwot trails



New bilingual signage at Sherwood property

Fleet, Shop & Safety



Fleet

2023 was a very busy year for the parks fleet. With more than 300 units that need regularly scheduled maintenance as well as other periodic repairs, scheduling this is a full-time job. To help alleviate this daunting task, we hired a shop, fleet, and safety Assistant. Sara Milligan started in April of 2023 and has been a huge help managing all that the shop workgroup does. Sara spent five years with BCPOS as a grounds and urban forestry seasonal employee before joining the workgroup full-time.

Each year, there are funds set aside to replace fleet units that meet replacement criteria (age, miles/hours of use, lifetime maintenance costs, original cost vs. new cost). In 2023, we were approved to replace four parks ranger vehicles, an invasive weed vehicle, a building and historic preservation vehicle, as well as an equipment trailer and walkbehind flail mower. We also purchased a new rodent control machine, backhoe breaker attachment and used Colorado's fire mitigation funding to purchase a mower.

Starting in 2023, the parks department assembled a group of staff available to offer equipment operator training. This includes everything from construction equipment to mowers to Ag type tractors, trailer towing, and brush chipper use. More information about this program and how to sign up for training is located on the BCPOS page of BCNet.





New fleet hammer



New fleet mower

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Safety

The safety committee had a very busy and productive 2023. Staff completed the annual Boulder Employee Emergency Manual (BEEM) refresher review and quiz.

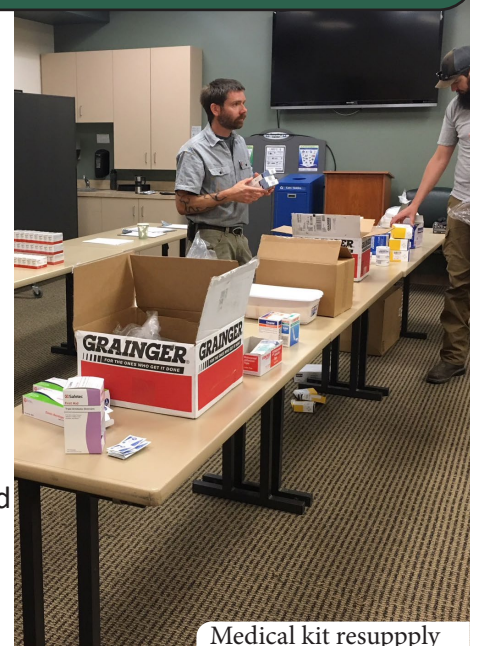
Trainers completed more than 120 equipment operator and fleet/shop trainings, which included off-highway vehicle, trailer towing, construction equipment, shop, wash bay, and hazardous material storage and disposal.

The Parks Safety Salute nomination program was created to recognize outstanding attention to safety. The program encourages employees to recognize their peers for safety efforts above and beyond everyday safety practices. The nomination form can be found on the BCPOS BCNet page under Policies and Procedures.

Following the BCPOS safety assessment of 2021, every workgroup finalized their assessment recommendations in 2023 and documented their plans moving forward concerning all things safety in the workplace.

To celebrate all that BCPOS staff does concerning safety, we held two celebrations where we could get together, share stories, and get to know each other outside of a work project environment. Sweet Cow provided ice cream at one event and Flippin Flapjacks made pancakes and sausages at the other.

During the BCPOS safety month in May, the safety committee held its annual first aid kit restocking event. Staff brought in their vehicle and personal work kits to ensure all needed items were accounted for and in good working condition.



Medical kit resupply



Safety ice cream celebration