

# SKYLINE NATURAL AREA MANAGEMENT PLAN



November 30, 2020

**CITY OF LOVELAND OPEN LANDS & TRAILS**



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We would like to thank the many citizens, staff, and partners who provided extensive input for the development of the Skyline Natural Area Management Plan.

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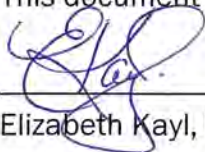
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MANAGEMENT PLAN  
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# SKYLINE NATURAL AREA MANAGEMENT PLAN

## 1. INTRODUCTION

### 1.1 Purpose and Objectives of the Plan

The purpose of the Skyline Natural Area Management Plan is to establish an inventory and framework for the protection, management, restoration and enhancement of the site's natural, cultural, visual, and recreational resources. The Management Plan also provides specific recommendations for wildlife/habitat protection and restoration, cultural/historic resources preservation, visitor use management, and educational/interpretive opportunities. Management recommendations are presented in conjunction with proposed actions to provide a framework for plan implementation. These actions will be executed as funding and organizational capacity allow.

The objectives of the Skyline Natural Area Management Plan are fourfold, and include:

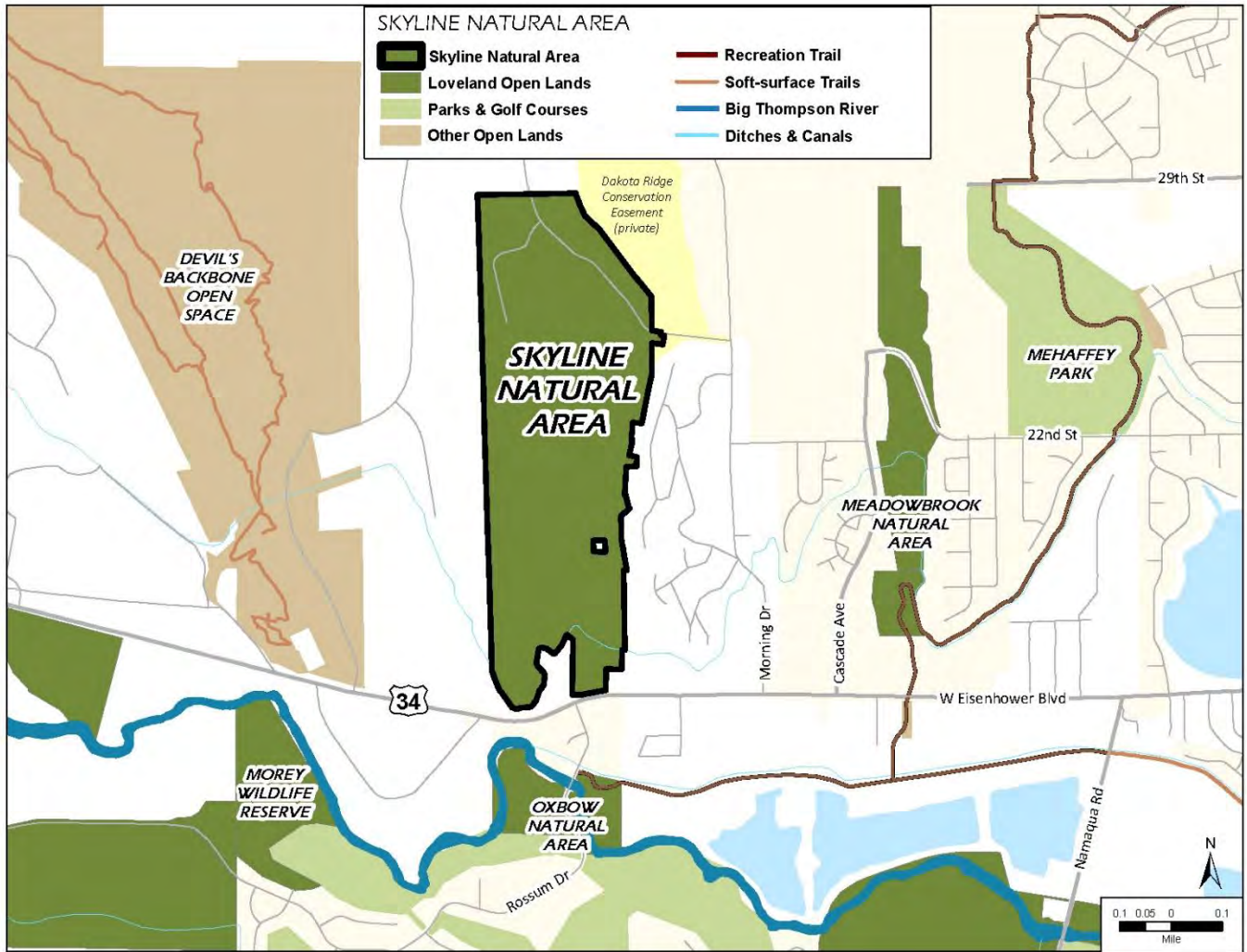
- Protect, maintain, and enhance healthy ecosystems and their natural processes.
- Specify management actions that will successfully meet Skyline Natural Area's site management plan objectives.
- Offer diverse, enjoyable, safe, and environmentally sustainable recreational opportunities that encourage visitors to experience the natural, cultural and visual resources of Skyline Natural Area.
- Provide opportunities for environmental education and interpretation.

### 1.2 Land Use History

The City of Loveland acquired the parcels comprising the 169-acre Skyline Natural Area in 2015, 2016 and 2020. The previous owners of the majority of the property (154+/- acres), Fred and Eunice Wenninger, purchased the land in the 1970s. Prior to the 1970s, the site was used for grazing and was not developed, with the exception of possible seasonal camps for livestock management or private use.

The Wenninger property was approved and platted for a Larimer County Rural Land Use Plan (RLUP), Hitching Post Ridge RLUP, in 2008. The proposed rural development consisted of six residential parcels and residual conserved land, but was never developed for housing.

FIGURE 1: Location Map



### **1.3 Scope and Organization of the Plan**

The Skyline Natural Area Management Plan is structured to initially describe the existing conditions of the site in order to establish a better understanding of the opportunities and constraints of Skyline Natural Area. The existing conditions surveyed include: natural, visual and cultural resources, existing improvements, and mineral/water rights.

After describing the existing conditions at the natural area, the Management Plan will cover the topics of natural resource management, visitor management and education, cultural resource management, and management plan implementation. Finally, it provides appendices consisting of species lists, Open Space Management Plan type descriptions, and public feedback comments.

The scope of this plan is limited to management of lands currently comprising Skyline Natural Area, potential additional acquisitions to Skyline, and possible future trail connections to adjacent protected lands and trail systems.

### **1.4 Public and Agency Involvement**

#### Public Outreach and Involvement

The public was invited to share their thoughts about the management and potential public access to Skyline Natural Area through several venues. In May 2019, the City of Loveland began a public outreach campaign specifically for the Skyline trail and trailhead project. The City's Open Lands Advisory Commission was consulted to solicit feedback and ensure support prior to taking concepts to the public. A public meeting and online forum were designed to obtain feedback on proposed management plan options at Skyline. In total, nearly 100 community members provided feedback during the public meeting and via online responses. The public input process asked attendees and respondents to indicate whether they would use the proposed trail network and in what capacity, as well as to share their thoughts and preferences regarding proposed trail alternatives. A summary of public comments shared with the department are included for reference in Appendix C.

A public meeting was held on May 6, 2019 at Group Publishing Inc. headquarters in west Loveland. The purpose of the open house-style meeting was for the public to review site information and draft concept plans and provide input and ideas on the development of the site for passive recreation uses. The meeting was announced to the public through a press release, communicated via postcard invitations to neighbors, advertised through local media outlets, shared through city social media accounts, and posted on the City of Loveland website. Stakeholder groups also promoted the meeting to members through email lists. Approximately 50 members of the public attended the meeting including neighbors, open space users, project partners, and other stakeholders.

Exhibit boards presented at the open house meeting were posted on the City's website following the meeting, to solicit additional comments from members of the public. The exhibit boards were available online and feedback was accepted for 30 days and were considered in the development of the draft management plan.

The draft plan was made available online for comment from October 27 to November 13, 2020 and comments were incorporated into the final plan.

A soft-surface trail system has been envisioned for Skyline Natural Area since its initial acquisition in 2015, with a general trail alignment following existing two-track ranch roads and single-track paths. Proposed development plans presented for public input included approximately 2.25 miles of natural-surface trails, a new bridge crossing the Loudon Ditch, a gravel parking lot, vault restroom facility, potential neighborhood trail connections, and interpretive sign program. The multi-use trail system would accommodate a variety of passive recreation uses, such as hiking, wildlife viewing, trail running and mountain biking. Three options for various combinations of multi-use, bicycle and pedestrian trail usage were presented for feedback. Proposed Skyline trails would also connect east to Loveland's 22-mile Recreation Trail, a 10-foot wide concrete path that encircles the city to provide users with safe, non-motorized transportation options to schools, libraries, parks, neighborhoods, a recreation center, and the Big Thompson River Corridor.

Public feedback from the open house and online forum indicated a significant amount of support for trail development at Skyline. Key findings from the survey include:

- Respondents generally supported trails at Skyline to provide more local options for a variety of passive recreation uses.
- Separation of uses (pedestrian, bicycle) was favored by some respondents to reduce trail conflicts and keep trails sustainable.
- Most respondents agreed with the concept of trail connections to nearby neighborhoods, other paved and soft-surface trails, and regional trail networks to provide non-motorized, off-street access to Skyline.
- Respondents were mixed about allowing dogs at Skyline. Those in favor agreed with additional restrictions such as requiring leashes, picking up after dogs, and possible seasonal or trial periods for dog use.
- Most respondents preferred operating hours of dawn to dusk for Skyline, vs. normal Loveland Open Lands operating hours of 6 am-10:30 pm, noting that reduced hours would reduce impacts to nearby neighborhoods and benefit wildlife use of the site.
- Some respondents had concerns about trespassers on adjacent private property and were in favor of fencing, signage and enforcement of rules.
- Many respondents supported protection of the site's resources, including wildlife, vegetation, geologic features, and cultural resources.

Demand for recreational opportunities has continued to rise in northern Colorado along with population growth. Due to its proximity to urban areas and access to the foothills, Skyline Natural Area has the potential to provide unique opportunities and connections for non-motorized recreation in the region. Skyline is at the western edge of Loveland's growth area, with numerous residential developments planned within city limits to the east. Master planning processes have repeatedly demonstrated

Loveland's desire for more access to soft-surface trails and outdoor recreation. The 2014 Loveland Parks and Recreation Master Plan ranked trails and paths as the greatest recreational need in Loveland. The 2015 Larimer County Open Lands Plan identified a desire among county residents to develop a system of regional trails to connect communities to each other and with open spaces and other public lands (Larimer County 2015, 23). The 2013 Colorado Statewide Comprehensive Outdoor Recreation Plan identified "complete a regional trail system" as the third most significant investment need in the state (CPW 2013).

#### Agency Involvement

Several local land agencies have provided input and assistance in the development of draft plans for Skyline Natural Area. The City of Loveland owns and manages the property. The proposed trail concept at Skyline was developed with the help of trail designers, wildlife biologists, trail construction/maintenance staff, and other stakeholder groups. Resource specialists from other organizations were also consulted during the planning process, and include Colorado Parks & Wildlife, the Colorado Natural Heritage Program, and CSU's Center for Mountain and Plains Archaeology. Between 2015 and 2019, agency staff and resource specialists toured the site on multiple occasions to inventory resources, assess existing conditions and determine the most sustainable trail design from a maintenance, constructability and resource conservation perspective.

#### Advisory Board

The City of Loveland Open Lands Advisory Commission has been involved throughout the Skyline Natural Area planning process and reviewed the management plan. Members of the commission were invited to visit the site on several occasions to tour the property and consider potential development improvements. The advisory commission is considered a stakeholder and input is taken into consideration in this plan.



## 2. EXISTING CONDITIONS

### 2.1 Overview

Skyline Natural Area is generally located north of the intersection of W. Eisenhower Blvd. (US Hwy 34) and Rossum Drive in Loveland, Colorado. The site is geographically located in Section 8, Township 5 North, Range 69 West of the 6<sup>th</sup> Principal Meridian, in Larimer County, Colorado. The site consists of a total land area of 169.196+/- acres.

Skyline lies on the east side of the Front Range where the foothills of the Rocky Mountains meet the Great Plains, and contributes to a network of over 6,000 acres of public land along the foothills conserved by Loveland, Fort Collins and Larimer County. The site is located on a north-south trending ridge, with local topographic highs near the center of the site, gently sloping east-facing terrain to the east, and moderate to steep slopes to the west along the west side. The property is in a natural condition consisting of short-grass prairie grasslands and hogbacks containing mountain mahogany shrublands. Small swales and gullies provide wetland and riparian resources along several drainages, offering a sheltered wildlife movement corridor and habitat for small mammals that supply a prey base for raptors, coyotes, foxes, bobcats, and other predators (see Figure 2 – Existing Conditions).

Several notable natural features are located within the Skyline property. The hogbacks that form the central ridge of the property are part of Natural Area Site 74 – Namaqua Ridge Hogbacks, identified in the City's 2008 Natural Areas Sites report. This habitat is valuable for wildlife due to its connection to the larger Namaqua Ridge system and its shrub-dominated community which provides important foraging, denning/nesting, cover, and hunting habitat for a variety of mammals, raptors, songbirds, and reptiles.

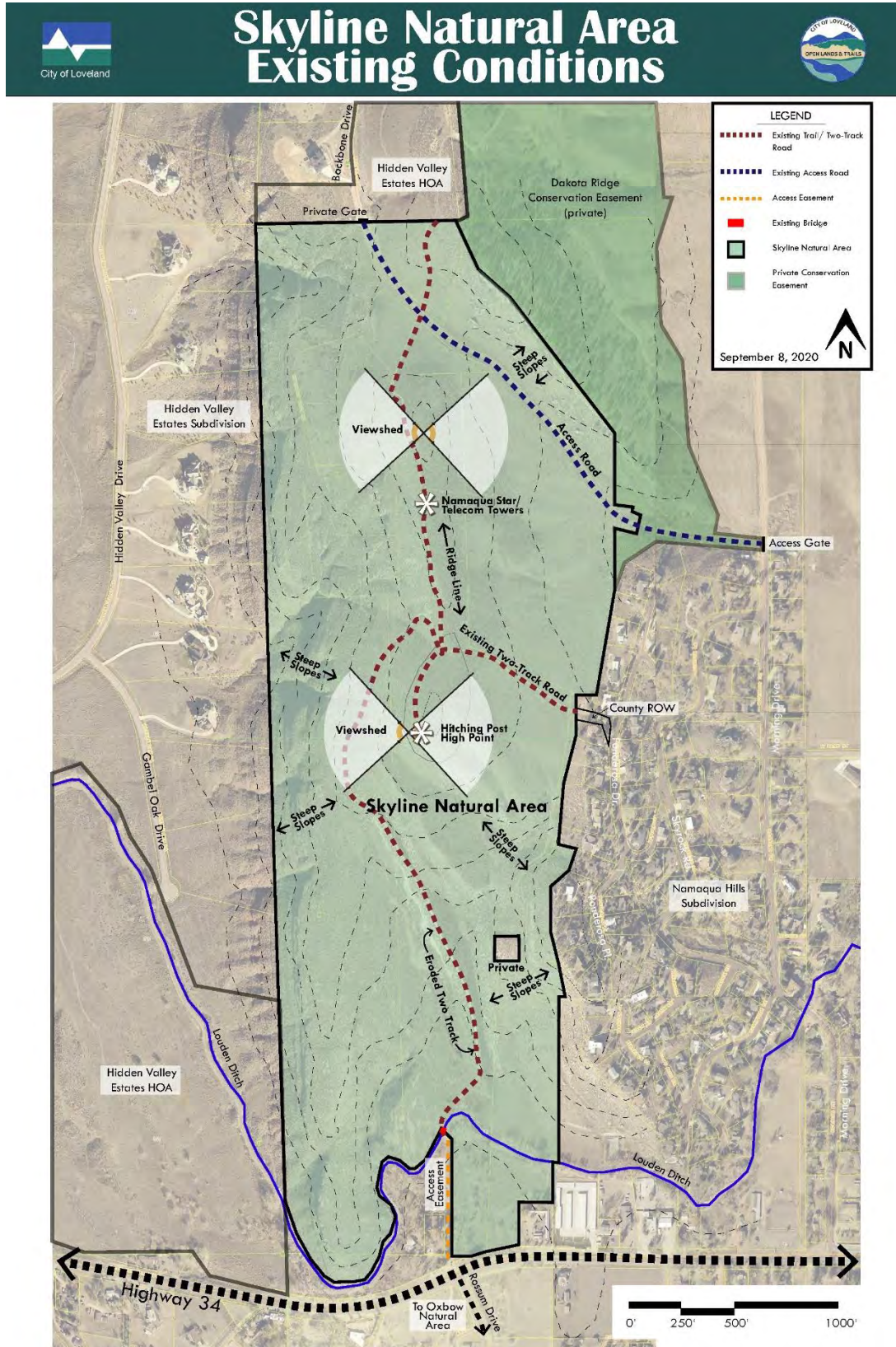
The site is located in a rural area of Loveland. The property is bordered to the north by the privately-owned Dakota Ridge Conservation Easement; to the west by private property consisting primarily of 3-acre residential parcels and residual conserved lands as part of the Hidden Valley RLUP; to the east by the Namaqua Hills Subdivision; and to the south by several residences located on the south side of the Loudon Ditch. The property has access from the south from US Hwy 34 and from the north via Crown Drive, which continues across the north end of the property as an unmaintained gravel road and permits emergency access to and from Hidden Valley.

### 2.2 Natural Resources

#### Climate

Skyline Natural Area is located along the eastern slope of the Rocky Mountains and has highly variable weather. The climate is categorized as semi-arid with a strong seasonal variation in temperature, abundant sunshine and relatively low precipitation.

FIGURE 2: Existing Conditions



High temperatures average between 81-85°F between June and August and low temperatures average 21-23°F between November and March. Winters are generally cold but are characterized by significant temperature swings. High temperatures in the 50s are not uncommon in the winter months.

Average annual precipitation is 15-16 inches, with the greatest amount occurring in April and May. Average annual snowfall is approximately 41 inches, but as a result of wind redistribution and topographic patterns, the snow depth can vary throughout the site. Prevailing winds move west-east across the property.

### Topography/Geology/Soils

Skyline Natural Area mostly contains hilly and steep ridgelines and slopes with a small area of low relief (3-9% slope) in the wetlands area at the south end of the property. Hilly ridges and fans run north to south along the eastern property edge where it borders the Namaqua Hills residential area. The central region contains rocky outcrops, ridges, and hogbacks while the western periphery consists of a steep rock outcrop that gives way to the gentle rolling hills of the Hidden Valley subdivision below. The northeastern corner of this area borders the Dakota Hogback that can be traced from Wyoming to New Mexico. The high point of the property is 5,417' on the centrally located Namaqua Hill summit. The low point is at 5,085' in a wetland area located at the far south end of the property.

The USGS geologic map indicates that the site is underlain by the Lykins Formation and the Sundance and Jelm Formations, including fine sandy loams, bouldery clay loam, stony sandy loam, cobbly loam, and unweathered bedrock. Skyline Natural Area contains 7 soil and soil complex types, as shown in Figure 3. The soil associations listed in the Soils Survey of Larimer County Area, Colorado by the USDA-NRCS, include the following (USDA-NRCS 1980):

#### *12 – Baller Rock outcrop complex (15-45% slopes)*

This complex consists of strongly sloping to steep soils on ridges and hogbacks. It is found in the south central portion of Skyline situated in between the Purner-Rock complex to the west and Haplustolls complexes on the east. Runoff is rapid and the risk of erosion is severe. This complex is suited to native grasses.

#### *25 – Connerton-Barnum complex (3-9% slopes)*

These gentle slopes consist of well drained sandy to sandy-loam soils and are located in the far southwest and southeast corners of Skyline where runoff is low and water storage capacity is high.

#### *44 - Haplustolls, Hilly ((9-50% slopes)*

These strongly sloping to steep soils contain a significant mix of cobbly and stony surface layers. It is found in Skyline along the north and northeastern periphery. Runoff is rapid, and the risk of water erosion is moderate to severe. This soil is appropriate for native grasses.

**FIGURE 3: Soil Map**



#### 45 – Haplustolls-Rock outcrop complex, steep (9-50% slopes)

This complex consists of a mixture of both the Rocky outcrops of 9-25% slopes and the Steep Rock outcrops of 20-50% slopes. The gentler 9-25% steep Rocky outcrops complex consists of well-drained, cobbly to stony colluvium parent material with a boulder clay loam at the surface, becoming more stony and clay at greater depths. The more steep Rocky outcrops of 20-50% slopes consists of unweathered bedrock with very high runoff and low water storage ability.

#### 58 – Kirtley-Purner complex (5-20% slopes)

This soil complex is found only in a small section at the southeast end of Skyline and consists of a clay loam and loam soil in the lower (5-9%) slopes to a fine sandy loam soil at the steeper (9-20%) slopes. These soils are well-drained with a high runoff which increases its erodibility.

#### 86 – Purner-Rock outcrop complex (10-50% slopes)

This soil complex runs north to south along the western edge of Skyline along the eastern edge of the Haplustolls-Rock outcrop complex. The soils are fine sandy loam with very high runoff capability.

#### 93 - Rock outcrop (25-90% slopes)

A very small strip of this unweathered bedrock exists in the south central area of Skyline.

### Hydrology

Several swales and gullies drain the property from the north-south ridgeline, carrying water ephemerally during the year. The large drainage in the southern portion of the property is fed by several small gullies draining the hills surrounding the valley, creating a small wetland just north of Hwy 34. Periods of intense precipitation occasionally create water features running through drainages and over steep rocky faces on the west side of the site.

### Vegetation Resources

Skyline Natural Area is dominated by a globally rare plant community that occurs along the front range of Colorado: mountain mahogany/needle and thread shrubland (*Cercoarpus montanus* / *Hesperostipa comata*). Mountain mahogany is extremely valuable for winter browse (Stubbendiek et al. 1986) and provides important cover for all wildlife, especially wintering deer.

Mountain mahogany is a colonizer of poor soils because it forms root nodules for nitrogen-fixing bacteria. This is unusual. Nitrogen in the air flows into biological systems through bacteria, which convert more nitrogen than they need and plant roots pick up the leftovers and animals eat the plants. Some plants provide nodules for nitrogen-converting (nitrogen-fixing) bacteria, giving them a protected place to live and access to carbon and micronutrients from the plant. Most of the plants that have nitrogen-fixing bacteria in root nodules are the legumes, pea family, Fabaceae. But this relationship is found in a few other plant species, including the mountain

mahoganies. Consequently, mountain mahoganies can grow on nitrogen poor soils where other plants cannot (Keeler 2020).

Needle and thread grass is widespread throughout the West and can be important to livestock and wildlife, especially early in the spring. Needle and thread is moderately palatable to wildlife. Throughout the West, needle and thread is moderately important spring forage for mule deer, but use declines considerably as more preferred forages become available in summer (Dietz and Nagy 1976).

Botanical surveys were conducted on May 25, June 27, and July 28, 2016 by Colorado Natural Heritage Program botanists and field technicians, as well as City of Loveland staff. A total of 89 plant species were observed during these surveys of the natural area, although it should be noted this does not represent a complete inventory of the area and it is thought that further survey would find more than 100 plant species. Of the 89 identified plant species, 66 were native and 23 were non-native species. See Appendix A for a list of plant species observed during botanical surveys at Skyline Natural Area.

### *Rare Plants*

Bell's Twinpod (*Physaria belli*) is endemic to Colorado and is only known to occur in Boulder and Larimer counties. The plant is considered to be state and globally threatened, and was included in the USGS 2015 State Wildlife Action plan species of greatest conservation concern list for Colorado (CNHP 2017). Bell's twinpod occurs throughout Skyline, growing in the red sandstone of the Lykins Formation, as well as shales and limestones of the Niobrara Formation. During the 2016 CNHP botanical surveys, Skyline contained an estimated 300 individuals and their occurrence was ranked as B/C (on a scale from A to D) for good or fair estimated viability using the CNHP Element Occurrence (EO) ranking system. (CNHP 2016)



*Bell's Twinpod (Physaria belli). Photo courtesy Pam Smith*

Four plants of the Jeweled Blazingstar (*Mentzelia speciosa*), another rare species, were found to occur in Skyline Natural Area during botanical surveys. Due to the low number of this species and surrounding development, this occurrence received a D rank (A to D scale), indicating poor estimated viability. Jeweled Blazingstar has been documented in central Colorado and along the Front Range and is ranked as vulnerable to extinction throughout its global and state range. (CNHP 2016)

#### *Endangered and Threatened Plants*

The site was surveyed for threatened and endangered species and none were observed. Consultation with Colorado Parks and Wildlife revealed this project would have negligible impacts on any threatened or endangered plant species located in the area.

#### *Rare Plant Communities*

The Mountain Mahogany/Needle and Thread (*Cercocarpus montanus/Hesperostipa comatai*) Shrubland is found on the northern Front Range foothills from Douglas to Larimer counties on topographic features such as hogbacks, ridges, mesas, canyon, and slopes from 5,700 to 7,440 feet on the Front Range. This community is dominant in Skyline Natural Area and is currently ranked as good to fair condition by CNHP. The community is an isolated spread of 49 acres within the Skyline Natural Area and is not contiguous with another similar plant community.

#### *Exotic Plants and Noxious Weeds*

The Colorado Noxious Weed Act, passed in 1991 and amended in 1996, mandates the control of noxious weeds by local governments. One List A, three List B and four List C Colorado noxious weed species have been observed in Skyline Natural Area. Myrtle spurge (*Euphorbia myrsinites*) is the List A species present in the natural area, which requires eradication in Colorado. Large patches of Myrtle spurge were found along the east side of Skyline and appeared to have been unsuccessfully sprayed with herbicide for removal. It is recommended these plants be manually removed before fruiting rather than applying additional herbicide. Canada thistle (*Cirsium arvense*), Russian olive (*Elaeagnus angustifolia*), and leafy spurge (*Euphorbia esula*) are List B species identified in Skyline, which are required to be managed to contain the spread of infestations. Cheatgrass (*Bromus tectorum*), chicory (*Cichorium intybus*), Field bindweed (*Convolvulus arvensis*), and Common mullein (*Verbascum thapsus*) are List C species identified in the natural area, which are required to be managed where deemed appropriate. CNHP also recommended the non-native cereal rye (*Secale cereale*) patches in the southwest corner of the property will continue to spread if more ground disturbance, such as trail building, occurs within these patches. The Loveland Open Lands & Trails Division engages in active noxious weed control on all sites that it manages, typically including the use of herbicides, mowing, and manual removal.

## Wildlife

Skyline Natural Area habitat supports a wide variety of wildlife. The natural drainages in the area provide important wildlife habitat and movement corridors (Loveland 2001). The property contains a large portion of a mule deer winter concentration area, according to Colorado Parks and Wildlife (CPW 2017). Ridges, hogbacks, and prairies also provide important raptor habitat for foraging and potential nesting.

Listed below and included in Appendix A are species that have been observed either directly and/or with sign and additional species likely to be encountered in this area.



### *Birds*

To date, 80 bird species have been documented in Skyline Natural Area and adjacent lands from Annual Audubon Bird Counts (2015-2018), a Master's Thesis study (May-June 2014 and May-June 2013), and other on-site surveys (2016-2019).

### *Mammals*

The dominant plant community, Mountain mahogany, provides year-round browse and cover for Mule Deer, which typically use the lower flats for nighttime bedding then move to the higher slopes for daytime forage and cover. The mountain mahogany slopes also provide winter browse and cover for Elk that migrate down from nearby higher elevation slopes.

Observations and/or sign of other mammals include coyotes, red fox, bobcat, mountain lion, black bear, striped skunk, cottontail rabbit, raccoon, and Mexican woodrat. Other mammals likely to occur in this area, but not yet observed include Prairie and Meadow voles, Hispid Pocket, rock, and deer mice, black-tailed prairie dog, golden-mantled ground and rock squirrels, Least and Uinta chipmunks and White-tailed Deer.

### *Reptiles and Amphibians*

Bull (gopher) snakes and Prairie Rattlesnakes occur in this area. Other possible species include Western tiger salamander, Woodhouse's toad, Boreal chorus frog, short-horned lizard, prairie lizard, plains garter snake, North American racer, and six-lined racerunner lizard.

### *Invertebrates*

Mountain mahogany is the host plant of at least 19 species of native moths and butterflies (Keeler 2020).



## Environmental Site Assessment

A Phase I Environmental Site Assessment (ESA) was conducted by the City of Loveland prior to the acquisition of the property in 2015. The ESA found an absence of significant environmental concerns at the property (City of Loveland Risk Management Division, 2015). Interviews, site inspections, and records research performed during the ESA indicate there have been no significant contamination of soils or storage of hazardous materials on the site. There have been no environmental liens, violations, or lawsuits pertaining to hazardous materials, petroleum products, or environmental regulations involving the site (ibid). Historically, there has been normal agricultural use of pesticides and herbicides at the property (ibid). None of the adjoining properties have been used for industrial uses or other land uses likely to emit significant pollutants, and no NPL or RCRA sites exist in near proximity to the site (ibid).

### **2.3 Visual Resources**

The area surrounding Skyline Natural Area is conserved as part of a 6,000-acre effort to preserve the foothills through protected open space, and as such offers a wide assortment of scenic views of relatively undeveloped land. Skyline preserves nearly one mile of the scenic Front Range Mountain backdrop, including the prominent Namaqua Ridge and setting for the seasonally lit Namaqua Star. From its elevated ridgeline, Skyline Natural Area provides expansive views of the distant eastern plains of Colorado, rocky Dakota Ridge to the north, Mariana Butte to the south, and dramatic views of Devil's Backbone and the Rocky Mountains to the west.

In addition to conserving viewsheds, preservation of these scenic values will enrich the experience of recreational trail users on this and other nearby public lands.

### **2.4 Cultural Resources**

A Cultural Resource Survey was performed by faculty and graduate students from the CSU Center for Mountain and Plains Archaeology in 2017. The purpose of the pedestrian survey was to locate and assess cultural resources within the area of the proposed trail system. The crews noted ten new sites/isolates and attempted to revisit three previously known sites. A summary of the report is provided below (LaBelle et al. 2017).

#### Brief Site History

The hogbacks along the Big Thompson River are well known for an abundance of prehistoric archaeological materials, as sites have been noted in the area since at least the 1930s. Edison Lohr, a former Loveland resident and Lindenmeier crew member, made notable collections along the Big Thompson River and in Larimer County, eventually sharing his notes and collections with Dr. Joe Ben Wheat of the University of Colorado. In addition, both Colorado State University and the University of Northern Colorado have conducted research in the general area of the Devil's Backbone, including excavation of the Valley View and Echo Cave sites to the west.

Limited archaeological work had been conducted on the Skyline Natural Area property prior to this survey. Lauri Travis (CSU) and Dr. Elizabeth Ann Morris (CSU) recorded a number of prehistoric Native American sites on and around the property in the 1970s and 1980s. These were described in Travis' MA thesis from Colorado State University and later published in the journal *Plains Anthropologist*. Five prehistoric finds were known in the general open space area. Three of these were thought to be located on the Skyline property itself and attempts were made to revisit these sites during the project. None of the sites could be relocated, possibly due to poor ground visibility.

A 1988 archeological survey of a 2.5-mile stretch of the Dakota Ridge Hogback, including Skyline Natural Area, presented evidence of human activity dating as far back as the early archaic period (10,000 to 8,000 years ago). Evidence of early human habitation in the Dakota Ridge hogback area includes a Paleo-Indian point, chipped stone tools, numerous primitive camp sites, a number of rock shelters, hearths, and remains of aboriginal structures that may have been used as eagle traps. 80% of sites were found on east-facing sites along the Dakota Ridge hogback. Travis states that "This area has an unusually high density of sites, perhaps because it does not experience the extremes in weather found in the mountains to the west or the high plains to the east... these sites would be warmed by the morning sun...views would have been advantageous when watching for game or approaching people."

Ten cultural resources (or potential resources) were noted during the CSU reconnaissance survey of Skyline in March 2017. The sites include shelters along the escarpment near the northern property boundary and debris scatter sites throughout the property. None of the shelters are located near the proposed trails, and therefore will not be affected by the trail construction. However, several sites are within 30 m of the trail centerline and should be avoided if possible. This survey was of reconnaissance nature and aimed at examining potential trail corridors. Additional inventory and documentation of identified sites should be undertaken to ensure appropriate management of these resources.

## **2.5 Existing Improvements**

The site is undeveloped, but is crossed by two-track roads and several single-track pathways. A group of communication towers and the Namaqua Star are centrally located along the top of the ridgeline. As the property has not been opened to public access, recreational improvements have not yet been developed at Skyline.

### Roads

Improvements for past agricultural uses of the property consist primarily of two-track ranch roads for access. A gravel road enters the property from the east (Crown Drive) and continues across the north end of the property to provide emergency access to and from the west. From Crown Drive, a two-track road leads south to the ridgeline of Skyline for utility access to the communication towers and Namaqua Star. An additional two-track utility access road leads west up to the ridge from Ponderosa Drive in the Namaqua Hills subdivision.

### Ditches

The Louden Ditch runs along the south boundary of the property.

### Power Lines

Power lines run east-west along Hwy 34 near the south boundary of Skyline. Power lines also run east-west along the north boundary for approximately 700 feet along Crown Drive from the intersection with Morning Drive.

### Fencing

Barbed wire fencing was used in the past for livestock management and for delineation of property boundaries. Much of the fencing is dilapidated and is no longer used for land management purposes.

## **2.6 Water and Mineral Rights**

According to the purchase contract for the property, the seller retained one-half interest in any and all mineral interests under the property. This reserved interest will expire 20 years from the date the property was purchased (August 20, 2015), or so long as oil or gas is being produced and paying quantities from the property, whichever is later. The seller did not retain any rights to surface use or mining on the property and may not grant or convey said surface rights to others.

The Skyline acquisition included ½ share of Louden Ditch water rights. Also, according to the Phase I ESA, based on a review of the Colorado Division of Water Resources' records, there is one registered well on the site. The well is registered to F. Wenninger but the agency records do not indicate how deep the well is. The well was not observed during reconnaissance for the Phase I ESA.

### **3. MANAGEMENT PLAN**

#### **3.1 Overview**

This management plan aims to provide a framework for the conservation of the visual, cultural, and natural resources provided by Skyline Natural Area while providing new opportunities for passive outdoor recreation in Loveland. To these ends, multiple management tools will be utilized.

Native shortgrass prairie and wetlands will be restored throughout the site over time, and noxious and non-native species will continue to be addressed through multiple land management tools.

Impacts to natural resources will be mitigated through the use of buffers and avoidance of wetlands, sensitive plant communities and important wildlife habitat.

Finally, the Open Lands and Trails Division will utilize visitor management methods to monitor the impact of recreational use at Skyline and implement necessary changes to ensure that recreation does not conflict with ecological, visual, or cultural values provided by the natural area.

The Site Plan shown in Figure 4 incorporates all of these objectives, by providing opportunities for public access while conserving the site's valuable natural, cultural and visual resources.

#### **3.2 Natural Resources Management**

##### 3.2.1 Vegetation Management

Skyline Natural Area contains a wide variety of vegetation types. Recent field observations by agency staff and CNHP provide applicable information on a number of species and plant communities present and the general characteristics of the vegetation. This plan focuses on vegetation around trail corridors as current funding and staff resources make a full assessment of the site's vegetation impractical.

Weed populations are one of the largest obstacles affecting a natural area's ability to contribute and sustain healthy ecosystems. If left unchecked, invasive weeds can overtake and permanently injure native plant populations. When no measures of removal or management are implemented, weeds will continue to endanger the condition of natural areas and restrict the variety of recreational pursuits that can occur there. Management of exotic and noxious weeds helps control their spread and eliminate threats to ecosystem function.

The following vegetation resource management actions will help ensure that Skyline Natural Area's resources receive the special attention and protection they require:

- Continue to monitor native plant communities to assess their health and implement further management actions.
- Apply adaptive, contemporary, integrated weed control methods. An integrated weed management plan will help manage infestations by cultural, mechanical, biological and chemical control methods.



- Sustain and improve healthy plant communities, including:
  - Restore upland areas degraded by past grazing with native grasses and forbs.
  - Restore wetland areas with a diversity of native species using local wetland ecotypes.
- Limit impacts to ecologically sensitive wildlife and plant communities on site, including these actions:
  - Use existing trails and two-tracks where feasible to reduce overall trail impacts to vegetation and wildlife.
  - Locate trails to avoid impacts to the rare Bell's Twinpod and Jeweled Blazingstar plant communities.
  - Avoid fragmentation of sensitive plant populations and communities to minimize impacts and reduce the chance of introducing and spreading non-native species.
  - Minimize ground disturbance and herbicide treatments in areas of sensitive plant species and communities.
  - Implement a buffer from adjacent wetlands and minimize impacts when a wetland crossing is unavoidable.
  - Incorporate appropriate landscaping measures in the parking area for stormwater infiltration and treatment.
  - Offer education and interpretive signage on rare plants and vegetation resources to visitors.

### 3.2.2 Wildlife Management

The rapid urbanization of Loveland and Colorado in general has created many challenges and opportunities for wildlife management. When humans and wildlife meet, there is an inherent possibility of conflict, but also a chance for preserving wildlife populations and improving the public's understanding of and appreciation for wildlife. Natural areas located in the urban/suburban setting are critical for wildlife populations that are sensitive to development. Natural areas and open lands offer a variety of important services to wildlife including providing habitat for pollinators and the plants relying on pollinators to reproduce, and creating the proper space and habitat for wildlife to breed, forage, travel and find protection from predators. The conservation and management of Loveland's remaining wildlife habitat through natural areas and open lands provides accessible recreation and education opportunities and addresses the separation from nature that many urban populations experience.

Skyline Natural Area contains biologically diverse wildlife habitat in the transition zone between the Rockies and the Great Plains, including Mountain mahogany/needle and thread shrubland, ephemeral aquatic features, and hogback habitats, all of which support a variety of wildlife species. This property functions as

an island buffer protecting high quality habitat from mini-ranch type rural development along the north and west sides, Highway 34 along the southernmost boundary, and residential development along the eastern boundary. The following wildlife management actions will assist in addressing the management of wildlife needs at Skyline Natural Area:

- Avoid fragmenting sensitive wildlife habitat when developing new trails and accesses, such as the migration corridor along the north and west end of the property.
- Protect and buffer high priority wildlife habitats, including the mule deer winter concentration area as well as hogbacks and ridgelines important for raptors.
- Offer education and interpretive signage on the ecology of wildlife to protect both wildlife and visitors.
- Monitor for impacts of recreational use on wildlife populations and apply adaptive management, such as seasonal trail closures.

### **3.3 Visitor Management and Education**

The purpose of visitor management is to emphasize the safety, health, and enjoyment of Skyline Natural Area's visitors while conserving the site's biological, physical and ecological features. When members of the public visit a natural area and experience the natural resources that are conserved, they will be more aware of how recreational pursuits can coexist with conservation goals on open lands. Educating youth on the intricacies of nature prepares them to be better future stewards of Loveland's natural resources and to become leaders in the conservation of open lands.

Public improvements help to make open lands safe and enjoyable for visitors and help to protect natural resource values. These improvements may include trails, parking lots, restrooms, kiosks, benches, wildlife observation structures, signs, and fencing.

The following visitor management and education actions will assist in protecting both visitors and the natural resources of the site while improving the overall visitor experience.

- The main trailhead will be located in the southern portion of the property with access from Hwy 34. The trailhead will include standard and ADA-accessible vehicle parking stalls, an informational kiosk, ADA-accessible vault toilet, entrance sign, and two-rail fencing encircling the lot. The entrance drive into the parking lot will be paved to meet local street standards, while the remainder of the lot will be gravel. The parking lot's capacity will be sized to ensure the trailhead meets current and future use levels and capacity of the site.

- An additional access point near the northeast corner of the property will provide multi-use access from neighborhoods to the east and connect to the city's paved Recreation Trail and future planned parking near Meadowbrook Natural Area.
- From the south parking lot, a multi-use trail will enter the property and cross the Loudon Ditch via a new bridge crossing.
- From these two access points, the main trail system will consist of a "figure 8" loop around the site, with a short spur to the "hitching post" overlook.
- The majority of the trail system will accommodate pedestrians and bicyclists on a single-track (3-4' wide) trail.
- The southeast portion of the figure-8 trail system will be a pedestrian-only trail (3' wide), due to topography and soils that limit use to a narrow footpath. This pedestrian trail and the northeast multi-use section of the figure-8 will be located as far west as possible, without bisecting the mountain mahogany shrublands or increasing visibility to homes.
- The spur trail to the "hitching post" overlook will be pedestrian-only.
- Access to the communication towers and the Namaqua Star will be restricted by fencing and signage.
- Wetland and drainage crossings will consist of wildlife-friendly culverts and will be designed to improve habitat downstream. Disturbed and degraded wetlands will be restored with native species to enhance wildlife, bird and pollinator habitat.
- Trails will be designed to minimize impacts to vegetation and wildlife resources and will be built to sustainable trail construction and maintenance standards.
- Multi-use trails will accommodate pedestrians, hikers, runners, and bicyclists.
- Recreational use will be limited to on-trail use only and trails may be closed when muddy, to limit impacts to vegetation, wildlife and trails.
- To protect sensitive vegetation and wildlife resources, dogs and horses will not be permitted at Skyline.
- Rock climbing will not be permitted at Skyline to protect sensitive vegetation, cultural resources and wildlife habitat.
- To reduce impacts and benefit wildlife use of the site, operating hours will be sunrise to sunset daily.
- For the protection of sensitive wildlife, trails may be closed during critical seasons for wildlife or birds (e.g., denning, calving, nesting, or severe conditions).
- Barbed-wire fencing will be removed and two-rail fencing will be installed as needed throughout the site for visitor management.



- Implementation of best management practices during construction activities will minimize damages caused by erosion, sedimentation, and stormwater runoff.
- Interpretive signs will be incorporated along trails to highlight the natural and cultural features of Skyline and surrounding landscapes, such as hogbacks, cultural history, native and rare plants, wildlife, and wetlands.
- Signs will be placed to mark the boundary of the site and to instruct visitors on trail etiquette, including stipulating on-trail use, sharing trails with other users, and other regulations as needed.
- Gates will be used to close access to the site or certain trails when mud exists or during sensitive wildlife periods, in order to protect resources from damage and impacts stemming from recreational activities.
- Benches will be installed periodically along the trail system for visitors to rest and enjoy the sweeping vistas.
- Opportunities for user education and engagement will be provided through environmental education programs, guided hikes and programs, citizen science opportunities, and volunteer stewardship projects.
- Visitor management and enforcement of regulations will be carried out by agency staff and volunteers in accordance with agreements between the agencies.
- A trail connection to Devil's Backbone Open Space will continue to be explored for feasibility, dependent on easements and agreements with adjacent property owners, agencies, and easement holders, and available funding.
- A trail connection to Oxbow Natural Area and the Loveland Recreation Trail System, via underpass or signalized at-grade crossing of Hwy 34, will continue to be studied for implementation when access and funding are available.

### **3.4 Cultural Resource Management**

Skyline Natural Area offers unique opportunities for visitors to learn about the lives of previous populations and their relationships with Loveland's natural resources. Cultural resources expand our understanding of history by offering data on the historic uses and importance of sites used in the past and also serve as an alternative method of attracting visitors to a site.

The following cultural resource management actions will help ensure Skyline Natural Area's cultural resources are documented and properly managed:

- Inventory potentially important cultural resources identified on the property, to ensure appropriate management of these resources.
- Create a buffer around any areas with historic significance to protect these resources and reduce potential impacts.
- Include interpretive signage regarding historic use and importance of the hogback areas for Native American uses.

### 3.5 Management Plan Implementation

Implementation Steps	Cost Estimate	2021-2026	2027-2032	Notes
<b>Vegetation Management</b>				
Monitor grassland and vegetative health	Minimal	Annual	Annual	
Revegetate disturbed areas	Moderate	2022-2027		
Apply noxious and non-native vegetation control methods	Moderate	Ongoing	Ongoing	
Educate visitors on rare plants	Minimal/ Volunteer	Ongoing	Ongoing	
<b>Wetland Management</b>				
Restore and enhance wetlands with culverts, plantings, buffering and weed management	Moderate	2020-2032		
<b>Wildlife Management</b>				
Inventory and monitor the locations of sensitive and non-sensitive species	Minimal / Volunteer	Annual	Annual	
Offer education on the ecology of wildlife to protect both wildlife and visitors	Minimal/ Volunteer	Ongoing	Ongoing	
Collaborate with CPW to enhance wildlife habitat as needed	Minimal	As needed	As needed	
<b>Visitor Management</b>				
Design trail and trailhead	Moderate	2021-2022		
Construct natural-surface trails	Moderate + Volunteer	2021-2023		
Construct trailhead and associated amenities, including vault restroom	Moderate	2023-2024		
Install gate(s) to close access/trails for muddy conditions or sensitive wildlife	Moderate	2021		
Install regulatory and trail etiquette signage	Moderate	2023	Replace as necessary	
Remove, repair and replace fencing	Moderate + Volunteer	2022-2023		Possible Larimer Co. Conservation Corps projects
Install interpretive signage	Moderate	2024		

Construct connection to Loveland Recreation Trail	Moderate	2024-2025		Development-driven
Perform trail maintenance as needed	Moderate	Ongoing	Ongoing	
Monitor recreational use to ensure it does not conflict with other values	Minimal/Volunteer	Ongoing	Ongoing	
Continually monitor capacity at trailhead	Minimal/Volunteer	Ongoing	Ongoing	
Provide opportunities for visitor education at the property	Minimal/Volunteer	2023-on		
<b>Cultural Resource Management</b>				
Investigate and document cultural resources	Minimal	2020-2021		
Incorporate cultural history into interpretive materials	Minimal	2023		

### 3.6 Conclusion

This management plan provides a framework and implementation actions for protection, management, restoration and enhancement of Skyline Natural Area and its identified conservation values. This document will be reviewed as needed and future updates will be initiated based on results of plan implementation, site conditions and recreational use patterns.

## APPENDIX A: Species Lists

### Wildlife species observed or likely present at Skyline Natural Area

#### **Mammals**

Prairie vole	<i>Microtus ochrogaster</i>
Meadow vole	<i>Microtus pennsylvanicus</i>
Mexican woodrat	<i>Neotoma mexicana</i>
Hispid pocket mouse	<i>Perognathus hispidus</i>
Rock mouse	<i>Peromyscus difficilis</i>
Deer mouse	<i>Peromyscus maniculatus</i>
Black-tailed prairie dog	<i>Cynomys ludovicianus</i>
Golden-mantled ground squirrel	<i>Citellus lateralis</i>
Rock squirrel	<i>Citellus variegatus</i>
Least chipmunk	<i>Eutamias minimus</i>
Uinta chipmunk	<i>Eutamias umbrinus</i>
Mountain cottontail rabbit	<i>Sylvilagus nuttalli</i>
Bobcat	<i>Lynx rufus</i>
Mountain lion	<i>Felis concolor</i>
Red fox	<i>Vulpes fulva</i>
Coyote	<i>Canis latrans</i>
Black bear	<i>Ursa americanus</i>
Striped skunk	<i>Mephitis mephitis</i>
Raccoon	<i>Procyon lotor</i>
Elk ( <i>winter range</i> )	<i>Cervus canadensis</i>
Mule deer ( <i>critical winter range</i> )	<i>Odocoileus hemionus</i>
White-tailed deer	<i>Odocoileus virginianus</i>

#### **Amphibians & Reptiles**

Western tiger salamander	<i>Ambystoma mavortium</i>
Woodhouse's toad	<i>Anaxyrus woodhousii</i>
Boreal chorus frog	<i>Pseudacris maculata</i>
Short-horned lizard	<i>Phrynosoma hernandesi</i>
Prairie lizard	<i>Sceloporus undulatus</i>
Bullsnake	<i>Pituophis catenifer sayi</i>
Plains garter snake	<u><i>uns radix</i></u>
North American racer	<i>Coluber constricto</i>
Prairie rattlesnake	<i>Crotalus viridis</i>
Six-lined racerunner lizard	<i>Aspidoscelis sexlineatus</i>

## **Bird Species Observed at Skyline Natural Area**

American Crow	House Sparrow
American Goldfinch	House Wren
American Kestrel	Lark Bunting
American Robin	Lark Sparrow
American Tree Sparrow	Lazuli Bunting
Barn Swallow	Lesser Goldfinch
Black-billed Magpie	Lincoln's Sparrow
Black-capped Chickadee	Loggerhead Shrike
Blue Grosbeak	Mallard
Blue Jay	Mountain Bluebird
Blue-gray Gnatcatcher	Mourning Dove
Brewer's Sparrow	Northern Flicker
Broad-tailed Hummingbird	Northern Rough-winged Swallow
Brown-headed Cowbird	Red Crossbill
Bullock's Oriole	Red-headed Woodpecker
Canada Goose	Red-tailed Hawk
Canyon Wren	Red-winged Blackbird
Cassin's Sparrow	Rock Dove
Cedar Waxwing	Rock Wren
Chipping Sparrow	Sage Thrasher
Cliff Swallow	Say's Phoebe
Common Grackle	Song Sparrow
Common Nighthawk	Spotted Towhee
Common Raven	Swainson's Hawk
Cooper's Hawk	Tree Swallow
Cordilleran Flycatcher	Townsend's Solitaire
Dark-eyed Junco	Turkey Vulture
Double-crested Cormorant	Vesper Sparrow
Downy Woodpecker	Violet-green Swallow
Dusky Flycatcher	Western Kingbird
Eastern Kingbird	Western Meadowlark
Eurasian Collared-dove	Western Tanager
European Starling	Western Wood-pewee
Grasshopper Sparrow	White-breasted Nuthatch
Gray Catbird	Woodhouse's Scrub Jay
Green-tailed Towhee	Yellow Warbler
House Finch	Yellow-breasted Chat
	Yellow-rumped Warbler

## Plant Species Observed at Skyline Natural Area:

Compiled from surveys by Colorado Natural Heritage Program (2016).

Scientific Name	Family	Common Name	Native Status (USDA)	Noxious Weed
<i>Acer negundo</i> var. <i>negundo</i>	Aceraceae	boxelder	Native	
<i>Achnatherum scribneri</i>	Poaceae	Scribner needlegrass	Native	
<i>Agropyron cristatum</i>	Poaceae	crested wheatgrass	Non-native	
<i>Allium textile</i>	Liliaceae	textile onion	Native	
<i>Alyssum simplex</i>	Brassicaceae	alyssum	Non-native	
<i>Ambrosia psilostachya</i>	Asteraceae	Cuman ragweed	Native	
<i>Andropogon gerardii</i>	Poaceae	big bluestem	Native	
<i>Aristida purpurea</i>	Poaceae	purple threeawn	Native	
<i>Artemisia dracunculus</i>	Asteraceae	tarragon	Native	
<i>Artemisia frigida</i>	Asteraceae	prairie sagewort	Native	
<i>Artemisia ludoviciana</i>	Asteraceae	white sagebrush	Native	
<i>Asclepias engelmanniana</i>	Asclepiadaceae	Engelmann's milkweed	Native	
<i>Astragalus drummondii</i>	Fabaceae	Drummond's milkvetch	Native	
<i>Astragalus shortianus</i>	Fabaceae	Short's milkvetch	Native	
<i>Bouteloua curtipendula</i>	Poaceae	sideoats grama	Native	
<i>Brickellia eupatorioides</i>	Asteraceae	false boneset	Native	
<i>Bromus inermis</i> ssp. <i>inermis</i>	Poaceae	smooth brome	Non-native	
<i>Bromus tectorum</i>	Poaceae	cheatgrass	Non-native	List C
<i>Buchloe dactyloides</i>	Poaceae	buffalo grass	Native	
<i>Camelina microcarpa</i>	Brassicaceae	littlepod false flax	Non-native	
<i>Celtis reticulata</i>	Ulmaceae	netleaf hackberry	Native	
<i>Cercocarpus montanus</i>	Rosaceae	alderleaf mountain mahogany	Native	
<i>Cichorium intybus</i>	Asteraceae	chicory	Non-native	List C
<i>Cirsium arvense</i>	Asteraceae	Canada thistle		List B
<i>Comandra umbellata</i> ssp. <i>pallida</i>	Santalaceae	pale bastard toadflax	Native	
<i>Conringia orientalis</i>	Brassicaceae	hare's ear mustard	Non-native	
<i>Convolvulus arvensis</i>	Convolvulaceae	field bindweed	Non-native	List C
<i>Conyza canadensis</i>	Asteraceae	Canadian horseweed	Native	
<i>Cystopteris fragilis</i>	Dryopteridaceae	brittle bladderfern	Native	
<i>Descurainia</i> sp.	Brassicaceae	tansymustard	Non-native	
<i>Echinocereus viridiflorus</i>	Cactaceae	nylon hedgehog cactus	Native	
<i>Elaeagnus angustifolia</i>	Elaeagnaceae	Russian olive	Non-native	List B
<i>Erigeron flagellaris</i>	Asteraceae	trailing fleabane	Native	
<i>Euphorbia esula</i> var. <i>esula</i>	Euphorbiaceae	leafy spurge	Non-native	List B
<i>Euphorbia myrsinites</i>	Euphorbiaceae	myrtle spurge	Non-native	List A

Scientific Name	Family	Common Name	Native Status (USDA)	Noxious Weed
<i>Festuca sp.</i>	Poaceae	fescue	Unknown	
<i>Gaillardia pulchella</i>	Asteraceae	firewheel	Native	
<i>Gutierrezia sarothrae</i>	Asteraceae	broom snakeweed	Native	
<i>Harbouria trachypleura</i>	Apiaceae	whiskbroom parsley	Native	
<i>Helianthus annuus</i>	Asteraceae	common sunflower	Native	
<i>Helianthus pumilus</i>	Asteraceae	little sunflower	Native	
<i>Hesperostipa comata</i>	Poaceae	needle and thread	Native	
<i>Hesperostipa neomexicana</i>	Poaceae	New Mexico feathergrass	Native	
<i>Hymenopappus filifolius</i>	Asteraceae	fineleaf hymenopappus	Native	
<i>Koeleria macrantha</i>	Poaceae	prairie Junegrass	Native	
<i>Krascheninnikovia lanata</i>	Chenopodiaceae	winterfat	Native	
<i>Leucocrinum montanum</i>	Liliaceae	common starlily	Native	
<i>Liatris punctata</i>	Asteraceae	dotted blazing star	Native	
<i>Linaria sp.</i>	Scrophulariaceae	toadflax	Unknown	
<i>Machaeranthera pinnatifida</i>	Asteraceae	lacy tansyaster	Native	
<i>Medicago sativa</i>	Fabaceae	alfalfa	Non-native	
<i>Melilotus officinalis</i>	Fabaceae	yellow sweetclover	Non-native	
<i>Nuttalia speciosa</i> [syn= <i>Mentzelia speciosa</i> ]	Loasaceae	jeweled blazingstar	Native	
<i>Monarda pectinata</i>	Lamiaceae	pony beebalm	Native	
<i>Nassella viridula</i>	Poaceae	green needlegrass	Native	
<i>Nepeta cataria</i>	Lamiaceae	catnip	Non-native	
<i>Opuntia macrorhiza</i>	Cactaceae	twistspine pricklypear	Native	
<i>Opuntia polyacantha</i> var. <i>polyacantha</i>	Cactaceae	hairspine pricklypear	Native	
<i>Orobanche ludoviciana</i>	Orobanchaceae	Louisiana broomrape	Native	
<i>Oxytropis sericea</i>	Fabaceae	white locoweed	Native	
<i>Panicum dichotomiflorum</i>	Poaceae	fall panicgrass	Native	
<i>Panicum virgatum</i>	Poaceae	switchgrass	Native	
<i>Penstemon secundiflorus</i>	Scrophulariaceae	sidebells penstemon	Native	

Scientific Name	Family	Common Name	Native Status (USDA)	Noxious Weed
<i>Phacelia alba</i>	Hydrophyllaceae	white phacelia	Native	
<i>Physaria bellii</i>	Brassicaceae	Front Range twinpod	Native	
<i>Physocarpus monogynus</i>	Rosaceae	mountain ninebark	Native	
<i>Pinus ponderosa</i> var. <i>scopulorum</i>	Pinaceae	ponderosa pine	Native	
<i>Plantago patagonica</i>	Plantaginaceae	woolly plantain	Native	
<i>Populus deltoides</i> ssp. <i>monilifera</i>	Salicaceae	plains cottonwood	Native	
<i>Prunus virginiana</i> var. <i>melanocarpa</i>	Rosaceae	black chokecherry	Native	
<i>Psoraleidum tenuiflorum</i>	Fabaceae	slimflower scurfpea	Native	
<i>Quincula lobata</i>	Solanaceae	Chinese lantern	Native	
<i>Rhus trilobata</i> var. <i>trilobata</i>	Anacardiaceae	skunkbush sumac	Native	
<i>Salix fragilis</i>	Salicaceae	crack willow	Non-native	
<i>Schizachyrium scoparium</i>	Poaceae	little bluestem	Native	
<i>Scutellaria brittonii</i>	Lamiaceae	Britton's skullcap	Native	
<i>Secale cereale</i>	Poaceae	cereal rye	Non-native	
<i>Silene antirrhina</i>	Caryophyllaceae	sleepy silene	Native	
<i>Sisymbrium altissimum</i>	Brassicaceae	tall tumbledustard	Non-native	
<i>Solidago missouriensis</i>	Asteraceae	Missouri goldenrod	Native	
<i>Sphaeralcea coccinea</i>	Malvaceae	scarlet globemallow	Native	
<i>Stephanomeria</i> sp.	Asteraceae	wirelettuce	Native	
<i>Thelesperma megapotamicum</i>	Asteraceae	Hopi tea greenthread	Native	
<i>Thinopyrum ponticum</i>	Poaceae	tall wheatgrass	Non-native	
<i>Townsendia grandiflora</i>	Asteraceae	largeflower Townsend daisy	Native	
<i>Tradescantia occidentalis</i>	Commelinaceae	prairie spiderwort	Native	
<i>Tragia ramosa</i>	Euphorbiaceae	branched noseburn	Native	
<i>Triodanis perfoliata</i>	Campanulaceae	slimpod Venus' looking glass	Native	
<i>Verbascum thapsus</i>	Scrophulariaceae	common mullein	Non-native	List C.



## **APPENDIX B: Open Space Management Plan Type Descriptions**

**Developed Open Space:** Portions of a Natural Area that allow for full public access and use. Generally includes facilities such as parking lots, picnic areas, and fishing access points.

**Public Access Open Space:** Portions of a Natural Area that allow for access that is on- and off-trail. Some public facilities may exist.

**Resource Protection Area:** Portions of a Natural Area that are primarily travel zone areas with limited development. Access is generally limited to on-trail.

**Closed Area:** Natural Areas or portions that are closed to the public because public access is not currently appropriate. Areas are managed to maintain or improve natural resource values.

## APPENDIX C: Public Feedback Comments

The following public comments were submitted to the Loveland Parks and Recreation Department during the public meeting on May 6, 2019 and via email between May 7 and May 31, 2019.

### Trail Uses

*Should trails be restricted to certain uses?*

- No bikes (2)
- No rock climbing/trespassing on cliffs north of road
- No access off of Ponderosa Dr. Use Morning/Crown Dr entrance
- Limit parking below Crown Drive
- Too close to subdivision (7) – move trails further west
- Suggestion for odd and even days for hikers/bikers
- Allow golf carts

### Trail Use Options

- Pedestrian-only SE trail/Option 1 (34)
- Pedestrian-only SE trail + bike-only SW trail/Option 2 (8)
- Pedestrian-only E trails + bike-only W trails/Option 3 (17)
- Option 2 or 3 (11)
- Pedestrian-only (11)
- Eliminate east trail (2)
- No trails (1)

### Trail Connections

*Should the trail network be connected to surrounding subdivisions or regional trails?*

No (7)

#### Reasons:

- Too hard to control other entrances to keep out motorbikes/mopeds/ATVs
- No loops – viewing area at the star only, if people want to walk use Skyline, too much traffic, no through connection
- The city doesn't maintain the neighborhood roads

Yes (33)

#### Reasons:

- As many access points as possible, thins out the crowds
- Connect to as many natural areas as possible
- Connection to Devil's Backbone would be great
- Connection to Rossum Drive
- CE to the north only – trail from there diagonally to Hitching Post; move away from existing deer trail

*Are any access points or connections missing?*

- Connections to other trails like Coyote Ridge and Blue Sky
- Connect to Mehaffey Park
- No parking or access on top – gate
- Park at Mehaffey rather than building a parking lot on [Hwy] 34
- Parking at 22<sup>nd</sup> St down below, east of subdivision

## **Dogs**

*Should dogs be allowed at Skyline Natural Area?*

No (28)

Reasons:

- Namaqua Hills homes not allowed to have fences to keep dogs out; too close; pets at risk
- Wildlife concerns
- Enforcement of leash laws
- Poop pickup

Yes (8)

*If so, should additional restrictions be implemented?*

Yes (additional restrictions should be implemented if dogs are allowed)

Comments:

- Leash law
- Pick up poop
- At least part of the year
- Trial period
- Don't allow on bike trails

## **Hours of Operation**

*Should Skyline Natural Area follow typical City open land hours of 6:00am-10:30 pm or be limited to dawn to dusk hours?*

Dawn to dusk (27)

6a-10:30p (7)

Comments:

- Adjacent to neighborhoods
- Late users always cause problems
- Devil's Backbone closes at dusk
- Gated access to close and keep out people after hours
- Late hours allow for skygazing
- Limited hours for bikes
- 10 am – 3pm

## **Did we miss anything?**

*Additional comments, thoughts and ideas*

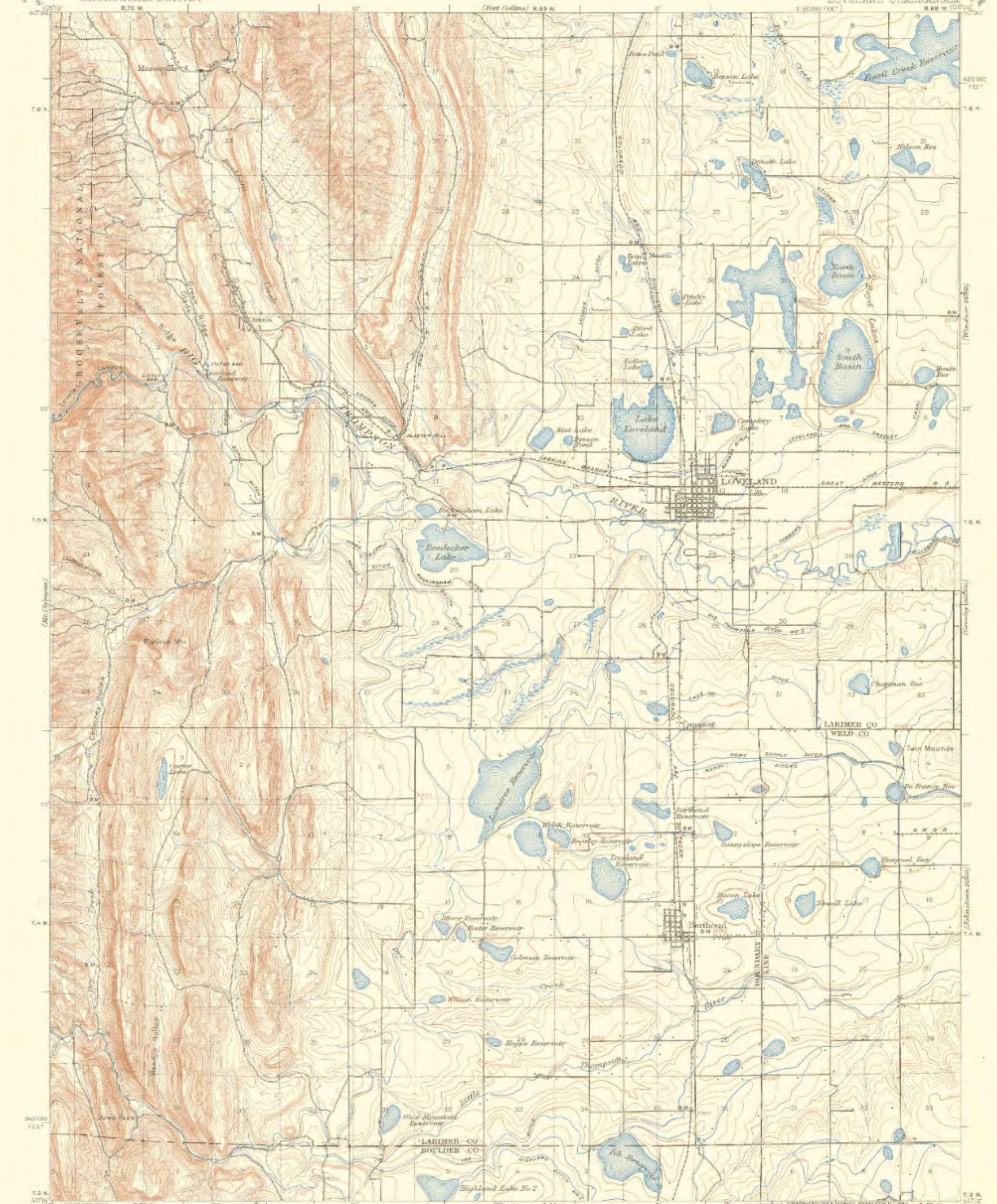
- Prohibit alcohol, marijuana, etc
- No fires or camping
- Graffiti problems
- Kids have fires
- Rossum Drive at US34 is a blind corner, accidents happen here already
- Protect cliffs – no rock climbing. Also - allow rock climbing in limited area.
- Can we just leave/protect as an easement? More space for wildlife – no trail (2)
- Wildlife protection
- Fix erosion problems (2)
- Fire dangers need to be mitigated (to houses, climbing cliffs and ridges), enforcement?
- Communicate with Larimer County re: access road as secondary access for HVE
- Limit trespassing to private property
- Fencing, including Ponderosa access point
- Destroys open space wildlife – there is a small herd of deer that live in this valley and they will be destroyed
- Options 2 & 3 force all foot traffic toward houses
- Neighbors – “want access, no parking”
- No horses
- No parking in area by Meadowbrook – adjacent to wetlands
- Take away “trail connection” on east side completely

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UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

COLORADO  
LOVELAND QUADRANGLE



Checked by  
E.M. Douglas, Geographer in charge  
topography by Frank Tweedy and S. F. Fiero.  
Triangulation by F.H. Chapman and Frank Tweedy.  
Surveys in 1906-1908.

SCALE 1:25000  
CONTOUR INTERVAL 20 FEET  
DATUM = MEAN SEA LEVEL

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LOVELAND, COLO.  
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