

© Ben Marolf



© G. Brad Lewis

# BONANZA FLAT CONSERVATION AREA ADAPTIVE MANAGEMENT & STEWARDSHIP PLAN

DEVELOPED FOR PARK CITY MUNICIPAL CORPORATION  
BY UTAH OPEN LANDS  
ADOPTED 2019



**PART ONE**  
**INTRODUCTION**

EXECUTIVE SUMMARY ..... 3

**I. Park City ..... 6**

**II. Utah Open Lands ..... 7**

**III. The BFAMS Plan Input..... 8**

**IV. Adjacent Landowners ..... 9**

**V. 55 Acre SLPU Land ..... 13**

**PART TWO**  
**DOCUMENTATION**

BASELINE DOCUMENTATION & RESOURCE  
INVENTORY SUMMARY..... 14

**I. Baseline Documentation ..... 14**

**II. Resource Inventory ..... 14**

**III. Conservation Easement..... 15**

Conservation Values ..... 15

Watershed ..... 16

Public Recreation & Education ..... 17

Vegetation ..... 17

Uncommon Rare Plants..... 17

Wildlife ..... 18

Scenic..... 18

**PART THREE**  
**MANAGEMENT, ACTIONS & OUTCOMES**

**I. Trails..... 19-29**

A. Mountain Biking..... 30

B. Hiking ..... 30-31

C. Backcountry Skiing & Snowshoeing ..... 33

D. Nordic Skiing .....33 –34

E. Backcountry Risks..... 34-35

F. Equestrian Use ..... 35-36

**II. Access & Trailhead Use Determination..... 36**

A. Trailheads ..... 37-44

**III. Restoration & Ecosystem Maintenance.....**  
**..... 45-46**

A. Wildlife..... 47-48

B. Vegetation Communities ..... 49-51

C. Invasive Species ..... 52-55

D. Forest Health & Fire-Wise ..... 56-59

E. Man-made Disturbances ..... 60-62

**IV. Water Resource & Wetland Management...**  
**..... 63-65**

**V. Adjacent Protected Lands..... 66**

A. Boundary Maintenance ..... 66

**VI. Scenic Management ..... 68**

**VII. Recreation Management ..... 69**

**VIII. Citizen Scientists & INaturalists ..... 70**

**IX. Recreational Aircraft ..... 71**

**X. Canine Use..... 72**

**XI. Safety Corridors ..... 73**

**XII. Events, Special Uses & Related Temporary  
Structures..... 74**

**PART FOUR**  
**MANAGEMENT AREAS**

MANAGEMENT AREAS..... 75

**I. Front Country Area ..... 78**

**II. Back Country Area ..... 79**

**III. Headwaters Area ..... 80**

**PART FIVE**  
**ADAPTIVE MANAGEMENT**

**I. Triggers for Adaptive Management ..... 81-82**

**II. Adaptive Management ..... 83-86**

**III. Monitoring ..... 86**

Annual ..... 86

Resource Monitoring..... 86

Action Monitoring ..... 87

**IV. Future Management Actions ..... 88**

**V. Future Documentation..... 89**

**VI. Action Types..... 89**

**VII. Prohibition ..... 90-91**

CONCLUSION ..... 92



# PART ONE

# INTRODUCTION

## EXECUTIVE SUMMARY

Without the leadership of the Park City Council and the residents of Park City who passed a \$25 million bond, Bonanza Flat Conservation Area would already be lost. The loss would have effected drinking water for cities like Midway, Salt Lake and Sandy. The loss would have fragmented migratory and year-round habitat for moose, elk and deer. The loss would have cut off access for thousands of users and a variety of user groups. The loss would have forever changed the character of outdoor recreation in the Wasatch Front and Wasatch Back. Bonanza Flat Conservation Area is the ‘heart of the Wasatch’. Its location and the significant role it plays in a cohesive ecosystem that extends beyond its borders, the role this landscape played in the collective call for its protection further underscores what could have been lost.

Over 3,000 individual donors, three cities, three counties, three agencies and 11 nonprofits came together to ensure the land was protected. The fund-raising campaign, spearheaded by Utah Open Lands, resulted in a historic effort that managed to fill a \$13 million gap to ensure the conservation purchase in just 6 months.

Utah Open Lands is honored to have the role of protecting and acting as steward of the land forever. Management and enforcement will be required to uphold the terms of the Conservation Easement. In employing sustainable management strategies, there will be transitions from historic use patterns and behavior to more mindful engagement with the land. Through proactive education and peer-to-peer nudges, we will find ways to ensure that we are all positive stewards of the Conservation Values of Bonanza Flat Conservation Area. Striking a forward-thinking balance of use and protection on the land will be critical to its long-term health and the conservation of the watershed that sits directly above the Town of Midway, Wasatch County and the Provo River.



© Bret Webster





The story of the preservation of Bonanza Flat Conservation Area is replete with hard work and tough choices. To preserve this land as population and recreation pursuits boom, management strategies will be robust and will require compromise to ensure that the landscape itself is not loved to death. On Bonanza Flat Conservation Area, we will take the managerial steps necessary to facilitate proper use of the land through a thorough inventory of use, regulatory authority, monitoring and best practices approach. Adapting management practices to ecosystems and user responses on the land will be ever evolving.

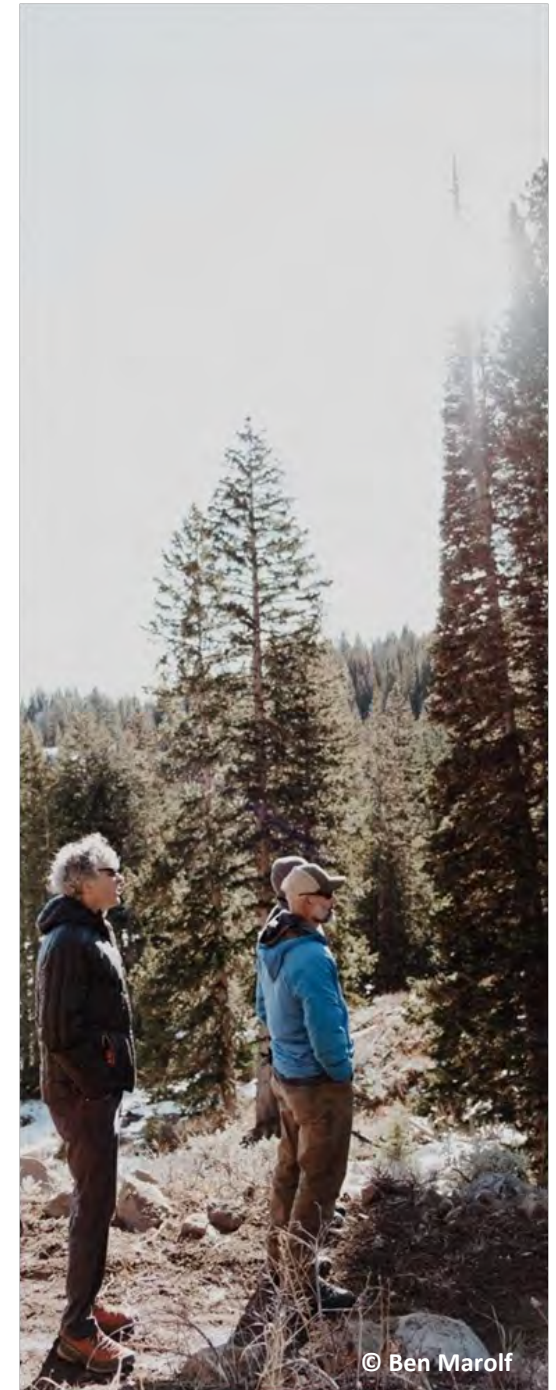
While still a wild place, Bonanza Flat Conservation Area is a landscape that is challenged by impact to the land. Even with these impacts there are vast areas that have been relatively untouched. **The fundamental concepts that this BFAMS Plan employs include: overall net sustainable use on the land, compatible uses that achieve sustainability, and determining the carrying capacity of the landscape, in part, by the conservation values and monitoring protocols specific to those Conservation Values.** With the Conservation Easement as the fundamental guide, the Bonanza Flat Conservation Area Adaptive Management and Stewardship Plan (BFAMS Plan) provides a framework for comprehensive stewardship of the land.

The Conservation Easement codifies the intent of Park City (the landowner), respects the myriad donor intents from individuals that gave to see this land protected, and gives Utah Open Lands (UOL) the responsibility of enforcing its preservation in perpetuity. The Conservation Easement is the guide by which to enforce and ensure perpetual protection of the land and its Conservation Values from development. The Bonanza Flat Conservation Area Adaptive Management and Stewardship Plan reflects the fundamental values of stewardship. It incorporates on-site research, data collection, meetings with stakeholders, and public input. Utah Open Lands and Park City created the BFAMS Plan cooperatively with input from stakeholders, and the public. Utah Open Lands and Park City created the BFAMS Plan in conjunction with the Conservation Easement and as directed by the Park City Council in accordance with the Bonanza Flat Open Space Bond. Current conditions and



existing uses of the Property inform the BFAMS Plan while simultaneously presenting challenges for effective management. The Baseline Documentation Report, created by Utah Open Lands as the Conservation Easement holder, examines and memorializes the current condition of the land, its ecological and cultural resources, Conservation Values and existing features.

The Baseline Documentation Report provides benchmarks against which management decisions will be evaluated for their overall effect on the stewardship of the Conservation Values. This baseline is a fundamental tool in creating adaptable solutions.



## THIS BFAMS PLAN:

- Contains management strategies and vision for 1,511.6 acres of land owned by Park City Municipal Corporation located on its town borders in Wasatch County.
- Assesses suitable locations for recreation and conservation activities.
- Outlines and proposes improvements and creation of trailheads, sustainable trails, safety and management.
- Suggests ways in which to maintain and continuously enhance existing Conservation Values.
- Emphasizes watershed protection practices as a fundamental goal in management decision making.
- Encourages a sustainable strategy focused on an exceptional recreational experience for multiple user groups.

## PARK CITY OPEN SPACE BOND BALLOT INITIATIVE

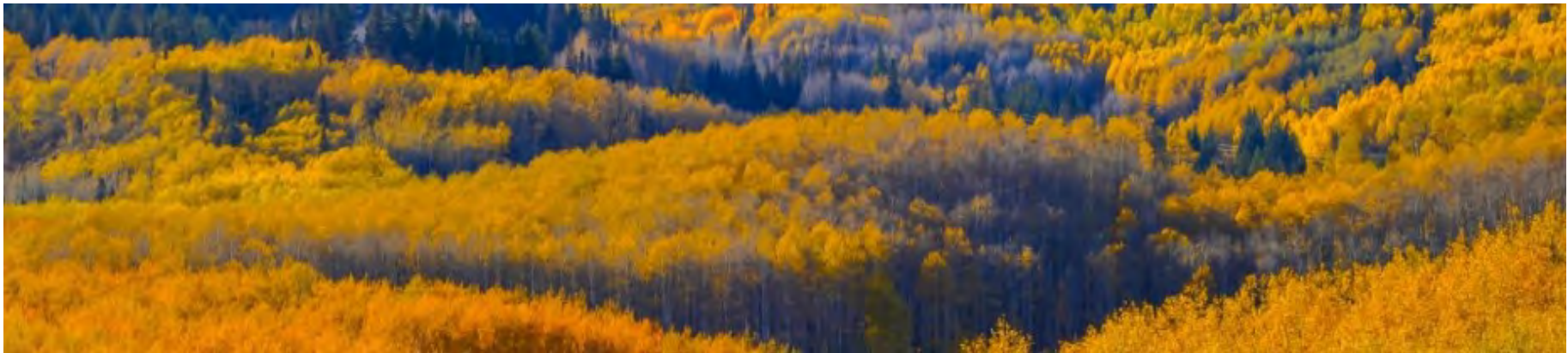
“Shall Park City, Utah, be authorized to issue general obligation bonds in an amount not to exceed \$25,000,000 and to mature in no more than 16 years from the date or dates of such bonds to acquire, improve and forever preserve open space, park and recreational land located in Bonanza Flats, if such land is available for purchase by the City, in order to protect the Conservation Values thereof, to remove existing unneeded man-made improvements, and to make limited improvements for public access, parking and use.”

### I. PARK CITY

#### LANDOWNER/GRANTOR

Park City is a town of over 8,000 people in Summit County, Utah. Park City Municipal Corp. (PCMC) is the landowner of the over 1,500-acre Bonanza Flat Conservation Area. Through a bond passed in 2016, and a community fundraising effort led by Utah Open Lands, Bonanza Flat Conservation Area was purchased in 2017, protecting it from eminent threats of development forever. The conservation-minded goals set forth for Bonanza Flat Conservation Area align with Park City’s greater mission – to provide world-class trails and open space for the non-motorized recreational pursuits. Bonanza Flat Conservation Area will serve as an extension and addition to open

space protection and recreational opportunities which are abundant in the Park City area.





## II. UTAH OPEN LANDS

### CONSERVATION EASEMENT HOLDER/GRANTEE

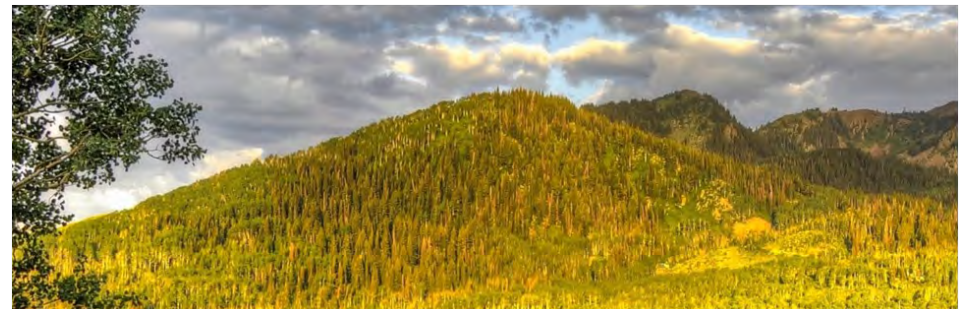
Utah Open Lands Conservation Association (UOL) is a 501(c)3 non-profit land trust, founded in 1990 in Park City, with their first office located on Prospector Avenue. UOL, as a nationally accredited land trust operates throughout the state of Utah and has permanently protected over 60,000 acres of land. As the oldest local land trust in the state, and the statewide land trust in Utah, UOL holds the Conservation Easement on Bonanza Flat Conservation Area and is responsible for ensuring the protection of the Conservation Values in perpetuity. Utah Open Lands began working diligently to protect Bonanza Flat Conservation Area once a \$13,000,000 gap was identified between the Park City bond and the purchase price of Bonanza Flat Conservation Area. UOL’s goals for the Property are tied to the Conservation Easement, which the organization is charged with enforcing, and the promise of protecting the land forever.

### GRANTOR // GRANTEE ROLES

PCMC, the owner of the Property, has incorporated a conservation ethic for this land in the grant of the Conservation Easement to Utah Open Lands; forever codifying the intention of protection for this land from development.

The donors who contributed to the purchase of the land through individual contributions and the bond are part of the public trust created by the Conservation Easement agreement. The development value and restricted uses are held forever in trust by Utah Open Lands, and those rights cannot be transferred to another property nor can the development rights be added back to the land; those development rights cease to exist in favor of protecting the scenic, natural, ecological, forest, open space, water quality, watershed, riparian, wildlife habitat, community heritage, recreational and educational values.

| STAKEHOLDERS  |  |
|---|--|
| All Park City Taxpayers and Residents   | In November 2016 The Park City Open Space Bond Ballot Initiative was approved by Park City voters by a 70.2% margin to provide \$25 million for open space preservation                            |
| Over 3000 individual households, foundations and public and private entities            | \$13 million was raised for the purchase of Bonanza Flat Conservation Area’s protection from individual community members and private sources  |
| Jurisdictional Stakeholder Committee as approved and appointed by the Park City Council | Wasatch County, Summit County, Midway City, Salt Lake Public Utilities, Metropolitan Water District of Salt Lake & Sandy, Salt Lake County, Wasatch Mountain State Parks and the US Forest Service |
| Technical Stakeholder Committee as approved by the Park City council                    | The Mountain Trails Foundation (MTF), the Citizens Open Space Advisory Committee (COSAC), Trails Utah, Save Our Canyons (SOC), Wasatch Backcountry Alliance (WBA) and Summit Land Conservancy      |



### III. THE BFAMS PLAN INPUT

For over 11 months, Park City and Utah Open Lands engaged public and governmental agencies in Jurisdictional and Technical Stakeholder Committees. These committees served to advise the process, discussing issues relevant to the Conservation Easement and management of Conservation Values on Bonanza Flat Conservation Area. Both Jurisdictional and Technical Stakeholder Committees agreed unanimously that protection of the watershed was an overarching priority. The Technical Stakeholder Committee was comprised mainly of those entities that came together in a concerted effort to raise funds to protect Bonanza Flat Conservation Area from development. The Conservation Easement, Baseline Documentation and this BFAMS Plan were informed by the collective input of these stakeholder committees.

Utah Open Lands and Park City utilized the Technical and Jurisdictional Stakeholders Committees to act as both advisors and stakeholders in planning, evaluating and perspective on the protection and management of the land. Executive meetings were held bi-monthly from August 2017 through April 2018. The Technical Committee met on several occasions including 11/17/17, 03/23/18 and 05/22/18. The jurisdictional committee also met on several occasions including 11/17/17, 03/23/18 and 05/24/18. Open houses were held to inform the public of the progress of the topics discussed in these stakeholder meetings, including one held on 04/02/18. Online and onsite survey of users were conducted in tandem with these open houses.



A fundamental goal of this BFAMS Plan is to provide strategic management input to the Park City Council regarding important management considerations that will sustain the Conservation Values. This plan provides a process by which the City Council can adaptively respond to changing conditions as necessary management decisions are made.

Paramount to the goal of this management plan is the protection, forever, of the land's Conservation Values, and the engagement over time of those who connect with the land to become exemplary stewards.



## IV. ADJACENT LANDHOLDERS

### ENCUMBRANCES APPURTENANT TO THE PROPERTY

There are a couple of leaseholds within the bounds of the Bonanza Flat Conservation Area. These areas come with their own specific needs, access issues, and regulations.

| LEASE HOLDER                                   |  |
|--|--|
| Talisker 2.0 Club Leasehold                    | Talisker 2.0 has a 99-year lease that encompasses one 6-acre block of land in the eastern part of the Bonanza Flat Conservation Area. Two small cabins (existing) and a yurt (to be constructed) will occupy the space. This contiguous 6-acre space will include space for a sledding hill to be groomed – a wintertime access corridor to this leasehold is not included in the 6-acre parcel, and will be created each fall through non-wetland, minimally impactful corridors. |
| Kent Sovereign Permissive Access Easement Area | A private access easement, known as the Kent Sovereign Permissive Access Easement Area, exists on the Property, which leads to a private residence.  |
| ADJACENT LANDS                                 |  |
| US Forest Service                              | The Uinta-Wasatch-Cache National Forest is located south-west of the Property and some portions of their property directly abuts the Bonanza Flat Conservation Area.   |

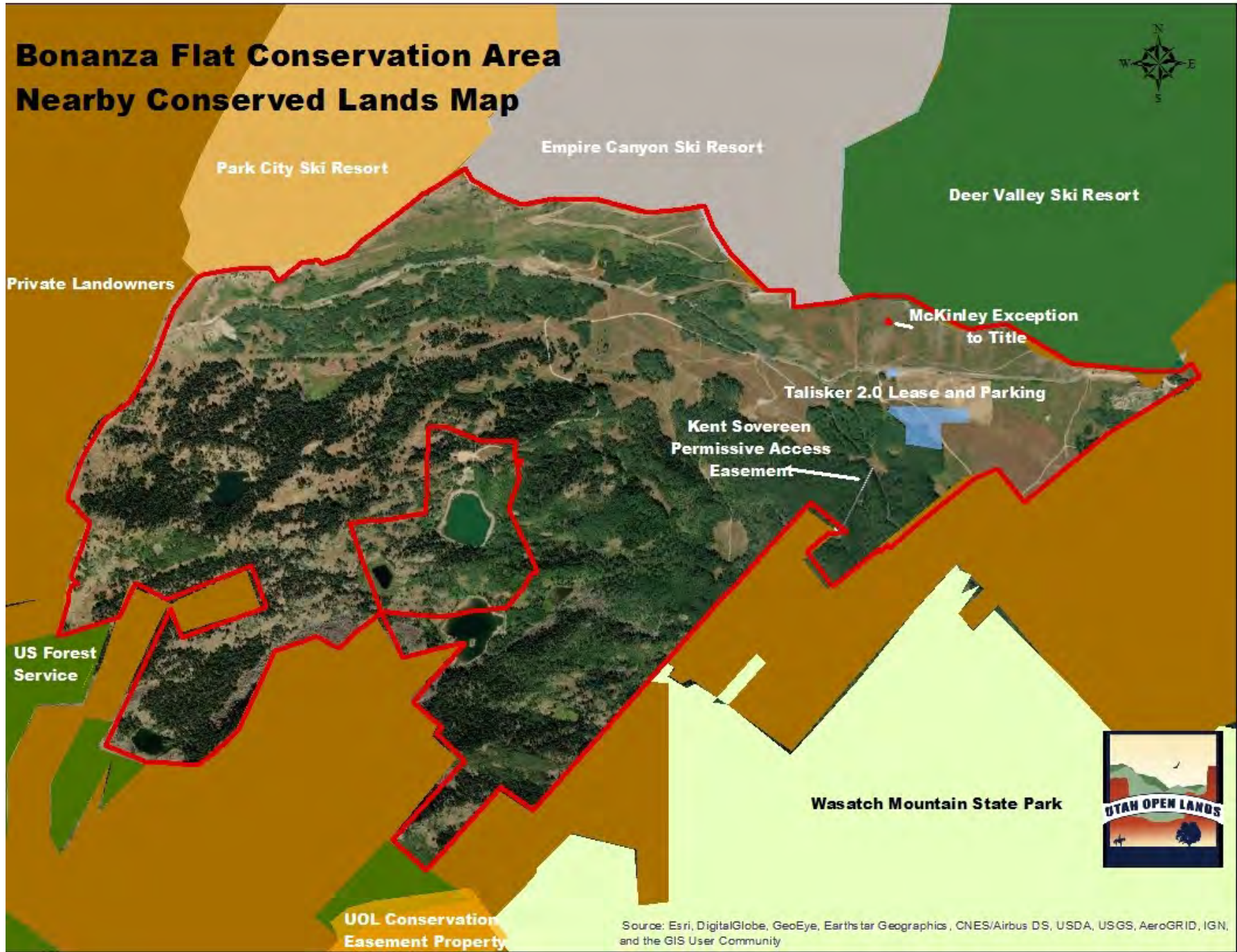


| ADJACENT LANDS - continued                                 |  |
|--|--|
| Private Landowners   | Numerous privately-owned lots are directly adjacent to the Bonanza Flat Conservation Area. Most of them are located to the east and south-east and many fall into property owner associations and are designated as seasonal with limited winter access. Additional private land adjacent to the Property along its western border consists mainly of mining claim ownerships  |
| Utah State Parks   | Wasatch Mountain State Park is located to the south of the Property and some portions of their property directly abuts the Bonanza Flat Conservation Area.   |
| Salt Lake Public Utilities                                 | Pursuant to Section VI paragraph A of the Bonanza Flat Conservation Area Conservation Easement “Grantor may exercise a one-time subdivision right for the sole purpose of providing Salt Lake Public Utilities land for incorporation into the land owned by those entities in conjunction with previous agreements associated with acquiring the Property, and provided that the terms of this Easement shall remain in full force and effect with regard to each subdivided parcel.” A purchase and sale agreement executing the sale of the 55 acres to Salt Lake City Public Utilities provides Salt Lake Public Utilities with ownership and control over 55 acres of land subject to the terms of the Conservation Easement, but under the ownership of Salt Lake City Public Utilities. |
| Park City Mountain Resort and Deer Valley Resort Ski Areas | Park City Mountain Resort is owned by Vail Resorts and includes over 3,300 acres of land. Deer Valley Resort is owned by Aterra Mountain Co. and contains over 2,000 acres of land. A portion of the Deer Valley Property, known as Empire Canyon, has an existing conservation easement on it.  |





# Bonanza Flat Conservation Area Nearby Conserved Lands Map





# Bonanza Flat Conservation Area Talisker 2.0 Lease Area and Parking



Boundaries Are Approximate - This Is Not A Survey

Talisker  
Parking



 Talisker 2.0 Lease Area and Parking  
 Bonanza Flat Conservation Area

0 0.0150.03 0.06 0.09 0.12 Miles

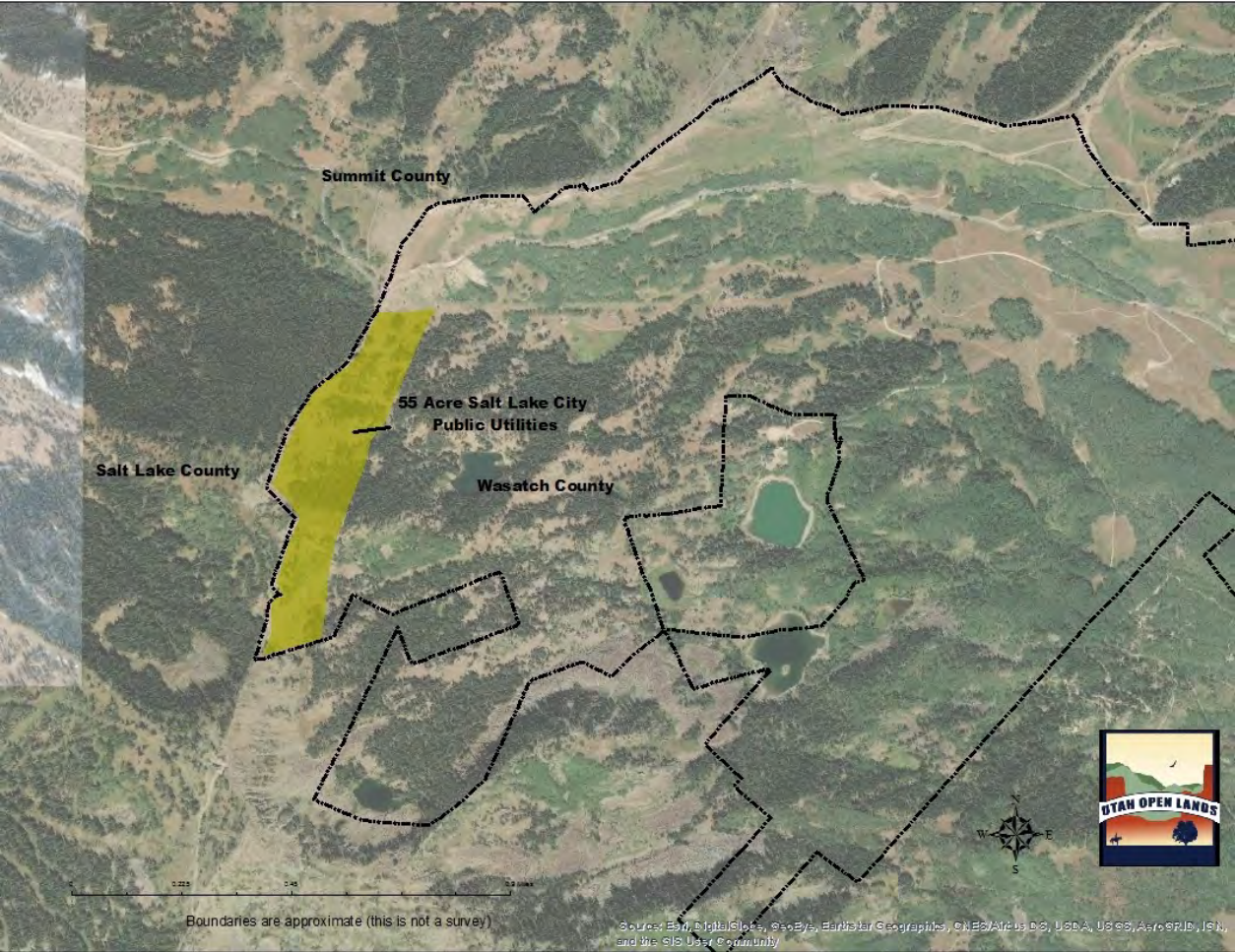


PCMG

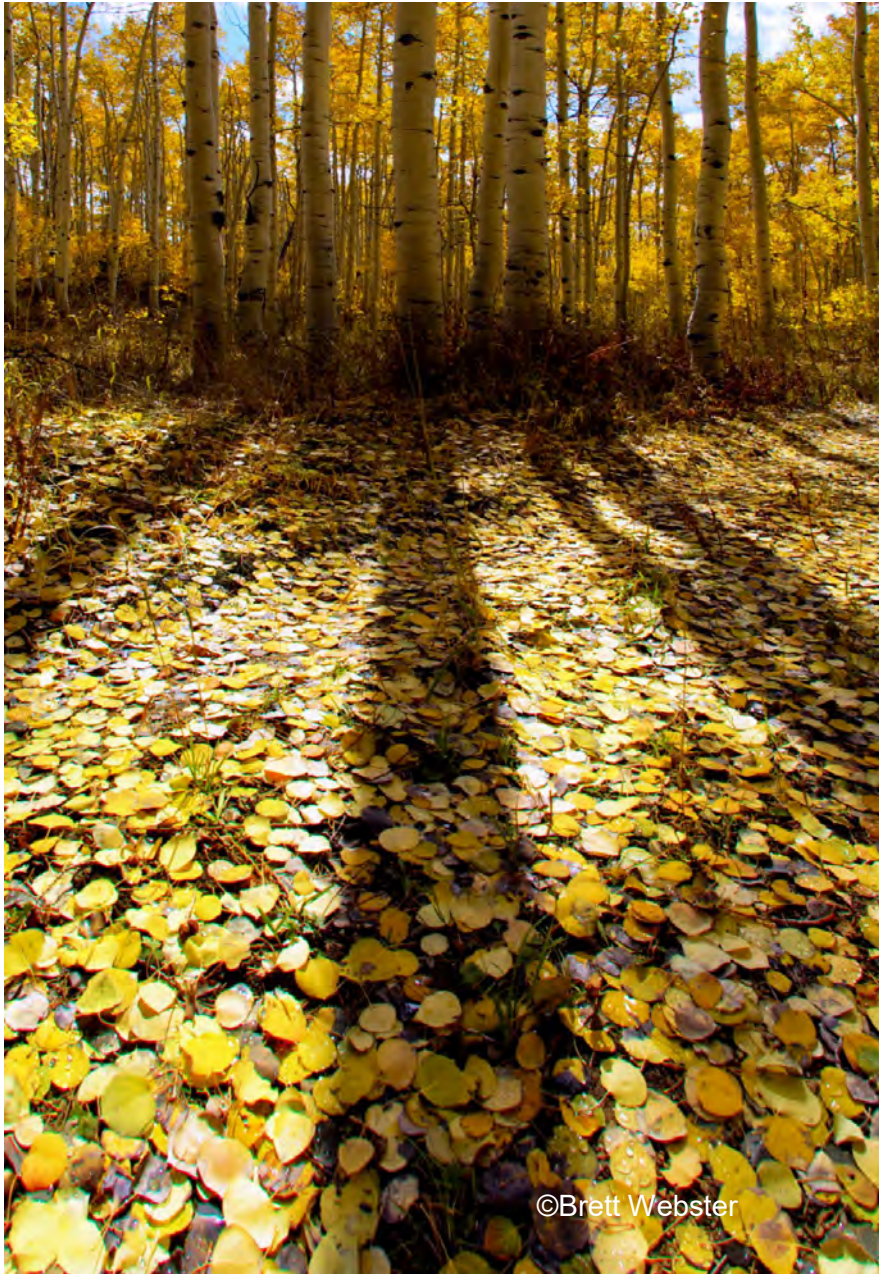


# V. 55 ACRE SALT LAKE PUBLIC UTILITIES LAND

Pursuant to the terms of a grant from Salt Lake City toward the overall purchase of approximately 55 acres of land adjacent to the Salt Lake County line will be granted to Salt Lake City Public Utilities as per the Purchase and Sale Agreement by and between Park City Municipal Corporation. The 55 acres will be under the direct ownership of the SLCPU , but its management will be incorporated into the overall Bonanza Flat Conservation Easement which requires that the land remain encumbered by the Bonanza Flat Conservation Easement held by UOL. Any amendments to Part Three, Section 2 of the BFAMS Plan shall be approved by Salt Lake City Council, such approval not to be unreasonably withheld. The SLC Property shall at all times be subject to the terms of the Bonanza Flat Conservation Area Conservation Easement and no provision in Part Three, Section 2 of the BFAMS Plan or action of the Salt Lake Public Utilities Director or Salt Lake City Council shall be less restrictive than the Bonanza Flat Conservation Area Conservation Easement.







## PART TWO

# DOCUMENTATION

### **BASELINE DOCUMENTATION and RESOURCE INVENTORY SUMMARY**

#### **I. BASELINE DOCUMENTATION**

The Baseline Documentation provides an accurate representation of the Property at the time the Conservation Easement was placed on Bonanza Flat Conservation Area.

#### **II. RESOURCE INVENTORY**

The Bonanza Flat Conservation Area Resource Inventory (the “Resource Inventory”) consists of 7 sections of data collected on the Property from June 29, 2017 through 2019. The Resource Inventory provides information regarding current uses, historic uses, and scientific analysis of the Conservation Values found on Bonanza Flat Conservation Area. Understanding the existing conditions and the effects of the existing conditions is a critical component in determining best practices for adaptive management and tracking the trajectory of the Conservation Values.



### III. CONSERVATION EASEMENT

The Property has been permanently protected with a Conservation Easement. The Conservation Easement defines the Conservation Values and identifies permitted and prohibited uses, which ensure the protection of the land and its Conservation Values in perpetuity.

The Conservation Easement is the guiding document in protecting the land and should be utilized to ensure activities on the Property are in compliance.

#### CONSERVATION VALUES

- Protection of watershed values, drinking water, and water quality pursuant to clearly delineated governmental policies;
- Protection of public recreational and educational values;
- Protection and preservation of relatively natural habitat;
- Protection of scenic, aesthetic, and open space;
- Protection of a historic land area by preserving the public’s enjoyment of the unaltered nature of land; and
- Protection of areas that act as buffers to existing areas of protected open space.

### CONSERVATION VALUES

Bonanza Flat Conservation Area encompasses tremendous open space values and supports the interests of a broad range of individuals and entities. Watershed values are a substantial value that crosses multiple user groups.

#### SECTION I – CONSERVATION PURPOSE

The purpose of this Easement is to forever protect and preserve the Conservation Values of the Property by prohibiting any use of the Property that may materially impair or interfere with such protection and preservation (the “Conservation Purpose”). The Parties agree that the Conservation Values are not likely to be materially adversely affected by the continued use of the Property as authorized in Section V to this Easement. Grantor and Grantee intend that this Easement will confine uses of the Property to only those activities that are consistent with the Conservation Purpose.



## **WATERSHED Conservation Value**

**Protection of watershed values, drinking water and water quality pursuant to clearly delineated Governmental policies in accordance with 170(h)(4)(A)(iii)**

Bonanza Flat Conservation Area is part of the headwaters of the Provo River – Lake Creek watershed, and is part of a system that eventually delivers drinking water to 50% of the greater Salt Lake Valley area residents. The Property has abundant water resources, including wetlands, streams and lakes: Bloods Lake, Lake Lackawaxen, a portion of Silver Lake and a portion of Silver Lake Islet. The protection of these features is one lens through which all management decisions will be considered. The critical nature of water resources in Utah further emphasize the importance of ensuring protection of this resource in perpetuity. Separating high-use areas from water features throughout the BFAMS Plan is a best management practice. The property also contains numerous perennial and intermittent streams and nationally inventoried wetlands. The accumulation of snow on Bonanza Flat Conservation Area during the winter is an important value. The snow storage of this land is invaluable in a climate-sensitive reality as it feeds streams that provide for valley grasslands, and flows to drinking water for communities from Midway to Sandy. Snow accumulation has been measured at 9 feet in March of 2018 in the meadow below Lake Brimhall. In 2019, a record snow year nearly doubled this amount. The 2018 measurement was taken during a year of drought as identified by numerous sources, including the National Weather Service.

Water flows from every lake or wetland on Bonanza Flat Conservation Area in channels or across the surface of the ground in features that require sensitivity in future planning of trails and use determinations. In the spring, these features are abundantly full of water that rapidly decreases in flow and dissipates by late summer. Most of the water accumulates in a channel along the south side of the Property and flows to Midway and Wasatch County. Water quality testing and data tracks the overall health of the watershed. Utah Open Lands continuously conducts water quality tests on Bloods Lake, Lake Lackawaxen, Silver Lake and Silver Lake Islet. Measurements taken include water condition, water surface condition, water clarity, water color, water odor, presence of dead fish, dissolved oxygen, turbidity, algal bloom and the presence of arsenic and E. coli bacteria.



## **PUBLIC RECREATION and EDUCATION Conservation Value**

### **Preservation of land areas for outdoor recreation by the general public 170(h)(4)(A)(i)**

Bonanza Flat Conservation Area is located in the heart of the Wasatch, an intersection between three counties. The Property has been privately owned for decades. With the acquisition by Park City, the public can now access the Property without trespass, and the management of the land will ensure a better recreational experience by creating sustainable trails and greater functionality for recreation users. The recreation value of this property to the public cannot be overstated. Public recreation was a value highlighted in the bond language that enabled the preservation of this land.

## **VEGETATION Conservation Value**

### **Protection and preservation of relatively natural habit in accordance with 170(h)(4)(A)(ii)**

Bonanza Flat Conservation Area is defined by five main, clearly distinguishable natural communities which include Aspen, Conifer, Mountain Brush, Wet Meadow, and Shrubs, Forbs, and Grasses. Each natural community contains its own unique species diversity.

## **UNCOMMON RARE PLANTS**

### **Conservation Value**

#### **Protection and preservation of relatively natural habit in accordance with 170(h)(4)(A)(ii)**

Three uncommon/rare species were noted in our vegetative surveys: clustered lady's slipper (*Cypripedium fasciculatum*), Garrett's fleabane (*Erigeron garrettii*) and Wasatch rockcress (*Boechera lasiocarpa*). The presence of these plants underscores the unique capacity that Bonanza Flat Conservation Area has to support a biologically diverse community of plants and animals alike. Rare plant species will be taken into account in trail planning considerations to prevent disturbance.



© Bret Webster



## **WILDLIFE Conservation Value**

### **Protection and Preservation of relatively natural habitat in accordance with 170(h)(4)(A)(ii)**

Bonanza Flat Conservation Area hosts a range of wildlife. As a refuge of undeveloped space in an area of high development, Bonanza Flat Conservation Area provides critical habitat for wildlife reported on the *Utah Sensitive Species List* and key wildlife game species of Utah. The Utah Natural Heritage Program notes that several species on the Utah Sensitive Species List occur within a two-mile radius of the Property. UOL has documented species susceptible to climate change as well as some considered to be of threatened status on the Property. Trail limitations and regulations within the Headwaters Area and Back Country Wildlife Consideration Area aid in prevention of disturbance of critical wildlife activity.

## **SCENIC Conservation Value**

### **Protection of scenic, aesthetic and open space in accordance with 170(h)(4)(A)(iii)**

Bonanza Flat Conservation Area is a stunning, diverse, and scenically vulnerable piece of property. Bonanza Flat Conservation Area is highly visible from publicly traveled roads. Guardsman Pass, Empire Pass, Wasatch Mountain State Park, US Forest Service, Brighton Ski Area, Deer Valley, and Park City Mountain Resort all have sweeping views of the entirety of Bonanza Flat Conservation Area. These views enhance the visual open space values of Park City, and contribute directly to the thriving Utah recreational community.



# PART THREE

## MANAGEMENT, ACTIONS, and OUTCOMES

Management that is thoughtful will bring a higher level of experience for all users from wildlife enthusiasts to mountain bikers, hikers and backcountry users. A community survey created and distributed to over 3,500 individuals during a period of six months, from July to December 2017, garnered over 1,450 responses, and the results of the survey were contemplated at a Jurisdictional and Technical Stakeholder Committee level as part of the process that facilitated some determinations of management strategies. The following sections describe areas of opportunity.

In determining the recreational carrying capacity of the Bonanza Flat Conservation Area, on site observation, data collection and trail counters were used. Documenting existing conditions and examining use patterns occurred both in terms of degrees of use and type of use. The objective of this management plan in creating a higher level of management includes providing necessary facilities as well as curtailing activities that have a greater impact on the land, thus providing the baseline for a fundamental recreational carrying capacity framework. An example of this analysis is a prohibition on camping and motorized vehicular use. The impacts from these two activities were substantial on the landscape because of inadequate facilities or guidelines of use. Additionally, the current conditions of the landscape provided additional input for appropriate levels of use. Restoration will result in positive increases of natural ecosystem functionality.

### I. TRAILS

Bonanza Flat Conservation Area is inundated with social trails (man-made disturbances) that lack sustainable trail design, intention and functionality. This jumble of poorly created trail networks throughout the Property have no concrete rhyme or reason to their planning, creation, or management; trails crisscross, intersect, and start and stop in an inefficient unmanaged manner.



# I. TRAILS - continued

## EXISTING CONDITIONS ANALYSIS

During the summer of 2017 the trails of the Bonanza Flat property were inventoried with GPS programs, and analyzed on foot and bicycle. It was found that the majority of the trails on the property were built in an unsustainable manor. Below is summary of the analysis.

There are three main reasons the trails are unsustainably built:

1. Built on flat ground with a lack of outslope (see exhibit A)
2. Built on the fall line (see exhibit B)
3. Built on ridgelines (see exhibit C)
4. Built at too steep of grade. (see exhibit D)

All of these four points are known mistakes of unsustainable trail building. Due to these four reasons many trails are cupped (or trenched), with erosion leading to the greater exposure of rocks, making the trails only passible by foot, often times in an unsafe or uncomfortable manner.

The trails East of Bloods Lake were built mainly by the Talisker guides primarily using brush saws. These saws rip up the grasses and other plant life and leave behind a small dirt trail. Additionally, many of the trails were beaten in after heavy use during the summer months by horses, hikers and bikers. Due to the manner by which these trails were built, they are very narrow, have little vegetation removed, and could easily be naturally re-vegetated with a couple of seasons of trail closure.

If these types of trails remained open and saw increased use they would likely become trenched further, divert natural water flow, increase erosion and remain muddy for long periods of time after precipitation.

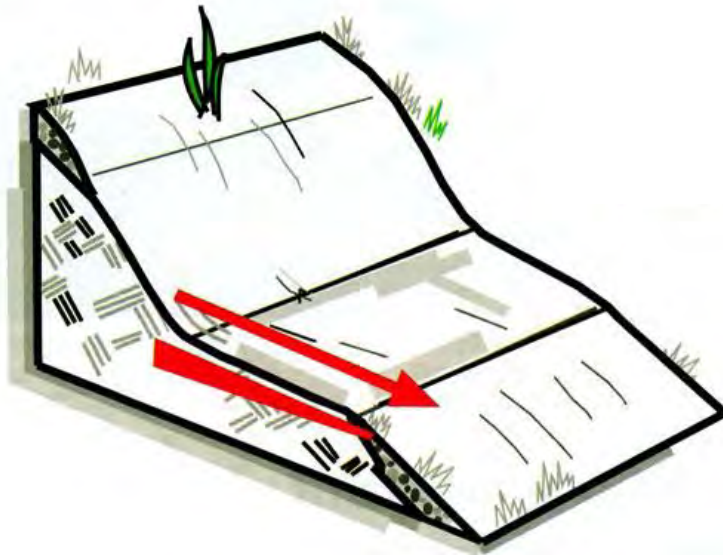
The trails west of Bloods Lake, unofficially deemed the 'west loop' of the Bloods Lake Trail, Lackawaxen Lake Trail, and 10420 and Clayton's Peak Trail are all heavily trafficked by residents and visitors of numerous counties. They are not singular trails but rather, a woven network, crossing back and forth amongst each other. This is likely due to the ease of access of these trails from Guardsman Pass. Additionally, these trails were established as "desire paths" or "social trails", and new trails continue to emerge as shortcuts and paths to new areas and established sites. For the same four reasons mentioned above these trails would be considered unsustainable trails, and will be reclaimed. After inspection of the trails on the Bonanza Flat property the following are recommended:

- Utilize the sections of trails where the grade, placement in relation to hillsides, and outslope can be easily corrected or are already sustainable.
- Where trails are unsustainable close them by disguising the entrance and exits by placing logs, branches, dirt and vertical incursions, etc.
- Consider that some established trails where a single desire paths exists (like the trail from Bloods lake to Lackawaxen Lake), may likely never be abandoned by users and that new trails in those areas may go unused.



# I. TRAILS - continued

Exhibit A

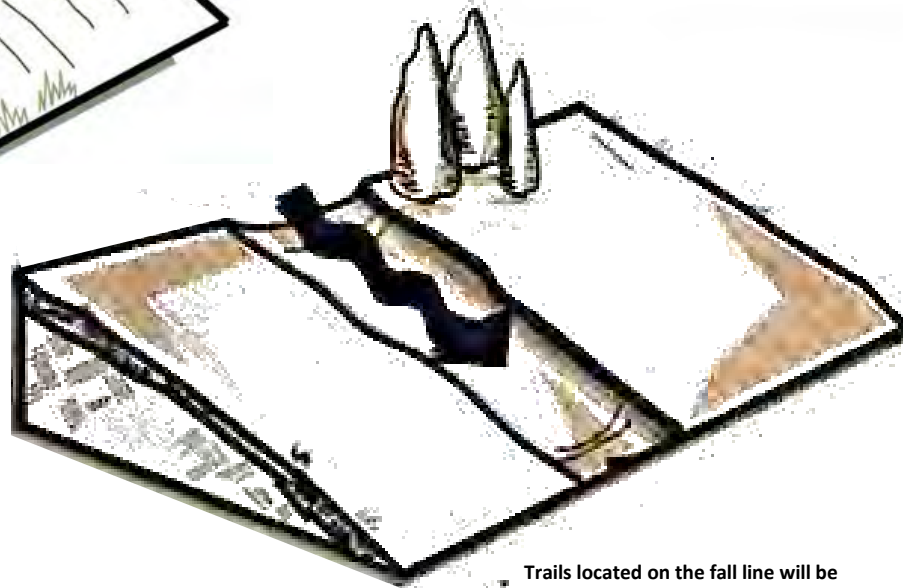


Outslope helps water sheet across and off the trail



Exhibit B  
Fall - Line

Water flowing down a hill will follow the path of least resistance, called the Fall Line



Trails located on the fall line will be damaged by flowing water.

# I. TRAILS - continued



**Exhibit C**

**Exhibit D**



## I. TRAILS - continued

- Take into account that some established trails may not be suitable for all user groups.
- Remember that limiting ease of access by changing trailhead location may help reduce future social paths from being created.
- Consider potential desire paths when creating new trails.
- Education on trail etiquette will be paramount for residents and visitors alike as new trails are established.

The following trailheads and scenic overlook areas have been constructed on the property to aid in sustainable recreational usage on the Bonanza Flat Conservation Area property. The new Bloods Lake Trail has been constructed with sustainable trail building practices. Each new trailhead area includes pit toilet facilities, waste receptacles, signage, and a parking area. The Guardsman Pass Drop-Off/Scenic Overlook includes a minute parking area, pit toilet facilities, waste receptacles and signage designed to minimize human disturbance. The old Bloods Lake social trail at this location has been closed to recreational use, and further restoration efforts are recommended. The aforementioned parking areas do not exceed a collective total of 175 vehicle spaces.

**Bloods Lake Trailhead:** New trailhead located east of Guardsman Pass, parking area and pit toilet facilities are located north of Guardsman Pass Road in the vicinity of the old quarry pit man-made disturbance.

**Bonanza Flat Trailhead:** New trailhead, associated parking area and pit toilet facilities are located south of Route 224.– replacing Quincy Shaft man-made disturbance.

**Empire Pass Trailhead:** New trailhead, parking area and pit toilets facilities are located north of Route 224 near the easternmost edge of the Protected Property - replacing Empire Pass man-made disturbance.

**Guardsman Pass Drop-Off/Scenic Overlook:** Located south of Guardsman Pass near the west boundary of the property. Small parking area, pit toilet facilities, waste receptacles and signage located in this area - replacing Guardsman Pass man-made disturbance.

**Optional Silver Islet Trailhead:** Located north of Pine Canyon Road, south-east of Route 224. Trail construction has not occurred at this site to date. Proposed facilities include parking area, trailhead kiosk with signage, bathroom facilities and garbage cans.

## MANAGEMENT STRATEGY

The lack of a functional trail system and the haphazard nature of existing trails not only threatened the other Conservation Values but the recreational experience itself. Trails affect wildlife patterns, nesting birds, calving areas, migration corridors, wetlands, sensitive slopes and vegetation, and current social trails will undermine sustainable human use in the area over time. Working within the bounds of the management areas created, both single and multi-use trails take into account the multiple Conservation Values. Identified issues include closing currently operating social trails, creating informative signage, seasonal wildlife closures, restrictions of types of use, and developing trailhead infrastructure to manage waste and guide appropriate use, and to utilize existing man-made disturbance features to create a sustainable trail system in balance with the other Conservation Values.

The Conservation Easement identifies five management areas that were developed with an understanding of the various Conservation Values, the concentration of those Conservation Values and an analysis of how certain uses or better management of uses would impact the carrying capacity of the land as a whole. These management areas provide for a refined focus on management.

## I. TRAILS - continued

The **Headwaters Area** primary considerations include areas within Bonanza Flat where wetland functioning, streams, lakes and other vital water features occur. Protection of water quality relies on sensitivity to these features and ongoing monitoring including water testing, vegetative cover (biomass), vegetative diversity, invasive species and disturbances. Healthy ecological functioning in the Headwaters Area helps to ensure watershed protection. Social trails and manmade disturbances that cause significant erosion will be reseeded and reclaimed. New sustainable trails that avoid sensitive areas while simultaneously allowing for users to appreciate the beauty and wonder of them are the goal. Rare and unique plant species occur in this area. Water quality and wetland feature enhancement may occur on the Property to protect the watershed value or to benefit the wildlife or carbon sequestration. Enhancement of wetlands creates opportunities for carbon sequestration as does vegetative plantings.

Dogs are limited to designated trails and precluded from trails into Big Cottonwood Canyon and within 100 yards of Bloods Lake (which is being used as the source of drinking water for the Girl Scouts of Utah, Camp Cloud Rim). The provision allowing for dogs in the Headwaters Area is dependent upon good stewardship including appropriate removal of waste. Numerous studies demonstrate increased degradation in watershed areas due to the presence of dogs. According to David Stevens, Division Head of Environmental Engineering, and Utah Water Research Lab at Utah State University, "Dogs are shown to provide up to 30% of watershed contamination."

There are a number of potential threats to water quality, and the Headwaters Area management strategy employs safeguards to avoid potential degradation. Of the six greatest threats to water quality identified by the EPA, the following three are potential threats on Bonanza Flat. 1) Pharmaceuticals: birth control and antidepressants (human excretion and irresponsible disposal cause mutations in wildlife). 2) Development or manmade disturbances: result in erosion, increased sediment in water, wildlife disturbance and invasive species establishment and spread. 3) Climate change: changing patterns of climate effect to which the environment cannot adapt, causing higher volume of spring runoff thus increasing harmful water bacteria. Due to the filtering characteristic of wetlands, which have the ability to mitigate some of the aforementioned threats, the Headwaters Area includes portions of Bonanza Flat that demonstrate high wetland value.

As climate change shifts weather patterns which affect the upper reaches of the Wasatch Range of Bonanza Flat, the area will experience greater precipitation, and as a result higher levels of contaminants can occur. This demonstrates a need for greater care and protection of watershed areas.

**Trail related structures**—The Conservation Easement provides for trail related structures. Interpretive trails, wildlife blinds, bat and bird boxes, benches, and boardwalks are considered examples of appropriate trail related structures in watershed areas. Significant restoration activities around Bloods Lake and the Guardsman Pass area are recommended in this plan to lessen impacts from erosion and the potential for pathogen contamination. Water quality testing will remain an essential protocol to measure impacts and successes. A reroute of the Bloods Lake Trail is a fundamental restoration activity which balances recreational use.



## I. TRAILS - continued

The **Back Country Area** primary considerations include providing a wilderness like, or backcountry experience for users. Multiple use trails and single track trails provide for a diversity of recreational users. Emphasis is placed on loops as well as destination trails. Directional trails and separation of recreational user types in certain areas provides for an enhanced recreational experience. Dogs are permitted on designated trails in the backcountry consistent with existing policies and laws. Trails are designed to provide different levels of user ability and foster a diversity of access points to disperse use. A Back Country Wildlife Consideration Area is located on the southeast region of the Back Country Management Area. Regulations in this area take into account sensitive wildlife activity and implement preventative measures which minimize habitat disturbance.

Existing disturbance areas will be used for the overall trail system to the greatest possible extent, with a focus on sensible regional connections. Sustainable trail development will greatly reduce rogue trails, however rogue trails and other disturbances will be restored primarily through passive methods which include but are not limited to: signage and natural barriers.

The Conservation Easement provides for interpretive trails, benches, boardwalks, mountain biking, hiking and backcountry use including appropriate trail related facilities. Road base/gravel will not be used on backcountry trails. Attention is paid to areas where backcountry trails exist and areas where invasive species control will be critical. The weed map and analysis, as well as protocols identified in the action plan, serve to prevent the spreading of invasive species in the area.

The **Front Country Area** designation and considerations center around the proximity of development. This area contains the greatest amount of manmade disturbances, but it also provides for central access points to the entire property. The Front Country contains critical viewsapes and restoration of manmade disturbances and the creation of trails should minimize scenic impacts.

The Front Country Area provides opportunities for ADA compliant trails. Interpretive trail loops should promote a focus on diverse abilities through sensory, tactile and experiential trail design. Width and trail surface materials should accommodate varied abilities of intended user groups. Surface materials could conflict with scenic values necessitating additional visual vulnerability analysis in trail design concepts.

Regional trail connections converge in this area and multiple use principles will be employed for most trails. A total of three trailheads provide trail access in this area as well as providing access to adjacent properties. Signage will be critical for education to ensure that parameters specific to each management area are respected.

The **Camp Cloud Rim Protection Area** designation and considerations center around protection of the existing Camp Cloud Rim which is owned and operated by the Girl Scouts of Utah, restricting the general public from gaining access to Camp Cloud Rim facilities and providing a buffer area for safety for Girl Scouts programming activities. It is contemplated in the Conservation Easement that if the Girl Scouts cease to own and operate the Girl Scouts lands that the lands would be encumbered by the Conservation Easement at that time. The restrictive covenants attached as an exhibit to the Conservation Easement outline the permitted uses including additional structures allowed on that adjacent Girl Scout land.

# I. TRAILS - continued

## IMPLEMENTATION

Park City, as landowner, may use bridging, boardwalks, culverts, separated street crossings, rolling dips, water bars, gates or other trail-related structures or improvements in accordance with this management plan. All trails that are rerouted, relocated, constructed and maintained, must be in accordance with this BFAMS Plan. Sustainable principles should guide trail construction and maintenance. Employing International Mountain Biking Association best practices regarding trail development, retaining natural water flow, and paying attention to storm water and erosion prevention, is considered important in trail building associated with Bonanza Flat.

- Trails should be developed in a manner that avoid degrading the natural environment or the experience of being in a wild setting.
- Natural ecosystems should be protected, restored and well managed as a part of trail construction and maintenance.
- The physical condition of the trails will meet the following goals:
  - Sustainability – Trail design should consider longtime horizons and lessen maintenance needs. Sustainable design, employs modern design as best practices.
  - Safety – Designing single use versus multi-use trails as well as directional trail elements will aid safety and augment recreation experiences. Informational signage, as well as standard trail etiquette information, should be located at trailheads and on the land where appropriate. Backcountry safety and awareness should include “Beacon: Are you beeping?” signage.
  - Connectivity – Regional trail connections and destination trails that incorporate key areas of interest in the overall system will guard against social trail and ad hoc trail creation.
- Trail design should provide users with a positive experience that encourages the user to want to protect and become a steward of that trail and area.
- Any construction of bridges, stairs, culverts or other features involved in trail building should be done following the same guidelines that define sustainable trail construction.
- Utilize the Utah Open Lands Trail, Interpretive Site, Trailhead and Related Improvements Checklist.
- It is anticipated that changes to the proposed trailheads and trails will continue to comply with applicable laws specifically current Wasatch County Code Section 16.38 appendix 3 provides county parameters for trail development.
- Limited trail use in the Headwaters Area and closure of trails during specific dates in the Back Country Wildlife Consideration Area, will take into account calving, nesting, roosting and mating seasons while promoting wildlife movement in high value aspen habitat forest areas.
- Trail work will begin following July 1, with high precaution taken for nesting sites.
- Specific trail regulations and closure in Headwaters Area and Back Country Wildlife Consideration Area will be monitored to further evaluate sensitive wildlife activity.



# I. TRAILS - continued

## DESIRED OUTCOME

Aspen health, sensitive wetlands, rare plant species, invasive plant species, water resources, and general Conservation Values are considered when developing trails. As a generally acceptable procedure, review of trails should include both mapping and flagging. On site review by resource experts, Grantor and Grantee, will provide potential minor adjustments, or determine if environmental or user sensitivities need to be adjusted for. Evaluation and combination of management strategies that incorporate a fire break or emergency vehicle access, as part of a repurposed two-track disturbance or a Nordic trail are considered advantageous. Aiding aspen forest recruitment and regeneration and maintaining a mid-sectional forest state creates natural wildfire mitigation and maintains wildlife habitat. The recent creation of the trail to Bloods Lake provides for an opportunity to employ these principles. While creating the trail, the crew found a nesting bird, and rerouted the trail in order to avoid disturbance to the nest. Even though the trail work was scheduled to avoid fledgling season, Mountain Trails Foundation was sensitive to the other Conservation Values and adjusted accordingly.

## TRAILS and RECREATIONAL ACCESS ACTION PLAN

| Goal: Trails and Recreational Access  |   |  |                   |
|---|---|--|-------------------|
| Action  | Considerations  | Roles  | Timing            |
| Trailhead development in line with 2018-2020 GOOR Grant.                          | Appropriate facilities and access where stated and necessary.                                     | UOL will monitor sites to ensure appropriate facilities.   | Completed by 2020 |
| Public will be educated about appropriate use of the trails and recreation sites. | In order to aid sustainable recreational experience, users must be educated on appropriate usage. | Signs and postings will educate users about appropriate use, jointly developed by UOL and PCMC. UOL's Conservation Ambassador Program and trail ambassadors from MTF aid in education through online, onsite presence. | Ongoing           |

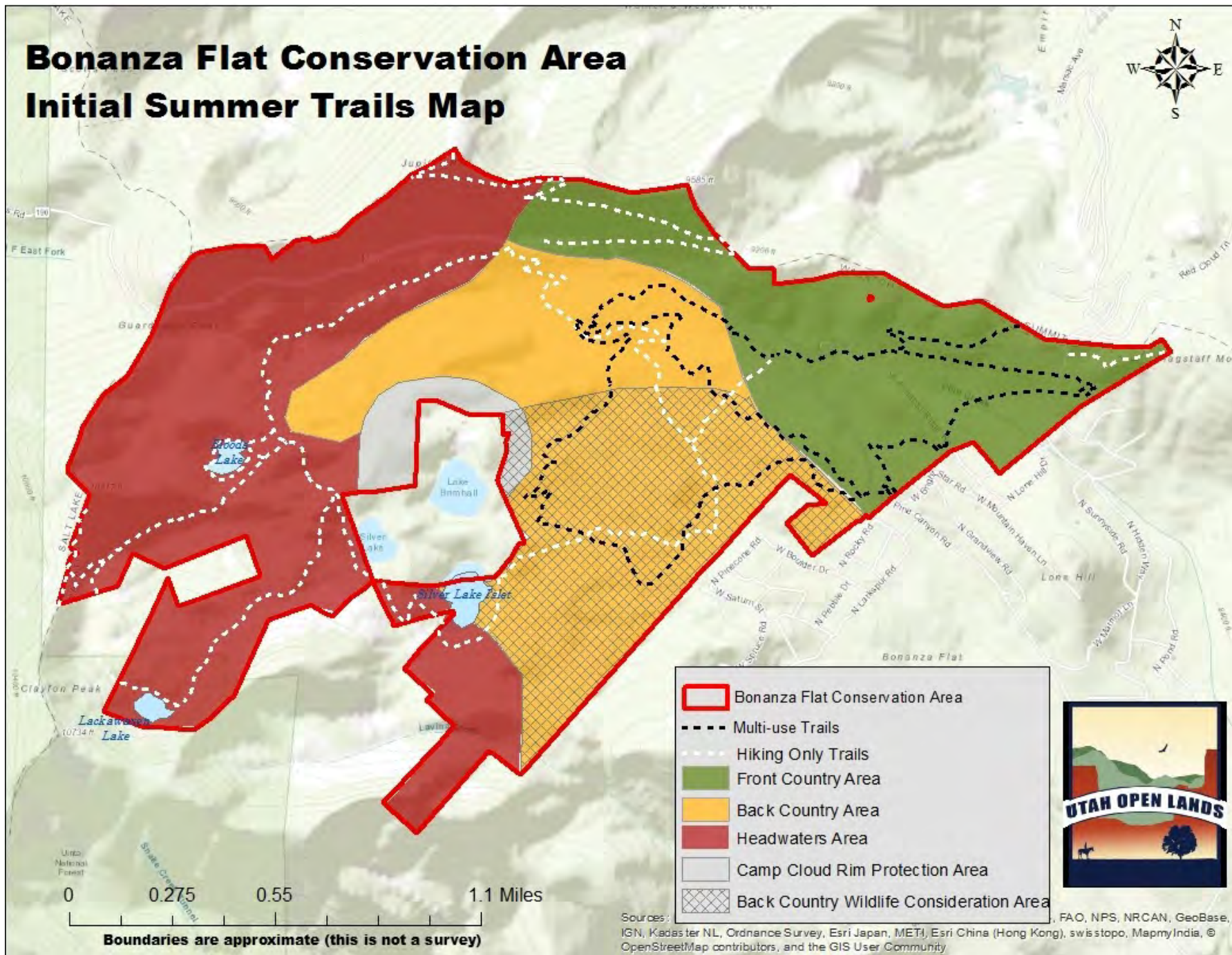
## TRAILS and RECREATIONAL ACCESS ACTION PLAN - continued

| Goal: Trails and Recreational Access  |  |   |         |
|---|--|---|---------|
| Action  | Considerations   | Roles   | Timing  |
| Monitor restoration areas that are subject to overuse                             | Areas of consistent overuse are in danger of damage and must be monitored. | UOL stewards will monitor the site. Appropriate action will be taken if certain sites are prone to overuse.   | Ongoing |
| Placement of trailhead surveys to calculate and gather empirical data             | User types / degree of use / adequacy of facilities / recreational design  | UOL will work closely with the landowner Park City to survey users and their recreational experiences on the Property. Online and onsite methods, as well as the placement of trail counters, will provide ongoing data points for analysis | Ongoing |
| Create interpretational / educational signs                                       | Employing signage / apps.  | Work with Park City to create and post interpretive signage along selected trails. Kiosks for education of stewardship principles (Leave-No-Trace, dog waste, etc)  | Ongoing |
| Encourage unique user opportunities. Utilize Front Country for varied experiences | ADA accessible trails. Sensory guided tours, tactile, age oriented, etc.   | Work with Park City to design and implement sustainable accessible trails as appropriate.   | Ongoing |





# Bonanza Flat Conservation Area Initial Summer Trails Map



## I.A. MOUNTAIN BIKING

### MANAGEMENT STRATEGY

Mountain biking use on the Property is observed mainly on connection trails. However, opportunity exists for the creation of mountain biking trails that exist solely within the Property.

### IMPLEMENTATION

- Creation of directionally designated, multi-use or single use trails will separate mountain biking from other recreational use trails in appropriate areas to minimize conflict between user groups.
- Installation of signage at access points will inform users of protocols, risks and warnings when riding trails.
- Installation of trailhead signage will delineates trails, directions, and boundaries.
- Closure of Seasonal, Back Country Wildlife Consideration Area trail considered October 1 through July 1.

### DESIRED OUTCOME

- Sustainable design and creation of trails. Accessible parking with mountain biking trailheads in mind.
- Minimal conflicts with other user groups.
- Shuttle facilitation for high use areas with no parking.

## I.B. HIKING

### MANAGEMENT STRATEGY

Hiking is the most popular form of recreation on the Property. While hiking is generally a passive activity as an individual pursuit, high-use has resulted in trail erosion, rogue trails and areas of disturbance. Social trail widening should be discouraged. Designation of official trailheads and trail designations which define user type, will continue to improve sustainable recreational use on the Property.

### IMPLEMENTATION

- Trail planning with a cross-jurisdictional mindset that disincentivizes creation of social trails.
- Monitor popular destinations and old social trails in order to mitigate new damage, allow trail restoration, and implement adaptive management strategies specific to the area.
- Pit toilet facilities, waste receptacles, parking and signage provided at trailheads.
- Provide educational signage indicating official trail locations, trail maps, and impact of human disturbances on habitat and wildlife.



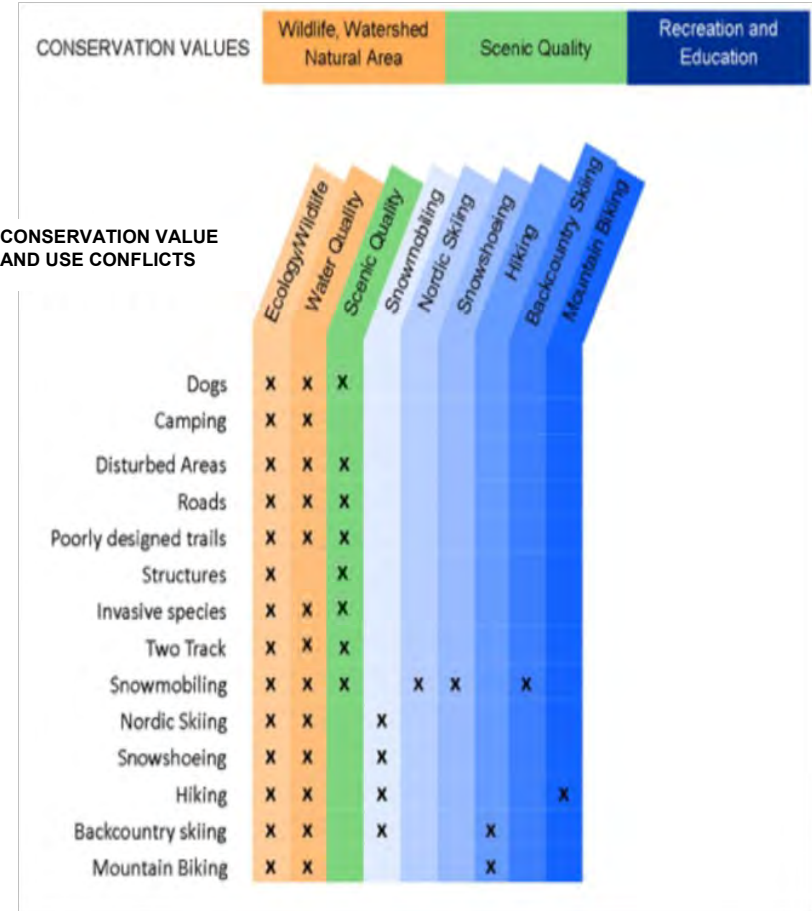
# I.B. HIKING - continued

## DESIRED OUTCOME

- Monitor trail use and maintain trails to limit erosion and human disturbances on wildlife and habitat.
- Monitor trails for invasive species, mitigate as necessary.
- Minimization of disturbance to watershed, wildlife and natural habitat.
- An enjoyable, accessible trail system that provides for the diverse user base.
- Land health improved with elimination and /or restoration of social trails, and introduction sustainably designed hiking trails.

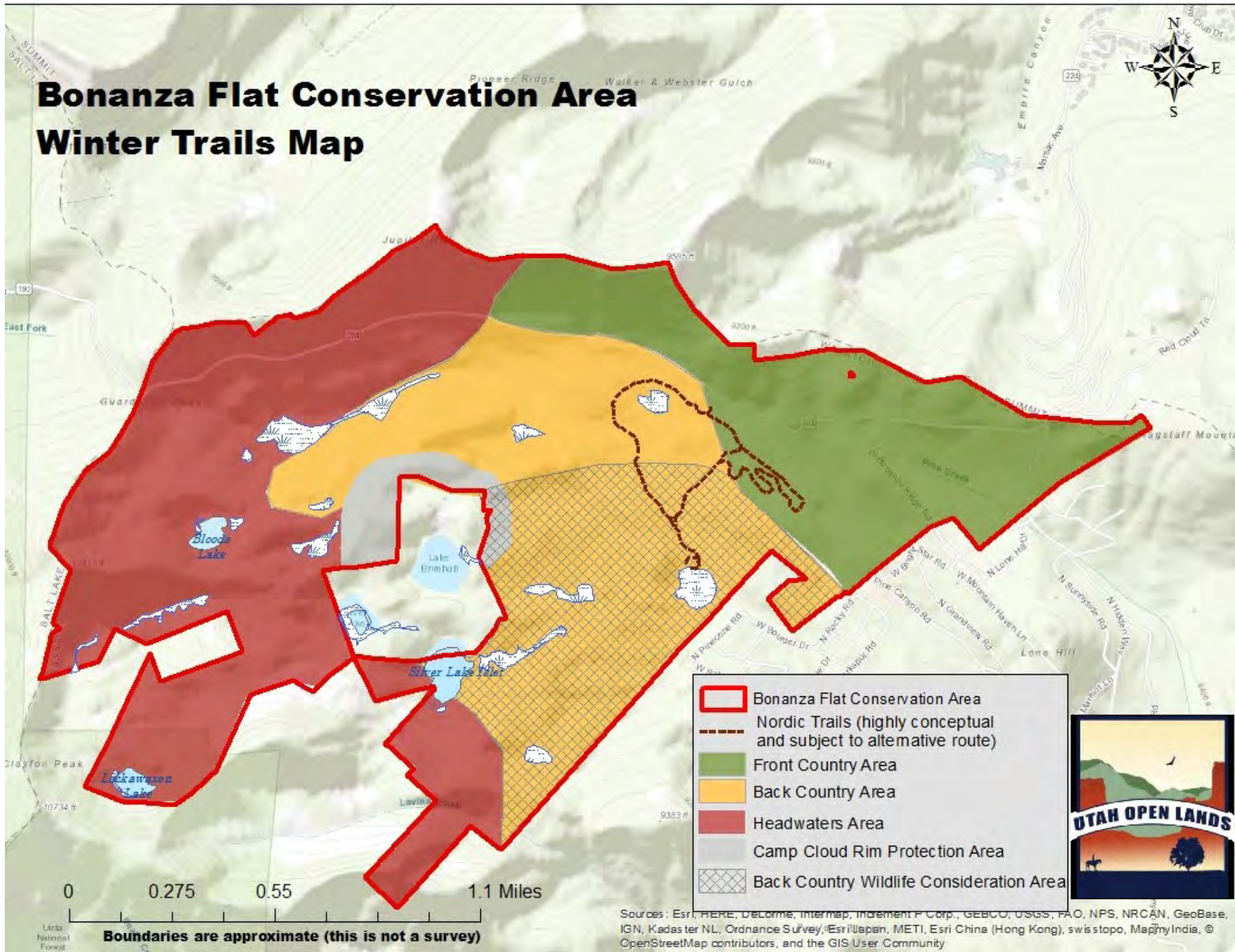


© Bret



### Conservation Value and Use Conflicts

Balancing multiple Conservation Values requires constant monitoring of baseline conditions, restoration success and behavioral changes. Conflicts are unavoidable. Management decisions should trend toward decreasing cumulative impacts, reducing user group and user/wildlife interface and implementing restrictions when education fails.





## I.C. BACKCOUNTRY SKIING and SNOWSHOEING

### MANAGEMENT STRATEGY

Bonanza Flat Conservation Area is an access point for backcountry skiing. Surrounding resorts have designated back country gates which inform users of risks associated with avalanche danger outside of formal ski area boundaries. The main concern with these recreational uses is the lack of available waste facilities, the potential impact on the watershed and of human disturbance of avian nesting and fledging, and bat roosts.

### IMPLEMENTATION

- Install signage that informs users of risks and warnings when in the backcountry.
- Ensure access to wintertime waste facilities.
- Nordic skiing is limited to designated trails.
- Education and outreach of proper backcountry practice, pack it in pack it out strategies.
- Installation of educational signage informing trail users of actions which are disturbances of wildlife activity.
- Trail closure and limited allowances as deemed necessary by wildlife activity.

### DESIRED OUTCOME

- Inform public of inherent risks associated with backcountry use.
- Accessible backcountry area that is consistent with the Conservation Values of the Property.
- Limit disturbances on habitat and wildlife.

## I.D. NORDIC SKIING

### MANAGEMENT STRATEGY

A passive, human powered use, Nordic skiing presents minimal conflict with Conservation Values on Bonanza Flat Conservation Area. Nordic skiing offers an alternative to backcountry skiing or snowshoeing as a way of exploring and enjoying the Property. Main concerns associated with this use are a lack of waste facilities, the impact on watershed values and motorized use associated with grooming the Nordic track.





## I.D. NORDIC SKIING - continued

### IMPLEMENTATION

- Designated areas for Nordic skiing; with a groomed track primarily located on two-track existing disturbances.
- Access to restroom and waste facilities.
- Ski trails designed in a way that minimize conflict with other user groups.
- Signage posted at trailheads delineating Nordic ski areas.
- Any Nordic ski trails on the Property should avoid jurisdictional wetlands.
- Educational signage concerning impact of recreational disturbances on wildlife.
- Minimal grooming in Back Country Wildlife Consideration Area.

### DESIRED OUTCOME

- Minimize impact to watershed, wildlife and natural habitat.
- An enjoyable, accessible Nordic trail system that provides for a wide user base.
- Avoid recreational user group conflict.

## I.E. BACKCOUNTRY RISKS

### SEARCH AND RESCUE

The best search and rescue is one that never has to happen because individuals are prepared. Signage warning those venturing into the backcountry are the first line of education. Often search and rescue gets called when an individual encounters danger, or is not prepared for the change in conditions that can occur quickly in mountain terrain. A 2019 Park Record article which reported on the avalanche season near the Bonanza Flat Conservation Area cited Kam Kohler of Wasatch County Search and Rescue who responded to only one incident of search and rescue for a snowmobiler on Bonanza Flat.

“There’s a lot of terrain up in that basin ... that is steep enough to trigger an avalanche that could kill you,” said Kam Kohler, the commander of the Search and Rescue unit in Wasatch County. He called Bonanza Flat a “high hazard zone” for avalanches, describing there are “dozens and dozens of spots up there that could trigger an avalanche.” Kohler urged people not to head into Bonanza Flat alone. It could take between 30 minutes and 40 minutes for a Search and Rescue unit to reach someone in Bonanza Flat, he estimated. ~February 24, 2019 Jay Hamburger, Park Record



## I.E. BACKCOUNTRY RISKS - continued

Management for backcountry use on Bonanza necessitates providing access for search and rescue situations. Existing two track disturbances that provide critical, easy access far into the backcountry will be maintained minimally to aid in search and rescue operations should the need arise. The Conservation Easement prohibits motorized vehicular use providing an exception for emergency vehicles and authorized personnel.

### IMPLEMENTATION

- Promote knowledgeable use of property with educational signage denoting backcountry dangers.
- Create safety corridor for snowmobile travel away from avalanche-prone and wetland areas.
- No active avalanche management i.e. bombing on the Property.
- Trail design which may also be used for sustainable and safe equestrian use.
- Education for backcountry skiers regarding critical roosting and nesting periods.

### DESIRED OUTCOME

- Mitigate backcountry hazard by promoting education of backcountry risks.
- Minimize disturbances to wildlife, vegetation, and watershed values.
- Provide safety corridor.



## 1.F. EQUESTRIAN USE

### MANAGEMENT STRATEGY

Horseback riding occurs on a limited basis on the Property. Most equestrian use emanates from the Wasatch Mountain State Park area and adjacent private properties. Currently, this use appears low enough to not cause dramatic conflicts or impacts. However, trail design must take into account equestrian use in areas of allowance to promote safe and sustainable recreational use.

### IMPLEMENTATION

- Signage indicating that all users yield to horse riders.
- Outreach to horse clubs and boarding facilities for input on best guidelines and management actions.
- Trail closure to equestrian use as deemed necessary during invasive species mitigation efforts.
- Adaptive management options for equestrian access to minimize weed spread could include requiring equestrians to utilize weed-free hay.

## 1.F. EQUESTRIAN USE - continued

### DESIRED OUTCOME

- Minimize conflict between equestrian users and other user groups.
- Minimize spread of invasive species on property as a result of equestrian use.
- Educate equestrian users on best management practices for mineralization of invasive weed spreading.

## II. ACCESS AND TRAILHEAD USE DETERMINATION



Vehicular access occurs at three main junctures; Guardsman Pass Road (Highway 190) from Big Cottonwood Canyon, Highway 224 from Park City and Pine Canyon Rd. from Midway, connecting with 224 and Guardsman Pass Road. In 2011, Wasatch County paved the dirt road known as Guardsman Pass from Pine Canyon Road over to Big Cottonwood Canyon Road. As substantiated by UDOT data, vehicular use on this road increased dramatically once the road was paved. The increased ease of access



has also increased visitors to the area. Parking on the saddle along the Wasatch and Salt Lake County line is not ideal nor safe. Parking along the road next to the Guardsman Pass Overlook has historically caused unsafe conditions. In 2017, on Labor Day weekend, cars were parked within the roadway, impeding emergency vehicular access to the area. Through a combination of onsite observations, discussions with stakeholder groups, elected officials, other non-profit organizations, a public survey, and emergency officials, it has been determined that the parking occurring along Guardsman Pass is indefensible from a health, welfare and safety perspective and is not sustainable for long term recreational use.

In the summer of 2018, porta-potties were installed at Guardsman Pass and emptied every other day. Those recreating in the area left dog waste and trash along the social trail and in the vicinity of Bloods Lake. There were no trash receptacles available at Guardsman Pass, and instead of packing trash and dog waste out recreational users piled garbage approximately three feet high and two feet wide before it was removed. This practice continued throughout the summer with no less than four trash piles having to be removed by various groups.

In 2019 pit toilet facilities, parking areas, trailhead/view area signage and waste receptacles have been constructed at 4 locations along Guardsman Pass. These facilities are predicted to improve sustainable recreational use and promote 'Leave No Trace' principles on the Property.



## II.A. TRAILHEADS

### MANAGEMENT STRATEGY

Three new trailheads and one scenic overlook have been constructed on the property, and one optional trailhead area is proposed. These management actions promote sustainable recreational usage of Bonanza Flat Conservation Area. The maximum capacity of 175 day-use vehicle spaces are defined by the Conservation Easement to accommodate anticipated use without exceeding the threshold carrying capacity for the area. These trailheads are designed to utilize the existing disturbed areas and minimize further disturbance while transitioning access points to sustainable access areas. With the exception of the shuttle drop-off / scenic overlook, these trailheads are within the Front Country Management Area. During the 2017 and 2018 monitoring seasons trail counts, vehicle counts, on site surveys and agency data provided the baseline trail assessment. On any given day the area experienced between 200-250 individual visitors. On weekends and holidays the individual counts jumped to as many as 350 individuals. Trash piles and port-o-potty use on Guardsman Pass during the 2017 and 2018 monitoring seasons provided substantial evidence that the installation of pit-toilet facilities, waste receptacles and official trailhead areas will actually decrease impacts on the land. In determining the recreational carrying capacity of the property a critical part of the analysis was the recognition that human waste, dog waste, and litter has been deposited on the property for years. Impacts from this former practice will be dramatically reduced with the new trailhead/restroom facilities which are now located on the property.

### IMPLEMENTATION

Identified issues include management, enforcement, and education.

- Recreational Grant Opportunities: As of 2018, UOL with the assistance of Park City submitted a Utah Governor's Office of Outdoor Recreation grant and received \$150,000 providing a portion of the funding for 3 trailheads as part of the area's sustainable, well-thought-out parking areas and trailheads.
- Three new trailheads and one drop-off/scenic overlook have been constructed on previous man-made disturbance areas including:
  - Empire Pass Trailhead, Bonanza Flat Trailhead, Bloods Lake Trailhead and Guardsman Pass Drop-Off/Scenic Overlook. An Optional Trailhead is proposed along Pine Canyon Drive.
- Enforcement of parking restrictions, especially along roadways.
- Coordinated efforts will be the most functional way of dealing with a range of issues from curtailing on-street parking to camping, campfires and motorized vehicle use, etc.
- All trailhead locations have been determined in conjunction with established, anticipated and desired use, and access goals and standards.



## II.A. TRAILHEADS - continued

- Building exteriors of the vault style restroom facilities are brick and HardiePlank lap siding, with no stucco.
- To ensure clear view is met as vehicles pull onto Guardsman Pass Road from the Empire Pass Trailhead, pit toilets are set back from the right of way per code.
- Post educational signage at trailheads delineating trail map, regulations, and sustainable practices.

### DESIRED OUTCOME

- Long-term, manageable trailheads and parking.
- Waste management
- Education of sustainable practices

#### **Bonanza Flat Trailhead**

- Primary Front Country Area trailhead with connections to the WOW Trail in Wasatch Mountain State Park and the Mid-Mountain Trail are facilitated from this trailhead.
- Provides restroom facilities, waste receptacles and parking.

#### **Bloods Lake Trailhead**

- The Bloods Lake Trailhead provides for multi-purpose use, is the parking area to access the Bloods Lake Trail and beyond as well as mountain biking trail connections in the Back Country Area.
- Provides restroom facilities, waste receptacles and parking.

#### **Empire Pass Trailhead**

- Occurs only partially on Bonanza Flat and provides close parking access to the Front Country Area.
- Provides restroom facilities, waste receptacles and parking.

#### **Guardsman Pass Scenic Overlook and Shuttle Drop-off**

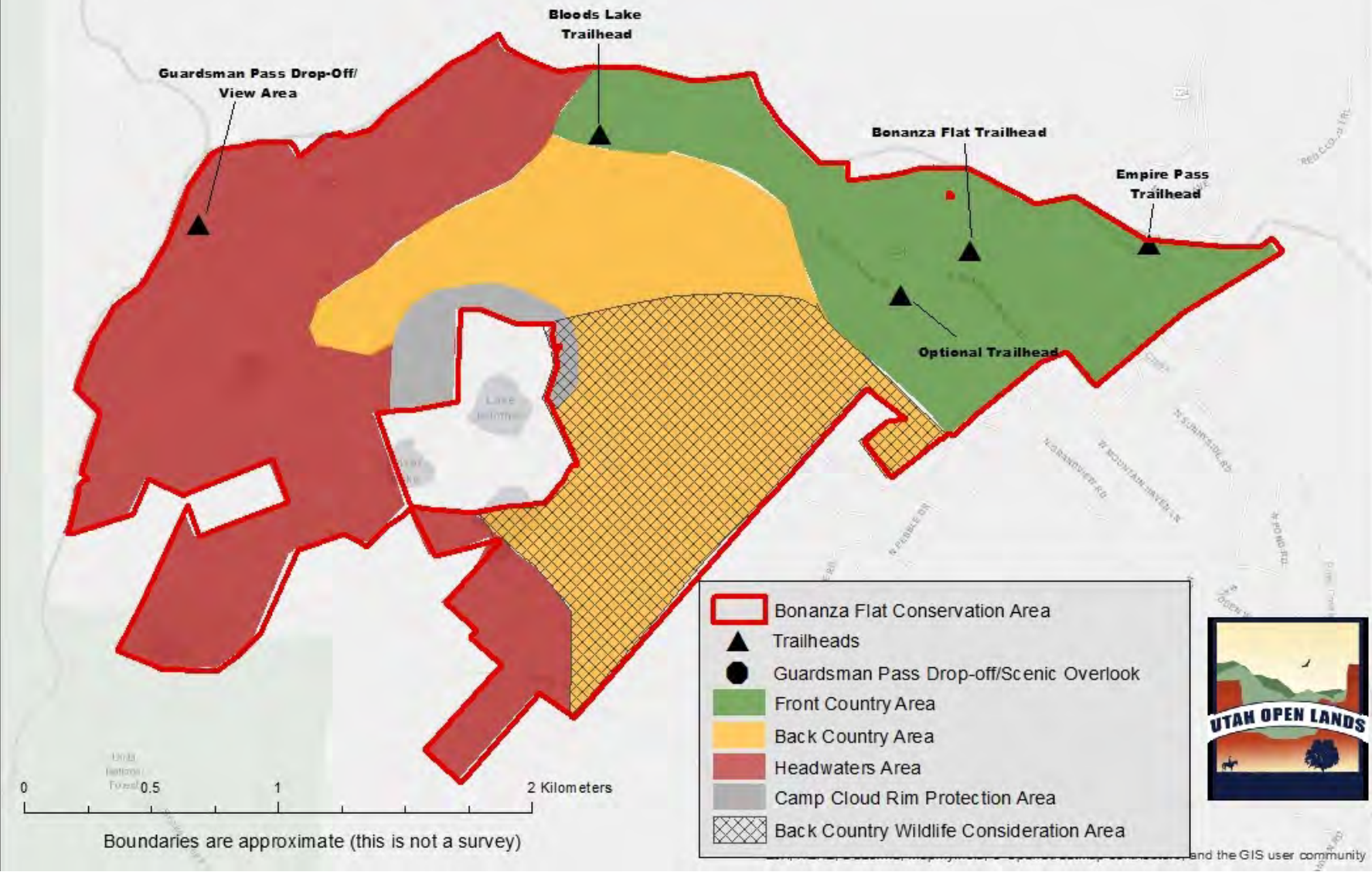
- Provides restrooms facilities, waste receptacles and parking.
- A popular mountain biking trail, the Wasatch Crest Trail, crosses numerous jurisdictions between Big Cottonwood Canyon and Mill Creek and often mountain bikers utilize shuttle companies to experience this trail.

#### **Optional Trailhead**

- Could alleviate parking on the road due to overflow of Wasatch Mountain State Park WOW Trailhead or provide additional Front Country trail access and trail connection.



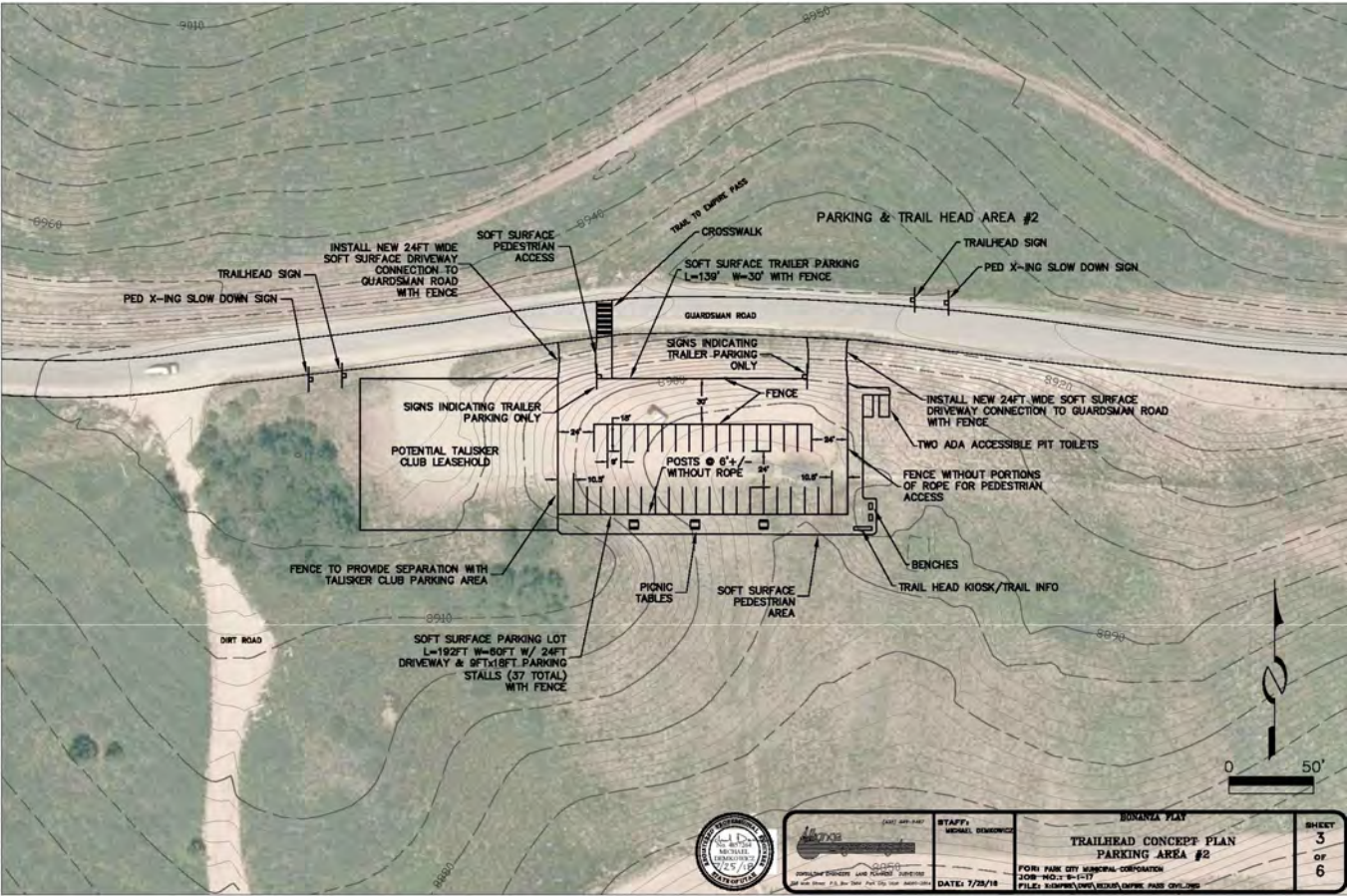
# Bonanza Flat Conservation Area Trailhead and Scenic Overlook Map



# II.A. TRAILHEADS - continued

## BONANZA FLAT TRAILHEAD

The Bonanza Flat Trailhead is located in the eastern portion of the Bonanza Flat Conservation Area south of Route 224. It is located on the former Quincy Shaft which is now closed and covered with a thick layer of fill and disturbed vegetation. This trailhead also has the ability to accommodate equestrian use by providing trailer parking. This is also a scenic over-look area providing views of the Heber Valley.

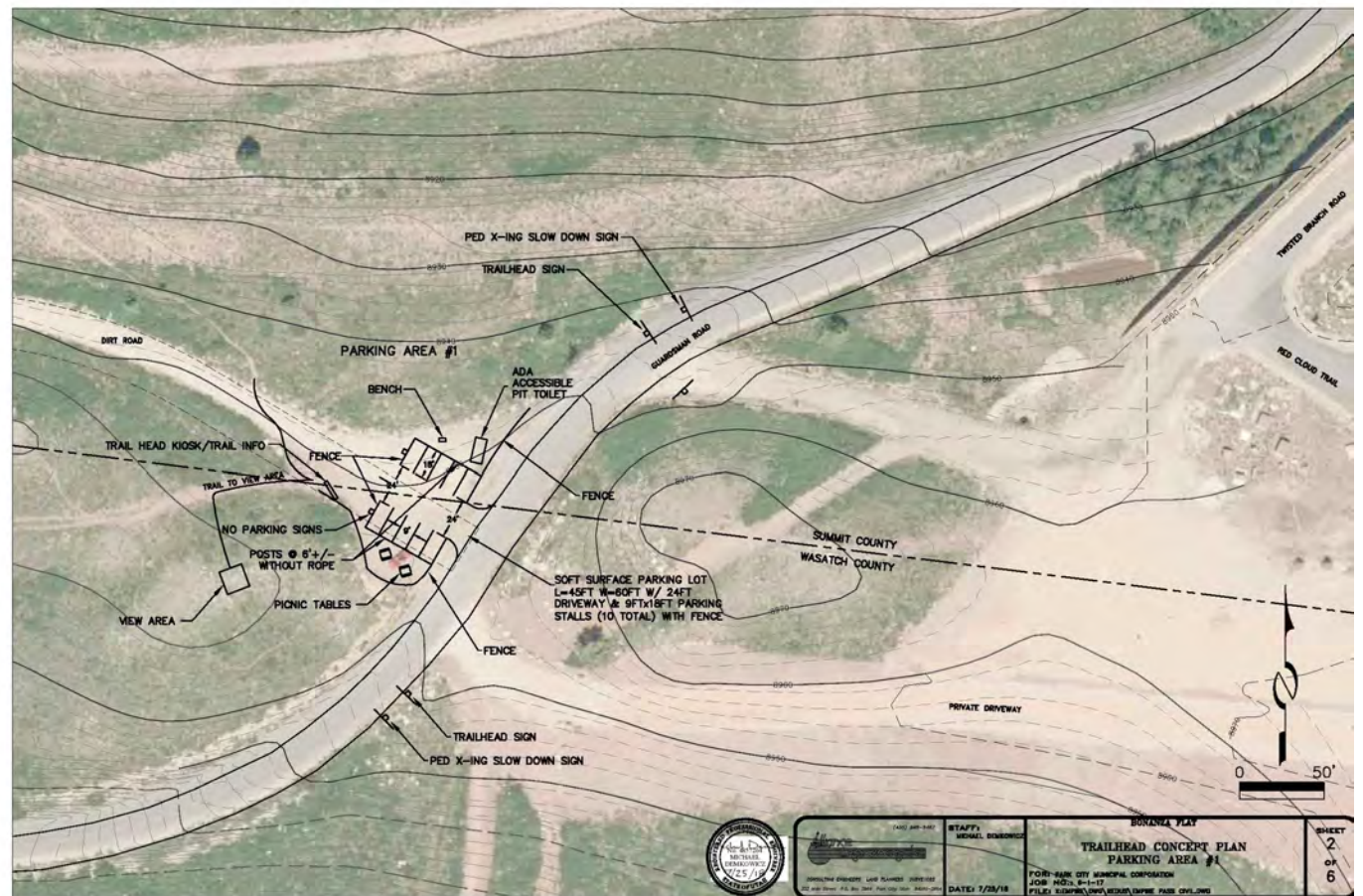




## II.A. TRAILHEADS - continued

### EMPIRE PASS TRAILHEAD

This trailhead provides regional trail access. Possible connections include the Wasatch Crest Trail, 9,000 Foot Trail and Shadow Lake. Since only half of this trailhead is on the Bonanza Flat Conservation Area there are only few parking spaces.

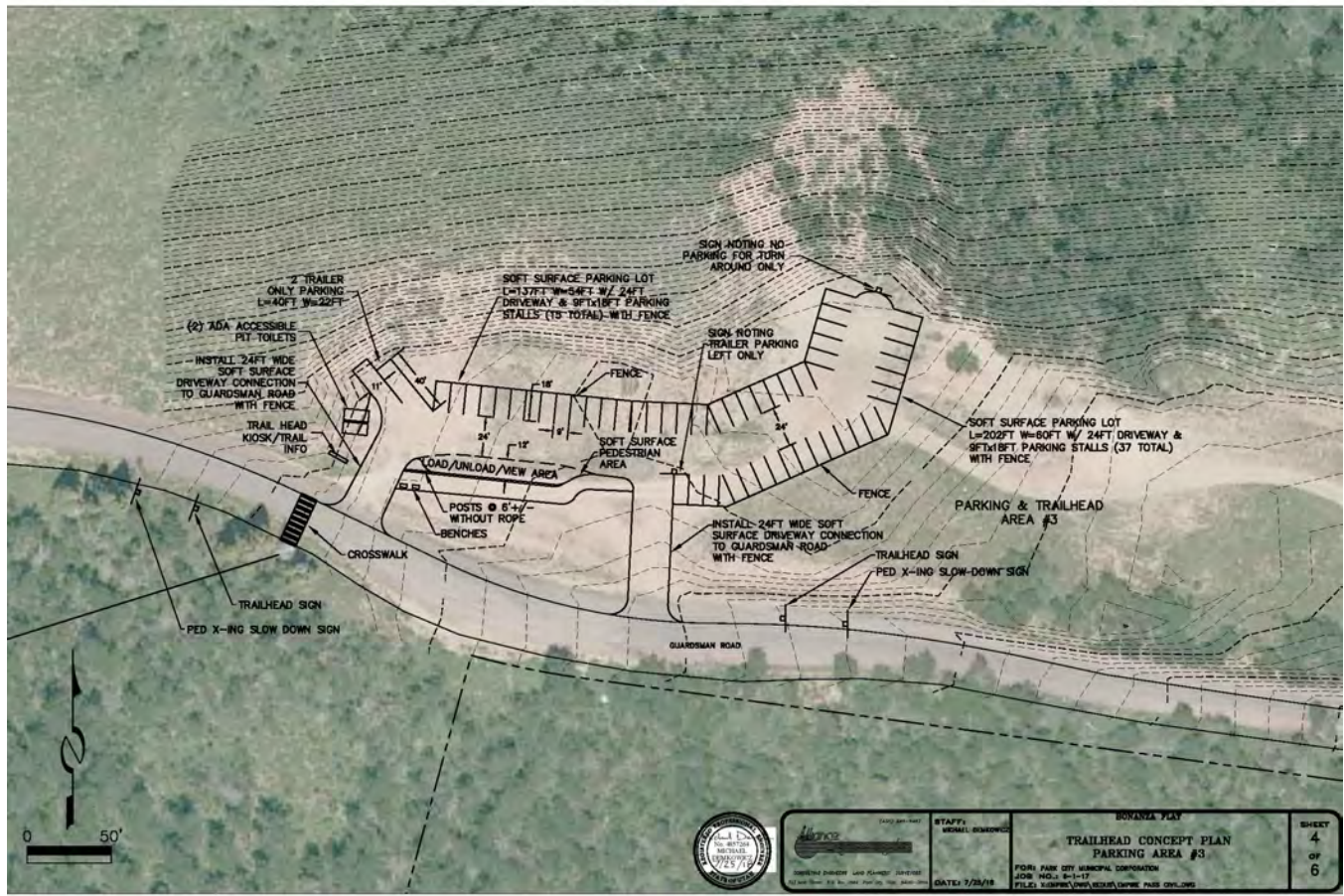




## II.A. TRAILHEADS - continued

### BLOODS LAKE TRAILHEAD

The Bloods Lake Trailhead is located in the northern-central portion of the property immediately north of Guardsman Pass Road. Historically this former quarry area has been peppered with campfire rings. This trailhead has spectacular views of the Property and the Heber Valley as well as the Bonanza Range and ridgeline. This trailhead has the greatest amount of parking in part because of its location as well as it having the largest previous area of disturbance. This trailhead provides the pivotal access for the redesigned Bloods Lake Trail as well as regional trail access.



## II.A. TRAILHEADS - continued

### OPTIONAL SILVER ISLET TRAILHEAD

This potential trailhead is located north of Pine Canyon Road near the Kent Sovereign Permissive Access Easement Area to the south of Pine Canyon Road. A fundamental goal of this trailhead is to prepare for future recreational and parking needs, associated with the Silver Lake Islet inclusion, recognizing that adjacent Wasatch Mountain State Park lands are seeing an increased use that is already out stripping the existing Park infrastructure.





## II.A. TRAILHEADS - continued

### GUARDSMAN SHUTTLE DROP OFF

The Guardsman Pass Drop-Off/Scenic Overlook is located at the top of Big Cottonwood Canyon along the Wasatch/Salt Lake County line. It has been traditionally used for parking and access to the Wasatch Crest Trail, Scott's trail, Bloods Lake and Clayton's Peak. Safety issues necessitate that this area no longer serve as a significant parking area. By installing trailhead facilities at the newly established Bloods Lake Trail access, the need for an extensive parking area at Guardsman Pass is unnecessary. The former Bloods Lake Trail is now closed and will be restored by Park City Municipal Corporation. Additionally the Clayton Peak Trail shall be accessed by the Bloods Lake Trail. The former trail bench will be removed or smoothed-out to make it less visible. Plant seeding will occur throughout the former trail area to facilitate revegetation and an anti-erosion blanket will be employed on both ends of the former trail for soil retention. Signage has been designed and posted to educate the general public that the trail is closed and is being revegetated as of July 2019.

Park City and Utah Open Lands anticipate that a transition period is necessary for the public to familiarize themselves with the newly developed trail system in the area. Pit toilet facilities, waste receptacles, signage and minute parking has been constructed in the area. Through outreach and education, the public will be redirected to the Bloods Lake Trailhead to begin their Bonanza Flat Conservation Area recreational adventure.





### III. RESTORATION and ECOSYSTEM MAINTENANCE

#### MANAGEMENT STRATEGY

Ecosystem restoration is the process of aiding the recovery of a native ecosystem that has been degraded, damaged, or destroyed. Restoration of the Property involves determining management actions that support diverse habitat types. Clean water, clean air, carbon sequestration, scenic enjoyment, aesthetics, native habitat, wildlife health, and recreational experiences are all enhanced by a healthy, functioning ecosystem. Restoration must be accomplished in the framework of multi-use land management. For example, restoring an area to mitigate erosion requires restoration of soil and vegetation. Restoring filtration processes attendant to natural wetland functioning by removing fill or disturbances is necessary to provide an opportunity for critical carbon sequestration.

Park City may use techniques and methods recognized as effective in maintaining and restoring the native biological diversity of the Property, including but not limited to invasive weed mitigation, restoration of areas of erosion, restoration of forest, habitat, and other passive restoration efforts, provided that in all cases restoration is done in accordance with this management plan.

#### IMPLEMENTATION

As Bonanza Flat Conservation Area recovers from historically unmanaged impacts, restoration of degraded areas on the Property is key in supporting natural habitat, ecosystems, wildlife, recreational activity, and all other Conservation Values which provide public benefits.

- Step one of restoration practices will consider areas of greatest areas of disturbance. Degraded areas that are not going to be repurposed will be restored. Culvert Meadow is considered a priority restoration endeavor that will require wetland specialists and diligent monitoring protocols.
- Education and allowance of wetland vegetation restoration in areas of disturbance, specifically the areas of Bloods Lake and Culvert Meadow.
- Restoration will support and maintain the biodiversity of native plants and wildlife of the area – disturbed areas with invasive weed infestations are of high priority for mitigation efforts.
- Restoration actions will stipulate the desired outcome and focus management efforts around attaining this goal.
- Continual monitoring of restoration areas, assessment of progress, and adaptive management plans will be implemented.
- Objectives identify areas of restoration that will provide maximum benefit to the ecosystem as a whole, such as wetland areas.
- After restoration work is complete in an area, desired outcomes will be evaluated to measure success.
- Adaptive approaches will include lessons learned to be used in future restoration projects.
- Restoration goals will be modified in response to changes in ecosystem or restoration benchmarks.
- Restoration project goals should be in keeping with the microclimate and ecological barometers pertinent in the area.
- Monitoring protocols will provide benchmarks for measuring success or failures.

### III. RESTORATION and ECOSYSTEM MAINTENANCE - continued

#### DESIRED OUTCOME

Existing conditions and evaluation of restoration opportunities has resulted in initial Utah Open Lands' recommendations.

- Bloods Lake – Bloods Lake has been a local destination for years, and the areas of disturbance surrounding the lake are indicative of this. Soils and large patches of earth have been denuded of vegetation and compacted as an apparent result of day-use, overnight camping, and unmanaged user recreation. These are unhealthy characteristics of an ecosystem. Public users need to be educated and managed to guard against impairment to the water quality, wet meadow vegetation and ecosystem processes. Dogs are prohibited within 100 yards of Bloods Lake while it remains the drinking water source for the Girl Scouts of Utah and limited to Property trails. Social trails and man-made disturbances surrounding the Lake are in need of thoughtful restoration; continued water quality monitoring is imperative as this is the water source for Camp Cloud Rim.
- Disturbance 1: Steep Cut Emanating from Empire Pass – This area, colloquially referred to as “Jeep Hill”, is a disturbed area rife with denuded earth, erosion, unmanaged water runoff, and unsafe vehicular use. This cut, noted as Disturbance 1 on the Man-Made Disturbance Single and Double Tracks map (page 62), has been subject to use in a manner that continues to compromise water quality, create significant public safety hazards, and create a constant state of disturbed ground which can be a vector for the spread of invasive species like yellow toadflax, which is found in high concentrations at the nearby Brighton Estates area. Disturbance should be revegetated after evaluating any claims of use with respect to proven encumbrances as cited in the Conservation Easement. Restoration signage should be placed in order to keep users off the disturbed area while it recovers. Disturbance will remain part of the winter safety corridor.
- Social trails – Social trails that are not in consideration for inclusion into a new trail system should be closed, restored, raked, reseeded, and revegetated.
- Campsites – Campsites and campfire rings should be consistently and systematically restored, raked and revegetated, especially following the extensive 2017 and 2018 efforts to document these disturbances.
- Wet meadow disturbances – The two-track disturbances runs directly through a jurisdictional wetland area, referred to locally as Culvert Meadow noted as point 9 on the Man-Made Disturbance Single and Double Tracks map (page 62). This area has been subject to fill, culverts, flattening, and use that compacts wetland soils. As a nationally inventoried wetland, this disturbance should never have occurred, and goes directly against the Clean Water Act and Wasatch County Code. Section 16.28.04 of the code explicitly states that “no person shall engage in any activity that will disturb, remove, fill, dredge, clear, destroy, or alter any area, including vegetation, within stream channels, wetlands, and their setbacks...” Restoration of lost wetland function, due to man-made disturbances, is a critical value for the watershed preservation priorities of the Property.
- Soil spoils area – Upon the lease termination date the soil spoils area should be reclaimed. Increased monitoring of this invasive species prone area will be implemented.
- Education – Bioblitzes, guided hikes, pop-up information stations and increased conservation ambassador presence, and creative engagement opportunities on the land will be implemented. Additional signage denoting restoration, restoration goals and ecologically significant elements on the landscape provide outstanding methods for engagement.



## III.A. WILDLIFE

### MANAGEMENT STRATEGIES

The Protected Property provides habitat for various wildlife species which are on the Utah Sensitive Species List, reported in population decline and/or threatened habitat, and wildlife listed as big game species of Utah. Containing a vast expanse of riparian habitat, aspen and coniferous forest, primitive wilderness and unfragmented habitat adjacent to numerous other conserved properties, Bonanza Flat Conservation Area provides priceless value to the conservation of these species. Management strategies will be guided by the goal of maintaining fundamental environmental services, biodiversity, natural habitat, and recreational wildlife viewing Conservation Values. When determining land use adaptations or improvements, Utah Open Lands will review the Bonanza Flat Baseline Documentation, BFAMS Plan and Resource Inventory, and consult with the landowner to ensure that wildlife values are sustained on the Property.

### IMPLEMENTATION

- Utilize the Resource Inventory to review scope, distribution, and abundance of species on the Property.
- Utilize Baseline Documentation, Current Conditions and further existing conditions of key habitats and ecological systems necessary to the health of the wildlife to determine ideal adaptive management actions.
- Install educational signage outlining threats of wildlife disturbance on the Property.
- Signage installation implementation during periods of trail closure, limited recreational allowances or disturbance restoration.
- Restore and protect the integrity and biodiversity of the Property through habitat restoration and protection.
- Create special plans for managing threatened and endangered species on the Property on a per species basis.
- Seasonally monitor wildlife population levels to determine effectiveness of management practices.
- Avoid known wildlife stressors, including, but not limited to:
  - Fragmentation - reduction in total area of habitat or isolation of one habitat fragment from other patches of the same habitat.
  - Development - structure construction or land alteration on or around important or sensitive wildlife areas.
  - Hydrological changes - irrigation, beaver removal, construction of dams/dikes.
  - Vegetation changes - establishment and spread of invasive species.
  - Altered fire regime - climate change, invasive species, fire exclusion, increasing or decreasing fire return interval.
  - Soil surface disturbance - recreation, management activities unsustainable trail work/construction.
  - Use of herbicide which are detrimental for wildlife species (specifically avian populations).
  - Introduction and/or spread of invasive or non-native species.
  - Wildlife disturbance or harassment by people and domestic animals. It is noted, however, that where an apex predator has been extirpated resulting in destruction of habitat, employment of wildlife population management techniques may be used such as hunting and purposeful wildlife disturbance.

### III.A. WILDLIFE - continued

#### IMPLEMENTATION - continued

- The Conservation Easement details that disturbance or harassment of wildlife by the general public such as the taking, removal, translocation or captivity of wildlife, is prohibited. However, this shall not restrict Park City Municipal Corporation and Utah Open Lands from the determination of the healthy carrying capacity and implementation of population management techniques of the big game species on the Property. Working with the Utah Division of Wildlife Resources will aid in population monitoring and determination of necessary best management techniques. Aspen forest decline could be dramatically effected by increased elk populations resulting in heavy browse of aspen new recruitment and regeneration which will be monitored through yearly transects to inform management decisions.

#### DESIRED OUTCOME

- Restoration of critical habitat and ecological integrity of the Property.
- Avoid disturbance of sensitive/threatened wildlife populations.
- Promote habitat biodiversity, native species populations, minimize wildlife disturbances.
- Seasonal monitoring program which incorporates systematic and consistent monitoring protocols.



## III.B. VEGETATION COMMUNITIES

### MANAGEMENT STRATEGY

Management actions are determined by the current and desired conditions of each ecological community. The importance of these natural communities will be continually assessed to the Conservation Values. Some management actions are ongoing and some are temporary restoration catalyst actions, all of which will ultimately lead to the identified goals and objectives to help sustain this integral part of the Wasatch Mountains.

### IMPLEMENTATION

The goal of vegetation management on the Property is to maintain and improve the existing natural biodiversity of forest succession. Through monitoring of various species, vegetation communities, rare and invasive substrate types, changes in slope, aspect and steepness, and available moisture content, management practices will be tailored to discrete vegetative communities and attend to ecological edges and ecotones. As a facet to aid specific vegetation community management, the plant communities on the Property have been described in the Natural Resource Inventory conducted by UOL.

### VEGETATION MONITORING STRATEGY

Vegetation community monitoring should take place throughout the Property, with special attention to areas that are particularly vulnerable such as aspen stands, wetland areas, and rare species populations as these areas are highly susceptible to habitat disturbance. The following are protocols for monitoring vegetation communities:

- Photo-points : Geo-referenced photo-points that are taken from the same location in upcoming years will reflect vegetation succession. These photo-points should be taken in the four cardinal directions (using magnetic north not true north). Two photos should be taken in each direction; one toward the ground (about 2 m out) to show the ground cover and one that shows the horizon.
- Point line transects: Will determine quantitative measurements of vegetation cover and composition over time. Point line intercept transects can be employed by using a pre-determined distance and a fixed laser pointer or rope to determine plant composition of the area. Transects can be established in strategic areas and monitored over time to assess vegetative changes. It is important to implement transects at the same time of year to produce reliable and accurate vegetation trends.
- Implement aspen transect counts to assess forest recruitment and regeneration to determine necessary management actions.
- Continual monitoring of invasive species populations for location identification and noxious species mitigation actions.
- Conduct continual surveys of the rare plant species noted in the Resource Inventory with geo-referenced photograph map locations. These photopoints will then be assessed for species population density, health, and reference for trail planning and management efforts.

Restoration areas require additional monitoring to assure the area is recovering in the manner intended and expected. Interventions may need to occur such as increased invasive species mitigation, erosion control, or re-seeding with native species determined with adaptive management strategies.



## VEGETATION COMMUNITIES ACTION PLAN

| Aspen and Conifer Forest   Wet Meadow   Shrubs, Forbs, Grasses   Mountain Brush   Disturbed Ground VEGETATION COMMUNITIES   |   |  |         |
|---|---|--|---------|
| Action  | Considerations  | Roles  | Timing  |
| Continuous monitoring of natural vegetation communities to determine ecological health and note invasive plant populations and forest pathogens.  | In 2017 Utah Open Lands conducted a natural resource inventory and weed survey which documented the current health of the natural vegetation communities and invasive species populations. UOL worked with USFS to gather forest pathogen digital data for the general area of Bonanza Flat. The overall ecological health of the property was excellent with the exception of some areas of disturbance. | UOL and PC will continue to assess forest health and vegetative communities through regular monitoring.  | Ongoing |
| Management actions which initiate aspen propagation and succession include enclosure fencing (which can be game proof provided it does not unnecessarily restrict migration corridors), non-lethal pressure and/or hunting , controlled burns, biochar, cutting and combined methods. | Elk overpopulation is seen to negatively impact new successional growth of aspen species because of their predisposition towards aspen sprouts, saplings and to a lesser extent mature individuals. Further management actions for elk population mitigation may be beneficial to maintain healthy aspen succession.  | UOL and PC will assess actions to be taken and in collaboration with UWDR and alert appropriate parties. | Ongoing |
| Monitor density of conifer forests and remove targeted outlying trees.  | Increased conifer density poses a threat in providing a vector for parasite spreading opportunity and adding to fuel for wild fire spread. Recreational access, user safety, natural and wildlife populations may be compromised if forest density is high.   | UOL and PC will continue to assess through regular monitoring.   | Ongoing |
| Identify and evaluate options for wet meadow restoration.   | Removal of fill, revegetation of disturbances, and adaptive management actions are critical to tracking wet meadow health.  | UOL and PC will assess what actions are needed and alert appropriate parties.                            | Ongoing |

**Aspen and Conifer Forest | Wet Meadow | Shrubs, Forbs, Grasses | Mountain Brush | Disturbed Ground VEGETATION COMMUNITIES - continued**

| Action  | Considerations   | Roles   | Timing         |
|---|--|---|----------------|
| <p>Evaluate trees compromised by insect infestations, leaving nurse-logs and sufficient downed trees for habitat and nutrient cycling, with guidance from Division of Forestry, Fire &amp; State Lands (DFFSL) &amp; other agencies; target needed removal options.</p> | <p>Death of forests can be a result of disease or insect infestation. Therefore, occasional removal of selected compromised trees may be necessary for healthy forests. Note: too much forest removal can exacerbate the situation by creating additional disturbance, so care must be taken. Fire safety and suppression in cooperation with appropriate regulatory authorities is prudent given proximity of human development.</p>  | <p>UOL and PC to continue to inventory area on minimum of an annual basis.</p>  | <p>Ongoing</p> |
| <p>Conduct rare plant species surveys to continually identify locations and ensure protection of populations.</p>   | <p>Rare plant species have been identified on the property. These species are critical of protection to prevent disturbance and possible eradication from the area. Although a minimal number of individuals were identified in the area, this is an indication that a population of at least 50 plants are located in the vicinity of the located species. Trail planning and recreational allowances should necessarily be guided by rare plant species populations and occurrences.</p> | <p>UOL, PC and contracted botanists will conduct continual surveys and collaborate for adaptive management strategies.</p>  | <p>Ongoing</p> |
| <p>Occasional disturbance may be needed to rejuvenate decadent sagebrush vegetation to increase biodiversity. Mowing in conjunction with recreational uses.</p>   | <p>Disturbance may be necessary for continued diversity of differing assemblies of shrubs, forbs, and grasses.</p>   | <p>UOL and PC will assess what actions are needed and alert appropriate parties.</p>  | <p>Ongoing</p> |
| <p>Replace non-native and invasive species with appropriate native species.</p>   | <p>Remove and/or control non-native and invasive plant species. Source and plant native species. Having sufficient water regimes necessary to sustain planted native vegetation is paramount.</p>  | <p>Management of invasive species falls to the landowner, PC. UOL will aid in strategic seasonal applications and volunteer weed pulls and develop seed mixtures.</p> | <p>Ongoing</p> |

### III.C. INVASIVE SPECIES

#### MANAGEMENT STRATEGY

Invasive species can be detrimental to the values and reasons for which land is conserved. Invasive species change ecosystems, structures, and natural processes on the land in ways that are undesirable and which can fundamentally alter natural ecological processes. Carefully mitigating the spread of invasive species can minimize these negative impacts. While a relatively pristine natural habitat, Bonanza Flat Conservation Area is not immune from invasive species infestations due to its biodiversity. In 2017, Utah Open Lands commissioned the Bonanza Flat Conservation Area Weed Survey by ecologist Mindy Wheeler which identified several invasive species present on the Property which are discussed in further detail in Utah Open Lands' Bonanza Flat Conservation Area Resource Inventory. Without proper and proactive management, the Property's Conservation Values are at risk of degradation due to colonization of invasive species.



#### IMPLEMENTATION

Proactive management of invasive species is of primary importance when it comes to limiting introduction of invasive species on the Property. Monitoring, seasonal surveys, and volunteer botanists will all be crucial in identifying and mitigating the spread of new invasive species onto the Property.

Ideally, no new invasive species will be introduced to the Property, and management can focus on eliminating and managing the invasive species that are already present on the Property.

Invasive plant control methods are traditionally broken up into 4 categories:

- Mechanical
- Chemical
- Biological
- Cultural

Mechanical Control: method is labor intensive, and involves actions such as hand pulling, cutting, mowing, digging, prescribed burning. A volunteer force can be assembled for large-scale projects involving removal of invasive species from the Property.

Chemical Control: method for managing invasive species involves the use of herbicides to mitigate invasive species. This methodology should be carefully considered before implementation and in no way compromise the Conservation Values. Watershed health is of primary concern when working with herbicides, and chemical control should only be used if no other control methods are deemed effective.



### III.c. INVASIVE SPECIES - continued

Biological Control: methods for managing invasive species involve introduction of predator species to an area if invasive species which should only be done with extreme caution. This method is considered high risk as negative unintended consequences are possible. Biological controls should be extensively studied prior to use. The weevil used to control yellow star thistle reflects high effectiveness with little observed threat.

Cultural Control: method of invasive species control involves subtly changing the assembly or nutrient accessibility of an area to create conditions that limit the spread of invasive species by making the area unfavorable for chosen species colonization. Cultural control is a proactive management strategy that includes reducing habitat prone to invasive species colonization by creating a desirable habitat for native species. Planting or seeding of native species can be undergone in disturbed or degraded areas, and specific seed mixes will be developed for restoration management plan.

Management for invasive species necessitates forward-thinking, planning, continual stewardship and adaptive management. Detail-oriented monitoring will be employed to identify invasive species on the Property, determine threat, and implement an effective management solution to the problem that the invasive species poses. Management involves the following steps:



© Jason Baker

### III.C. INVASIVE SPECIES - continued

- Monitor invasive plants and associated natural resources.
  - Inventory, survey, and map invasive species.
  - Document mitigation efforts and determine adaptive management actions.
- Minimize invasive plant establishment and spread.
  - Monitor for species known in the area but not yet found on the Property land. These species will be candidates for Early Detection–Rapid Response (EDRR) efforts.
  - Minimize unintended areas of disturbance.
    - Minimize species introductions and seed movement.
- Prioritize management efforts to reduce invasives present.
  - Target geographic locations of invasive species infestation.
  - Target invasive species with prioritization ranked by ecological impact.
  - Continuously adapt best management practices for invasive species mitigation with assessment of monitoring practices and effectiveness.
  - Apply best management practices to priority sites and species using integrated vegetation management (IVM).
- Restore sites or promote natural succession as needed.
  - Cultural control method implementation of reseeding treated areas with native seed mix.
  - Capacity - labor (volunteer and/or paid professional staff) and equipment.
  - Labor – identify, train, coordinate, and mobilize personnel appropriate for the tasks required. Coordinate volunteer labor to ensure focused and appropriate invasive species management.
    - Equipment – Secure tools and equipment that will ensure the safest and simplest accomplishment of the scale of the tasks at hand. Purchase is preferable.

#### DESIRED OUTCOME

Invasive species will eventually be reduced and eliminated due to proactive monitoring and control and will not, therefore, impact native plant communities. Yellow toadflax is present in large numbers on the Property. Canada thistle, yellow star thistle and garlic mustard ( which is currently not present on the Property), pose significant threat to the Property. Without implementation of proper mitigation management strategies the Property Conservation Values are threatened.



| Monitoring Actions   | Priority | Suggested contact    |
|--|----------|----------------------|
| <p><b>Monitor invasive populations</b></p> <p>Track weed patch size and distribution in strategic places with photo monitoring and incorporate into GIS. Volunteers may be utilized to assist City staff in this effort. Put all information regarding control efforts into a database including date sprayed, name and rate of herbicide used (or species of biological control used) and target species to monitor effectiveness of methods used. Periodically walk the entire property to watch for introductions of new, isolated weed infestations.</p> | High     | PC staff, volunteers |
| <p><b>Invasive community monitoring</b></p> <p>Place photo monitoring points in areas of high invasive populations. Use photo-points to track growth or reduction in invasive populations.</p>   | Moderate | PC staff, UOL        |
| <p><b>Closely monitor any newly revegetated or worked areas</b></p> <p>Close and regular inspections of any new disturbance are important to assure erosion is under control, invasive weeds will not impede the recovery of the area, nor become problematic weed populations going forward.</p>  | High     | PC staff             |





### III.D. FOREST HEALTH AND FIRE-WISE

#### MANAGEMENT STRATEGY

While man-made fire on Bonanza Flat Conservation Area is prohibited, the risk of unauthorized fire on the Property cannot be dismissed in management strategies for fire suppression and forest health. Park City as landowner may remove brush and vegetation necessary to minimize the risk of wildfire on the Property, but it must be in accordance with this management plan. The BFAMS Plan is meant to guide land managers in creating proactive management solutions. “The response to wildland fire should be based on the ecological, social, and legal consequences of each fire” (Federal Wildland Fire Management Policy, 1995).

UOL holds conservation easements on both the Bear River Ranches/Monviso Open Space off the Mirror Lake Highway and the Toll Canyon Open Space in Summit County. Both properties recently experienced wildfires. The Monviso fire was approximately 65 acres and was human caused by an unattended campfire. It began in a private lot within the conservation easement and spread into the open space. The Toll Canyon Open Space fire was approximately 1/10 of an acre and was started by a lightning strike that smoldered for 3 days in the base of a tree stump.

In both cases, the healthy nature of the forest appeared to be a key factor in limiting the scope of the fires. In considering mitigation strategies that may be implemented, it should be noted that forest disturbance can result in growth of invasive species, depositing of flammable materials on the forest floor, higher resin production, and drying of the forest floor. In the removal or trimming of native species often times invasive vegetation will inhabit the disturbed area. This new vegetation is highly flammable because it is located close to the ground which creates an easy route for fire to spread, and does not have the defenses that older trees have obtained. New vegetation is a fuel additive to the forest floor, without the hardwood tree defenses that previously inhabited the forest. Additionally, the cutting and trimming of forest trees increase their production of resin, and leaves behind stumps and branches that only add to the available fuel resources. Alternatively, especially in conifer forests, ladder fuels can allow fires to spread to the canopy and diseased or dead trees provide extra fuel.

In the case of the Monviso fire, the aspen forest served as a natural firebreak, which helped limit its spread and produced patchy fire effects instead of a more complete stand replacement fire, which burns the entire forest in all strata from the canopy to the understory. From an ecological standpoint, patchy fire effects are also beneficial to wildlife as the unburned areas act as refuge for species to initially escape the fire and then from which to recolonize the burned land.

With the Toll Canyon Open Space fire, the naturally moist condition of the stand of conifers, Rocky Mountain maple and Gambel Oak, and the rain event that produced the lightning, led the fire to smolder for 3-4 days until firefighters put it out.

### III.D. FOREST HEALTH AND FIRE-WISE - continued

#### IMPLEMENTATION

Fire mitigation is an important tool that can be used to help prevent wildfires from spreading to homes. When fire mitigation is done cognizant of the forest health, it is an effective tool. Fire mitigation should not give surrounding homeowners a false sense of security, and they should be proactive in creating defensible spaces around their structures. Defensible space is the most effective fire prevention strategy.

All factors should be considered including the existing forest health, ability for nearby communities to create defensible space around their structures and the long-term impact to forest health in determining mitigation treatments.

#### DESIRED OUTCOME

A healthy forest is the primary line of defense against fire. Here in Utah, wildfires are becoming a common occurrence, especially with climate change. While some of these fires are naturally occurring, over 80% of fires have a human based cause. As pathogen infestation of conifer forests in the West continue to spread, it is expected that these threats will only increase under the combined pressure from climate change and a rise in drought conditions.

- For Bonanza Flat Conservation Area, the balsam wooly adelgid, Douglas-fir beetle, and bark beetles pose significant threats.
  - Aerial detection in the surrounding area survey mapped Douglas-fir beetle, mountain pine beetle, fir engraver beetle, subalpine fir mortality complex, balsam wooly adelgid, Marssonina blight and aspen decline in surrounding stands. It is likely that Bonanza Flat Conservation Area is at high risk of hosting, if not presently detected.
- An analysis by Utah Open Lands in 2018 identified that there was a low die-off from beetle kills in subalpine forests equivalent to the damage from bark beetle that has infested most of the Cottonwood Canyons.
- A new threat that should be monitored closely is the balsam wooly adelgid.
  - Utah Open Lands recommends specific tracking strategies to monitor presence of this species on the Property.
- 2019 monitoring should include scheduling and a site visit by USDA Forest Service representatives to assess fir stands, in particular.
- As demonstrated with the 2018 Monviso fire, the presence of aspen clones throughout Bonanza Flat Conservation Area should provide a source of fire break on the Property.
  - The aspen clones on Bonanza Flat Conservation Area show healthy patterns and levels of regeneration.
- In determining trail development and forest management practices, managers should consider:
  - Maximizing aspen regeneration and recruitment.
  - Minimizing expansive areas susceptible to drying out due to a lack of shade and cover.
  - Reducing soil disturbance.
  - Managing in concert with education for adjacent landowners regarding creating defensible space around their homes.
  - Evaluating potential risks of spreading beetles, impact on nesting birds, and other wildlife in the removal of downed and dead timber.

### III.D. FOREST HEALTH AND FIRE-WISE - continued

- Management lessons that can be applied on the Property in recent wildfire areas regarding fire suppression.
- Water resource enhancement.
- Repurposing existing two-track disturbances for Nordic ski routes that can double as emergency response and fire access and fire breaks.

Utah Open Lands staff was involved in a workshop hosted by The National Cohesive Wildland Management Strategy, which is a multi-jurisdictional collaboration of partners in the Northwestern United States endeavoring to understand roles and opportunities in wildfire risk hotspots, of which Northeast Utah is one. One common theme throughout the workshop from fire professionals was how important homeowner participation was in mitigating fire risk and that convincing landowners to do so was of national importance. Utah Open Lands believes that targeted fire mitigation on public conservation lands can certainly help reduce wildfire risk if done correctly, but this strategy will fail if significant fire mitigation is not employed by private landowners.





## FIRE MANAGEMENT ACTION PLAN

| Goal: Fire Suppression  |   |  |                           |
|---|---|--|---------------------------|
| Action  | Considerations  | Roles  | Timing                    |
| In the event of the fire, active suppression will occur when life and valuable resources are at risk.                             | Valuable resources include heritage resources, structures, water supply areas, recreation sites and habitats. | The Conservation Easement provides that the local fire authority has complete jurisdiction.                        | Ongoing                   |
| Decrease hazardous fuels and increase acreage with low hazardous fuels, especially near urban interface.                          | Reduce the risk of adjacent communities and natural resources.  | Periodic review with DFFSL, UOL and PC will monitor ongoing fuel density determining levels or classes of threats. | Ongoing                   |
| Firefighter and public safety will be prioritized.  | Limit injury and casualty by prioritizing safety above other concerns.  | Agency determination.  | Ongoing                   |
| Every non-prescribed fire will receive management response.   | Assessment and response must be conducted for each instance to determine course of action.                    | Emergency services will evaluate and decide upon course of action.   | Ongoing, at time of event |
| Utilize maintained 2-track disturbances for summer and winter trails and maintain at levels identified in Baseline Documentation. | Evaluate disturbances for how they can serve a dual purpose as emergency access and fire breaks.              | UOL and PC will evaluate and decide best use.  | Ongoing                   |

### III.E. MAN-MADE DISTURBANCES



Where disturbance has occurred on steep slopes and through sensitive ecosystems, negative impact to the health, welfare, and safety of community members and the land are evident. Man-made disturbances on these areas, and the resulting erosion have direct negative impacts on Conservation Values on the Property. In keeping with the Wasatch County Code's regulation in parts of the county: "Areas where development is prohibited due to steep hillsides (over 30%), high value wetlands, ridge lines, fault lines, stream corridors, landslide areas, and flood plains." Guardsman Pass sits on a slope that averages a grade of 32.076% from 25 measurements taken from "the Y" to Guardsman Pass. Section 16.28.04 of the code explicitly states that "no person shall engage in any activity that will disturb, remove, fill, dredge, clear, destroy, or alter any area, including vegetation, within stream channels, wetlands, and their setbacks..."

Habitat restoration should occur in areas of man-made disturbances that are not pursuant to a permitted use. The steep cut emanating from Empire Pass, which has contributed significantly to erosion on the hillside, and the disturbance in the area commonly referred to as Culvert Meadow are two areas that will need focused restoration. Fill material

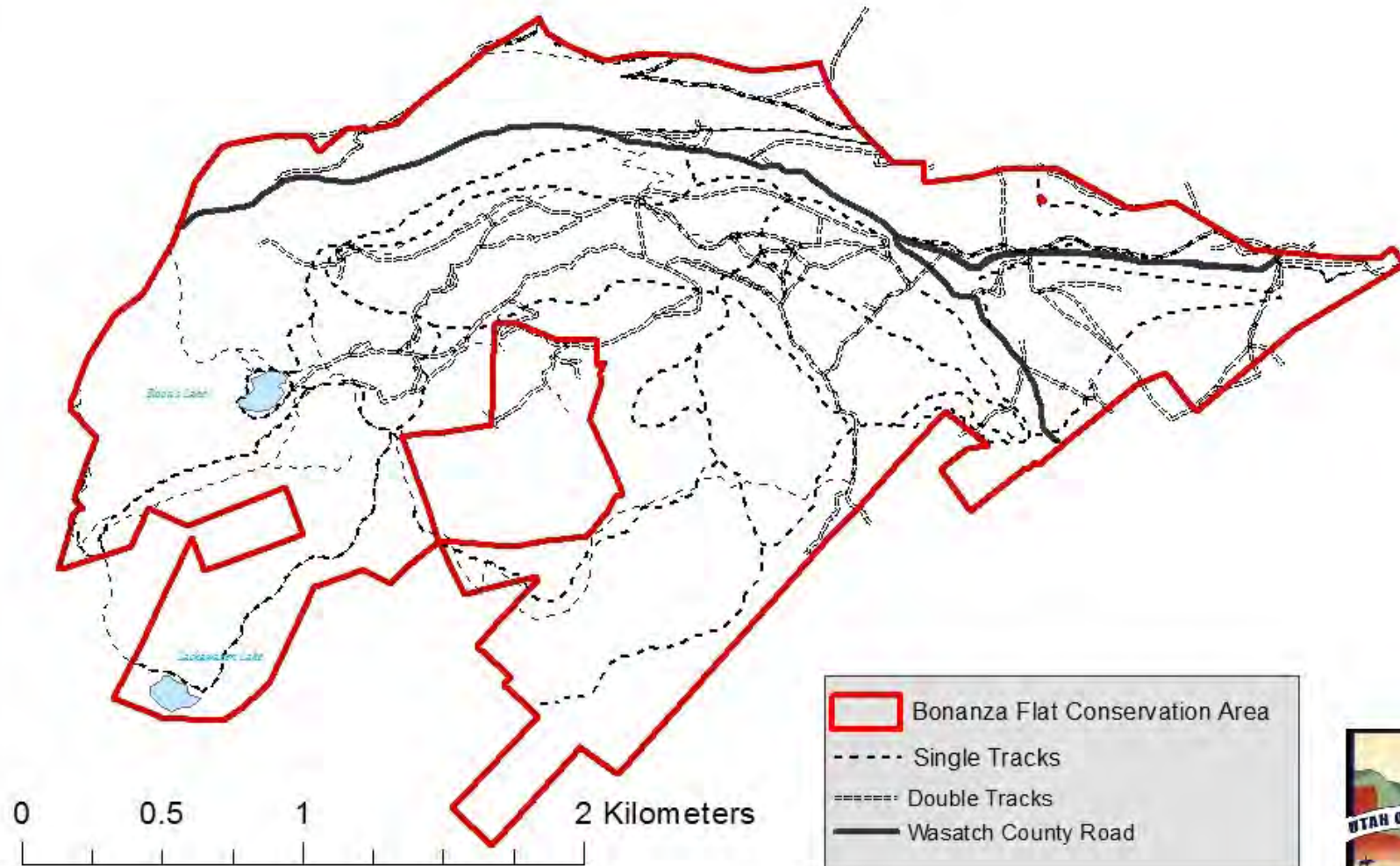
and drainage diversions added to the nationally inventoried sensitive wetland known as Culvert Meadows are not in compliance with the Clean Water Act. Abundant Conservation Values serve to be enhanced by the restoration of these disturbed areas. Winter safety corridors may continue to exist in the vicinity of current disturbed areas even after vegetative restoration occurs. Identified issues include enforcing management practices along access points and previously degraded areas. Any gates across public rights-of-way are to include emergency SOS or "crash" gates allowing emergency services easy access if and when necessary.

| Man-Made Single Track or Double Track Disturbance Name         | Number on Map | Approximate Width | Approximate Length |
|--|---------------|-------------------|--------------------|
| Steep Hillside Cut Emanating from Empire Pass Area             | 1             | 12'+              | 2000'              |
| New Talisker 2.0 Yurt Lease Area Access                        | 2             | 14'+              | 500'               |
| Old Talisker Cabin Area East Access                            | 3             | 12'+              | 2100'              |
| Old Talisker Cabin Area West Access                            | 4             | 12'+              | 1550'              |
| Girl Scouts Access   | 5             | 20'+              | 6600'              |
| New Talisker 2.0 Access to Cabins                              | 6             | 12'+              | 1000'              |
| Private Driveway off Pine Canyon Road                          | 7             | 12'+              | 1200'              |
| Old Social Trails in Vicinity of Guardsman Pass Area           | 8             | 5'                | 2800'              |
| Wetland Disturbed Track and Former Access to Old Talisker Yurt | 9             | 12'               | 4200'              |
| Side Slope Cut by Spoils Pile                                  | 10            | 18'+              | 2150'              |
| Girl Scouts Cabin Access                                       | 11            | 15'+              | 250'               |
| Girl Scouts Lake Access  | 12            | 15'+              | 250'               |
| Old Utility Access (North of Girls Scouts Lease Area)          | 13            | 15'+              | 3500'              |



# Bonanza Flat Conservation Area

## Man-Made Disturbance Single and Double Tracks



Boundaries are approximate (this is not a survey)

-  Bonanza Flat Conservation Area
-  Single Tracks
-  Double Tracks
-  Wasatch County Road



## IV. WATER RESOURCE and WETLAND MANAGEMENT

### MANAGEMENT STRATEGY

Managing at a watershed level is a proven strategy for effective, sustainable land use, which saves hundreds of thousands of dollars in water treatment and lessens downstream contamination. Wetlands act as carbon sinks, and are productive areas for carbon sequestration. As a proactive management strategy, augmenting Park City's zero carbon goals, restoration and enhancement of wetland features on the Property provide additional values, beyond fundamental ecological health, to the overall sustainability goals of the City. Land managers will employ management strategies that maintain and benefit watershed health, water use efficiency, water quality, recreational benefit, climate-adaptive management, and protection. Several nationally inventoried wetland areas exist on Bonanza Flat Conservation Area. The wetlands documented in the Resource Inventory were found to be unique, and many considered to be in pristine condition.

Park City as landowner may enhance water quality and wetland features on the Property. Such enhancements may include protection, restoration and vegetative enhancements.

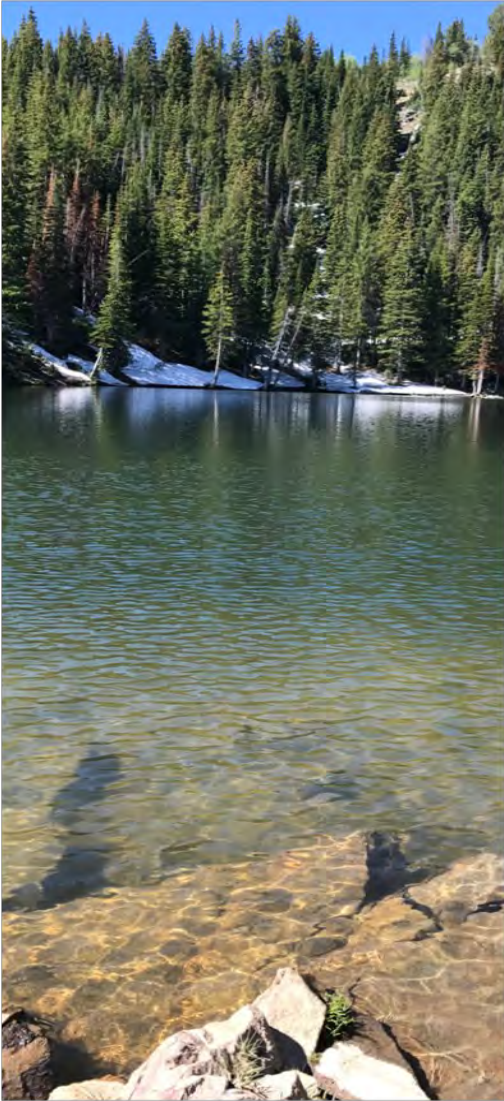
### IMPLEMENTATION

Water resources on Bonanza Flat Conservation Area are in various states of health. Creating and protecting healthy water resources on Bonanza Flat Conservation Area should be a priority. Overall management strategies should consider water resources. Watershed health is paramount to the health of the greater ecosystem.

### ACTIONS and OBJECTIVES:

- Track and document changes in the water resources on the Property through water testing and riparian and wetland photopoint analysis.
- Track seasonal conditions of water resources.
- Conduct management activities consistent with recognition that watersheds are dynamic and constantly responding to external factors.
- Implement projects that are in the most need of restoration or care.
- Use a watershed-minded approach to coordinate other management decisions i.e. forest management, land use, trail construction, fire management, etc.
- Impoundments of Bloods Lake and Silver Lake Islet may be maintained as deemed necessary by PCMC and Utah Open Lands.
- Limitation on recreation in the vicinity of riparian habitat should be considered.
- Design drainage and runoff controls where necessary to maximize water reclamation into on-site catchments and minimize sediment buildup.
- Minimize immediate downstream discharges during runoff.
  - Use patterns on the Property should continue to be monitored to forestall potential contamination of downstream drinking water, in particular for Bloods Lake, which is the direct drinking source for the Girl Scout Camp.

## IV. WATER RESOURCE and WETLAND MANAGEMENT - continued



- Wetlands should be avoided, where possible, during the implementation of trails utilizing best practices to mitigate possible impacts.
- In the case of Culvert Meadow, this wetland area needs to have fill removed, and any disturbances on this area needs to be restored.
- Flow and moisture content monitored seasonally.
- Track changes in hydrophytic vegetation.
- Track changes in hydrology and take soil samples to determine extent of hydric soil resource areas.
- Where emergency evacuation may be considered necessary, avoidance is preferable, but features like boardwalks and bog bridging that lessen impact to wetland areas should be considered instead of culverts, or fill.
- Water quality deterioration should prompt mitigation efforts.
- Monitoring protocol involving seasonal testing on area lakes.
- Due to elevation, water quality tests should occur during the hottest months of the year to determine levels of E. coli and other bacteria.

### DESIRED OUTCOME

- Protection or restoration of water resources on the Property, including areas of non-use.
- Wetland water quality, stream health to stay above current conditions.
- Presence of desired or unique wetland function and vegetation.

A desired outcome of watershed management is to maintain levels of water quality and ensure continuous testing of the lakes present on the Property. Proactive water quality management strategies will sustain the watershed. Utah Open Lands will continue to conduct water quality testing on an ongoing basis. Any negative changes in water condition, water surface conditions, water clarity, water color, water odor, arsenic, presence of dead fish, dissolved oxygen, turbidity, algal bloom and the presence of E. coli bacteria will be evaluated to determine adaptive management decisions. Management goals should sustain water quality at or above current levels of water quality, restricting uses on the land that show probable cause for decreases in water quality.



## WATERSHED ACTION PLAN

| Goal: Watershed Quality Conservation                                     |  |  |                                  |
|--|--|--|----------------------------------|
| Action   | Considerations   | Roles  | Timing                           |
| Continual adaptive management strategies in the Headwaters Area.         | Identify possible conflicts of Conservation Values. Identify terrain to be managed as “Headwaters Area”.   | UOL will routinely review with PC staff areas under consideration for management.  | As part of BFAMS Plan Areas Map  |
| Sign and educate users on impacts from dogs.                             | Off-leash dogs have a potential to conflict with wildlife, other recreation user groups and can impact the ecosystem. Education will be provided to inform of the potential harm to wildlife and/or dogs due to off-leash encounters. Off leash ordinances will govern the use on designated trails. | UOL and Park City will provide education and enforce designated area restrictions. | Defined in Conservation Easement |
| Monitor water quality.   | Chemical composition of the water is to be tested on an annual basis to be checked for presence of E.coli bacteria, arsenic, etc.  | UOL will test water quality on minimum of an annual basis.                         | Ongoing                          |
| Determine impacts of regional connection trails through Headwaters Area. | Careful and thoughtful consideration of all possible issues and plausible degradation of watershed quality as a result of trails is recommended.   | UOL and PC staff will mutually determine designated trails, and trail routes.      | Ongoing                          |



## V. ADJACENT PROTECTED LANDS

### MANAGEMENT STRATEGY

Bonanza Flat Conservation Area is situated between both private and public lands, but there is a significant amount of adjacent conserved land that adds to the conservation achieved on the Bonanza Flat Conservation Area.

### IMPLEMENTATION

- Utah Open Lands will monitor the Property boundaries on an annual basis to guard against encroachment.
- Utah Open Lands will reach out to the adjacent landowners should persistent issues arise.
- Utah Open Lands will work with pertinent adjacent land managers to come up with synergistic management solutions regarding ecosystem connectivity, trail connections, and use designations.

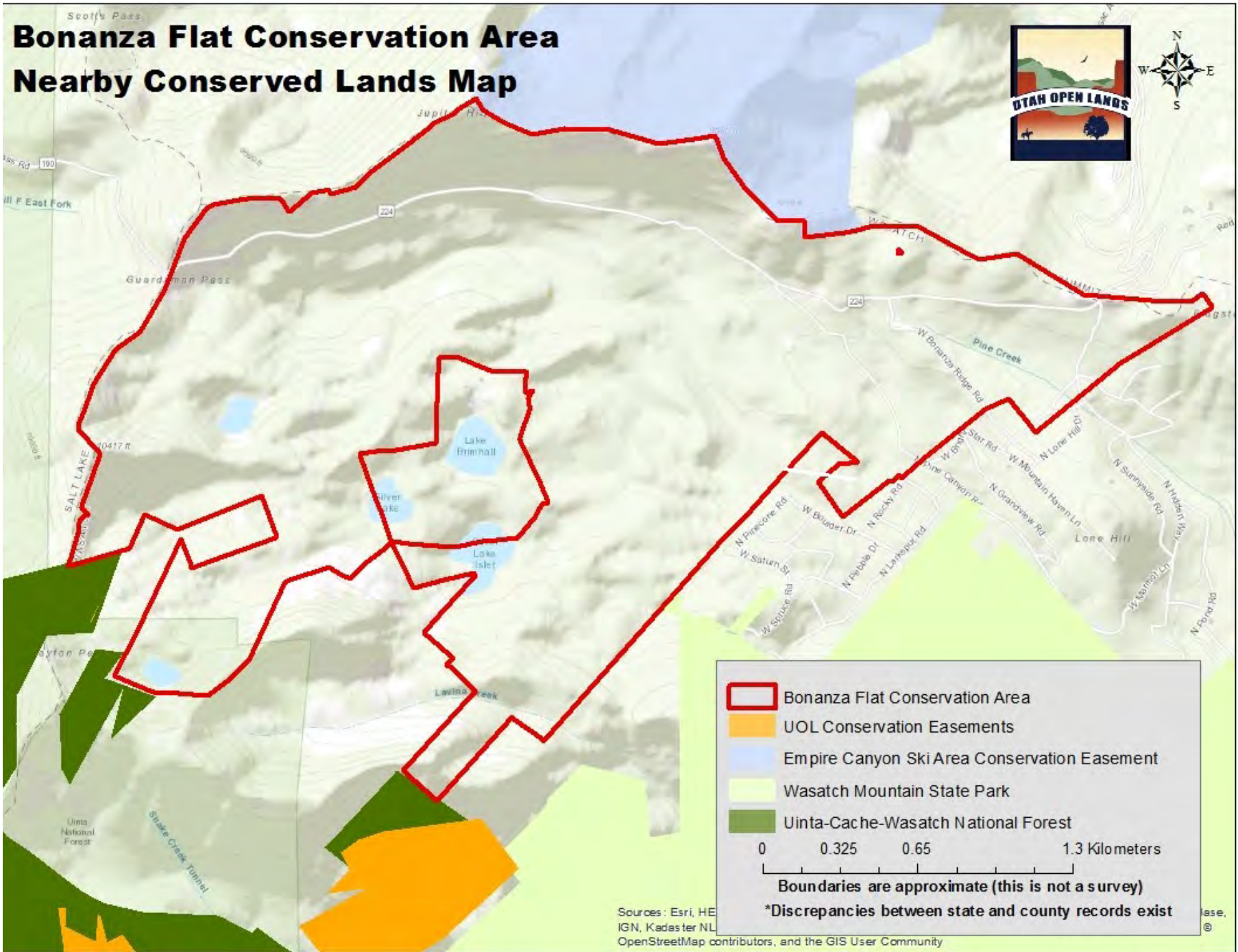
### DESIRED OUTCOME

- Adjacent protected lands (Snake Creek Canyon and other significant tracts of federal and state public lands), along with Bonanza Flat Conservation Area, constitute a thriving ecosystem providing habitat for wildlife and migration corridors.
- Creation of regional inter-jurisdictional trail connections.
- Productive and clear lines of communication between adjacent landowners, land managers, and Park City as the landowner of Bonanza Flat Conservation Area.
- Communal efforts in mitigating undesirable impacts and sustainably managing increasing recreational demand.

## V.A. BOUNDARY MAINTENANCE

Park City had the entire property boundary of the Bonanza Flat Conservation Area surveyed by Alliance Engineering. UOL has further delineated certain sections of the boundary line, which may be more susceptible to encroachments. Boundary lines are paint-blazed and some Conservation Area signage has been posted. Boundary fencing has been erected in some areas. Paint-blazed boundary lines should be refreshed with new paint every 5 years or as needed and the signage should be checked for replacement or update needs. Fencing of a buck and rail nature should be maintained and constructed where persistent encroachment occurs. Utah Open Lands has ample experience with the delineation and maintenance of Property boundaries for stewardship and can assist Park City as needed.

# Bonanza Flat Conservation Area Nearby Conserved Lands Map



Bonanza Flat Conservation Area  
 UOL Conservation Easements  
 Empire Canyon Ski Area Conservation Easement  
 Wasatch Mountain State Park  
 Uinta-Cache-Wasatch National Forest

0      0.325      0.65      1.3 Kilometers

**Boundaries are approximate (this is not a survey)**  
**\*Discrepancies between state and county records exist**

Sources: Esri, HERE, DeLorme, Mapbox, TomTom, Swatch, IGN, Kadaster NL, Esri, Mapbox, OpenStreetMap contributors, and the GIS User Community



## VI. SCENIC MANAGEMENT

The scenic value of Bonanza Flat Conservation Area is derived from the combination of the ecosystem and the prominent landscape position of much of the Property. The ecosystem of the area has developed over the millennia and the various plant communities provide visual interest in all seasons. The unique setting of the Property at the intersection of mountains and valleys has created unimpeded views of sagebrush shrublands as well as oak brush and mountain shrub hillsides – all signature vegetation communities of the arid West. Park City and Summit County value open hillsides and ridgetops as endorsed in their building codes (Park City General Plan and Summit County Zoning).

The Property currently provides views of natural areas that are in keeping with the natural open character of the Wasatch Mountains. Further, Goal #4 of the Park City General Plan concerns the City's desire to preserve the natural setting. The goal is to 'Conserve a connected, healthy network of open space for continued access to and respect for the Natural Setting' (Park City General Plan, 2014). Scenic vistas are a critical part of the mountain resort economy.

Utah Open Lands and Park City Municipal Corporation will work together to prevent, and ultimately be responsible for controlling, elements that could spoil the scenic value on the Property, such as height, bulk, design, materials and color of any modifications made on the Property (e.g.: trails, restroom facilities, fencing, etc).



The special character of Bonanza Flat Conservation Area is defined by its distinctive geographical features, climate, and natural ecosystems. The scenic value of this Property epitomizes all of these values, which is why the prevention of any disturbances that impact the area should be avoided and the Property be monitored on an annual basis.

## VII. RECREATION MANAGEMENT

Recreational capacity is a term generally defined as the *reasonable maximum load or population that an area will support without undergoing deterioration*. For this plan, a no-net-increase and existing carrying capacity have been identified as central to not “loving Bonanza Flat to death.” These principles are also key to ensuring that Bonanza Flat Conservation Area does not become the solution to other recreational deficiencies on adjacent lands.

For Bonanza Flat Conservation Area, quantitative as well as qualitative monitoring should be performed by Park City staff, Utah Open Lands, and/or volunteers and used to determine if infrastructure development has effectively captured the principle of carrying capacity. The following proper monitoring may indicate an unacceptable level of ecological degradation and Conservation Value loss. Thus, a conclusion that infrastructure is out of sync with carrying capacity may be indicated by:

- Increased exotic vegetation cover, loss of species, or undesirable compositional changes.
- Wildlife changes such as loss of species, a decrease or increase in utilization by certain species.
- Erosion from social trail formation or wetland bank degradation and stream-bank erosion.
- A decrease in water quality.

The results from this type of monitoring will provide important information on resource trends and provide insight into adaptive strategies. These trends would inform City staff as to whether the activities on the Bonanza Flat Conservation Area are causing impacts beyond the sustainable recreational carrying capacity.

The monitoring protocols developed for previous sections will inform recreational management. It is anticipated that the creation of trail-heads, a functional trail system, and better trail design will increase enhancement and restoration of the Conservation Values due to the best practices already employed by Park City and partners like Mountain Trails Foundation. Creating and maintaining a higher level of trail design and sustainable use will ultimately result in a higher rate of trail user experience satisfaction. On-site surveys and Conservation Ambassadors will be utilized in data collection, education, and the transition from previous use patterns to more sustainable use patterns.



## VIII. CITIZEN SCIENTISTS and iNATURALIST UTILIZATION

A purpose of the Adaptive Management and Stewardship Plan, is to engage the community members and general public with activities on the Property that will ultimately assist Park City and Utah Open Lands in achieving overall management goals. Citizen science events such as BioBlitzes may occur annually on Bonanza Flat Conservation Area. BioBlitzes will be performed utilizing the iNaturalist app that Utah Open Lands will use to train volunteers. The app will allow for records of flora and fauna found on the Property to be retained and reviewed, ultimately allowing both Park City Municipal Corporation and Utah Open Lands to track any changes that may occur in wildlife patterns and vegetation over time.



© G. Brad Lewis





## IX. RECREATIONAL AIRCRAFT

All recreational aircraft requiring a motor or mechanized source to power flight, including drones, are prohibited from taking off or landing on the Bonanza Flat Conservation Area property. Non-motorized recreational aircraft use on the property must comply with existing laws and may be subject to additional agreements with the Grantor.

## X. CANINE USE



### MANAGEMENT STRATEGY

Balancing Conservation Values from wildlife to recreational enjoyment will require identifying potential triggers that are also allowed uses and considered compatible with one or more Conservation Value. Dogs are associated with recreational enjoyment for various recreationalist and they are also considered a potential 'trigger'. Riparian, wet meadow, stream or lake habitat impairment can be associated with a lack of dog owner stewardship. Stewardship by this user group will be critical to continued trail use. Monitoring impacts on both a macro and micro ecological level will be as essential.

### IMPLEMENTATION

- Dog owners will be educated via on-site volunteer Conservation Ambassadors and signage to ensure best use practices.
- Mutt Mitt stations will be provided.
- Dog waste etiquette will be closely monitored.
- Proper removal of waste by owners will determine the overall utilization of Bonanza Flat Conservation Area by dogs.
- Waste receptacles will be provided.
- Recreational activity limited as deemed necessary by wildlife activity .
- Wetland areas should be restricted in use by dogs as achieved through good trail development.
- Trailheads will post leash regulations as determined.
- Dog owner stewardship and user conflicts will be monitored.

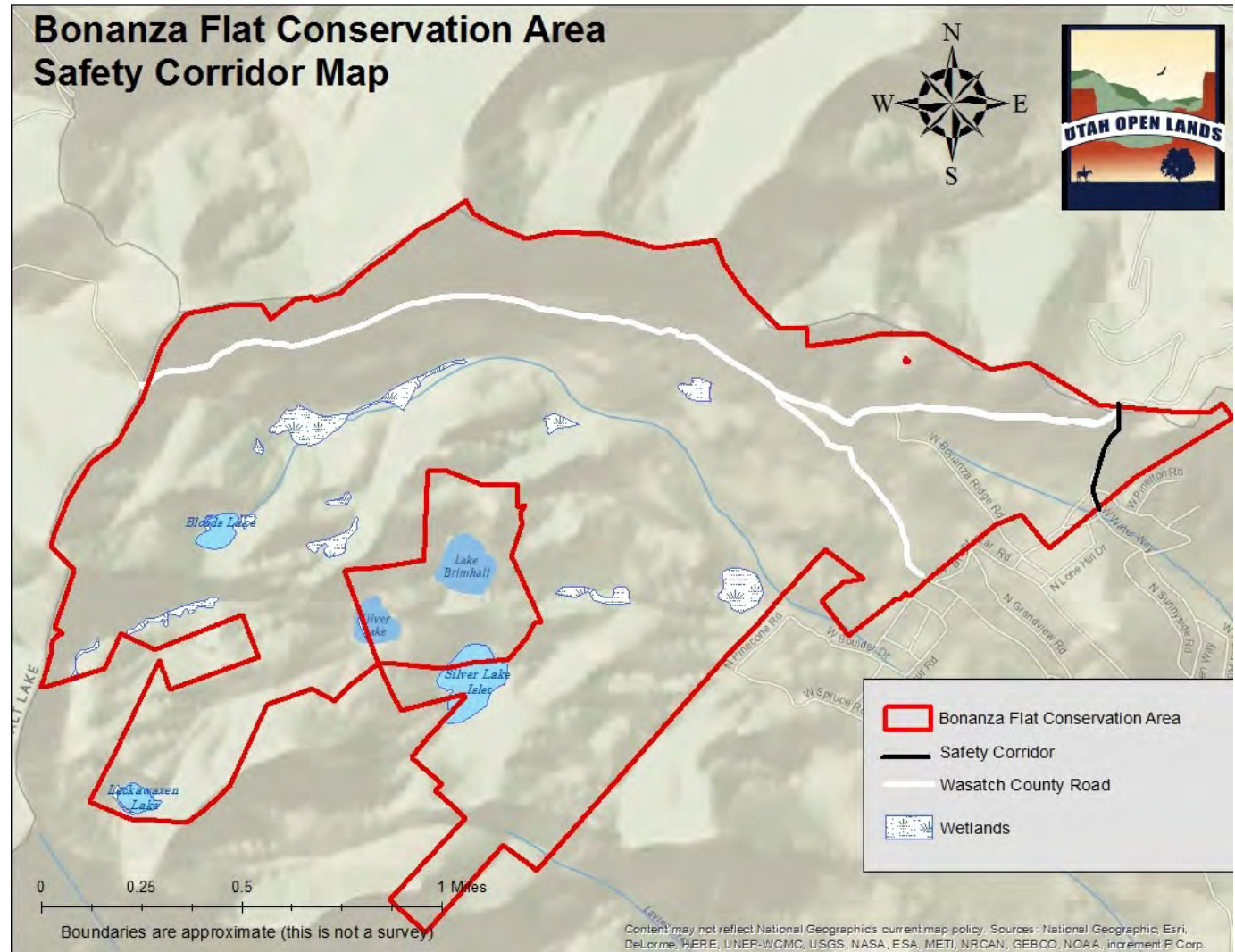
### DESIRED OUTCOME

- Systems implemented that allow for sustainable dog-use on the Property, in step with the Conservation Values.
- Clear, well-marked trails that delineate dog-use.
- An educated user-group that can become a force for positive, sustainable use and protection of the Property.
- Prevention of watershed contamination and riparian habitat disturbance from dog use.
- Prevention of avian nesting and fledging disturbance, minimization of other wildlife disturbances.
- Ability for restoration of wetland vegetation and riparian habitat in current areas of disturbance.



# XI. SAFETY CORRIDORS

Through our diligent monitoring over two seasons, it is apparent that a clear, safe alternative route needs to be established outside of the existing county road from Brighton Estates to Empire Pass to accommodate safety needs at times of the year during significant weather events. This safety corridor requires that all travel must stay within the designated areas, as delineated with 25-foot tall poles along the deep cut known as Jeep Hill. This safety corridor will be gated, re-vegetated and is only to be used in the winter after evaluating any claims of use with respect to proven encumbrances as cited in the Conservation Easement. This safety corridor also provides for wildfire evacuation in case of an emergency.





## XII. EVENTS, SPECIAL USES AND RELATED TEMPORARY STRUCTURES

Because of the tremendous beauty, pristine condition and forever conserved status of the Bonanza Flat Conservation Area, to date many requests have been received to use the property for events and special uses. These have included using the property as a movie filming location, footage for car commercials and for private family events such as weddings. As we anticipate this pressure will increase over time, certain restrictions have been put into place within the Conservation Easement regarding events, special uses and associated temporary structures.

An event, a special use, and one or more temporary structures associated with an event or a special use, are permitted at the discretion of Park City Municipal Corporation as the landowner provided:



The event or special use is limited in the number of participants.

Any temporary structure is located to minimize impacts on the natural environment.

Any temporary structure is approved by Utah Open Lands as the conservation easement holder in accordance with Section VIII of the Conservation Easement.

Requests in conjunction with filming include an analysis of potential impacts and provide for compensation to the public as determined by Grantee's in accordance with the BFAMS plan.

Fees will be required for any special use to mitigate impacts to public use and to the Conservation Values. Fees will be determined by the Park City Council. Best practices would provide for any fees collected during filming and special use events to be utilized in the management and stewardship of the property directly.

The staging, event or special use, and any temporary structures are located to the extent possible in areas where adequate infrastructure already exists, such as at trailheads.

Please note, these conditions do not currently apply to the primitive outdoor wedding area known as the Church of Dirt located west of the Empire Pass Trailhead, which is managed by a first-come, first-serve system of reservation where potential users reserve the spot by leaving a requested date on a piece of wood or other note. However, as the landowner Park City has the right to change this current management of the Church of Dirt if needed.

## PART FOUR

# MANAGEMENT AREAS

Management actions are prioritized by designated management areas. These management areas are referenced in the Conservation Easement and are tied to specific permitted uses. Management areas were designated based on the sensitivity of the Conservation Values attendant to the area and the amount of man-made disturbances, facilitating the overall conservation purpose that reflects the bond narrative and donor intent of various agencies, foundations and individuals to ensure preservation.

Management areas correspond with major physical features of the Property. Although some management suggestions apply to the entire Property, it should be noted there are areas where management actions are specific. Within the broader management areas, discrete action areas delineated by a combination of habitat/vegetative types and restoration or recreation objectives are identified.

Four management areas\* have been identified and Bonanza Flat Conservation Area consists of:

FRONT COUNTRY AREA

BACK COUNTRY AREA

HEADWATERS AREA

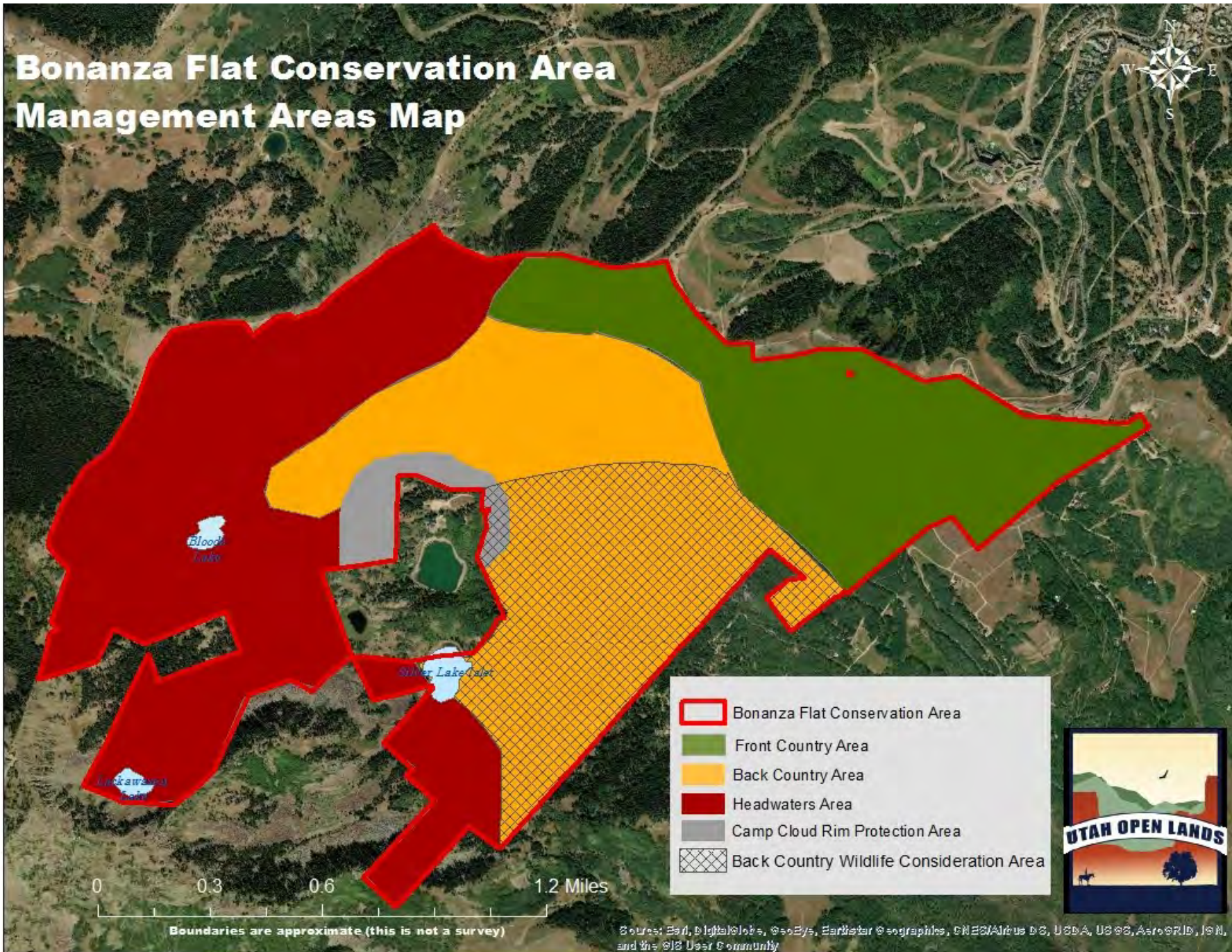
CAMP CLOUD RIM PROTECTION AREA

*\*See the Bonanza Flat Conservation Area Management Area Map on the next page for delineated areas*





# Bonanza Flat Conservation Area Management Areas Map



- Bonanza Flat Conservation Area
- Front Country Area
- Back Country Area
- Headwaters Area
- Camp Cloud Rim Protection Area
- Back Country Wildlife Consideration Area





# I. FRONT COUNTRY AREA

*Front Country Area (See table below) (GREEN)*

Areas with more intense recreational use including focused points of access, man-made disturbances and proximity to development.

Examples Include: Trailheads and trails, passive recreational amenities, including restrooms, structures for emergency or maintenance/management, interpretive trails, informational kiosks, Talisker lease area, and safety corridor for motorized access.

| Objective   | Associated Action   | Role/Responsibility  | Time Frame |
|---|---|----------------------|------------|
| Protect Critical Watershed Values and Water Quality | <p>Monitor maintenance activities of access areas and materials used.</p> <p>Restore eroded trails stemming from Empire Pass area to prevent further degradation.</p> <p>Evaluate reseeding, raking, matting and appropriate signage and barriers.</p> <p>Identify sources of erosion.</p> <p>Create revegetation plan for soil spoil piles based on existing lease terms.</p> <p>Possible resources: USU, DEQ, DWQ</p>   | Park City, UOL staff | Ongoing    |
| Protect Wildlife Habitat                            | <p>Ensure trails for public use and recreation are established in areas with minimal impact to wildlife habitat.</p> <p>Employ use of wildlife camera traps, BioBlitzes, and iNaturalist species counts.</p> <p>Incorporate seasonal species-specific use assumptions in order to minimize user-wildlife conflicts. Species of special concern include Shiras moose, mule-deer, elk, flammulated owl, pika, and others.</p> <p>Use patterns should be predictable in order to lessen stress. Recreational corridors should have good sightlines and avoid densely forested areas whenever possible.</p> | Park City, UOL staff | Ongoing    |
| Protect Vegetation & Uncommon Rare Plants           | <p>Eradication of invasive species and reseeding of native seed mix specific to Bonanza Flat Conservation Area.</p> <p>Consider plant plugs in overly disturbed areas where seeding may not be effective.</p> <p>Monitor rare plant locations and health.</p> <p>Create trails in areas where invasive species will not be easily spread.</p>   | Park City, UOL staff | Ongoing    |

# I. FRONT COUNTRY AREA - continued

| Objective                             | Associated Action   | Role/Responsibility  | Time Frame |
|---------------------------------------|---|----------------------|------------|
| Protect Public Recreation & Education | Implement trailhead and monitor trailhead transition.<br>Provide opportunities for practical education out on the land, e.g.: informative hikes, weed pulling events, etc.<br>Incorporate iNaturalist BioBlitz events to increase community science involvement and increase understanding of species on property.<br>Implement Boulderers Trail to popular bouldering area.<br>Monitor use on property in correlation with the WOW and Crest trails. | Park City, UOL staff | Ongoing    |
| Protect Scenic Values                 | Restore 2-track disturbance emanating from Empire Pass and other 2-tracks not repurposed.<br>Monitor reseeding progress.  | Park City, UOL staff | Ongoing    |



© G. Brad

## II. BACK COUNTRY AREA

*Back Country Area (See table below) (ORANGE)*

Areas with multiple Conservation Values with man-made disturbances and potential restoration as well as multi-use potential.

Examples Include: Passive (non-motorized) multi-recreational trails (hiking, biking, equestrian, XC skiing and snowshoeing) Limited trail improvements and amenities, such as picnic tables, backcountry yurts or camping areas, signage.

| Objective   | Associated Action  | Role/Responsibility  | Time Frame |
|---|--|----------------------|------------|
| Protect Critical Watershed Values and Water Quality | Perform seasonal wetland soil and vegetation transects to determine effects of seasonal compaction and track recruitment and associated health of native hydrophytic vegetation.   | Park City, UOL staff | Ongoing    |
| Protect Wildlife Habitat                            | Ensure trails for specific recreational activities are established or rerouted to limit impacts to wildlife habitat. Install wildlife cameras to track activity and continue to monitor numbers and types of species. <i>Species of special concern</i> should be avoided, wherever possible. Aspen forest should be avoided if possible during wildlife nesting, fledging, rutting, fawning, calving and roosting activity. Trail closure is a tool to accommodate wildlife activity. Installation of nesting boxes in aspen-conifer mixed forest.  | Park City, UOL staff | Ongoing    |
| Protect Vegetation & Uncommon Rare Plants           | Maintained trails to prevent spread of invasive species. Activity limited in areas where sensitive vegetation could be affected. Reseeding to take place as necessary. Rare plant tracking implemented via local experts and possibly iNaturalist events.  | Park City, UOL staff | Ongoing    |
| Protect Public Recreation & Education               | Create sustainable trail systems to enhance user experience. Provide user group designated trails where appropriate. Flag routes associated with new trail alignment. Seek Grantee input and approval. Provide enhanced recreational experience by rerouting Bloods Lake Trail. Prioritize one-directional single track trail creation. Create regional trail connections. Gates that provide access to the Backcountry in Bonanza Flat Conservation Area, if any, should be appropriately marked with standard backcountry awareness information and ideally with signage indicating the protected nature of the backcountry area as preserved forever through a conservation easement. | Park City, UOL staff | Ongoing    |
| Protect Scenic Values                               | Ensure new and rerouted trails do not disturb the scenic viewsheds from a distance, e.g. from scenic highways. No trail cuts should be made on visually vulnerable, steep slopes. Minimize trails that need switchbacks in highly visible areas.   | Park City, UOL staff | Ongoing    |



### III. HEADWATERS AREA

*Headwaters Area (See table below.)(RED)*

Areas with a greater concentration of Conservation Values and limited or no man-made disturbances. Examples include: Limited to primitive hiking or snowshoe only trails.

| Objective   | Associated Action  | Role/Responsibility  | Time Frame |
|---|--|----------------------|------------|
| Protect Critical Watershed Values and Water Quality | Evaluate seedbanks, raking, matting and appropriate signage and barriers to be put in place for trail decommissioning, restoration of multiple trails stemming from the Guardsman Pass area. Continue to monitor various water sources with assistance from partners such as DWQ and USU. Adopt and follow water testing protocol for routine testing in the spring, summer, and fall – measuring and tracking any impairment. | Park City, UOL staff | Ongoing    |
| Protect Wildlife Habitat                            | Establish limitations on trail use. Regularly monitor wildlife activity and track migration as well as behavioral patterns to evaluate use impacts. Reduce conflicts between recreational corridors and known areas for species of special concern. Install nesting boxes in aspen-conifer mixed forest. Trail closure should be cognizant of wildlife cycles (i.e. nesting, fledging, calving, roosting, etc).                | Park City, UOL staff | Ongoing    |
| Protect Vegetation & Uncommon Rare Plants           | Locations of rare species will remain on file for the purpose of management and should be monitored frequently. Sharing of locations of certain species publically is not advised due to poaching concerns. Measure parameters of sensitive vegetation; no trails to be established where invasive species may be carried into these areas. Continue to collect data to ensure these boundaries do not diminish.               | Park City, UOL staff | Ongoing    |
| Protect Public Recreation & Education               | Monitor recreation to make certain that human-powered passive recreationalists on foot and snowshoe will have areas to enjoy. Survey hikers and users regarding trail use and enjoyment to determine modifications.  | Park City, UOL staff | Ongoing    |
| Protect Scenic Values                               | Inspect viewsheds from northwest and southwest whilst establishing new trail routes. Enforce no parking zones for minimal impact to scenic Conservation Values.  | Park City, UOL staff | Ongoing    |

## PART FIVE

# ADAPTIVE MANAGEMENT

Balance is a foundational principle of adaptive management. The balance of management roles between Park City as the landowner and Utah Open Lands as the easement-holder is a proven way to protect the Conservation Values, and adhere to the guiding document, the Conservation Easement.

Every management action has the potential for unintended consequences, and management decisions require flexibility. Adaptive management is a strategy for remaining adjustable and responsive to changes while continuing to implement sound management decisions. It is an approach to land protection that recognizes the unpredictable nature of a complex ecosystem, embraces multiple problem-solving strategies, and allows for adjustments to be made along the way. By combining research, monitoring, and active management, adaptive management allows the knowledge gained from current work to be applied to future decisions and to facilitate management goals.

The main tenant of adaptive management is continual assessment. Balancing of Conservation Values by evaluating the results of implemented practices ensures protection of these values as the land changes over time. Analyzing consequences that occur as the result of violations to the Conservation Easement or unexpected effects of implementing permitted uses shifts management choices. When it is determined that a threat or an impairment to a Conservation Value is anticipated, or conversely, when a desired outcome has been achieved as a result of implemented actions, the practices moving forward should be adapted accordingly. Understanding and predicting enhancement trade-offs and effects of certain actions is crucial. Creating a structure of adaptive management triggers will be of utmost importance in creating a clear line of decision making and proactive communication.

## I. TRIGGERS FOR ADAPTIVE MANAGEMENT

Adaptive management should be implemented under certain specific conditions. When management strategies outlined in Section 4 of this plan are sufficient and clear, those management strategies should be employed. It is impossible to cover any and all future management decisions in that section, and so management problems that are not covered in Section 4 should involve robust decision making. Furthermore, actions that violate the specific language of the Conservation Easement and significantly degrade the Conservation Values will be enforced.

# I. TRIGGERS FOR ADAPTIVE MANAGEMENT - continued

## Characteristics of problems that would trigger Adaptive Decisions include:

1. Long-term (multi-year) or permanent **negative effects** on the Conservation Values of the Property.
2. Large-scale (> 10%) effects on the Property.
3. Restoration of the Conservation Values would be difficult or impossible to restore as a result of management practices.
4. Halting actions or practices that would result in impairment of the Conservation Values.
5. Degradation of Conservation Values to a point in which they have been determined to have fallen below benchmarks of health originally recorded.
6. Structural or landscape-wide impacts. Roads, ponds, utilities, or other structures; timber harvests not conducted according to required best practices; subdivision of land; clearing large areas of vegetation; etc.
7. Fire and Forest Health: Decisions that effect the greater forest ecosystem or large-scale fire management.
8. Management actions that require public input.





## II. ADAPTIVE MANAGEMENT

Management of Bonanza Flat Conservation Area is adaptable. Ideally, Section 4 of this plan provides significant guidance for management, but not all situations are predictable. Regardless of management actions identified, the landowner should reach out to Utah Open Lands to provide information, discuss alternatives when appropriate, and strategize best practices. Appropriate Utah Open Lands and Park City Municipal representatives should *both* be involved in each and every step of this process. Scope and scale of the projects at hand will determine who from each organization should be a part of the process incumbent upon Grantor and Grantee to inform, notice, and determine. For example, routine invasive control on a ¼-acre plot could be managed by a UOL Stewardship Assistant and a PC Trails and Open Space staff, but a full-redesign of the trail system and subsequent implementation would garner insight from UOL’s Executive Director and board, the PC Council, and detailed input and studies from appropriate experts and should be compliant with all jurisdictional rules and regulations. The following steps should be followed for every adaptive decision:

### 1. ASSESS

- a. Evaluate the problem. The following components must be included in the assessment process:
  - i. Determine objectives of the management action.
  - ii. Objectives can be small-scale or large-scale, focusing on a small section of land, or effecting the entire Property. A small-scale objective could be “controlling invasive species around Bloods Lake” or “grading the Bonanza Flat Trailhead”. A large-scale objective could be allowing backcountry camping.
- b. Determine methods that achieve the objectives.
  - i. Compare past projects, employ outside or expert knowledge, and be creative in trying new methods that could be more beneficial or effective than past methods. Best management practices stem from ‘lessons learned’. A specific method could be “mowing sage brush stands” or “manual removal of thistle” as opposed to “chemical removal,” especially around ecologically sensitive areas like wetlands.
- c. Predict possible outcomes and monitor predictions.
  - i. Making educated predictions about management action outcomes is crucial. An example might be prediction that a treatment of mowing sage brush will promote the growth of native grasses and young sage. If later monitoring reveals high levels of invasive species, sage brush mortality or lack of regrowth, future treatments might have to be modified or abandoned.
- d. Determine metrics for success of management actions.
  - i. Identifying metrics, establishing proactive pre-action and post-action monitoring, and engaging robust evaluation is critical. Utilize the Baseline Documentation to create initial benchmarks.
- e. Identify uncertainties.
  - i. While making an adaptive decision, uncertainties may abound. To minimize unpredictability, the decision maker should distinguish between *need-to-know* and *nice-to-know* facts. For example, it might be nice to know the historic composition of the forest in a certain area, but this information is unlikely to be critical in creating treatments for present issues. A need to know fact would include qualified aspen stand transects with regeneration and recruitment numbers.

## II. ADAPTIVE MANAGEMENT - continued

### 2. DESIGN

If there is a lack of clarity in what actions should be taken, experimentation on a small-scale before creating a large-scale management action is recommended. Testing and comparing plausible solutions may help resolve uncertainties in management decisions. The design should address the specific problem or issue, therefore specificity in identifying the problem is key.

### 3. IMPLEMENT

Implement the designed management solution. Maintain accurate, up-to-date records of progress on the management project. Deviation from the original plan should be recorded, so that the end-result can be effectively evaluated for success. For example, if the original intention for a project is to employ chemical solutions to a section of land to control invasive species, but physical removal of the invasive species is used instead, that should be recorded to evaluate the metrics for success.

### 4. MONITOR

General monitoring of the Property is a routine best practice that Utah Open Lands employs on all properties on an annual-or-greater basis. In the case of adaptive management solutions, direct monitoring of specific management sites within defined monitoring protocols is vital in assessing project progress and creating future management decisions. Monitoring the same metrics for success across various management tactics will educate land managers on future best-practice solutions. Monitoring protocols should be standardized in a manner that makes decisions comparable via quantitative and qualitative assessments. Indicators to be monitored should be created and documented as a part of Step 1 in the adaptive decision. For example: Yellow Toadflax has spread from the private properties on the SE side of Bonanza Flat Conservation Area on to the open space. As a recorded invasive in the Baseline, a monitor would know where recent Yellow Toadflax spread has occurred, in comparison to the Baseline.

### 5. EVALUATE

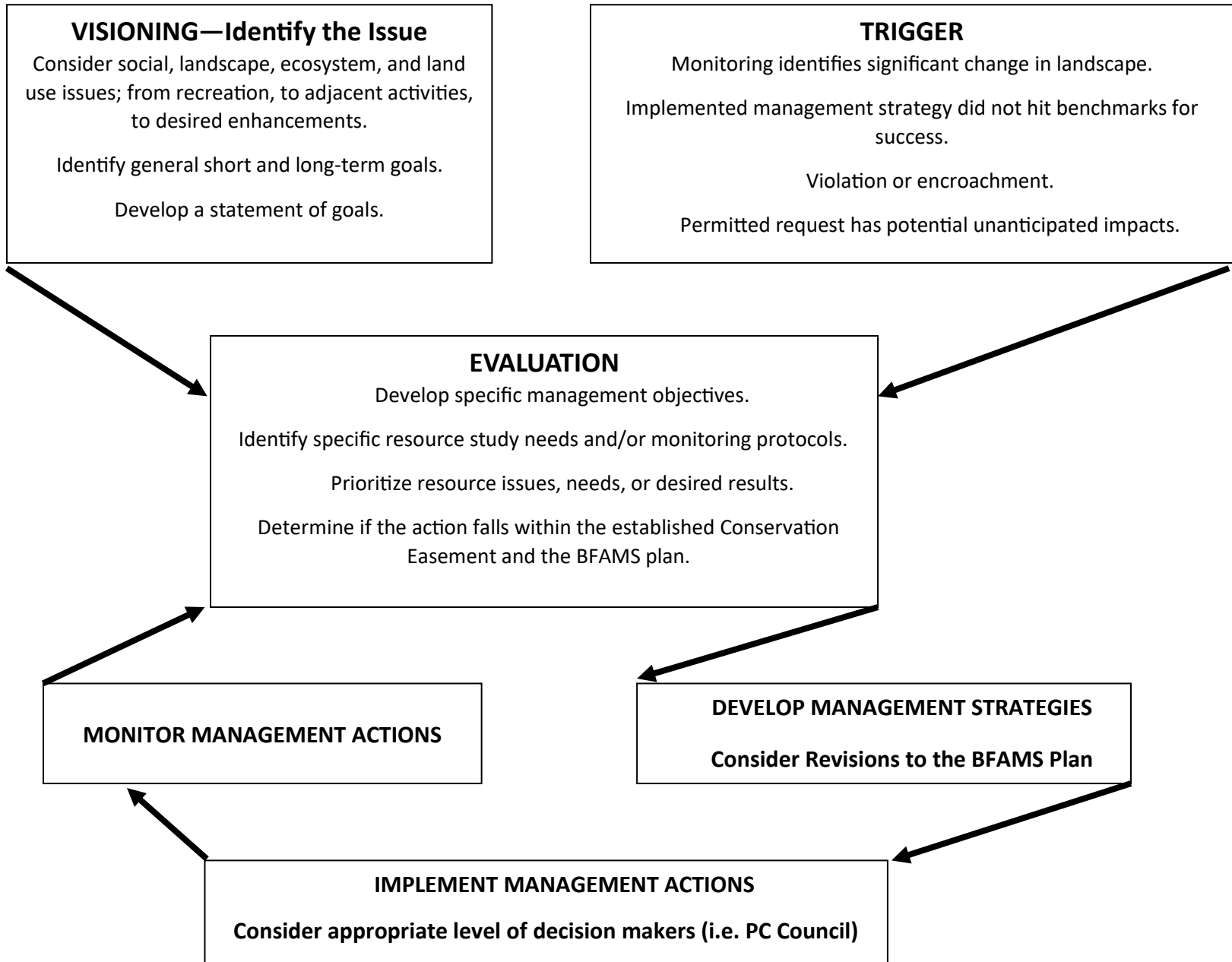
Once reputable and clear data emerges about the metrics from a project, the data should be evaluated. Ideally, monitoring of a project should be ongoing, as frequent as possible, and those metrics will likely change over time. Aforementioned metrics should be updated when possible, and changes can and should be made in management if they will have a positive impact in achieving the specific goals of the project. However, after a solution has been applied to a problem, the results should be compared to the predicted results from Step 1. Evaluation will help create the next set of management solutions.

### 6. ADJUST

Adaptive management is flexible, adjustable, and should be designed as such. This final step is what makes adaptive management so useful. Evaluating the results of a management decision allows for future adjustment of plans, treatments, and policies implemented on the Property. If some uncertainties identified in Step 1 were not resolved, this is the time to redesign adaptive solutions based on these new findings.

Creating adaptive management solutions can be complicated, and often there will be inter-jurisdictional stakeholder and agency opinions and differing strategies that are offered as solutions to a single problem. Although input from multiple sources may and can be sought, ultimate authority for most decisions shall rest with Park City, provided they inure to the benefit of the Conservation Easement and therefore the protection of the Conservation Values of Bonanza Flat Conservation Area. In the case that there is a disagreement between Park City and UOL stewardship staff regarding any management issue, a higher level of analysis will be triggered that includes UOL's Executive Director, COSAC and the Park City Municipal Council.

## THE ADAPTIVE DECISION CHART





## II. ADAPTIVE MANAGEMENT - continued

For the purposes of this plan, monitoring efforts have been divided into three discrete categories: annual monitoring, resource monitoring and action monitoring.

## III. MONITORING

### Annual

Utah Open Lands has a well-defined monitoring policy for the monitoring of conservation easements. Annual monitoring efforts are conducted at minimum of once per year by staff or qualified stewardship individuals with the purpose of evaluating the current condition of Conservation Values for each specific conservation easement. Monitoring combines ground proofing and user input around areas of high use and high levels of sensitivity. Significant off-trail, aerial and boundary monitoring will occur as well. These monitoring efforts may find opportunities or issues not addressed in this plan, which will be provided to the landowner at minimum of an annual basis to incorporate into adaptive management strategies.

### Resource Monitoring

Wildlife and habitat monitoring will continue to occur through annual UOL monitoring visits, as well as seasonally when appropriate. By selecting key habitat attributes for monitoring, such as location, size of area, migration corridors and elevation, UOL will be able to track both movement and behavioral patterns of several species over an extended period of time.

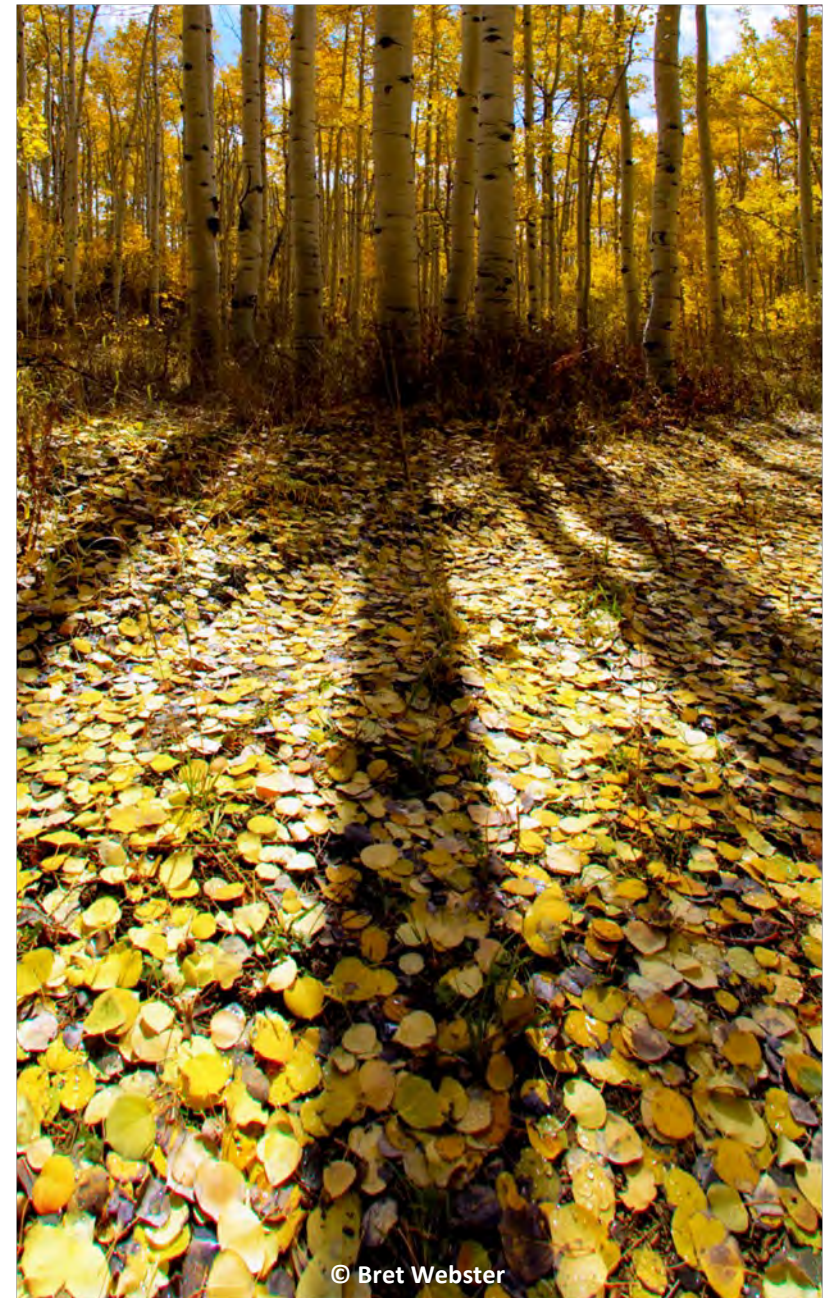
Wildlife habitat will be considered at a landscape level, while also tracking specifics like browse, nesting and roosting activities, population size, etc. Fragmentation, habitat compressing, and identified stressors will be monitored as well.

Decreasing human activity in sensitive areas will decrease habitat damage, and lessen stressors that are human induced. Balancing recreational use and utilizing recreationalists as a tool in management of elk, for example, will aid in sustaining the carrying capacity of the land for all species.

Resource monitoring will create a metric with which to understand the condition of the Conservation Values. The conditions of the recreational trails and improvements (such as signage, kiosks, bridges, etc.) require periodic monitoring in accordance with standard operating procedures. Riparian corridors are defined as areas of high sensitivity, and a specific monitoring protocol will be established to evaluate the health and conditions of such areas. Protocols will include the monitoring of physical, chemical and biological water quality parameters as well as vegetative health. Additional resource monitoring efforts will include bird surveys, water quality testing, invasive weed mapping, wildlife camera traps, parasitic infestation surveys and vegetation transects. In addition to supplementing the annual monitoring, resource monitoring has the benefit of engaging and educating the public the consequences of actions and the tangible value of the conservation resources. Resource monitoring efforts will be implemented by UOL.

## Action Monitoring

After deciding to conduct a management action identified in this plan, appropriate monitoring protocols must be implemented to ensure the success of the action. For example, if it is determined that volunteers will be used for the mechanical removal of an invasive weed, proper “before and “after” images should be documented, as well as the condition of the action site during the following year. If it is determined that the action is ineffective in achieving the desired goal or that the action is having unexpected consequences, the BFAMS Plan must be adapted to address the issue. A plan must include specifics about what will be monitored, when, and by whom, as well as an explanation of how possible results of the monitoring will be interpreted for adapting the BFAMS Plan.



© Bret Webster

## IV. FUTURE MANAGEMENT ACTIONS

Future external pressure on the Property from both natural and man-made sources will necessitate management activities. Climate change, invasive species, nearby habitat destruction, access and population growth all have the potential to change the management priorities to meet the stated goals of the Property. While not an exhaustive description of all future issues, the aforementioned actions should be considered in the long term adaptive management of the Property. Triggers have been defined to initiate the associated management action, although action should be taken preemptively where possible.

Involving UOL early in stewardship decisions helps to ensure good decisions with high probability of being effective and avoiding violations to the Conservation Easement. Some conditions for which it is advisable to engage UOL are listed below:

- Special ecosystem information is desired.
- Conservation Easement language interpretation is needed.
- Expert input is sought.
- Outside funding or other resources are desired.

All major decisions require input from both Park City and Utah Open Lands.



Part of the process when following the BFAMS Plan will be to determine whether a decision that needs to be made is minor or major. Following the BFAMS Plan by implementing its guidelines provides several benefits for Bonanza Flat Conservation Area. It ensures that stewardship decisions are well researched, so that outcomes are as likely as possible to be positive. Implementing the BFAMS Plan provides insurance against violating the terms of the Conservation Easement; the possibility of violating the Conservation Easement is much smaller when the BFAMS is implemented.



## V. FUTURE DOCUMENTATION

Documentation informs stewardship. Experience shows that documentation can be difficult and subjective. Therefore it is essential that documentation include the following set of criteria:

- Complete – will include all necessary information.
- Standard – will contain the same elements for every decision.
- Real-time – completed during the decision process rather than afterwards.
- Concise – components need to be as simple as possible, focused on important information.
- Archived – the product will be saved and referenced.
- Easy – To be useful, the documentation process needs to be as easy as possible.

## VI. ACTION TYPES

Management actions should be evaluated for need, timing, potential benefits, costs, and risks. Questionable, arbitrary, or unnecessary actions should be readily put aside or re-evaluated.

Conservation action is a category of action intended to solve apparent ecosystem problems. An example of this type of action is the removal of dead Douglas-fir trees that have been infested with Douglas-fir beetles. Conservation actions should have a high probability of solving or preventing the problem with as low of a risk as possible for exacerbating the problem or for causing other problems for Conservation Values. It should be noted that conservation actions are intended to protect high quality Conservation Values. Successful conservation actions will favor a self-sustaining, healthy ecosystem.

Community action is a category of action intended to solve community recreation, safety, education or human activities which may conflict with other Conservation Values. These actions could affect the ecosystem but are not taken in response to immediate or foreseeable ecosystem issues. An example of this type of action is creation of a new trail to expand certain recreational opportunities. Community actions should avoid impacts to other Conservation Values.

## VII. PROHIBITED USES

### CAMPING

- Camping is defined in the Conservation Easement as a prohibited use, unless it is in conjunction with an authorized use.
- Man-made fires are also prohibited, except in connection with fire suppression activities permitted within the Conservation Easement.
- As such, signage should be posted at all trailheads and sites of past camping that inform users of the camping and man-made fire restrictions.
- Consistent monitoring of area for signs of camping, particularly in areas of historical use will be conducted regularly.
- Denuded land will be raked, revegetated and restored.

### DESIRED OUTCOME

- As a result of camping prohibition:
  - Trash along popular camping areas will be eliminated.
  - Watershed values will be protected as human waste as a result of camping is eliminated.
  - Ecosystem health improved in restored areas.



During the compilation of the Resource Inventory research, cars and campers were spotted in places along with campfires rings. Fire rings were found in the Bloods Lake Trailhead and Bonanza Flat Trailhead, around Bloods Lake, Lake Lackawaxen and other areas. Denuded areas of land around these campfire rings were a common result.

## VII. PROHIBITED USES - continued

### SNOWMOBILE USE

Motorized use is prohibited on the property except on designated roads and safety corridors. A consideration to provide safety corridors when travel on existing roads creates hazardous conditions to ensure passage to adjacent private and recreational lands, allows for minimal snow mobile use. Safety corridors can be designated at the discretion of the landowner in consultation with Utah Open Lands.



### MANAGEMENT STRATEGY

- Creation of designated safety corridors.
- Permit motorized use on existing paved roads where appropriate.
- Prohibit recreational use.
- Monitor corridors and property frequently for improper use.
- Request users of the safety corridor have vehicles in sound working order.
- Install gates, flagging, poles and reflective markers that indicate access points, corridors and designated routes to facilitate safety use.
- Post signage at and along corridors that explicitly states prohibition of recreational use.
- Any safety corridors noted for snowmobile use on the Property shall avoid impact to wetlands.
- Post educational signage at access points .

### DESIRED OUTCOME

- Minimized conflict between snowmobile use and other recreational uses.
- Restoration of areas traditionally overused by snowmobiles.
- Conservation Values maintained by reduction of sound pollution, traffic, and broken vehicles left on property.
- Conservation Values maintained by reduction of wetland disturbance, and watershed pollution.
- Greater safety behavior, use, awareness and practices.
- Eliminated hazardous behavior, like high marking and avalanche triggering.
- Eliminated wildlife harassment and stress.



## CONCLUSION

Adaptive responses will remain a vital part of protecting the Bonanza Flat Conservation Area's unparalleled value. It is the hope that adjacent landowners, along with the general public, will reflect on how their engagement in and around Bonanza Flat impacts the collective conservation of this landscape. Adapting management decisions based on stewardship will create a dynamic, fluidity to this Plan. Honoring the intention of its preservation is the goal of this Plan from the Conservation Easement to the implementation of trailheads and a defined trail system. From watershed and snow storage values, to multiple recreational pursuits, careful management is the goal of this plan to ensure that this land is as unique and valuable for future generations as it is today. The protection of the delicate interplay of the ecological system on Bonanza Flat Conservation Area while providing for meaningful engagement through recreational experiences will require that all users become best stewards.



## BONANZA FLAT CONSERVATION AREA ADAPTIVE LAND MANAGEMENT PLAN

PREPARED BY:

UTAH OPEN LANDS CONSERVATION ASSOCIATION  
1488 S MAIN ST, SLC, UT 84115

(801) 463-6156  
[www.UtahOpenLands.org](http://www.UtahOpenLands.org)

