

City of Boulder
Open Space and Mountain Parks

West Trail Study Area Plan



Acknowledgements

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Open Space and Mountain Parks would like to give our sincere appreciation and thanks to the many community members who contributed their time and efforts in the preparation and completion of the West Trail Study Area Plan.

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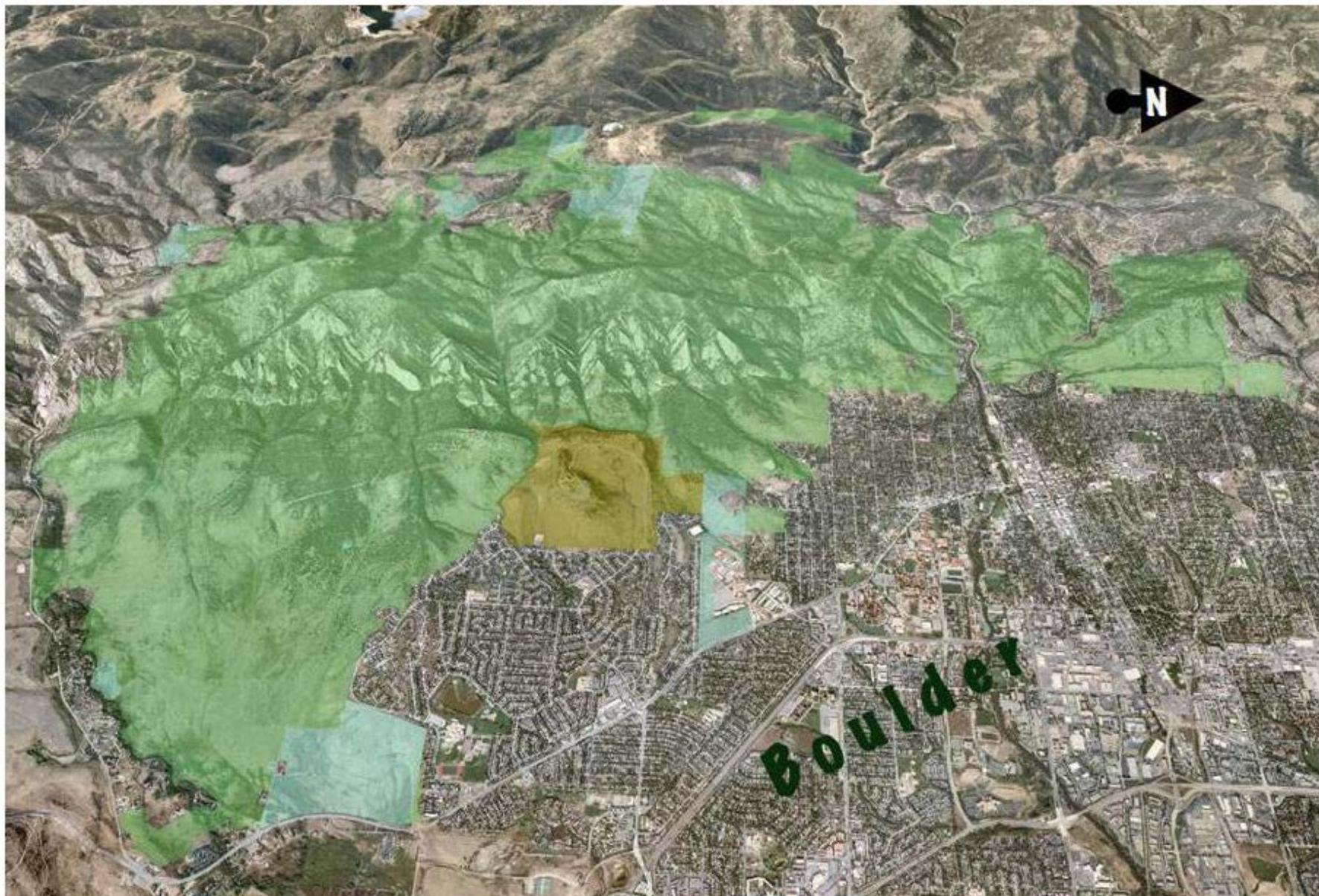
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West Trail Study Area



The West TSA forms the spectacular mountain backdrop to the City of Boulder. It includes OSMP lands west of Broadway and State Highway 93 from Linden Drive to Eldorado Springs Drive. The West TSA is 11,250 acres.

Background

Need for a Trail Study Area Plan

The Open Space and Mountain Parks Visitor Master Plan (VMP) was accepted by City Council in 2005. The VMP sets the priorities and describes the strategies to protect natural and cultural resources and deliver a high quality visitor experience and sustainable trail system on OSMP. The VMP identifies area-specific plans, such as Trail Study Areas, as a way to provide specific on-the-ground actions to do this.

Planning Goals

Trail Study Area (TSA) planning focuses upon the designated trails, undesignated trails, and activities on these trails. TSA plans describe how existing trails can be modified to improve:

- Quality of the visitor experience
- Protection and restoration of natural and cultural resources
- Visitor access opportunities
- Physical sustainability of the trails system

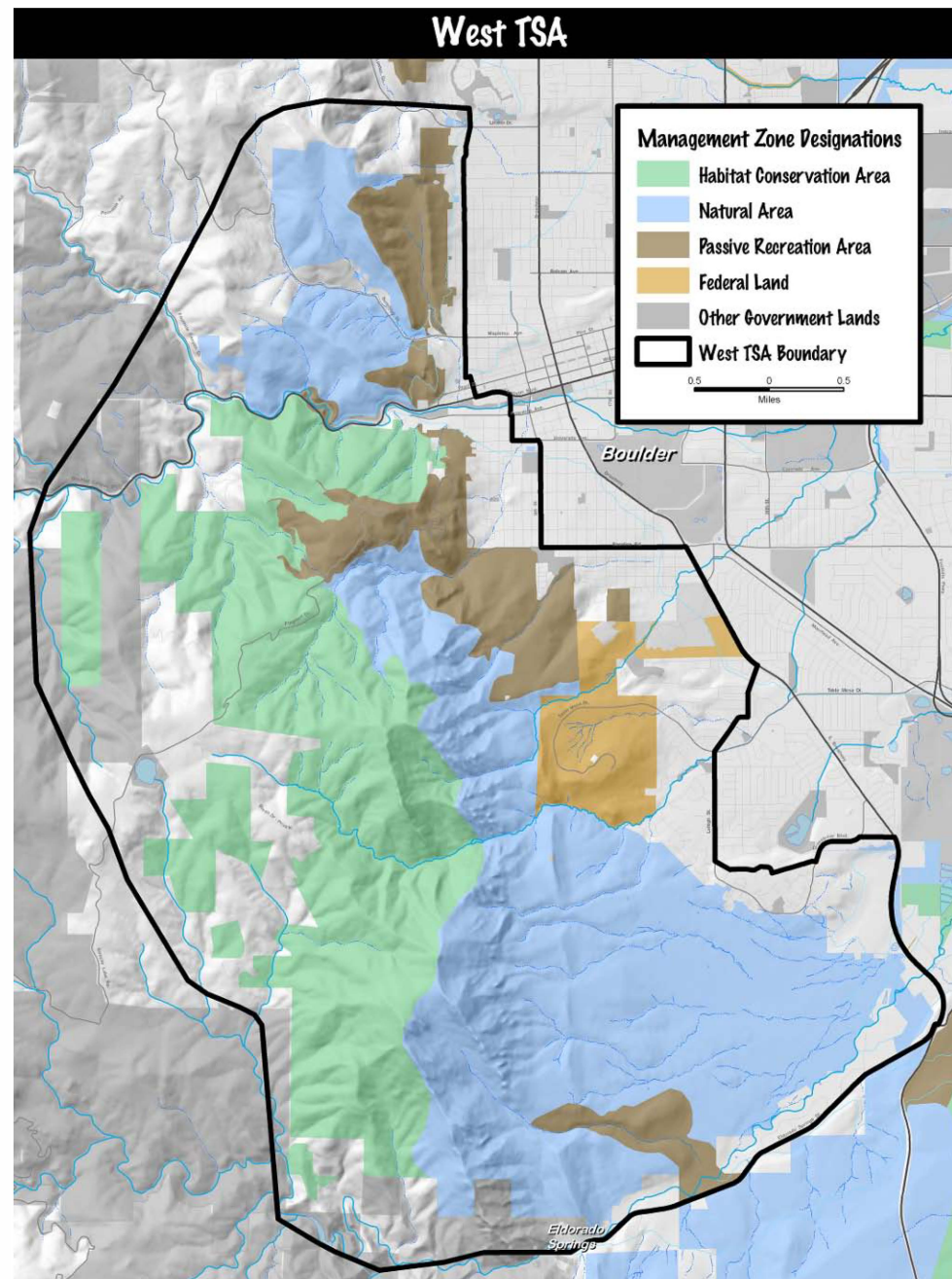
This plan articulates the management actions that will best balance these goals in the West TSA.

Context / Existing Conditions

Management Areas

The VMP categorized OSMP lands under one of four management area designations. The West TSA contains Passive Recreation Areas (1,500 acres), Natural Areas (5,240 acres), and Habitat Conservation Areas (3,960 acres). There are no lands in the West TSA designated as Agricultural Areas. Two properties in the West TSA are owned by the federal government and for which the city has limited management responsibilities. These are the National Center for Atmospheric Research (NCAR) and National Institute for Standards and Technology (NIST). Recommendations that involve property owned by NCAR or NIST are subject to their agreement and could change.

Management area designations provide the foundation for determining what recreational opportunities are allowed and where, the level of resource protection, and the level of trail and facility development. At one end of the spectrum are Passive Recreation Areas which are located closer to where people live and work. These areas are designed to accommodate a higher level of visitor activity while ensuring environmental sustainability and protection. At the other end of the spectrum are Habitat Conservation Areas where the emphasis is on protecting high quality habitats while providing a more remote visitor experience.



Background

Context/Existing Conditions Cont.

Recreational Resources

Recreational opportunities abound in the West TSA. Many consider the area a world-class recreational destination. The West TSA offers a range of recreational opportunities- from rock climbing, trail running, horseback riding, and dog walking to hiking, contemplation, and nature study. The area receives 40-45% of the total number of person visits annually to OSMP (2004/05 Visitation Study), which equates to roughly two million visits each year (Vaske, Shelby, & Donnelly, 2009).

Trail System

There are approximately 78 miles of designated trails, and 51 trailheads and designated access points that provide entry to this popular area. Many of the trails were developed in the early 1900s, and the majority of these older trails were not located or built with attention to the current understanding of physical and environmental sustainability. Fifty-eight miles of undesignated trails (aka social, informal or visitor-created trails) have been mapped in the TSA. These trails were not intentionally designed or built and most are not physically or environmentally sustainable. While some undesignated trails provide access to destinations not served by designated trails or provide desired trail connections, others duplicate designated trails serving the same destination.

Natural Resources

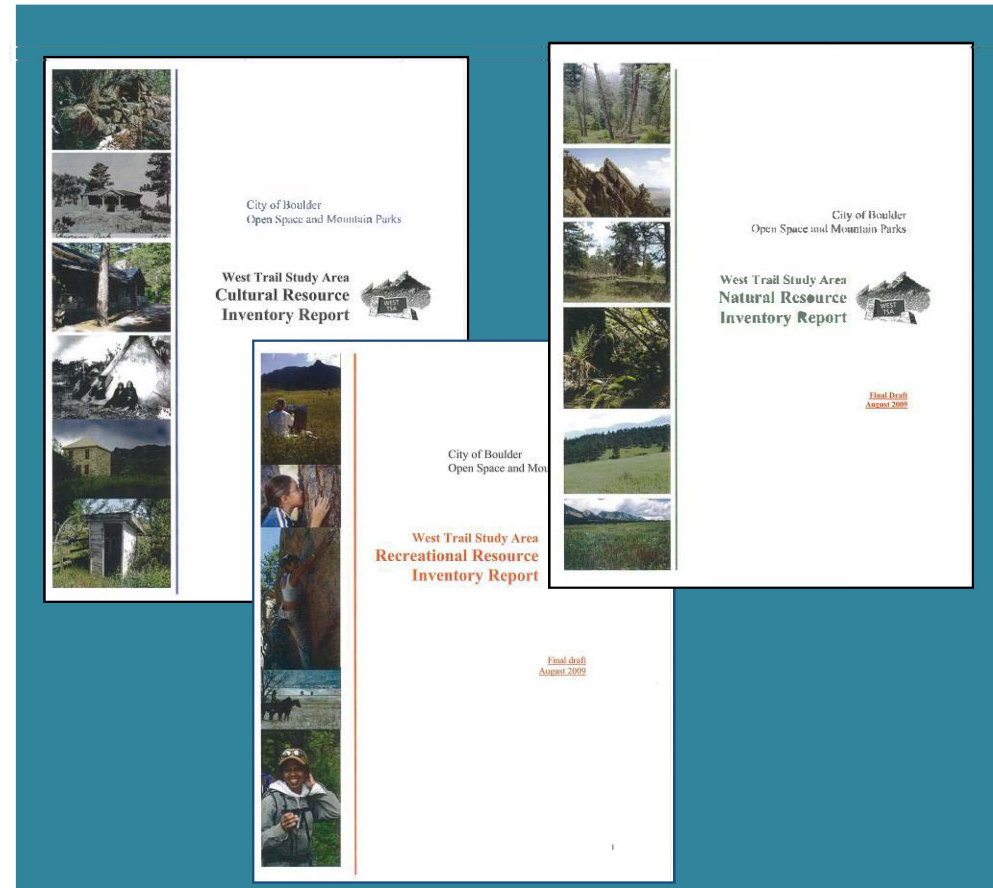
The West TSA is home to a diverse community of plant and animal species. Large contiguous blocks of ponderosa pine woodlands and mixed-conifer forests provide habitat for wide-ranging animals and allow them to move across the landscape. Riparian areas and cliffs are much smaller in relative size but provide unique habitats for some of the rarest species on the OSMP system. Forest/grassland edges or ecotones support unique vegetation associations and virtually all the local wildlife species spend at least a portion of their lives in these openings and along these edges.

The West TSA is one of the most biologically rich areas in the Colorado Front Range. The area includes two of Colorado's 83 designated State Natural Areas highlighting the area's state-wide and regional significance. It is home to 14 imperiled or critically imperiled plant species, over 1,000 acres of imperiled or critically imperiled vegetation associations, and many animals that are rare or sensitive according to the Colorado Natural Heritage Program, the US Forest Service, or the Colorado Division of Wildlife.

Cultural and Geological Resources

The West TSA contains many significant paleontological, archaeological, historic, and geologic resources. There are cultural features important to indigenous people, sites and structures indicative of European settlement and mining, and trails and structures constructed by the Civilian Conservation Corps (CCC) still used by visitors today. The well known Flatirons are iconic of Boulder and showcase its geological history and contribute to the beauty of Boulder's mountain backdrop.

A full inventory of the recreational, natural and cultural resources were completed prior to this plan.



Background

Planning Process

The proximity of many city neighborhoods and a strong community interest in the stewardship of the West TSA contributed to OSMP's decision to recommend a process that included considerable public involvement in the development of this plan. Fundamental to this planning process was the creation of the Community Collaborative Group (CCG). The CCG was comprised of a dedicated group of citizen-elected volunteers representing a cross section of community interests including recreation, conservation, neighborhoods, and cultural resources. An OSMP staff member also sat on the CCG.

The CCG met for 14 months to discuss ideas and proposals on a variety of topics throughout the West TSA. In their discussions they identified opportunities, raised concerns, asked and answered questions, and explored options. The CCG found agreement on many challenging and important issues throughout the West TSA. The CCG's recommendations were presented to and accepted by the Open Space Board of Trustees on January 19th, 2011 with the recommendation that they be included in the West TSA Plan.

In addition to the CCG recommendations the West TSA plan includes recommendations by OSMP staff. These include items upon which the CCG could not reach agreement either because of differences of perspective or lack of time. Staff also addressed items the CCG agreed would be best addressed by OSMP. OSMP recommendations were informed by many CCG discussions, input provided by the community, public comments, the West TSA inventory reports and the expertise and experience of OSMP staff and external advisors. The Open Space Board of Trustees approved the West TSA plan on February 25, 2011.

City Council accepted the West TSA plan on March 30, 2011. City Council also made several modifications to the plan, which are included in this final version of the plan. Appendix D lists the changes made to the plan by City Council.

Due to substantial community interest and the large amount of work outlined in this plan, OSMP will engage in a public process during implementation similar to that of the Visitor Master Plan implementation process. OSMP will provide public "open dialogue" forums at least once a year to coincide with the timing of OSMP assessment of monitoring results and formulation of the annual work plan, budget, and capital improvements program development. This type of community consultation process will give community members an opportunity to provide feedback on what is

working and what is not, and discuss priorities. It will help OSMP refine management strategies and ongoing implementation efforts.



Note Regarding the Maps and Associated Terminology

All new trail alignments illustrated on the maps are conceptual. The specific alignment will be developed by OSMP staff during implementation.

Reroute

Reroutes are illustrated in two ways: 1) with a new conceptual alignment or 2) in cases where a new conceptual alignment has not been identified, the old alignment is simply shown in yellow. The term only applies to the designated trail system. In other words, undesignated trails are not rerouted, they are designated.

Construct

The construct term and symbology applies to newly designated trails for which there is no or minimal existing tread.

Designate

The designate term and symbology applies to newly designated trails in an existing undesignated trail corridor. Current undesignated trails will not necessarily be designated as is; rerouting or additional trail work may be required.

Key Destination

Key destinations are distinct landscape features, sites or infrastructure that have their own appeal and/or provide a place for visitors to linger. There are two categories of key destinations. The first category includes facilities, vistas, natural features, structures or popular gathering spots. The second category includes popular climbing and bouldering sites. (Popular was defined as a formation or boulder that was estimated to receive greater than 300 visits per year.)

Other Symbols



Denotes a CCG recommendation. In some instances, OSMP added details to a CCG recommendation. Where this occurs the additional OSMP added details are identified with an asterisk *.

\$, \$\$, \$\$\$

Three categories were used to estimate the associated costs for the recommendations. \$ = under \$10,000 \$\$ = \$10,000 through \$50,000 and \$\$\$ = above \$50,000.

Benefit

This ranking is based on the benefits for improving natural or cultural resources, trail sustainability, and the visitor experience/opportunity. More weight was given to actions with wide spread and/or enduring benefits.

Some recommendations do not include cost or benefit symbols. There are several reasons for this: general policy or guiding statements, costs and benefits are unknown, actions will be implemented opportunistically with the completion of related trail projects, part of a related recommendation that has an estimated cost and benefit.

West TSA-Wide Recommendations



Trail Standards, Design, and Construction

- At times deviate from the OSMP best trail standards in order to accommodate habitat conservation or visitor experience considerations. For example, excessive trail switchbacks that criss-cross a riparian area and disrupt more acres of habitat are discouraged under certain circumstances.
- Consider all natural resource values when developing trail alignments. The development of each new trail alignment will include extensive evaluation and survey by natural resource staff. Resources such as rare plants, unique wildlife occurrences or habitats, and rare plant communities will be a priority in trail placement.
- Reroute trails to avoid invasive weeds.
- Consider soil types and avoid seeps and wet spots to enhance trail sustainability.
- Use existing tread where feasible to reduce impacts.
- Use conservation-oriented trail construction practices (as used for the E.M. Greenman reroute) to avoid weed/invasive plant growth (e.g., the growth that comes with deposition of spoils to the side of trails) and leave intact the habitat through which the trail is routed.
- Evaluate how effectively an old tread can be revegetated based on soil types and visibility from the new tread.



Education and Enforcement

- OSMP is encouraged to increase ranger staffing and patrols.

Driving Factors/ Benefits

- With the large amount of designated trail mileage and the increasing number of visits in the West TSA, adequate education and enforcement are necessary to help preserve the high-quality resources and enhance visitor experience.
- Any adaptive management decisions require information that can only be gathered by “boots-on-the-ground”.



Increase maintenance of existing trails.

- An increase in trail crews is strongly recommended.

Driving Factors/ Benefits

- Over the last years, many trails have become severely eroded due to lack of maintenance. Increased maintenance will greatly reduce the impact of trails with respect to erosion, silting of streams, trail braiding, etc.



Implement the nighttime curfews as stated in the Visitor Master Plan through education and outreach, possibly using signs.

“Continue nighttime parking curfew, trailhead parking prohibited 11 p.m. to 5 a.m. and encourage a nighttime curfew one hour after dusk to one hour before dawn in Habitat Conservation Areas.” (VMP pgs. 43 and 53)

Driving Factors/Benefits

- “Aims to provide a higher level of resource protection in HCAs.”
- “Intended to reduce visitor use and impact on wildlife sensitive to human presence during the nighttime hours, since many animals use nighttime as solace and refuge from humans.” (VMP pg. 43)



Provide more bike racks at trailheads and access points.



Address trouble spots (muddy/icy trail conditions) as soon as possible on an ongoing basis.



Follow the adaptive management practices called for in the VMP.

- including the monitoring of trail conditions.
- If visitor use proves to be unsustainable, causes unexpected or excessive environmental, safety or maintenance issues, then adjustments in management shall be made per the VMP p 30.



Evaluate all trail modifications to ensure they meet with the established guidelines to protect these sites.

- Sensitive resources such as significant Native American sites and indefensible settler/miner sites.
- Established guidelines include, but are not limited to, consultation with the United Tribes of Colorado, the Colorado State Historic Preservation Office, and both the City of Boulder and Boulder County landmark boards.



Place Cultural resource signs and interpretation where appropriate.

- Interpretive signs should be at obvious cultural sites with high visitation.
- Place trail signs to give the less frequent visitor, interested in cultural resources, important information such as location keyed to a map, mileage, and altitude to the sites. For instance, areas rich with resources such as the South Mesa Trailhead area should be interpreted first with a general sign to let people know about resources they may see on their hike and then more specific informative signs at those sites.
- Information should continue to be made available, on the OSMP website or in printed material describing the cultural history of the area. Providing printed information, such as brochures at the highly visited areas will be considered when staff time and funding allow.
- Explore using docent representatives at highly visited sites in order to enhance the visitors' experience; if staff funding and time allow.

Trail Recommendations

The trail recommendations in this plan when implemented will result in the following:

- ▶ 43.4 miles of the 57.7 miles or 75 % of the undesignated trails will be restored/closed.
- ▶ 14.3 miles of the 57.7 miles or 25% of the undesignated trails will be designated (with 2.8 miles or 5% of those being retained)
- ▶ 52.7* miles of the 97.3* miles or 54% of the new trail system have no recommended changes.
- ▶ 10.9* miles of the 97.3*miles or 11% of the new trail system will be repaired.
- ▶ 15.4*miles of the 97.3*miles or 16% of the new trail system will be rerouted.
- ▶ 6.3*miles of trail will be constructed.

**based on conceptual trail alignments.*

- ▶ The highly suitable habitat for all the systems described in the West TSA inventory report will be increased.
 - ▶ Highly suitable habitat in ponderosa pine woodlands and savannahs (Abert's squirrel) will increase from 538 to 591 acres.
 - ▶ Highly suitable habitat in mixed conifer forests (Northern Goshawk) will increase from 313 to 329 acres.
 - ▶ Highly suitable habitat in forest openings (Wild Turkey)will increase from 145 to 196 acres.
 - ▶ Highly suitable habitat in foothills montane riparian areas (Shrub-nesting birds) will increase from 25 to 34 acres.
 - ▶ Highly suitable habitat in grasslands (Grasshopper Sparrow) will increase from 212 to 280 acres.
 - ▶ The length of undesignated trails in highly suitable bear habitat decreased from 7.32 miles to .45 miles and the length of designated trails in the same habitat stayed roughly the same.

Sanitas, Anemone & Red Rocks Subarea

Trail Recommendations

(Trail Alignments are Conceptual)

- Designate
- Construct
- Re-route
- Repair
- - - Restore/Close
- No Recommendation

Trails Not Managed By OSMP

Undesignated Trails

Subarea Boundary

On Trail Use Only

(Temporary Restoration Closure)

TH Trailhead

A Access Point

(No OSMP provided parking)

Conservation Easements

Management Zone Designations

Habitat Conservation Area

Natural Area

Passive Recreation Area

Federal Land

0 0.25 0.5 Miles



BETASSO
PRESERVE

CITY OF
BOULDER -
PUBLIC WORKS

Sanitas

CCG Designate a trail from Linden Dr and 4th St to the Goat Trail.

- Designate a more eastern corridor.
- Close and restore the more western corridor.
- Fix fence.
- Sign access point.
- Connect to Juniper Avenue.

Driving Factors/Benefits

- Protects the sensitive wildlife in the area.
- Current alignments are unsustainable.
- Provides a highly desired connection.
- Consolidates multiple undesignated trails.

Cost \$ Medium Benefit

CCG Provide access to Quarries 2, 3, and 4.

- Provide access from the Sanitas Valley Trail.
- Close and restore the access along the undesignated trail from the East Ridge Trail.
- Sign the Quarry Trail with an interpretive sign and dead-end notice at the Sanitas Valley Trail junction.
- Do not provide access to Quarry 1.

Driving Factors/Benefits

- The quarries were identified as key destinations.

Cost \$\$ Medium Benefit

CCG Designate the undesignated trail on Dakota Ridge.

- Parallel trail to Dakota Ridge Trail
- Do not encourage use by omitting the trail from maps, removing signs (if any), not adding signs.
- Maintain the trail.

Driving Factor/Benefits

- This new trail provides a different visitor experience from the current Dakota Ridge Trail. It is on the east side of the hogback providing different views.

Cost \$ Low Benefit

CCG Designate access to Sanitas stone shelter.

- Loop trail
- Close and restore the other undesignated trails.

Driving Factor/Benefits

- The stone shelter was identified as a key destination.
- Consolidates a network of undesignated trails.
- Provides access to and helps protect a cultural resource.

Cost \$ Low Benefit

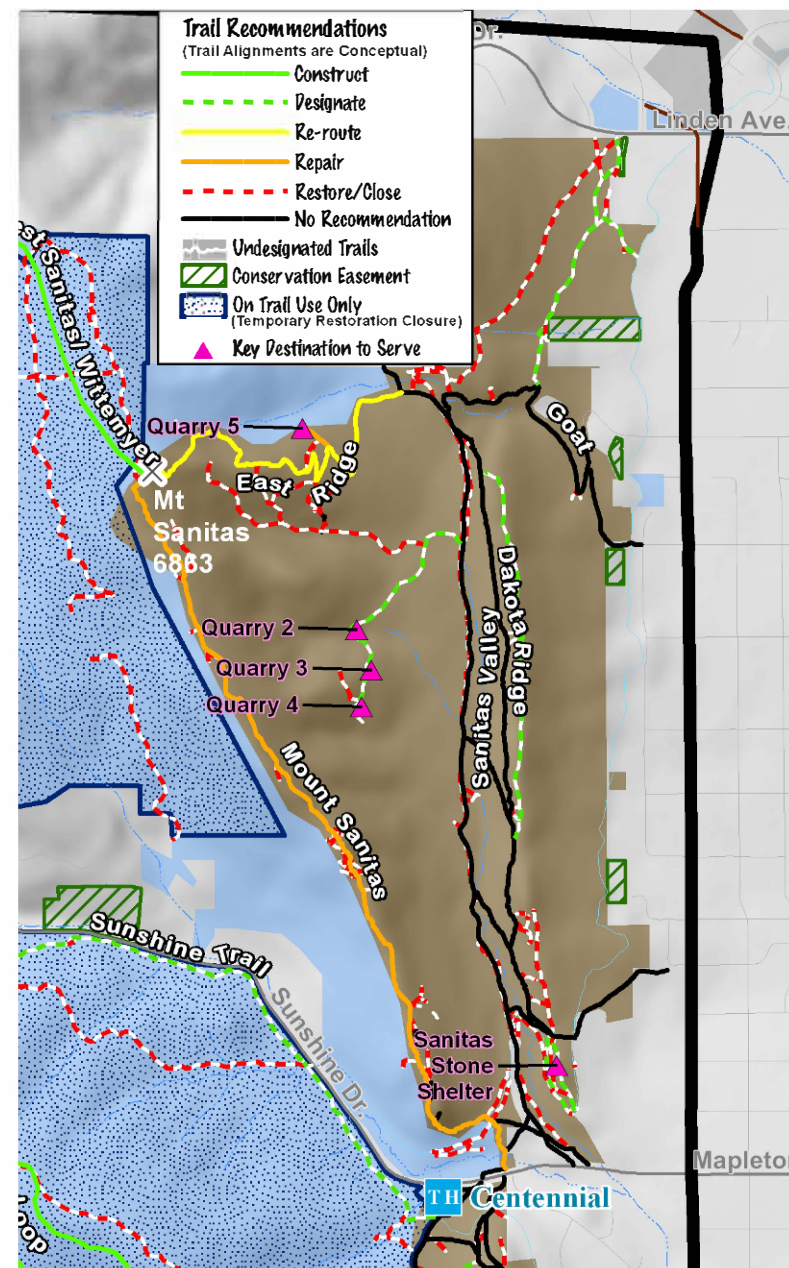
Repair Mt. Sanitas Trail.

- Minor changes to or shifts of the Mt. Sanitas Trail.

Driving Factors/Benefits

Improve trail sustainability.

Cost \$\$ Medium Benefit



Sanitas, cont.

CCG Reroute the East Ridge Trail.

- Maintain character of trail.
- Note: The reroute description is divided into segments. The segments could be rerouted together or separately as individual projects. The following segments are listed generally from east to west:
 - Decrease the average grade of the initial switchbacks to approximately 15%. Although this grade exceeds OSMP trail guidelines, it will maintain the character of the trail while reducing erosion.
 - Repair the trail that goes to the quarry to the north (Quarry 5).
 - Keep the trail in the rocks as it climbs to the north facing slope. Better define the trail; techniques could include building rock steps, arranging rocks to define the path, etc.
 - Keep the trail on the north facing slope. However, decrease the trail grade and address drainage issues. While ice build-up will decrease, it will not be possible to eliminate due to the lack of direct winter sun.
 - Organize and define the approach to the summit; trail will remain in the same corridor.

Driving Factors/Benefits

- Visitors currently get lost.
- Trail is severely eroded and braided.
- Winter conditions are often icy and difficult to navigate.
- The current trail is difficult to follow.
- Trail has a maximum grade of 35% and is up to 9ft wide in some places. As indicated by the presence of undesignated trails, there appears to be a desire to visit Quarry 5 to the north.

Cost \$\$\$ High Benefit

CCG Clean up trails and restore historical views from the Mt. Sanitas summit.

Driving Factors/Benefits

- Visitors get lost on the summit area.
- Consolidates a network of undesignated trails.

Cost \$ Low Benefit

CCG Designate/Construct a trail in West Sanitas/Witemyer.

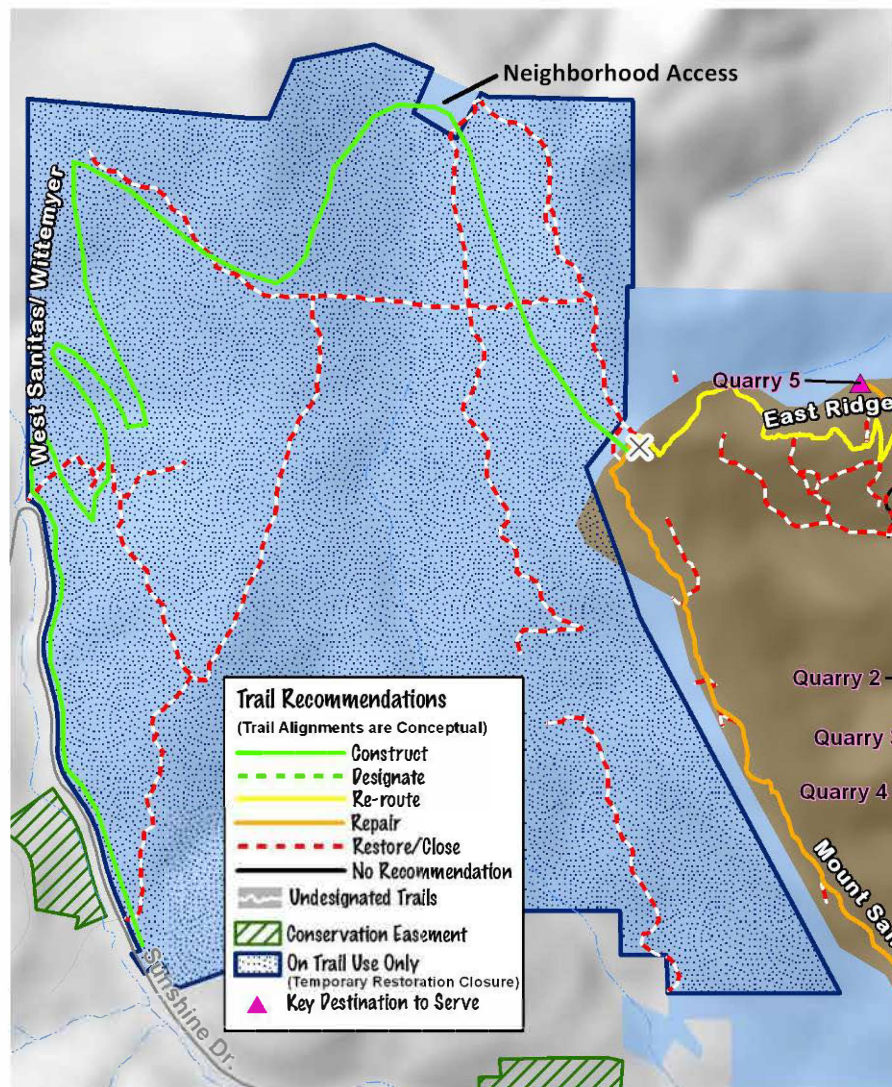
- Locate along the perimeter of the property.
- Locate connector (to loop on the south side of lower Sunshine Canyon Drive) as close as reasonably possible to the street.

- Two-year closure in the interior of the property. Closure will be lifted in two years if the undesignated trails are reclaimed. If the trails are not reclaimed the area will remain closed and will be reassessed annually.
- No parking on private roads. Parking at the hairpin will be permitted. There will be no trailhead; little to no infrastructure.

Driving Factors/Benefits

- Increases habitat block size in an important, high-quality, ponderosa pine ecosystem.
- Provides a new visitor opportunity.
- Eliminates highly unsustainable undesignated trails fragmenting a ponderosa pine habitat block.

Cost \$\$\$ High Benefit



Anemone

Designate a trail (out and back) on the south side of lower Sunshine Canyon Dr.

- A trail extension will continue west and cross Sunshine Creek as a connection to the trail in West Sanitas/Wittermyer.
- Reroute steep sections.
- Reroute away from rare plants.

Driving Factors/Benefits

- Provides a new visitor opportunity from a trailhead that is moderate in both trail length and difficulty.

Cost \$ **Low Benefit**



Construct an Anemone loop.

- Locate the trail on the ridge.
- End before going onto private property.
- Maintain access to some of the viewpoints.
- Close and restore the undesignated trails that lead onto private property and those from Boulder Canyon.
- Coordinate access to the pipeline with the City of Boulder Public Works department.

Driving Factors/Benefits

- New alignment addresses trespassing issues.
- Creates a new visitor opportunity that replaces a network of existing undesignated trails.
- Provides designated access to desired viewpoints.
- City of Boulder Public Works department will need to access the pipeline corridor in the near future for pipeline inspection and possible rehabilitation. This may require some form of heavy equipment.

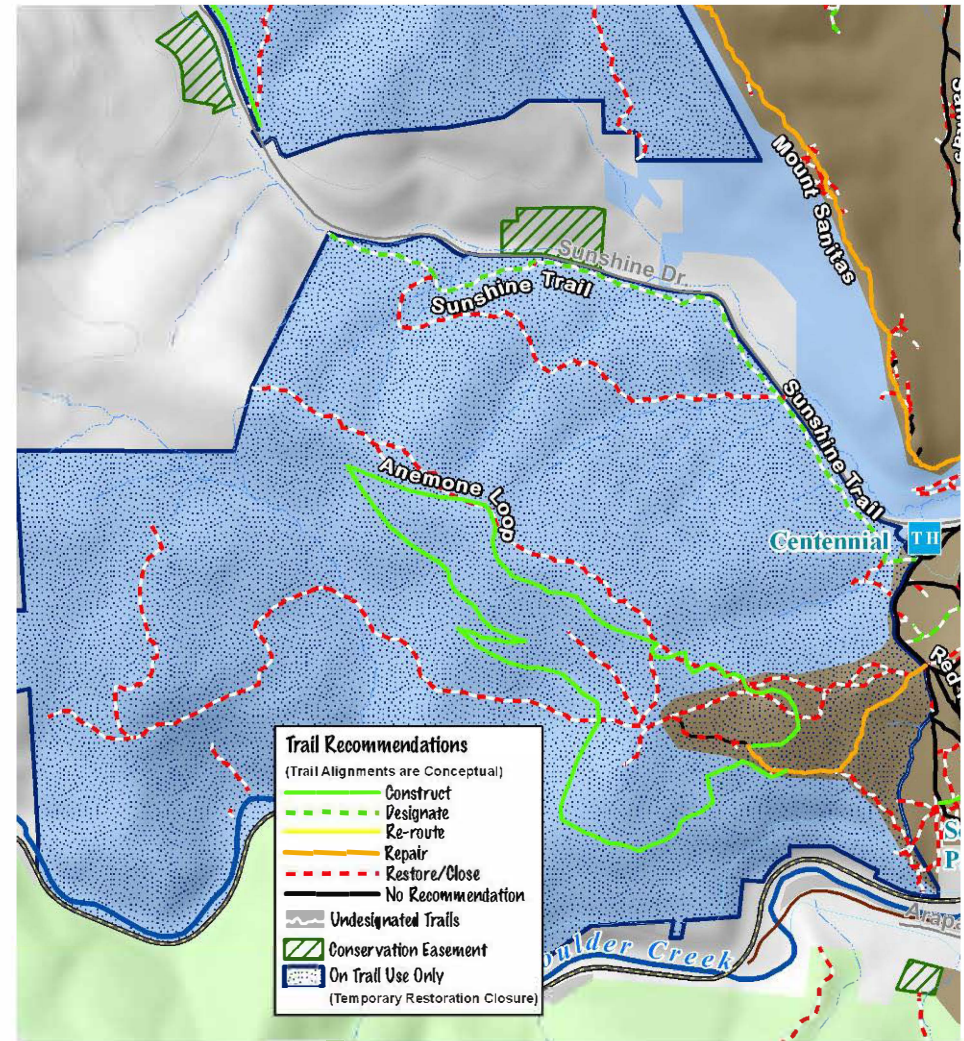
Cost \$\$\$ **High Benefit**

On-trail Requirement for all visitors.

- The area will be assessed after two years to determine if the undesignated trails were sufficiently restored prior to lifting the on-trail requirement.

Driving Factors/Benefits

To allow recovery of undesignated trails and redirect use patterns to newly constructed trails.



Red Rocks

CCG Better define the primary trail near the rock formation - 1

- Do not put much effort into restoring the undesignated trails around the “slick rock” formation and nearby ridge.

Driving Factors/Benefits

- Area has very high visitation.
- Visitors like to explore the rock formation and scenic views.
- Restoration around the “slick rock” formation and nearby ridge is not anticipated to provide much benefit.

CCG Designate a trail on the east side of the point - 2

- Close and restore the undesignated trails in the area, including the undesignated trail that drops off the point to the south.

Driving Factors/Benefits

- Provides access to a desired viewpoint.
- Consolidates undesignated trails.

CCG Consider designating access to the ditch - 3

- Close and restore the undesignated trail along the ditch; appears to receive little use.

Driving Factors/Benefits

- Visitors can continue to access the ditch.

CCG Construct an east/west connector - 4

- Connects across the north of the large group area from east to west.

Driving Factors/Benefits

- Area where large groups gather is an old reservoir and was identified as a key destination.
- Provides a desired connection between two designated trails, allowing for consolidation of the other undesignated trails.

CCG Repair, replace or remove old structures.

Driving Factors/Benefits

- Many structures are in disrepair and no longer functioning.

CCG Clearly mark designated and undesignated trails.

CCG Designate a trail connection from the Knollwood Dr access point to Settler's Park.

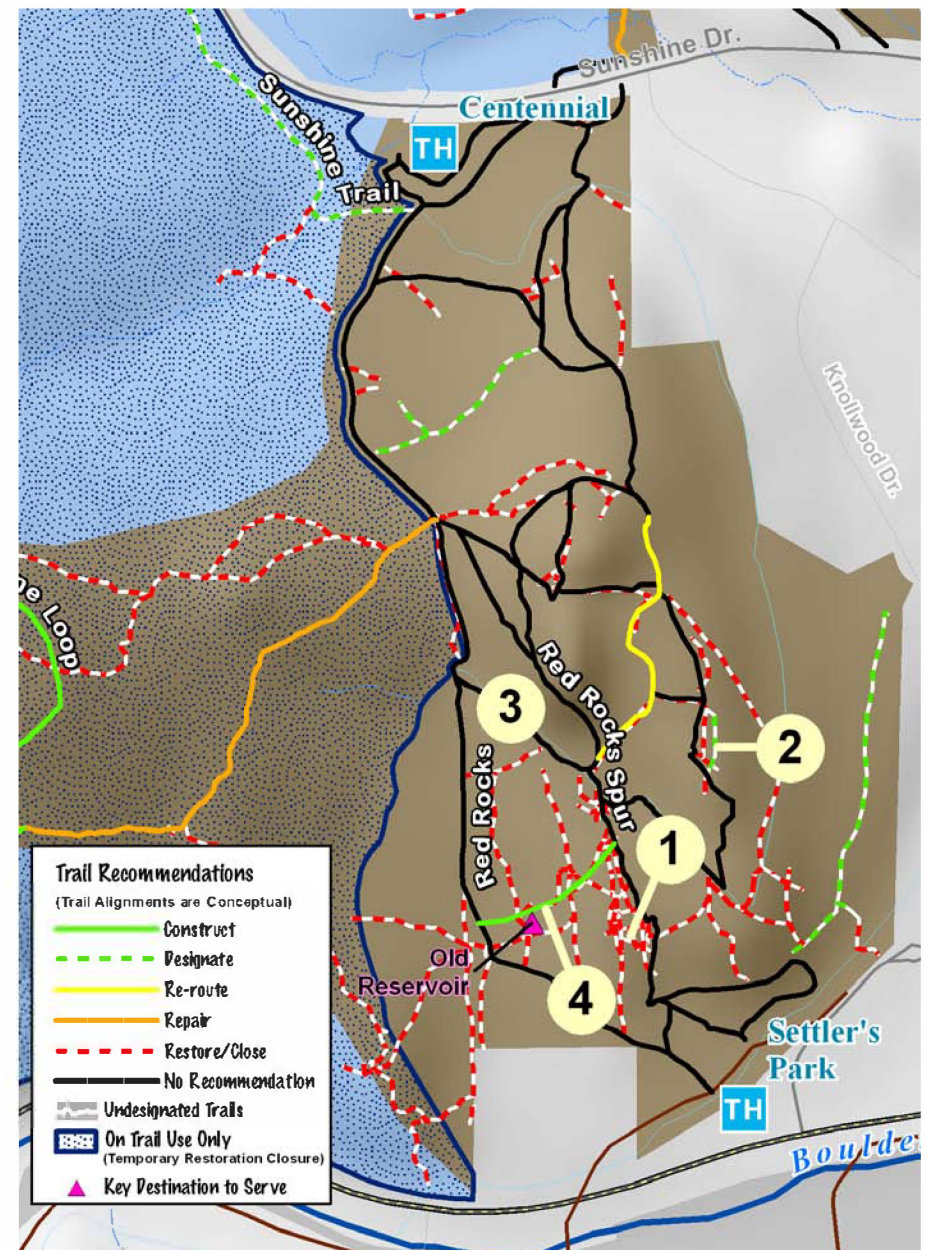
Driving Factors/Benefits

- Provides a desired neighborhood connection.

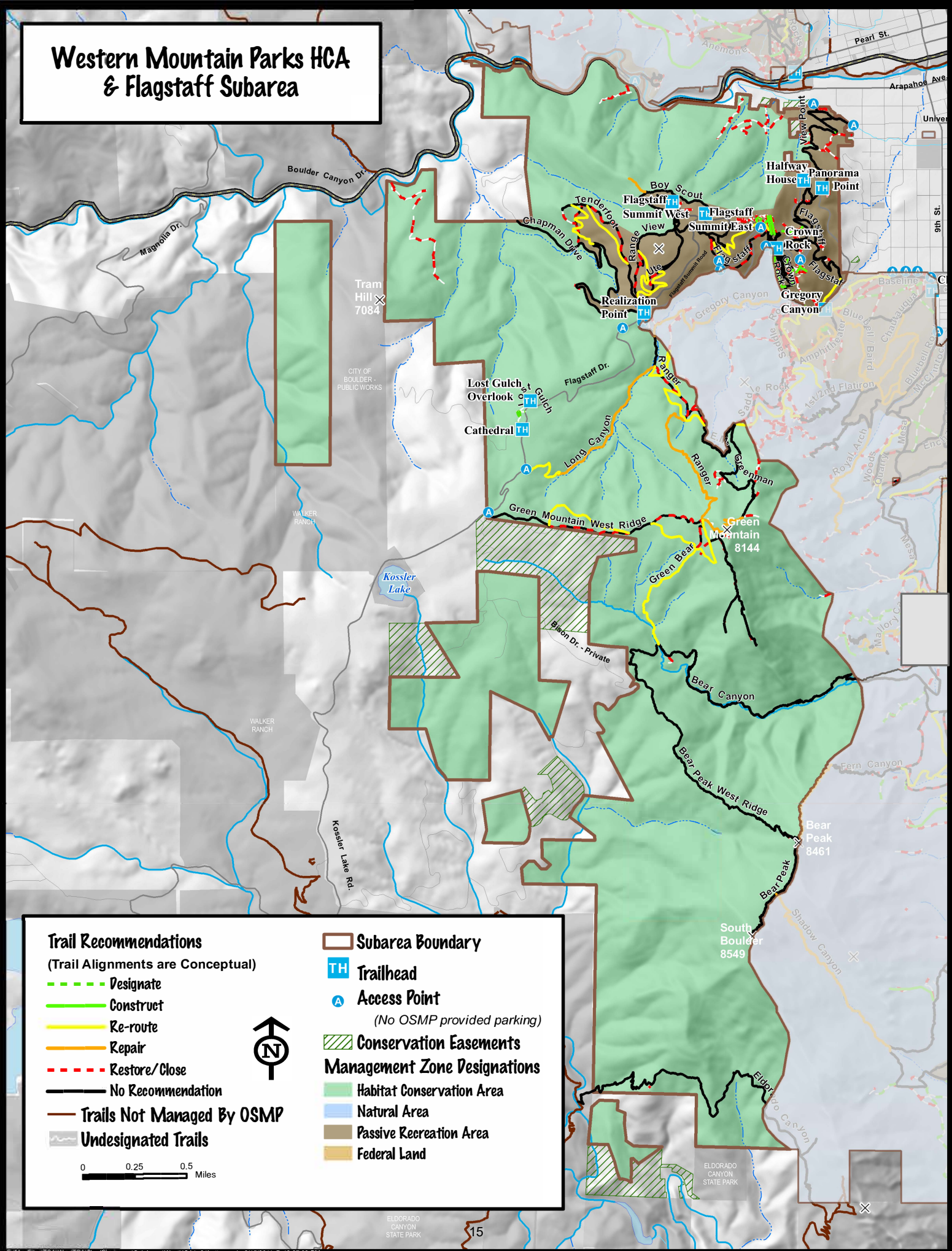
Cost \$ Low Benefit

Evaluate the possibility of providing a trail that is more accessible to people with disabilities.

All Red Rocks recommendations Cost \$\$ Low Benefit



Western Mountain Parks HCA & Flagstaff Subarea



Trail Recommendations

(Trail Alignments are Conceptual)

- Designate
- Construct
- Re-route
- Repair
- Restore/Close
- No Recommendation
- Trails Not Managed By OSMP
- Undesignated Trails



0 0.25 0.5 Miles

Subarea Boundary

TH Trailhead

A Access Point

(No OSMP provided parking)

Conservation Easements

Management Zone Designations

Habitat Conservation Area

Natural Area

Passive Recreation Area

Federal Land

Flagstaff

CCG Reroute lower section of the Flagstaff Trail to connect into the Gregory Canyon Trailhead.

Driving Factors/Benefits

- Improves visitor safety by eliminating one road crossing.
- Reduces visitor confusion by beginning the Flagstaff Trail at a trailhead.

Cost \$\$ Medium Benefit

Reroute the portion of Flagstaff Trail between Upper Crown Rock and the Baseline picnic area to the north side of Flagstaff Road.

- Continue to serve the Baseline picnic area with a spur from the Flagstaff Trail. Reroute this portion of the trail.
- Conduct in-corridor maintenance along the entire length of the trail.
- Incorporate the Plains View Trail loop.

Driving Factors/Benefits

- Eliminates two road crossings.
- Sections of the Flagstaff Trail and current Plains View Trail are unsustainable.
- Consolidates a network of undesigned trails.
- The reroute will be part of a larger effort to improve delineation of climbing/bouldering access around Upper Crown Rock and Contact Corner.

Cost \$\$\$ High Benefit

Rework each section of trail that approaches and crosses Flagstaff Road.

Driving Factors/Benefits

- Although the road crossings have crosswalk stripping, the sight lines for both pedestrians and vehicles are poor due to the terrain and the trail being located below the road grade. The rework will help address safety concerns.

Cost \$\$ High Benefit

CCG Restore and maintain historic views from the Sunrise Amphitheater.

- Close undesigned trails leading to other viewpoints.

Driving Factors/Benefits

- The undesigned trails previously used to gain the view will no longer be necessary.

Cost \$ Low Benefit

CCG Key Destinations.

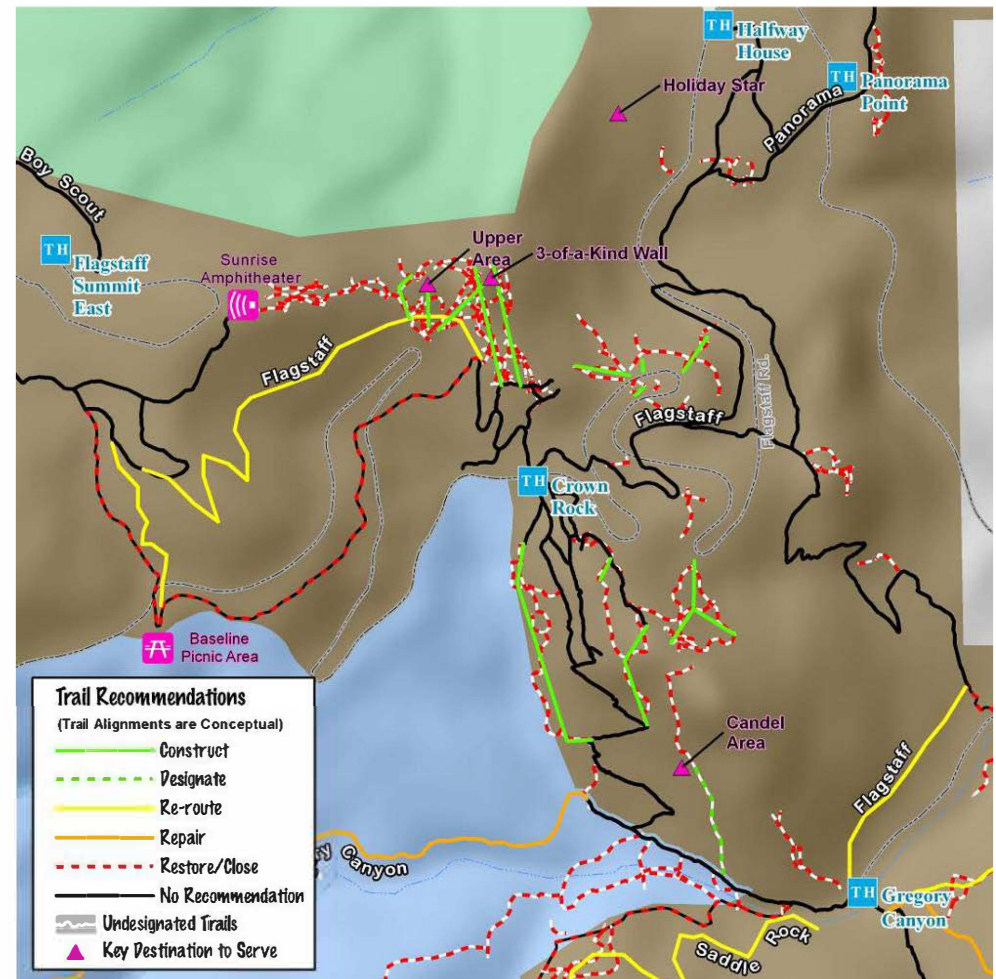
Provide designated access to the following:

- 3-of-a-Kind Wall
- Candel Area (south of Crown Rock, north of Gregory Canyon)
- Upper Area

Retain access and encourage dispersed use to the following:

- Holiday Star

Cost/Benefit – included with the Crown Rock Trailhead Recommendation.



Flagstaff, cont.

Repair May's Point (a.k.a. Boy Scout).

- Better define the trail to the lookout.

Driving Factors/Benefits

- The trail is difficult to locate. Visitors get confused and have created a network of undesigned trails.

Cost \$ **Low Benefit**

Reroute northern portion of the Tenderfoot Trail.

- Close and restore the undesigned trail that descends from the Continental Divide Overlook (a.k.a. View Point spur).
- Decrease the length of the spur trail that accesses the Continental Divide Overlook.
- Use fencing and HCA signs to discourage off trail travel.

Driving Factors/Benefits

- Reduce social trailing from the viewpoint.
- Replaces the current alignment with a more sustainable trail.
- Removes an undesigned trail in the HCA.

Cost \$\$ **High Benefit**

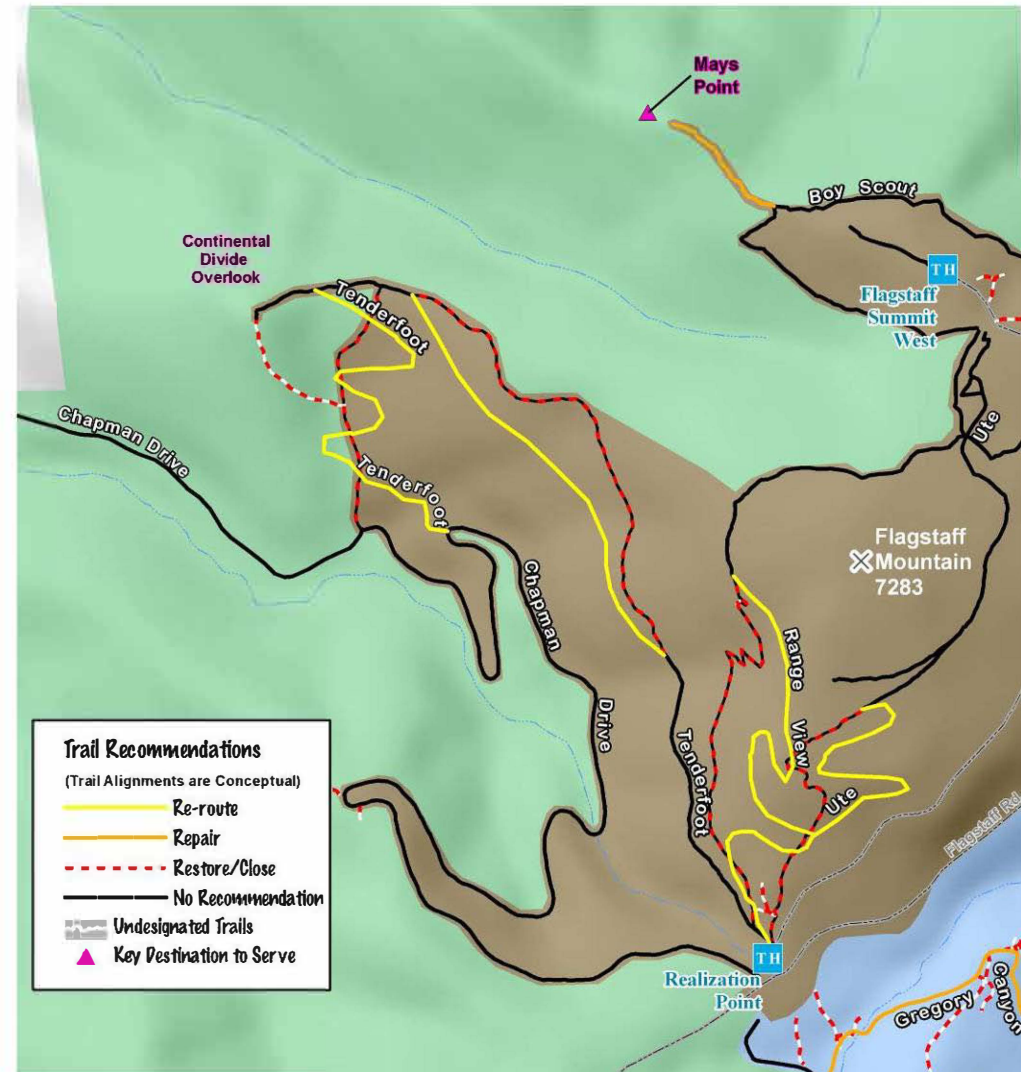
Reroute the Ute and Range View Trails.

- A single trail will begin at Realization Point and split into the Ute and Range View trails. The Ute Trail will continue along the ridge to Flagstaff Summit. The Range View trail will traverse the west side of Flagstaff Mountain.
- Restore the segment of the Ute Trail so that it meets OSMP accessibility guidelines.

Driving Factors/Benefits

- Replaces the current alignments with more sustainable trails.

Cost \$\$\$ **Medium Benefit**



Western Mountain Parks HCA

CCG Reroute lower Ranger Trail.

- › Reroute out of riparian drainage.

Driving Factors/Benefits

- › Current trail is highly eroded, braided, and has many steps because it is located on the fall line.
- › Current alignment is in a drainage; the reroute better protects the riparian area.
- › Current alignment is in black bear and shrub-nesting bird highly suitable habitat.
- › Improves the visitor's experience.
- › Improves trail sustainability.

Cost \$\$\$ High Benefit

CCG Retain Long Canyon alignment with reroute on upper section.

- › No reroute in the lower/eastern portion of the canyon along the creek.
- › Keep current access point on upper Flagstaff Road.
- › Minor corridor repair work for the length of the trail.
- › Reroute western section from the creek to Flagstaff Road.

Driving Factors/Benefits

- › Reroute improves trail sustainability.
- › Maintains the existing and desired visitor experience.

Cost \$\$ High Benefit

CCG Close and restore the undesignated trail on the ridge, connecting Gregory Canyon and E.M. Greenman.

Driving Factors/Benefits

- › Removes a parallel/redundant undesignated trail.
- › Ranger reroute will incorporate some of this visitor experience.
- › This undesignated trail is in the HCA.
- › Will improve protection of rare plant communities.
- › Closure will minimize the impacts to black bear and Preble's mouse habitat.

Cost \$ Low Benefit

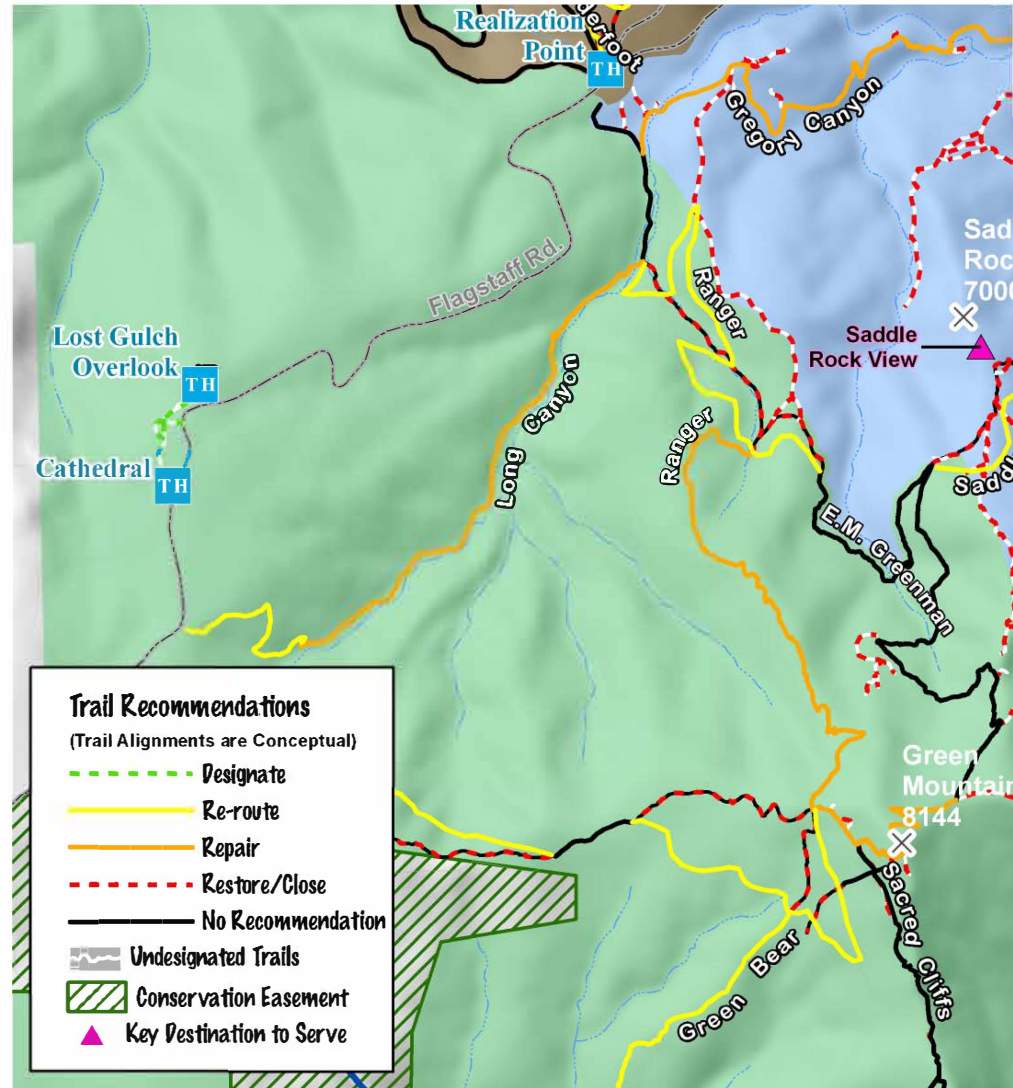
CCG Leave upper Ranger, E.M. Greenman, and upper Green Mountain West Ridge intact with minor reroutes to improve sustainability.

- › Retain rugged character of hike.

Driving Factors/Benefits

- › Maintains the desired visitor experience.

Cost \$\$\$ Low Benefit



Western Mountain Parks HCA, cont.



Reroute Green Mountain West Ridge.

- Move trail so visitors do not see houses.
- Trail should remain largely unchanged at the west end. As the trail goes east transition to the north side of the ridge, then switch back on the south slope of Green Mountain.
- Terminate at the current intersection with Ranger Trail.
- Move intersection with the rerouted Green Bear farther west.
- Should not go very far into Panther Canyon because of rare plant concerns in the upper reaches of the drainages.
- Reclaim and revegetate the old trail.

Driving Factors/Benefits

- Current view is into houses, backyards, and road.
- Improves trail sustainability.
- Current alignment has steep grades that result in trail braiding and erosion.
- Provides the visitor a different visitor experience.

Cost \$\$\$ Medium Benefit

Reroute Green Bear Trail.

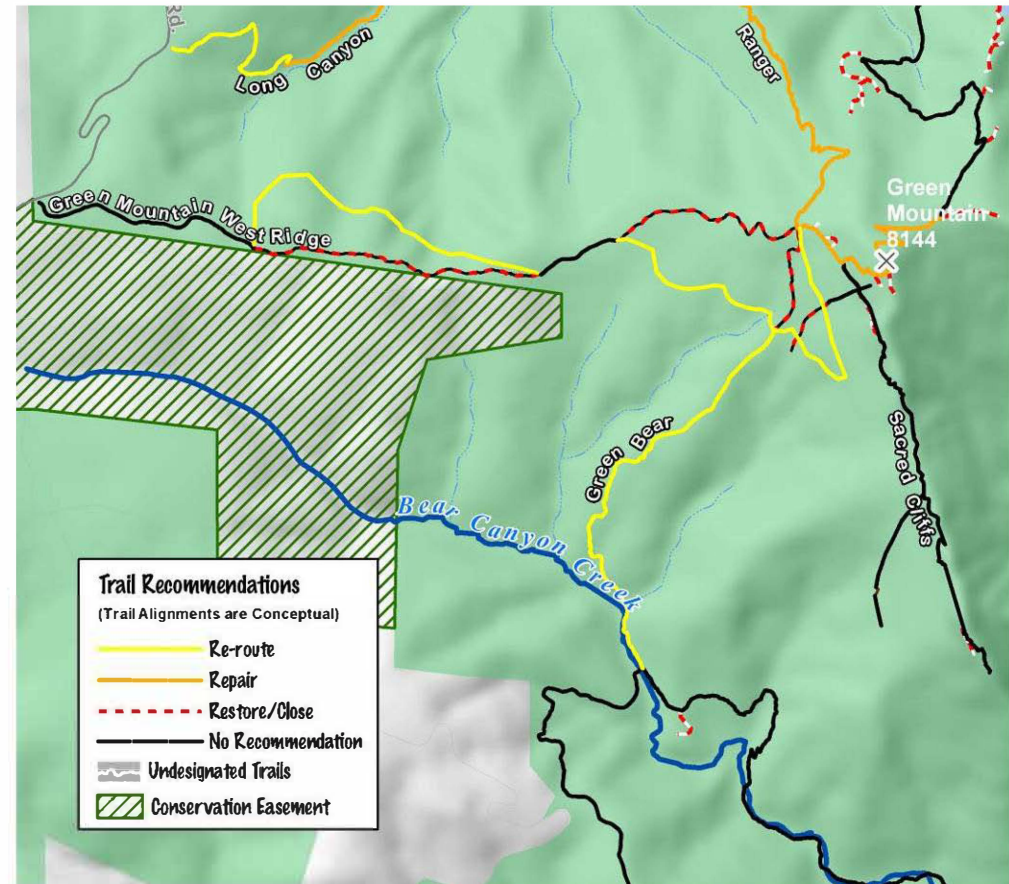
- Proposed reroute is part of a separate OSMP process and will include public review apart from the West TSA planning process.

Actively close and restore all undesignated trails in the HCA.

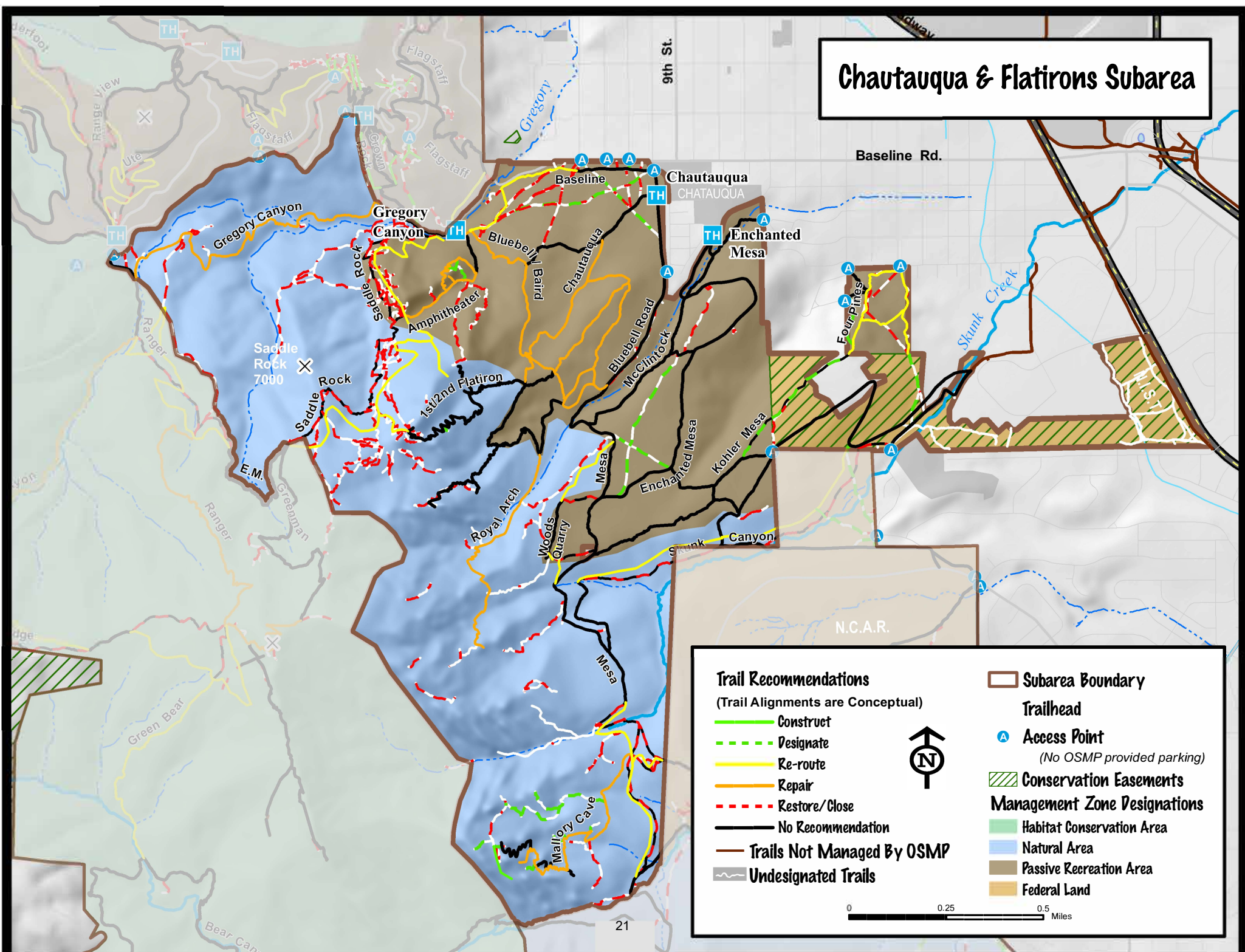
Driving Factors/Benefits

- A permit is required for off-trail travel in the HCA. The closure of undesignated trails in the HCA will reduce prohibited and undesirable off trail travel.
- Improve habitat block size and effectiveness.

Cost \$ High Benefit



Chautauqua & Flatirons Subarea



Trail Recommendations

(Trail Alignments are Conceptual)

- Construct
- - - Designate
- Re-route
- Repair
- - - Restore/Close
- No Recommendation
- Trails Not Managed By OSMP
- Undesignated Trails

Subarea Boundary

Trailhead

- A Access Point
(No OSMP provided parking)

Conservation Easements

Management Zone Designations

- ▨ Habitat Conservation Area
- ▨ Natural Area
- ▨ Passive Recreation Area
- ▨ Federal Land

0 0.25 0.5 Miles

Gregory Canyon, Saddle Rock, 1st and 2nd Flatiron



Work on Gregory Canyon.

- Consider using the existing old road grade approximately 100 yards north of the Crown Rock bridge.
- Reroute some sections of the trail.

Driving Factors/Benefits

- Improves trail sustainability.

Cost \$\$\$ Low Benefit



Reroute Saddle Rock.

- Serve the following climbing access points with either a spur or switchback—bottom of Spy, top of Spy, exit of Baker's Way, start of North Arete, rescue spot A, and top of the 1st and 2nd Flatiron Trail.
- Close and restore the undesignated trails in the area.
- Designate access to the Saddle Rock View, a key destination. *Providing designated access to the Saddle Rock View depends on the reroute; it will be evaluated when determining the trail alignment.

Driving Factors/Benefits

- The current alignment is unsustainable with many stairs, trail widening, and erosion.
- The reroute provides access to the 1st and 2nd Flatiron Trail, making it possible to close other undesignated trails in the area.

Cost \$\$\$ High Benefit

Close and restore the former logging road that connects Gregory Canyon Trail to Saddle Rock.

Driving Factors/Benefits

- Eliminates a redundant trail.
- Improves a large habitat block.

Cost \$ Low Benefit



Close and restore the undesignated trails connecting the 1st Flatiron to E.M. Greenman

- Do not designate or construct a connector.

Driving Factors/Benefits

- Closes redundant undesignated trails in the HCA.
- Decreases visitor confusion.

Cost \$ Medium Benefit

Repair Amphitheater Express climbing access trail.

- Re-establish the trail tread.

Driving Factors/Benefits

- The west side of the loop is in disrepair and difficult to locate. As a result, there is a network of loop undesignated trails.

Cost \$ Low Benefit

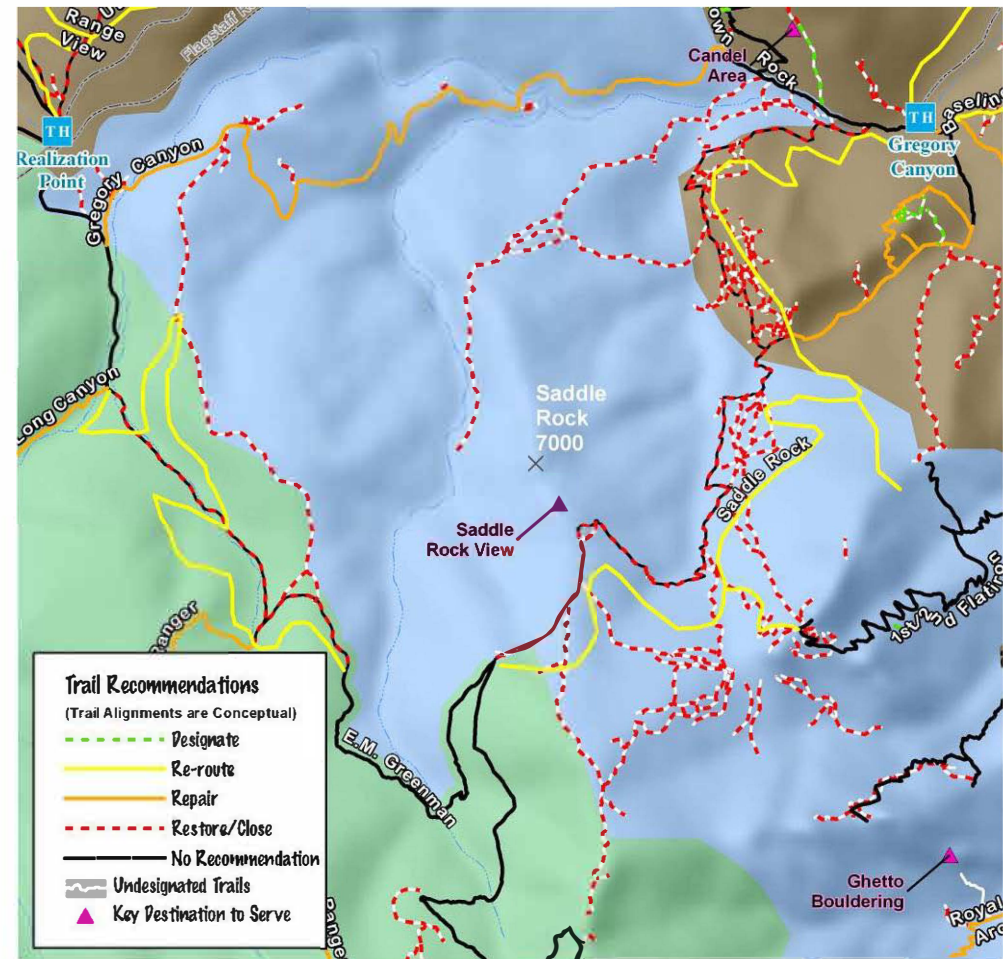
Repair the Amphitheater Trail.

- Rework the trail west of the intersection with Amphitheater Express.
- Minor repairs will be made along the entire trail.
- It will intersect the Saddle Rock Trail in generally the same location; however, due to the change in dog regulations on Saddle Rock, OSMP will look at the best way to create a transition between a no-dog trail and a Voice & Sight trail.

Driving Factors/Benefits

- Will help address climbing access in the area.
- Many sections of the trail are unsustainable.
- Much of the trail infrastructure is in disrepair and not functioning.

Cost \$\$ Medium Benefit



Chautauqua, Four Pines



Designate and reroute the Baseline Trail, the 6th Street connector, and the trail from the northeast corner of Chautauqua meadow to Bluebell Baird.

- Close remaining undesignated trails in the area.
- Use the most sustainable trail alignment to connect the northeast corner of Chautauqua meadow to Bluebell Baird.

Driving Factors/Benefits

- Provides a desired connection which in turn allows closure of the remaining undesignated trails.

Cost \$ Medium Benefit



Work on the trails in the area of Chautauqua, Bluebell Baird, and Serpentine.

- Minor changes to or shifts of the trails in the Chautauqua area.
- Includes drainage improvements.

Driving Factors/Benefits

- Increases trail sustainability by improving water drainage.

Cost \$\$\$ Medium Benefit



Close the undesignated spur trails off of upper and lower McClintock.

- OSMP staff will designate a small number of high value access areas.
- Encourage visitors to stay on trail by having a well-maintained enjoyable trail.
- Add education and interpretive information.

Cost \$ Low Benefit

Designate the undesignated trail connecting the Enchanted Mesa/Kohler spur intersection to the Mesa Trail.

Driving Factors/Benefits

- Provides a desired connection.
- Will provide access to the Woods Quarry Trail.

Cost \$ Low Benefit

Designate the undesignated trail between the McClintock and Enchanted Mesa Trails.

- Runs southwest from the area near the Enchanted Mesa water tank.

Driving Factors/Benefits

- Provides an experience distinct from that of the Enchanted Mesa Trail.

Cost \$ Medium Benefit

Close and restore the undesignated trail connecting the McClintock/Enchanted Mesa cut-off with the Enchanted Mesa Trailhead (northwest of the water tank).

Driving Factors/Benefits

- The trail is steep and unsustainable.

Cost \$ Low Benefit



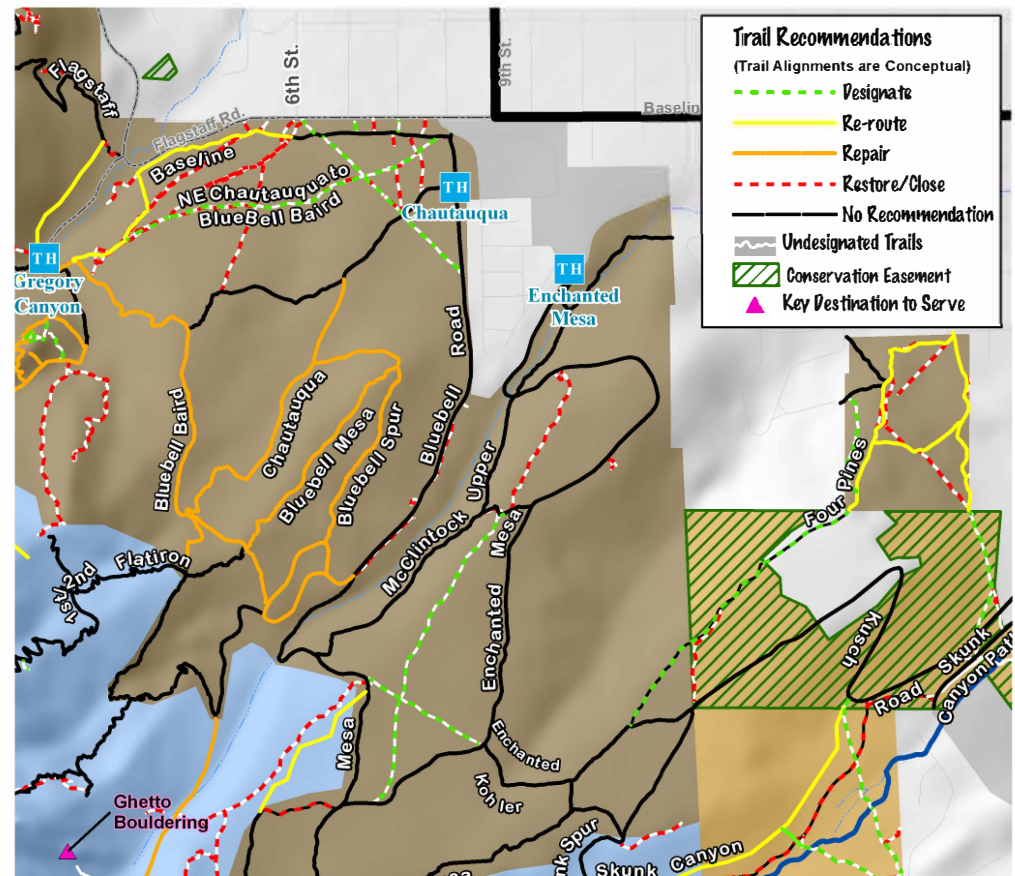
Reroute the Four Pines trails.

- OSMP will negotiate with NIST to maintain access and designate the undesignated trail that adjoins to Kohler Mesa.
- Designate the trail that connects Four Pines to Kusch Road.
- Close redundant undesignated trails.

Driving Factors/Benefits

- Improves trail sustainability.
- Simplifies the trail connection onto NIST.

Cost \$\$ Medium Benefit



Skunk Canyon, Royal Arch

CCG Designate trail connectors from the Hollyberry Ln access point to lower Skunk Canyon.

- Two connectors from Hollyberry Ln to Skunk Canyon.
- Minor realignment needed to make the more northern trail more sustainable. Trail should not be realigned farther east than the existing undesignated trail.
- Two short connectors from Hollyberry Ln to the NCAR Skunk Canyon service road.

Driving Factors/Benefits

- Provides a gentle, short, flat loop opportunity.
- Provides desired neighborhood connections.

Cost \$\$ **Medium Benefit**

CCG Reroute the Skunk Canyon Trail.

- Reroute the section of Skunk Canyon Trail that connects the southern most "elbow" of Kusch Road to the intersection of the Skunk Canyon Spur and Skunk Canyon. Connect into the intersection of Skunk Canyon Spur and Skunk Canyon in a sustainable and logical way.
- Not too far up the hillside, but sufficient distance away from the riparian corridor.
- Reroute the section of trail west of the intersection of Skunk Canyon Spur and Skunk Canyon.
- The reroute will rejoin the existing alignment where the trail turns to go south and will parallel the Mesa Trail across the drainage.
- Reroute north and uphill out of the riparian area.

Driving Factors/Benefits

- Reroute will put the upper portion of the trail on OSMP property.
- Will improve trail sustainability.
- Will still provide visitors an opportunity to be in the riparian area on a portion of the trail and in the shaded forested area below the Mesa Trail.
- Will minimize impacts to the riparian drainage by moving a large portion of the trail uphill, out of the riparian vegetation.

Cost \$\$ **Medium Benefit**

CCG Reroute the Woods Quarry Trail.

- Reroute both entrances to Woods Quarry.
- The Woods Quarry Trail will begin at the intersections of Enchanted Mesa Road and the Kohler Mesa cut-off, continue northwest and intersect the Mesa Trail at a new junction.
- Provide access to the 3rd Flatiron Quarry.
- Close undesignated trails; *close and restore the old Woods Quarry Trail alignment.

Driving Factors/Benefits

- Replaces current alignment with a more sustainable trail.

Cost \$\$ **Medium Benefit**

CCG Fix and reroute portions of the Royal Arch Trail.

- Try to hit the viewpoint of the Royal Arch Trail.

Driving Factors/Benefits

- Improves trail sustainability.

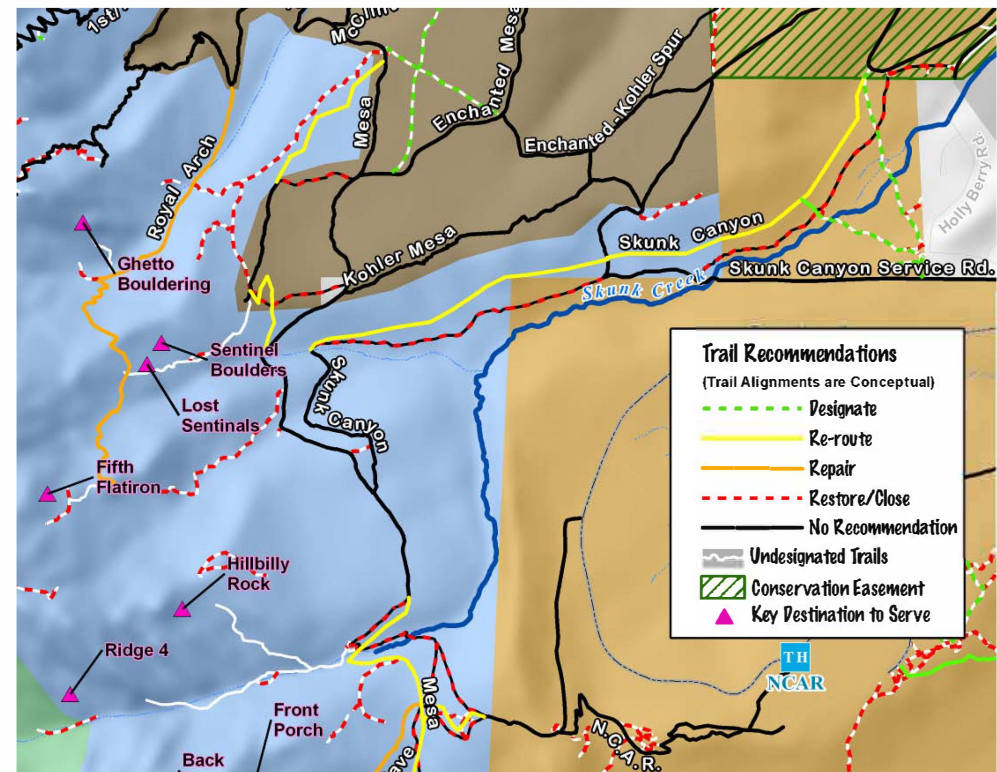
Cost \$\$\$ **Medium Benefit**

CCG Key Destinations

Retain access and encourage dispersed use to the following:

- Hillbilly Rock
- Ghetto Boulders
- Fifth Flatiron
- Ridge 4
- Lost Sentinel and Sentinel Boulders

Cost \$ **Low Benefit**



Mallory Cave

Clean up Mallory Cave Trail.

- Two out and backs to serve the climbing formations.
- Extend a Class 0 climbing access trail to Porch Alley.
- Close the undesignated trail that creates a loop between the Fumbledeedum access and the Back Porch.

Driving Factors/Benefits

- Provides access to multiple key destinations.
- Improves trail sustainability.

Cost \$\$\$ Medium Benefit

Reroute Mesa Trail at Skunk Canyon crossing.

- Move trails to the west minimizing the grades in and out of the drainage.
- Build a short bridge as necessary.
- Reroute the trail out of the mud on the south side of Skunk Creek, behind NCAR if possible.

Driving Factors/Benefits

- Decreases erosion into the drainage.
- Decreases trail widening.
- Minimize the distance that the Mesa Trail spends in the Skunk Canyon drainage.

Cost \$\$ High Benefit

Reroute Mesa Trail from Skunk Canyon crossing to intersection with Bear Canyon.

- Consolidate redundant trails leading from NCAR to the Mesa Trail.

Driving Factors/Benefits

- Improves trail sustainability.

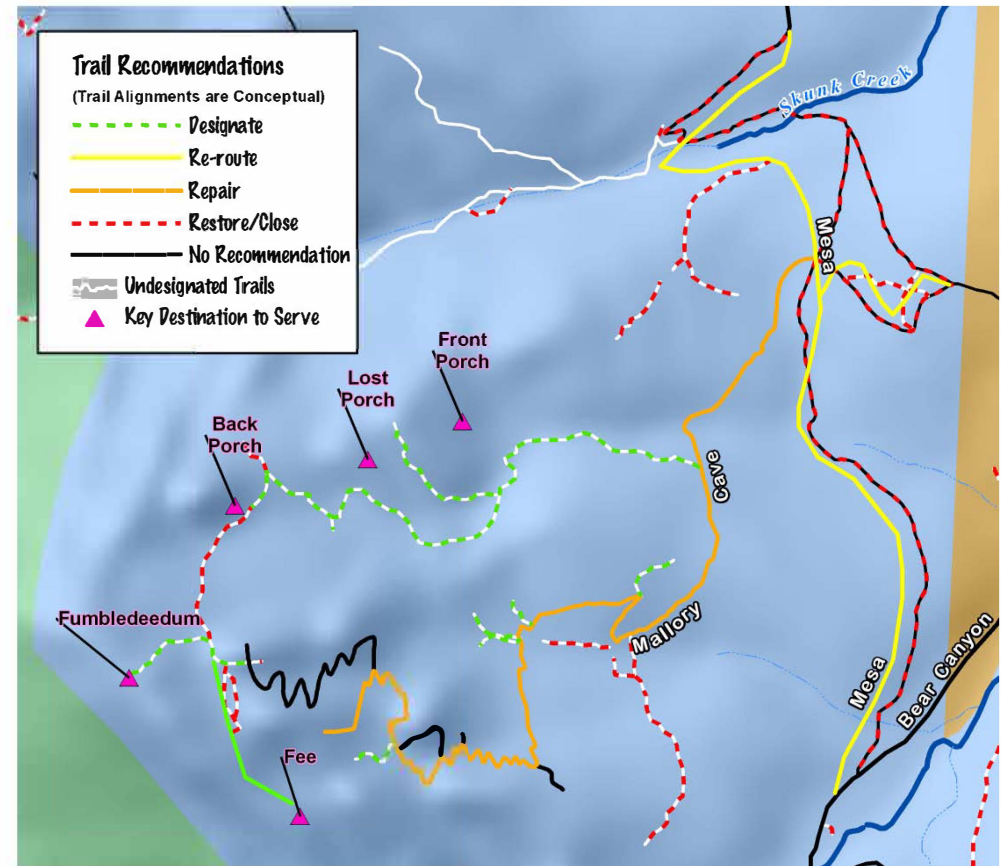
Cost \$\$ High Benefit

Key Destinations

Provide designated access to the following:

- Fee
- Front Porch, Back Porch, and Lost Porch
- Top of Fumbledeedum route
- Concern about avoiding the riparian area.

Cost \$ Low Benefit



Shanahan & South Mesa Subarea

Trail Recommendations

(Trail Alignments are Conceptual)

- Designate
- Construct
- Re-route
- Repair
- Restore/Close
- No Recommendation
- Trails Not Managed By OSMP
- Undesignated Trails

- Subarea Boundary
- Seasonal Protection Area
May 1 - July 31

Trailhead

- A Access Point
(No OSMP provided parking)

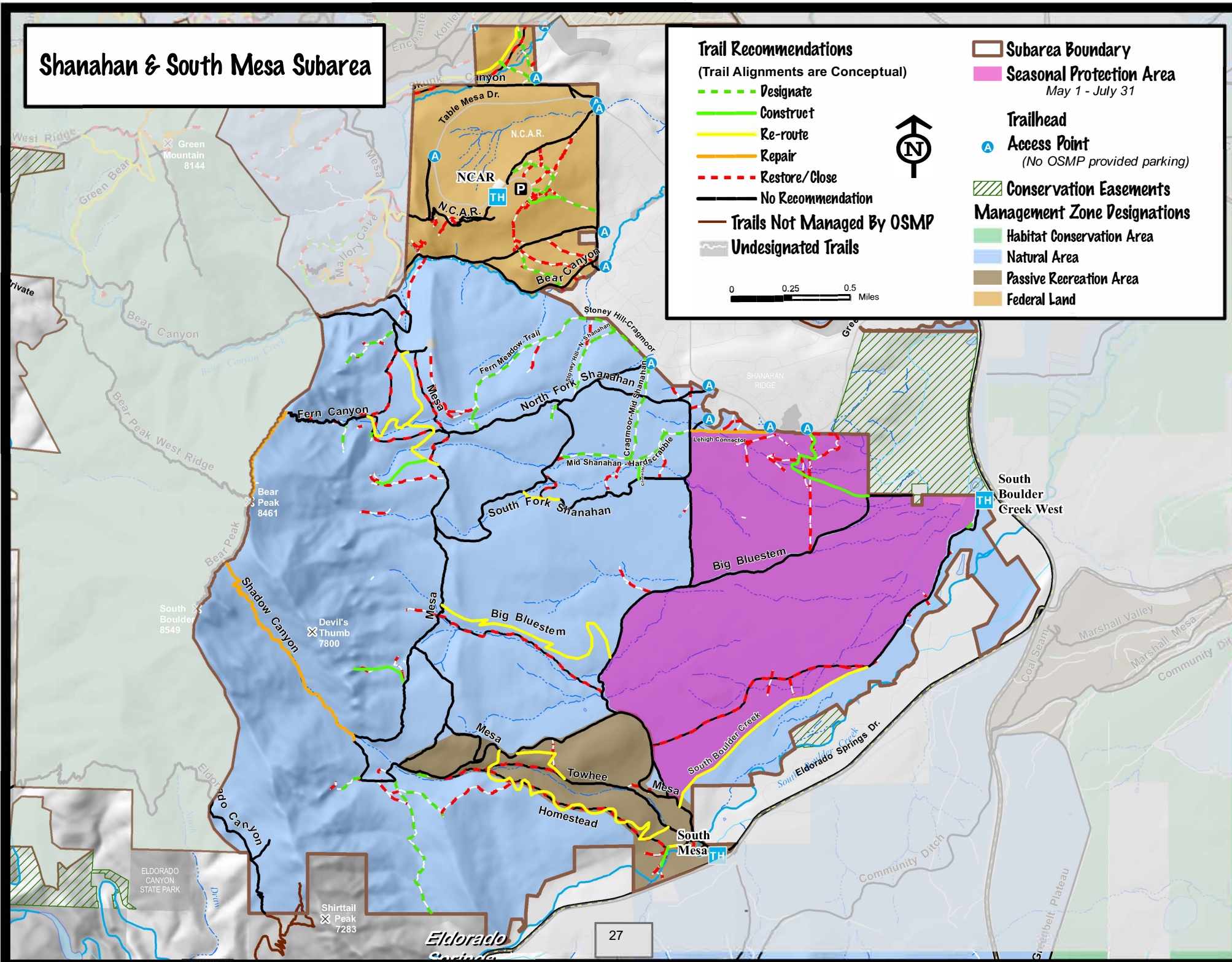
Conservation Easements

Management Zone Designations

- Habitat Conservation Area
- Natural Area
- Passive Recreation Area
- Federal Land



0 0.25 0.5 Miles



NCAR, Bear Canyon



Designate a trail connecting the Bear Canyon Service Road to the Wildwood Connector.

- Provide designated access to the Ant Hill, a key destination.

Driving Factors/Benefits

- Consolidates the undesignated trails.
- More sustainable trail.

Cost \$ **Low Benefit**



Repair Bear Canyon Trail.

- Near the power line
- Upper section located immediately west of Mesa Trail
- Consider using stepping stones or boardwalks.

Driving Factors/Benefits

- Trail widening
- Muddy conditions

Cost \$ **Medium Benefit**



Designate a nature loop on the east side of the NCAR mesa.

- Connect into the Table Mesa–NCAR connector trail near the parking lot.
- Evaluate the possibility of increasing accessibility for those with disabilities.

Driving Factors/Benefits

- Consolidate a network of undesignated trails.
- Provides a short, gentle loop opportunity.

Cost \$\$ **Medium Benefit**

Close and restore the undesignated trail connecting the Mesa trail with the Bear Canyon Service Road.

Driving Factors/Benefits

- Eliminates a redundant trail that parallels riparian habitat and bisects a wet meadow.
- Will improve black bear highly suitable habitat.

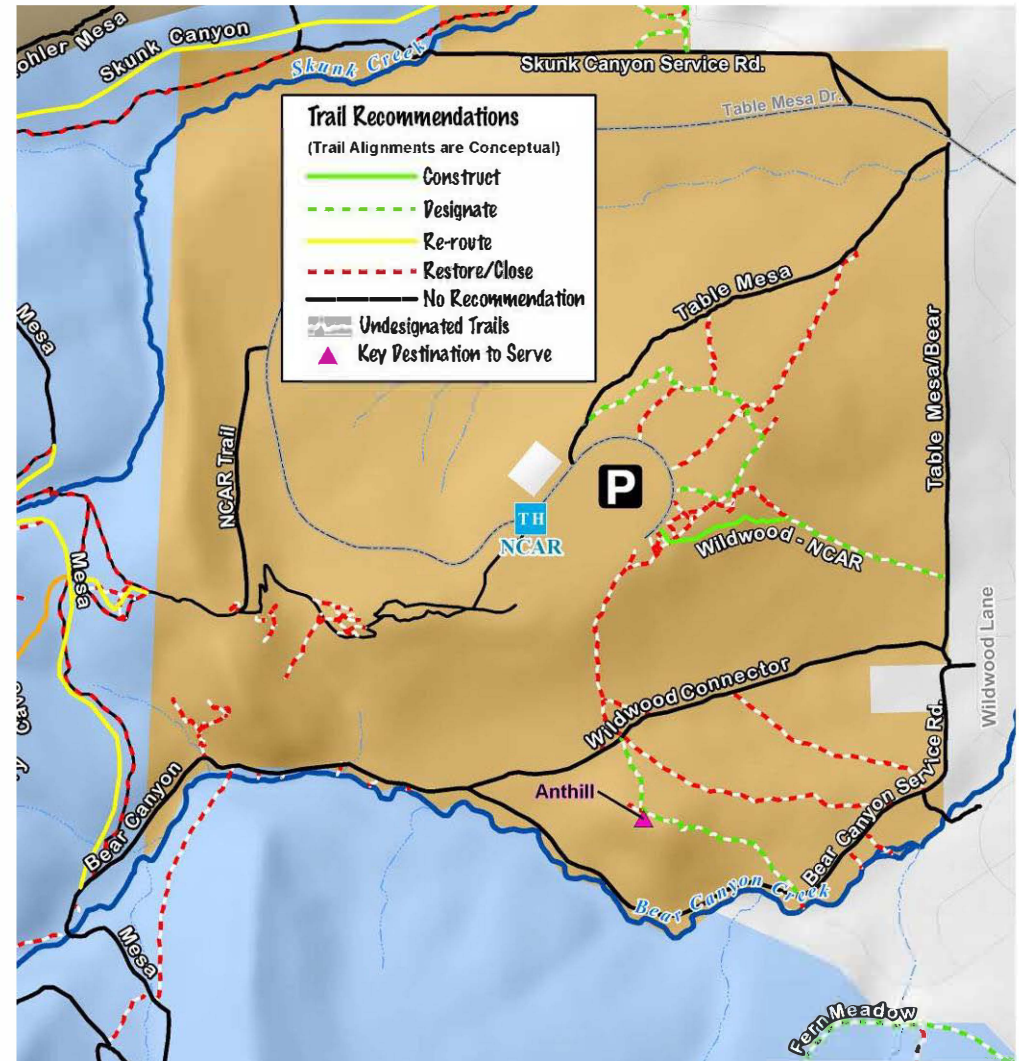
Cost \$ **Low Benefit**

Designate a trail connecting the Wildwood Ln access point with the NCAR parking lot.

Driving Factors/Benefits

- Provides a desired connection.

Cost \$\$ **Low Benefit**



Shanahan Trails



Designate a Fern Meadow Trail.

- Involve OSMP ecologist to determine trail alignment – concerns about areas of high-quality native vegetation and seeps.

Driving Factors/Benefits

- Highly desired connection.
- Improves trail sustainability.

Cost \$\$ **Low Benefit**



Designate a trail connecting the Fern Meadow Trail to the Cragmoor Rd access point.

- The trail will be directly behind the homes.
- The specific alignment and distance from the homes will be determined during implementation; The primary consideration for locating the trail will be that it is as far away from the homes as feasible, given natural resource concerns, while maintaining its function as a neighborhood collector trail.

Driving Factors/Benefits

- Designates a single trail for neighborhood access; consolidates multiple undesigned trails.
- Provides access to Fern Meadow area from a designated access point (Cragmoor).

Cost \$\$ **Low Benefit**



Designate multiple connectors in the Shanahan area.

- Stony Hill Dr HOA neighborhood access to the North Fork of the Shanahan– there are currently two spurs connecting the Stony Hill Dr access point to the North Fork of the Shanahan. One of the two spurs will be designated. Alignment to be determined during implementation.
- Middle Fork of the Shanahan/Hardscrabble- new alignment should protect the riparian drainage and salamander pond.
- Cragmoor Rd access point to the Middle Fork of the Shanahan/Hardscrabble
- Middle Fork of the Shanahan/Hardscrabble to the South Fork Shanahan

Driving Factors/Benefits

- Provides desirable connections.

Cost \$\$ **Low Benefit**



Reroute South Fork of the Shanahan west of the water tank.

Driving Factors/Benefits

- More direct alignment of the South Fork of the Shanahan.

Cost \$ **Medium Benefit**



Evaluate the possibility of providing a trail in the Shanahan area that is more accessible to people with disabilities.

Close and restore the undesigned trails leading from the neighborhood, trails not from designated access points.

- Encourage dispersed use.
- Do not put much effort into closing and restoring these trails.

Driving Factors/Benefits

- Encouraging dispersed use will allow the neighbors to access the designated trail system with minimal impact.

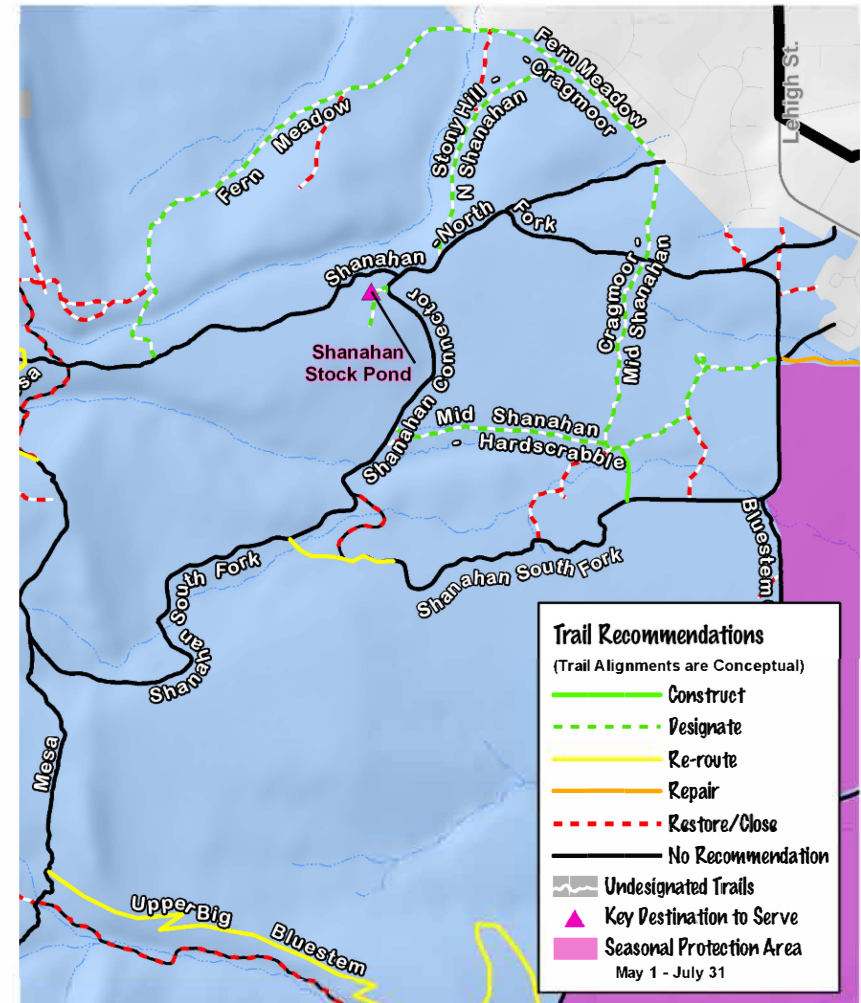
Cost \$ **Low Benefit**



Key Destinations

Provide designated access to the Shanahan stock pond.

Cost /Benefit- Included in the Shanahan trails recommendations.



Fern Canyon



Repair upper Fern Canyon.

Driving Factors/Benefits

- › Improves trail sustainability.
- › Improves visitor safety due to highly eroded surfaces and steep grades.

Cost \$\$\$ High Benefit

Redesign the Fern Canyon, Shanahan, and Mesa Trail junction.

- › Reroute the Mesa Trail to the west.
- › Replace lower Fern Canyon and Shanahan-Mesa connector trails with a single trail that connects to the Fern Canyon Trail. Create a T-intersection. Close and restore the lower Fern Canyon and Shanahan-Mesa connector trails.
- › Provide access to the Terrain Boulders (Funk Soul Boulder, Animal Chin Boulder, The Ice Cube-Fairview Boulder) with a climbing access trail originating off of the Mesa Trail reroute. Close and restore the undesignated trail along the fall line currently providing access to the Terrain Boulders.
- › Provide access to the Slab with the new section of trail.

Driving Factors/Benefits

- › Eliminates a confusing “box” trail intersection.
- › Eliminates parallel and redundant trails.
- › The Mesa Trail reroute will eliminate a portion of the trail that is wet year round and icy in the winter.
- › The new alignment will shift the trail to the edge of two diverse forest openings.
- › Will eliminate one trail in Abert’s squirrel highly suitable habitat and increase the size of the habitat block.
- › Improves trail sustainability.

Cost \$\$ High Benefit

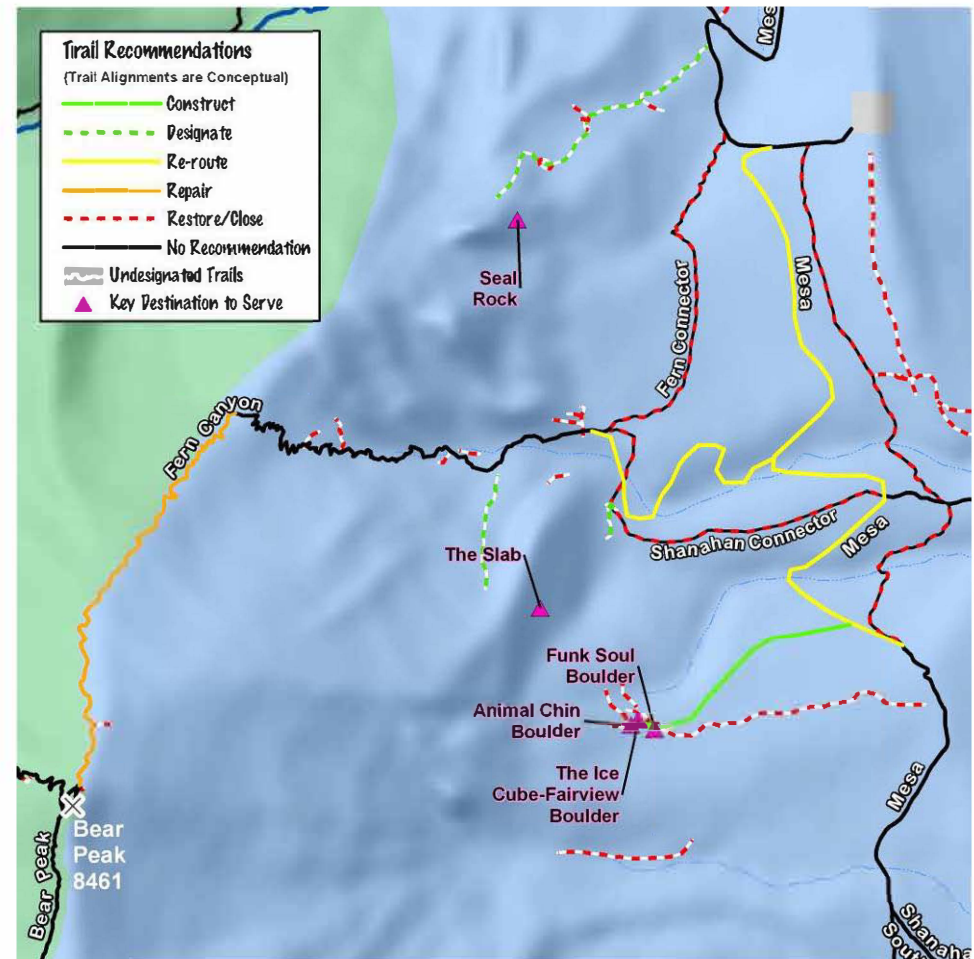


Key Destinations:

Provide designated access to the following:

- › Animal Chin Boulder
- › Funk Soul Boulder
- › Seal Rock (climbs between Bear Canyon and Fern Canyon)
- › The Ice Cube-Fairview Boulder

Cost/Benefit- Included in the Fern Canyon, Shanahan, and Mesa junction redesign.



Upper Big Bluestem

Reroute upper Big Bluestem.

- › Reroute north, higher up the slope and out of the riparian area.

Driving Factors/Benefits

- › Will decrease the miles of trails in riparian areas in the West TSA.
- › Increases the black bear highly suitable habitat block and habitat for other species using foothills drainages.
- › Reduces potential conflicts between black bears and visitors.
- › The reroute brings the trail farther away from the Brammier Cabin, reducing the potential for vandalism.
- › Reroute will eliminate the seasonal on-leash requirement.

Cost \$\$ **High Benefit**

Repair Shadow Canyon

Driving Factors/Benefits

- › Trail is braided and difficult to follow.
- › Improves trail sustainability.

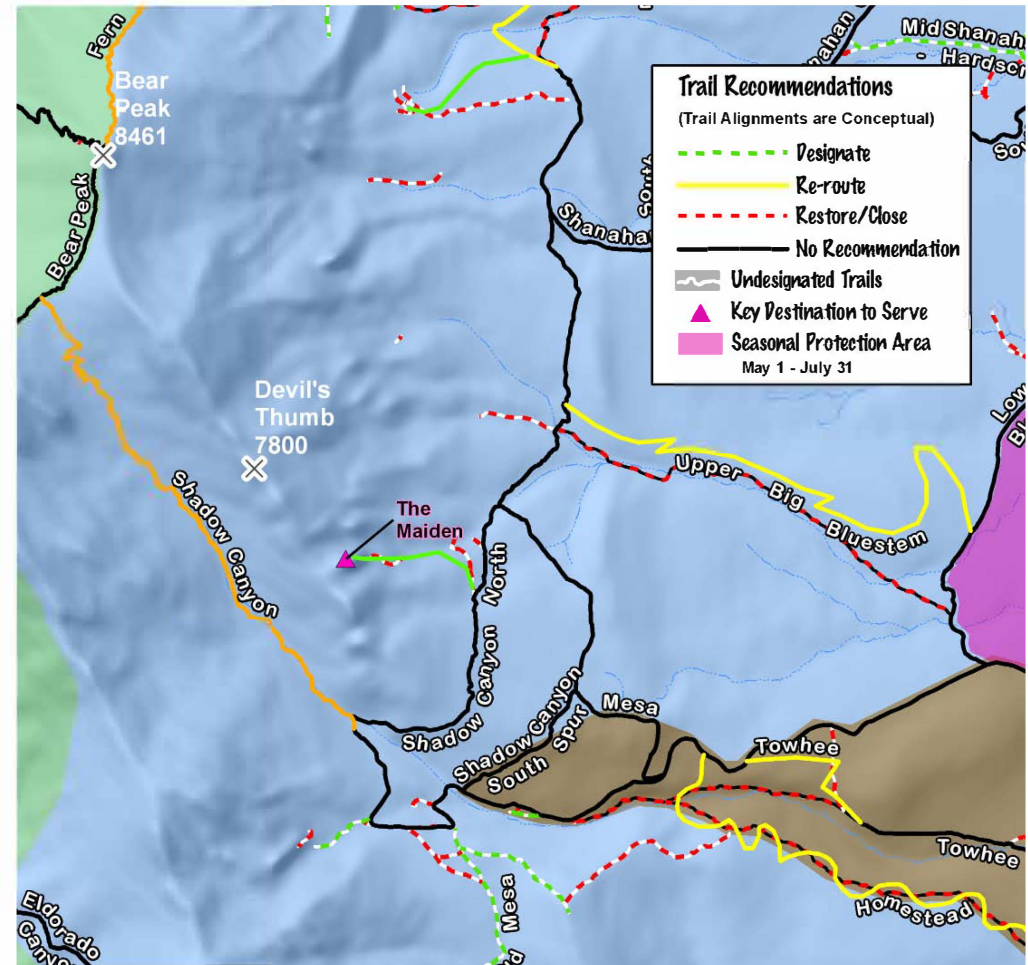
Cost \$\$ **Low Benefit**



Key Destinations:

- › Provide designated access to the Maiden.

Cost \$ **Low Benefit**



Lower Big Bluestem, South Boulder Creek



Designate a lower Big Bluestem Seasonal Grassland Protection Area.

- Area closed to all off-trail travel from May 1 to July 31.

Driving Factors/Benefits

- Protects a key grassland bird nesting area during the mating, nesting, and fledging season.

Cost \$\$ **Medium Benefit**



Repair the trail connecting the Greenbrier Blvd/Lehigh St access points to the South Shanahan connector.

- Fence should remain unchanged for grazing management.
- No gates

Driving Factors/Benefits

- Improves trail sustainability.

Cost \$\$ **Low Benefit**



Designate/construct a trail from the Greenbrier Blvd access point to Big Bluestem.

- Close and restore the undesignated trails that currently run south from the Greenbrier Blvd access point to Big Bluestem.

Driving Factors/Benefits

- Provides year round designated trail access from the Greenbrier Blvd access point to Big Bluestem
- Provides access through the Grassland Protection area, which is closed to off trail travel from May 1 – July 31.
- Addresses the network of undesignated trails in the area.
- Minimizes fragmentation to the habitat block.
- Current undesignated trail connection follows the fence line and is highly unsustainable.

Cost \$\$ **Medium Benefit**



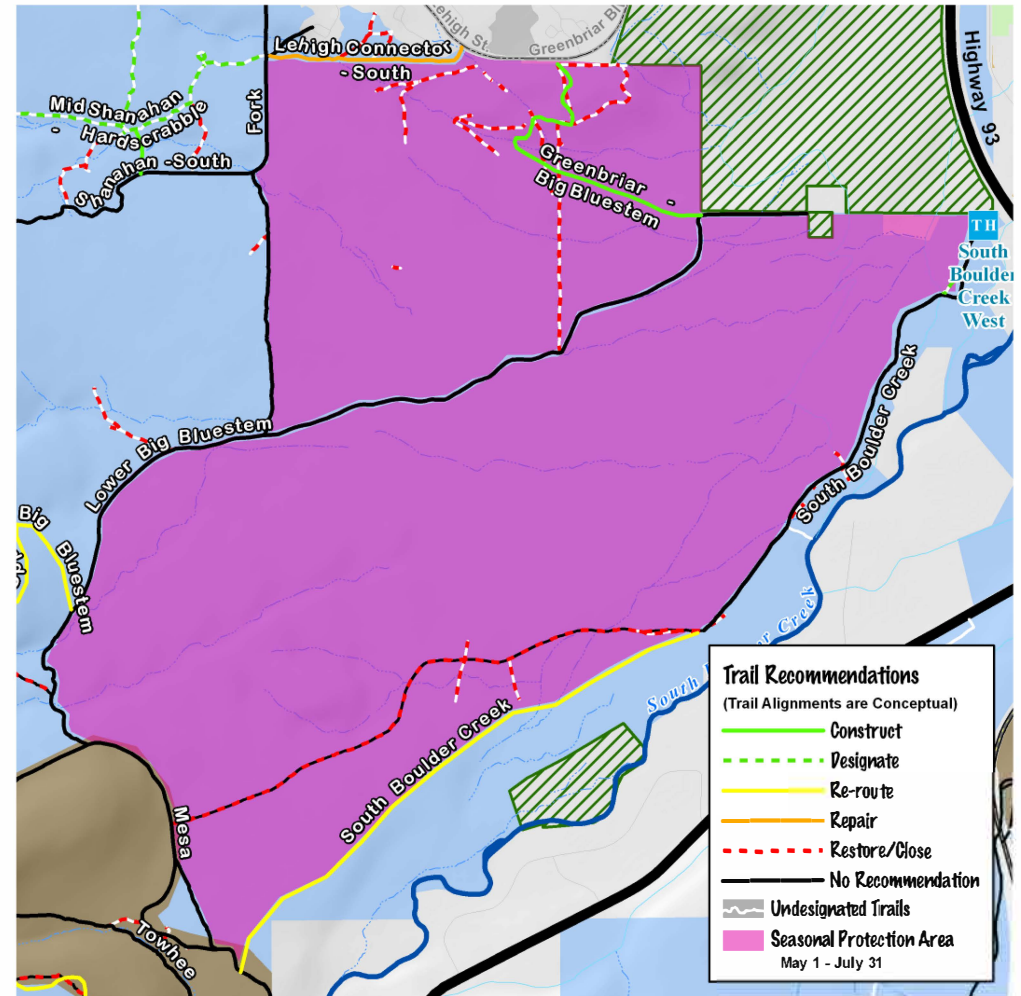
Reroute South Boulder Creek Trail.

- Avoid rare plant communities.
- Proposed alignment is on the mesa top, away from the riparian area.
- Evaluate the possibility of making the trail more accessible to people with disabilities.

Driving Factors/Benefits

- Increases habitat block size.
- Habitat and wildlife protection.
- Improves trail sustainability.

Cost \$\$ **High Benefit**



Towhee, Homestead, Old Mesa

CCG Reroute Towhee.

- Close and restore upper part of Towhee.
- Maintain lower part as it currently is (retain narrow trail).
- Angle up to the west, joining the Mesa Trail after going through the ponderosa pine stand.
- Close and restore the undesignated trail that connects the Towhee and the Mesa Trails.

Driving Factors/Benefits

- Decreases the trail length in the riparian area and increases riparian habitat block size.
- Improves shrub nesting bird habitat.
- Angling up west allows a slightly longer Towhee valley experience with good views up to the mountains and a nice ponderosa tree experience.

Cost \$\$ Medium Benefit

CCG Reroute Homestead.

- Construct a bridge across the drainage.

Driving Factors/Benefits

- Current alignment contains many highly degraded steps and is severely eroded.
- Decreases the trail length in the riparian area and increases riparian habitat block size.

Cost \$\$\$ Medium Benefit

Provide access to South Boulder Creek from Mesa Trailhead.

- Designate creek access along the north bank.
- Close and restore the remaining undesignated trails to the creek.
- Use a combination of fencing, trail improvements, native vegetation restoration, and bank stabilization to improve management of the recreational activities in the area.
- Evaluate the possibility of making the trail more accessible to people with disabilities.

Driving Factors/Benefits

- Designated creek access points will help direct the current visitor activity.
- Limiting the number of access points will help protect the creek bank and riparian area.
- South Boulder Creek is a very popular destination among visitors to the South Mesa Trailhead.

Cost \$\$ High Benefit

CCG Old Mesa Trail

Work with Eldorado Canyon State Park and all other land owners to establish public access options from public lands to the Old Mesa Trail. Examine possibilities for an Old Mesa alignment that is sustainable and meets visitor needs without damaging natural resources. In the meantime, leave the trail as is with some possible minor work. If negotiations are not successful, designate as a

dead end trail and do not encourage increased use on the trail by omitting the trail from maps, removing old signs, and leave trail largely as is with minor trail work.

Cost \$ Low Benefit

CCG Designate a trail from Shadow Canyon south to Dinosaur viewpoint on Dakota Ridge.

- Use west route, close and restore east route.
- Do not encourage use by omitting the trail from maps, removing signs (if any), not adding signs,
- Maintain the trail.

Driving Factors/Benefits

- Topography may not allow for sustainable trail design.
- Provides access to the Dinosaur viewpoint on Dakota Ridge, a key destination.

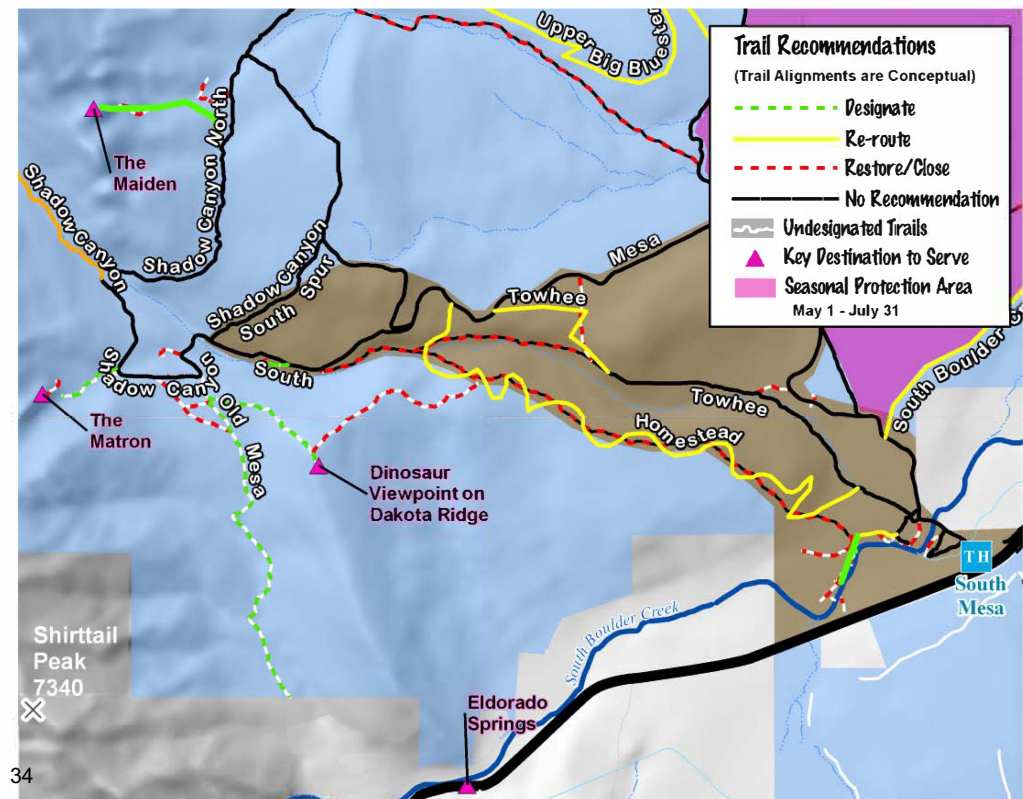
Cost \$\$ Medium Benefit

CCG Key Destinations.

Provide designated access to the following:

- The Matron
- Move trail out of the riparian drainage.
- Provide designated trail access to the town of Eldorado Springs.

Cost \$\$ Low Benefit



Recreational Activity Recommendations

Dog Management Recommendations

The following dog management section contains:

- A map of the new/changed dog management recommendations
- The Dog Management Recommendations for:
 - Dog-Free Opportunities
 - Leash Required Trails
 - Voice and Sight Opportunities
 - NCAR

General Dog Management Recommendations



Seasonal Restrictions and Closures

Unless explicitly stated in a CCG recommendation, none of the recommendations is intended to impact current seasonal leash requirements or closures. The CCG's recommendations do not affect OSMP's policy of implementing such restrictions.



Trails with no CCG Dog Management Recommendation

- Designated trails without a CCG dog management recommendation remain unchanged. This includes but is not limited to: trailhead leash, seasonal restrictions, and on-corridor requirements.
- For newly designated trails, for which the CCG made no recommendation, the dog management will be determined pursuant to the VMP Management Areas designation and/or in accordance with any specific dog regulations in the area.

Changes to Dog Regulations in the West TSA:

	Current Conditions in the West TSA		West TSA Plan Recommendations	
Total miles of Designated Trails	78		97.3*	
Dog Regulations	miles	% of trail miles	miles	% of trail miles
Voice and Sight	50.7	65%	59.6*	61%
Leash Required	19.6	25%	22.2*	23%
No Dogs	4.1	5%	8.4*	9%
On Corridor Leash or Voice and Sight	4.1	5%	5.8*	6%
V&S M-F, Leash Required S-S	0	0%	1.4*	1%

* Based on conceptual trail alignments

West TSA Dog Regulations

West TSA Boundary

Other Government Land

OSMP Conservation Easement

Trailhead

Trail Not Managed By OSMP

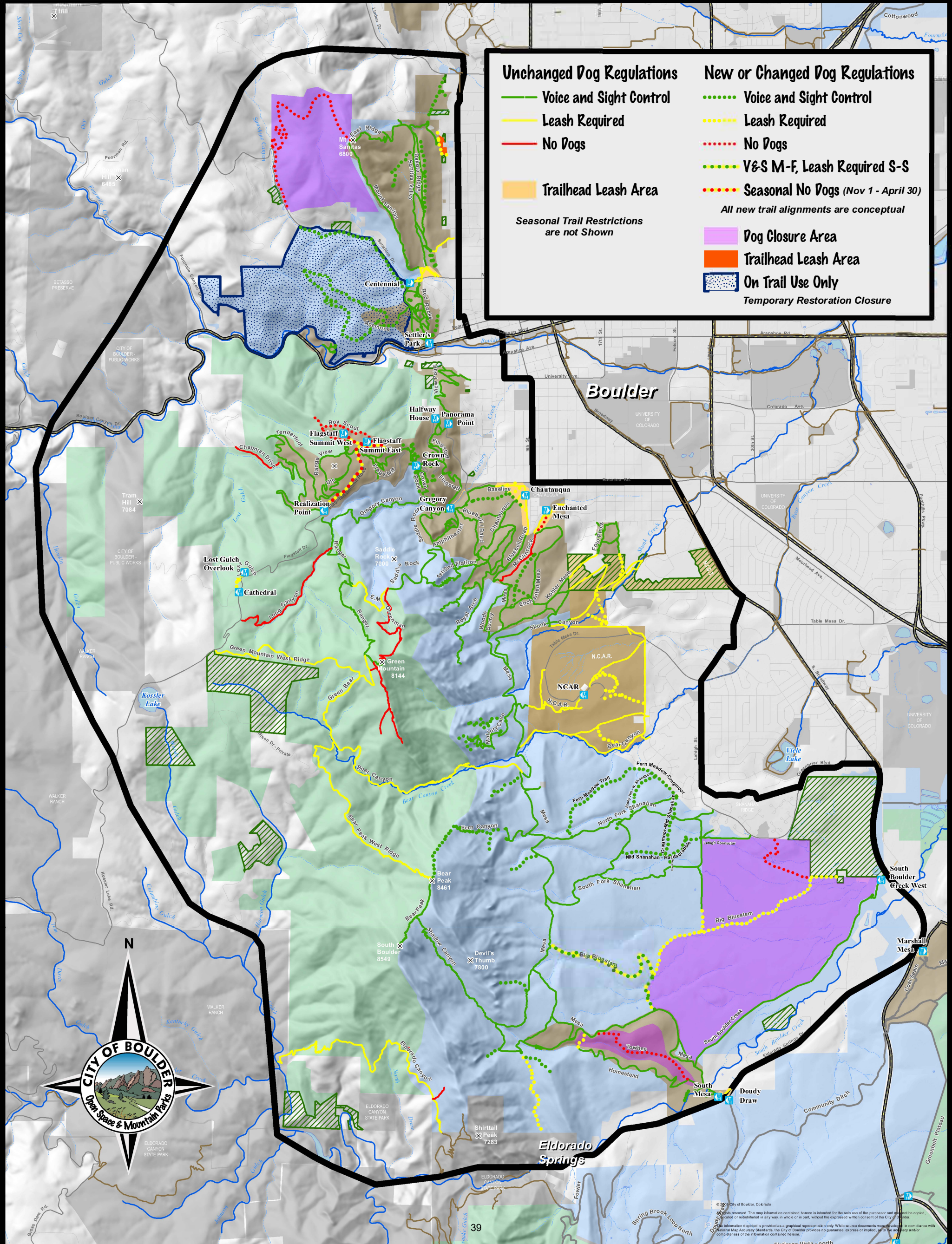
Habitat Conservation Area

Natural Area

Passive Recreation Area

Federal Land

0 0.5 1
Miles



Unchanged Dog Regulations

Voice and Sight Control

Leash Required

No Dogs

Trailhead Leash Area

New or Changed Dog Regulations

Voice and Sight Control

Leash Required

No Dogs

V&S M-F, Leash Required S-S

Seasonal No Dogs (Nov 1 - April 30)

Dog Closure Area

Trailhead Leash Area

On Trail Use Only

Seasonal Trail Restrictions are not Shown

Temporary Restoration Closure

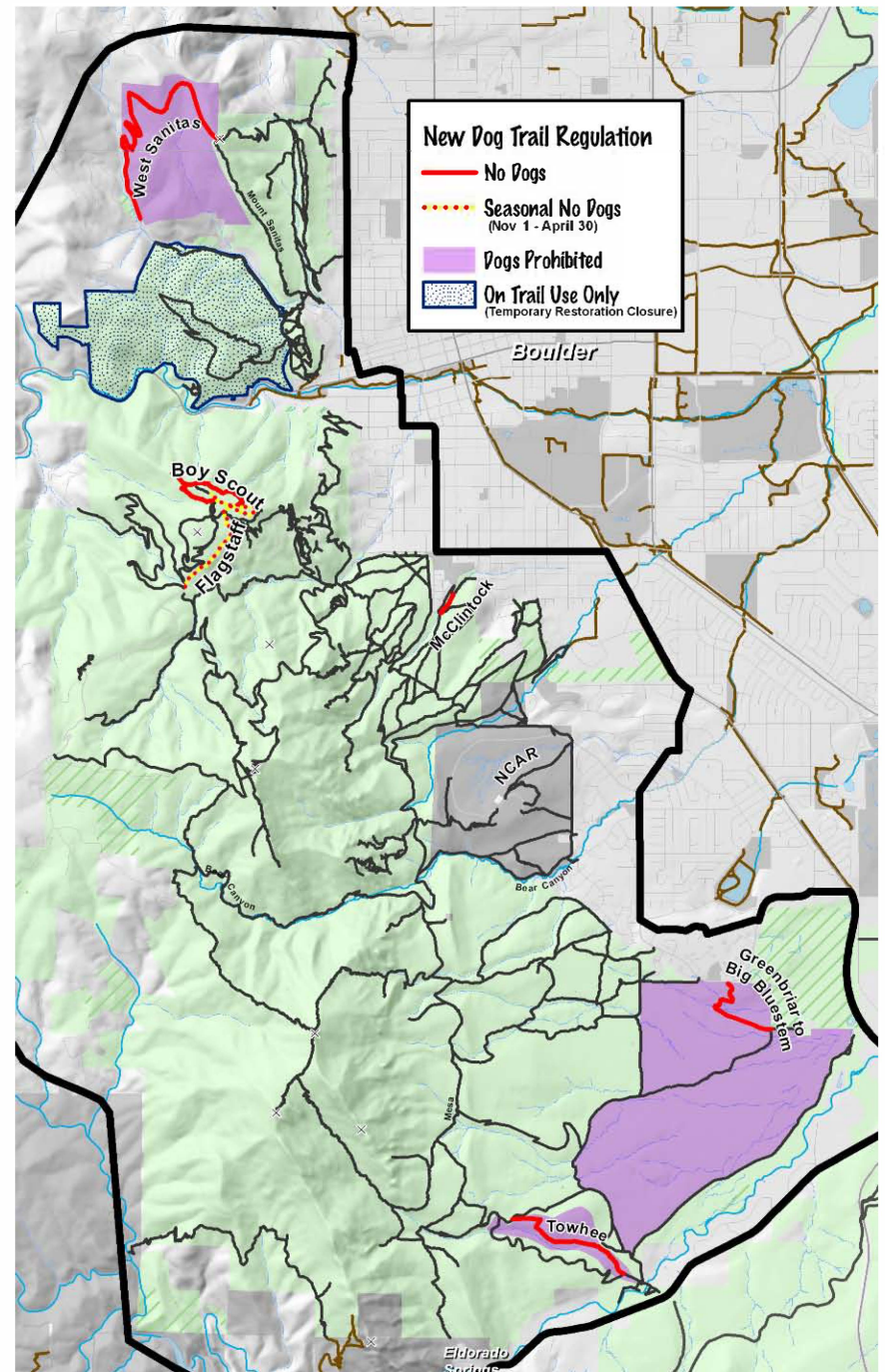
Dog-Free Opportunities

The following trails will become dog-prohibited:

- West Sanitas perimeter trail (previously an undesignated trail system)
Active enforcement of dog regulations. If compliance seems insufficient, OSMP will increase enforcement. Non-compliance in this area is considered egregious and a court appearance and maximum fine will be recommended. (CCG)
- McClintock from the Enchanted Mesa bridge down to the trail junction with the trail connecting to the Enchanted Mesa Trailhead (previously leash required) - the eastern portion of lower McClintock remains leashed. (CCG)
- Towhee Trail with new shortened connection to Mesa Trail (previously leash required) (CCG)
- Trail from Greenbriar to Big Bluestem (previously an undesignated trail)
- Boy Scout Trail
- Flagstaff Summit Road (only during the winter closure)

The following areas will become dogs prohibited year round:

- Lower Big Bluestem Grassland Protection Area (revised boundary of existing dog-free area and includes the former small voice and sight area adjacent to Greenbriar) (CCG)
- Area surrounding the Towhee Trail - including the riparian corridor adjacent to the Homestead Trail crossing (CCG)
- West Sanitas/Wittemyer (CCG)
- Anemone – temporary on-trail requirement for all visitors



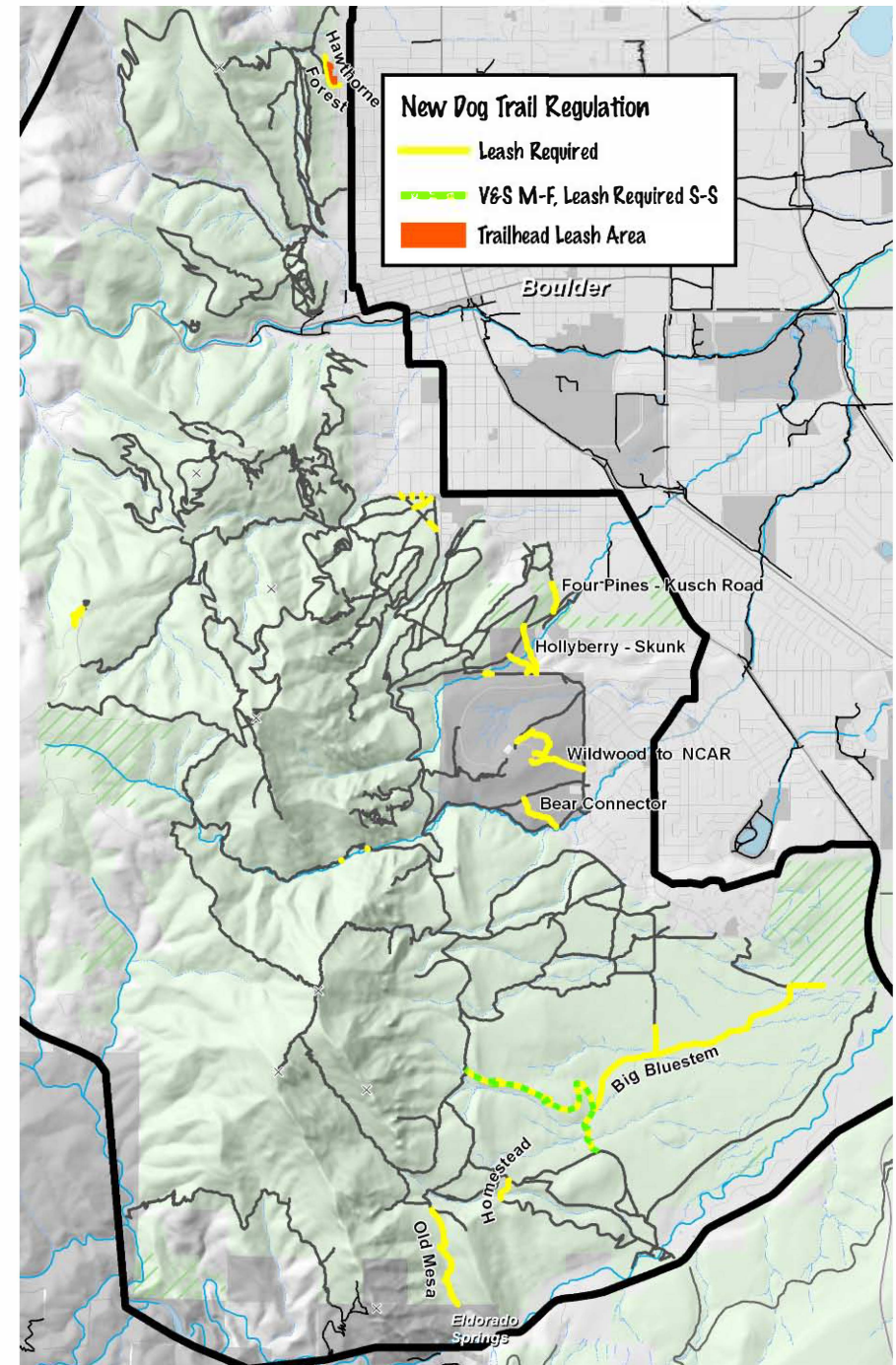
Leash Required Trails

The following trails will become on leash:

- Lower Big Bluestem (previously on-corridor voice and sight with a seasonal leash requirement from May 15 to July 15) (CCG)
- Upper Big Bluestem on Saturday and Sunday (previously voice and sight with a seasonal leash requirement from August 15 to November 1) (CCG)
- Old Mesa (previously an undesignated trail) (CCG)
- Trail connecting the Bear Canyon Service Road with the trail connecting the Wildwood access to Bear Canyon road (previously an undesignated trail) (CCG)
- Trail across NIST connecting Four Pines to Kusch Road (previously an undesignated trail) (CCG)
- Trail connectors from Hollyberry to lower Skunk (previously undesignated trails) (CCG)
 - Two connectors from Hollyberry to Skunk Canyon (CCG)
 - Two short connectors from Hollyberry to the NCAR Skunk Canyon service road (CCG)
- Connector from Wildwood/Bear Canyon Service Road up to the NCAR parking lot (previously an undesignated trail) (CCG)

The following are new trailhead/access point leash recommendations:

- Forest and Hawthorne on-leash from access points to trail junction. (CCG)
- For voice and sight trails, where appropriate, trailhead/access point on-leash requirements will be made by OSMP consistent with the VMP (pages 44-45). (CCG)



Voice and Sight Opportunities

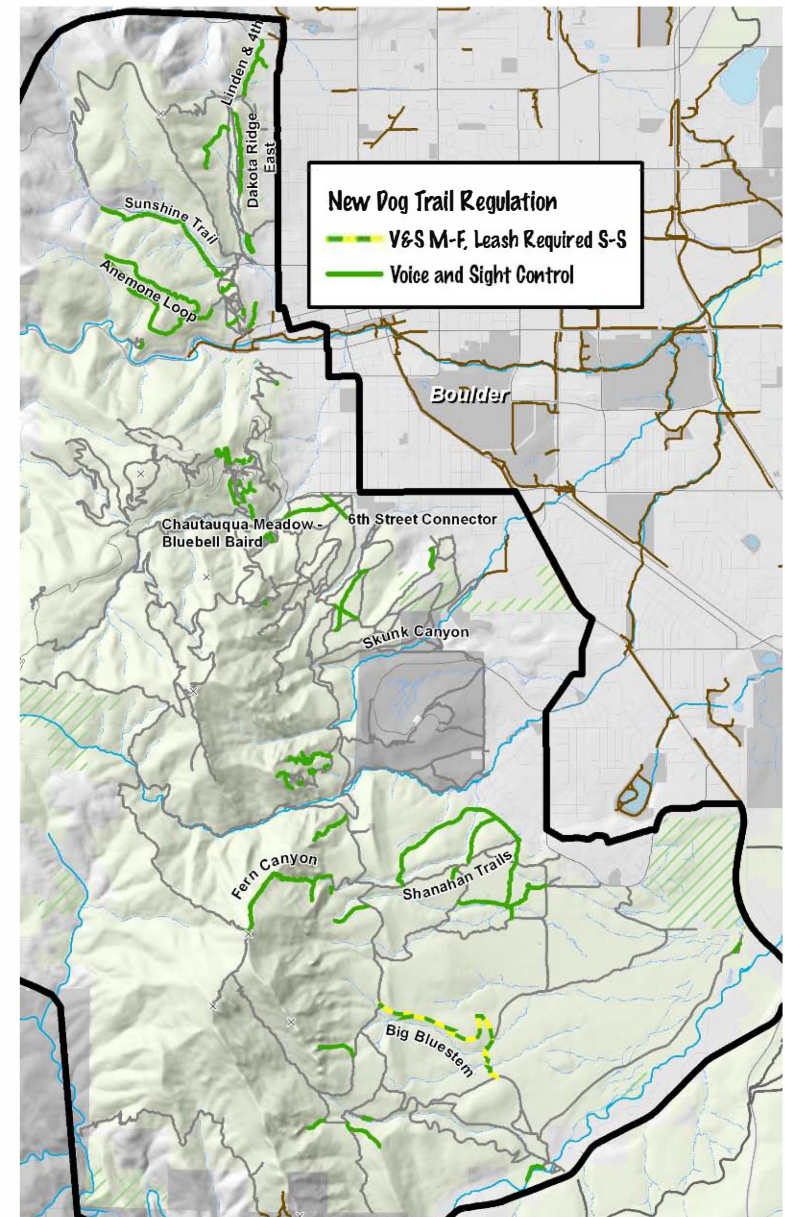
The following trails will become voice and sight: (previously undesignated trails/trail systems unless noted otherwise)

- Trail from Linden Dr and 4th St to the Goat Trail (CCG)
- Trail to Sanitas stone shelter (CCG)
- Anemone trails, Anemone loop and Sunshine Canyon Trail . Must be within the trail corridor during the two year on-trail period. The area will be assessed after two years to determine if dogs under voice and sight control are staying within the trail corridor.
- Red Rocks (CCG)
- Trail to Sanitas Quarries 2, 3, and 4– with the following condition: Emphasize and prioritize enforcement in this area over areas with fewer dog management issues. (CCG)
- Trail on Dakota Ridge, east side of the hogback – with the following condition: Emphasize and prioritize enforcement in this area over areas with fewer dog management issues. (CCG)
- Connection from the Knollwood Dr access point to Settler's Park (CCG)
- Baseline Trail, 6th St connector, and trail from the northeast corner of Chautauqua Meadow to Bluebell Baird. Trailhead leash requirement on the Baseline Trail to be determined. (CCG)
- Upper Fern Canyon (previously leash required) with the following condition: Add enforcement signs to keep dogs out of the HCA (CCG)
- Fern Meadow Trail (CCG)
- Trail connecting the Fern Meadow Trail to the Cragmoor Rd access point - Trailhead leash requirement to be determined. (CCG)
- Stony Hill Dr HOA (neighborhood) access to the North Fork of the Shanahan (CCG)
- Middle Fork of the Shanahan/Hardscrabble Trail (CCG)
- Connector from Middle Fork of the Shanahan/Hardscrabble to the South Fork of the Shanahan (CCG)
- Cragmoor Rd access point to the Middle Fork of the Shanahan (CCG)
- Trail from Shadow Canyon to the Dinosaur viewpoint on Dakota Ridge (CCG)
- Any trails designated to the following key destinations will be voice and sight: the Holiday Star, 3-of-a-Kind Wall, Candel Area, Upper Area, Fee, Ghetto Boulders, Fifth Flatiron, Front Porch, Back Porch, Lost Porch, top of Fumbledeedum route, Animal Chin, Funk Soul Boulder, Seal Rock, The Ice Cube – Fairview Boulder, Shanahan stock pond, The Maiden, and The Matron (CCG)
- Connector from the Enchanted Mesa/Kohler spur intersection to the Mesa Trail. (CCG)
- Trail between the McClintock and Enchanted Mesa Trails (CCG)

The following trails will remain voice and sight with the following conditions:

- Sanitas East Ridge- Emphasize and prioritize enforcement in this area over areas with fewer dog management issues. (CCG)
- Upper Big Bluestem– Monday through Friday (CCG)

- South Boulder Creek West– Extend the fence along the trail to reinforce the grassland protection area boundary (CCG)
- Homestead - Dogs must be on leash at the bridge / riparian crossing, dogs prohibited in drainage. Monitoring recommended. (CCG)
- Greenbriar/Lehigh to South Shanahan Connector – Trailhead leash to be determined. (CCG)
- Skunk Canyon – Seasonal leash requirement will remain unchanged. Only a portion of the trail is being rerouted out of the riparian corridor. (CCG)



Horseback Riding

On-Trail Activity

Please see the map on the following page for the trail recommendations.

Every trail in the West TSA was classified into one of the below three categories:

1) Horseback Riding Allowed, Design Use Equestrian

Trails in this category will be built and maintained using OSMP's equestrian trail standards. Designating an existing trail with a design use of equestrian does not imply that the trail is now being identified for a reroute or specific trail improvements to bring the trail up to standards. Rather, if the trail has already been identified for a reroute, or is in the future, along with any other trail maintenance / improvements, all trail construction and maintenance will be done using equestrian trail standards.

2) Horseback Riding Allowed, Design Use Pedestrian

Trails in this category will be built and maintained using pedestrian trail standards. Riders will use their own discretion to determine if the trail is appropriate.

3) Horseback Riding Not Allowed

Trails in this category will be built and maintained according to their designated design use (not equestrian).



Upper Gregory Canyon Trail will be designed for pedestrian use with horses allowed. In addition:

- OSMP will meet with stakeholders (including equestrians, conservationists, hikers, cultural resources representatives, etc.) on a Gregory Canyon Trail fieldtrip to discuss options for trail improvements that could make the trail passable for all allowed user groups (pedestrians and equestrians). OSMP will notify CCG members.
- If no way can be found to make the Gregory Canyon Trail passable for equestrians, other options and alternatives will be discussed at a one time meeting, including (but not limited to) 1) providing comparative cost information about what it would take to make the trail passable for equestrians (if cost is an issue); 2) ways of increasing available funding for the necessary upgrades (if cost is an issue) 3) making Crown Rock and Flagstaff passable for horses as an alternative route; 4) allowing horses on Saddle Rock and E.M.Greenman as an alternate route. Agreeing to discuss these options does not mean that OSMP or other stakeholders are agreeing to implement them; this is an agreement to discuss these and other ideas.
- The fieldtrip and following discussion will be facilitated by Peak Facilitation, or another facilitator.



Western spur from the lower Sunshine Canyon loop will be built to pedestrian standards with horses allowed. Future construction and maintenance should not preclude equestrian travel.

Off-Trail Activity

Please see the map on the following page.

- Horses allowed off trail east of the Mesa Trail.
- Horses allowed off trail in the Chautauqua area east of Bluebell Baird and Gregory Canyon Road.
- Horses allowed off trail in the Flagstaff area. Area defined by the HCA boundary, the Boy Scout Trail, and Flagstaff Summit Road.
- Horses allowed in the Natural Area east of the Old Mesa Trail, area further defined by the Homestead Trail.

Horses not allowed off trail in the HCA, or in areas not listed above.

Please see map on the following page.

Horse Trailer Parking

Horse trailer parking is included in the Visitor Infrastructure, Trailheads section of this plan.

The equestrian recommendations in this plan after implementation will result in the following:

- *Trails with horses allowed/Designed Use Equestrian will be 28.4* of the 97.3* miles or 29%.*
- *Trails with horses allowed/Designed Use Pedestrian will be 42* of the 97.3* miles or 43%.*
- *Trails prohibited to horses will be 27* of the 97.3* miles or 28%.*

**based on conceptual trail alignments.*

West TSA Horse Access

 West TSA Boundary
 OSMP Conservation Easement

 Trailheads
 Trails Not Managed By OSMP

 OSMP Lands
 NCAR&NIST
 Other Government Lands

0.5 0 0.5
Miles

 Horses Allowed
Design Use = Equestrian

 Horses Not Allowed

 Horses Allowed
Design Use = Pedestrian

All new trail alignments are conceptual



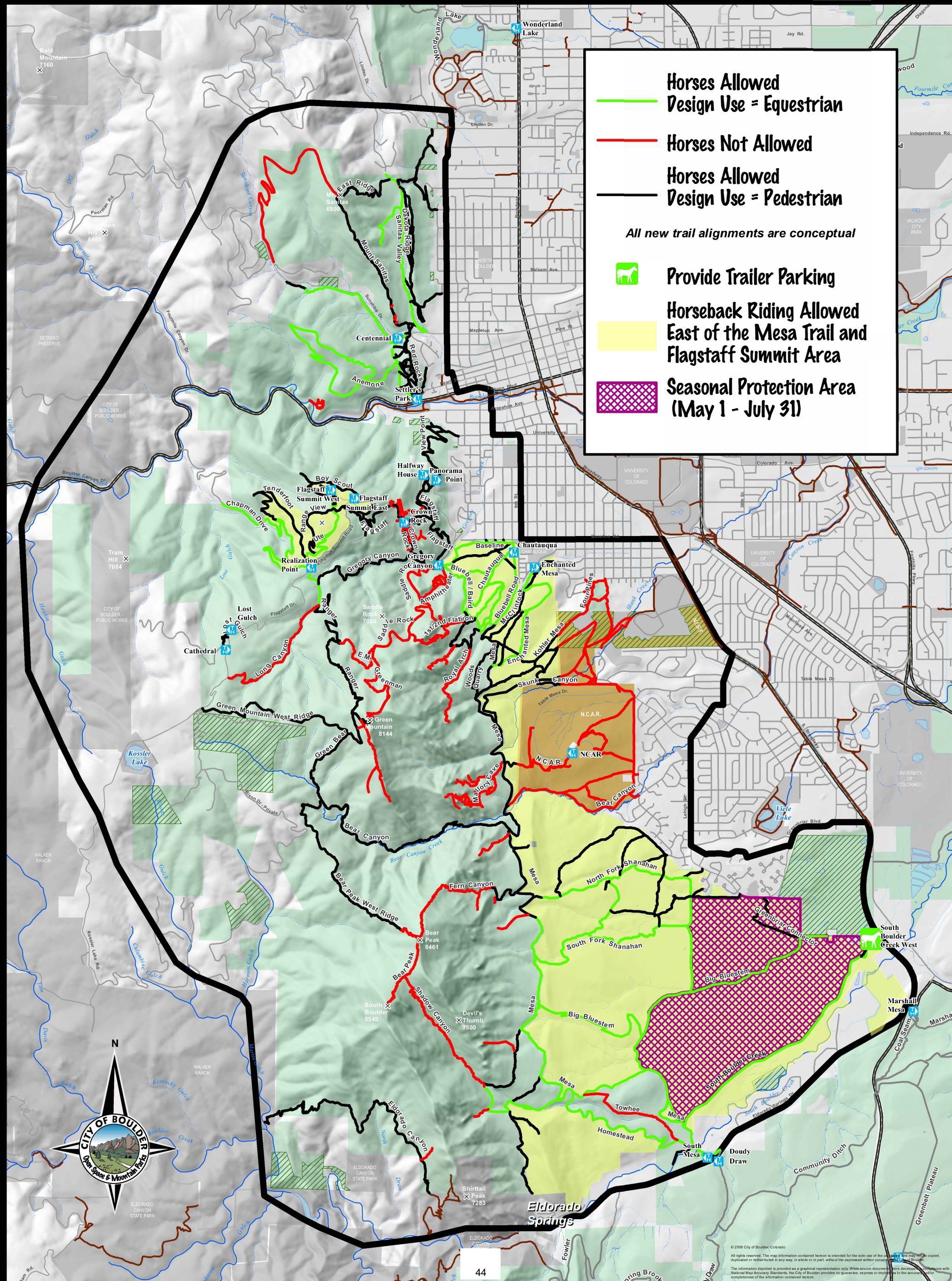
Provide Trailer Parking



Horseback Riding Allowed
East of the Mesa Trail and
Flagstaff Summit Area



Seasonal Protection Area
(May 1 - July 31)



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Mountain Biking

Look broadly at connection opportunities and focus on cooperation with the United States Forest Service, the State of Colorado, Boulder County and private land owners.

Use best efforts to work with Eldorado Canyon State Park, Boulder County Parks and Open Space (BCPOS) and community groups to examine the feasibility of a multiple-use trail connection from Eldorado Springs to Walker Ranch. This includes the potential use of a portion of the Eldorado Canyon Trail on OSMP land.

Driving Factors/Benefits

- Recommended in the VMP (pgs. 39, A-51).
- Appears as a conceptual trail alignment in the Boulder Valley Comprehensive Plan (trails map).
- Connects public lands and provides access from OSMP lands to significant mountain biking opportunities on BCPOS lands.
- Requires additional agreements, acquisitions, and/or easements.

Continue pursuing a mountain bike/multiple-use trail connection between Flagstaff Road and State Highway 119 (Boulder Canyon) using Chapman Drive.

- OSMP is negotiating property acquisition to make this connection.
- OSMP is working with the Colorado Department of Transportation and Boulder County to assess the feasibility of extending the Boulder Creek Bike Path west to Chapman Drive.
- Mitigation measures will be required; possibly including creating separated trail surfaces for uphill and downhill bike travel; enhanced patrol by staff and volunteers, speed reducing features, and trail changes to increase trail sustainability and safety.

Driving Factors/ Benefits

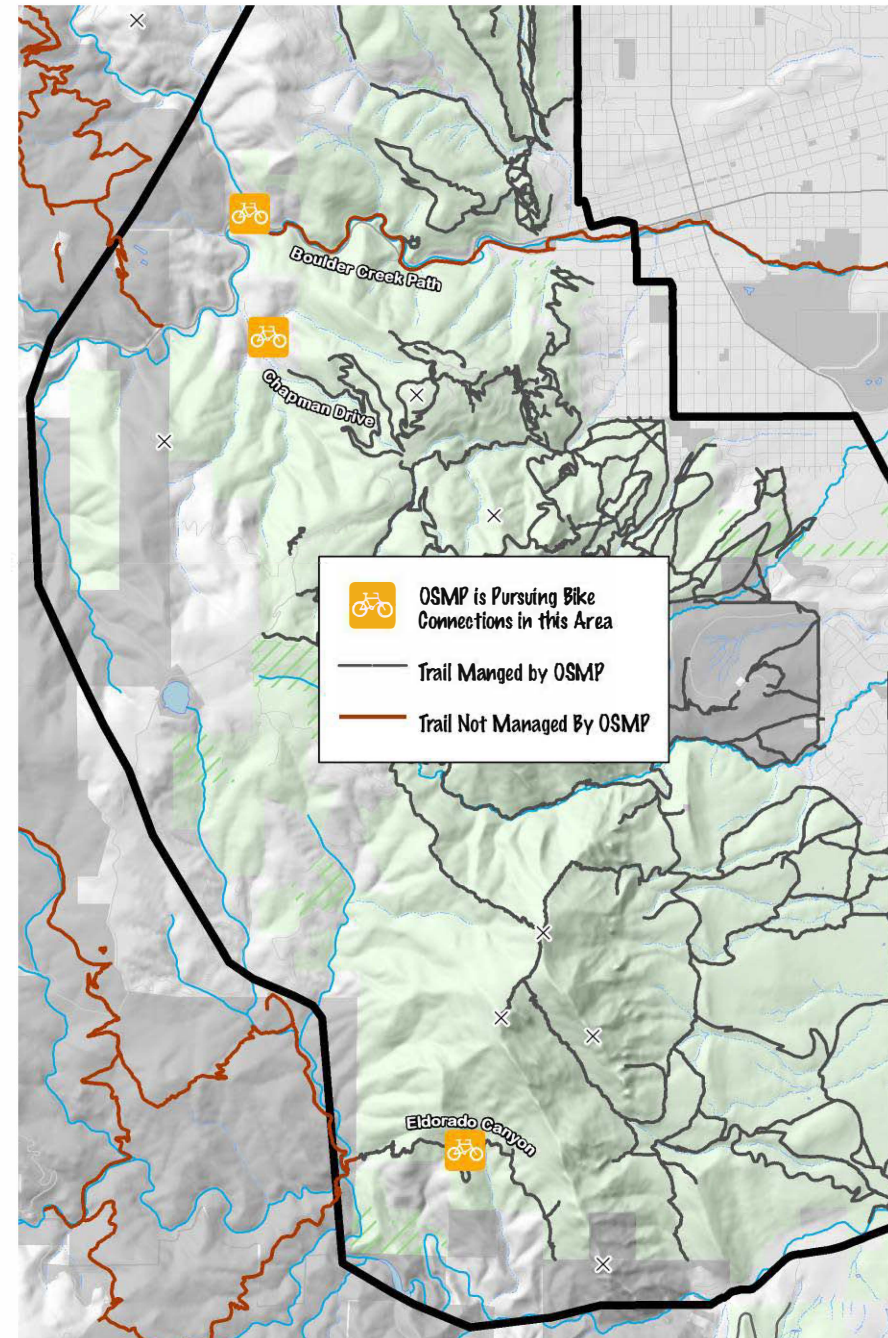
- Recommended in the VMP (p. A-50)
- Proposed for inclusion as a conceptual alignment in the Boulder Valley Comprehensive Plan trails map as part of the 2010 update.
- Provides a desired off road bike connection from Boulder Canyon to Flagstaff Road and Walker Ranch.
- Provides an alternative route for bicyclists to avoid the busy vehicle traffic on lower Flagstaff Road.
- Requires additional agreements, acquisitions and/or easements
- There is a long-standing public desire to make this connection.

Look at possibilities to extend the Boulder Creek Path to provide access to the Betasso Preserve consistent with the contents of the Boulder County Parks and Open Space Betasso Preserve Management Plan.

- Or an alternative connection to Betasso from the intersection of Boulder Canyon and Fourmile Canyon.
- Requires additional agreements, acquisitions, and/or easements.

Driving Factors/Benefits

- Important to connect local OSMP lands with more distant OSMP and County Open Space lands.
- Increases access and safety for all visitors.



Hang gliding/Paragliding

No hang gliding launch or landing sites will be designated in the Western Mountain Parks HCA or in the South Mesa/Shanahan sub-area.

Driving Factors/Benefits

- Off-trail access in HCAs and in the grasslands of the South Mesa/Shanahan sub-area is discouraged.

Work with local hang gliding and paragliding organizations and other interested members of the community to determine if there are launch and landing sites that should be designated elsewhere in the West TSA.

Driving Factors/Benefits

- Sites must be designated if hang gliding and paragliding are to occur in the West TSA.
- Impacts to soils, vegetation, and habitat values can occur with repetitive access to and use of launch and landing zones.



Sledding

Retain the designated sledding area in Chautauqua Meadow.

- › The boundary of the designated sledding area in Chautauqua Meadow is west of the north-south drainage in the Meadow, north of Ski Jump Trail, south of Baseline Road and east of Bluebell Baird Trail.

Driving Factors/Benefits

- › Sledding can only occur on OSMP lands on designated sites.
- › Long-standing designated area where people have enjoyed family-oriented sledding.
- › The Chautauqua Meadow is served by a designated trail system and parking is available at Chautauqua and along Baseline Road.

Prohibit sledding in the previously allowed area on Bluebell Road west of the Ranger Cottage.

Driving Factors/Benefits

- › Bluebell Road is a highly used trail; sledding creates conflicts and hazardous conditions for pedestrians and sledders.
- › Sledding compacts the snow, creating a persistent layer of ice on the trail. This presents a hazard to all visitors.
- › Bluebell Road exits Chautauqua near Baseline Road where there is a risk of sledders may collide with motor vehicle traffic.
- › Since portions of Bluebell Road are plowed to provide emergency access, the road cannot be maintained for sledding.

Prohibit (by City Manager's Rule) the use of snowboards and skis (when heel is fixed to the ski) in designated sledding locations.

- › Snowboarding and downhill skiing are considered a sliding activity and only allowed in designated areas on OSMP.

Driving Factors/Benefits

- › Snowboarding and downhill skiing conflict with family oriented sledding.
- › The amount of snowboarding has increased in Chautauqua resulting in more conflicts with sledders.
- › Snowboarders construct jumps which can increase resource damage and sledding hazards.
- › Private resorts and US Forest Service lands provide many opportunities for lift service and backcountry skiing and snowboarding.

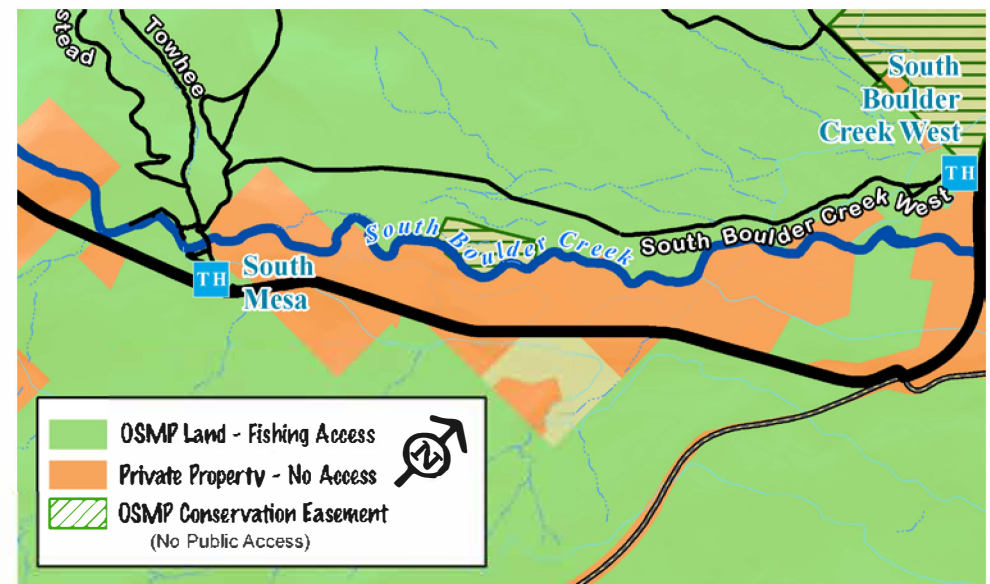
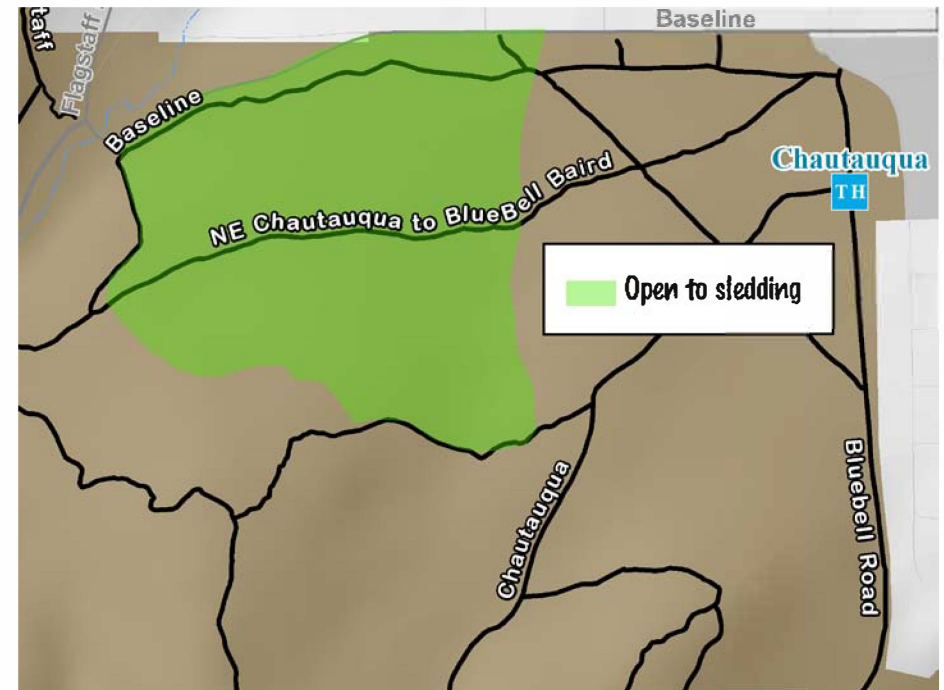
Fishing

Maintain fishing access along South Boulder Creek.

- › Where OSMP property abuts South Boulder Creek.

Driving Factors/Benefits

- › Fishing can only occur on OSMP lands where designated.



Visitor Infrastructure Recommendations

Signs

General Recommendations

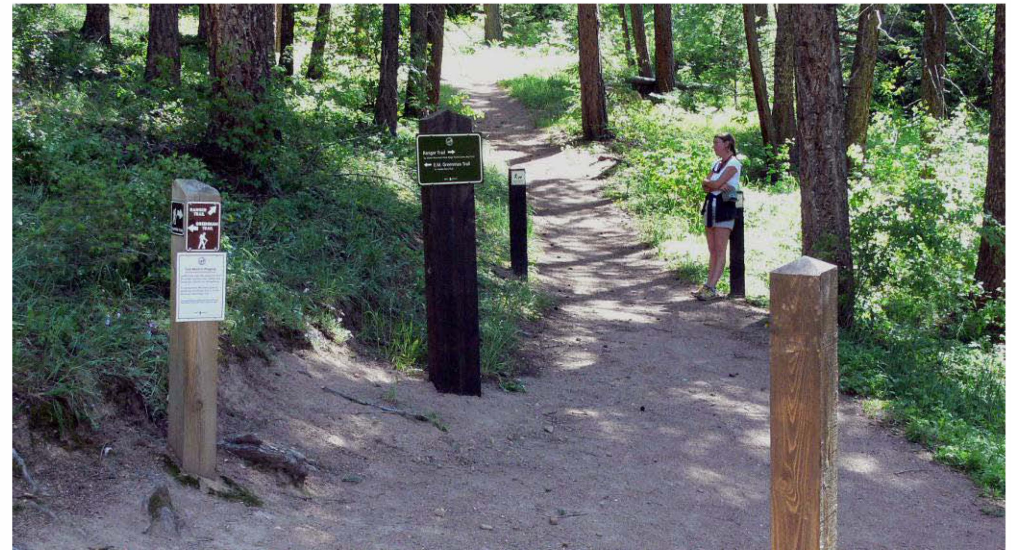
- Use the fewest signs/structures possible to convey the necessary information.
- Decrease the number of signs/structures in the West TSA. Remove redundant and unnecessary signs/structures.
- Place signs with a consideration for setting. For example, natural resting points along a trail or near interpretive opportunities.
- By 2016 remove outdated or inaccurate signs and replace them as necessary with signs consistent with the 2009 Sign Manual (The 2009 Sign Manual identifies the colors, style, etc. for OSMP signs.)

Driving Factors/Benefits

- Numerous and unnecessary signs degrade the visitor experience.
- Properly placed interpretive wayfinding, regulatory, and interpretive signs enhance the visitor experience.
- Research indicates that:
 - Most people spend little time reading signs, especially repeat visitors.
 - A sign is most likely to be read if it is at a natural resting point along a trail, or a place where people congregate and wait on the trail. Signs at trailheads are not as likely to be read.
- Old signs tend to be inaccurate, poorly placed, or may not interpret the most relevant messages.



Upgrade and standardize all signs across the system.



Example of the need to minimize the number of sign structures.

Wayfinding and Regulatory Signs

Signs in Habitat Conservation Areas (HCAs)

- Decrease the number of signs in the HCA.
- Post regulations on only one side of the trail.
- Place signs at significant entry points into an HCA to indicate applicable regulatory changes including no off-trail travel and no dogs off leash.

Driving Factors/Benefits

- New regulations may be posted on both sides of the trail. However, one sign structure will be removed after some time.
- There are currently 3.4 sign structures per trail mile in the HCA; OSMF considers this too many.

Signs in Natural Areas (NAs)

- Post regulations on only one side of the trail.
- Do not exceed 3.5 sign structures per trail mile. (Currently there are 3.5 sign structures per trail mile.)

Driving Factors/Benefits

- New regulations may be posted on both sides of the trail. However, one sign structure will be removed after some time.

Wayfinding Signs at Designated Trail Intersections

- Install wayfinding signs at all designated trail intersections. signs usually consist of a trail name with directional arrows or a

Driving Factors/Benefits

- Currently only 68% of designated trail intersections have wayfinding signs.
- Wayfinding signs help visitors navigate the designated trail system and decrease confusion.
- Some visitors' experiences are diminished because they are lost or unsure of the right way to go.

Signs at the Intersection of Designated and Undesignated Trails

- Post closure/restoration signs at all undesignated trails where intersect with designated

Driving Factors/Benefits

- It is often difficult to distinguish between designated and undesignated trails.
- Visitors wanting to remain on the designated trail system will be better able to do so.
- Undesignated trails often cause ecological impacts such as reduced habitat effectiveness and habitat connectivity, vegetation loss, and spread of weeds.



Example of a wayfinding sign.

Natural Resource Interpretive Signs

Chautauqua

- › New kiosk at trailhead with interpretive signs.
- › There are multi-jurisdictional discussions about a new design for the Chautauqua area. The design of a new Open Space and Mountain Parks trailhead kiosk will be informed by the outcome of these conversations.

Interpretive Topics

- › Biodiversity
- › Geology
- › Chautauqua Meadow History

Driving Factors/Benefits

- › Chautauqua's high visitation provides a good opportunity to relay information.
- › Chautauqua draws the most new visitors to the system. New visitors, lingering before their hike are more likely to read a trailhead interpretation display than repeat visitors at other trailheads.

Crown Rock

- › Interpretive sign near one of the popular bouldering problems.

Interpretive Topic

- › Leave No Trace - reduce impact on the land
- › Low impact bouldering

Driving Factors/Benefits

- › Large groups congregate and cause resource damage such as vegetation loss and erosion.

Lost Gulch Overlook

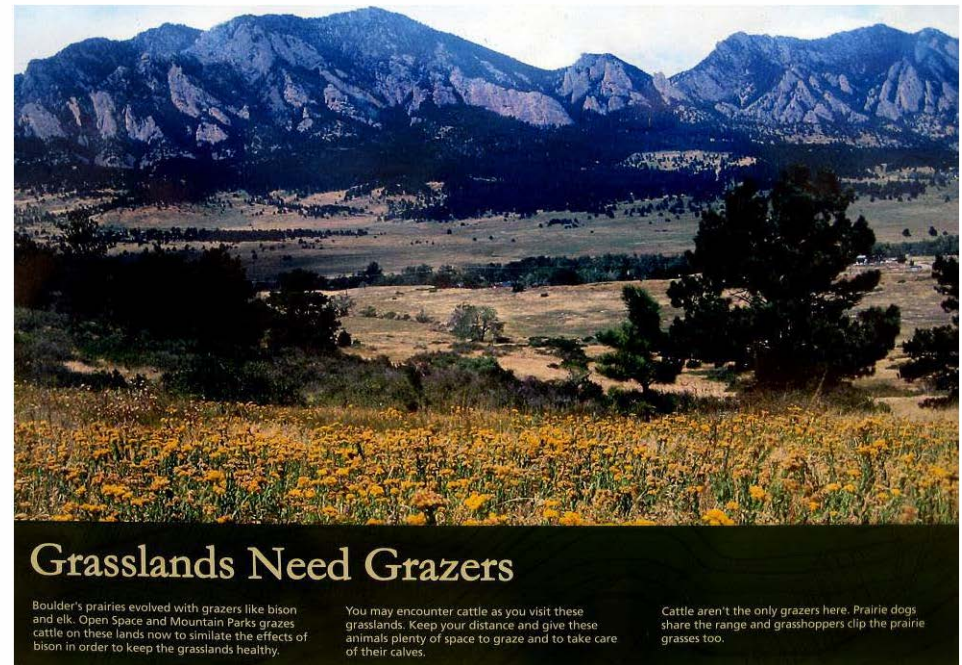
- › Peak finder sign located at the overlook.

Interpretive Topic

- › The dramatic Front Range and Indian Peaks were shaped by water; erosion from glacial melt carved the landscape.

Driving Factors/Benefits

- › The overlook has a parking lot and provides a spectacular view where people linger to look at the Indian Peaks.
- › It is a highly-visited, popular viewpoint.



Example of natural resource interpretive sign.

Habitat Conservation Area (HCA) Welcome Signs

- › Install welcome signs where trails enter an HCA. In the West TSA, there are about five highly visible locations where this type of welcoming, natural history sign would be informative to the hiker.

Interpretive Topic

- › The remarkable plants/animals that inhabit the area. Each sign will feature a different species as its topic. Sample species could include: bobcat, black bear, wild turkey, Abert's squirrel, red crossbill, Shryver's elfin butterfly, flammulated owl, peregrine or prairie falcons, Preble's meadow jumping mouse, white adder's mouth orchid, Williamson's sapsucker, paper birch.

Driving Factors/Benefits

- › Increase public awareness, understanding of HCA purpose, and compliance with the HCA's requirements.

Cultural Resource Interpretive Signs

Site specific signs will be included at all cultural resource sites regarding the protection of the resource.

The **Driving Factors/Benefits** for cultural resource interpretive signs are to promote the protection of the sites and appreciation of our heritage.

Sanitas area - Dakota Shelter

- › Interpretive sign by hut, stone arch folly and stone bench.

Interpretive Topics

- › Guests of the Boulder Sanitarium rested and exercised here while recovering from tuberculosis and other ailments.
- › Opportunity to explain pronunciation and origin of the name "Sanitas".

Flagstaff Summit

- › Interpretive sign at Flagstaff Summit near the Stone Shelter and picnic tables.

Interpretive Topics

- › Flagstaff Mountain properties were among the first citizen-led land purchases for conservation in Colorado.
- › Volunteers built the picnic shelters, amphitheatre, and trails.

Chapman Drive

- › Interpretive sign either at the gate where Chapman Drive intersects Flagstaff Road and/or the intersection of Tenderfoot Trail and Chapman Drive.

Interpretive Topics

- › The Chapman Drive construction project brought the Civilian Conservation Corps to Boulder.

Green Mountain Lodge

- › Green Mountain Lodge interpretive sign should be placed to be visible from the intersection of the three trails, the outhouse and the lodge.

Interpretive Topics

- › Civilian Conservation Corps constructs lodge for citizen use such as Boy Scout and community meetings.
- › Interpret Gregory Canyon wagon road.

Halfway House

- › Halfway House Interpretive sign on the patio.

Interpretive Topics

- › Volunteer efforts shape the land system, including the Civilian Conservation Corps and the Lion's Club construction of Halfway House.



The Halfway House

Settler's Park

- › Interpretive sign at the ruins of the old farm, to the right side of the trail head, where the picnic table currently sits.

Interpretive Topics

- › Thought to be the first camp-site of Euro-Americans in the Boulder area.

Driving Factors/Benefits

- › Location of the old farm foundations
- › Handicapped accessible location

Cultural Resource Interpretive Signs Cont.

Dunn House

- › Three interpretive signs: at the intersection of the Towhee, Homestead and Mesa Trails, at the stone wall and corral, and at the apple orchard.

Interpretive Topics

- › Site map to help locate all six South Mesa Complex sites.
- › Stone wall-story of stones used before barbed wire fencing was widely available.
- › Apple orchard—homesteader life before grocery stores.
- › Modernize the interpretive sign at the Dunn House.

Brammeier Ruins

- › Interpretive sign on the Big Bluestem Trail with a view of the ruins.

Interpretive Topics

- › A tale of tragedy and strife over water rights and the challenges of homesteading in the West.

Schoolmarm's Cabin Ruins

- › Interpretive sign on the Mesa Trail with a view of the ruins site.

Interpretive Topics

- › The story of Miss Lane, a school teacher in Denver in the 1920s and 1930s, and her mountain cabin escape.

McGilvery Cabin

- › Interpretive sign with a view of the cabin.

Interpretive Topics

- › A story of family homesteading, summer recreation and gardening.

Stockton Cabin Recommendation

- › Interpretive sign on Shadow Canyon Trail in front of Stockton Cabin.

Interpretive Topics

- › Flavorful characters come to light in the rock climbing, artist-naturalist Stockton family and their cabin which housed a piano and space for Rattlesnake fries.

Manchester Site Recommendation

- › Interpretive sign on Big Bluestem Trail with a view of the Manchester site.

Interpretive Topics

- › The story of the John Manchester family “Old Plantation,” of striving for a better life, working with ditch companies and agriculture.



The Dunn House

Trailheads

General Recommendations

- Bring trailhead infrastructure into compliance with the OSMP Classes and Standards for Trailheads, Access Points and Recreations Sites. Appendix D identifies the existing infrastructure at each trailhead along with the infrastructure needed to bring it up to standard.
- Ensure consistent and basic facilities at all trailheads based on the visitation numbers and standards.
- Replace older trailhead kiosks.
- Evaluate the possibilities of increasing access for people with disabilities where feasible.
- Replace infrastructure that is in disrepair.

The following trailheads need the infrastructure listed below to bring them up to standard. No additional work has been identified for the following trailheads.

Cost \$\$ Medium Benefit

Halfway House

- Install a kiosk.
- Install a dog station.
- Install a bike rack.

NCAR

- Install a

Realization Point

- Install a kiosk.
- Paint striping and repaint ADA parking spot.

South Mesa

- Install a kiosk.
- Replace out house.
- Replace fire danger sign.

Panorama Point

- Install a

Settler's Park

- Replace two of the existing picnic tables with ADA tables.
- Install a kiosk.

Several trailheads in the West TSA need to be looked at comprehensively and are recommended for future site plans. These site plans will help determine how to best design the areas and determine what level of infrastructure is appropriate. Detailed site plans will include drawings/descriptions of the locations of the proposed improvements. A site plan usually shows building footprints, travel ways, trails, parking, and major landscaping features. The following trailheads have been identified for future site plans:

South Boulder Creek West

Add horse trailer parking.

- Maintain OSMP storage areas and publicly accessible firewood distribution area.

Cost \$\$\$ Medium Benefit

Crown Rock and Contact Corner

- Because they are close to each other, they will be analyzed together.
- Consolidate and define the trails accessing the climbing/bouldering features. Close and restore remaining undesignated trails.
- Provide designated access to 3-of-a-Kind Wall, Candel Area, and Upper area (key destinations).

Driving Factors/Benefits

- The trails accessing the climbing/bouldering features are difficult to distinguish from the extensive undesignated trail network.
- This area receives a great deal of use and parking is limited. This results in cars parking unsafely along Flagstaff Road.

Cost \$\$\$ High Benefit

Chautauqua/Enchanted Mesa

- The site plan for this area and both trailhead is part of a process that involves the Chautauqua Association and other city departments



Pursue parking improvements to the existing Ranger Cottage parking lot (e.g. diagonal parking and one-way entrance and egress).



Pursue the bus parking/loading on east side of median (west side of Kinnickinnic)

Driving Factors/Benefits

- This area is very congested and often unsafe.

Cost \$-\$\$\$ Medium Benefit

Trailheads, cont.

Flagstaff Summit (East and West)

- The trailhead, multiple parking areas, nature center, and historic large-group facilities are included in this site plan.
- Consolidate and define trail access from parking areas to facilities and trails.

Driving Factors/Benefits

- This area is very congested and often
- There is an extensive network of undesignated trails.

Cost \$\$\$ Medium Benefit

Gregory Canyon

- Improve and better define parking along the entrance road.

Driving Factors/Benefits

- This area receives a great deal of use and parking is limited. Consequently cars park along the entrance road creating a single-lane that must be used for cars both entering and exiting the trailhead.
- During the winter the entrance becomes very icy.
- This trailhead is also congested and difficult to navigate.

Cost \$-\$\$\$ (depending on outcome of site plan) Medium Benefit

Lost Gulch/Cathedral Park

Driving Factors/Benefits

- Currently these two sites are not connected by a designated however as indicated by the presence of undesignated trails, there to be a desire to connect them.

Cost \$\$ Medium Benefit

Chapman Drive Trailhead

- Pursue opportunities to acquire property for a trailhead near the of Chapman Drive and State Highway 119.

Driving Factors/Benefits

- There is a long standing public desire to connect from State Highway to Flagstaff Road using Chapman Drive. Providing parking and facilities accompany this trail connection would enhance the visitor experience.

Cost \$\$\$ (depending on outcome of site plan) Medium Benefit

Road Crossings

Work with other agencies to provide safe access for cyclists from the south end of Boulder to the south Mesa Trailhead through improvements on Colorado Highways 93 and 170 (South Broadway and Eldorado Springs Dr)

- Continue conversations with the Colorado Department of Transportation and Boulder County Transportation Department.
- Pursue as an alternative to a north-south mountain biking opportunity on Open Space and Mountain Parks lands.

Driving Factors/Benefits

- Improvements would provide a connection with considerable mountain biking opportunities in the south part of the OSMP land system.
- A safe route associated with the transportation system could substitute for a new alignment or multi-use trail on OSMP, eliminating resource effects of new trail construction or visitor conflict associated with multi-use trails.



Pursue (provide) a safe pedestrian crossing across Highway 93, connecting South Boulder Creek Trail from east to west (near the South Boulder Creek West Trailhead).

- A variety of solutions could improve this crossing including: at-grade pedestrian crossing/stripping/warning signs, underpass, overpass, pedestrian signal lights, etc.
- OSMP will work with the city, county, and other potential partners to identify the best option for this crossing.

Driving Factors/Benefits

- There is a desire by visitors to connect South Boulder Creek Trail from east to west, requires crossing Highway 93.
- This connection appears in the Boulder Valley Comprehensive Plan trails map and the VMP as a critical road crossing.

Cost \$\$\$ Medium Benefit

Access Points

Unlike trailheads, access points do not include parking on OSMP property; rather they are places where visitors can access the system. Access points may have infrastructure such as signs, trashcans, and dog stations.

General Recommendations

- Bring access point infrastructure into compliance with OSMP standards.
- Replace older access point kiosks.
- Evaluate the possibilities of increasing access for people with disabilities where feasible.
- All trashcans will be Bear Saver trashcans.
- Install bike racks at access points.
- Ensure consistent and basic facilities at all access points based on the volume of use and established infrastructure standards.

Cost \$\$\$ Medium Benefit

Explore creating additional public parking opportunities in the Shanahan Ridge area.

The following are new designated access points:

- Linden Dr
- Juniper Ave at 4th Street
- West Sanitas at Sunshine Canyon Dr hairpin
- West Sanitas at Timber Ln
- Sunshine Loop at the west property boundary
- Red Rocks north road
- Red Rocks north trail
- Upper Flagstaff trail access
- Upper Crown Rock
- 1.5 mile marker at the hairpin turn of Flagstaff Road
- Baseline at 6th, 7th, and 8th Streets
- Table Mesa at the water tank
- Knollwood Dr
- Deer Valley Rd at Hollyberry Ln
- Greenbriar Blvd

Driving Factors/Benefits

- Several designated trails previously intersected the OSMP property boundary without a designated access point.
- Several undesignated trails were designated resulting in new intersections where a designated trail intersects the OSMP property boundary.

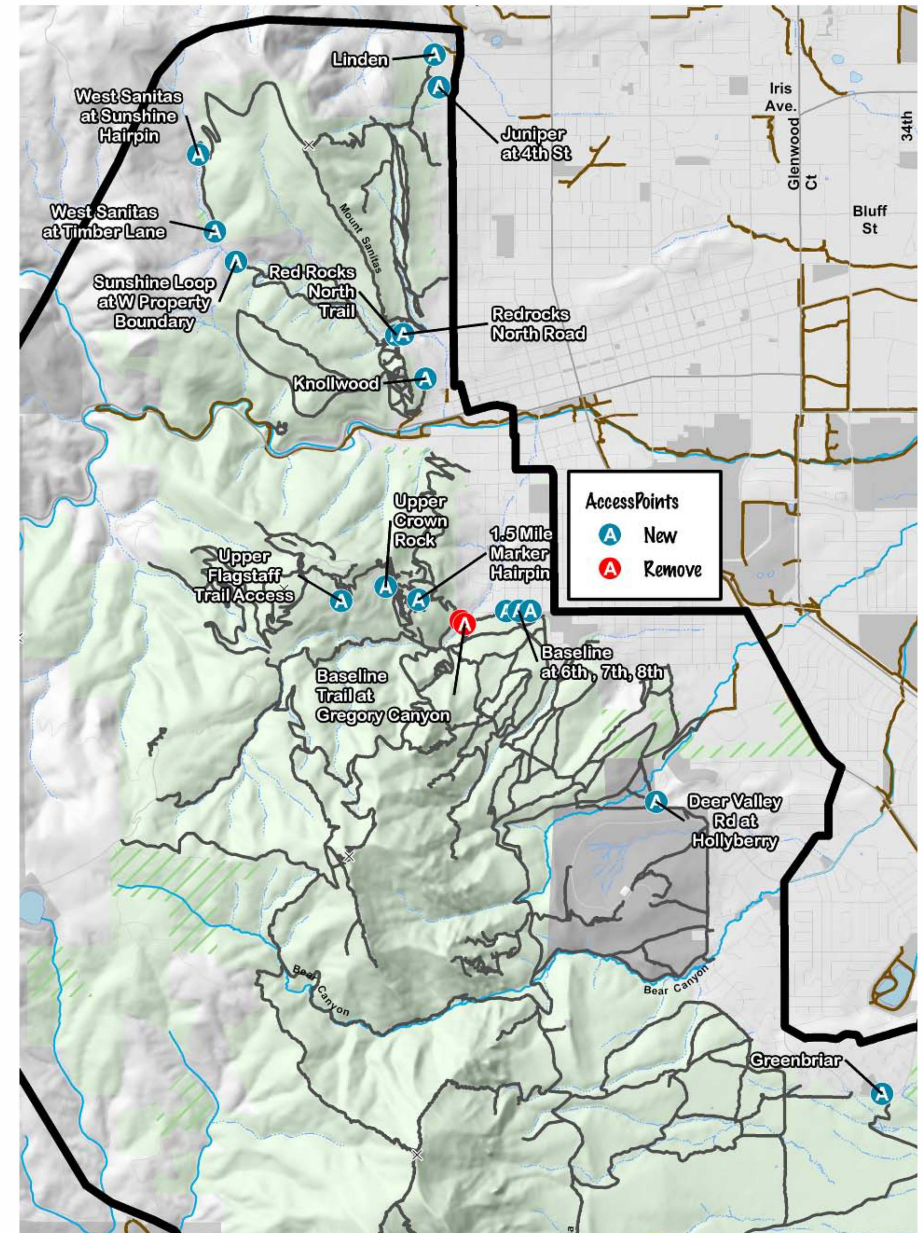
Cost \$\$ Low Benefit

The following are existing Access Points that will be closed:

- Baseline Trail at Gregory Canyon
- Flagstaff Trail at Gregory Canyon

Driving Factors/Benefits

- The Baseline and Flagstaff Trails will no longer intersect the OSMP property boundary. Due to their reroutes, both trails will start at the Gregory Canyon Trailhead.



Concentrated Use Areas/Recreational Facilities

Green Mountain Lodge

- › OSMP will explore the viability of creating opportunities for the community to enjoy the building, restoring its original purpose.
- › Install a kiosk.
- › Replace two of the existing picnic tables with ADA tables.

Driving Factors

- › Green Mountain Lodge was built by the Civilian Conservation Corps in 1935 for the citizens of Boulder community to enjoy. It has been rehabilitated and is again suitable for visitor use.

Cost \$ **Low Benefit**



Green Mountain Lodge

Bluebell Shelter

- › Replace facilities that are in disrepair and no longer functioning.

Driving Factors

- › Bluebell Shelter is enjoyed by the community but has not been maintained to meet OSMP standards.

Cost \$\$ **Low Benefit**



Bluebell Shelter

Monitoring

OSMP Monitoring and the West TSA

Monitoring is an integral component of OSMP's adaptive management framework. OSMP uses monitoring to determine whether our management strategies have been effective in achieving our objectives. Monitoring also allows the department to track the current condition of recreational, cultural, and ecological resources and the level of threats (e.g., visitor conflict, non-native species, etc.) to these resources. Additionally, repeated monitoring allows us to track *trends* in the condition of and threats to the recreational, cultural, and ecological resources on OSMP-managed lands.

The objectives for OSMP resource conservation and management are described in three resource plans approved by the Boulder City Council. In addition to setting objectives, the Visitor Master Plan (OSMP, 2005), Forest Ecosystem Management Plan (OSMP, 1999), and the Grassland Ecosystem Management Plan (OSMP, 2010) also provide standards against which OSMP may compare data collected during monitoring to determine the status or condition of the resource. For example, one measure of grassland condition is the number of native species. The Grassland Ecosystem Management Plan sets a numerical standard for the number of native species that must be present for the grassland to be in acceptable condition.

The West TSA will be managed adaptively according to the standards in the OSMP resource plans. Many of the objectives and standards in the plans noted above are applicable to resources in the West TSA and can be used to help guide monitoring and evaluation of West TSA resources.

OSMP has developed several "system-wide" monitoring projects to provide an understanding of OSMP resource condition and measure OSMP's progress toward achieving its recreation enhancement and natural/cultural resource conservation objectives. The design of many of these monitoring projects also allows OSMP to examine the status of and threats to recreational, cultural, and ecological resources in the West TSA specifically. Ongoing implementation of these system-wide monitoring projects will be used to adaptively manage the West TSA resources.

Examples of system-wide monitoring projects include:

Recreational resource monitoring projects

Visitor survey: The Visitor Survey is given to visitors leaving the OSMP-managed land system after a visit. It provides OSMP with information on visitor characteristics (e.g. visitor residency, frequency of visitation, etc.), visit characteristics (e.g. length of visit, activities engaged in during visit, etc.), and visitor evaluations of their experience (e.g. level of satisfaction with infrastructure and services, experience with other visitors, etc.). If one assumes that most visitors who exit OSMP from an access point located in the West TSA spend most of their visit in the West TSA, then data from the survey can be used to better understand the characteristics of West TSA visitors, including their trip characteristics and evaluations of their experience while visiting the West TSA. The Visitor Master Plan provides some standards against which results of the survey can be evaluated. The Visitor Survey is repeated on a five to ten year cycle.

Trail condition monitoring: OSMP surveyed the entire designated trail system on OSMP-managed lands in 2007-2008. Staff evaluated and compared physical trail conditions (e.g. trail grade, trail incision, etc.) to OSMP trail standards. Data from this monitoring project includes data on the condition of trails within the West TSA. Staff uses the results of the monitoring to prioritize and direct trail maintenance and to identify areas in need of more significant work. This monitoring project informed staff's recommendations on trail reroutes and reconstruction projects in the West TSA. Repeated monitoring will allow OSMP to assess the effectiveness of projects undertaken to maintain long-term sustainability of the trail system in the West TSA. Trail condition monitoring is scheduled to be completed on a ten-year cycle.

Undesignated trail mapping: OSMP mapped the presence and length of undesignated trails OSMP-managed lands, including the West TSA area, in 2006-2007. The Visitor Master Plan provides a standard for some areas of OSMP, primarily HCAs, against which results of the undesignated trail mapping can be evaluated. Undesignated trail mapping is scheduled to be completed on a five to ten-year cycle. Another of the primary objectives of TSA planning is the designation or closure of undesignated trails. Undesignated trail mapping is OSMP's primary tool to assess the success of undesignated trail closure efforts.

Natural resource monitoring projects

Grassland vegetation monitoring: In 2009, OSMP began a system-wide grassland vegetation monitoring project focusing on measuring plant composition (including species richness) and abundance. Several of the grassland monitoring transects lie within the West TSA and data from these transects can be used to evaluate the health of grassland vegetation within the West TSA. The Grassland Ecosystem Management Plan provides standards against which results of the monitoring can be compared. Grassland vegetation monitoring follows a two-year “on” followed by four year “rest” cycle.

Grassland bird monitoring: In 2010, OSMP began a system-wide grassland bird monitoring project focusing on measuring avian composition (including species richness) and abundance. Several of the grassland bird monitoring transects lie within the West TSA and data from these transects can be used to evaluate the health of the grassland bird community within the West TSA. The Grassland Ecosystem Management Plan provides standards against which results of the monitoring can be compared.

Rare plant inventory: OSMP maintains maps of existing rare plant populations, sub-populations and occurrences of rare plants on OSMP-managed lands. Additionally, volunteers search potential habitat for new rare plant occurrences. For grassland portions of the West TSA, the Grassland Ecosystem Management Plan provides standards against which results of the monitoring can be compared. Rare plant mapping occurrences are visited once every five years, at a minimum.

Rapid assessment of non-native vegetation (RAM): Over the past three to four years, OSMP has mapped the location, aerial size, and abundance of a small set of specific weeds. To date, OSMP has mapped most of the OSMP-managed lands, including a portion of the West TSA. Staff uses the results of this mapping to direct and prioritize Integrated Pest Management efforts. For grassland portions of the West TSA, the Grassland Ecosystem Management Plan provides standards against which results of the monitoring can be compared. RAM mapping occurs on a five to ten-year cycle.

Cultural resource monitoring projects

OSMP is developing a program to monitor cultural resources.

Informal Assessments

In addition to regularly-scheduled system-wide monitoring, OSMP also conducts inventories and informal assessments to determine if actions are having the desired result (see Sidebar).

Inventories are not connected to specific resource conservation/management goals or objectives, but rather serve to document the presence or absence of target species in specific locations or across all OSMP-managed lands. Both staff and volunteers conduct inventories on OSMP-managed lands. Examples include frog, bat, forest raptor, and cliff-nesting raptor inventories.

Informal Assessments

The management actions in the West TSA plan received considerable discussion and revision. Despite the level of effort and thought that went into the recommendations, there were some areas where community and staff members were unsure if their best recommendation was going to work. In these cases, OSMP committed to assessing the situation and recommending changes to management if necessary. Such informal assessments have the benefit of being inexpensive and relatively quick. They differ from formal monitoring because they tend to be more subjective, and rely upon profession judgment rather than time-consuming repeated measurements. The following assessments are part of the West TSA Plan:

- ▶ *West Sanitas/Wittemyer trails (watch the success of undesignated trail closure efforts)*
- ▶ *Anemone Hill (watch the success of undesignated trail closure efforts, assess to determine if dogs under voice and sight control are staying within the trail corridor)*
- ▶ *Homestead creek crossing (are people/dogs staying on the trail out of the creek?)*

All CCG members agreed to the following statement.
The Open Space and Mountain Parks department abstained.

After the Open Space Board of Trustees (OSBT), the City Council and the City Manager review the Community Collaborative Group's (CCG) West Trail Study Area Recommendations and they conclude their own public processes and decisions, the CCG respectfully asks that Council and the City Manager direct the Open Space and Mountain Parks Department to implement the results in a timely manner. Considerable time and effort were contributed by members of the CCG over the past year and a half to conclude the community participation process, and successful implementation of its recommendations will require adequate OSMP staffing and funding. Sufficient voter-supported funding sources exist to fill the many vacant OSMP positions essential for the success of the long-term management of these lands held in such high regard by the community and to implement the West Trail Study Area Plan.

Glossary

Boardwalk: An elevated, fixed-planked structure, usually built on pilings in areas of wet soil or water to provide dry crossings.

Braiding: Parallel, redundant trail tread(s) adjacent to an established trail caused by visitors avoiding the established trail and wearing in a new path(s).

Concentrated Use Area: A discrete place containing a concentration of facilities and services used to provide and support recreation opportunities. Examples include: trailheads, overlooks, amphitheater, picnic areas, access points, road crossings, large group areas.

Corridor, Trail: The full dimensions of the trail, including the area (2 to 3 feet) on either side of the tread and the space overhead (10 to 12 feet) from which brush and obstacles need to be cleared. The area of passage of the trail, including all cleared and managed parts above, below, and adjacent to the tread.

Cultural resource: a building, structure, district, site or object that is significant in our history, architecture, archaeology or culture.

Designated Trails: Trails which are signed, shown on public trail maps, and maintained.

Designed Use: Refers to the allowed use on the trail which dictates how it is designed, built and maintained. All City of Boulder Open Space and Mountain Parks trails fall into one of six designed uses: Official Vehicle, ADA accessible, Equestrian, Biking, Hiking or Climbing Access.

Drainage Structure: A water diversion structure constructed across the trail tread to remove water flowing down the trail tread or to prevent it from entering the tread.

Ecosystem: The dynamic complex of organisms and their environment contained within a specified area during a specified time. Systemic elements include interactions and feedbacks between components.

Ecotones/Ecotonal: A transitional zone between two biological communities containing the characteristics of each.

Erosion: Natural processes (water, wind, ice, or other physical processes) by which soil particles are detached from the ground surface and moved down slope, principally by the actions of running water (gully, rill, or sheet erosion). The combination of water falling on the trail, running down the trail, and

freezing and thawing, and the wear and tear from traffic create significant erosion problems on trails.

Fall Line: Steepest line across a given contour or the direction water flows down a slope (path of least resistance) under most circumstances. Constructing a trail on the fall line encourages water to run down the trail and leads to erosion.

Folly (architectural): A building or structure that has not purpose other than to be purely decorative.

Foothills: The Foothills Zone has an elevation range between 6,000-8,000 feet in the east slope of the Front Range in Colorado. Geographically defined as gradual increases in hilly areas at the base of a mountain range. They are generally larger than hills, but not as tall as nearby mountains. Also referenced as the Lower Montane Zone.

Grade: The vertical distance of ascent or descent of the trail expressed as a percentage of the horizontal distance, commonly measured as a ratio of rise to length or as a percent. For example, a trail that rises 8 vertical feet in 100 horizontal feet has an 8% grade. Grade is different than angle; angle is measured with a straight vertical as 90° and a straight horizontal as 0°. A grade of 100% would have an angle of 45°.

Grade, Average Trail (Overall Trail Grade): The average steepness of a trail over its entire length.

Grade, Sustained: The steepest acceptable grade permitted over the majority of the trail length.

Grade, Trail: The average grade over the length of a trail or long section of trail.

Habitat Connectivity: Patches of habitat across the landscape that are uninterrupted by barriers to movement.

Habitat Effectiveness: An area that meets a range of required characteristics, including environmental factors and lack of disturbance, and supports all stages of a species lifecycle.

Interpretation: The educational methods by which the history and meaning of historic sites, buildings, objects, districts and structures are explained by use of docents, leaflets, tape recordings, signs, film and other means.

Non-Native Species: Also called alien or exotic species, these species have been introduced, by various means, into areas where they were not originally found.

Riparian Areas: Areas along streams and rivers, including related vegetation communities.

Saddle: Ridge between two peaks.

Site Classification: All trailheads, access points and recreation sites on OSMP lands are classified based on visitor use levels. Each class identifies a set of required facilities, optional facilities and a maintenance schedule. For more information, please refer to the *Classes and Standards for Trailheads, Access Points and Recreation Sites* document dated 12/08.

Strategy: A systematic long-term plan to deploy a sequence of actions toward achieving one or more goals and associated set of management objectives.

Switchback: A sustainable sharp turn on a hillside (usually on a slope of more than 15%) to reverse the direction of travel and to gain elevation. The landing is the turning portion of the switchback. The approaches are the trail sections upgrade and downgrade from the landing.

Trail Infrastructure: Any managed or constructed features or components of those features on or associated with a trail. Examples include: walls, steps, bridges, water bars, culverts (this is not an exhaustive list).

Tread (Treadway): The surface portion of a trail upon which visitors travel excluding backslope, ditch, and shoulder. Common tread surfaces are native material, gravel, soil cement, asphalt, concrete, or shredded recycled tires.

Undesignated Trails: Trails created or worn into the landscape by visitors repeatedly walking off of designated trails. Sometimes, undesignated trails begin as wildlife or cattle trails that attract the interest of hikers or other visitors. They are not shown on public trail maps and are not maintained.

Visitor Survey: Exit survey of people leaving OSMP system and typically repeated every five years. The main purpose of the survey is to obtain demographic information, trip characteristics, and experience evaluations. (2004).

Appendix A:

Public Input Opportunities for the West TSA Plan

How the public made their voice heard in the West TSA

- Community Collaborative Group Process
- Open Space Board of Trustees Meetings
- Open House Meetings
- City Council Meetings
- Written, Electronic and Verbal Communication

The Community Collaborative Group Process

The Open Space and Mountain Parks (OSMP) department committed to the community having an extensive voice in the West TSA Plan. A collaborative, representative, and transparent public process was needed for the West TSA as it is the backdrop to the City of Boulder, has enormously popular trails, a long history of use, diverse natural systems, and many adjacent neighborhoods, and therefore many different and divergent community interests. To address these varied community interests, OSMP staff and the Open Space Board of Trustees recognized the benefit of using a collaborative community process to develop recommendations. The Community Collaborative Group (CCG) was selected by community peers to represent resource conservation, recreation, cultural resource and neighborhood interests and charged to develop consensus recommendations for the West TSA Plan.

The CCG met twice monthly for 14 months. Every CCG meeting was open to the public and time was set aside at the beginning of each meeting to hear public comment. CCG members met throughout the process with their constituents and received hundreds of individual comments from the community.

Dates of CCG Meetings

- January 6, 2011: Review and Finalize CCG Recommendations
- November 15, 2010: Negotiate West TSA-wide Preliminary Package of Proposals
- November 9, 2010: Negotiate West TSA-wide Preliminary Package of Proposals
- October 26, 2010: Negotiate West TSA-wide Preliminary Package of Proposals
- October 12, 2010: CCG Collaborative Proposals for the Shanahan / South Mesa
- September 28, 2010: CCG Collaborative Proposals for the Shanahan / South Mesa

- September 13, 2010: Mountain Biking (entire West TSA)
- September 1, 2010: CCG Collaborative Proposals for the Chautauqua / Flatirons
- August 16, 2010: CCG Collaborative Proposals for the Chautauqua / Flatirons
- August 4, 2010: CCG Collaborative Proposals for the Flagstaff / Western
- July 21, 2010: CCG Collaborative Proposals for the Flagstaff / Western Mountain
- July 7, 2010: CCG Collaborative Proposals for the Sanitas Anemone Red Rocks
- June 17, 2010: CCG Collaborative Proposals for the Sanitas Anemone Red Rocks
- June 2, 2010: CCG Collaborative Proposals for the Sanitas Anemone Red Rocks
- May 17, 2010: CCG Questions and Answers on CCG Refined Individual Proposals
- May 3, 2010: CCG Refined Individual Proposals
- April 13, 2010: CCG First Round Individual Proposals & Identifying which Key Destinations should be served with a Designated Trail
- March 30, 2010: Identifying how Key Destinations should be served
- March 15, 2010: Key Destinations, Desired Future Conditions
- March 3, 2010: CCG Desired Future Conditions
- February 18, 2010: CCG Desired Future Conditions
- February 3, 2010: CCG Desired Future Conditions
- January 23, 2010 Shanahan Field Trip
- January 20, 2010: Visioning and Work Planning
- January 7, 2010: Collaborative Learning, Special Topics
- December 10, 2009: Existing Conditions for Recreational Resources
- December 3, 2009: Existing Conditions for Natural and Cultural Resources
- November 10, 2009: West TSA Sideboards and Guidance from Existing Plans
- October 21, 2009: CCG Kick off and Orientation
- September 15, 2009: Community Caucus to Select CCG Representatives

OSBT Meeting Dates and Topics

- November 2, 2011 Fourmile Canyon connections from Anemone Hill
- August 17, 2011 Alternative Trail Designs for Anemone Hill area
- August 9, 2011 Study Session, Alternative Trail Designs for Anemone Hill area
- July 20, 2011 Alternatives for No-Dog Opportunities in the West TSA
- April 25, 2011 Request for Approval on horse use in the West TSA
- February 23, 2011 Request for Approval of the West TSA Plan
- February 20, 2011 Study Session / Field Trip regarding biking options in the Anemone Hill area of the West TSA
- February 10, 2011 Study Session on the Draft West Trail Study Area Plan
- February 9, 2011 Consideration of the Draft West Trail Study Area Plan
- January 19, 2011 Community Collaborative Group Final Recommendations
- December 15, 2010 Study Session on Community Collaborative Group Preliminary Recommendations
- December 9, 2010 – OSBT heard public comments on the CCG's Preliminary Recommendations.
- June 9, 2010 CCG Process Mid Course Update
- October 14, 2009 Convening of the CCG
- September 9, 2009 CCG Planning Process
- August 12, 2009 Update on West TSA Plan Process
- July 8, 2009 CCG Member Selection and Revised Sideboards
- June 24, 2009 Study Session on West TSA
- April 22, 2009 The Community Collaborative Process
- September 24, 2008 Beginning the West TSA Study Session

City Council Meeting Dates and Topics

- November 8, 2011 Anemone Hill
- October 25, 2011 Anemone Hill
- August 16, 2011 No-dog Alternatives
- May 17, 2011 Horse Access
- March 30, 2011 West TSA Plan Approval

Open House Meetings

OSMP hosted public “Open Houses” to inform the public about the West TSA process and to seek community input. The open house meetings were held on

- October, 1 2008, (Pre CCG)
- July 14, 2009, , (Pre CCG)
- September 15, 2009
- December 6, 2010

Written and Electronic Communication

OSMP received several hundred separate comments during the development of West TSA Plan from the WestTSA.org web page, e-mails, written letters, written comments submitted at open houses, and verbal statements. OSMP created a compendium of public input containing the individual comments submitted as part of the West TSA planning process.

Appendix B
West TSA Plan Recommendations Cost and Benefit
(Sorted by cost, recommendations generally listed from north to south)

Plan Recommendation	Cost	Benefit	CCG Recommendation
Reroute the East Ridge Trail	\$\$\$	High	CCG
Designate/Construct a trail in West Sanitas/Witemyer (implement area closure and monitoring)	\$\$\$	High	CCG
Designate an Anemone Loop	\$\$\$	High	CCG
Reroute the portion of Flagstaff Trail between Upper Crown Rock and the Baseline picnic area to the north of Flagstaff Road (includes Plains View Trail)	\$\$\$	High	
Reroute Ute and Range View trails	\$\$\$	Medium	
Reroute lower Ranger Trail	\$\$\$	High	CCG
Minor reroutes of upper Ranger, E.M. Greenman, and upper Green Mountain West Ridge	\$\$\$	Low	CCG
Reroute Green Mountain West Ridge	\$\$\$	Medium	CCG
Work on Gregory Canyon Trail	\$\$\$	Low	CCG
Reroute of Saddle Rock Trail	\$\$\$	High	CCG
Work on Chautauqua, Bluebell Baird, and Serpentine area trails	\$\$\$	Medium	CCG
Fix and reroute portions of the Royal Arch Trail	\$\$\$	Medium	CCG
Clean up Mallory Cave Trail (designated climbing access trails)	\$\$\$	Medium	CCG
Repair Upper Fern Canyon Trail	\$\$\$	High	CCG
Pursue pedestrian crossing across Highway 93, connecting South Boulder Creek Trail from east to west (near South Boulder Creek West Trailhead)	\$\$\$	Medium	CCG
Reroute Homestead Trail	\$\$\$	Medium	CCG
Crown Rock and Contact Corner site plan, close and restore all undesignated trails not designated, includes several key destinations	\$\$\$	High	
South Boulder Creek West site plan and improvements	\$\$\$	Medium	
Flagstaff Summit (east and west) site plan and improvements	\$\$\$	Medium	
Chapman Drive Trailhead	\$\$\$	Medium	
Chautauqua/Enchanted Mesa Site Plan and Improvements	\$-\$\$\$	Medium	CCG (partial)
Gregory Canyon site plan and improvements	\$-\$\$\$	Medium	
General access point to bring to bring up to standards	\$\$\$	Medium	
Provide trails to quarries 2,3 and 4	\$\$	Medium	CCG
Repair Mt. Sanitas Trail	\$\$	Medium	
Red Rocks trail and site improvements	\$\$	Low	CCG
Reroute lower section of Flagstaff Trail to connect into the Gregory Canyon Trailhead	\$\$	Medium	CCG

Plan Recommendation	Cost	Benefit	CCG Recommendation
Rework each section of trail that approaches and crosses Flagstaff Road	\$\$	High	
Reroute northern portion of Tenderfoot Trail, close and restore undesignated trail from overlook	\$\$	High	
Reroute Long Canyon upper section	\$\$	High	CCG
Repair Amphitheater Trail	\$\$	Medium	
Reroute Four Pines trails	\$\$	Medium	CCG
Designate trail connectors from the Hollyberry Ln access point to lower Skunk Canyon	\$\$	Medium	CCG
Reroute Skunk Canyon Trail	\$\$	Medium	CCG (partial)
Reroute the Woods Quarry Trail	\$\$	Medium	CCG
Reroute Mesa Trail at Skunk Canyon crossing	\$\$	High	CCG
Reroute Mesa Trail from Skunk Canyon crossing to intersection with Bear Canyon	\$\$	High	
Designate a nature loop on east side of NCAR Mesa	\$\$	Medium	CCG
Designate a trail connecting Wildwood Ln access point with the NCAR parking lot	\$\$	Low	
Designate Fern Meadow Trail	\$\$	Low	CCG
Designate a trail connecting the Fern Meadow trail to the Cragmoor access point	\$\$	Low	CCG
Designate Multiple Connectors in Shanahan Area (Stony Hill Dr HOA neighborhood access to the North Fork of the Shanahan, Middle Fork of the Shanahan/Hardscrabble, Cragmoor Rd access point to Middle Fork of Shanahan, Middle Fork of the Shanahan/Hardscrabble to the south Fork Shanahan)	\$\$	Low	CCG
Redesign the Fern Canyon, Shanahan, and Mesa Trail junction, provide access to Terrain Boulders and Slab	\$\$	High	
Reroute upper Big Bluestem Trail	\$\$	High	
Repair Shadow Canyon	\$\$	Low	
Designate a lower Big Bluestem Grassland Protection Area	\$\$	Medium	CCG
Repair Greenbriar Blvd/Lehigh St access points to the South Shanahan connector	\$\$	Low	CCG
Construct a trail from the Greenbriar Blvd access point to Big Bluestem trail	\$\$	Medium	CCG
Reroute South Boulder Creek Trail	\$\$	High	CCG
Reroute Towhee Trail	\$\$	Medium	CCG
Provide access to South Boulder Creek from South Mesa Trailhead	\$\$	High	
Designate a trail from Shadow Canyon south to Dinosaur Viewpoint on Dakota Ridge	\$\$	Medium	CCG
General Trailhead recommendations –bring trailhead infrastructure into compliance with standards	\$\$	Medium	
Designate new access points and bring to standards (15 sites)	\$\$	Low	
Bluebell Shelter updates	\$\$	Low	
Lost Gulch / Cathedral Park site plan and improvements	\$\$	Medium	
Designate access to Matron	\$\$	Low	CCG

Plan Recommendation	Cost	Benefit	CCG Recommendation
Designate trail from Linden to Goat Trail	\$	Medium	CCG
Designate the undesignated trail on Dakota Ridge	\$	Low	CCG
Designate access to Sanitas stone shelter	\$	Low	CCG
Clean up trails and restore historical views from Mt. Sanitas summit	\$	Low	CCG
Designate Knollwood to Settler's Park trail	\$	Low	CCG
Designate a trail on the south side of Sunshine Canyon Dr	\$	Low	CCG
Restore and maintain historic views from Sunrise Amphitheater	\$	Low	CCG
Repair May's Point	\$	Low	
Close and restore undesignated trail on ridge from Gregory to E.M. Greenman	\$	Low	CCG
Actively close and restore all undesignated trails in the HCA	\$	High	
Close and restore old logging road between Gregory and Saddle Rock	\$	Low	
Close and restore undesignated trails from 1st Flatiron to E.M. Greenman	\$	Medium	CCG
Repair Amphitheater Express	\$	Low	
Designate and reroute the Baseline Trail, the 6th Street connector and connector to Bluebell Baird.	\$	Medium	CCG
Close spur trails on upper and lower McClintock	\$	Low	CCG
Designate the undesignated trail connecting the Enchanted Mesa/Kohler spur intersection to Mesa Trail	\$	Medium	
Designate the undesignated trail between McClintock and Enchanted Mesa	\$	Medium	
Close and restore the undesignated trail connecting the McClintock/Enchanted Mesa cut-off with the Enchanted Mesa Trailhead	\$	Low	
Key destinations, retain and encourage dispersed use to Hillbilly Rock and Ridge 4	\$	Low	CCG
Designate access to Fee, Front Porch, Back Porch etc.	\$	Low	CCG
Designate a trail connecting Bear Canyon Service Road to the Wildwood connector	\$	Low	CCG
Repair Bear Canyon Trail	\$	Medium	CCG
Close and restore the undesignated trail connecting Mesa Trail with Bear Canyon Service Road	\$	Low	
Reroute South Fork Shanahan west of water tank	\$	Medium	CCG
Close and restore undesignated trails in Shanahan from non designated access points	\$	Low	
Provide designated access to the Maiden	\$	Low	
Designate (maintain) Old Mesa Trail	\$	Low	CCG
Provide public use of Green Mountain Lodge	\$	Low	

Appendix C

Existing Infrastructure and Recommended Improvements for Trailheads, Access Points, and Recreational Facilities in the West TSA.

In 2008, OSMP classified all trailheads, access points, and recreational facilities based on visitation levels. Information from the 2004-05 Visitor Survey and staff knowledge was used to estimate the visitation levels. The following table displays types of trailheads, access points, and recreational facilities. The estimated use for each category breaks down as follows: 1-10,000 visits/per year were classified as very low, 10-25,000 as low, 25-50,000 as medium, and 50-90,000 as high, and 90-110,000 as very high.

Types of Trailheads, Access Points, and Recreational Facilities			
Type	Class	Description	Estimated Use
Trailhead	TH1	Simple/Minor Developed Trailhead	Very Low Use
Trailhead	TH2	Developed/Improved Trailhead	Medium Use
Trailhead	TH3	Fully Developed Trailhead	High to Very High Use
Access Point	AP1	Access to trails	Very Low Use
Access Point	AP2	Access to trails	Medium to High Use
Access Point	AP3	Access to trails	Very High
Recreational Facility	RF1	Does not provide designated trail access. Includes picnic areas, viewpoints, and bench sites.	Low to Medium Use
Recreational Facility	RF2	Does not provide designated trail access. Includes picnic area, viewpoints, and bench sites.	High to Very High Use

Each class has associated amenities that must be present to comply with the standard OSMP inventoried all the trailheads, access points, and recreational facilities in the West TSA and identified the improvements needed to bring sites into standards. The following table lists what is currently present at the sites and what is needed.

Name	Type	Class	Existing Infrastructure	What is Needed
Halfway House	TH	T1	Trash Cans (2) Picnic Tables (9) Grills (2) Stone out house Bench Bike Rack	T1 Kiosk Dog Station Bike Rack
South Boulder Creek West	TH	T1	Out house Picnic Tables (1) Pedestrian Gate Trash Can Dog Station Bike Rack	Site Plan
Centennial	TH	T2	Outhouse Picnic Tables (3) Dog Station (2) Kiosk Trash Cans (2) Bike Rack	None
Crown Rock	TH	T2	Paved Parking Fee Station and Sign Out house Picnic Tables (3) Kiosk Trash Can (2) Bike Rack	Site Plan (includes Contact Corner)
Enchanted Mesa	TH	T2	Trash Can Picnic Tables(2) Dog Station Grill Kiosk Bike Rack Bench	Site Plan
Flagstaff Summit East	TH	T2	Directional Sign Trash Can (5) Picnic Tables (6) Benches (2) Grills (3) Bike Rack	Site Plan (One site plan will address Flagstaff Summit East and West)

Name	Type	Class	Existing Infrastructure	What is Needed
			Paved Parking Kiosk Parking Fee System Out house	
Flagstaff Summit West	TH	T2	Directional Sign Trash Can (8) Benches (4) Picnic Tables (46) Grills (8) Fire Access Gate Paved Parking Bike Rack	Site Plan (One site plan will address Flagstaff Summit East and West)
NCAR	TH	T2	Education and Outreach Board Trash Can (NCAR managed) Dog Station (NCAR managed) Bike Rack	T2 Kiosk
Realization Point	TH	T2	Picnic Tables (2) Trash Can Bike Rack Kiosk Fee Station Paved Parking	T2 Kiosk Striping Repaint ADA Parking Spot
South Mesa	TH	T2	Bike Rack Out house Picnic Tables (7) Trash Cans (4) Dog Station Fire Danger Sign Bench	T2 Kiosk Replace Out house Replace Fire Danger Sign
Lost Gulch Overlook	TH	T2	Benches (3) Picnic Tables (3) Trash Can Fee Station and Signs Semi-paved Lot Bike Rack	Site Plan (will include Cathedral Park)
Chautauqua	TH	T3	Picnic Table Bike Racks (2) Trash Cans (4)	Site Plan

Name	Type	Class	Existing Infrastructure	What is Needed
			Paved Parking Dog Stations (2) Kiosk (2) Vehicle Access Gate	
Gregory Canyon	TH	T3	Picnic Tables Trash Cans(2) Dog Station Bike Rack Out house Fee Station and Signs Vehicle Access Gate Kiosk	Site Plan
Panorama Point	TH	T3	Picnic Tables (3) Trash Cans (2) Overlook Deck Benches (3) Gee Station and Signs ADA pathway Paved Parking Wood Information Booth Grills (2) Bike Rack	T3 Kiosk
Settler's Park	TH	T3	Picnic Tables (3) Trash Cans (2) Dog Station Bike Racks (2) Kiosk	Replace 2 ADA Tables T3 Kiosk
Contact Corner	RF	R1	Trash can	Site Plan (included in same site plan as Crown Rock)
Cathedral Park	RF	R2	Trash Can Vehicle Access Gate Picnic Tables (3)	Site Plan (included in the same site plan as Lost Gulch)
Top Shop	RF	R2	Out house Vehicle Access Gate Picnic Tables (2)	None
Green Mountain Lodge	RF	R2	Kiosk Out house Trash Can	A1 Kiosk Replace 2 ADA Tables

Name	Type	Class	Existing Infrastructure	What is Needed
			Picnic Tables (5) Grills (2) Flag Pole Wood Foot Bridge Wood Foot Bridge (trail) Vehicle Access Gate	
1.5 Mile Marker Hairpin	AP	A1	None	Wayfinding/regulations sign
Deer Valley Rd at Hollyberry Ln	AP	A1	None	Wayfinding/regulations sign
Upper Crown Rock	AP	A1	None	Wayfinding/regulations sign Bike Rack
Hospital Parking Lot Access	AP	A1	None	Wayfinding/regulations sign
Upper Flagstaff Trail Access	AP	A1	None	Wayfinding/regulations sign Bike Rack
Juniper Ave at 4 th St	AP	A1	No structures	Wayfinding/regulations sign
Knollwood Dr	AP	A1	No Structures	Wayfinding/regulations sign
Table Mesa Water Tank	AP	A1	Vehicle Access	None
Red Rocks North Road	AP	A1	None	None
Wildwood Ln	AP	A1	None	None
Bear Mountain Drive at Wildwood Ln	AP	A1	Trash Can Dog Station	None
Baseline Picnic Area	AP	A1	Trash Can Picnic Table	Bike Rack
Sunshine Loop at west property boundary	AP	A1	No Structures	Wayfinding/regulations sign
Elephant Buttress	AP	A1	No Structures	Bike Rack
West Sanitas at Sunshine hairpen	AP	A1	No Structures	Wayfinding/regulations sign
West Sanitas at Timber Ln	AP	A1	No Structures	Wayfinding/regulations sign
Four Pines at 15th	AP	A1	No structures	None
Four Pines at Sierra	AP	A1	No Structures	None
Kohler Mesa Trail Road at NIST Road	AP	A1	Kiosk	Wayfinding/regulations sign
Sanitas Valley North	AP	A1	Dog Station Trash Can Kiosk Vehicle Access Gate Bench	A1 Kiosk
Shanahan Ridge at Galena Way	AP	A1	Trash Can Dog Station	None
Shanahan Ridge at Hardscrabble	AP	A1	Trash Can	Wayfinding/regulations sign

Name	Type	Class	Existing Infrastructure	What is Needed
			Dog Station Kiosk	
Table Mesa Trail at North Vassar	AP	A1	No Structures	None
Table Mesa Trail at South Vassar	AP	A1	No Structures	None
Viewpoint	AP	A1	Trash Can Kiosk Dog Station	Wayfinding/regulations sign
Viewpoint Trail at University	AP	A1	Trash Can Dog Station Kiosk	Wayfinding/regulations sign
Dakota Ridge trail at 4 th and Maxwell	AP	A1	Trash Can Dog Station	None
Long Canyon	AP	A1	Trash Can Kiosk	Wayfinding/regulations sign Bike Rack
Bluebell Road at Bogess Circle	AP	A1	Trash Can	Bike Rack – dependent on Chautauqua site plan
Dakota Ridge Trail at 3 rd and Forest	AP	A2	Trash Can Vehicle Access Gate Dog Station (2)	None
Dakota Ridge Trail at Hawthorne	AP	A2	Trash Can Vehicle Access Gate Dog Station (2)	Bike Rack
Cragmoor Rd	AP	A2	Trash Can Dog Station	None
Greenbriar Blvd	AP	A2	No Structures	Wayfinding/regulations sign Bike Rack – dependent on additional public parking opportunities in the Shanahan Ridge area
Linden Dr	AP	A2	No Structures	Wayfinding/regulations sign
Baseline & 6 th St	AP	A2	No Structures	Wayfinding/regulations sign
Baseline & 7 th St	AP	A2	No Structures	Wayfinding/regulations sign
Baseline & 8 th St	AP	A2	No Structures	Wayfinding/regulations sign
Red Rocks North Trail	AP	A2	No Structures	Wayfinding/regulations sign
Four Pines at 17th	AP	A2	Trash Can Dog Station Vehicle Access Gate Kiosk	Wayfinding/regulations sign Bike Rack

Name	Type	Class	Existing Infrastructure	What is Needed
Green Mountain West Ridge	AP	A2	No Structures	None
McClintock at Bellevue	AP	A2	No Structures	None
North Fork Shanahan at Lehigh	AP	A2	No Structures	Bike Rack
Skunk Canyon Trail at Deer Valley and Hollyberry Ln	AP	A2	Regulation Sign	Wayfinding/regulations sign
Dakota Ridge trail at 4 th and Valley View	AP	A2	Dog Station	Bike Rack
Baseline Trail at Bluebell Road	AP	A3	See Chautauqua	See Chautauqua
Mt. Sanitas Trail at Sunshine Canyon Dr	AP	A3	No Structures	None
Sanitas Valley South at Hospital	AP	A3	Vehicle Access Gate	None

Appendix D

Changes Made by City Council to the Plan

The following changes were made to the West TSA plan per City Council direction during or after adopting the West TSA Plan on March 30, 2011.

Trail Recommendations

Sanitas, Anemone, and Red Rocks Sub-area

- The trail on the South side of Sunshine Canyon was changed from a loop to an “out and back” with a connection to West Sanitas/Witemyer. (November 8, 2011)

Recreational Activity Recommendations

Dog Management

- The Tenderfoot Chapman loop no-dog designation was removed. The Tenderfoot Chapman loop voice and sight designation will remain. (March 30, 2011)
- The Saddlerock no-dog designation was removed. The Saddlerock voice and sight designation with a seasonal leash requirement August 15 to November 1 on the lower section of the trail will remain. (March 30, 2011)
- The no-dog designation on E.M. Greenman from intersection with Ranger to intersection with Saddle Rock was removed. The leash required designation will remain. (March 30, 2011)
- Boyscout Trail (year round) and Flagstaff Summit Road (winter only) were designated no- dog opportunities. They were previously voice and sight and on-leash respectively. (August 16, 2011)
- The trail on the South side of Sunshine Canyon was designated as voice and sight. In the draft plan it was designated on-leash. (November 8, 2011)

Horseback Riding (May 17, 2011)

- The “Additional Horse Trailer Parking” Recommendations were removed. This included the following recommendations:
 - “Horse trailer parking should consider times of day or day allocations as a last resort.”
 - “Consider sharing bus parking with horse trailers.”
 - “Make best effort to pursue horse trailer parking between Eben G. Fine Park and Linden Dr.”
 - “Make best effort to pursue horse trailer parking west of Realization Point.”
- The recommendation to “Make best effort and include in the multi-jurisdictional conversation the possibility of using the bus off-loading area for horse trailer off-loading and/or any other horse trailer parking possibilities at Chautauqua” was removed.

- The recommendation “Horses allowed off trail in Passive Recreation and Natural Areas, except in: West Sanitas/Witemyer area and the Towhee Drainage was removed and replaced with: “Horses allowed off trail east of the Mesa Trail”.
 - “Horses allowed off trail in the Chautauqua area east of Bluebell Baird and Gregory Canyon Road.”
 - “Horses allowed off trail in the Flagstaff area. Area defined by the HCA boundary, the Boy Scout Trail, and Flagstaff Summit Road.”
 - “Horses allowed in the Natural Area east of the Old Mesa Trail, area further defined by the Homestead Trail.”
- The recommendation “Towhee Trail will be designed for pedestrian use with horses allowed on trail” was removed and replaced with “The Towhee trail will be designed for pedestrian use and horses will not be permitted”

Mountain Biking

The following recommendations were added: (November 8, 2011)

“Look at possibilities to extend the Boulder Creek Path to provide access to Betasso Preserve consistent with the contents of the Boulder County Parks and Open Space Betasso Preserve Management Plan.”

- “Or an alternative connection to Betasso from the intersection of Boulder and Fourmile Canyon.”

Driving Factors/Benefits

- “Important to connect local OSMP lands with more distant OSMP and County Open Space lands.”
- “Increase access and safety.”

“Look broadly at connection opportunities and focus on cooperation with the United States Forest Service, the State of Colorado, Boulder County and private land owners.”

Visitor Infrastructure Recommendations

Access Points

- A recommendation to “Explore creating additional parking opportunities in the Shannahan Ridge area” was added. (March 30, 2011)