



# Parks & Open Space

5201 St. Vrain Road • Longmont, Colorado 80503  
303.678.6200 • Fax: 303.678.6177 • [www.bouldercounty.org](http://www.bouldercounty.org)

## Board of County Commissioners Public Hearing

*File*

**TO:** Board of County Commissioners

**DATE:** Tuesday, December 12, 2017

**AGENDA ITEM TITLE:** Boulder County Parks & Open Space 2018-2023 Capital Improvement Projects

**PRESENTER:** Tina Nielsen, Special Projects Manager

**ACTION REQUESTED:** Approval

### Background

Boulder County annually approves a five-year Capital Improvement Project plan and budget for the Parks & Open Space Department. The plan helps the department to prioritize improvements on open space and engage the public prior to implementation of new facilities. The plan also provides a structure for seeking partnerships and grant funds to help leverage our budget.

Our work plans continue to be affected by the historic floods of September 2013; flood recovery work is ongoing and though most recovery funding is separate from our normal capital budget, some of that work is reflected in the ecosystems CIP category.

### 2018 Capital Improvement Project Budget Summary

Category		2018				Total
		2017 Carryover	Grants	Partner/ Other	CIP	
I	Recreation & Facilities	tbd	\$0	\$0	\$225,000	\$225,000
II	Historic Preservation	\$152,475	\$0	\$0	\$60,000	\$212,475
III	Public Education	\$0	\$0	\$0	\$20,000	\$20,000
IV	Agriculture	\$0	\$98,056	\$83,614	\$185,157	\$367,872
V	Forestry	\$27,500	\$960,000	\$0	\$100,000	\$1,087,500
VI	Ecosystems	\$32,000	\$60,000	\$1,147,000	\$129,425	\$1,368,425
<b>CIP Total</b>		<b>\$211,975</b>	<b>\$1,118,056</b>	<b>\$1,230,614</b>	<b>\$720,582</b>	<b>\$3,281,227</b>
Contingency					\$54,418	\$54,418
<b>Grand Total</b>		<b>\$211,975</b>	<b>\$1,118,056</b>	<b>\$1,230,614</b>	<b>\$775,000</b>	<b>\$3,335,645</b>

## **Staff Discussion and Recommendation**

The capital budget is distributed among six project categories based on readiness and priority: Recreation & Facilities, Historic Preservation, Public Education, Agricultural Resources, Ecosystems, and Forestry. Funding for all of these categories except for Agricultural Resources and a portion of the Forestry budget comes from the sales tax approved by voters in 2010. Ag Resources capital projects are funded from revenue generated by crop leases, and a portion of the Forestry budget comes from the general fund.

Priorities for many capital projects follow directly from management plans and master plans adopted by the Board of County Commissioners following a public process. In other cases staff prioritizes projects based on Department Mission and Goals, Boulder County Comprehensive Plan, purchase agreements and intergovernmental agreements, requests from the public, and ability to leverage county funds. The project spreadsheets in Attachment A and the project descriptions in Attachment B provide more project-specific details.

Thanks to contributions of partners, grants, and other funding sources, we are able to leverage the \$755K CIP budget with an additional \$2.3 million in grants and partnerships in the Agriculture, Forestry, and Ecosystem categories. These additional funding sources include:

- Partnerships with our agricultural tenants and the grants they receive from the Colorado Natural Resource Conservation Service through their Environmental Quality Incentive Program (EQIP).
- FEMA Pre-Disaster Mitigation Grant Program, and the State Forest Service (State Fire Assistance/Wildland Urban Interface) for forestry work.
- COPs funds and Colorado Parks & Wildlife Wetlands Grant Awards match for flood restoration, and the Urban Drainage and Flood Control District for riparian restoration work.

The CIP budget does not reflect the personnel costs of the Parks & Open Space department. In normal years, we conservatively estimate that 40% of staff time is devoted to capital projects. Staff costs are funded through the Department's annual budget, and are significant – over \$2 million annually. The Department also spends a considerable amount of sales tax funds to hire seasonal employees to assist in the construction of CIP projects. Finally, the county pays for the cost of the Youth Corps, whose assistance is vital on many POS capital projects. Thus, the real cost of Capital Improvement Projects, including both the estimated project costs and personnel costs, is much greater than the numbers reflected in the capital budget.

## **POSAC Recommendation**

POSAC held a public hearing on November 16, and unanimously recommended BOCC approval of the Boulder County Parks & Open Space 2018-2023 CIP.

## **BOCC Action Requested**

Approval

**Attachments** (available at [www.BoulderCountyOpenSpace.org/POSAC](http://www.BoulderCountyOpenSpace.org/POSAC))

A: Boulder County Parks & Open Space Proposed 2018-2023 CIP Spreadsheets

B: Capital Improvement Project Descriptions for 2018-2023 CIP

# Summary of 2018 Capital Improvement Projects

# ATTACHMENT A

		2018				
		2017 Carryover	Grants	Partner/ Other	CIP	Total
	<b>Recreation &amp; Facilities: \$150K</b>					
1	Heil 2 Improvements	\$0	\$0	\$0	\$135,000	\$135,000
2	Tolland Ranch Trail	\$0	\$0	\$0	\$25,000	\$25,000
3	Creation of Guidelines 2020 vision	\$0	\$0	\$0	\$50,000	\$50,000
4	Ag Heritage Center Irrigation Improvements	\$0	\$0	\$0	\$15,000	\$15,000
	<b>Recreation &amp; Facilities CIP Subtotal</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$225,000</b>	<b>\$225,000</b>
	<b>Historic Preservation: \$100K</b>					
1	Altona Schoolhouse	\$30,000	\$0	\$0	\$0	\$30,000
2	Tumbleson House	\$67,700	\$0	\$0	\$35,000	\$102,700
3	Rocky Mountain Mammoth 1976 House	\$54,775	\$0	\$0	\$0	\$54,775
4	Braly Barn	\$0	\$0	\$0	\$25,000	\$25,000
	<b>Historic Preservation Subtotal</b>	<b>\$152,475</b>	<b>\$0</b>	<b>\$0</b>	<b>\$60,000</b>	<b>\$212,475</b>
	<b>Public Education: \$50K</b>					
1	Altonal School House Furnishings	\$0	\$0	\$0	\$5,000	\$5,000
2	Heil Valley Ranch 2 interpretive loop	\$0	\$0	\$0	\$10,000	\$10,000
3	Exhibits & Trailside Interpretive Panels	\$0	\$0	\$0	\$10,000	\$10,000
	<b>Public Education CIP Subtotal</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$20,000</b>	<b>\$20,000</b>
	<b>Agricultural Resources: \$125K</b>					
1	Wasson - Center Pivot (Conventional)	\$0	\$64,856	\$52,000	\$106,759	\$223,615
2	Ertl - Center Pivot (Organic)	\$0	\$33,200	\$31,614	\$79,398	\$144,212
	<b>Ag CIP Subtotal</b>	<b>\$0</b>	<b>\$98,056</b>	<b>\$83,614</b>	<b>\$186,157</b>	<b>\$367,827</b>
	<b>Forestry/Fire CIP: \$200K</b>					
1	Heil: Lichen Loop (Forestry Treatment 162 Acres)	\$0	\$960,000	\$0	\$0	\$960,000
2	Heil Valley Ranch (Ingersol Rx) 260 Acres Target	\$0	\$0	\$0	\$100,000	\$100,000
	<b>Forestry CIP Subtotal</b>	<b>\$27,500</b>	<b>\$960,000</b>	<b>\$0</b>	<b>\$100,000</b>	<b>\$1,087,500</b>
	<b>Ecosystems: \$150K</b>					
1	Flood Restoration	\$32,000	\$60,000	\$947,000	\$21,325	\$1,060,325
2	Grassland Restoration	\$0	\$0	\$0	\$66,000	\$66,000
3	Native Plant Propagation	\$0	\$0	\$0	\$12,000	\$12,000
4	Riparian Restoration	\$0	\$0	\$200,000	\$0	\$200,000
5	Reclamation/Revegetation	\$0	\$0	\$0	\$5,000	\$5,000
6	Wildlife Habitat Restoration	\$0	\$0	\$0	\$25,100	\$25,100
	<b>Ecosystems CIP Subtotal</b>	<b>\$32,000</b>	<b>\$60,000</b>	<b>\$1,147,000</b>	<b>\$129,425</b>	<b>\$1,368,425</b>
	<b>CIP Total</b>	<b>\$211,975</b>	<b>\$1,118,056</b>	<b>\$1,230,614</b>	<b>\$720,582</b>	<b>\$3,281,227</b>
	<b>Contingency Fund</b>				<b>\$54,418</b>	<b>\$54,418</b>
	<b>Grand Total</b>				<b>\$775,000</b>	<b>\$3,335,645</b>

Recreation & Facilities Capital Improvement Projects 2018-2023

RAF CIP: \$150K	2018					2019	2020	2021	2022	2023	Project Descriptions	
	2017 Carryover	Grants	Partner/ Other	CIP	Total 2018							
1				\$135,000	\$135,000	\$55,000					Implementation of Heil 2 Small Area Plan infrastructure for use. Complete Eastside Trail, School House Loop Trail, Corral Trailhead in 2018. Altona School site development and corral area clean up in 2018. Install restroom and equestrian parking in 2019.	
2				\$25,000	\$25,000	\$5,000	\$5,000	\$5,000			Funding in 2018 for a Class III Cultural Resource Inventory of trail corridor. Submit for a construction grant in fall 2018 and start construction in 2019. Assume 3 years to build out system. Additional funding would include the Michael O'Brien fund.	
3				\$50,000	\$50,000						B-06: Create construction and maintenance guidelines for POS facilities	
4				\$15,000	\$15,000	\$15,000					2018: Phase 2 implementation of irrigation and site improvements at AHC utilizing in-house labor. 2019: ADA Access for MacIntosh Barn. Land Use Special Use Application. Design and improvements to comply with federal guidelines.	
5						\$30,000					Implement Management Plan improvements: Redesign and build Ethel Harold parking lot. Natural play area design and installation at Meyers Trailhead delayed. Trail to Gross Reservoir construction 2019 if easement is acquired. No Restroom upgrade for Ethel Harold planned.	
6			\$			\$					Scope and cost TBD. Outreach to potentially occur in spring of 2018. Funding potential needs figuring out if we build more than what was in place before the flood. Goal would be to contract majority of work.	
7						\$75,000		\$50,000	\$160,000	\$200,000	2019: Expand and modify trailhead as necessary based on demand, with particular attention horse trailers and boat trailers. 2021: Initial engineering and planning for southern trail connection 2022: Install two bridges 2023: Trail and Ag infrastructure	
8							\$75,000				The 2009 Betasso Management Plan provides for expansion of current trailhead capacity if increase in visitor use warrants, as a medium priority based on long term >5 years review.	
9						\$15,000	\$200,000				Potential Fishing is Fun grant. Development of site dependent on flood restoration. Transportation funding of regional restroom. CIL funding of 48k available for R & F. Donation account 15k.	
10						\$10,000	\$10,000	\$10,000			Develop Restroom/Trailhead cleaning supplies and trash storage at key trailheads.	
11								\$150,000	\$150,000		Implement approved Management Plan recommendations.	
<b>Recreation &amp; Facilities CIP Subtotal</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$225,000</b>	<b>\$225,000</b>	<b>\$205,000</b>	<b>\$290,000</b>	<b>\$215,000</b>	<b>\$310,000</b>	<b>\$200,000</b>	
<b>Recreation &amp; Facilities other funding</b>												
12	Niwot / Left Hand Valley Grange Johnson Park CIL			\$	\$							Finish LHVg TH and trail work in 2018 (CO State Trails grant, Transportation, CIL)
13	St. Vrain Trail Construction to Pella					\$	\$					Funding and construction of trail from Airport Road to Pella Ponds from Boulder County Transportation and possible grant application.
<b>Other Recreation &amp; Facilities Funding Subtotal</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	
<b>Recreation &amp; Facilities CIP Subtotal</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$225,000</b>	<b>\$225,000</b>	<b>\$205,000</b>	<b>\$290,000</b>	<b>\$215,000</b>	<b>\$310,000</b>	<b>\$200,000</b>	

**Historic Preservation Capital Improvement Projects 2018 - 2023**

	Historic Preservation: \$100K	2017 Carryover	2018			2019	2020	2021	2022	2023	Project Descriptions
			Grants	Partner/ Other	CIP						
1	Altona Schoolhouse	\$30,000									2018 - Continue contracted out public access project awarded in late 2017
2	Tumbleson House	\$67,700			\$35,000		\$65,000		\$80,000	\$50,000	2018 - Continue contracted asbestos abatement awarded in late 2017 Project includes continuation of the contracted asbestos consulting and engineering firm consultation. After abatement, Buildings and Historic Preservation to complete replastering in late 2018 2020 - Contract out foundation repair 2022-2023 - Contract out installation of septic, restroom, water service and parking needs for future use as determined by the N. Foothills Open Space Management Plan
3	Rocky Mountain Mammoth 1976 House	\$54,775									2018 - Continue contracted out non-historic house deconstruction awarded in late 2017 in order to return the historic site context for future public interpretation
4	Braly Barn				\$25,000	\$150,000					2018- Contract out structural engineering plan update to meet code requirements and complete land use reviews in preparation for 2018 rehabilitation. Submit landmark application 2019 - Contract out rehabilitation
5	Small Buildings					\$5,000	\$5,000		\$5,000	\$5,000	2019-2020, 2022-2023 - Buildings & Historic Preservation rehabilitation of miscellaneous small buildings and structures (e.g. Rogers, Archie-Weir, Wall Street outbuildings, Puzzler, Ellis, Argo, Braly outbuildings, Reynold Ranch corrals, Henning Barn) in partnership with Youth Corps
6	Olivieri Buildings						\$30,000				2020 - Buildings & Historic Preservation rehabilitation of cabin, garage and office building. Remove collapsed bunkhouse and contract out site stabilization work
7	Reynolds Ranch Log House							\$100,000			2021- Buildings & Historic Preservation to begin repairs for future use determined by the Platt Rogers/Reynolds Ranch Open Space Management Plan. O&M funds will cover any small necessary repairs until 2021
8	Major Maintenance								\$15,000	\$45,000	2022- Reshingling the Agricultral Heritage Center Lohr McIntosh barn 2023 - Reshingling the Walker wagon barn, cabin and well house
<b>Historic Preservation Subtotal</b>		<b>\$152,475</b>	<b>\$0</b>	<b>\$0</b>	<b>\$60,000</b>	<b>\$212,475</b>	<b>\$155,000</b>	<b>\$100,000</b>	<b>\$100,000</b>	<b>\$100,000</b>	

**Public Education Five Year Capital Improvement Projects 2018-2023**

	Public Education: \$50K	2018				Total 2018	2019	2020	2021	2022	2023	Project Descriptions
		2017 Carryover	Grants	Partner/ Other	CIP							
1	Altonal School House Furnishings				\$5,000	\$5,000						Furnish interior of school house so we can "hold class" for local school groups and organizations
2	Heil Valley Ranch 2 interpretive loop				\$10,000	\$10,000						series of interpretive signs for ADA accessible loop trail near corral parking
3	Exhibits & Trailside Interpretive Panels				\$10,000	\$10,000						AHC & Cardinal Exhibits; taxidermy mounts, Mud Lake, Pella, Peck interpretive
4	Cardinal Mill Exhibits						\$25,000					Interior exhibits for the top and bottom of mill
5	Offero Volunteer Management Software Enhancements						\$15,000					Enhancement of Offero system (tailor-made software to manage volunteers and events)
6	Braly & Ramey Interpretive Opportunities						\$10,000					Trailside panels along Braly trails (series) and possibly Ramey property (1 panel)
7	Ag Heritage Center Exhibits							\$125,000		\$50,000		In 2020, replace "Faces of Boulder County" and "Food" and "Tools of the Trade" exhibit that have been on display for 20 years. In 2022, create exhibits for outdoor demonstration field.
8	Assay Office Museum Exhibits								\$15,000			Expand assaying exhibits
9	Nederland Mining Museum Exhibits									\$25,000		Interpretive plan for hard rock mining sites, and begin updating NMM exhibits
	<b>Subtotal</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$20,000</b>	<b>\$20,000</b>	<b>\$50,000</b>	<b>\$125,000</b>	<b>\$15,000</b>	<b>\$50,000</b>	<b>\$25,000</b>	

**Agricultural Resources Capital Improvement Projects 2018-2023**

Agricultural Resources: \$125K	2018					2019	2020	2021	2022	2023	
	2017 Carry over	Grants	Partner/ Other	CIP	Total 2018						
<b>1. Center Pivot &amp; Lateral Sprinklers - Conventional</b>											
a. Wasson - center pivot (wiper)		\$64,856	\$52,000	\$106,759	\$223,615						Center pivot wiper (EQIP) - new electric service est. \$65K
b. Becky - Lateral sprinkler						\$50,000					Lateral or pivot irrigation sprinkler (EQIP)
c. G. Anderson - center pivot							\$25,000				Full center pivot sprinkler
d. Henry & Ross- 2 center pivots								\$200,000	\$175,000		Two full center pivot with swing arm (no EQIP, tenant cost share)
<b>2. Center Pivot &amp; Lateral Sprinklers - Organic</b>											
a. Ertl - Center Pivot (small)**		\$33,200	\$31,614	\$79,398	\$144,212						Center pivot wiper sprinkler - EQIP electric service \$50K
b. Boulder County Land Venture - electric service to pivot						\$34,000					Currently using diesel generator
c. Cherry Creek Tree Farm - center pivot						\$15,000					Wiper center pivot (EQIP)
d. AHI - Replace center pivot							\$200,000				Replace existing center pivot for trail alignment. Possible alternative funding source ACRE3
e. Laber, Henry - center pivot**								\$50,000			Wiper center pivot (EQIP)
f. Haley - install irrigation system										\$175,000	Lateral or pivot irrigation sprinkler for research farm
<b>3. Organic Farm Stand Projects</b>											
a. Harney - mule barn or new farm stand							\$25,000				Allow public inside the existing mule barn or install new farm stand (50% POS) 2019??
<b>4. Other Irrigation Projects</b>											
a. Barrett & Darby - Mumford Lateral pipeline project						\$25,000					Replace open irrigation ditch with underground pipeline and fix seepage for neighbors. Work would be completed by tenant.
<b>Ag CIP Total</b>		<b>\$98,056</b>	<b>\$83,614</b>	<b>\$186,157</b>	<b>\$367,827</b>	<b>\$65,000</b>	<b>\$250,000</b>	<b>\$200,000</b>	<b>\$225,000</b>	<b>\$0</b>	

\*Ag Tenant cost share  
 \*\*EQIP  
 \*\*\*Include new electric service (\$65K)

Wasson - new electric service will supply power to 3 irrigation sprinkler projects  
 Higher priorities could change timeline

**Forestry-Fire CIP 2018-2023**

Forestry/Fire CIP: \$200K	2018					2019	2020	2021	2022	2023	Project Descriptions
	2017 Carry over	Grants	Partner/ Other	CIP	Total 2018						
<b>1 Ponderosa /Forest Restoration Large-Scale Treatments &gt;50 Acres</b>											<b>Forest ID Team will work out Details</b>
a. Heil: Lichen Loop PA1 (U1, U2) (162 Acres)		\$960,000			\$960,000	\$320,000					Application is in for 2017 Pre-Disaster Mitigation Grant, will not know until at least April 2018, Could Possibly Split Between 2018-2019. We will also apply for some State Funding which could possibly cut our share by 50%. <b>Has Approved Prescription.</b>
b. Walker: Meyers Gulch PA1 (U1, U3-6) (355 Acres)							\$1,800,000				Will need to apply for Grant Funding. Typically cost share is at least 25% which would be \$450,000 of CIP, We will look to see if this project can be split up without compromising the economies of scale. At a minimum the project should expect to be at least 1/2 its current size. Possible Split Between 2020-2021. <b>Has Approved Prescription.</b>
c. Hall: Button Rock PA5 U1-6									\$1,300,000		Will need to apply for Grant Funding. 227 acres at \$6000, Does Not Include need for road access. <b>Will Have Approved Prescription by Early 2018.</b>
d. Hall: Button Rock PA6 U3-4									\$1,300,000		Will need to apply for Grant Funding, 162.2 acres at \$8000, Does Not Include need for road access. <b>Will Have Approved Prescription by Early 2018.</b>
e. Billings: Button Rock									\$660,000		We think that approximately 120 Acres of feasible projects exist at \$5000, plus improved road access at \$60,000k <b>Will Have Approved Prescription by Early 2018.</b>
<b>2 Prescribed-Fire/Activity Fuels Projects</b>											<b>Burning activity fuels from completed(2010-2013) contract mechanical operations</b>
a. Heil Valley Ranch (Ingersol Rx) 260 Acres Target				\$100,000	\$100,000	\$25,000					This all depends on what can be completed by the BCSO. Typical first entries can cost \$500 per acre. We estimate that we can complete at least 250 acres each year. <b>Approved PRF, Burn Plan Almost Complete</b>
b. Rabbit Mountain (Arapaho Rx) 350 Acre Target (3444 Total)	\$27,500.00				\$27,500	\$125,000					Waiting on Invoice from CDFPC for Utilizing Juniper Valley Hotsahots (Jail Crew), we are trying to make sure invoice arrives before years end, although we got invoices from Fall of 2016 in Summer of 2017. <b>Approved PRF and Burn Plan</b>
c. Betasso (Arkansas RX) 262 Acres							\$125,000				Based on a 250 acre year at \$500 per acre. <b>PRF Approval Early 2018</b>
d. Hall Ranch (Nelson Loop Rx) 860 Acres								\$125,000			Based on a 250 acre year at \$500 per acre. <b>PRF Approval Early 2018</b>
e. Walker: (Walker Rx) 1056 Acres									\$125,000		Based on a 250 acre year at \$500 per acre. <b>PRF Approval Early 2018</b>
f. Heil: (Wapiti/Wapiti2) 440 Acres										\$125,000	Based on a 250 acre year at \$500 per acre. <b>Approved PRF and Burn Plan</b>
<b>Forestry/Fire CIP Subtotal</b>	<b>\$27,500</b>	<b>\$960,000</b>	<b>\$0</b>	<b>\$100,000</b>	<b>\$1,087,500</b>	<b>\$470,000</b>	<b>\$1,925,000</b>	<b>\$125,000</b>	<b>\$3,385,000</b>	<b>\$125,000</b>	

**Ecosystems CIP 2018-2023**

	Ecosystems: \$150K	2018				2019	2020	2021	2022	2023	Project Descriptions
		2017 Carry over	Grants	Partner/ Other	CIP						
<b>1</b>	<b>Flood Restoration</b>										
a.	Geer Creek	\$32,000		\$465,000	\$10,000	\$507,000					Post-flood stream restoration funded by COPS and CIP Ecosystems. COPS \$398K. AI Moss donation \$67K.
b.	Brewbaker	\$0		\$482,000	\$0	\$482,000					Post-flood stream restoration funded by COPS and CIP Ecosystems.
c.	Golden Fredstrom		\$60,000		\$11,325	\$71,325					CPW Wetland Grant match. Wetland & stream restoration funds, including restoration around the old Niwot
d.	Maintenance of flood projects						\$50,000	\$40,000	\$20,000		Post flood recovery projects maintenance, incl. watering transplants, weed control, and replacement plants.
<b>2</b>	<b>Grassland Restoration</b>								\$20,000		
a.	CEMEX				\$38,000	\$38,000					Reseeding 160 acres at CEMEX to perenial native vegetation.
b.	Mowing: Various Properties				\$28,000	\$28,000	\$20,500	\$15,500			Mowing for grassland restoration projects on Rock Creek Grasslands, Egg Farm, CEMEX, etc.
c.	Cheatgrass Restoration						\$20,000		\$20,000		400 acres of treatment for cheatgrass infestation.
<b>3</b>	<b>Native Plant Propagation</b>										
a.	Peck Native Garden and others				\$12,000	\$12,000	\$14,500	\$14,500	\$15,000	\$15,000	Native seed collection & increase of local ecotypes not available on commercial seed market.
<b>4</b>	<b>Riparian Restoration</b>										
a.	Bailey Ponds/Kenosha			\$200,000	\$0	\$200,000	\$10,000	\$10,000			Restoration of Boulder Creek through the Bailey Ponds/Kenosha properties. Partner with the UDFCD.
b.	Lower Boulder Creek							\$10,000			Kenosha East and West Ponds reclamation & wetland planting. Post-LBC construction maintenance.
c.	Future projects								\$65,000	\$109,000	Delonde Creek at Caribou; Sherwood Gulch stream daylight through mine area.
<b>5</b>	<b>Reclamation/Revegetation</b>										
a.	Heil 2 Reclamation				\$5,000	\$5,000					Restoration of the corral area and other areas in need.
b.	Conger Mine (Sherwood Gulch)							\$7,000			Reclaim the bare areas of the Conger Mine at the Sherwood Gulch property.
c.	Hall 2 Mine Reclamation								\$6,000	\$6,000	Maintenance of reclamation, post-bond, in conjunction with management plan implementation.
<b>6</b>	<b>Wildlife Habitat Restoration</b>										
a.	Black Footed Ferret Reintro				\$20,000	\$20,000	\$23,000	\$23,000			Vision 2020 goal to reintroduce Black Footed Ferret; costs for plague prevention, incl. dusting and vaccine.
b.	Ag Wildlife Habitat				\$5,100	\$5,100		\$7,000	\$12,000		Wildlife habitat and pollinator projects on ag properties: Swanson, Ertl, Puma, Montgomery Farms, AHI
c.	Loukonen Dairy Farm, Parcel F						\$12,000				Fencing off portions of the Lake Ditch/ephemeral drainage for PMJM habitat.
d.	South Branch							\$8,000			Fencing off portions of the South Branch Ditch at Braly and Sadar for PMJM habitat
e.	US36 Wildlife Crossing									\$150,000	Underpass or fencing for possible US36 wildlife crossing
<b>7</b>	<b>Road/Social Trail Closure</b>										
a.	Reynolds Rogers & West Magnolia							\$15,000	\$12,000		Closing social trails/roads in conjunction with trail building on the Reynolds property.
	<b>Overall Ecosystems Subtotal</b>	<b>\$32,000</b>	<b>\$60,000</b>	<b>\$1,147,000</b>	<b>\$129,425</b>	<b>\$1,368,425</b>	<b>\$150,000</b>	<b>\$150,000</b>	<b>\$150,000</b>	<b>\$150,000</b>	<b>\$150,000</b>

Ecosystems Combined: \$150k											
1	Flood Restoration	\$32,000	\$60,000	\$947,000	\$21,325	\$1,060,325	\$50,000	\$40,000	\$20,000	\$0	\$0
2	Grassland Restoration	\$0	\$0	\$0	\$66,000	\$66,000	\$40,500	\$15,500	\$20,000	\$0	\$0
3	Native Plant Propagation	\$0	\$0	\$0	\$12,000	\$12,000	\$14,500	\$14,500	\$15,000	\$15,000	\$0
4	Riparian Restoration	\$0	\$0	\$200,000	\$0	\$200,000	\$10,000	\$20,000	\$65,000	\$109,000	\$0
5	Reclamation/Revegetation	\$0	\$0	\$0	\$5,000	\$5,000	\$0	\$7,000	\$6,000	\$6,000	\$0
6	Wildlife Habitat Restoration	\$0	\$0	\$0	\$25,100	\$25,100	\$35,000	\$38,000	\$12,000	\$0	\$150,000
7	Road/Social Trail Closure	\$0	\$0	\$0	\$0	\$0	\$0	\$15,000	\$12,000	\$0	\$0
	<b>Ecosystems CIP Subtotal</b>	<b>\$32,000</b>	<b>\$60,000</b>	<b>\$1,147,000</b>	<b>\$129,425</b>	<b>\$1,368,425</b>	<b>\$150,000</b>	<b>\$150,000</b>	<b>\$150,000</b>	<b>\$130,000</b>	<b>\$150,000</b>

# Boulder County Parks and Open Space Capital Improvement Project Descriptions 2018-2023

BOCC December 12, 2017

(Project numbers correspond to project numbers on Attachment A spreadsheet)

## Contents

RECREATION AND FACILITIES Projects.....	1
HISTORIC PRESERVATION Projects.....	3
PUBLIC EDUCATION Projects .....	4
AGRICULTURAL RESOURCES Projects.....	4
FORESTRY Projects.....	6
ECOSYSTEMS Projects .....	7

### RECREATION AND FACILITIES Projects: CIP Funds

1. **Heil 2 Improvements:** 2018, 2019 CIP. The County purchased the 210 acre Heil 2 property in late 2012. Heil 2 lies on both the east and west side of Geer Canyon Drive south of the existing trailhead. A small area plan for Heil 2 was completed and approved in May, 2016, with improvements including a trails, trailhead, and trailhead amenities. The Overland Loop Trail opened in 2017. In 2018, CIP funds are earmarked for completing the Corral Trailhead, Eastside Loop, and Schoolhouse Loop. In 2019, funds are earmarked for a restroom and equestrian parking. See also HP #1.
  
2. **Tolland Ranch Trail:** 2018-21 CIP. In January, 2015, Boulder County partnered with the Colorado State Forest Service and Great Outdoors Colorado, with coordination by The Conservation Fund, to acquire a conservation easement over approximately 3,334 acres of the Tolland Ranch property near Eldora Ski area in western Boulder County and Gilpin County. The acquisition includes an easement for a 6.5-mile long trail. 2018 funding is for a Class III Cultural Resource Survey of the trail corridor. The plan is to apply for a trail construction grant in fall of 2018 and commence trail construction in 2019, continuing to 2020 and 2021, if needed. Construction funding will be solicited from the Michael O'Brien fund.
  
3. **Construction & Maintenance Guidelines:** Vision 2020 includes the goal of the creating construction and maintenance guidelines for park-related facilities. The funds will be used to hire a consultant to lead this project.
  
4. **AG Heritage Center Irrigation Improvements:** 2018-19 CIP for Phase 2 of irrigation site improvements. In 2014-2016 staff completed driveway improvements for site distance, upgraded an agriculture irrigation structure to correct erosion problems to the trail, completed Phase 1 irrigation improvements for the yard area near the house, and installed culvert intercept by corrals. In 2018, funds will be used for Phase 2 irrigation and plantings to entry and central yard area. In 2019, funds are earmarked for ADA access to the MacIntosh Barn.

5. **Walker Ranch Management Plan Implementation:** 2019 CIP. The management plan update for Walker Ranch was completed in 2013. In 2019 CIP will be used towards some of the work identified in the management plan: Ethel Harrold Trailhead upgrade, nature play area design and installation at Meyers Gulch Trailhead, and construction of trail towards Gross Reservoir.
6. **Anne U. White Trailhead:** 2018 CIP and grant funds. The Anne U. White trail has been closed since the devastation of the 2013 flood. Work on the trail is essentially completed, and has benefitted from the help of numerous volunteer days. The two homes closest to the trailhead were a part of the buyout through the FEMA process, and the county Transportation Department is working on the road repairs. In 2018, using remaining GOCO flood-related grant funds, we will contract out engineering plans for the trailhead area (slope stabilization, stream restoration, and potential hardening of stream bank to protect parking area site). We will gather public input to inform the scope of the trailhead replacement. The scoping process will determine a cost for the trailhead work, anticipated to be completed in 2019.
7. **Lagerman Agricultural Preserve Equestrian Parking Upgrade and Trail Construction:** 2019, 2021-2023 CIP. The new 5.5-mile Open Sky Loop opened in 2017. Staff will monitor trailhead use and decide if parking lot upgrades to accommodate equestrian trailer parking and boat trailers are warranted, with funds set aside in 2019. Funds are earmarked in 2021-2023 for construction of a new trail from Lagerman Reservoir south to Oxford Road, as outlined in the 2012 Lagerman-Imel-AHI Management Plan.
8. **Betasso Parking Expansion:** 2020 CIP. Consider expansion of available parking at the Betasso Trailhead.
9. **Braly Loop Trail, Parking Lot, Trailhead:** 2019-2020 CIP. Fishing-is-fun grant or GOCO trails grant application in 2019 and implementation in 2020 CIP. Plans include creating a loop trail, Trailhead and parking facility, to eventually be part of the St. Vrain corridor trail. Additional funding coming from a cash-in-lieu and Boulder County Transportation (funding construction of restroom for regional trail). See also HP #4.
10. **Restroom/Trailhead Service Infrastructure:** 2019-2021 CIP. Develop infrastructure such as a large bear proof container to store restroom/trailhead cleaning supplies and trash at key trailhead locations.
11. **Reynolds Ranch/Rogers/Castle Rock Improvements:** 2021-2022 CIP. Master planning will be occurring for improvements. Funds are earmarked for implementing the approved improvements.

**RECREATION AND FACILITIES Projects: Other Funds**

12. **NIWOT/Left Hand Valley Grange (LHVG) Johnson Park.** Grant award from Colorado State Trails in 2015, Cash-in-lieu funds, and Boulder County Transportation funds to complete work in 2017 and 2018. Work includes redesign of parking lot, restroom, kiosk, and trail re-route at LHVG and Niwot area.
13. **St Vrain Trail Construction to Pella** (Boulder County Transportation). Uncertain timing for construction of regional trail from Airport Road to Pella Ponds.

## **HISTORIC PRESERVATION CIP Projects:**

1. **Altona Schoolhouse Public Access:** 2017-2018 CIP. The 1880 Altona School is the oldest remaining one-room stone schoolhouse in Boulder County. The school educated children from the Altona community from 1880 until about 1949 when consolidation and declining population forced the school to close. The Heil family purchased the property in July 1949 and began using the building as a residence. Several small additions were added in the 1950s, but the stone schoolhouse remained remarkably intact. BCPOS restored the schoolhouse for nonpublic access in 2015-2016. In 2017, partnering with Recreation and Facilities, plans for public access and parking were completed; in 2018 the Buildings and Historic Preservation crew will complete restoration work necessary for public access. See also RAF #1 and PE #1.
2. **Tumbleton House Repairs:** 2017-2018, 2020, 2022-2023 CIP. The circa 1890s Tumbleton House at Hall Ranch was rehabilitated with part of a GOCO Legacy Grant in 2001. Originally, foundation repairs were to begin in 2017, but due to the unexpected discovery of asbestos in the first floor plaster walls, the focus of the project shifted to asbestos mitigation first and the foundation repairs delayed until 2020. The repair work ensures the house will remain viable for future uses to be determined through the North Foothills Open Space Management Plan update.
3. **Rocky Mountain Mammoth 1976 House Deconstruction:** 2017-2018 CIP. Located at the top of Magnolia Road, the Rocky Mountain Mammoth is one of Boulder County's most intact examples of a late 19<sup>th</sup> and early 20<sup>th</sup> century small scale hard rock mining operation once common in the foothills of Boulder County. Today, intact sites like this are extremely rare and offer a unique opportunity for interpretation. The shaft house and cabin date from the late 19th century, but the unfinished house dates from 1976. BCPOS will contract out the house deconstruction and material recycling in order to return the site to its historic context for future public interpretation as part of the Hard Rock Mining Tour.
4. **Braly Barn Rehabilitation:** 2018-2019 CIP. The circa 1903 Braly barn is located on the historic Wencil Farm northwest of Hygiene. The County purchased the 112.48-acre property June 2000. Both the main branch and the south branch of St. Vrain Creek cross the property. In 2018, engineering plans will be updated in preparation for the 2019 rehabilitation. Future public access to the property is planned after flood repair projects are completed and the proposed St. Vrain trail will also cross through the property. See also RAF #9 and PE #6.
5. **Small Buildings:** 2019-2020, 2022-2023 CIP. A group of smaller historic buildings that need a lesser degree of work are scheduled for rehabilitation work each year from 2019- 2023. The high priorities include the Rogers Ranch buildings, Archie-Weir buildings, Wall Street outbuildings, Heil Valley Ranch II outbuildings, Puzzler town site (Arapahoe Lodes), Ellis, Argo, Braly outbuildings, Reynolds Ranch corrals and Henning Barn. The list and work will be refined and prioritized based on forthcoming assessments. Work may be done in partnership with the Boulder County Youth Corps.
6. **Olivieri Buildings Rehabilitation:** 2020 CIP. Purchased in 2007, the Olivieri property is located in Sunshine Canyon and originally operated as a small-scale hard rock mining operation before becoming a vacation home for the Olivieri family for over 50 years. The buildings are a representative example of the types of rustic mining cabins that were typically constructed during the early 20<sup>th</sup> century through their simplicity of design and use of readily available natural materials. The Buildings and Historic Preservation crew will removed the collapsed bunkhouse, and rehabilitate the cabin, garage and stone office building.

7. **Reynolds Ranch Log House Repairs:** 2021 CIP. The 1874 log house is part of the historic Hockaday Ranch located southeast of the Town of Nederland. Charles Hockaday, who most likely constructed the building, settled in the area after working as a freight operator from St. Joseph, Missouri to Central City, Colorado. The property is significant for its association with the early settlement of the area and the development of high country ranching. In preparation for a future use of the building as determined by the forthcoming Platt Rogers/Reynolds Ranch Open Space Management Plan, funding is allocated in 2021 to cover the costs of the repairs. Operations and maintenance funds will cover any small necessary repairs until 2021. See also RAF #11.
8. **Major Maintenance:** 2022-2023 CIP. Funding is allocated for high cost projects that extend beyond the operation and maintenance budget capability. Projects include re-shingling the Agricultural Heritage Center Lohr McIntosh barn and the Walker Ranch wagon barn, cabin and well house.

### **PUBLIC EDUCATION CIP Projects:**

1. **Altona School House Furnishings:** 2018 CIP. We'll furnish the interior of one-room school house so local school groups will really experience what school was like in earlier times. See also Historic Preservation #1.
2. **Heil Valley Ranch 2 Interpretive Loop:** 2018 CIP. A series of trailside panels about the property's natural and cultural history will be installed along the ADA interpretive loop near Corral Parking Lot.
3. **Exhibits & Trailside Interpretive Panels:** 2018 CIP. Trailside panels for Peck Open Space (agricultural use and native garden), Castle Rock (historical bridges) Mud Lake (water resources) and Walden Ponds Wildlife Habitat (2013 Flood repairs). Trailside panel costs range from \$1,000 to \$2,000 depending on whether they are designed in-house or by a consultant, the number of photographs, and cost of any original artwork.

**Cardinal Mill Exhibits:** 2019 CIP. Interior exhibit themes for the top and bottom of the mill will include Old Cardinal and current Cardinal site, life in a mining town, and how a mill works.

4. **Offero Volunteer Management Software upgrades:** 2019 CIP. After a full year of use from the public, volunteers and staff, we will consider upgrading certain features.
5. **Braly & Ramey Interpretive Opportunities:** 2019 CIP. Trailside panels will be installed at Braly and Ramey properties highlighting the natural and cultural resources. See also RAF #9; HP #4.
6. **Ag Heritage Center Exhibits:** 2020 CIP. Due to wear and tear, a number of exhibits installed in 2000 will be replaced: "Faces of Boulder County," "Food," and "Tools of the Trade" exhibit.
7. **Assay Office Museum Exhibits:** 2021 CIP. Funds will be used to expand assaying exhibits.
8. **Nederland Mining Museum Exhibits:** 2023 CIP. Replace some exhibits with interactive components so exhibits are more engaging for museum visitors to learn about hard rock mining in Boulder County.

### **AGRICULTURAL RESOURCES CIP Projects:**

**Center Pivot and Lateral Sprinklers:** We install center-pivot and lateral irrigation systems to conserve water, reduce erosion, reduce labor costs, and increase crop production. The Natural Resources Conservation Service (NRCS) offers cost-share through their voluntary Environmental Quality Incentive

Program (EQIP). This program will share on average 50% of the total cost. In addition to the environmental benefit, center pivots provide an economic benefit for the County through increased production; typically a 25% increase in production or more is attainable. This correlates into increased revenue. Center pivot sprinklers are also a great benefit to our stewardship responsibilities. Farm field roads and open irrigation ditches are eliminated, reducing the prime location for noxious weeds to get established, and reducing the weed management costs.

**Organic & Market Farms:** Organic & market farms are generally small acreage farms and have the irrigation water and soils that are suited to growing vegetables or “Farmers Market” type produce. These types of crops are raised more efficiently with drip or sprinkler irrigation. This will require new irrigation infrastructure, which typically includes an irrigation water holding structure or pond, pumping station, some underground pipeline, and new electric service brought to the irrigation pump. These systems can supply irrigation water to overhead sprinklers and/or drip-tape irrigation.

### **1. Center Pivot & Lateral Sprinklers—Conventional Farms**

- a. 2018: Wasson center pivot sprinkler, 60 ac.
  - Ag tenant approved for EQIP program with NRCS and will cost share
  - New electric service will be expensive, but will be used to power two future sprinkler projects, Becky and Goldamay Anderson.
- b. 2019: Becky lateral sprinkler
  - Ag tenant will apply for EQIP program and cost share
  - Powered by new electric powerline from Wasson project
- c. 2020: Goldamay Anderson center pivot sprinkler
  - Assume Ag tenant will be approved for EQIP program
  - Also powered by electric powerline from Wasson project
- d. 2021-2022: Henry & Ross (2 full circle with swing arm pivots planned over 2 years)
  - Approximately 300 acres
  - No cost share from Ag tenant no EQIP funds for these pivots

### **2. Center Pivot—Organic Farms**

- a. Ertl 2018 CIP: center pivot (one wiper system)
  - Approximately 63 acres
  - Approved for EQIP funding and cost share with tenant
- b. Boulder County Land Venture center pivot upgrade: 2019
  - Install new electric service to operate existing center pivot
  - Currently operation with diesel powered generator
- c. Cherry Creek Tree Farm – center pivot wiper: 2019
  - Will use existing irrigation pond and powerline
  - Relative inexpensive to add to existing system to expand irrigation to east half of farm
- d. AHI Replacement center pivot: 2020
  - Approximately 70 acres (losing 6 acres to trail)
  - Swing arm system to allow for trail alignment
  - Apply for grant funds (not likely to qualify for EQIP; apply for ACRE3 “Advancing Colorado’s Renewable Energy and Energy Efficiency”)
- e. Laber, Henry – center pivot (wiper): 2022
  - Approximately 83 acres
  - Planned for EQIP approval and tenant cost share
- f. Haley subsurface drip irrigation with precision Ag technologies: 2023
  - Much more efficient than sprinkler irrigation systems, but also more expensive

### 3. Organic Farm Stand Projects.

- a. Harney-Lastoka Mule Barn conversion to farm stand or new farm stand: 2019
  - Farm stand to allow public to enter part of mule barn or new farm stand
  - Cost share with Lafayette and Louisville
  - Design required to meet Land Use codes

### 4. Other Irrigation Projects.

- b. Barrett & Darby –Mumford Lateral irrigation pipeline project:2019
  - a. Replace open ditch with underground pipeline to reduce water lose
  - b. Replace another portion of open ditch to prevent water seepage onto neighbors' property and horse sheds

## **FORESTRY CIP Projects:**

1. **Ponderosa Forest Restoration Large-scale treatments (>50 ac.):** 2019-2020 CIP. These large projects are designed to reduce forest fuels through the implementation of Forest Restoration concepts. Restored forests have a structure that is better adept at responding to wildfire events. In addition they are strategically located on the landscape to protect communities, watersheds, and infrastructure at risk.

- Heil, Lichen Loop (162 ac). This project will focus on completing ponderosa pine restoration east of the Lichen Loop Trail at Heil Valley Ranch. Our plan is to complete 162 acres of fuels reduction on our Heil Valley Ranch Open Space Property across two units (PA1U1 and PA2U2).
- The project will reduce hazardous fuels across the 162 acre project area by maintaining and creating large openings, lowering the Basal Area to 20-80 ft<sup>2</sup>/acre, and emulating pre-settlement forest structure by creating a clumpy, uneven- aged forest structure interspersed with openings that more closely resembles conditions that existed prior to interruption of the historic fire. Material removed during operations will be utilized in our BCPOS Biomass Facilities at our Boulder County Correctional Facility and Transportation complex (OSTC) in Longmont.
- In order to implement the project we have determined that there are 86 acres which would need to be whole-tree helicopter yarded due to adverse slopes, broken terrain, and sensitive plant species and communities. The remaining 76 acres can be treated with a typical ground based harvesting system that also will remove whole trees.
- Funding: Application is in for 2017 Pre-Disaster Mitigation Grant, will not know until at least April 2018. Could possibly split work between 2018-2019. We will also apply for some state funding which could cut our share by 50%. This project has an approved prescription.

2. **Prescribed Fire/Activity Fuels Projects:** 2018 CIP. After BCPOS has completed mechanically thinning some of our forests, the ideal next step for ecological process is to reintroduce fire. Our Prescribed Fire Interdisciplinary team (Fire ID Team) identifies appropriate areas to use this management practice. It can include areas of grassland and shrub land as well as forests that have been thinned in the last several years. The Fire ID Team prioritizes projects based on preparedness and opportunity, therefore may complete work in other locations as needed

- 2018 Heil Valley Ranch, Ingersol RX (260 acres): This project area was treated in 2013 utilizing mastication equipment due to the steep slopes and accessibility. Mastication works leaves behind activity fuels, which we hope to remove/consume through prescribed fire

operations in the project area. This will be a first entry reintroduction of fire into the area. It will be a very complex prescribed burn project.

- 2018 Rabbit Mountain, Arapaho RX (350 acres): Carry over funds due to delayed State invoicing for utilizing the Juniper Valley hot shot jail crew out of Buena Vista. Additionally, Rabbit Mountain is the second priority for continued prescribed fire activity, with a maximum of 350 acres being burned each year. Funding projected for 2019.

### **ECOSYSTEMS CIP Projects:**

1. **Flood:** 2018-2020 CIP. Funds from CIP will be used to restore streams and floodplains that are not funded by other grant sources.
  - **Brewbaker:** 2018 CIP. \$398,000 COPS + \$84,000 CIP Ecosystems. Left Hand Creek at the Brewbaker property is a high priority for our department, yet it did not rank high enough for FEMA funding in the Left Hand Creek Master Plan. COPS, also known as the County sales tax funds, will provide up to \$398,000 in 2018 for finalizing design-build plans and construction of this project in 2018.
  - **Geer Creek:** 2018 CIP. \$398,000 of COPS sales tax funds, \$67,000 AI Moss donation, and a total of \$42,000 CIP Ecosystems. This stream restoration design and construction of Geer Creek will target priority areas needing stabilization and habitat improvements.
  - **Golden Fredstrom:** 2018 CIP. A CPW Wetland Grant awarded in 2016 is providing \$60,000 in funds to restore parts of the St. Vrain Creek impacted in the 2013 Flood along the Golden Fredstrom property. CIP Ecosystems will provide the cash match of \$11,325 in 2018.
  - **Maintenance of Flood Projects:** 2019-2020 CIP. Funds have been set aside in years 2019-2020 to maintain the Brewbaker and Geer Creek stream restoration projects. Watering of transplants and weed control will be needed, as well as replacing transplants and reseeding areas needing follow-up work.
2. **Native Plant Propagation:** 2018-2022 CIP. POS is collecting local, native ecotypes of seed that are not available commercially. These funds are used to support the following: 1) our volunteer native seed collection program, 2) the Native Seed Garden at the Peck property, and 3) additional seed increase from commercial farms operations. The local native seed we generate will be available for current and future flood recovery and ecological restoration projects.
3. **Grassland Restoration Projects:**
  - **Mowing:** 2018-2020 CIP. Because of all the mowing maintenance needed on multiple grassland restoration properties, a separate category was created for this need. Funds are used to rent a tractor and hire a seasonal mower, enabling more efficient and effective mowing on Rock Creek Grasslands, Egg Farm, CEMEX and others.
  - **CEMEX Restoration:** 2018 CIP. Restoration efforts began in 2004 and will continue through 2019. The southern approximately 160 acres will be planted to perennial natives in 2018.
  - **Cheatgrass Restoration:** 2019 CIP. BCPOS has been using an exciting new tool for restoring areas invaded by the annual grass, cheatgrass (*Bromus tectorum*), also called downy brome (*Bromus japonicus*). Research using the herbicide Esplanade has released native vegetation suppressed by cheatgrass dominance. Applications will be made on a larger scale with this funding.
  - **Future Projects:** 2022 CIP. Potential areas for future grassland restoration have been identified at Verhey, Rock Creek Farm west of 104<sup>th</sup> Street, and Loukonen Dairy Parcel G.

4. **Riparian Restoration Projects:**

- **Bailey Ponds/Kenosha:** 2018-2020 CIP. This stream restoration on Boulder Creek was identified as a high priority in the Boulder Creek Master Plan. Partner with the Urban Drainage and Flood Control District for funding and implementation.
- **Lower Boulder Creek:** 2020 CIP. Maintenance funds post-Army Corps of Engineers project completion.
- **Future Projects:** 2021- 2022 CIP. Future stream restoration projects have been identified at Delonde Creek on the Caribou Ranch property and Sherwood Creek at the Sherwood Gulch property. At Sherwood Gulch, a portion of the stream buried in mine tailings will be daylighted and restored.

5. **Reclamation/Revegetation Projects:**

- **Heil 2 Reclamation:** 2018 CIP. Post-coral reclamation of bare and weedy areas.
- **Conger Mine at Sherwood Gulch:** 2020 CIP. Illegal shooting has become a problem at the Conger Mine. Bare areas will be reclaimed and large piles of woody debris will be moved so that they are not used as shooting targets.
- **Hall 2 Mine Reclamation:** 2021-2022 CIP. Maintenance of reclamation, post-bond, in conjunction with management plan implementation.

6. **Wildlife Habitat Restoration Projects:**

- **Black Footed Ferret Reintroduction:** 2018-2019 CIP. Meet 2020 Vison Goal to reintroduce Black Footed Ferrets by 2020. In order to do this, funds are needed to purchase plague vaccine and flea dust for plague prevention to help increase prairie dog populations that have been negatively affected by plague.
- **Loukonen Dairy Farm, Parcel F:** 2019 CIP. Fence off portions of the Dake Ditch/ephemeral drainage for Prebles meadow jumping mouse habitat.
- **South Branch, St. Vrain Creek:** 2020 CIP. Funds will be used to restore the South Branch Ditch, a historical tributary of the St. Vrain Creek that runs through several BCPOS properties (Braly, Ramey, Western Mobile). This area is one of the best habitats for the federally threatened Preble's Meadow Jumping Mouse in Boulder County.
- **Ag Wildlife Habitat:** 2020-2021 CIP. Wildlife habitat and pollinator projects on agricultural properties: Swanson, Ertl, Puma, Montgomery Farms, AHL.

7. **Road/Social Trail Closure:** 2020-2021 CIP. Closing social trails/roads in partnership with USFS on the West Magnolia area and Reynolds Ranch property and in conjunction with building sustainable trails in other locations.