Introduction to the Management Plan

The North Cheyenne Cañon Park Master and Management Plan represents the continued commitment by the Colorado Springs Parks, Recreation and Cultural Services Department to simultaneously develop the master plan and management plan for these properties. This joint document improves the resulting plans by capitalizing on the close relationship between the two plans. In addition, this management plan benefits from the public engagement process and the input gathered as part of the Master and Management Planning process.

Key Considerations in developing the Management Plan

The management plan is grounded in the Guiding Principles (see sidebar) developed and adopted by the public participants early in the planning process. The Guiding Principles serve as our agreed-upon litmus test for evaluating alternative approaches through the planning process.

Informed by the Guiding Principles, the North Cheyenne Cañon Park Management Plan emphasizes natural and cultural resource protection and restoration, while accommodating sustainable recreational and interpretive opportunities. The conservation easement for Stratton Open Space mandates additional stewardship of the property through annual monitoring and reporting of the conservation values by the Palmer Land Trust; a copy of the conservation easement is found in Appendix I.

Ultimately, the North Cheyenne Cañon Park Master and Management Plan aims to protect the property for future generations.

Guiding Principles

The following principles were drawn from consistent responses received from stakeholder group interviews, ice cream socials, online surveys and a September 19, 2017 community workshop. They serve as guideposts as we work together to develop the North Cheyenne Cañon Park Master and Management Plan.

Stewardship

The City of Colorado Springs, Park staff, volunteers, and visitors are good stewards of the Park, ensuring that the impacts from its popularity are mitigated through sustainable practices, quality design, and enforcement.

Preservation and use

Responsible management accommodates a variety of recreational uses by all ages and abilities while preserving the Park’s history, mountain character, and environmental quality.

Ecological protection

The Park’s geological features, creeks, and other natural resources are protected through forest management, fire mitigation, and control of erosion, noxious weeds, and insect infestations.

Accessible and safe

Access to the Park’s rich natural resources and facilities is available to and convenient for all. Park roadways and parking areas meet user demand and ensure the safety of all users.

Visitor experience

Visitors are able to enjoy this unique mountain Park with a sense of solitude and appreciation for the peaceful setting. Support facilities, signage, and interpretive services enhance their Park experiences.

Trails

Park trails are sustainably designed, have adequate capacity, are well-marked, and maintained. They provide a variety of experiences and connectivity within the Park and to adjacent natural areas.

Implementation

Created in partnership with the Friends of Cheyenne Cañon and with community residents and adjacent jurisdictions, the Master and Management Plan is fully implemented as funding becomes available.
Vegetation Management

The primary objectives for native vegetation management are to protect and improve the quality and function of native plant communities and wildlife habitat. The primary focus for management consideration are noxious weed management and forest management.

Noxious Weed Management

Multiple noxious weed species and patches are present throughout the Study Area, and need to be aggressively managed and contained to prevent their continued proliferation. It is not practical or effective to attempt to control all non-native species at once, so it is important to prioritize weed management efforts based on the species present, the size and location of infestations, and legal mandates.

The Colorado Noxious Weed Act classifies noxious weeds into three lists: List A Species are designated for eradication, List B Species are targeted for weed management efforts to stop their continued spread, and List C Species should be managed by effective weed management approaches based on local government priorities. Noxious weeds listed below by classification have been found in the Study Area. Locations are shown in Appendix H. Most infestations shown are located on Stratton Open Space; a comprehensive survey for noxious weeds has not been conducted for the Study Area as part of this planning process.

(Vegetation Management continued on the next page)
Integrated Weed Management

An integrated weed management program will strategically use any combination of the following tools:

<table>
<thead>
<tr>
<th>Approach</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mechanical</td>
<td>Physical removal by mowing, mulching, tilling, prescribed burning, grazing or hand pulling</td>
</tr>
<tr>
<td>Cultural</td>
<td>Enhancement of the native plant community using fertility management or re-vegetation</td>
</tr>
<tr>
<td>Biological</td>
<td>Releasing a weed’s native natural enemies using insects, grazing animals or disease</td>
</tr>
<tr>
<td>Chemical</td>
<td>Destroying weeds using herbicides that do not adversely affect the desired plant community</td>
</tr>
</tbody>
</table>

Proactive prevention of weed establishment is the most successful and cost-effective weed management tool. Vigorous and consistent prevention reduces the opportunities for dispersal of noxious weeds which, in turn, minimizes the need for future control actions. Important principles to prevent weed establishment include the following:

- Minimize new disturbances from trails and facilities
- Actively restore and revegetate closed trails and unused disturbance sites
- Wash construction or maintenance equipment before moving from weedy areas to weed-free areas
- Monitor both new disturbances and restored areas for new weed infestations

Noxious Weed Management Priorities

Recognizing that limited resources are available to control weeds, a strategic approach to prioritizing weed management should focus on long-term prevention and reduction of weeds in the Study Area.

High priorities for weed management include:

- Eradicating myrtle spurge infestations in the Study Area; conducting outreach to neighboring landowners to prevent additional introductions by implementing a “Purge the Spurge” program.
- Targeting and controlling weed infestations within or adjacent to the riparian forest on Stratton Open Space.
- Targeting and controlling small, isolated infestations that are less established and are easier to eradicate.
- Monitoring and controlling weeds that occur along trails or other disturbed sites, including new trail construction, reclaimed trails, and forest management areas.

Lower priorities for weed management include:

- Large, well established infestations.
- Sporadic and widely-distributed weed occurrences (e.g., cheatgrass or dispersed toadflax).
- Naturalized species that are not aggressive or provide secondary wildlife habitat (e.g., Siberian elm).
- Species confined to disturbed areas.
- Species that are easier to control relative to others.

Routine monitoring of weeds is a critical component of a long-term weed management plan. Monitoring should focus on existing trails and roads, closed trails or reclaimed sites, and sensitive habitats.
Forest Management

Background

The Colorado Springs Parks, Recreation and Cultural Services Department completed the North Cheyenne Cañon Park and Stratton Open Space Forest Health Assessment and Management Plan (2004), which provides the foundation for and continues to be a useful document that guides forest management decisions within Stratton Open Space. Thus, the 2004 Forest Health Assessment and Management Plan (in its entirety) is incorporated herein by reference.

Forest management is used to address woodlands (communities dominated by trees and shrubs). However, any such management must be conducted with other community types (e.g., grasslands and riparian) and issues (e.g., noxious weeds and social trails) in mind. In North Cheyenne Cañon Park, the principal woodland communities (which have been described previously in the Vegetation section) are highlighted below with some context specific to forest management considerations on each of the open space parcels.

General Management Issues

Potential forest management issues associated with the Study Area include wildfire, forest disease, noxious weeds, as well as several others.

- **Wildfire.** The impacts of fire exclusion specific to the landscape in which the Study Area is in include a buildup of fuels and reductions in biodiversity and ecosystem health to varying degrees.

- **Insects.** Douglas-fir is susceptible to several insect disturbances including the western spruce budworm (Choristoneura occidentalis), which occurs on a cyclical basis in Douglas-fir, spruce and true fir stands. A recent outbreak has resulted in extensive defoliation.

- **Disease.** Dwarf mistletoe (Arceuthobium spp.) in ponderosa pine is present. Dwarf mistletoe is a parasitic plant that reduces the vigor of, and can eventually kill, the host plant. Dwarf mistletoes are not quick killers, so long-term management options are feasible.

- **Noxious weeds.** Noxious weeds present in or adjacent to areas that have already been or may be subject for prescriptive treatments include Russian olive in the riparian zone, cheatgrass in open areas, and myrtle spurge and Dalmatian and yellow toadflax in shrublands.

- **Other.** Additional forest management issues associated with the Study Area include aesthetics, cultural resources, adjacent land use (including defensible space), drought, highly erodible soils, and social trail development.

(Objectives continued on the next page)
Objectives

The following integrated forest management objectives are based on the anticipated (primarily recreational and water quality) values of the Study Area:

- In partnership with nearby residents, create and maintain adequate wildfire-defensible space for any structures adjacent to the Study Area.
- Mitigate the high wildfire hazards by strategically locating fuel reduction projects.
- Improve forest health by revitalizing decadent stand conditions. That is, remove those trees that have high amounts of breakage, may be prone to disease, or are already infected with disease.
- When conducting forest management activities consider views from recreation trails. Retain individual trees or stand areas in strategic locations to keep trail users on the tread and discourage rogue trail development.

Additional objectives can be drawn from the Community Wildfire Protection Plan (Colorado Springs Fire Department 2011). The stated desired conditions in adjacent areas and open spaces are:

- Manage for less than 20 percent mortality in the timber and brush.
- Reduce stand density to 50 to 150 stems per acre.
- Remove ladder fuels by pruning and thinning.
- Create separation between oak clumps by at least 2.5 times the average height of the clone canopy.
- Retain a minimum of two snags per acre for wildlife, as available.
- Thin out understory regeneration in mixed conifer stands and manage the mature pine overstory.

Management Summary

Cresta Open Space

Significant areas of woody vegetation are primarily restricted to the north side and along the riparian corridor. Management will continue to focus primarily on maintaining defensible space adjacent to residences on the north, west, and east sides. In addition, the forested riparian area can be enhanced by removing invasive woody species (i.e., primarily Russian olive).

Stratton Preserve Open Space

Part of the “Stratton Open Space North” project, Stratton Preserve Open Space was retreated in 2017 by the Colorado Springs Fire Department Wildfire Mitigation Crew.

Stratton Forest Open Space

Stratton Forest Open Space was part of the 2017 treatment area associated with and described for Stratton Open Space (Appendix H). A fuels mitigation project was also completed on the eastern-most side of Stratton Forest Open Space as part of the “Stratton Open Space North” project.
Stratton Open Space

In a continuing effort to implement the Forest Health Assessment and Management Plan, the Forestry Division of the Colorado Springs Parks, Recreation and Cultural Services Department completed additional forest management actions (i.e., “treatments”). The individual management actions were designed to interconnect previously treated areas that the Forestry Division and Fire Department completed from 2005 to 2015.

The area treated in 2017 was heavily forested with ponderosa pine (some of which are infected with dwarf mistletoe) and Douglas-fir as well as decadent stands of oak brush with limited canopy separation. The treatments included reducing the basal area in the ponderosa pine/Douglas-fir stand along the creek banks to release native riparian plants, thus facilitating regeneration.

The Forestry Division removed non-native trees, treated stumps to inhibit suckering, and masticated oak brush to create separated mosaics, encouraging healthy oak clones. Treatment strategies for forest management on Stratton Open Space include:

- Thinning stands to be relatively open leaving the appropriate amount of downed woody debris
- Restoring the ponderosa pine ecosystem with a diversity of age classes
- Cutting dead and beetle infested trees in identified pockets
- Monitoring and controlling dwarf mistletoe in ponderosa pine
- Thinning understorey regeneration and Gambel oak where appropriate
- Integrating noxious weed management with forest treatments
- Thinning and building upon natural separations in Gambel oak
- Establishing and/or maintaining approximately two large snags per acre

The series of treatments will help to protect four water storage facilities, the Cheyenne Cañon Creek watershed and an adjacent residential subdivision. The primary long-term benefits of the project are reduced risk of wildfire in Stratton Open Space and adjacent neighborhoods; protection of water supplies, quality, and infrastructure; improved forest health; as well as greater public awareness of forest restoration.

These benefits will be important to sustain through continued maintenance, primarily controlling Gambel oak sprouts. Oak brush re-sprout can be highly variable, but typically it needs to be re-treated (mowed) every 5 to 7 years. To control oak brush re-sprout in the most time-efficient manner, the City will need to obtain a compact track loader (e.g., ASV RT-120) with a forestry mulcher.

North Cheyenne Cañon Park

Sixty percent of the open space has slopes greater than 30 percent that are marginally protected by decomposing granite as a soil type. The steep terrain somewhat limits large-scale vegetation management activities and presents a unique challenge in determining the location, size, and methodology of potential fuels mitigation projects. Moreover, decomposing granite is easily moved downslope with hard rains without the protection of a closed canopy – thus, protecting the forest crown from fire also protects the highly erodible soil.

Large areas of standing dead trees in the Douglas-fir/white fir community, which makes up about 60 percent of the forest in the canyon, constantly need to be evaluated in terms of safety to trail users and other recreationist, as well as impacts on water quality. A 2017 survey of host trees in the area found that 78 percent had the western spruce budworm, an endemic defoliating moth. The larvae feed on the trees, which can leave them weak and vulnerable to bark beetles, which can go on to kill them. From 2014 to 2016, moths defoliated 100 percent of certain patches of the canyon’s forest. In response, the City contracted to have portions of the Study Area (Figure XX) treated with a biocide (i.e., Bacillus thuringiensis var. kurstaki) via helicopter in June 2017.

Aerial treatments occurred over a four-day period, caused a half-day road closure in North Cheyenne Cañon, and resulted in a complete collapse of tussock moth and then western spruce budworm from natural predation.
**Hully Gully**

As described in the Vegetation Resources section, the Douglas-fir/white-fir forest community is on steep slopes near granite outcrops on the Hully Gully parcel. There are no known issues, especially given the landlocked nature of forested area that falls under the purview of the City’s management responsibilities. From a practical standpoint, the City should work with the surrounding landowner when considering management actions on the Hully Gully parcel.

**Wildfire Risk**

While forest management treatments will reduce the potential for wildfire within the Study Area, it should not be assumed that these treatments will be sufficient in abating the effects of any wildfire. The major factor affecting the spread of a wildfire is the steep slopes that are part of the geographic and scenic features of the study area. These steep slopes, when evaluated as part of the wildfire hazard, create a negative effect that cannot be modified in any manner. Secondly, catastrophic or stand replacement wildfires are part of the ecology of the area. No matter what mitigation steps are taken, this risk will always exist and manifest itself over time.

The Study Area represents a very small fraction of the acreage on the west side of Colorado Springs that is classified as being in the “Red Zone.” Extreme fire conditions may overwhelm treated acres, barely providing a barrier to the fire spread. Considering this context, the Study Area may potentially suffer the effects of a catastrophic wildfire in spite of the best wildfire mitigation activities.

**Wildfire Threat**

The Colorado State Forest Service (CSFS) developed a Colorado Wildfire Risk Assessment Summary Reporting Tool. The tool allows users of the Professional Viewer application of the Colorado Wildfire Risk Assessment (Colorado WRA) web portal to define a specific project area and generate information for the area. Wildfire threat was reviewed for the Study Area (CSFS 2017).

Wildfire threat is the likelihood of an acre burning. Threat is derived by combining a number of landscape characteristics including surface fuels and canopy fuels, resultant fire behavior, historical fire occurrence, percentile weather derived from historical weather observations, and terrain conditions. The measure of wildfire threat used in the Colorado WRA is called Fire Threat Index (FTI). FTI combines the probability of an acre igniting (Fire Occurrence) and the expected final fire size based on rate of spread in four weather percentile categories. Wildfire threat in the Study Area ranges from low on the east side to moderate near the upper elevations of Gold Camp Road and high west of the Helen Hunt Falls Visitor Center.
**Wildfire Defensible Space**

In addition to wildfire risk and threat, other factors including slope, topography, and adjacent forested subdivisions necessitate the need for fuelbreaks on surrounding property. A fuelbreak is an easily accessible strip of land of varying width in which fuel density is reduced, thus improving fire control opportunities. The stand is thinned, and remaining trees are pruned to remove ladder fuels. Brush, heavy ground fuels, snags, and dead trees are disposed of and an open, park-like appearance is established. Fuelbreak establishment should adhere to the guidelines established by the CSFS (CSUCE 2003).

Fuelbreak work has been completed and should be maintained in conjunction with the subdivisions immediately east and north of Stratton Open Space. Specific areas that have been treated are shown in Appendix H. Fuelbreak specifications for areas are as follows:

- Minimum 300-foot width, 150 each side of access roads.
- Minimum 10-foot spacing between the edges of tree crowns.
- Removal of trees that are suppressed, diseased, damaged, or of low vigor.
- Removal of all ladder fuels.
- Removal or proper disposal of all slash.

Implementation of fuelbreak work should be planned relative to residences adjacent to the Study Area and based on zones established by the CSFS (CSUCE 2003). In general, Zone 1 is an area of maximum treatment extending a minimum of 15 feet from the outside edge of a structure; Zone 2 is an area of fuel reduction extending 75 to 125 feet from the structure; and Zone 3 is an area of traditional forest management of no particular size Appendix J. These management recommendations assume that Zone 1 will be landscaped while Zones 2 and 3 will remain in a relatively natural state. Any implementation activities for a given zone apply for all inner zones. For example, implementation activities for Zone 3 apply (at a minimum) to Zones 1 and 2.

Application of prescribed fire in the Study Area is problematic and highly unlikely. Under conditions that will support the desired treatment goals, fire behavior may prove difficult to contain. Given the overall continuity of the shrub fuels and the proximity of dense residential development in some areas, prescribed fire is not recommended; mechanical treatments will continue to be the preferred method in the brush fuels at this time. Areas for Gambel oak treatment should be selected to:

- Create defensible space adjacent to and in conjunction with residential property while providing for aesthetics.
- Create defensible space around significant cultural resources.
- Maintain oak thickets in strategic locations (e.g., along ridges and associated slopes) to inhibit social trail development.
- Treat oak brush, linking grasslands to create defensible fuel profiles.

Gambel oak and other stands will regrow over time, but maintenance of already thinned stands will be considerably less intensive of work when compared to initial thinning and removal of large amounts of dead material. Some stands may need some mowing every 5 to 7 years – something potentially accomplished in house with a compact track loader (e.g., ASV RT-120) with a forestry mulcher.

The openings in thinned Gambel oak stands should quickly become established with native grasses and forbs, but also possibly noxious weeds. Weed treatment in these areas should be anticipated. Reseeding should not be needed, as native vegetation suitable to these areas should reestablish themselves within 3 to 5 years.
Wildlife Habitat Management

Habitat Setting

As a result of over a century of human development, use, and enjoyment, the Study Area has been heavily impacted. Roads, trails, and other facilities have fragmented wildlife habitat, resulting in a patchwork of smaller habitat areas that are favored by common wildlife species. This condition is typical of a frontcountry setting, where the landscape transitions from urban neighborhoods to the east to remote forest to the west. These transitional, frontcountry habitats still play an important role in providing localized habitat and movement corridors for many wildlife species.

Habitat Condition

The Study Area contains a variety of longitudinal disturbances, including roads, designated trails, and undesignated rogue trails. While this existing system of roads and trails provides extensive recreational access opportunities, it also results in disturbance and fragmentation of wildlife habitat in the Park. This disturbance is exacerbated by the presence of humans and dogs and extends to an area of about 150 feet from roads and trails. Habitat fragmentation reduces the size, connectivity, and overall integrity of the remaining patches of wildlife habitat. Based on the long history of human use and development in the study area, few areas of habitat are currently unfragmented, leaving very little undisturbed habitat for wildlife.

The Study Area also contains several areas that have higher habitat value, due to their location, the type, condition, or diversity of vegetation or the absence human disturbance or fragmentation. These areas include:

- The West Parcel area,
- The rugged slopes of Mount Muscoco, and
- Several isolated patches of unfragmented habitat.

Both the North and South Cheyenne Creek riparian corridors are heavily degraded, and therefore do not provide a high level of habitat quality. Efforts to protect and restore these corridors may increase their value to wildlife.

Tracked or Sensitive Wildlife Habitat

Colorado Parks and Wildlife (CPW) tracks a number of species that are regionally important for wildlife management and overall conservation, including sensitive or seasonal activity areas for several species (CPW 2016). Based on CPW and local knowledge, the Study Area contains habitat attributes for several species, including the following:

- Mule deer – East portions of the Study Area, primarily Stratton and Cresta Open Space areas contain the following mapped habitat areas:
  - Overall range
  - Resident population (including adjacent urban areas)
  - Concentration areas (including adjacent urban areas)
  - Winter range (includes Stratton and adjacent neighborhoods)
  - Winter concentration areas (includes Stratton and adjacent neighborhoods)

- Black bear – Human conflict area (includes adjacent urban areas)

- Mountain lion – Human conflict area (includes adjacent urban areas)

- Wild turkey – Overall range

- Raptors – Known of potential nests for red-tailed hawk and prairie falcon
Based on the CPW information, the Study Area does not contain habitat for elk, bald eagle, or other species of concern. Likewise, this data source does not track numerous other common wildlife species.

**Habitat Management Objectives**

Recognizing the transitional setting of the Study Area, and the need to balance between outdoor recreation, environmental interpretation, and habitat conservation, this plan seeks to provide meaningful and diverse recreation opportunities while minimizing the impact of those activities. As the regional population and corresponding visitor use continues to grow, long-term habitat protection must be proactive and integrated into plans for expanded and improve visitor facilities. This plan seeks to achieve that integration in the following ways:

1. **Proactively improve visitor facilities**
   - Expanding and improving visitor facilities, including trails, roads, and parking, to focus expanding visitor uses in suitable locations, while minimizing the impacts of unplanned and unauthorized uses
   - Closing and restoring multiple parking pullouts and picnic sites that are not connected to the proposed trail system, and contribute to resource impacts

2. **Restore and protect riparian habitat areas along North and South Cheyenne Creeks**
   - Closing and restoring parking pullouts and picnic sites, along with active streambank restoration, will improve riparian habitat
   - Paving trailheads and pullouts to reduce erosion and sedimentation in the streams
   - Designating and focusing picnic sites to reduce litter along the streams

3. **Manage and improve diverse vegetation communities, to support wildlife and overall biodiversity**
   - Continuing to implement strategic and proactive weed management efforts to prevent new infestations and to protect native vegetation communities
   - Managing forests to maintain and improve forest health, maintain stand diversity, and mitigate wildfire hazard
   - Closing, monitoring, and mitigating unauthorized rogue trails to protect intact vegetation communities and wildlife habitat

4. **Expand, retrofit, and improve the trail system to provide new trails and connections while also closing and restoring unauthorized rogue trails**
   - Developing new, sustainable trails in desired locations to provide the desired visitor experiences and connections in a manner that reduces erosion, sedimentation, and new habitat disturbance
   - Closing unsustainable and undesirable rogue trails, to improve visitor circulation and reduce resource degradation, and to maintain undisturbed wildlife habitat areas
   - Continuing monitoring and management to maintain high quality experiences along designated trails while limiting the expansion of rogue trails
References


Colorado Springs Fire Department. 2011. **Community Wildfire Protection Plan**.


Cultural Resource Management and Protection

Archaeological Resource Protection

Archaeological deposits and a high number of significant stone structures are scattered throughout North Cheyenne Cañon Park. The landscape, buildings, structures, and prehistoric and historic archaeological resources are an important asset for the community and may contribute to our understanding of the natural and cultural history of the region. To the typical visitor, however, the overall scenery, long history of landscape planning, and tradition of recreation are the most significant cultural assets of the Park.

Management Guidelines

The management objective for these resources is to continue to protect the historical stone features and archaeological sites within the Park, while improving the public’s knowledge and understanding of these resources through non-consumptive interpretation. To achieve these objectives, some of the following guidelines should be considered:

- Minimize direct identification or interpretation of archaeological sites and resources. These are best protected in place by being relatively unknown to the general public.
- Evaluate trails for cultural material that may be adversely affected by existing routes and recreational traffic. Mitigate adverse effects as appropriate.
- Allow and encourage ongoing research by qualified scientists to further identify and better understand the resources, their management, and their protection.
- Monitor all known sites on a routine basis to identify resource degradation, vandalism, or new opportunities for finding additional information significant to the prehistory and history of the area.
- Consult with local historical societies to create interpretive signs at trailheads providing a narrative of the history of the area to educate the public on valuable cultural resources as well as cultural material lost or damaged by collection and looting.
- Consult with official tribal representatives with interest in the area on protection and treatment of places of traditional cultural significance and archaeological deposits, as these resources may potentially be considered sacred to federally recognized tribes.
- Formally document and research the most significant resources within the park by completing appropriate OAHP forms and securing official determinations of eligibility for listing on the NRHP.
Project Planning and Implementation

The implementation of this master plan will include many ground-disturbing projects, including trail construction and closures, road construction, bridge replacement, drainage improvements, and forest management. As these projects are planned and implemented, the following management practices should be considered to minimize impacts to cultural and archaeological resources:

▪ Avoid known cultural resources to the greatest degree possible.
▪ Employ monitoring in known or suspected areas of cultural material to ensure projects do not inadvertently damage or destroy previously unidentified features or subsurface cultural material.

It should be noted that without a state or federal nexus (e.g., funding or permitting), future projects will not legally require compliance with the Colorado State Register Act or Section 106 of the National Historic Preservation Act (as amended 1966, NHPA). Until the involvement of a state or federal nexus, all cultural resource management is considered due diligence and best practices, and the City is not obligated to complete cultural resource investigations or consultation on project effects with the Colorado State Historic Preservation Officer. Although the entirety of North Cheyenne Cañon Park is a NRHP listed historic district, the nomination does not provide any special protections for contributing features unless a state or federal agency is involved in a proposed undertaking.

Interpretive Themes and Guidelines

Although the general public is predominately aware of the historic built environment in North Cheyenne Cañon Park, most archaeological resources are relatively unknown and invisible to the general public – an attribute that affords them the greatest level of protection from vandalism and theft. However, there is a rich cultural history of the Park that could be better conveyed to the visiting public without endangering individual sites. This can be achieved through the development and installation of interpretive displays, oral history and ethnographic research, or additional field investigations.

Some of the following interpretive themes could be considered:

• **Prehistoric use of the park** – discuss the artifacts and sites that have been identified and the context in which the artifacts and sites were in use.

• **Oral history and ethnographic research** – develop narratives with tribal members to describe the history and significance of the Park from the perspective of people with ancestral and culturally significant connections to the area.

• **Community outreach** – coordinate with the Friends of Cheyenne Cañon and local residents to uncover new and interesting stories about early recreation in the area.

• **Compile new documentation** – update the North Cheyenne Cañon Park Historic District NRHP nomination with additional information from recently conducted research and cultural resource surveys that have occurred since the Park was nominated in 2009. Another option would be to coordinate with local advocates and researchers to draft a Cultural Landscape Inventory.
References

Photo by Mathaker
Trail System Sustainability and Management

Sustainability may be simply defined as “meeting the needs of the present without compromising the ability of future generations to meet their own needs.” A more explicit definition of sustainability is “a condition of existence which enables the present generation of humans and other species to enjoy social wellbeing, a vibrant economy, and a healthy environment, and to experience fulfillment, beauty and joy, without compromising the ability of future generations of humans and other species to enjoy the same.”1

Land stewards and managers want to be careful that efforts do not have unintended consequences on the very things those efforts aim to protect. The following list of considerations is intended for use by the Parks, Recreation and Cultural Services Department and user group representatives to guide long-term and short-term sustainable trail system management decisions.

1 Arizona Policy Choices, "Sustainability For Arizona, The Issue of Our Age" (Morrison Institute for Public Policy, 2007)

**Recommended considerations leading to sustainable trail system decisions**

- Follow the Guiding Principles that serve as the foundation of this Management Plan.
- Prioritize closures, reroutes and trail stabilization on system and rogue trails crossing high value habitat areas mapped as part of this Master Plan. Close all trails not in the approved trail system.
- Consider the benefits of trail work dispersed throughout the property versus annual focus on one defined area.
- Pursue construction of new trails or trail re-routes only when the associated intentional trail closure manpower and resource commitment is in place and closure/restoration work is scheduled. This will avoid extensive resource disruption and the construction of new trails (resource disruption) without the associated resource restoration.
- Comply with the procedures identified during the "Relationship Building Process" in early 2012 for establishing shared goals between the City and user group representatives.
- Consider trail closures during times trail conditions exist when visitor use causes damage and widening such as when trails are muddy from snowmelt or rain.
- Utilize fencing to establish and maintain some closures. Locate long sections that extend from natural barrier to natural barrier (stone, topography or dense vegetation). Fencing may be used to block access that is: unsafe (along gullies); unlawful (private property); along well-established rogue trails; in open areas with little topography; and to protect natural and cultural resources.
Non-System Trail Closure

The North Cheyenne Cañon Park trail system is designed with consideration for and balance of many factors, including physical resources, natural and cultural resources, management and social influences and the public input during this master planning process. The development and acceptance of non-system rogue trails undermine this process.

All trails not in the approved trail system are rogue trails and should be managed according to the guidelines for intentional trail closure techniques found in Section VI: Design Guidelines.

Successful trail closure and the resulting resource protection require the commitment of resources, knowledge and manpower.

Fencing

Successful implementation of this plan will require the installation of fencing in some locations to manage users, minimize future rogue trails, and protect restored and revegetated areas. Fencing must extend fully between two site obstacles such as a large rock outcrop or dense vegetation. Several general fencing types are recommended for different situations.

Post and Rail Fence

Post and rail wood fencing should be used in locations where a visually attractive barrier is necessary to keep people on designated trails and delineate the limit of appropriate access. For example, this type of fencing may be suitable where the boundary between developed land uses and natural settings is encountered. They are semi-permanent installations that require vehicle and equipment access and suitable soils for setting posts in the ground. They should be designed and constructed from materials that are consistent with the overall aesthetic of the park. Split rail fencing has not proven to be successful in Colorado Springs' open spaces and parks.

Buck-and-Rail Fence

Buck-and-rail fences are rustic, free-standing A-frame fences that are constructed out of rough-hewn logs or lumber, and are appropriate for establishing a barrier to restrict access to closed trails or areas. They can be easily constructed on-site and do not need to be set in the ground, and are therefore appropriate for locations that cross solid rock. Because they do not require excavation and post hole digging, buck-and-rail fence can be installed farther from roads and vehicle access with adequate volunteer labor. While they are rustic in character, buck-and-rail fences are visible from a distance and should be planned and used with consideration of their visual impact on the landscape. Buck and rail type fencing creates a formidable obstacle that is difficult to climb over and is easy for volunteers to install as it does not require fence postholes.

(Fencing continued on the next page)
Woven Wire Fence

Installation of woven wire agricultural fencing is an inexpensive, utilitarian approach to closing and restricting access to specific trails or areas. The benefits are that wire fences are relatively simple to install, materials are easily transported to the site, and they are not visible from a distance. Woven wire fences are not passable by small ground travelling wildlife and are less visually attractive than other fencing options, so they should be used sparingly and for short distances.

High tensile wire fencing

High tensile wire fencing is similar to traditional barbed wire fencing, without the barbs, and can be useful in locations where a continuous barrier is necessary to prevent encroachment or protect resources. The benefits are that wire fences are relatively simple to install, materials are easily transported to the site, and they are not visible from a distance. This style also allows easy passage of wildlife (as long as the top wire is less than 42 inches from the ground).

Helen Hunt Falls fencing

The Helen Hunt Falls metal fencing is unique for use in low soil conditions with surface bedrock. Because of the high purchase and installation expense compared to other fencing options. Multiple fencing styles should not be used in the same area. Where this occurs in the Park the non-matching fence should be removed and replaced with the matching metal fence or a stone wall reflecting the historic stone structures around the Falls.

Catastrophic and Unpredictable Events

Certain events can occur that may change the need or appropriateness of a particular trail. Fire, flood and heavy rainfall can dramatically change the landscape’s ability to support a sustainable trail. In addition, unpredictable events, such as the return of a nesting raptor or other protected wildlife, could alter the long-term access to or construction of trails in the affected area. Any catastrophic or unpredictable event requires Park staff to determine the actions that best protect the Park’s natural resources and, if appropriate, provide safe and environmentally responsible recreational opportunities.
Implementation Priorities

This Master Plan provides a blueprint for the long-term form and function of high quality and integrated park facilities, circulation, interpretive program and trails system for North Cheyenne Cañon Park. Implementation of this plan will require thoughtful, strategic consideration of individual components to make the most efficient use of existing financial and human resources. This plan preserves flexibility for the Parks, Recreation and Cultural Services Department to take advantage of funding and partnering opportunities as they arise.

As the Master and Management Plan is implemented, land stewards and managers must be careful that efforts do not have unintended consequences on the very things those efforts aim to protect. The following list of considerations is intended for use by the Parks, Recreation and Cultural Services Department and user groups’ representatives to guide long-term and short-term implementation priority decisions.

**Guiding Principles**

**Stewardship**
The City of Colorado Springs, Park staff, volunteers, and visitors are good stewards of the Park, ensuring that the impacts from its popularity are mitigated through sustainable practices, quality design, and enforcement.

**Preservation and use**
Responsible management accommodates a variety of recreational uses by all ages and abilities while preserving the Park’s history, mountain character, and environmental quality.

**Ecological protection**
The Park’s geological features, creeks, and other natural resources are protected through forest management, fire mitigation, and control of erosion, noxious weeds, and insect infestations.

**Accessible and safe**
Access to the Park’s rich natural resources and facilities is available to and convenient for all. Park roadways and parking areas meet user demand and ensure the safety of all users.

**Visitor experience**
Visitors are able to enjoy this unique mountain Park with a sense of solitude and appreciation for the peaceful setting. Support facilities, signage, and interpretive services enhance their Park experiences.

**Trails**
Park trails are sustainably designed, have adequate capacity, are well-marked, and maintained. They provide a variety of experiences and connectivity within the Park and to adjacent natural areas.

**Implementation**
Created in partnership with the Friends of Cheyenne Cañon and with community residents and adjacent jurisdictions, the Master and Management Plan is fully implemented as funding becomes available.

**Recommended considerations for determining implementation priorities**

- Follow the Guiding Principles that serve as the foundation of this Master and Management Plan.
- Consider prioritizing work that protects natural or cultural resource areas.
- Remain flexible with annual and long-term priorities in order to optimize resource and partnering opportunities that may arise.
- Consider the benefits of work dispersed throughout the property versus an annual focus on one defined area.
- Pursue construction of new facilities, trails, and programs only when the associated manpower and resource commitment is in place for resource protection, further study (as needed) and associated restoration.
- Consider recommendations from the conservation easements’ annual Stratton Open Space monitoring report by the Palmer Land Trust for implementation priority.
- Comply with the Colorado Springs Parks, Recreation and Cultural Services Department’s procedures for establishing shared annual priorities between the City, Friends of Cheyenne Cañon and user group representatives. Consider expanding this to longer-term implementation priorities.
North Cheyenne Cañon Park Implementation Priorities for 2018-2020

In order to initiate Master Plan implementation starting in 2018, the following high priority projects are identified. High priority projects are those that can be successfully completed in a few years, can be implemented with existing and anticipated resources, can provide immediate benefits to North Cheyenne Cañon Park visitors, and/or address an immediate resource concern. The projects are "paired" so that a new or restored facilities or trails are opened in conjunction with closure of corresponding facilities or unsustainable alignments. The Parks, Recreation and Cultural Services staff will ultimately determine the projects to implement with consideration of funding opportunities, partnering opportunities and available staff resources.

High Priority Projects

- **After-hours closures and Gold Camp Road**
  
  **Planning Coordination:** Initiate night closure gate locations and functionality with the USFS and first responders. The gate’s mechanism and functionality need to be assessed for after-hour emergency access, vandal-resistance, and Canyonwood resident access, as well as overnight parking procedures for USFS camping access. Determining the funding and management procedures for gate closure each evening and reopening each morning is part of this coordination. Once the approach is approved by first responders Canyonwood and Upper Gold Camp Road residents should be informed, and their needs for hours and access taken into consideration. During planning discussion with the USFS, the option for the USFS to transfer the Gold Camp Road right-of-way to the City should be fully considered. The transfer may allow better management by the City and closure at both Park boundaries.
  
  **Install the night closure gates:** Install the night closure gates and monitor successes and challenges. Adjust the management procedures as appropriate.

- **Natural Resource Protection and Restoration:**
  
  **Planning Coordination:** Initiate funding solicitation for park-wide natural resource protection and restoration. Consider starting with high-profile locations that offer opportunities to nurture a stewardship ethic with park visitors and the community-at-large about their role in protecting North Cheyenne Cañon Park natural resources. High-profile projects also “create a good story,” promote the Park Department’s mission, provide partnership funding opportunities for existing and new park partners and may include options for volunteers.
  
  **Initial Projects:** High profile restoration projects include projects encompassing the west summit of Mt. Cutler, all or part of South Canon, the reroute of Silver Cascade Falls Trail, restoration of upper Buffalo Canyon, creek bank resiliency at the Bruin Inn Picnic Area and creek bank resiliency when other work is close to the Creek throughout the Park.
  
  **Regulatory Protections:** Develop an enforceable policy or promulgate a rule outlining specific measures to protect natural and cultural resources. The enforcement methods and consequences for non-compliant behavior should be developed simultaneously. The rule/policy may include: trail closure in muddy conditions; disturbance of cultural and historical sites, area closure during high fire danger, closure during raptor breeding periods and others.

- **Legal Agreements:**
  
  Initiate all revocable permits for access. Pursue annexation of Park property currently in El Paso County. Pursue transfer of Gold Camp Road from the USFS to the City.
- **Partnerships:**
  Continue to work with partners to supplement park funding. Pursue additional partnerships to fund Master Plan implementation and supplement funding for long-term maintenance. Partnership opportunities may be readily available for Cresta Open Space, Willard Heights, and the Starsmore and Helen Hunt Visitor Centers and adjacent interpretive areas.

- **Rock and Ice Climbing Sub-Area Plan:**
  Engage community climbing representatives to develop a *Rock and Ice Climbing Sub-Area Plan* that details climbing specific site planning and management in the Park.

- **Management Toolbox for Park Roadways, Parking and Circulation:**
  Implement the Management Toolbox to best address park natural resource, park staff and park visitor needs. The eight management tools are employable at the discretion of Parks Staff to address traffic and parking concerns and their associated natural resource impacts and visitor experience impacts.

- **Helen Hunt Falls Interpretive and Upper Cañon Area:**
  **Planning Coordination:** Develop a plan to accommodate possible future roadway and parking reconfigurations and restroom redesign along with the trail and restoration projects. Expand the Powell Trailhead. Complete Conceptual site planning, historic compliance. Complete on-site trail design. Engage Staff and Friends of Cheyenne Cañon (suggested). Complete Migratory Bird Survey (time of year dependent).

  **New Buffalo Canyon Loop Trail:** Provide an alternate trail loop connecting the ridgeline between the falls into Buffalo Canyon, the Bruin Inn Picnic Area (pedestrian bridge needed) and back to the Visitors center (incorporate stepping stone crossing at base of Helen Hunt Falls). Provide a spur connection to the east end of the parking (consider replacing the existing pedestrian bridge and restoring the stone staircase)

  **Restore and protect upper Buffalo Canyon:** - Initiate extensive trail obliteration, re-vegetation, and multiple layers of wire fencing from Silver Cascade Falls to Gold Camp Road. This area needs to be cleaned up, restored, and aggressively protected or it will continue to deteriorate over time.

  **Restore stonework at Helen Hunt Falls:** Restore deteriorating stonework at Helen Hunt Falls. Replace existing wood timber fencing and retaining wall segments with stone walls to match historic structures and “Helen Hunt Falls” metal fencing between the Visitors Center and the ridgetop connection with the Buffalo Canyon Loop Trail.

  **Reroute Silver Cascade Falls Trail:** Reroute, reinforce and install steps to create sustainable trail, reduce erosion and protect tree roots. Wood and timber structures above the ridgetop connection with the Buffalo Canyon Loop Trail to the Silver Cascade Falls are appropriate. Improve scenic overlooks.

  **Mitigate resource impacts at Bruin Inn Picnic Area:** Establish a picnic area prototype by completing resource protection. Pave and stripe parking. Install rock slabs to allow creek access with stream bank resiliency.

  **New Powell Trailhead and Columbine Trail:** Provide trail connecting Powell Trailhead connecting to Columbine Trail and then to the Bruin Inn Picnic Area. Aggressively close the Columbine trail stub extending west from the crossing. Close, restore, protect and remove signage at the prior west end of Columbine.

  **Expand pave and stripe the Powell Trailhead.** Install trailhead park visitor support facilities.

  **Reroute Tunnel 3 bypass Trail:** Reroute bypass trail out of creek. Accommodate hikers, cyclist and motorized vehicles under 50” wide. Include non-motorized connection to St Mary’s Falls Trail. Coordinate reroute with USFS.

  **Restore rogue trails, widened trails and disturbed areas:** - Aggressively close and restore numerous rogue trails emanating from the existing trail corridors. Restore all disturbed areas.
- **Creekside Trail:**
  **Planning Coordination:** Incorporate creek bank resiliency, restoration, and erosion control solutions with the conceptual design. Utilize the survey information generated by the Public Works Bridge Restoration Project. Strategize trail construction options from Middle Columbine to the Bruin Inn Picnic Area to be prepared for coordination in narrow sections of the Cañon. Complete Migratory Bird Survey (time of year dependent).
  **New Trail connecting Starsmore and Helen Hunt Visitor Centers:** - Provide a unique intimate experience along the creek corridor. Connecting the trail through will minimize off-trail wanderings. Identify locations for visitor access to the creek and install rock slabs to allow creek access with stream bank resiliency.
  **Coordinate with Public Works Bridge Restoration Project:** The Public Works bridge restoration project offers opportunities to coordinate and integrate the Creekside Trail with the structural work. Explore potential to cantilever the trail from the bridge structures or provide a multi-use lane on the bridge deck to accommodate the trail.
  **Restore rogue trails, widened trails and disturbed areas:** - Aggressively close and restore numerous rogue trails emanating from the existing trail corridor. Restore all disturbed areas.

- **The Chutes Pullout:**
  **Planning Coordination** Develop a plan for the design, construction, signage management, and maintenance of downhill-oriented challenging mountain bike trail with a reroute at the top of The Chutes and extending The Chutes to the Ridgeway Trailhead where designated in the Master Plan. It is suggested that the plan include partnerships/support from biking community. Complete on-site trail design. Engage user group (suggested). Complete Migratory Bird Survey (time of year dependent).
  **New Downhill Trail:** Build downhill-oriented sustainable challenging mountain bike trail with a new route segment at the top of The Chutes, utilizing most of the existing Chutes alignment and extending it to the Ridgeway Trailhead. Provide distinct connection at the pullout.
  **Reroute Ladders and Gold Camp Path:** Reroute to sustainable alignments with distinct connection points at the pullout.
  **New Signage and Trail Portals:** Create a clear well communicated paved striped parking pullout with clear well-communicated trail portals for the three trail options. Sign all trail crossings along the downhill corridor. Monitor successes and safety concerns. Adjust the signage, design and management procedures as appropriate.
  **Expand Ridgeway Trailhead:** Expand the paved and striped parking capacity at the Ridgeway Trailhead. Restore rogue trails, widened trails and disturbed areas: - Aggressively close and restore numerous rogue trails emanating from the existing trail corridors and the abandoned unsustainable segments. Restore all disturbed areas.

### Medium-High Priority Projects

- **Existing trail restoration, minor reroutes and closures**
  Continue ongoing assessment of existing trails and complete trail restoration, minor reroutes and closures within park’s staff capacity and funding.

- **System-wide Signage Standards**
  Initiate a system-wide signage system for Colorado Springs Parks that includes signage needed for all regional parks as well as, the specific signage needs for North Cheyenne Cañon Park including single-use and single-directional trails, Natural Preservation Areas, and traffic and parking control signage.
*Interpretive Master Plan for the Visitor Centers*

Initiate the interpretive master plan for the Park including Starsmore Nature and Visitors Center and the Helen Hunt Falls Visitors Center.

*Forest management*

Implement forest management to best address Park’s resource needs within park’s staff capacity and funding. Detailed forest management priorities set by staff are located in Appendix J.

*Daniel’s Pass and West Parcel*

**Planning Coordination:** Develop a plan to accommodate trailhead with parking with a safe visible road crossing along with connections trails. Integrate historic walls within the trailhead design and restoration and reroutes of Tenney Falls, Daniel’s Pass and Mt. Muscoco trails. Plan for West Parcel trail loop and restoration of rogue trail alignments. Complete Conceptual site planning, historic compliance. Complete on-site trail design. Complete Migratory Bird Survey (time of year dependent).

**New Daniel’ Pass Trailhead:** Build the Daniel’s Pass Trailhead. Install trailhead park visitor support facilities.

**Tenney Falls Trail:** Provide a trail connecting the trailhead to the existing Tenney Falls Trail. Close and revegetate the Tenney Falls Trail downhill of the connection point. Renovate and provide drainage structures along the Tenney Falls Trail uphill to its connection with the Columbine Trail.

**Daniel’ Pass Trail:** Reroute to create sustainable trail, reduce erosion and protect tree roots. Integrate boulder field to the east in the upper third of the trail. Provide a bridge the Creek crossing.

**Trail connections to Bruin Inn Picnic Area and Mt. Muscoco:** Provide a trail connection and bridge to the west to the Bruin Inn Picnic Area. Provide a trail connection to the east to the base of the vertical climb on the Mt. Muscoco Trail.

**Reroute Mt. Muscoco Trail:** Reroute the vertical portion of the utilizing property on the West Parcel. Reinstall unique wayfinding arrow signs on new alignment.

**New Upper and Lower Twilight Trails on the West Parcel:** Provide trail loop with connection to Gold Camp Road. Integrate sustainable portions of the rogue trail. Initiate extensive trail obliteration, re-vegetation, and fencing on rogue downhill routes emanating from Gold Camp Road. This area needs to be cleaned up, restored, and aggressively protected or it will continue to deteriorate over time.

**Restore rogue trails, widened trails and disturbed areas:** Aggressively close and restore numerous rogue trails emanating from the existing trail corridors. Restore all disturbed areas.

*Willard Heights Downhill Trail and the Corley Road Bypass Trail*

**Planning Coordination** Develop a plan for the design, construction, signage management, and maintenance of two downhill-oriented challenging mountain bike trails from Captain Jack’s Trail to Gold Camp Road at The Chutes where designated in the Master Plan. Plan for the contour trail, Corley Road Bypass Trail, from The Chutes Pullout to Columbine Trail spur east of the USFS property line. It is suggested that the plan include partnerships/buy-in from biking community. Complete on-site trail design and historic compliance. Engage user group (suggested). Complete Migratory Bird Survey (time of year dependent).

**Willard Heights (Captain Morgan’s) Downhill Trail:** Build downhill-oriented very challenging sustainable mountain bike trail with two new routes from the Captain Jack’s Trail to the Chutes Pullout. Utilize sustainable features from the existing rogue alignments. Provide level or uphill trail to slow riders and allow stopping prior to crossing Gold Camp Road.

**Reroute Penrose Trail:** Reroute to create sustainable trail, reduce erosion and protect tree roots. Provide clear distinction of non-motorized use at the junction with Captain Jack’s Trail.

**New Corley Road Bypass Trail:** Provide a trail contouring above Gold Camp Road from near the bottom of Willard Heights (Captain Morgan’s) to the Columbine Trail at the existing trail spur connection (east of where Gold Camp Road crosses into Pike National Forest). Provide spur trail connection to the Penrose Trail...
and crossing over the top of Tunnel #2 and connecting to Spring Creek Trail. Ensure visibility where the trail crosses Captain Jack’s Trail. Ensure visibility, signage and clear connectivity at The Chutes Pullout.

**Restore rogue trails, widened trails and disturbed areas:** - Aggressively close and restore numerous rogue trails emanating from the existing trail corridors. Restore all disturbed areas.

- **Chamberlain Trail Reroute and Trailhead in South Cañon**
  
  **Planning Coordination:** Develop a plan to accommodate possible future South Cañon roadway and parking reconfigurations and trail realignment with the trail and restoration projects. Build Chamberlain Trailhead. Complete Conceptual site planning, historic compliance. Complete on-site trail design. Engage Staff, Friends of Cheyenne Cañon and Pine Grove neighborhood (suggested). Complete Migratory Bird Survey (time of year dependent).
  
  **Reroute Chamberlain Trail:** Reroute to create sustainable trail, along the side slope of the mesa to remove regional trail from trails directly surrounding the Starsmore Center.
  
  **New Chamberlain Trail Trailhead:** Build the Chamberlain Trail Trailhead connecting to the expanded South Cañon Picnic Parking. Install trailhead park visitor support facilities.
  
  **Restore rogue trails, widened trails and disturbed areas:** - Aggressively close and restore rogue trails emanating from the existing trail corridors. Restore all disturbed areas.

**Medium Priority Projects**

- Interpretive Overlook on east summit of Mt. Cutler
- Cresta Open Space trails and youth/tot pump track
- Corley Road Bypass Trail
- Group Picnic Areas
- Interpretive signage
- Unmapped rogue trail closure
- Further historic and archeological study
- Additional Recommendations within the Master and Management Plan
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