



**Parks &
Open Space**

Marshall-Superior-Coalton Trail Corridor Management Plan

Approved September 18, 2007

Amendment 1

Approved May 30, 2017
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Amendment 2

Approved December 18, 2018
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Marshall-Superior-Coalton Trail Corridor Management Plan



*Approved by the Board of County Commissioners
Boulder County, Colorado
September 18, 2007*

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For:
Boulder County Parks and Open Space Department



Acknowledgements

The Marshall-Superior-Coalton Trail Corridor Management Plan is the culmination of a seven-month planning process that involved Boulder County Parks and Open Space staff, Boulder County Transportation Department staff, the consultant team, key stakeholders and the general public. The individuals listed below contributed to this plan.

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Purpose and Goals of the Plan

The purpose of the Marshall-Superior-Coalton Trail Corridor Management Plan (Trail Plan) is to provide a strategic guide for the implementation of a regional trail from the Marshall Mesa area to Original Town Superior, and from Superior to the Coalton Trail.

Goals of the Trail Plan include:

- ▶ Create a safe, high quality, regional recreational trail as part of a comprehensive system.
- ▶ Provide a connection between the western termini of the Coal Creek and Rock Creek Regional Trails.
- ▶ Minimize environmental and neighborhood impacts.
- ▶ Minimize impacts to agricultural lands and agricultural operations.
- ▶ Develop multiple-use regional trail linkages to promote alternative transportation modes.

Actions, presented in this report, which aid in the realization of these goals include:

- ✓ Document existing trail locations and conditions.
- ✓ Inventory and analyze trail development constraints and opportunities.
- ✓ Design the most feasible regional trail that identifies specific trail alignments and appropriate uses.
- ✓ Develop trail standards and management guidelines.
- ✓ Provide construction cost estimates and priorities.

Project Background

For the purposes of this document, the planning area includes a rectangular area bounded by McCaslin Boulevard on the east, Coalton Drive on the south, South 66th Street on the west and Marshall Drive on the north.

The Trail Plan furthers the vision of the Boulder County Comprehensive Plan, which was completed in 1978 and last amended in 1999. In 2001, Boulder County voters approved a seven-year transportation improvement program, a portion of which was earmarked for completion of the County's Regional Trails system.

In 2003, a regional trails prioritization process identified the completion of the Coal Creek and Rock Creek Trail system as a high priority and directed the County to focus on key missing links connecting the two systems. This prioritization system led to the County applying for and receiving federal funds to complete these links, specifically the trail connection from Coalton Road to the existing Mayhoffer/Singletree trail in downtown Superior.

This process includes Boulder County staff from Parks and Open Space and Transportation Departments. Staff from the city of Boulder and the Town of Superior also participated in the planning process as key stakeholders.

Planning Process

The Boulder County staff and consultant team developed an effective and efficient planning process for the Trail Plan. The process included:

- **January 2007** – Conducted a kick-off meeting to start the planning process.
- **February 2007** – Site visit with Boulder County staff, consultants, and stakeholders.
- **February, March 2007** – Data collection, document review, site visits to understand the resources and opportunities.
- **April 2007** – First public open house at the Superior Town Hall to review the existing conditions, existing trails, opportunities/constraints, and trail amenities.
- **May 2007** – Presentation of informational overview to Parks and Open Space Advisory Committee (POSAC).
- **June 2007** – Second public open house at Superior Town Hall to review conceptual trail alignment plan.
- **July 2007** – Staff-led POSAC field trip to project area.
- **August 2007** – Presentation to POSAC.
- **September 2007** – Presentation to the Board of County Commissioners.

Public Input Process

Public involvement allowed the Boulder County staff and consultant team to make informed

decisions that incorporate the opinions, ideas and expertise of stakeholders and members of the general public. The public input process included two public meetings, facilitated by Boulder County staff and the consultant team, at the Superior Town Hall to gather input for the Trail Plan.

Public Meeting #1

The first open house was held on April 25, 2007 to review the existing conditions, natural resources, land uses, existing trails, and get input from the public about the proposed trail system and amenities. The public was asked for their opinions about the trail material, potential trail alignments, and trail amenities. Present were Boulder County staff, stakeholders, the consulting team and approximately 40 people from the community.



Public Meeting #1



Public Meeting #2

Public Meeting #2

The second open house was held on June 7, 2007 for the public to review and give feedback on the proposed conceptual trail alignment. Present were Boulder County staff, stakeholders, the consulting team and approximately 30 people from the community. The proposed conceptual trail alignment plan was displayed.

A detailed summary of the public input is included in the Appendix.

In order to develop the Trail Plan, the consultant team gained an understanding of the existing conditions within the planning area. Working closely with Boulder County staff and through a series of site visits, the consultant team inventoried existing land ownership, natural resources, cultural resources, key destinations and existing trails. This inventory provided the basis for opportunities and constraints related to the proposed trail system.

Existing Plans and Documents

Boulder County Comprehensive Plan

The County Trails Map, which is part of the Comprehensive Plan, identifies conceptual trail alignments that follow the McCaslin and Marshall Road corridors. These conceptual alignments do not necessarily call for trails along the roads, but instead identify connections between the communities that are served by the existing road corridors.

The greater Southern Grasslands open space complex, including the study area, has been designated as an Environmental Conservation Area (ECA), part of the greater Boulder Mountain Park/South Boulder ECA. There are no other Boulder County Comprehensive Plan environmental designations within the immediate study area for this plan. The Marshall Mesa area to the west of the study area has been designated as a Natural Area. The Coal Creek corridor to the west of this study area is designated as a Significant Riparian Corridor (Boulder County 1999).

Boulder Valley Comprehensive Plan

The Boulder Valley Comprehensive Plan Trails Map has the trail connections as a Conceptual Trails Corridor. While the conceptual corridor follows Coal Creek Drive and South 66th Street, the connection to Superior to the north of Coal Creek Drive is consistent with the plan's intent. The Boulder Valley Comprehensive Plan is the City of Boulder's comprehensive plan that is approved both by the city and the county.

Coal Creek-Rock Creek Trail Corridor Master Plan

The Coal Creek-Rock Creek Trail Corridor Master Plan was produced by the Boulder County Management Team in the early 1990's. A significant aspect of the master plan is a multiple-use soft-surface recreational trail intended to become the nucleus of a regional trail system in the southeastern part of Boulder County. The 1992 master plan shows the Coal Creek Trail ending at a trailhead located at the Superior Town Hall.

Marshall Mesa-Southern Grasslands Trail Study Area Plan

In December 2005, the City of Boulder Open Space and Mountain Parks Department (OSMP) developed the Marshall Mesa-Southern Grasslands Trail Study Area Plan, which encompassed city-owned portions of the study area as part of a much larger planning area. This plan states that the City will construct additional trail links and provide interconnections to the Boulder County Open Space and to the Town of Superior in this Trail Study Area, and

recommended several of the conceptual trail connections that were considered in this planning process.

Town of Superior Open Space Master Plan

The Town of Superior Open Space Master Plan was completed on March 14, 2005. The plan is primarily focused on potential open space properties. The project did include public surveys, which concluded that 95% of respondents' households expressed a need for walking/biking trails.

Land Use and Ownership

Publicly owned open space is shown on Figure 1 and is described below.

Open Space and Conservation Land

Boulder County Open Space

Boulder County Parks Open Space owns and manages about 2,000 acres of open space land in the study area, including the Mayhoffer, Mayhoffer II, (Rodney Dean) Bush, Cohig and Cox/Liss properties.

The Boulder County Comprehensive Plan states that the County will work with the Consortium of Cities to assure linkage of county trails and connections between communities.

City of Boulder Open Space and Mountain Parks

OSMP manages several open spaces, including the East Varra, Salstrand, Mesa Sand and Gravel, 1265 Corp, East Rudd, and Damyanovich properties.

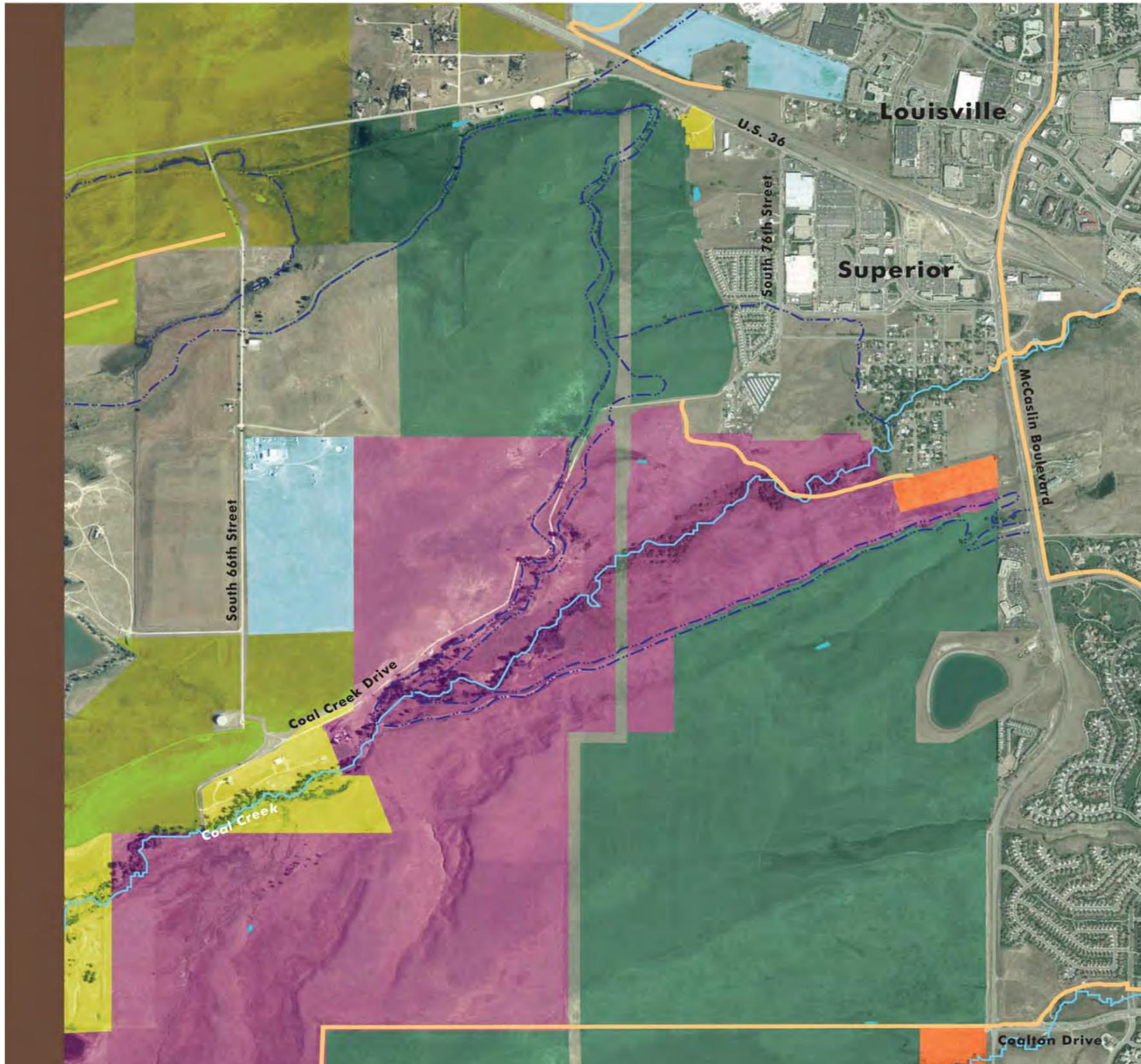
Open Space Jointly-Managed by City/County

The City of Boulder and Boulder County jointly own and manage about 1,120 acres of open space land on the Telleen-Superior Associates and Mayhoffer/Singletree properties. These lands include most of the Coal Creek riparian corridor within the study area.

Town of Superior Open Space

The Town of Superior recently completed a new open space acquisition just south of Original Superior in the middle of the study area. The 13.45-acre Arsenault property is adjacent to the Mayhoffer/Singletree parcel to the east, and will be a key component of the trails recommended in this plan.

The Town of Superior borders the study area at the northeast corner and developed a Parks, Recreation, Open Space and Trails Master Plan in 2005. The Master Plan specifically states that trail connections to the Boulder County Open Space trails and areas should be planned to benefit the community of Superior.



Rock Creek Trail

MARSHALL-SUPERIOR-COALTON

Existing Conditions

Figure 1

- County Open Space
- Conservation Easement (no public access)
- Joint City and County Open Space
- Town of Superior Open Space
- City of Boulder Open Space & Parks
- Other Open Space
- Existing Trails



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Conservation Easements

Conservation easements provide additional protection over private land as well as municipal and county open space properties. The City of Boulder has a conservation easement on the Telleen-Superior Associates property, while the City and Boulder County have reciprocal conservation easements on Mayhoffer/Singletree. Boulder County holds a conservation easement on the recently acquired Arsenault property, which is owned by the Town of Superior. The City and the County also hold conservation easements over the private DePoorter property.

Natural Resources

All of the lands within the study area are owned by Boulder County, the City of Boulder, or the Town of Superior, or are jointly-owned lands. Developing alignments for these trail connections involved considerations for grassland habitat protection, the Coal Creek riparian corridor, existing prairie dog colonies, general wildlife habitat and use, agricultural uses, and topography. In addition, most of the project area is under active agricultural use as non-irrigated rangeland, and some of the area is irrigated. These resources are summarized below.

While it is important to consider opportunities for the public to experience and enjoy this large and increasingly rare expanse of grasslands in Boulder County, it is also imperative that trails and other public uses are sensitive to the needs of this ecosystem by minimizing both physical and visual disturbances that could affect the health and viability of this area for wildlife. In order to achieve this balance, BCPOS staff and the planning team employed the following general “rules of thumb” when considering potential trail alignments:

1. Minimize core habitat fragmentation by locating trail alignments on the outer edge of contiguous habitat areas.
2. Minimize visual disturbances to wildlife by locating trails, whenever possible, below mesa tops and ridgelines.
3. Avoid additional disturbances to the Coal Creek riparian corridor.
4. Consider using existing roads or other existing areas of disturbance for trail corridors.
5. Recognize the importance of power lines and groves of trees to raptors.
6. Incorporate existing management designations and recommendations to protect existing prairie dog colonies and their habitat, and retain flexibility in the ability to accommodate future dynamic changes in these colonies.
7. Minimize impacts to current or future agricultural use.

While some of these guidelines may contradict each other when applied to the real landscape of the study area, they are helpful in evaluating the environmental trade-offs between various trail alignments that were proposed.

The natural resources described in this section and shown on Figure 2 are presented at a level of detail that is appropriate to guide the master plan process for the proposed trail connections. For this reason, this report provides an overview of typical resource attributes within the study area and identifies the specific resource values that are notable, sensitive, or otherwise significant. While existing information was carefully considered in this process, detailed inventories of specific biotic, cultural, or other resources are not necessary to support the general decisions that are typically made for this type of trail corridor management plan.

The construction and use of the proposed trail alignments, as with any human development in the natural environment, may result in some localized impacts to vegetation, wildlife, and agricultural operations in the study area. While this plan was developed to minimize those impacts, Boulder County Parks and Open Space resource management staff will continue to oversee the implementation process in an effort to minimize resource impacts, and if necessary, mitigate those impacts appropriately.

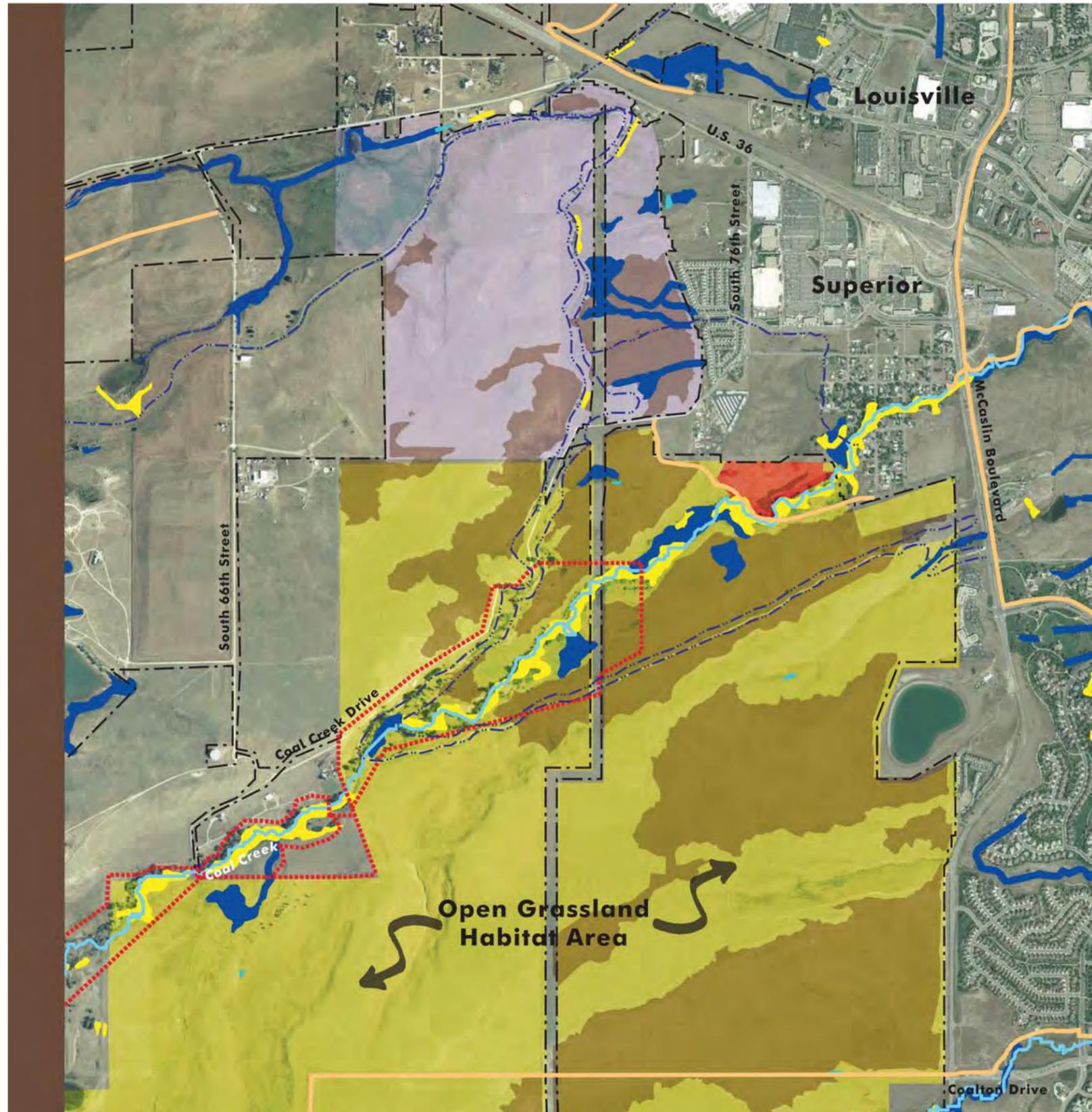
Greater Southern Grasslands Ecosystem

The Study Area is part of a larger complex of open space lands that comprises the largest contiguous block of protected open space in Boulder County. This central complex, totaling over 5,600 acres, includes open space lands and conservation easements owned primarily by Boulder County Parks and Open Space and City of Boulder Open Space and Mountain Parks. County lands in this area are collectively referred to as the “Southeast Buffer”, while OSMP lands have been designated as the Southern Grasslands Habitat Conservation Area. Other adjacent protected grassland habitat areas include:

- 3,500 acres across Highway 93 to the west (Doudy Draw area)
- 3,000 acres across Highway 93 to the northwest (Eldorado Springs area)
- 6,000 acres south of Highway 128 (newly-designated Rocky Flats National Wildlife Refuge)
- 1,500 acres west of Rocky Flats (Plainview area)

This greater complex (including areas bisected by roads and highways) includes about 20,000 acres of protected grassland habitat that is surrounded by urban development. There are no other grassland conservation areas of this size or quality in Boulder County, and only a few other examples along the Colorado Front Range.

This complex of protected open space, which includes large expanses of native grasslands interspersed with rich riparian corridors, is important habitat for a variety of wildlife species that depend on a large, undisturbed, and unfragmented grassland ecosystem. This grassland complex is particularly important for such wide-ranging species as elk, golden eagle, ferruginous hawk and others that are sensitive to human disturbance. Because of these attributes, this area has been used as a site for experimental reintroductions of plains sharp-tailed grouse, and has been considered for pronghorn reintroduction (OSMP 2005).



Rock Creek Trail

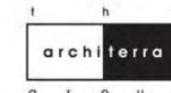
MARSHALL-SUPERIOR-COALTON

Natural Resources Figure 2

- Open Space Boundary
- Multiple Objective Area
- Habitat Conservation Area
- No Prairie Dogs
- Prairie Dog Colonies - 2006
- Riparian Restoration Area
- Wetlands
- Riparian
- Existing Trails
- Irrigation Ditch



0 1000 2000 4000 feet



6/6/07

The initial grouse reintroductions, which were conducted in 2003 in collaboration with the Colorado Division of Wildlife (CDOW) and OSMP, were not successful (Brennan 2007). However, it is possible that CDOW will reconsider future reintroductions when it completes other grouse reintroductions in other parts of eastern Colorado.

Coal Creek Corridor

Coal Creek and its adjacent riparian corridor runs through the study area from west to east. The Coal Creek riparian corridor is typical of Front Range riparian systems, characterized by a dense canopy of cottonwood, willow, and other tree and shrub species, wetland vegetation within and adjacent to the creek channel, and an upland understory of grasses, forbs, and shrubs. This riparian corridor provides potential habitat for numerous wildlife species, including a variety of large and small mammals, reptiles and amphibians, raptors, and migratory songbirds. The corridor is also known to support habitat for the Preble's meadow jumping mouse (see below). The existing Mayhoffer/Singletree Trail crosses Coal Creek near the center of the study area just west of Original Superior. Public access to the riparian zone is prohibited along other portions of this corridor.

Riparian Restoration Area

In 1999, the City of Boulder OSMP initiated a project to protect and restore riparian habitat along Coal Creek. This project area includes the entire Coal Creek corridor directly west of the study area to the Boulder County line west of Highway 93. The main goal of the city's effort is to conserve and improve the native riparian plant, animal, and fish communities and the ecological processes that sustain them. The project includes fencing the corridor, restoration of channelized sections of creek, wetland restoration, fish passage structures, and monitoring. Project partners have included BCPOS, the Colorado Division of Wildlife, and the U.S. Fish and Wildlife Service, as well as numerous private and non-governmental organizations (OSMP 2005).

In addition, BCPOS implemented a riparian management project along the entire reach of Coal Creek across the Mayhoffer/Singletree property. The project consisted of fencing the corridor, providing for alternate livestock water and managing grazing within the corridor, not by livestock exclusion, but rather by controlling timing and utilization.

Rock Creek Corridor

The Rock Creek corridor is adjacent to the southern boundary of the study area, crossing McCaslin Boulevard immediately south of the Coalton Road/McCaslin intersection. The riparian community along Rock Creek is similar in character to Coal Creek (described above) though it has fewer tall cottonwoods and willows.

BCPOS has fenced Coal Creek on the Lindsay and Zaharias properties, has provided alternate sources of livestock water, and has actively managed grazing within the riparian areas.

Significant Wildlife Habitat

Preble's meadow jumping mouse

The Preble's meadow jumping mouse (Preble's) was listed as a threatened species in 1988 under the federal Endangered Species Act. Preble's habitat occurs within or adjacent to riparian communities along the Front Range of Colorado and southeastern Wyoming. Preble's populations have been known to occur along Coal Creek within the study area (USFWS 2002), and in areas upstream from the study area, on Rock Creek in what will become the Rocky Flats National Wildlife Refuge.

Black-tailed prairie dog

The black-tailed prairie dog is a state-listed sensitive species that is found throughout the study area. The prairie dog is believed to play an important role in maintaining grassland ecosystems, supporting habitat for other species such as burrowing owls, and providing a food source for raptors. For these reasons, it is prudent to conserve the species and its habitat where such conservation is appropriate.

The greater Southern Grasslands/Southeast Buffer open space complex, including the study area, supports one of the largest, oldest, and most extensive complexes of prairie dog colonies in Boulder County. Aerial photographs from the late 1930s to the early 1940s show a very large complex of prairie dog colonies that cover a large extent of the upper Rock Creek and Coal Creek basin (Brennan 2007). Within the study area, several prairie dog colonies have progressively expanded over the past 10 years. In 1999, prairie dogs were relocated onto an historic colony site that had been decimated by sylvatic plague on the Mayhoffer Property and also onto the adjacent upper mesa area. The release efforts on the upper mesa portion of the property were considered unsuccessful though, most likely due to inappropriate soil characteristics (Boulder County 2002).

Prairie Dog Management Designations

In 2002, the Boulder County Commissioners adopted the *Boulder County Grassland Management Plan Prairie Dog Habitat Element* (Boulder County 2002). The purpose of the plan was to identify management priorities for certain areas that balance the sometimes conflicting goals of wildlife habitat protection and agricultural preservation and production in Boulder County. The plan outlines three prairie dog management categories for County open space land:

- HCA – Habitat Conservation Areas: Areas where prairie dogs will be allowed to function with minimal human intervention and without causing or experiencing significant negative impacts to or from adjacent land uses.
- MOA – Multiple Objective Areas: Areas where prairie dogs will be allowed to coexist with other uses but they may not be the highest management priority.
- NPD – No Prairie Dog Areas: These areas are not appropriate for prairie dog habitation because of unsuitable ecological conditions or existing agricultural uses. The goal is to remove prairie dogs from these areas.

Most of the study area south of Coal Creek Drive is designated as an HCA, while the northern portion of the study area is designated as an MOA. A small area of irrigated agricultural land north of the existing Mayhoffer/Singletree Trail and the Coal Creek corridor is designated NPD.

In planning for and developing new trails within HCAs, the Grassland Management Plan Prairie Dog Habitat Element states that all efforts will be made to “avoid routes that come in close proximity to prairie dog colonies, for purposes of maintaining effective use of colonies for associated species.” However, the plan states, the County also recognizes the educational benefit of having some prairie dog areas available for public observation and will continue to take advantage of opportunities for interpretive programming and signage.

In 2005, Boulder County amended the Grassland Management Plan Prairie Dog Habitat Element to reflect the changes in federal policy and the current updates on the status of prairie dog populations on POS lands. The CDOW will now require permits for the transfer of prairie dogs from POS lands to the local raptor rehabilitation programs and the Fish and Wildlife Service black-footed ferret recovery program.

Badger

Badger occupancy has been confirmed in the southeast grasslands of Boulder County Open Space, including the study area. Badgers are nocturnal predators of the weasel family. They require a large habitat area and are a wide-ranging species; it is possible that one individual or pair may occupy the entire study area as their territory. They require a moderate prey base that includes prairie dogs, rodents, and occasionally birds, rabbits, and insects. The presence of this species in the study area is an important indicator of the quality and size of the wildlife habitat in the southern grasslands of Boulder County.

Raptors

The co-occurrence of undisturbed grasslands and woody riparian habitat in the study area and greater grassland ecosystem provides prime nesting and foraging habitat for a variety of raptors. Nesting bald eagles have been observed along the Coal Creek corridor to the west of the study area, while other sensitive raptor species, including golden eagle, ferruginous hawk, northern harrier, and prairie falcon, are known to use the area for hunting. Golden eagle, along with other raptor species, are known to use the power transmission lines through the study area as perches. Other species that occur in the greater grassland ecosystem include Swainson’s hawk, red-tailed hawk, rough-legged hawk, great horned owl, and American kestrel (OSMP 2005, BCPOS 2003).

Outside of the Coal Creek corridor, the power transmission lines that bisect the study area are frequently used by a variety of raptors as perches while they are hunting for small mammals (including prairie dogs) and other prey in the surrounding grasslands (Brennan 2007). A breeding pair of burrowing owls, which nest in abandoned prairie dog burrows, is known to occur along the western edge of the study area (Brennan 2007), while others have

been observed on the Mayhoffer property (BCPOS 2003). The burrowing owl is a state-listed threatened species, and a Boulder County Avian Species of Primary Concern (BCPOS 2003) that is sensitive to human disturbance.

Avian Species of Special Concern

Breeding bird surveys covered the southern portion of the study area (primarily the Mayhoffer property) in 2002 and 2003. Out of the total of 26 species that were recorded in the surveys, five Boulder County Avian Species of Special Concern were observed. These include golden eagle, prairie falcon, lark bunting, savannah sparrow, and grasshopper sparrow (BCPOS 2003). Other species recorded that are not considered to be of special concern include western meadowlark, brown-headed cowbird, vesper sparrow, horned lark, Bullock's oriole, and American goldfinch (BCPOS 2003). While these species are not considered to be rare or in decline locally, they still require relatively undisturbed native shortgrass habitat.

Geologic Hazards

The Boulder County Comprehensive Plan identifies a major geologic hazard within the northeastern portion of the study area. This hazard is due to the presence of abandoned coal mines, the potential for expansive soils, flooding, and mudslides. Most of the remainder of the study area is considered to have minor geologic constraints due to the potential for expansive soils and landslides, mudslides, mudfalls or debris fans (Boulder County 1999). These hazards do not pose a threat to the successful implementation of a multi-use trail in the study area, and may be mitigated by appropriate trail design and maintenance.

Soils

Soils in the study area are a mix of predominantly Valmont cobbly clay, Terrace escarpments, Nunn clay loam, and some Nederland very cobbly sandy loam. Soils considered potential Prime Farmland of statewide importance are found in the study area. No annual cropland occurs in the study area.

Agricultural Uses

Most of the study area is leased for agricultural use, either as open rangeland or irrigated pasture for livestock. Irrigated parcels include City of Boulder's Damyanovich Property, and the eastern portions of the Bush/Cohig properties to the east of the Community Ditch and a portion of the Mayhoffer/Singletree property under the Haake Ditch. However, the vast majority of the project area is unirrigated, native grassland pasture. Numerous barbed-wire fences throughout the northern portion of the study area delineate different pastures, while the Mayhoffer Property in the southern portion of the study area is bounded by a single perimeter fence with no permanent internal fences. Temporary electric fences are used on the Mayhoffer property and may be used on the Bush and Cohig properties.

Grazing periods on rangeland (not irrigated) generally range between two and four weeks on any individual pasture during the growing season. Rangeland pastures are typically only grazed once during the growing season. Pastures may or may not be grazed again during

the dormant season. Stocking rates can vary considerably from year to year depending on forage production for that year, which is determined largely by precipitation. Properties with irrigated pastures tend to be used seasonally and have livestock present for up to several months at a time. The project area predominantly contains non-irrigated rangeland, with a small area of irrigated pasture on the Bush and Cohig properties.

Boulder County Parks and Open Space holds two agricultural leases in the study area. The Mayhoffer property is under lease along with a number of properties that are not included within the study area. Livestock numbers vary between 45 and 100 cow/calf pairs. Mayhoffer is usually divided into a number of smaller pastures using electric fence. Grazing periods for each pasture are two weeks or fewer on each pasture during the grazing season. Mayhoffer is sometimes pastured a second time during the dormant season for up to a month.

Bush, Cohig, Cox/Liss, Mayhoffer/Singletree and Mayhoffer II are included under another lease. The Bush property is used as pasture for up to 25 bulls from late fall through early spring. The tenants also lease the OSMP Damyanovich property and combine it with the POS Bush property as a bull pasture.

On the Cohig, Mayhoffer/Singletree and Mayhoffer II properties, the tenants generally use these properties for their yearling cattle. Usually 20 to 30 head are pastured on these properties, starting in late spring or early summer, moving through the various pastures until late summer.

Community Ditch

Originating from South Boulder Creek through Marshall Lake, the Community Ditch winds through the northern portion of the study area and into the project area south of Superior. The Community Ditch is owned and operated by the Farmers Reservoir and Irrigation Company (FRICO). In the northern portion of the study area, FRICO owns a 40 and 50-foot wide ditch corridor on the Bush and Cohig properties respectively. Boulder County owns the existing Community Ditch crossing at the southeast corner of the Cohig property, adjacent to Coal Creek Drive. This active ditch usually begins flowing in early May, depending on spring runoff, and flows on and off until October 31 (Lewis 2007).

The Community Ditch contributes moisture to the mosaic of vegetation communities and supports wildlife habitat in the study area. Scattered cottonwood trees along portions of the ditch provide nesting and perch locations for various raptors and other types of birds, while low-lying willows and other vegetation support a variety of wildlife species. Periodic maintenance and clearing of the ditch eliminates some of this habitat, while the concrete-lined section of the ditch south of Coal Creek allows for limited vegetation. Surface irrigation and seepage from the ditch also supports the development of grassland vegetation and wet meadow communities on the Damyanovich and Bush properties in the northern half of the

study area. The Community Ditch is also an important source of livestock water for the Bush, Cohig, Mayhoffer and Mayhoffer II properties.

Cultural Resources

Industrial Mine Site

The study area includes many reminders of the coal mining era that dominated the landscape between 1859 and the 1940s (Sampson 1995). While most of the mining activity was concentrated on the Marshall Mesa to the west of this study area, remnants of the Industrial Mine dominate the Mayhoffer/Singletree open space parcel in the center of the study area. The Industrial Mine operated from 1895 to 1945, was one of the largest coal mines in the area, and was the impetus for the original Town of Superior.

The Industrial Mine site is considered to be an extremely important historic archaeological site, containing the remnants of numerous buildings, structures, features, and associated artifacts. The site is eligible for the National Register of Historic Places and the for State Register of Historic Properties because of its association with coal mining, the labor movement, and the Town of Superior (Gleichman 2002).

Monarch Number One Mine Site and Mitchell Camp

The Monarch Number One coal mine, in the northwest corner of the study area, operated from 1902 to 1918. The Monarch Number One was formally known as the Mitchell Mine. Mitchell Camp consisted of about a dozen houses and a boarding house for the miners. The mine shaft and ventilation shaft were filled by the State Mined Land Reclamation Division in the late 1980's (Environmental Service, Inc. July 12, 1993).

Community Ditch

The Community Ditch was originally constructed in 1884-1886. Due to modifications such as a concrete lining, it is no longer considered to be representative of ditches built during the nineteenth century, and is considered ineligible for inclusion on the National Register (Gleichman 2002).

South Boulder and Coal Creek Ditch

Within the study area, the South Boulder and Coal Creek Ditch runs parallel to and immediately below the Community Ditch. This inactive ditch was constructed prior to the Community Ditch and was closed down due to damage from a 1938 flood on South Boulder Creek. It is ineligible for the National Register (Gleichman 2002).

Denver, Marshall, and Boulder Railroad/Colorado and Southern Railway Grade

This railroad bed that traverses through the study area was owned and operated by several railroad companies between 1885 and 1945. This railroad bed is currently actively used in

the study area as the Mayhoffer/Singletree Trail. It is considered to be field eligible for the National Register and State Register (Gleichman 2002).

Existing Trails and Trail Facilities

Existing Trails

The Marshall-Superior-Coalton area currently has approximately 10 miles of primarily soft surface public trails. Existing trails include the following:

- The Cowdrey Draw Trail, a City of Boulder natural surface singletrack trail that goes from an existing trailhead near Highway 93 to South 66th Street.
- The Mayhoffer/Singletree Trail, an 8-foot wide soft-surface crusher fines trail that goes from Coal Creek Drive to Thomas Street, an existing dirt road in Superior.
- The Coalton Trail, a trail surfaced with road base that runs from McCaslin Boulevard southwest to State Highway 128.
- The Coal Creek Trail, a soft-surface crusher fines trail that starts in Lafayette and ends at the Superior Town Hall.
- The Rock Creek Trail, a hard-surface trail that runs east from Coalton Road through the Rock Creek development and ending in the Flatirons Crossing commercial center. Future plans for the Rock Creek Trail will provide connections back into Boulder County and extend nine miles east to 120th Street in Lafayette.
- The City of Boulder High Plains Trail along Highway 128, which connects the Coalton Trail to the Greenbelt Plateau

Existing Trail Facilities

Existing parking at the Superior Town Hall currently functions as a trailhead. There is also an existing parking area at the eastern terminus of the Mayhoffer/Singletree Trail. However, that area does not have any formal trailhead facilities. Additionally, there is an informal parking lot at the eastern end of the Coalton Trail, which also does not have any formal trailhead or parking facilities.

Regional Trail Connections

The study area is at the intersection of two regional trail systems, one to the east and one to the west. See Figure 3.

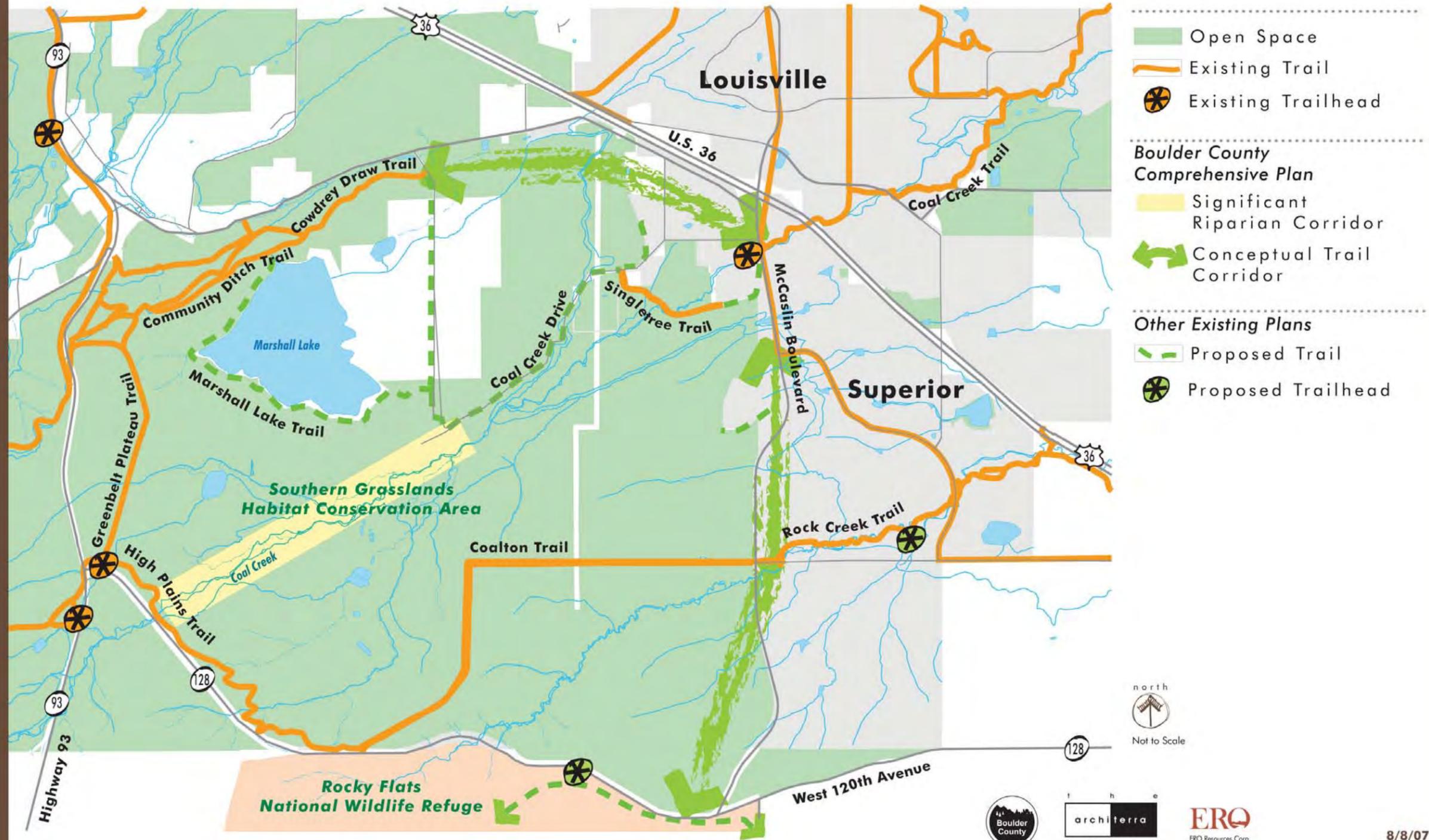
- To the east, the existing Rock Creek and Coal Creek trail systems provide an eventual regional trail loop, and connections to trail systems in other municipalities. These trails are generally urban in character.
- To the west, the Coalton Trail, the Cowdrey Draw Trail, and City of Boulder trails currently provide miles of inter-connected trails with a predominantly natural character.

Implementation of the trail alignments proposed in this plan will potentially complete both trail loops, provide a blend of both urban and natural characteristics, and enhance the overall connectivity of trails in southern Boulder County.

Figure 3
Regional Planning Context

Rock Creek Trail

MARSHALL-SUPERIOR-COALTON



- Open Space
 - Existing Trail
 - Existing Trailhead
-
- Boulder County Comprehensive Plan**
- Significant Riparian Corridor
 - Conceptual Trail Corridor
-
- Other Existing Plans**
- Proposed Trail
 - Proposed Trailhead

north
Not to Scale





8/8/07

Specific trail recommendations are based on analyses of opportunities and constraints, public input, meetings with stakeholders and discussions with Boulder County staff.

Alternatives Analysis

Several trail alignment alternatives were developed based on public input, site visits, field observations, and input from county, city, and town staffs. Each alternative was analyzed and assessed based on feasibility of construction, potential wildlife impacts, existing agricultural operations, irrigation, topography, accessibility, ditch crossings, or land ownership. See Figure 4 for the constraints and opportunities. See Figure 5 for the alternatives analysis.

North Segment: Cowdrey Draw Trail to Mayhoffer/Singletree Trail

The proposed trail alignment was suggested to remain on the south side of the Damyanovich property due to hazardous materials in the soils related to the prior railroad use. Alternatives considered for this segment include:

South 66th Street to Coal Creek Drive

- Poor user experience along existing roads, although part of the road parallels and provides nice views of the stream side vegetation
- Difficult or impossible to meet federal, county, and city design guidelines (existing grades exceed 15 % in some locations)
- Circuitous, less direct route with potential cost and wildlife impacts

Northern route following existing irrigation ditch

- Poor user experience, close to Marshall Drive/Highway 36, noisy
- Difficult or impossible to meet federal, county and city design guidelines, (existing grades exceed 10%).
- Would require an additional ditch crossing
- Crosses flood irrigated pasture land

Middle Alignment (2 options)

- Negative impacts to wildlife, fragments habitat, trail users visible on top of hill
- Plateau is flat, poor for trail drainage

Preferred Alignment

- The preferred alignment is described in the next section.

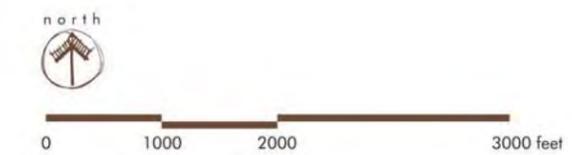


Rock Creek Trail

MARSHALL-SUPERIOR-COALTON

Constraints and Opportunities
Figure 4

-
- Open Space/Conservation Easement
-
- Prairie Dog Colonies – 2005
-
- Slopes Greater than 15%
-
- Riparian Restoration Area
- Wetlands
- Riparian
-
- Potential Cultural Resource Area
-
- Existing Trails
- Irrigation Ditch
-



4/23/07



Rock Creek Trail

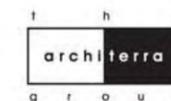
MARSHALL-SUPERIOR-COALTON

Conceptual Trail Alignment Plan Figure 5

- Existing Trails
- Existing Trailhead
- Open Space
- Conceptual Trail Alignment
- Proposed Trailhead
- Potential Neighborhood Connection
- Potential Regional Connection
- Other Options Considered



0 1000 2000 4000 feet



9/5/07

South Segment: Mayhoffer/Singletree Trail to Coalton Trail

The proposed trail must climb up to a flat grassland area and then ramp back down to meet the Coalton Trail. Alternatives considered for this segment include:

Western Alignment (2 options)

- Difficult or impossible to meet federal, county and city design guidelines (existing grades exceed 15%).
- Potential negative impacts to wildlife, fragments habitat, trail users visible on top of hill
- Provides circuitous route as connection to Coalton Trail is nearly a mile from McCaslin Boulevard

Eastern Alignment

- Will require extensive grading and retaining walls to meet federal, county and city design guidelines
- Poor user experience along existing road

Preferred Alignment

- The preferred alignment is described in the next section.

Proposed Trail Plan

The proposed trail plan, shown on Figure 6 provides a strategic guide for the implementation of potential regional trails within the study area. The trail alignments as shown are general and conceptual in nature. Actual trail alignments will be determined during the final design process prior to implementation. The plan does not preclude the reconsideration of trail routes shown herein if and when new information or changing conditions requires. The intended users for the trail include pedestrians, bicyclists, and equestrians.

The proposed trail recommendations are as follows:

North Segment: Cowdrey Draw Trail to Mayhoffer/Singletree Trail

The preferred trail alignment begins at South 66th Street at the approximate location of the existing Cowdrey Draw Trail, follows the contours along the southern edge of the Damyanovich property, crosses an existing drainage, and crosses the Community ditch with a new crossing. The alignment then follows the contours to the east, paralleling the existing ditch approximately 200' away, and crosses the ditch at an existing crossing, which is currently unsuitable for trail use. It then uses the Coal Creek Drive right of way on the north side of the road, before crossing to the south and connecting to the existing Mayhoffer/Singletree Trail. This trail can be designed as a singletrack trail.

South Segment: Mayhoffer/Singletree Trail to Coalton Trail

The preferred trail alignment begins at the eastern end of the existing Mayhoffer/Singletree

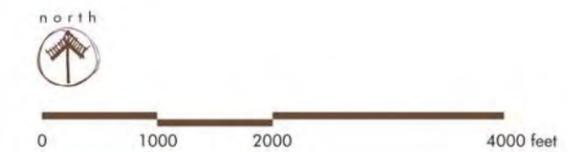


Rock Creek Trail

MARSHALL-SUPERIOR-COALTON

Proposed Trail Plan
Figure 6

-
- Existing Trails
- Existing Trailhead
- Open Space
-
- Conceptual Trail Alignment
- Proposed Trailhead
- Potential Neighborhood Connection
- Potential Regional Connection
-



9/5/07

Trail, follows the contours east, switches back west, follows and then crosses the existing ditch with a new crossing. The alignment then follows the contours adjacent to a ridge up to a flat grassland, meanders to the east along the existing reservoir, follows the contours around a stock pond and ramps down to the existing Coalton Trail near the terminus at McCaslin Boulevard. A trail easement on private property may be required near McCaslin Boulevard if determined during the design and engineering phase, in order to allow for appropriate grades.

An 8 foot wide crusher fines trail is recommended for the following reasons:

Regional Trail Standards

The primary focus of this Trail Plan is to identify regional trail connections. The existing sections of the Coal Creek and Rock Creek trails are constructed to regional trail standards – primarily an eight-foot wide crusher fines surfaced trail. This standard provides a good surface for the multiple use nature of these trails. The wider trail allows for a larger number of visitors, minimizing user conflicts. The soft surface is well drained and can be used by hikers, equestrians, bicyclists, joggers, dog walkers and small strollers.

Existing Trail Widths

On the north end of this corridor, the Mayhoffer/Singletree Trail is approximately 0.7 miles long and is an eight-foot wide crusher fines trail. On the south end, the Coalton Trail is approximately 1.9 miles long and is an eight to ten foot wide gravel surfaced trail. Both of these existing trails are jointly owned by the City of Boulder and Boulder County.

Federal Funding Requirements

This segment of the trail will be funded with federal money which requires an 8 foot width, accessible grades and a firm, stable, material such as crusher fines.

Adjacent Single-track Trail

While there was some interest expressed by citizens for an adjacent, single-track trail, the majority of comments were to provide a soft surface trail versus a hard surface such as concrete. BCPOS staff and the consultant team do not recommend an adjacent single-track trail for the following reasons:

Extensive Continuous Length

In order to provide a continuous single-track experience for this entire area, approximately 5.2 miles of single-track trail would need to be designed and constructed. The majority of other City of Boulder trails to the west are wide gravel surfaced roads that have been converted to trails (Greenbelt Plateau, Flatirons Vista and Community Ditch).

Cited Examples due to Use/Management Issues

Some proponents of creating an additional single-track trail have cited a number of examples

on City of Boulder Open Space and Mountain Parks lands where a single-track trail has been informally created by users alongside an existing wider trail. While these trails do exist and are problematic, they are not similar to the trails proposed in this plan. The trails referenced on city lands are gravel roadbeds and are heavily used by a wide variety of trail visitors and various management activities (e.g., agricultural operations). Being compacted road base material, they are a hard surface that many users do not like and will often avoid. Heavy use and visitor conflicts have also added to the desire for these parallel trails. On approximately 42 miles of existing crusher fines trails on Boulder County Parks and Open Space lands, the formation of any adjacent informal trails has not occurred and is not foreseen as a problem in this area. A properly designed and constructed eight-foot wide crusher fines trail is well suited to meet the needs of most open space visitors.

Priorities and Budget Implications

Given BCPOS's broad range of natural resource and recreational responsibilities, the current priority is to provide high quality passive recreational opportunities to new or unopened open space areas. As such, there are limited financial and staff resources. BCPOS staff does not currently have the ability to provide multiple types of access to various areas. Existing funding constraints for this section of the project require a wider multiple use trail and will not cover the additional trail expenses for a single-track trail. Using existing cost estimates, it would cost an additional \$165,000 to construct 5.2 miles of single-track trail (this assumes using existing or proposed bridge crossings and a cost of \$6 per linear foot).

Natural Resource Impacts

The project area is a unique portion of the city and county's open space program and contains the largest natural grassland in Boulder County. An additional trail placed in proximity to the proposed trail would create additional disturbance and impacts. Research indicates that there is a corridor beyond the trail surface that impacts native plants and wildlife. Visitors seeking a single-track type of experience typically do not want a small natural surface trail directly alongside a wider crusher fines trail. A parallel trail, separated with a reasonable buffer, would broaden this impact zone and further fragment this area. Additionally, much of the project area is actively grazed, and the construction of a parallel trail may disrupt or change agricultural practices in the area.

To the north, the Mayhoffer Singletree Trail travels through the riparian corridor of Coal Creek and several large wetland areas. This trail went through extensive environmental review with City of Boulder and county staff, including a wetland permit that required mitigation. It is unlikely that an additional single-track trail could be constructed due to environmental constraints and wetland permitting. To the south, the proposed trail would connect with the existing Coalton Trail. While Coalton Trail bisects a portion of this large grassland, it is within a fenced corridor. This corridor discourages visitors from entering the sensitive areas and separates visitors from ongoing agricultural practices. A new single-track trail in this area would have to be carefully planned and agreed upon by both agencies.

Neighborhood Connections

Several neighborhood connections are possible for the trail network and were examined as part of the trails master planning process. Three specific connections are identified in this report as potential connections to neighborhoods or commercial areas. The Town of Superior is working with a developer to provide a connection from the proposed regional trail to the Ridge II development. Another neighborhood connection is proposed to connect the Sagamore neighborhood to the proposed regional trail along an existing Boulder County easement. Another neighborhood connection is proposed along McCaslin Boulevard near the existing irrigation ditch. Although Boulder County conceptually agrees with these neighborhood connections to the regional trail, their construction is contingent upon Superior's desire to complete them. BCPOS will continue to work with Town of Superior staff to determine whether these connections are desired, and how they would be implemented.

Proposed Trail Facilities

A trailhead facility has been proposed for the west side of McCaslin Boulevard at the eastern end of the Coalton Trail. If constructed, this facility would be intended for regional use and may include vehicular parking, equestrian trailer parking, shade structures, restroom facilities, and informational signage. The final configuration, number and type of parking spaces, and access will need to be determined during future phases of design and construction. Final design and engineering of the Coalton trailhead will occur in a future phase of the project, and may require collaboration between the Town of Superior and Boulder County.

This section provides guidelines for trail design, materials, amenities, estimated construction costs, potential environmental impacts, and phasing.

Trail Design

As overall public input during the study process has favored soft surface trails and given that the majority of the existing trails are soft surface, a soft-surface material is recommended as the appropriate material for all future trails within the study area.

The soft surface trails should generally be 4-8 feet wide to accommodate multiple types of user groups and user skill levels. Some of the mountain biking community have requested that singletrack trails be considered. While this is not feasible on the south segment due to federal funding design constraints, future accommodation of these trail facilities may be incorporated into future design. The north segment can be more like a singletrack trail.

Trail Grades

All trails should have a cross slope to create positive drainage across the trail. A minimum of 2% for crusher fine trails and a minimum of 5% for natural surface trails is recommended. Longitudinal slopes of 5% or less are ideal and should not exceed 8.33% wherever possible. All trail grades shall conform to the intent of the Americans with Disabilities Act (ADA) where practical. Trail design should be done to ensure a sustainable tread. Tread type, slope, lay-of-land, user amenities, user types, access points, and year-round use should be considered during the final design and engineering phases of the project.

Trail Right of Way

When new trail right of way is to be dedicated to the County, a minimum ideal dimension should be 50 feet. This will allow for an 8-foot wide trail with 3-foot shoulders on each side with room for grading.

Trail Revegetation

Where appropriate, trails should be landscaped or revegetated with native vegetation to match the contextual surroundings. Trails developed in open spaces should have native, low water consumptive, low maintenance vegetation.

Vertical Clearance

Minimum vertical clearance from obstructions such as overhead branches should be 10 feet.

Bridges

Bridges over ditches or drainageways should be up to 12 feet wide. Actual design would be site specific and be determined in the design phase. Design should be consistent with BCPOS standards.

Culverts

Culverts for minor drainage crossings should be designed to allow for the trail tread width including shoulders. Culverts should be located to allow for 12 inches minimum of clearance between the top of the pipe and the finished trail surface.

Miscellaneous Structures

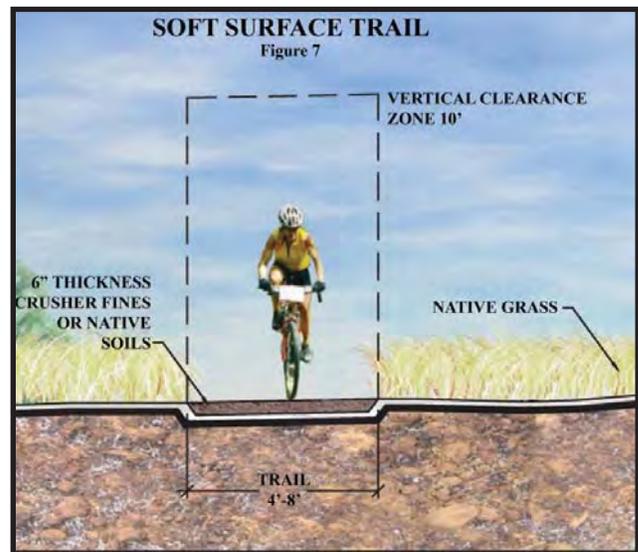
It is recommended that structures such as signs, railings, walls, benches, etc. be located a minimum of 2 feet from the edge of any trail.

Trail Materials

A soft surface material is recommended for all trails within the study area. These materials blend well with the rural landscape. It is recommended that the soft surface trails be generally 4-8 feet wide. See Figure 7.

Soft Surface Trails

Soft surface trails are typically constructed of native soils or crusher fines materials. Crusher fines are a by-product of gravel mining and generally include materials that pass through a 3/8" sieve. This is a preferred material as it creates a smooth, firm and stable surface. Soft surface trails should be constructed of native soil or crusher fines material approximately 6" thick.



Trail Construction

The site design and construction of this trails plan should be conducted with the minimal disturbance to native plants and potential wildlife habitat, and minimize disruption of agricultural operations. The trampling and removal of vegetation due to construction activities can result in weed infestations, erosion problems, and in some cases, a proliferation of undesignated trails. Impacts to natural resources in the study area can be reduced with the following measures:

- Use existing roads and trails when possible.
- Minimize the need for new or duplicate access roads.
- Use accepted Best Management Practices (BMPs) to reduce and control erosion from disturbed areas.
- Require the full restoration of access roads and other disturbed areas following construction.
- Explore alternative construction and access techniques in sensitive areas such as wetlands.
- Monitor and control weed infestations in restored areas.

Raptor Protection Guidelines

Depending on the species, nesting raptors can be impacted by human activity near their nests. Some individuals (most likely in urban or semi-rural settings) may habituate to and tolerate human activity better than others, while human activity may cause others to abandon their nests. The Colorado Division of Wildlife (CDOW) has provided the following buffer guidelines to protect nesting raptors from human disturbances. Although there are exceptions, the buffer areas and seasonal restrictions suggested below reflect an informed opinion that if implemented, should assure that the majority of individuals within a species will continue to occupy the area (CDOW 2002).

- ***Red-tailed hawk*** – No trails or other facilities (beyond that which historically occurred in the area) within a 1/3 mile radius of the nest site, and associated alternate nests. However, some members of this species have adapted to urbanization and may tolerate human habitation to within 200 yards of their nest. Seasonal restriction to human encroachment should be in effect from March 1 to July 15.
- ***Swainson's hawk*** - No trails or other facilities (beyond that which historically occurred in the area) within 1/2 mile of the nest site. Seasonal restriction to human encroachment within 1/2 mile of the nest from March 15 to July 31.
- ***Bald eagle*** - No trails or other facilities (beyond that which historically occurred in the area) within ¼ mile of the nest site. Seasonal restriction to human encroachment within 1/2 mile of the nest from November 15 to July 31. If it is necessary to work within the ½ mile buffer, the intrusion should be restricted to August 15 through October 15.
- ***Golden eagle*** - No trails or other facilities (beyond that which historically occurred in the area) within ¼ mile of the nest site and associated alternate nests. Seasonal restriction to human encroachment within ¼ mile of the nests from February 1 to July 15.

These guidelines should be considered during the final trail design and implementation. Final determinations should be made by County biological staff, who may recommend larger or smaller buffer areas based on their local expertise and conditions in the field. Measures to reduce raptor impacts may include alternate trail routes, seasonal limits on construction, seasonal trail closures, or other measures, as appropriate.

Trail Amenities

Signage

Trail signage should be limited to only those necessary for regulatory, informational, and interpretive or educational purposes.

Regulatory signage includes property regulations and trail warnings such as stop, yield, sharp turns, low clearance, steep grades, and should be located along trails to provide for

user safety.

Informational signage may be located at trailheads, key destinations and periodic locations along trails to provide maps showing the location within the larger trail system context and distances between points on the trail. Informational signage may include guidance about trail etiquette, rules and regulations, emergency information, maintenance information and general information about the trail system.

Interpretive signage may be located at strategic locations along the trail system to educate the trail users about natural, cultural, or historical resources. It is important to create a system-wide theme for a unified interpretive program. These signs can also be used to protect sensitive natural resources.

Site Furniture

Site furniture such as benches, picnic tables, and trash receptacles should conform to Boulder County Open Space standards.

Miscellaneous Structures

Structures such as picnic shelters and vault toilets should conform to Boulder County Open Space standards.

Estimated Construction Costs

Estimated construction costs have been developed for the proposed trails shown on the Trail Plan. All cost estimates use 2007 dollars and are based on trail projects that have bid in 2006 and 2007. The estimates are conservative, are based on preliminary assessments of potential trail alignments and should be used for budgeting purposes only. More detailed designs will allow for improved cost estimates. A detailed cost estimate is shown in the Appendix.

Potential Environmental Impacts

During the planning process, BCPOS gave special consideration to any sensitive natural resources when considering various trail implementation options. Based on a preliminary review of the trail recommendations, potential environmental impact areas are described below. Trail design and implementation will require site-specific surveys to assess the presence or absence of sensitive environmental resources, and associated permitting.

Wetlands

The proposed trail alignment will cross several intermittent drainages, ditches, and other areas that have the potential to support wetlands. These areas include the Damyanovich

Property (northwest corner of study area), Community Ditch crossings, and the small drainages in the southern half of the study area. The overall impacts of these crossings are expected to be minor.

Prairie Dog Colonies

The proposed trail will cross existing prairie dog colonies in several areas. These impacts are likely to displace some individuals and fragment the edges of colonies. However, the proposed trail was purposefully located on the eastern edge of the colonies, where possible, to 1) maintain a buffer between core habitat and human disturbances, and 2) allow for continued dispersal and expansion of colonies into grassland habitat areas to the west. While long-term effects of the trail alignment on prairie dog populations in the study area are expected to be minor, some short-term impacts will occur and should be noted during design and construction process. Crusher fine trails may be designed with a restrictive barrier (chicken wire fence under crusher fines) in prairie dog areas, in order to reduce damage to the trails by prairie dogs.

Raptors

Trail construction and trail use may impact the use of some perch trees and may diminish the value of some localized areas for raptor foraging. However, the overall effects of these impacts on raptor habitat and use in the study are anticipated to be minor. Any areas where the trail is expected to impact prairie dog colonies should be surveyed for burrowing owls prior to construction. If any are found, trail location or construction, including construction schedule, should be adjusted accordingly. Any other raptor nests that exist prior to trail construction will be considered in making any final adjustments to trail location.

Noxious Weeds

Soil disturbance due to trail construction through the open grasslands of the study area is likely to spread weeds throughout the corridor, or to potentially introduce weeds from other areas. Proactive noxious weed monitoring and management, in addition to revegetation with native species, will be necessary to ensure that the proposed trail corridor does not provide a foothold for large-scale infestations.

Contamination

The City of Boulder's Damyanovich property has some residual contamination from railroad bed ballast, mine tailings, and groundwater. A consulting firm should make recommendations on how to manage visitor use across this parcel. The Phase II Environmental Audit recommended that notice to visitors be provided "that small children should not be allowed to ingest or put the (railroad) ballast in their mouths." No other visitor recommendations were made in the report (Environmental Service, Inc. September 20, 1993).

Visual Impacts

Trail construction will result in some aesthetic impacts to some portions of the study area

that are visible to nearby communities or roadways. This is particularly true in the areas where the trail ascends or descends the large hillsides in the southern half of the study area, or in places where significant cut slopes, benching, or retaining walls may be required. For most of the study area, the construction and use of a trail will not be very visible, and will be consistent with the overall character of open space land in Boulder County. In particular areas such as steep slopes, where visual impacts may be more pronounced, special care should be taken in the design and construction process to minimize those impacts.

Agricultural Impacts

Negative impacts to agricultural activities in the project area are expected to be minimal. Irrigated areas will not be bisected by the proposed trail alignment. City of Boulder OSMP experience has shown that livestock/trail user conflicts are minimal in relatively large pastures. The primary issue of concern is to provide for gates that are effective in containment of livestock where the trail crosses either permanent or temporary fences. The goals are to prevent livestock from getting on roadways and to contain livestock within the desired pasture. Electric fencing is implemented fairly extensively in the area, and the use of electric fencing should be continued as an important management tool.

During the design and engineering phase, care should be taken to plan trail routes and amenities to allow livestock access to the limited watering sites in the project area. For example, livestock will have to cross the trail several times a day on the Cohig property, which should be considered during trail design. In general, however, due to the low stocking rates on the properties, fencing for visitor safety may not be necessary and should be carefully considered during the design phase in order to not impede both agricultural operations and visitor use.

Potential Permitting Requirements and Other Consultation

In some areas, trail development may require permits from regulatory agencies to protect sensitive environmental resources. Permitting requirements will need to be assessed during the final trail design and implementation. The following permitting guidelines may apply:

- **Wetlands** – Some wetlands within the study area may be under the jurisdiction of the U.S. Army Corps of Engineers (Corps). Activities that disturb wetlands may require a permit from the Corps under Section 404 of the Clean Water Act. The Corps issues permits and authorization on a case-by-case basis following review of specific projects. The City of Boulder wetland ordinances may also apply to City-owned and jointly-owned properties in the project area.
- **Raptors** – Potential nesting habitat for raptors (primarily along Coal Creek, the Community Ditch and the power lines) should be surveyed for active nests prior to or during the design and implementation of proposed trails. If active nests are found in close proximity to proposed trail routes, impacts to active nests should be avoided

and minimized based on the expertise of County staff and CDOW guidelines.

- **Migratory Birds** – The removal of trees or impacts to prairie dog colonies will require migratory bird surveys to ensure that the project does not harm active or inactive nests (pursuant to the Migratory Bird Treaty Act), including burrowing owl nests in prairie dog colonies. Subsequent impacts to nests require a nest depredation permit from the U.S. Fish and Wildlife Service. Removal of active nests is typically not permitted.
- **Preble's Meadow Jumping Mouse** – Clearance and/or mediation for Preble's meadow jumping mouse may be needed along the floodplain corridor of Coal Creek or along the irrigation ditches.
- **Cultural Resources** – Cultural resources are protected under the Boulder County Land Use Code. The Historic Preservation Advisory Board is the referral agency for all land use proposals that may impact a historic or archaeological site. Trail development plans that would change, modify, or are located on or adjacent to cultural resources should be reviewed by the Boulder County Historic Preservation Advisory Board.
- **Contamination** – Consultation with hazardous waste experts is recommended for trail alignment and engineering over the Damyanovich parcel.

Phasing

The south trail segment from the Mayhoffer/Singletree Trail to the Coalton Trail will likely start construction as early as summer 2008 due to federal funding currently in place for this eight-foot wide regional trail.

The north trail segment from the Cowdrey Draw Trail to the Mayhoffer/Singletree Trail is currently unfunded. However, cost constraints are unlikely to have a large impact on construction timeline since the potential for a smaller natural surface trail exists. Other factors, such as securing agreements for irrigation ditch crossings, inter-governmental agreements with city and town agencies, and capital project prioritization within the Parks and Open Space department are likely to play a greater role in project scheduling.

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Appendix



Marshall-Superior-Coalton Trail Corridor Management Plan

Open House Comments

April 25, 2007

Other comments about this project?

- I'm definitely in favor of it, just oppose the proposed location along the south edge of the Superior reservoir.
- I appreciate the effort that is being made on this project, and particularly that it is attempting to connect existing trails. I would particularly appreciate the inclusion of narrow (singletrack) trail suitable for biking.
- Note that the "Existing Trail Easement" behind the Sagamore neighborhood is very close to houses.
- Would like off-street trail in lieu of 66th/Coal Creek. Would like Marshall Lake half loop.
- Keep trails as far away from "civilization" as possible – off road loops – connect with OSMP trails.
- Keep trails far away from big roads/major subdivisions, make loop trails, connect with open space trails. Keep open to horses!
- Keep trails far away from big roads, please avoid very arid areas.
- Off-road loops – connecting with OSMP trails.
- Off road loops, trails away from roads and houses.
- Keep trails away from roads and houses as much as possible. Connect with existing trails.
- Keep trails off roads – vehicles, dust.
- I would love to see a spur from the Ridge Townhomes to the trail.
- Please connect Singletree to Coalton Trail without disturbing the wildlife too much. What about formalizing connection at Rock Creek to Coalton trailhead?
- This will make a fantastic loop trail available via bike paths from my house!
- I'm delighted to see these trails moving forward. I'd like the trails to be natural surface, singletrack, multi-use trails (bike, hike, ride).
- An excellent project! By "connecting the dots" to Singletree, a relatively short amount of trail can be constructed while providing extensive opportunity.
- This will be an awesome loop from home.
- My first choice is that there are no additional new trails in the open space.
- I am not opposed to connecting the trails but the trail should be as far away from the Ridge homeowners as possible. It can't be right next to our back doors/yards!
- Great! Do it soon.
- Please keep large open area wild!
- I appreciate living in an area where the desires of car-free recreation are respected. Thank you. Would love to have a loop to enjoy.
- When passing through fences on pastures, please provide a cattleguard and a gate so bike riders don't have to open and shut the gate.

What concerns do you have regarding the environment/wildlife impacts of trail construction and implementation?

- Nothing or too little is known about all the natural resources in the proposed impact areas.
- None – Boulder County has done a great job mitigating any impact at other trail developments.
- A fun, interesting trail keeps people on the trail.
- I would be happy to see trails routed around environmentally sensitive areas as this could have the added advantage of making for longer trails. I would like to see properly constructed trails on some of the steeper areas, to make for a more interesting recreational experience.
- Would like to see trails around the edges of grassland areas to reduce fragmentation.
- Not concerned at all about prairie dogs. They're doing fine.
- Prairie dogs. And protect Coal Creek habitat.
- Keep trails out of riparian areas as much as possible.
- None – this area has been used for mining and cattle for decades!!
- I'm concerned that we place the trail alignments in areas where the trails can be made sustainable. Contour alignments with rolling grade dips and good drainage.
- Prairie dogs can take care of themselves! I trust the experts involved to make good decisions.
- I think signs need to be posted to not leave the trail system with fine warnings.
- The city showed a plan with the trail being adjacent/right on our property line which is unacceptable.
- Grazing makes all other impacts insignificant.
- I would like the plan selected to be designed so that large habitat and grassland areas are preserved. Prairie dogs, coyotes and raptors need protection.
- Generally speaking, avoid or minimize exposure to prairie dog colonies, riparian areas as well as maintain a large internal area as a permanent closure to maximize habitat. Also recommend seasonal closures as needed during nesting time, when young prairie dogs emerge, etc.

Considering the opportunities and constraints presented at this open house, what are your preferred trail locations?

- *Most attendees drew their ideas on the maps.*
- Access from neighborhoods. Prefer to stay away from roads.
- (#1) Most important is east end of Singletree to east end of Coalton
(#2) East end of Cowdrey Draw Trail to west end of Coalton.
- Loop. Am not particular about details. Need fully connected loop.
- A north-south trail to connect from approximately Town Hall to Coalton Trail – to run west of the reservoir. East of the reservoir is much too close to the Ridge Townhomes.
- Don't use Coalton service road as a trail.

Other comments about this open house?

- All the resources should be listed for public awareness and intelligent discussion and evaluation – especially insect, reptile, amphibian and water quality are missing from all the information presented.
- Thanks for the open house, and especially the opportunity to comment!
- As a resident of the Ridge at Superior (own a townhome along the edge of open space), I'm very concerned about the proposed trail adjacent to my property. I definitely favor a trail system but strongly oppose any trails in the vicinity of the Ridge. Property values, quality of life, crime, etc. – NOISE.
- Thank you for taking the time to explain and take feedback!! Very informative...loved the maps.
- Looking forward to official presentations.
- Would be better with food.
- Coffee in carton was interesting. SHOULD HAVE FOOD!
- Good coffee.
- Good info presentation.
- Good info. Thanks.
- Should have provided alternatives for comment.
- Please feel free to contact me.
- Thank you for having it and soliciting community comments. Hours were convenient.
- Good maps!
- Thank you for holding this meeting and asking for our input. I look forward to your next meeting.
- Ideally, would like dog access off leash except in sensitive habitat areas.
- Do you know if there are plans to add trail along US 36 to Boulder? I would be most interested in trails which would open up bicycle commuting to Boulder.

Marshall-Superior-Coalton Trail Corridor Management Plan

Open House Comments

June 7, 2007

Do you have any thoughts or concerns about the conceptual alignment?

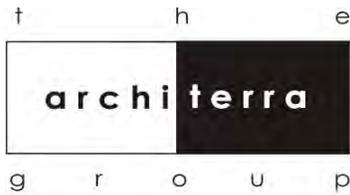
- I like the proposed alignment for both trails, and I ride often! Good job. Build it and I will come.
- I like the proposed trails. I would like to see some technical segments to the trail if there can be designated portions for “people only”, why not make a 100m section for bikes only. I would also like to see the technical on the “slope”.
- The general alignment is fine. Care must be taken to build an environmentally sustainable trail that is fun and interesting to use, i.e. many twists and turns, no long straights. Also, if constraints require a wide trail, consider building a singletrack trail that generally parallels the wider trail. This can be mostly built with volunteer help. Finally, be sure to consult with experts at BMA/IMBA on the detailed alignments.
- For the Coalton-Superior connection, allow/build a singletrack line for runners and bikes parallel to crusher fines trail. Manage it or react to it! It’s already happening on this loop and it works!
- I think the conceptual alignment is outstanding! It avoids several sensitive areas and makes use of the hillsides to provide sustainable trail opportunities. Limiting the new ditch crossings to one reduces the legal problems with the ditch company. Keeping the alignment above the ditches is also wise.
- Please keep actual trail alignment as far as reasonably possible from fences/roads/canal easements. Please construct as much single track (1 foot to 2 feet wide) as possible, or build a trail alternative a la Greenbelt Plateau with a singletrack parallel to main trail. The High Plains Trail is a great trail! More like that! Please don’t use Coal Creek Drive as a corridor! This is a huge project for my family! Please build as quickly as possible.
- Great alignments for both the North and South piece. I really like the neighborhood connection that connects by the Ridge Apartments and the town’s water treatment _____. A singletrack path next to the 6’ – 8’ wide crusher fines would be great.
- Thought – there should be easy foot (pedestrian) access to the trail from the vicinity of R.C. Parkway and McCaslin, as well as access to the hundreds of employees at Superior Pointe (KeyCorp) offices.
- Great work – love it so far! Thanks for keeping trail away from Ridge Townhouses.
- Make some smaller loops for hiking/running. Improve traffic lights and proposed trailheads. Add potential regional connector.
- If we have to have the Superior Park/Ridge connection, please make it only 3’ – 4’ wide or much smaller than the main path to discourage unwarranted use. Prefer to have no connection to Superior Park/Ridge Townhomes. Two alternatives: 1) at Key Bank or 2) South of Ridge Townhomes via the existing dirt trail (preferred). Superior Park is a medical clinic so not a large group of permanent employees to use trail. The proposed red connection on this is too close to the Ridge units and would disturb privacy. Thank you for moving trail out in general from long row of townhomes!
- I would like to eliminate the “red/potential neighborhood connection” from the Ridge. I think it’s totally unnecessary and will violate the homeowners’ privacy which it will be immediately adjacent to. The Ridge homeowners could access the “yellow” trail that runs

near McCaslin by the dirt road that parallels McCaslin on the west side (this was a road established to install a pipeline and has never disappeared). A trail access could be established from Key Bank. It's currently being shown as immediately adjacent to the property anyway. Why not avoid a social trail being developed there by homeowners and just build it there to begin with? People from Superior Park Professional Center and the Ridge townhomes could probably access it there, too, if they wanted.

- I like the position of the trail proposed. I just want to make sure it is a minimally developed trail in order to maintain and preserve current land especially avoiding wildlife corridors and wetlands being disturbed. Thanks for your time and efforts.
- The proposal looks great! Can't wait for the trails to open. Thank you for the excellent presentation materials.
- The proposed trail through currently undisturbed areas is inappropriate without reasonable baseline study of the resources there and assurance of their protection. These studies have not been done and present a legal issue about the obligation to protect these resources.
- I live in the Ridge and support having a neighborhood connection to the yellow trail IF we can cut closer to the reservoir and avoid privacy issues for homeowners.
- Alignments look great.

Other concerns or thoughts?

- As a 12-year resident of Superior, I am willing to give more formal support to these alignment proposals if you need it. Thanks.
- Mark mileage on trailheads or trail markers. Maybe put a cattle style crossing at fence lines so bikers don't have to dismount at every gate.
- If the trail surface and width becomes an urban crusher fines greater than 4' wide I'd recommend also defining a narrow natural surface parallel for runners and bikes (otherwise visitors will create their own). I've been waiting for this trail to happen for more than 20 years. I'm delighted to see it moving forward.
- Please, please, please consider and/or remember to include a potential neighborhood connection from Rock Creek Parkway and McCaslin to the conceptual alignment (most likely through the northern parking lot at Key Bank). In other words, try to allow the alignment to come close to the Key Bank northern lot.
- Looks good! Good start, keep up the good work.
- The visual impact of the trail especially from Marshall Road (Hwy 170) is large. This beautiful landscape should not be marred by a trail and multicolored people and bikes on it.
- I would like it if there were a connection to the Coalton Trail that maintained level altitude.
- A goal of the Town is to connect the original Town and Rock Creek outside of the sidewalk on McCaslin. It would be great to see connections on the S-C at Key Bank and The Ridge. In addition, the "other option considered" trail that runs from the stock pond southwest to Coalton trail would be a nice connection.



5881 south deframe street
 littleton, colorado 80127
 303.948.0766 fax.948.0977
 www.architerragroup.com

**Marshall-Superior-Coalton Trail Corridor Management Plan
 North Segment: Cowdrey Draw to Mayhoffer/Singletree Trail
 Boulder County Parks and Open Space
 Preliminary Estimate of Probable Construction Costs
 August 8, 2007**

ITEM	UNIT	QTY	UNIT COST	TOTAL COST
Mobilization	LS	1	\$10,000.00	\$10,000.00
Water, sediment and erosion control	LS	1	\$5,000.00	\$5,000.00
Natural surface trail (4' wide)	LF	8,640	\$6.00	\$51,840.00
Pedestrian bridge (2-40' ditch crossings)	LF	80	\$1,000.00	\$80,000.00
Concrete bridge abutments	EA	4	\$10,000.00	\$40,000.00
Erosion control blanket (10% of seeded area)	SF	17,280	\$0.35	\$6,048.00
Seeding (10' on each side of trail)	SF	172,800	\$0.07	\$12,096.00
Subtotal				\$204,984.00
Design and engineering (15%)				\$30,747.60
Contingency (15%)				\$30,747.60
Total				\$266,479.20

Assumptions:

- No retaining walls are necessary.
- This estimate does not include any neighborhood connections.
- The seeding price shown does not include any soil amendments.
- This estimate is based on the conceptual trail alignment shown on the plan dated 6-6-07.
- Assumes a new bridge is required at the existing ditch crossing.
- This estimate does not include fencing, signage, or other amenities.



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Marshall-Superior-Coalton Trail Corridor Management Plan
South Segment: Mayhoffer/Singletree Trail to Coalton Trail
Boulder County Parks and Open Space
Preliminary Estimate of Probable Construction Costs
August 8, 2007

ITEM	UNIT	QTY	UNIT COST	TOTAL COST
Mobilization	LS	1	\$25,000.00	\$25,000.00
Site preparation and demolition	LS	1	\$40,000.00	\$40,000.00
Earthwork	LS	1	\$110,000.00	\$110,000.00
Water, sediment and erosion control	LS	1	\$30,000.00	\$30,000.00
Crusher fines trail (8' wide)	LF	13,800	\$8.00	\$110,400.00
Pedestrian bridge (40' ditch crossing)	LF	40	\$1,000.00	\$40,000.00
Concrete bridge abutments	EA	2	\$10,000.00	\$20,000.00
Erosion control blanket (1/2 of seeded area)	SF	207,000	\$0.35	\$72,450.00
Seeding (15' on each side of trail)	SF	414,000	\$0.07	\$28,980.00
Subtotal				\$476,830.00
Design and engineering (15%)				\$71,524.50
Contingency (15%)				\$71,524.50
Total				\$619,879.00

Assumptions:

- No retaining walls are necessary.
- This estimate does not include any neighborhood connections.
- The seeding price shown does not include any soil amendments.
- This estimate is based on the conceptual trail alignment shown on the plan dated 6-6-07.
- The trail alignment and cost estimate may need to be revised if trail easements cannot be obtained.
- This estimate does not include fencing, signage or other amenities.

Boulder County Parks and Open Space
Marshall –Superior-Coalton Trail Corridor Management Plan Amendment
May 2017

This amendment provides guidance to Boulder County Parks and Open Space on management goals at Boulder Falls Mining Claims Open Space.

The draft amendment was presented to the Parks & Open Space Advisory Committee on May 25, 2017, beginning at 6:30 p.m., and the final plan was presented to the Board of County Commissioners at a Public Hearing on May 30, 2017 at 11:00 a.m.

For questions about this document or to provide comments, contact Boulder County Parks & Open Space at 5201 St. Vrain Road, Longmont, CO 80503; call 303-678-6200; or email POSinfo@bouldercounty.org.

Parks & Open Space Department ♦ Boulder County

ADOPTED:



Chair, Board of County Commissioners

05/30/17

Date



Parks and Open Space

5201 St. Vrain Road • Longmont, Colorado 80503
303.678.6200 • Fax: 303.678.6177 • www.bouldercounty.org

TO: Board of County Commissioners

DATE AND LOCATION: May 30, 2017, 11:00 a.m., Commissioners Hearing Room, 3rd floor
Boulder County Courthouse, 1325 Pearl Street, Boulder, CO

AGENDA ITEM TITLE: Amendment to the Marshall-Superior-Coalton Trail Corridor
Management Plan

PRESENTER: Al Hardy

ACTION REQUESTED: Approval

Action Requested

Recommend this amendment to the 2007 Marshall-Superior-Coalton Trail Corridor Management Plan to establish a small formal trail connection from the Mayhoffer Singletree Trail to the Town of Superior neighborhood of Coal Creek Crossing. The trail would be built and maintained by the Town of Superior.

Location and Background

Boulder County Parks and Open Space (BCPOS) manages the Boulder County and City of Boulder jointly owned Erin Arsenault property that this trail connection will be located on (Figure 1 – Trail Alignment). The proposed connection is approximately 280 feet long and would join a trail that has been constructed on Town of Superior Open Space by the developer of the Coal Creek Crossing neighborhood to the Mayhoffer Singletree Trail.

A connecting trail at this location has been contemplated and discussed several times during the planning and construction phases of the Coal Creek Crossing development project. The Town of Superior first initiated dialogue with BCPOS in 2007 seeking comments related to the potential trail alignment. BCPOS Resource Planning division provided that the location seemed appropriate with consideration needed for county trail standards, reduce crossings of the Hake Ditch, fencing, City of Boulder Wetland ordinance compliance if needed, and consultation with the U.S. Fish & Wildlife Service. In 2015, The Town of Superior continued the discussion and planning was taken up again with BCPOS as the development was coming to fruition. With input from BCPOS the Town of Superior had a preliminary trail design completed to further the discussion and submitted a formal request for the trail connection in November of 2016. BCPOS met on site with the Town of Superior in late 2016 and agreed to bring the request forward in the form of a management plan amendment.

City of Boulder

A draft of the amendment was provided to the City of Boulder for the opportunity to comment per the Boulder County and City of Boulder Jointly Owned Open Space Management IGA. City of Boulder Open Space and Mountain Parks staff support the

amendment because it will provide managed visitor access to the BCPOS's designated trail system from Superior, and especially the newly developed Coal Creek Crossing neighborhood. The City of Boulder Open Space Board of Trustees also had the opportunity to comment on a staff written report (Appendix A) related to the trail connection at their March 8, 2017 meeting. There were no questions. City of Boulder staff did have three comments regarding resource stewardship associated with the trail and recommends consultation with the BCPOS cultural resource manager to ensure the proposed alignment will not adversely affect cultural resources, to consider possible educational opportunities and to consider moving the southern end of the trail westward to direct visitors and pets away from the wetland habitat along the Hake Ditch.

Public Process

The Town of Superior had several meetings related to this trail connection that was originally one of two trails to be developed in the Coal Creek Crossing neighborhood. An east/west trail connection from the neighborhood ended up being removed by the Town Board. The trail connection was reviewed by two town advisory committees. The Open Space Advisory Committee did not support this trail connection and provided that the current trail system is adequate. The Parks, Recreation, Open Space, and Trails Advisory Committee recommended the connection to the Town Board. The Town of Superior Board met on February 22, 2016 and approved the trail connection motion with all six of the seven board members present voting in favor of the connection (majority of public comments were in favor).

The public was able to provide public comment for the draft amendment from May 1 - May 24 on the Boulder County Superior Trail Extension web page. A total of four comments were received and all were in favor of the trail (Appendix B).

The Parks and Open Space Advisory Committee (POSAC) meeting held on May 25, 2017 provided the opportunity for the public to provide comment along with any recommendations from POSAC. Two people from Superior spoke in favor of the trail connection. POSAC did approve the connection unanimously, but added a request to modify the original plan further to remove the northern most potential neighborhood connection in exchange for this new connection.

Staff Discussion

BCPOS is the lead management agency for this property, which is jointly owned with the City of Boulder. The Boulder County Comprehensive Plan states that the county will work with the Consortium of Cities to assure linkage of county trails and connections between communities. This trail provides a public connection to the Coal Creek Crossing neighborhood, which will avoid social trail development. The Town of Superior and members of the public desire the connection and the proposed trail strives to minimize resource impacts to open space.

BCPOS has been open to the concept of a trail in this area for the past ten years. A site visit in December of 2016 by BCPOS staff representing disciplines from Recreation and Facilities, Resource Planning, Plant Ecology, Wildlife, and Agriculture did not identify major concerns with this connection. Input from staff included fencing considerations related to agriculture and desire to move the trail connection on the west end slightly further from the Hake ditch to avoid possible disturbance to the plant communities associated with the ditch.

Vegetation broad scale mapping of the area was done in 2012. The two vegetation areas affected by the trail are Western Wheat Upland Meadow and a semi-permanently flooded Catab/Clubbrush wetland and ditch edge (Figure 2 - Mayhoffer Trail Plant Communities). Staff does not think there would be impact to any wetlands on the Erin Arsenault property and there would be minimal wetland impact related to an abandoned Hake Ditch lateral on Town of Superior Open Space. The Town of Superior received a *No Concerns* response from the US Fish and Wildlife Service in February 2017 related to this trail project. The trail and grading for construction would impact approximately 0.13 acres based on the original design by Loris and Associates (Figure 3 – Typical Trail Detail).

Upon approval of this amendment BCPOS would develop an IGA with the Town of Superior that would provide specific conditions related to the trail connection such as:

- Town of Superior responsible for construction (working with the developer and following specifications from Typical Trail Detail), revegetation of disturbed area, and maintenance of trail connection. The centerline of the trail connection at the Mayhoffer Singletree Trail junction should be moved a minimum of 5 feet to the north to ensure no impact to the nearby wetland vegetation associated with the Hake Ditch.
- BCPOS will continue to utilize approximately 1.4 acres of Town of Superior Open Space that is adjacent to this area based on the existing fence not being on the property line
- New fencing and gates would need to be installed as part of the construction of the trail connection
- Town of Superior would acquire and be responsible for any needed permits or approvals



POSAC recommended that staff also remove the northern possible neighborhood connection in exchange for this connection (Figure 4 - 2007 Proposed Trail Plan showing the northern neighborhood connection). The requested trail connection in this amendment is significantly less in length (1,600 feet to 280 feet) to the listed northern potential neighborhood connection. Discussion on possible trails in the past in the area of the northern connection has raised significant concern from the adjacent neighborhood and staff is OK with this modification to the 2007 Proposed Trail Plan. The department does currently have a request from Louisville to look at a possible trail connection coming from the Davidson Mesa underpass recently completed under US36 to the Mayhoffer Singletree Trail not in this specific area, but another amendment to this plan could occur to increase trails and connectivity in the area.

Staff Recommendation

Recommend the BOCC approve this amendment to the 2007 Marshall-Superior-Coalton Trail Corridor Management Plan to include this new trail connection and confirm the POSAC recommended modification to the 2007 Proposed Trail Plan to remove the northern neighborhood connection.

Crrtqxcn

BOCC approved the amendment and the modification to the 2007 Proposed Trail Plan. The BOCC also discussed the need for a potential new linkage further north on the Mayhoffer Singletree trail to the Davidson Mesa Open Space Underpass of US36 be valued if another amendment process occurs (Figure 5 - 2017 Amended Proposed Trail Plan).

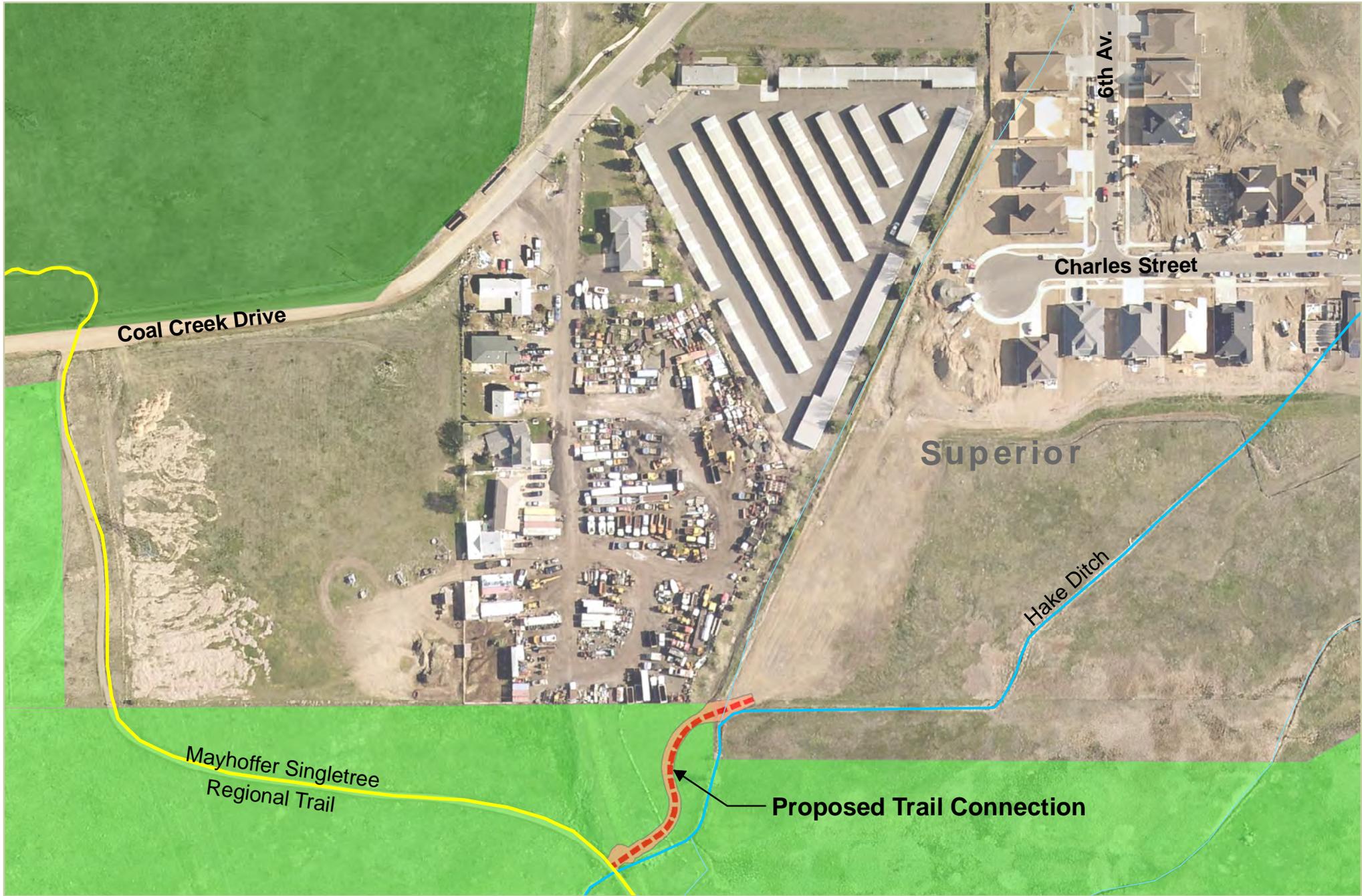
Figures

1. Map of Trail Connection.
2. Mayhoffer Trail Plant Communities
3. Typical Trail Detail – Loris and Associates
4. 2007 Proposed Trail Plan
5. 2017 Amended Proposed Trail Plan

Attachments

1. City of Boulder Written Report Appendix A
2. Public Comments Appendix B

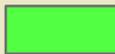
Figure 1 - Coal Creek Connector Trail Alignment



2017



Boulder County Open Space

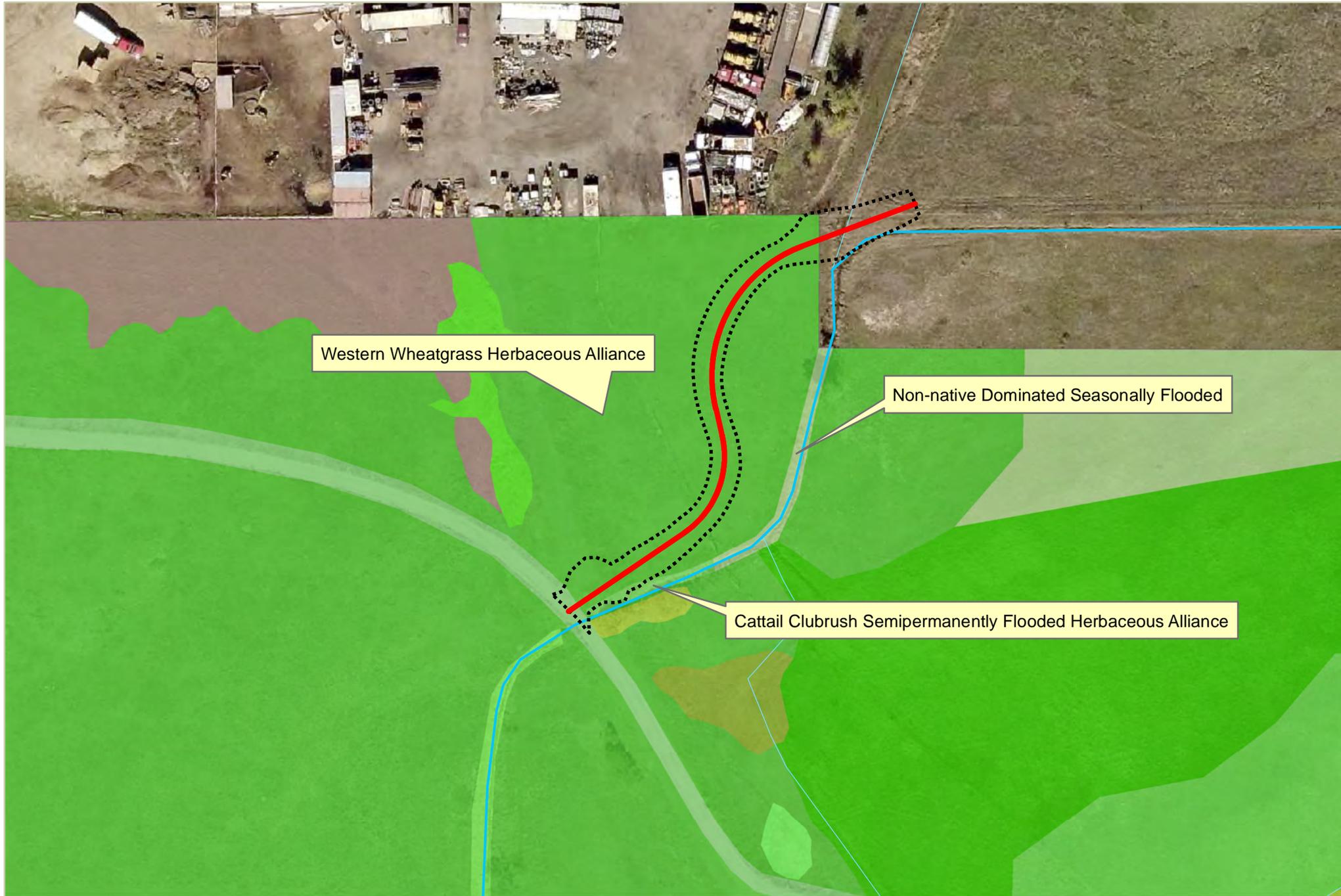


Joint Boulder County and City of Boulder Open Space



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Figure 2 - Coal Creek Connector Trail Plant Communities



Western Wheatgrass Herbaceous Alliance

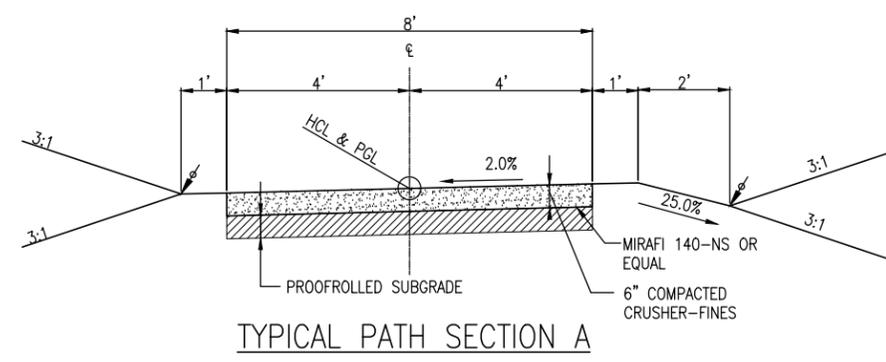
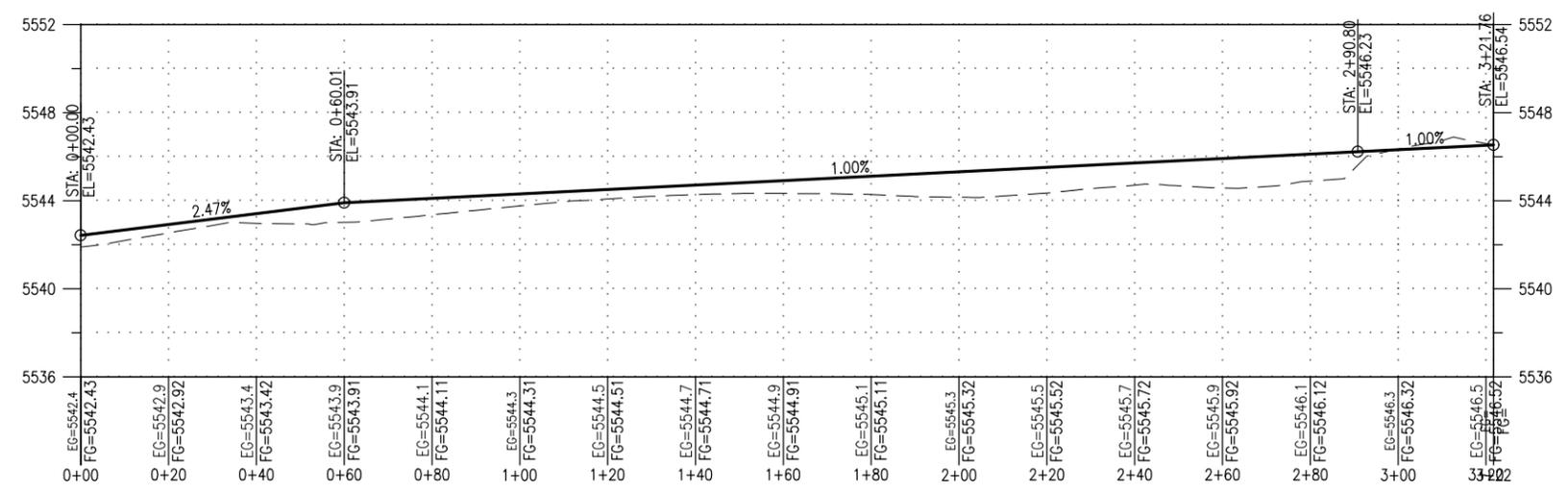
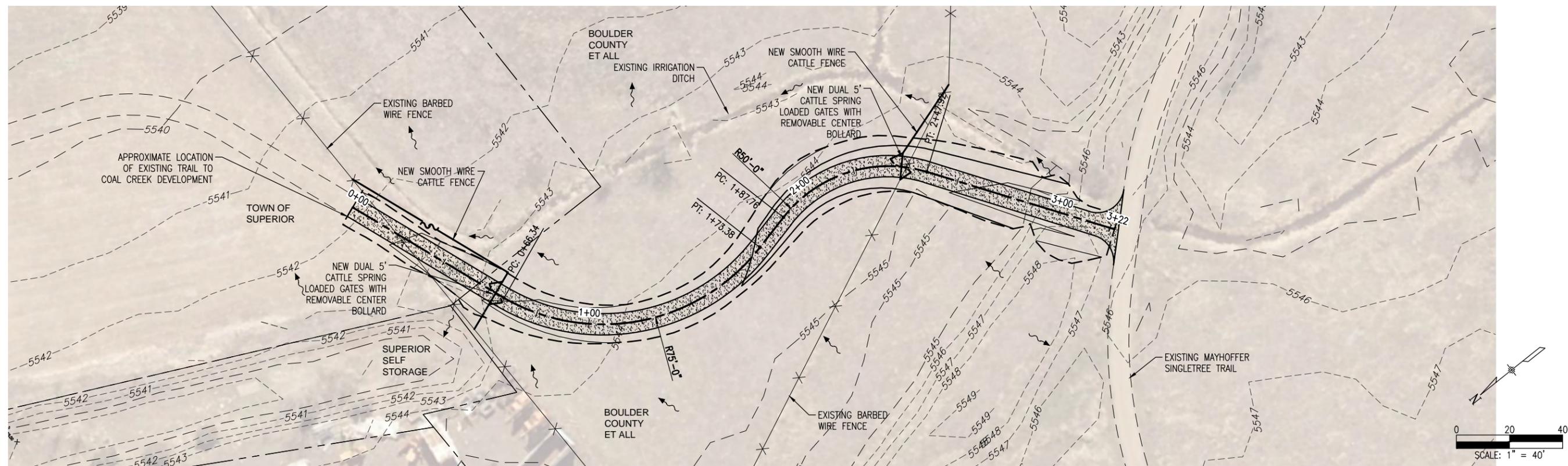
Non-native Dominated Seasonally Flooded

Cattail Clubrush Semipermanently Flooded Herbaceous Alliance

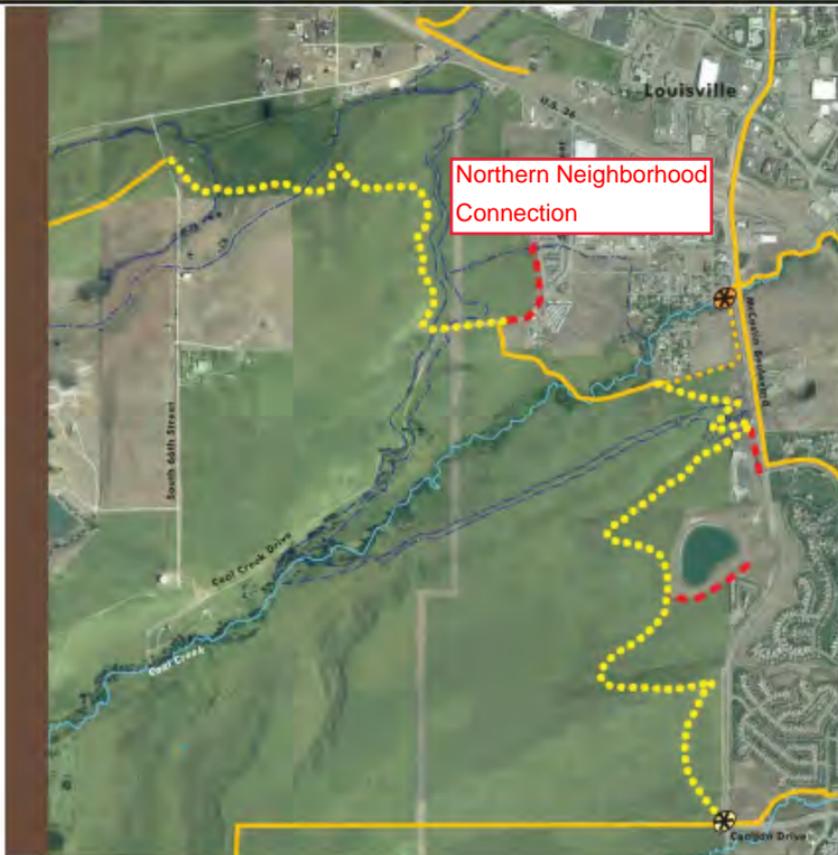


Joint Boulder County and City of Boulder Open Space

G:\7.2 Clients\328 - Town of Superior\16116 - Superior Trails\50 DWG\16116-(x-x) Plan & Profile (CoalCreek).dwg Nov 07, 2016 - 8:43am



Print Date: November 07, 2016	Sheet Revisions			<p>Loris and Associates, Inc. 100 Superior Plaza Way Suite 220 Superior, Colorado 80027 303.444.2073 www.LorisandAssociates.com</p>		As Constructed	SUPERIOR TRAILS		Project No./Code
File Name: 16116-(x-x) Plan & Profile (CoalCreek).dwg	Date:	Comments	Init.			No Revisions:	PLAN & PROFILE, TYPICAL DETAIL		
Horiz. Scale: Vert. Scale: As Noted				Revised:	COAL CREEK NEIGHBORHOOD CONNECTOR		Sheet Subset: PP-01	Subset Sheets:	
Unit Information Unit Leader Initials				Void:					Sheet Number 1



Rock Creek Trail

MARSHALL-SUPERIOR-COALTON

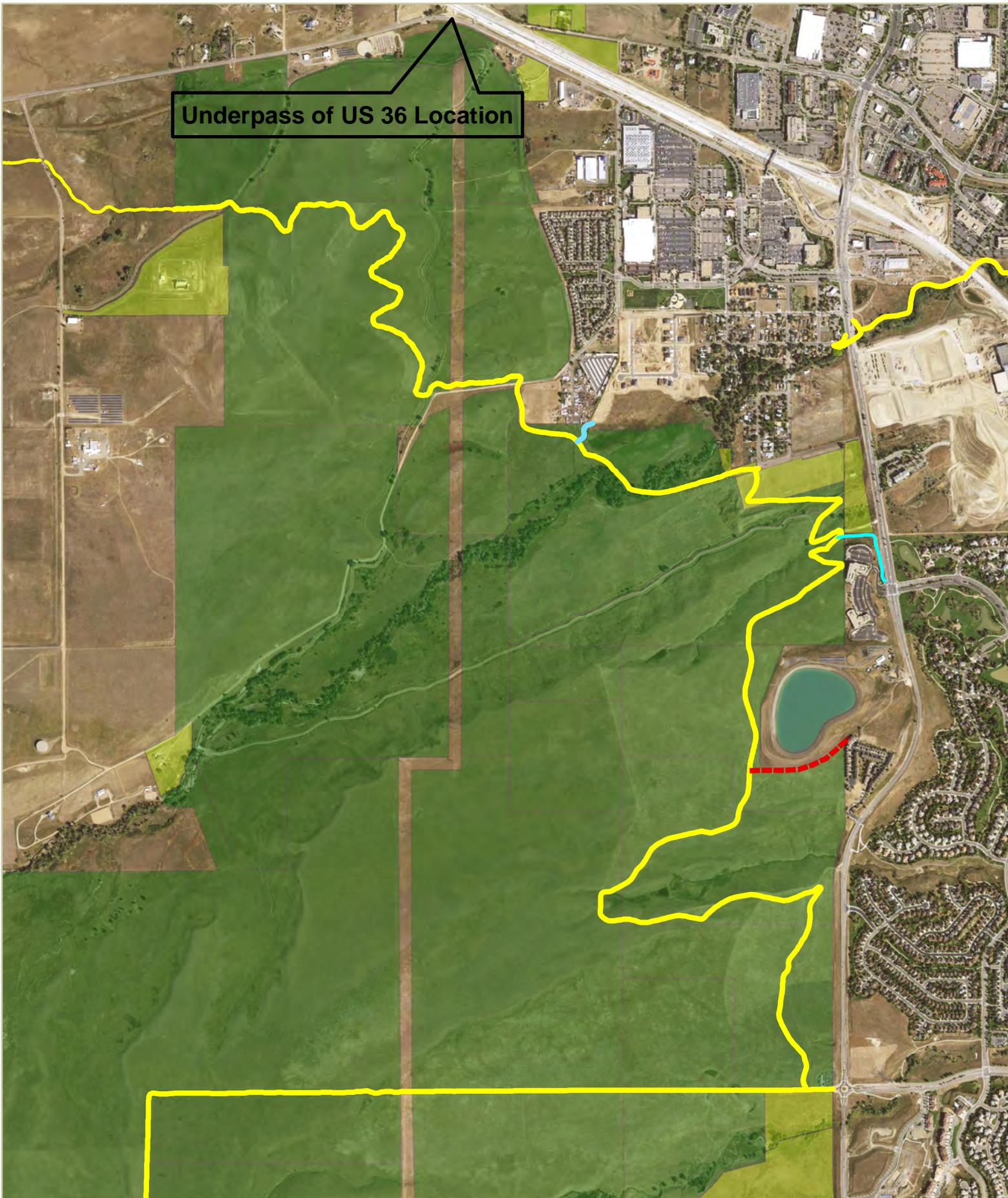
Proposed Trail Plan
Figure 6

- Existing Trails
- Existing Trailhead
- Open Space
- Conceptual Trail Alignment
- Proposed Trailhead
- Potential Neighborhood Connection
- Potential Regional Connection



9/3/07

Figure 5 - 2017 Ammended Proposed Trail Plan



Appendix A: City of Boulder Written Report

MEMORANDUM

TO: Open Space Board of Trustees

FROM: Tracy Winfree, Director, Open Space and Mountain Parks
Mark Davison, Manager Community Connections and Partnerships
Mark Gershman, Planning Services Supervisor

DATE: March 8, 2017

SUBJECT: Written Report: Boulder County Parks and Open Space Coal Creek Connector Trail

The City of Boulder and Boulder County have an Intergovernmental Agreement (IGA) concerning the management of properties where the city and county each own an undivided fee interest. Under the provisions of this IGA, each of these properties is assigned a *lead agency*. The lead agency is responsible for management of the property. Among other things, the IGA requires that the lead agency develop management plans for the properties it manages, and provides the non-lead agency the opportunity to comment on draft management plans and proposed updates/amendments to those plans.

The Erin Arsenault property is a jointly-owned property covered in the IGA (Attachments A and B). In 2007, Open Space and Mountain Parks (OSMP) assisted Boulder County Parks and Open Space (POS) with the development of its *Marshall-Superior-Coalton Trail Corridor Management Plan*. This plan describes trail development and management covering the Erin Arsenault Property.

POS is proposing to amend the 2007 plan in response to a request from the Town of Superior. Superior has asked for a 280-foot-long trail to connect the Mayhoffer-Singletree Trail with Superior's open space. In accordance with the provisions of the IGA, POS staff has provided city OSMP staff with an opportunity to review the proposed amendment (Attachment C).

OSMP staff supports the amendment providing visitor access to POS's designated trail system from Superior, including the newly developed Coal Creek Crossing neighborhood. The connection will provide healthy opportunities for community members to connect with nature and enjoy passive recreation activities on open space. City staff also supports POS findings that managed access is preferable to building no trail, an alternative which will likely result in one or more social trails impacting resources. OSMP staff agrees the proposed trail alignment provides for an improved recreation experience as well as minimizing resource impacts. OSMP has recommended that POS analyze the proposed alignment to ensure it will not adversely affect cultural resources, and to reconsider the alignment of the southern end of the trail to provide for possible educational opportunities while also ensuring protection of the wetland habitat along the Hake Ditch.

The plan amendment will be presented at a public hearing before the Boulder County Parks and Open Space Advisory Committee (POSAC) on April 27 at which time POS staff will be requesting that POSAC recommend the amendment to the Board of County Commissioners (BOCC). The BOCC will also consider the approval of this amendment request at a meeting that includes an opportunity for public comment.

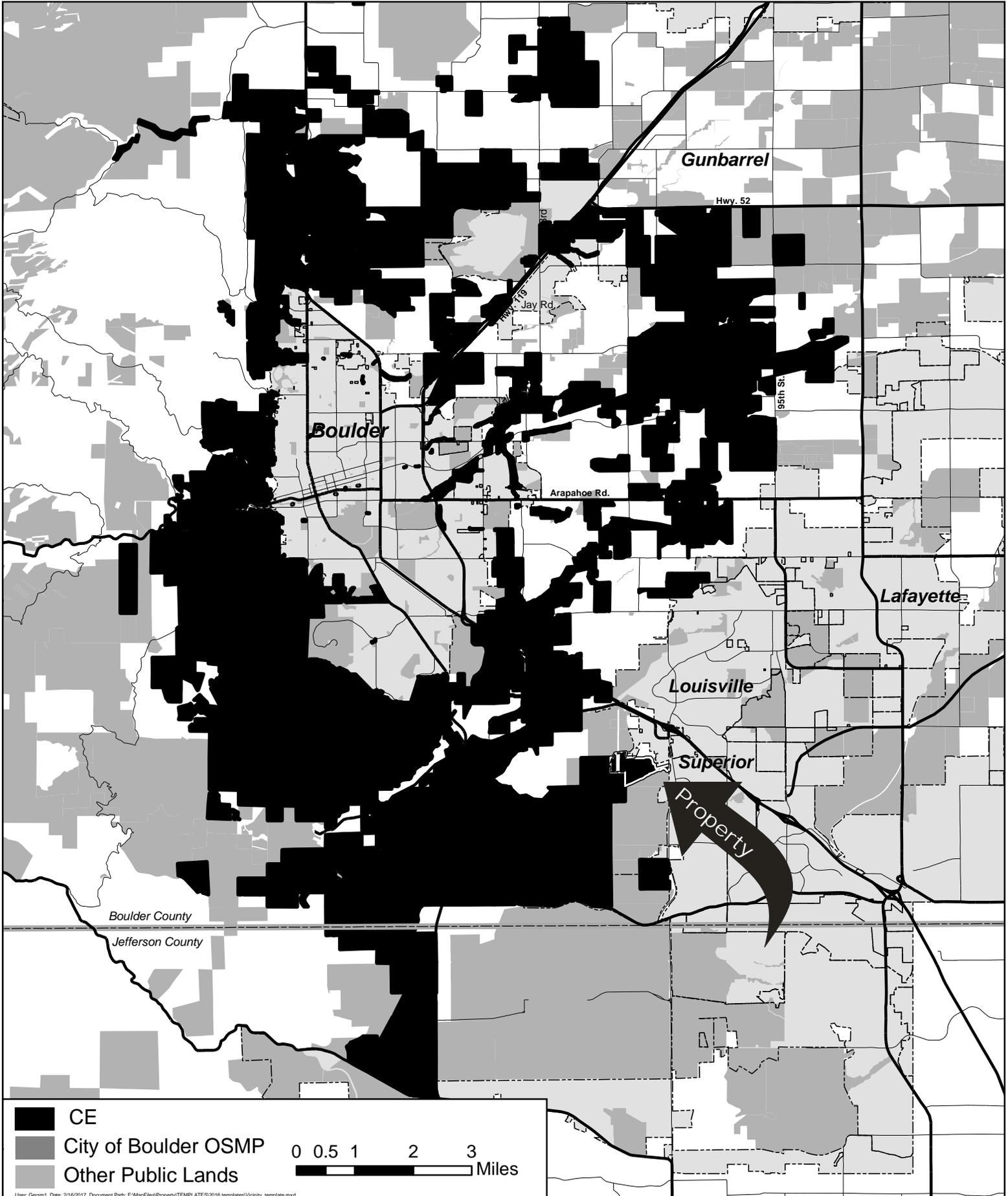
ATTACHMENTS:

- A: Vicinity Map - Erin Arsenault Property
- B: Vicinity Map - Erin Arsenault Property-Coal Creek Connector Trail
- C: Coal Creek Connector Trail Alignment

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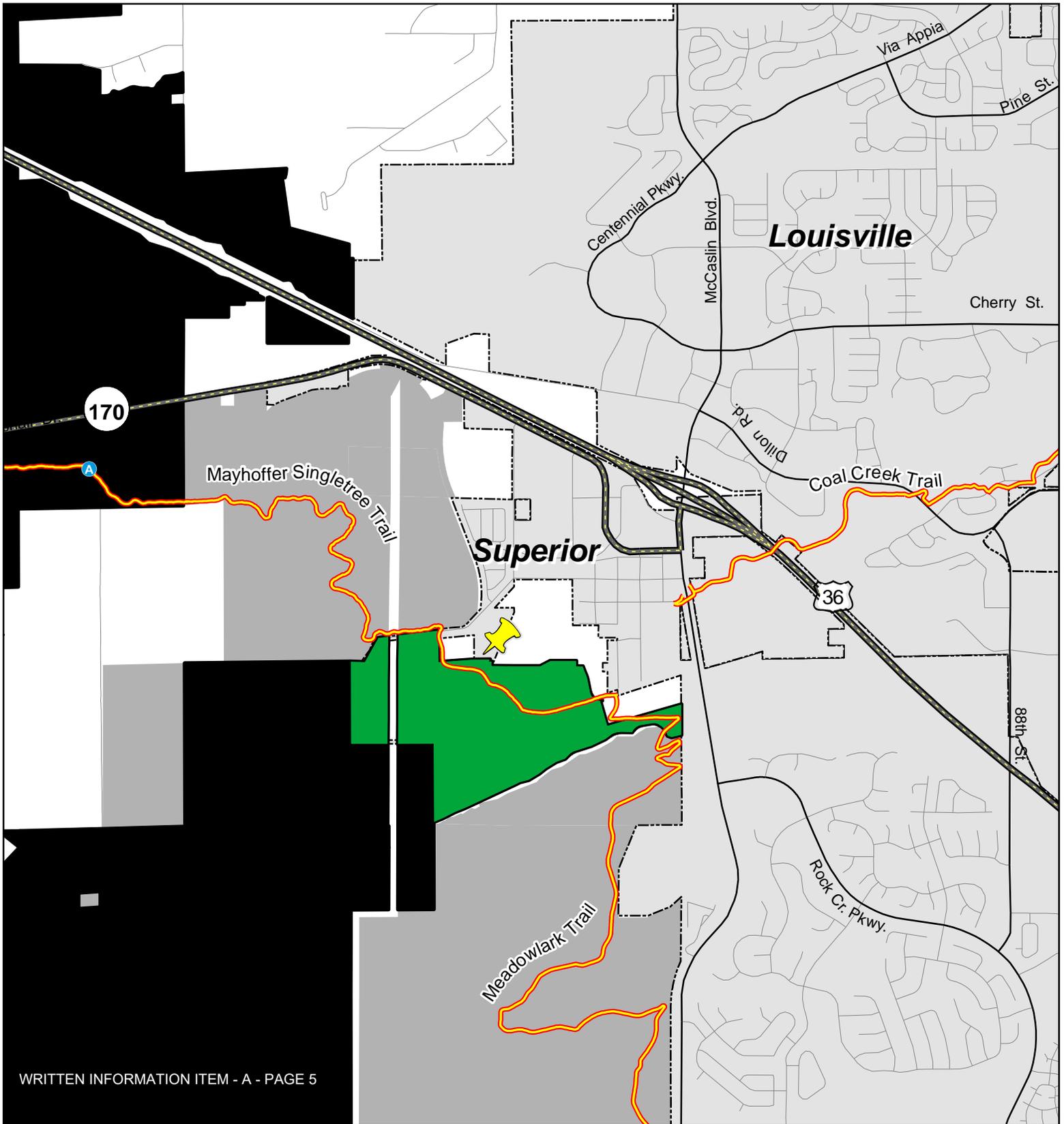
Attachment A: Vicinity Map Erin Arsenault Property



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ATTACHMENT B: Vicinity Map

Erin Arsenault Property-Coal Creek Connector Trail



WRITTEN INFORMATION ITEM - A - PAGE 5

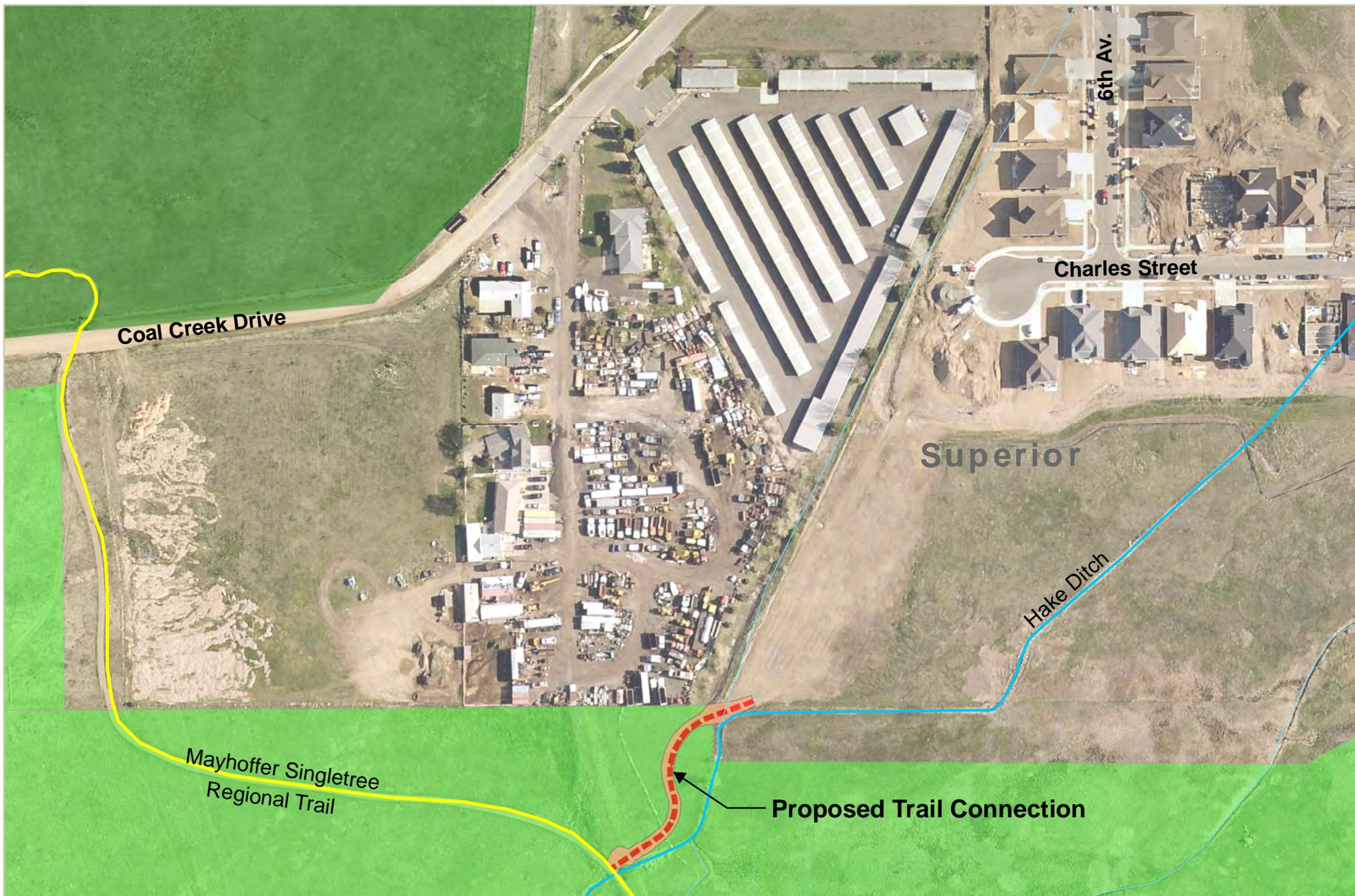
	Location Coal Creek Connector		Cities
	Erin Arsenault Property		Other Public Land
	City Open Space & Mountain Parks		Multiuuse Trail

0 0.25 0.5 1 Miles

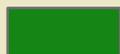
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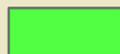
Attachment C: - Coal Creek Connector Trail Alignment



2017



Boulder County Open Space



Joint Boulder County and City of Boulder Open Space



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FILE: V:\gispa\trails\Staff\ANCoal Creek Connector_Superior.mxd

Appendix B

Marshall-Superior-Coalton Trail Corridor Public Comments May 1, 2017 - May 24, 2017

Comments	City
<p>I would like to express my support for this connector trail. I think adding this connector is consistent with several community access connections that have been previously done on the Coal Creek Trail in Louisville and Lafayette. For residents in the Coal Creek Crossing and Sagamore neighborhoods, this trail will allow us to access Mayhoffer-Singletree without having to go on West Coal Creek Drive which has no road shoulder lanes, and does not have a sidewalk extending to the trail. I think this connector will be a great benefit to the community. Thank you.</p>	Superior
<p>Very excited to find out that the remaining 280 feet of trail might just actually get approved and go in! We enjoy the trail system in Superior and are very much looking forward to having neighborhood access. After reading through the management plan it appears that every agency/city/committee/commissioners approve(d) or has had no objection or raised issue with this project. I am hopeful that with a passed amendment this month the City of Superior will be able to move forward with the final trail connection!</p>	Superior
<p>I am a resident of Coal Creek Crossing (CCC) in Superior who is writing in strong support of the 280 foot extension from our neighborhood to the Singletree/Mayhoffer trail. As an avid cyclist and hiker/walker, this will make it very easy for myself, family and neighbors to access the existing trail system directly from our neighborhood. However, there is much more than convenience at stake here with the principal concern that of pedestrian and cyclist safety. The proposed extender trail will afford CCC residents the opportunity to avoid walking on and crossing busy streets. Currently, the easiest way to access the trail system is through Coal Creek Drive which is a busy street filled with rushed motorists and construction truck drivers who have been observed to routinely speed and run stop signs. CCC has a wide age range of residents (youth to older adults) who will benefit from the connector trail in terms of increased safety, avoiding any need to walk or ride on these busy streets. In summary I wholeheartedly endorse the proposed amendment and hope the connector trail can be completed without further delay. Thank-you.</p>	Superior
<p>Hello, I urge the Parks & Open Space Advisory Committee and the Board of County Commissioners to approve this amendment. There are many seniors living in the Coal Creek Crossing neighborhood that will benefit from the new trail connection and make good use of it. Some of us would likely be driving to other trail heads, impacting other neighborhoods and increasing our carbon footprint. As you know, the town of Superior will pay for construction and maintenance of the connector trail. Thank you for your consideration, Superior, CO 80027</p>	Superior

Boulder County Parks & Open Space

Marshall-Superior-Coalton Trail Corridor Management Plan Amendment #2

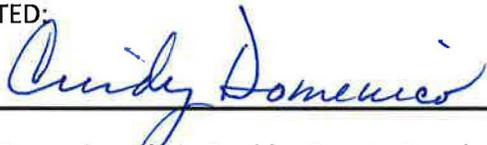
December 18, 2018

This amendment provides guidance to Boulder County Parks & Open Space for the development of a short connecting trail between a proposed trailhead on Town of Superior open space (Chu Property) and the Meadowlark Trail on the Erin Arsenault Open Space.

Staff presented this minor plan amendment proposal to allow this approximately 45-foot trail connection to POSAC on August 23, 2018. POSAC unanimously recommended approval. The Boulder County Board of County Commissioners approved the amendment on December 18, 2018.

For questions about this document, contact Boulder County Parks & Open Space, 5201 St. Vrain Road, Longmont, CO 80503; phone (303) 678-6200; or email POSinfo@bouldercounty.org

ADOPTED:



12/18/18

Cindy Domenico, Chair, Boulder County Board of County Commissioners

Date



Parks & Open Space

5201 St. Vrain Road • Longmont, Colorado 80503

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BOCC BUSINESS MEETING

Time/Date of Meeting: 10:30 a.m., Tuesday, December 18, 2018

Location: BOCC Hearing Room, 1325 Pearl Street, 3rd Floor, Boulder, CO

TO: Board of County Commissioners 
FROM: Jeff Moline, Resource Planning Manager
RE: Town of Superior Trailhead Request affecting Chu and Erin Arsenault properties
DATE: December 11, 2018

Summary of Request

The Town of Superior is moving forward with plans to develop a trailhead on the Chu Property over which the county has a conservation easement. The property is located within the town limits at 414 McCaslin Boulevard on the west side of the road, one-third of a mile south of town hall. Additionally, the town has requested permission to construct a short connecting trail from the new trailhead to the existing Meadowlark Trail on the Erin Arsenault property. Staff and the county's Parks and Open Space Advisory Committee (POSAC) recommend permitting these actions. A draft letter providing written permission to the town is attached. A corresponding update to the Marshall-Superior-Coalton Trail Corridor Master Plan is also attached.

Background Information

The Chu property is a 6.57-acre parcel located in the Town of Superior on the west side of McCaslin Boulevard. In 2014, the Town of Superior acquired the Chu property for open space at a purchase price of \$680,000, of which Boulder County contributed \$125,800 in return for a conservation easement. The easement protects the property's conservation values in perpetuity while also allowing passive recreational uses. Following the purchase, the property was rezoned in Superior to the Open Space and Natural Uses District. The Chu property is bordered on the west by two county open space properties: the Erin Arsenault property that is jointly-owned by Boulder County and the City of Boulder and the Mayhoffer 2 property which is solely owned by Boulder County. The Boulder County Parks & Open Space (BCPOS) department manages both properties, including the recreational activities associated with the existing Meadowlark Trail. The Mayhoffer 2 property also is used for agricultural cattle grazing. The property locations are detailed in Figure 1. Accompanying the trailhead request is the town's proposal to construct a 45-foot long crusher fines trail across the Erin Arsenault Open Space which will connect the trailhead to the Meadowlark Trail.

Public Process

The proposed trailhead and associated trail connection were identified by the Town of Superior to address community concern over the existing trail access located at 3rd Avenue and Depot Street in Original Town Superior which has become problematic in the eyes of local residents as use of the Meadowlark Trail increased over the years. The most frequent resident complaint is that the volume of on-street parking along 3rd Avenue by trail users occasionally blocks resident and emergency vehicles from safely navigating the local streets.

Rocky Mountain Fire District has had concerns about their ability to navigate a fire truck down 3rd Avenue during periods of peak trail use when vehicles are parked on both sides of the roadway. Establishing a trailhead with a connection to the Meadowlark Trail at the Chu property has been identified as a top priority by Superior's Open Space Advisory Committee as well as the town's Parks, Recreation, Open Space and Trails Advisory Committee since the property was purchased in 2014. The project is currently listed as the top priority in the town's Five-year Trail and Open Space Capital Project Plan, and has been submitted as part of the annual open space and trail requests to the county since 2015. Public input, specific to the project, has been captured by the town's committee members during community events, and the project was the topic of discussion during a community open house to identify trail priorities throughout the community. Superior's elected officials are supportive of this project and have included funding in the 2019 budget for construction pending approval from the county. The trailhead design is detailed in Figure 2.

POSAC heard this item at their August 23, 2018 meeting and unanimously approved it.

Staff Discussion

The Town of Superior would fund the development of the Chu trailhead improvements, including the new connector trail on Boulder County open space property to the existing Meadowlark trail. The Town of Superior and members of the public desire the connection, and the proposed trail location has minimal resource impacts to open space. The project is consistent with the Boulder County Comprehensive Plan objective that the county will work with municipalities to provide linkages to county trails and connections between communities.

Chu Property

The easement agreement allows the construction of trails and other improvements with written permission from the county of specific plans detailing the improvements. Staff finds the proposed trailhead request from Superior consistent with the easements terms and recommends that the county provide written approval of the plans in Figure 2.

Erin Arsenault Property

Completing the new trail connection to the Meadowlark Trail would necessitate a very minor amendment to the Marshall-Superior-Coalton Trail Corridor Management Plan. Additionally, the Erin Arsenault property is covered by the Jointly-Owned Open Space Management Intergovernmental Agreement (IGA) that requires the county to give the City of Boulder the opportunity to provide comments on changes to existing management plans. The county has contacted City of Boulder OSMP about the minor change to the Marshall-Superior-Coalton Trail Corridor Management Plan which will be necessary on the Erin Arsenault property. OSMP had questions about how this trailhead would relate to other existing and proposed parking areas. Those questions have been addressed, and staff did not object to the proposal. The city's Open Space Board of Trustees will have an opportunity to review the proposal at their Dec. 12 meeting and staff will update the board on any results.

BCPOS staff has visited this site and did not identify concerns with this connection.

The development of improvements associated with the trailhead and connection to the existing trail on the county's open space are acceptable to BCPOS so long as they are constructed in accordance with the plans submitted and approved. If there are material changes to the plans as the project moves forward, the county will need to be consulted.

Upon approval of this amendment, BCPOS will ensure that the Town of Superior will

- be responsible for construction, revegetation of disturbed areas, and maintenance of the trailhead and associated parking lot
- install new fencing and gates as part of the construction of the trail connection
- and acquire and be responsible for any needed permits or approvals.

Staff Recommendation

Approve the trailhead improvements to the Chu property and for the trail connection on the Erin Arsenault Open Space as depicted on the attached plan (Figure 2) to connect the new trailhead to the Meadowlark Trail. This trail connection will also be reflected in an amendment to the Marshall-Superior-Coalton Trail Corridor Management Plan.

BOCC Action Requested

Approve the staff recommendation as described above by providing the Town of Superior written permission for trailhead construction on the Chu property and by amending the Marshall-Superior-Coalton Trail Corridor Management Plan to allow for the minor trail connection.

Figure 1, Chu Trailhead Vicinity Map

