



SALT LAKE COUNTY

Rose Canyon
and
Yellow Fork Canyon
Master Plan

April 2011



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CHAPTER 1: BACKGROUND

Located in the mountainous southwest corner of Salt Lake County lies a significant tract of open space land known as Rose Canyon / Yellow Fork Canyon (Figure 1). Encompassing just over 4,000 acres, the property consists of three distinct management areas: (1) 1,508 acres of U.S. Bureau of Land Management (BLM) land; (2) 809 acres of Salt Lake County land known as the Yellow Fork Canyon Regional Park; and (3) 1,692 acres of Salt Lake County open space land known as Rose Canyon Ranch. This Master Plan document is intended to guide both Salt Lake County and the BLM in joint management of this regionally significant complex of land.

The southwest area of Salt Lake County, including Herriman City, has experienced tremendous residential and commercial growth over the last decade generating increased need for open space and recreational areas. Through the collective efforts of stakeholders, citizens, and agency partners, this Master Plan document presents management guidelines for development and use of the Rose Canyon / Yellow Fork Canyon properties.

History of County Property Acquisition

The Rose Canyon / Yellow Fork Canyon properties represent the culmination of two decades of Salt Lake County investment and collaboration. In 1984, the County purchased the Yellow Fork Canyon Park property (see Figure 2). In 1986, the county initiated efforts to move an additional 1,500 acres of military reservation land to the north of Yellow Fork Canyon into recreational use. This effort did not succeed even though Utah's congressional delegation carried a measure through Congress to transfer the land from military use to BLM ownership. Through recent efforts, Salt Lake County and the BLM have signed a Memorandum of Understanding to jointly plan and manage all of the land herein referred to as Rose Canyon / Yellow Fork Canyon.

In 2005, the Salt Lake County Open Space Trust Fund was established by the Mayor and County Council to assist in acquiring open space for county residents and future generations. In November 2006, the residents of Salt Lake County voted to support a \$48 million bond to acquire open space, natural habitat, community parks, and trails. These funds were used to purchase the Rose Canyon Ranch in December 2007 for \$8.7 million.



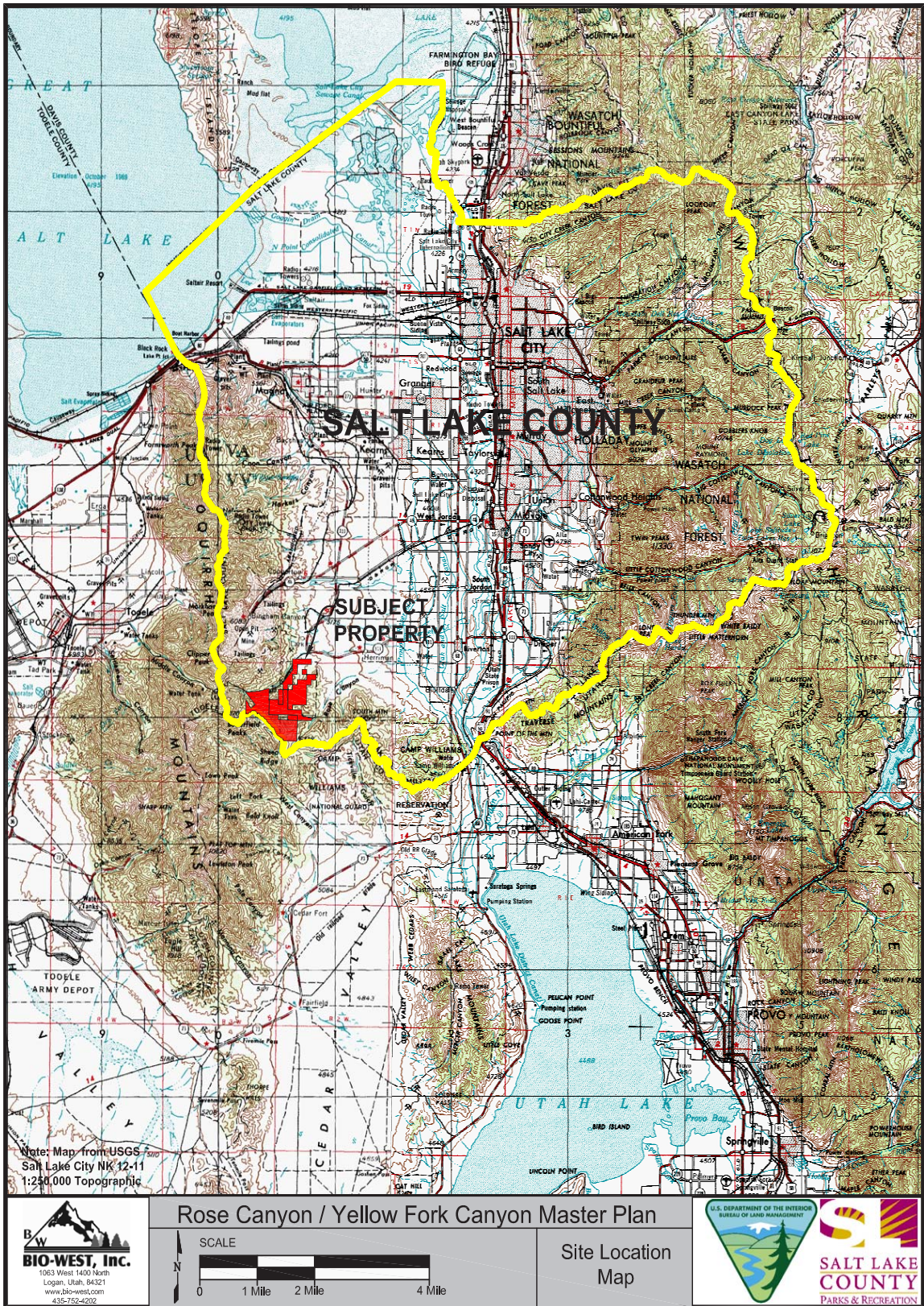
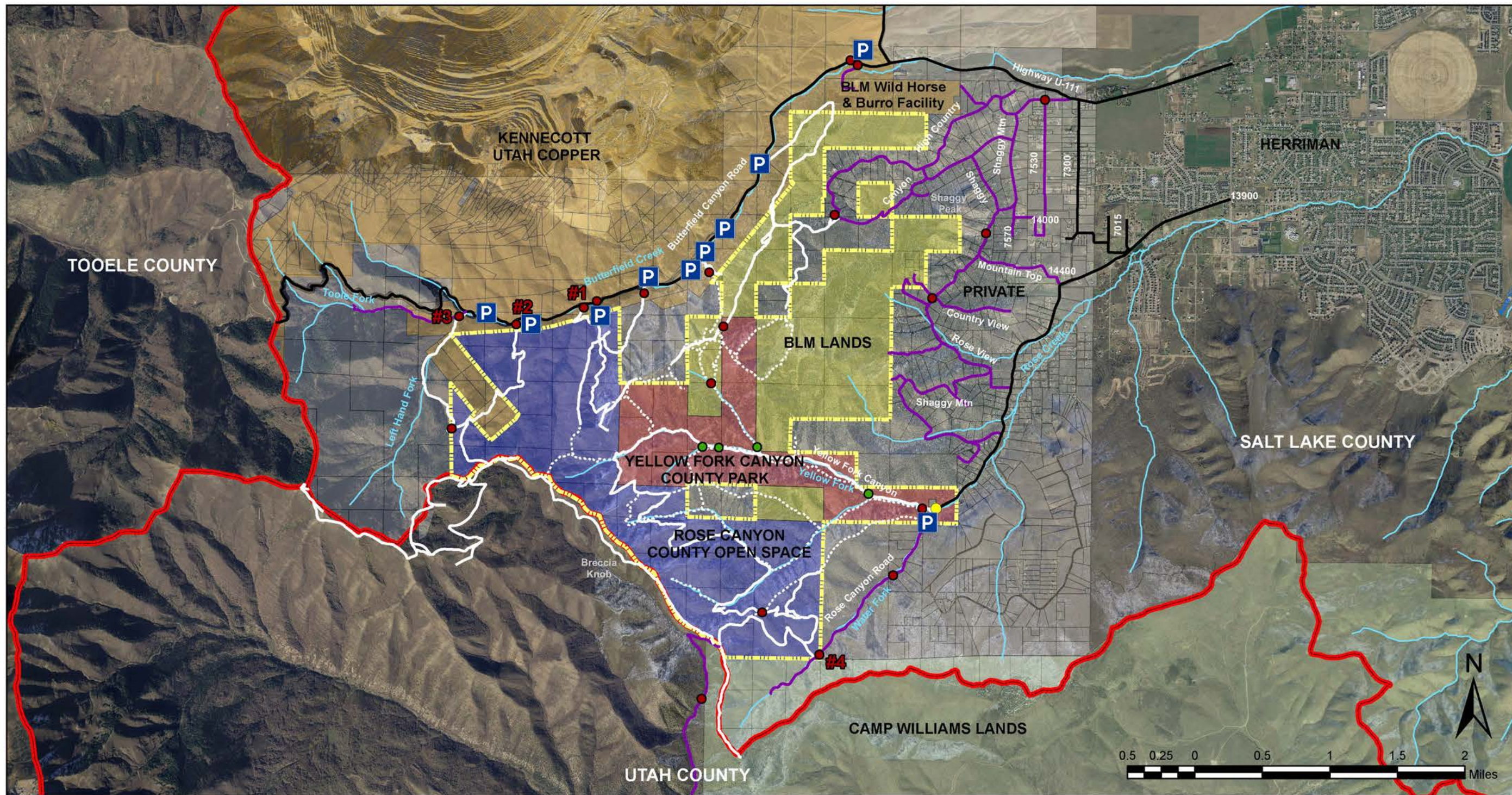


Figure 1. Rose Canyon / Yellow Fork Canyon Master Plan Site Location Map.






 BIO-WEST, Inc. 1063 West 1400 North Logan, Utah, 84321 www.bio-west.com 435-752-4202	<h2>Rose Canyon / Yellow Fork Canyon Master Plan</h2>		<h3>Study Area Map</h3>	 
	Legend <ul style="list-style-type: none"> ● Existing Yellow Fork Canyon Trailhead ● Existing Picnic Area ● Existing Locked Gate 	<ul style="list-style-type: none"> P Existing Undeveloped Parking Area Study Area Boundary County Boundary ~ Streams 		

Figure 2. Rose Canyon / Yellow Fork Canyon Master Plan Study Area Map.



BLM Lands

Management of resources and uses on BLM public lands, which encompass approximately 38 percent of the study area, is guided by the Pony Express Resource Management Plan (BLM 1990). The plan covers management of resources such as lands, minerals, water, soil, range, wildlife, and recreation. Salt Lake County and BLM intend to enter into a cooperative agreement to jointly manage study area lands and share the cost of implementation of improvements identified in this master plan document.

Relationship to Salt Lake County Land Use Planning

All of the study area is within the unincorporated portion of Salt Lake County and therefore is governed by the Southwest Community Land Use Plan (Salt Lake County 2008). This document shows the entire study area land use as “Open Space – Regional Park.” To the north of the study area, lands are designated for “Industrial Mining” uses (i.e., Kennecott Copper Mining Operations), while to the south lands are designated for “Military” uses (i.e., U.S. Military Camp Williams Reserve). To the west of the study area, land uses are designated as “Mountain Residential” (i.e., residential density is less than one dwelling unit per 5 to 20 acres), while to the east land uses are designated as Mountain Residential and “Foothill Residential” (i.e., residential density is less than one dwelling unit per 2.5 acres or larger).

County zoning for the study area has been designated as Forestry and Recreation Zone with a 20-acre minimum parcel area (FR-20). The purpose of this zone is to permit the development of the foothill and canyon areas of the county for forestry, recreation, and other specified uses to the extent that such development is compatible with the protection of the natural and scenic resources of these areas for the continued benefit of future generations. Permitted uses within this zone include single-family dwelling, accessory structures, agriculture, and wireless telecommunication facilities. Examples of conditional uses that may be allowed in the FR-20 zone include bed and breakfast establishments, commercial and private recreation facilities, horses and other livestock for family food production, logging and lumber processing, mineral extraction and processing, planned unit developments, short-term rentals, and ski resorts.

The Transportation Plan for the Southwest Community (Salt Lake County 2007a) indicates that the primary county roads that provide



vehicular access to the study area are designated as “Collector” roads within a 50-foot right-of-way. Butterfield Canyon Road provides access along the northern and western portions of the study area while the Rose Canyon Road provides access to the eastern and southern portions of the study area (see Figure 1). A narrow length of private land, primarily owned by Kenecott Utah Copper, separates the Butterfield Canyon Road from study area lands along the western portion of the study area. Rose Canyon Road provides direct access to the existing facilities at Yellow Fork Canyon including the primary trailhead, picnic areas, and parking area. Currently there are a series of locked gates controlling vehicular access to the Rose Canyon Ranch portion of the study area property from both Rose Canyon and Butterfield Canyon roads.

Public and Agency Involvement

Several methods of public and agency involvement were utilized to gain input from those who are potentially affected by the plan. These methods included formation of a project advisory committee, facilitation of a public open house, and meeting with key stakeholders.

The Rose Canyon / Yellow Fork Canyon Master Plan advisory committee was formed to broadly represent the various stakeholders who have an interest in the planning process. The advisory committee helped to prepare issue statements, identify proposed solutions, recommend future facilities, and review the preliminary draft master plan document. Advisory committee members were solicited by Salt Lake County to participate several times during the planning process. Stakeholders that were represented on the advisory committee are shown in the side bar at right.

A public public open house was conducted during the planning process to obtain public input and to discuss the results of project activities. The open house consisted of both a “formal” presentation by project team representatives and an “informal” question-answer period between members of the public and project team representatives. Both Salt Lake County and consultant staff were on-hand to answer questions and record input. The public open house announcements were sent to the local media and all adjacent property owners.

The public open house was held on January 14, 2009 at Herriman City Hall. The purpose of the open house was to identify issues and concerns from the public relative to the lands and resources within the study area and to solicit ideas to address those concerns. Maps and aerial photographs of the study area that identified resource locations

ROSE CANYON / YELLOW FORK CANYON MASTER PLAN ADVISORY COMMITTEE

- Bureau of Land Management
- Equestrian Advocates
- Herriman City
- High Country Estates I and II
- International Mountain Biking Association, Utah Chapter
- Rio Tinto - Kennecott
- Rocky Mountain Power
- Salt Lake County
- U.S. National Park Service
- Utah National Guard
- Utah Division of Forestry, Fire, and State Lands
- Utah Division of Wildlife Resources
- Utah County
- Unified Fire Authority



KEY ISSUES

- Public Access and Parking
- Butterfield Creek
- Additional Property Acquisition
- Minerals Development
- Motorized verses Non-motorized Uses and User Conflicts
- Camp Williams
- Public Education
- Wildfires and Fuels
- BLM Wild Horse and Burro Center
- Winter Uses
- Wildlife Habitat and Hunting
- Law Enforcement
- Agency Cooperation
- User Fees
- Invasive Species
- Utility Corridors and Utilities Access
- Recreational and Trail Head Facilities

and conditions were available for review and discussion. An overview of the planning process was presented and a list of preliminary issues was provided to inform participants of the known planning constraints. Approximately 46 individuals attended the public open house.

Key Issues

During the planning process the County solicited stakeholders to provide a list of concerns or issues that need to be addressed in the master plan document. Key issues were identified by the advisory committee at their meetings and by community residents at the open house. Many of the comments focused on conflicts between user groups (e.g., bicycles verses equestrians) and recreation uses (e.g., motorized verses non-motorized uses). A number of comments concerned the lack of parking and developed facilities within the study area. Concerns about the protection of resources (e.g., vegetation, wildlife, water quality) were also expressed by those who submitted comments. The list of primary issues that citizens and stakeholders feel need to be addressed in the master plan document are shown in the side bar at left. A more detailed description of the issues is provided in Appendix A.



CHAPTER 2: EXISTING RESOURCE CONDITIONS

This chapter describes the current conditions of resources of interest within the Rose Canyon / Yellow Fork Canyon study area. Resource conditions were identified by on-site inspections, literature searches, contact and coordination with agency and stakeholder personnel, and public involvement. The conditions of the resources described below existed as of 2009-2010, during the planning process.

Geology

The study area is located on the western fringe of the Salt Lake Valley which is on the eastern edge of the Great Basin, a part of the Basin and Range Province. The Great Basin is comprised of north-south trending, closed-basin valleys and associated fault block mountain ranges. The valleys are filled with alluvial fan and pluvial lake deposits (Hintze 1988). More specifically, the Salt Lake Valley is bordered by the Wasatch Mountains Range to the east and the Oquirrh Mountains Range to the west.

The study area consists of mountainous terrain on the eastern edge of the Oquirrh Mountains Range. Topographical elevations in the study area range from approximately 5,600 feet in the north portion to approximately 7,900 feet in the west portion. The overall topography of the Project Area has a steep to moderate very gradual slope to the north and east.

The geology of the study area consists primarily of Tertiary aged deposits of volcanic lava flows and block and ash flow tuffs. These deposits are the result of Tertiary volcanic eruptions associated with the Bingham Intrusive Complex to the north of the study area. Minor deposits of the Pennsylvanian aged Butterfield Peaks Formation, part of the Oquirrh Group, are also located in the study area (Biek et al. 2007). These deposits consist of interbedded fine grained, sandstone and limestone deposits. Quarternary aged alluvial deposits consisting of gravel, sand, silt, and clay are located in the stream channels and flood plains within the canyons located throughout the study area (Biek et al. 2005).

The study area is located within the primary groundwater recharge zone for the principal aquifer in the Salt Lake Valley. Groundwater in the area generally flows east towards the Jordan River (Anderson et al. 1994).





Soils

According to the Soil Survey for the Salt Lake City Area (SSURGO 2006), there are eleven soil types located within the study area (Figure 3). None of the soil types in the study area are flooded or ponded and they all have a natural drainage class of well drained. The following briefly describes the distinguishing characteristics of each soil type.

Baird Hollow Loam (BAG)

The western portion of the study area consists mostly of Baird Hollow loam soil type, which represents approximately 9 percent of the total study area. Slopes range from 30 to 70 percent, which are considered steep mountain slopes. The parent material consists of colluvium derived from andesite over residuum weathered from andesite. Depth to bedrock is greater than 60 inches and the shrink-swell potential is moderate. There is no zone of water saturation within a depth of 72 inches and the organic matter content in the surface horizon is about 6 percent.

Bradshaw-Agassiz Association (BEG)

The Bradshaw-Agassiz soil association is found in the western portion of the study area, representing approximately 1 percent of the total study area. This soil type is found on steep mountain slopes that range in steepness from 40 to 70 percent. The parent material consists of colluvium derived from limestone, sandstone, and shale. Depth to bedrock is greater than 60 inches and the shrink-swell potential is low. There is no zone of water saturation within a depth of 72 inches and the organic matter content in the surface horizon is about 4 percent.

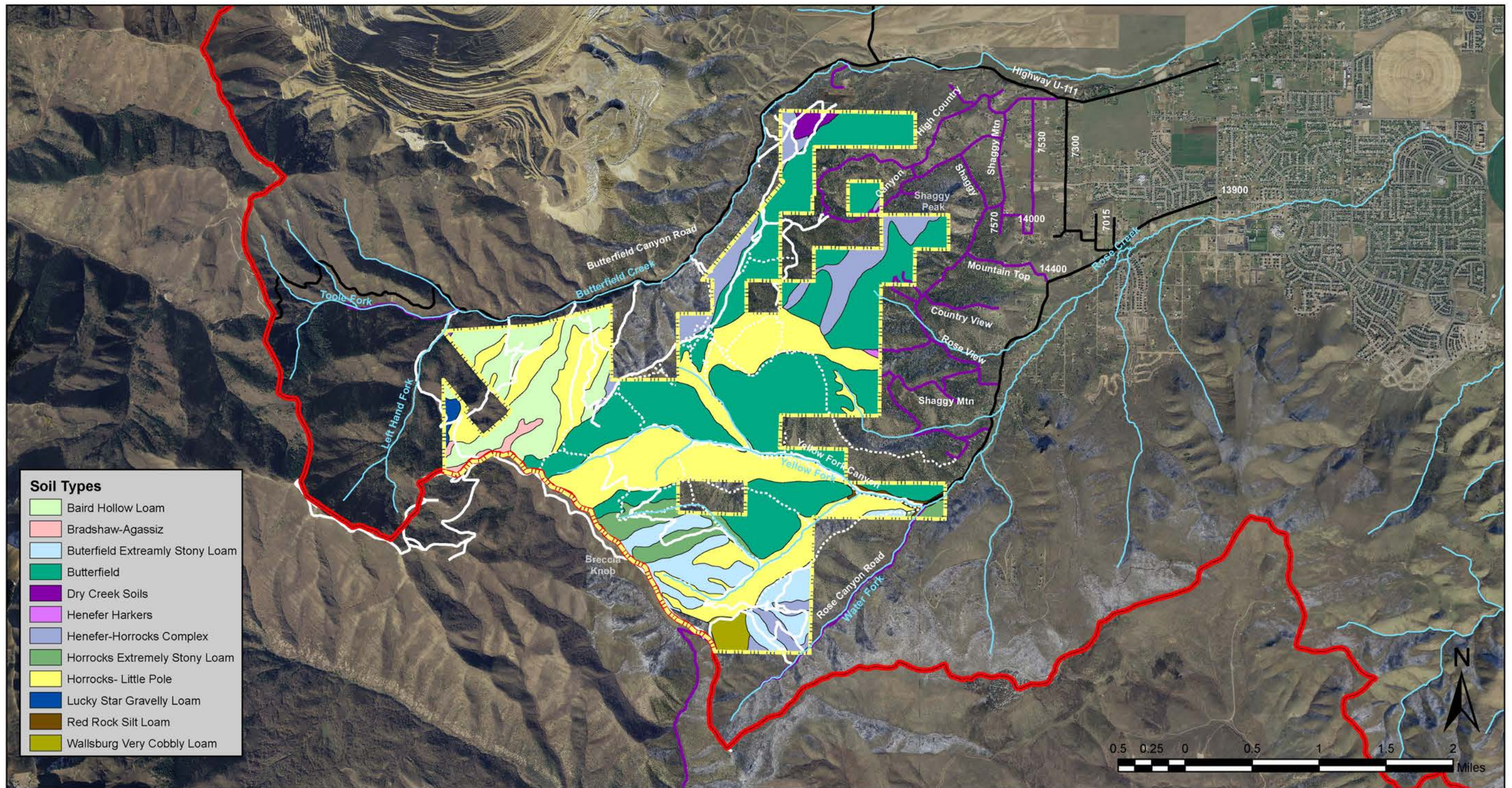
Butterfield Extremely Stony Loam (BFF)

The Butterfield soil is an extremely stony loam encompassing approximately 7 percent of the total study area, mostly located in the southern portion. This soil type is found on mountain slopes ranging from 5 to 50 percent in steepness. The parent material consists of colluvium and/or residuum. Depth to bedrock is 12 to 20 inches and the shrink-swell potential is low. There is no zone of water saturation within a depth of 72 inches and the organic matter content in the surface horizon is about 2 percent.

Butterfield Association (BVF)

The Butterfield soil association encompasses approximately 40 percent of the total study area and is found on moderately steep mountain slopes ranging from 5 to 20 percent. The parent material consists of residuum weathered from igneous rock. Depth to bedrock is 12 to 20 inches and the shrink-swell potential is low. There is no zone of water





- Soil Types**
- Baird Hollow Loam
 - Bradshaw-Agassiz
 - Buterfield Extremely Stony Loam
 - Butterfield
 - Dry Creek Soils
 - Henefer Harkers
 - Henefer-Horrocks Complex
 - Horrocks Extremely Stony Loam
 - Horrocks- Little Pole
 - Lucky Star Gravelly Loam
 - Red Rock Silt Loam
 - Wallsburg Very Cobbly Loam

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Rose Canyon / Yellow Fork Canyon Master Plan

- Legend**
- Project Boundary
 - County Boundary
 - Public Road
 - Private Road
 - Primary Trail
 - Secondary Trail
 - Streams

Soils Map



Figure 3. Rose Canyon / Yellow Fork Canyon Master Plan Soils Map.



saturation within a depth of 72 inches and the organic matter content in the surface horizon is about 2 percent.

Dry Creek Soils (DRD)

The Dry Creek soils encompass approximately 1 percent of the study area and are found on moderately steep mountain slopes ranging from 3 to 15 percent and on alluvial fans. The parent material consists of alluvium derived from limestone, sandstone and shale. Depth to bedrock and water table is more than 80 inches.



Henefer-Horrocks Complex (HNF)

The Henefer-Horrocks complex soil type makes up approximately 8 percent of the study area and is found on mountain slopes ranging in steepness from 5 to 50 percent. The parent material consists of colluvium and/or residuum. Depth to bedrock is greater than 60 inches and the shrink-swell potential is moderate. There is no zone of water saturation within a depth of 72 inches and the organic matter content in the surface horizon is about 4 percent.

Horrocks Extremely Stony Loam (HWF)

The Horrocks extremely stony loam soil type makes up approximately 4 percent of the study area and is found on mountain slopes ranging in steepness from 5 to 50 percent. The parent material consists of colluvium and/or residuum. Depth to bedrock is 12 to 20 inches and the shrink-swell potential is moderate. There is no zone of water saturation within a depth of 72 inches and the organic matter content in the surface horizon is about 4 percent.



Horrocks-Little Pole Association (HXF)

The Horrocks-Little Pole soil association makes up over 28 percent of the study area and is found on ridges and mountain slopes ranging in steepness from 5 to 50 percent. The parent material consists of colluvium and residuum. Depth to bedrock is 12 to 20 inches and the shrink-swell potential is low. There is no zone of water saturation within a depth of 72 inches and the organic matter content in the surface horizon is about 4 percent.

Lucky Star Gravelly Loam (LSG)

The Lucky Star gravelly loam makes up less than 1 percent of the study area and is found on mountain slopes ranging in steepness from 40 to 60 percent. The parent material consists of colluvium derived from limestone, sandstone, and shale and/or residuum weathered from limestone, sandstone and shale. Depth to bedrock is greater than 60 inches and the shrink-swell potential is low. There is no zone of water



saturation within a depth of 72 inches and the organic matter content in the surface horizon is about 8 percent.

Red Rock Silt Loam (Re)

The Red Rock silt loam soil type encompasses approximately 1 percent of the study area and is found on mountain slopes ranging in steepness from 1 to 3 percent. The parent material consists of alluvium. Depth to bedrock is more than 80 inches.

Wallsburg Very Cobbly Loam (WAG)

The Wallsburg very cobbly loam soil type encompasses approximately 1 percent of the study area and is found on mountain slopes ranging in steepness from 30 to 70 percent. The parent material consists of colluvium and/or residuum. The depth to bedrock is 12 to 20 inches and the shrink-swell potential is moderate. There is no zone of water saturation within a depth of 72 inches and the organic matter content in the surface horizon is about 3 percent.

Hydrology and Water Quality

Water within the study area is scarce, and most surface flow and groundwater recharge result from winter precipitation. There are two spring-fed perennial streams within the study area that generally drain towards the north and east, and ultimately to the Jordan River in the middle of the Salt Lake Valley. Butterfield Creek drains much of the northern half of the study area while Rose Creek drains the southern half.

Summer thunderstorms can produce intense rainfall of short duration, which quickly infiltrates the well drained soils within the study area. As a result of the semi-arid climate, most of the study area drainage channels convey little or no streamflow for long periods of time during the year. Downstream of the study area, much of the natural drainage channel for Butterfield and Rose Creeks have been interrupted or eliminated due to agricultural and community development.

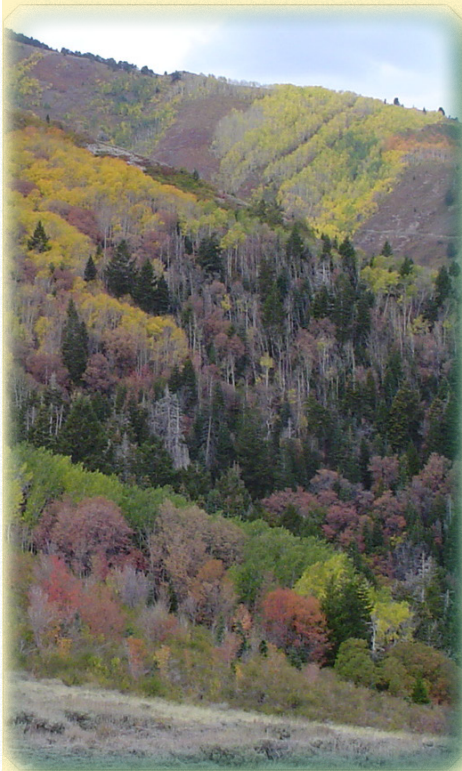
Both Rose Creek and Butterfield Creek are given the 2B, 3D beneficial use classification by default since they are not specifically listed by the State of Utah. The 2B classification is for infrequent primary contact recreation such as wading, hunting, and fishing. The 3D classification protects waterfowl, shore birds, and other water-oriented wildlife not identified in classes 3A-3C, as well as the aquatic organisms in their food chain. Neither stream is on the State 303(d) list of impaired water bodies.





Rose Creek drains an area that is primarily open space or undeveloped areas within Salt Lake County. Therefore, potential water quality issues would generally be limited to sediment, temperature, and dissolved oxygen problems. Butterfield Creek nears a portion of active mining operations north of the study area creating the potential for pollutant contamination. However, storm water from this area is captured and diverted for industrial use to prevent contamination (Rio Tinto 2010). Water quality data are only available for Butterfield Creek. Data from two STORET sites near the study area (#4994450 and #4994440) indicate that some samples for total phosphorus have exceeded the 0.05 mg/L numeric criteria. However, the State of Utah has not identified the stream as impaired by phosphorus. All other data indicate that the stream meets water quality standards for the constituents sampled.

There are three water rights actions on Rose Creek within Salt Lake County. The Rose Creek Irrigation Company claims water from Rose Creek and all of its tributaries (water right number 59-3444). Of the remaining two water rights applications, one is being protested and the other is currently unapproved. Water rights on Butterfield Creek are primarily held by the Herriman Irrigation Company. The other water right is held by a private citizen. These are approved water rights.

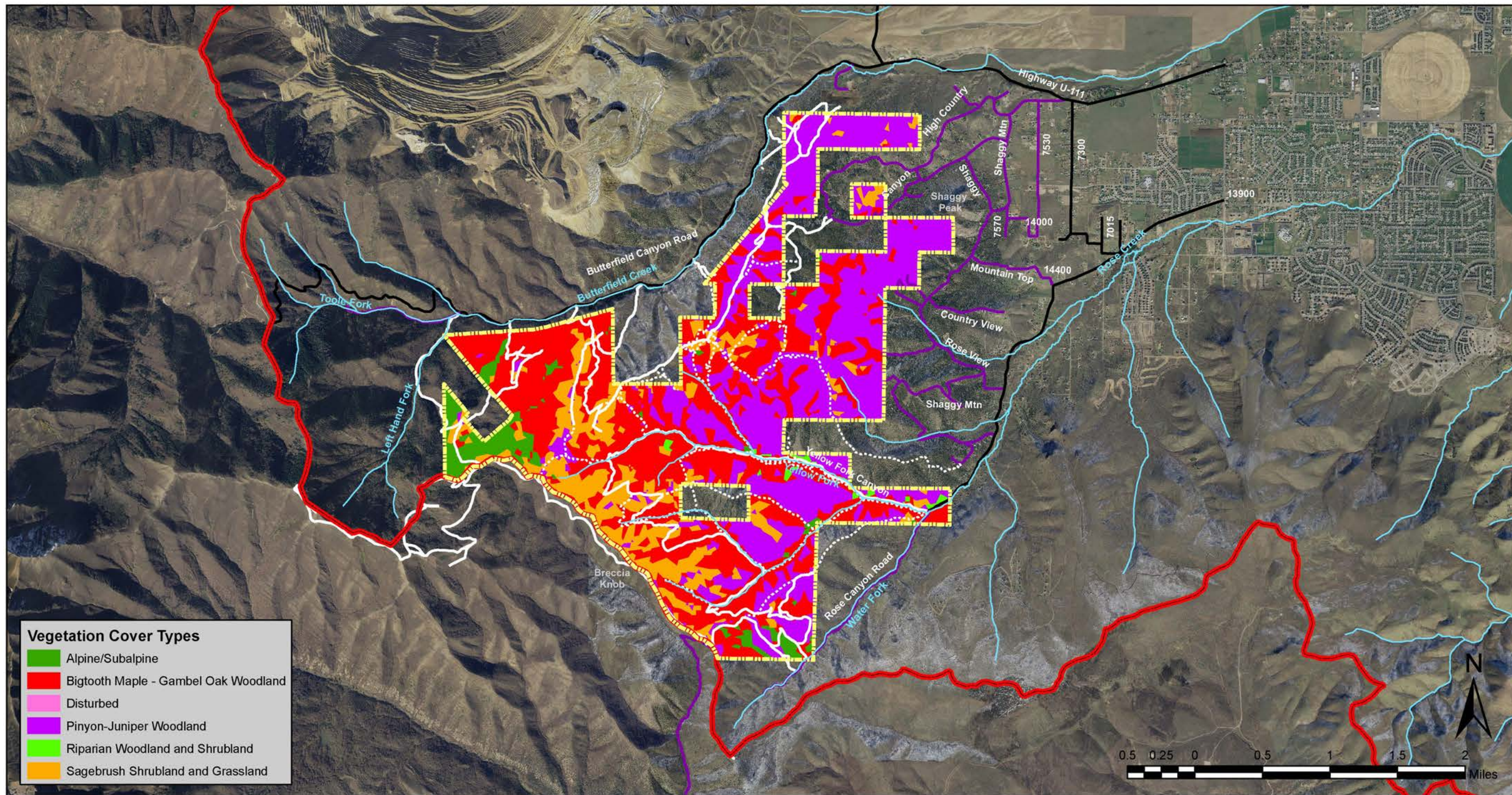


Vegetation

The study area has been classified into a series of vegetation cover types based on information and data contained in the Southwest Regional GAP analysis Project (USGS 2004). Vegetation cover types are determined through identification and classification of plant species found in a particular area. The plant species in each cover type will vary depending upon soil type, slope, soil moisture, aspect, and elevation. There are five vegetation cover types found within the study area (Figure 4), which are described in detail below.

Alpine and Subalpine

Alpine and subalpine vegetation cover types occur at upper elevations within the western portion of the study area, encompassing approximately 4.4 percent of the study area. These forested areas typically have 30 percent forest cover, of which 70 percent or more is made up of conifers. The common plant species found within the alpine or subalpine vegetation cover types vary depending upon aspect and soil moisture. The moderately dense vegetative cover ranges from 60 to 90 percent. Species in this cover type include Douglas fir, mountain snowberry, timber oatgrass, and yellow columbine.



Vegetation Cover Types

- Alpine/Subalpine
- Bigtooth Maple - Gambel Oak Woodland
- Disturbed
- Pinyon-Juniper Woodland
- Riparian Woodland and Shrubland
- Sagebrush Shrubland and Grassland

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Rose Canyon / Yellow Fork Canyon Master Plan

Legend

- Project Boundary
- County Boundary
- Streams
- Public Road
- Private Road
- Primary Trail
- - - Secondary Trail

Vegetation Map

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SALT LAKE COUNTY
PARKS & RECREATION

Figure 4. Rose Canyon / Yellow Fork Canyon Master Plan Vegetation Map.



Bigtooth Maple and Gambel Oak Woodlands

The bigtooth maple and Gambel oak woodlands vegetation cover types occur in the upper foothills and lower montane areas throughout the study area, encompassing approximately 42.7 percent of the study area. The bigtooth maple woodlands areas typically occur on north-facing slopes that have a higher soil moisture content. Gambel oak woodlands are found on drier west- and south-facing slopes. The vegetative cover in these woodlands ranges from moderate to dense. Bigtooth maple woodland areas, which are the densest, range from 65 to 90 percent vegetative cover. Species in this cover type include Gambel oak, big sagebrush, Wheeler blue grass, and mountain bluebells.

Pinyon and Juniper Woodlands

The pinyon and juniper woodlands vegetation cover types occur primarily in the lower elevations of the eastern half of the study area, encompassing approximately 38.1 percent of the study area. These woodlands occur on warm, dry sites on mountain slopes and ridges in narrow bands between the sagebrush shrubland and grassland and bigtooth maple and Gambel oak woodland vegetative cover types. Species in this cover type include Utah juniper, rubber rabbitbrush, Great Basin wildrye, and scarlet globemallow.

Riparian Woodlands and Shrublands

The riparian woodlands and shrublands vegetation cover type is found in narrow corridors along stream channels, encompassing less than one percent of study area lands. Critically important to wildlife, these areas are dominated by trees and have a diverse shrub understory. Species in this cover type include Fremont cottonwood, chokecherry, desert saltgrass, and fire chalice.

Sagebrush Shrublands and Grasslands

The sagebrush shrublands and grasslands vegetative cover type is found primarily along the mountain ridgelines throughout the study area, encompassing approximately 14.2 percent of the study area. They occur on dry, well-drained slopes that consist of deep non-saline soils. The vegetation cover in these areas ranges from moderate to moderately dense (50 to 75 percent cover). Species in this cover type include Wyoming big sagebrush, Indian ricegrass, Sandberg bluegrass, and Wasatch penstemon.



Wildlife

Generally, the study area lies within the Intermountain Semi-Desert and Desert ecological province as described by Bailey (1995). This ecoregion is typically characterized as a sagebrush semi-desert with a pronounced drought season and a short humid season. Most precipitation falls during the winter months despite a peak during the month of May.

The study area and the Oquirrh Mountains provide crucial big game habitat. The Rocky Mountain Elk Foundation and the Utah Division of Wildlife Resources have identified the approximately 750 elk in the area as a critical herd. The Utah Partners in Flight, (Parrish 2002) indicates that several priority avian species use the area for nesting.

Large mammals likely to occur within the study area include mule deer, antelope, elk, mountain lion, bobcat, coyote, and badger. Habitat within the study area has been defined as crucial summer, winter, and year-long habitat for mule deer and as substantial spring, summer, and year-long habitat for elk. Generally, the most common species to be found within the study area include small mammals such as ground squirrels, jackrabbits, kangaroo mice, wood rats, and fox.

Bird species likely to be found within the study area range from the burrowing owl to habitat specialists including the sage sparrow and sage thrasher. Other bird species include black-throated gray warblers, bushtits, gnatcatchers, oak titmouse, ravens, accipiters, vultures, buteos, and house wrens. Raptor species likely to be found include the American kestrel, golden eagle, and ferruginous hawk. Turkey have been introduced to the surrounding area by the state, in partnership with Kennecott Utah Copper and the National Wild Turkey Federation, and can be found throughout the study area in large numbers.

Based on Salt Lake County specific threatened, endangered, or otherwise sensitive (T, E, S) species lists obtained from Utah Division of Wildlife Resources (UDWR) Conservation Data Center (UDWR 2009), no federally protected threatened or endangered species are likely to be found within the study area. The yellow-billed cuckoo, which is listed as a candidate species for federal protection, is not likely to be found within the study area given the absence of large tracts of preferred cottonwood gallery forests.





In total, 26 aquatic and terrestrial wildlife species are listed as sensitive in Salt Lake County by UDWR. Thirteen of these species are birds, three are mammals, and three are herptile species. As described in Table 1, eight state sensitive species have previously been documented either in or within the vicinity of the study area.

Table 1. State-listed species observed in the study area.

Common Name	Scientific Name	Last Known Observation	State Status ^a
Bald eagle	<i>Haliaeetus leucocephalus</i>	1968-pre	SPC
Bald eagle	<i>Haliaeetus leucocephalus</i>	1984-01-12	SPC
Burrowing owl	<i>Athene cunicularia</i>	2003	SPC
Ferruginous hawk	<i>Buteo regalis</i>	1963-04-14	SPC
Ferruginous hawk	<i>Buteo regalis</i>	1963-04-14	SPC
Greater sage-grouse	<i>Centrocercus urophasianus</i>	1942-PRE	SPC
Kit fox	<i>Vulpes macrotis</i>	1968-12-24	SPC
Long-billed curlew	<i>Numenius americanus</i>	1992-07-08	SPC
Northern goshawk	<i>Accipiter gentilis</i>	1971-07-06	CS
Short-eared owl	<i>Asio flammeus</i>	2004-06-01	SPC

^a SPC = wildlife species of concern, CS = species receiving special management under a conservation agreement.

Recreation and Scenery

The study area is becoming increasingly popular with recreationists despite the lack of on-site developed recreational facilities. The area is well known by equestrian and mountain bike users who have created numerous trails throughout the property. Both single-track trail and primitive roads are used to create a variety of loop opportunities for trail users of varying capabilities. Many of the trails lack erosion control and water management features, and very little maintenance is being performed to minimize resource damage.

Currently, there is only one small paved parking area at the trailhead for Yellow Fork Canyon along the Rose Canyon Road in the eastern portion of the study area which can accommodate approximately 6 passenger cars. Nearby, an undeveloped parking area has been created through use primarily by equestrian enthusiasts and overflow from the paved parking area. Parking for horse trailers is extremely limited in this area, which has seen significant vegetation, soil, and stream bank damage from the unconfined parking uses. Numerous other undeveloped and unauthorized parking areas exist along the Butterfield Canyon Road west and north of the study area boundaries





on Kennecott Utah Copper lands. Similar resource damage has occurred at each of these sites as well from unconfined parking and uncontrolled off-highway vehicle (OHV) uses.

Vehicles are currently allowed on the unpaved dirt road up Yellow Fork Canyon, during park hours, which provides access to the existing picnic areas found in this portion of the study area. The road is in very poor condition and only 4-wheel drive vehicles can navigate the drive safely. Picnic tables and hitches for equestrian users are provided at the existing picnic area locations. Motorized vehicles are currently prohibited from all other lands within the study area. However, despite numerous locked gates and fences on the many primitive roads that provide access to the study area from adjacent private property, OHV and motorbike users continue to trespass onto study area lands by vandalizing or circumnavigating these obstacles.

The study area provides great opportunities to view the characteristic natural landscape within its boundaries, as well as opportunities to view surrounding landscapes from higher elevation vistas. In particular, views from the high-elevation ridge along the south western portion of the study area provide grand vistas of Kennecott's mining operations to the north and west, the entire Salt Lake Valley to the north and east, and much of Utah Valley to the south. Although some localized disturbances are apparent at high-use areas, the vast majority of the study area can be viewed in its natural condition. A variety of native habitats can be explored, and the diverse vegetation cover types within the study area provide vibrant colors for viewing in the Fall season.

Mineral Rights

Portions of the Rose Canyon / Yellow Fork Canyon study area contain mineral rights that are not owned by the County. There are unpatented Federal mineral claims within the study area that are administered by the BLM and that could be developed in the future. The unpatented mineral lands include approximately 1200 acres in the Rose Canyon Ranch portion of the study area, 940 acres in the BLM portion of the study area, and another 80 acres in the Yellow Fork Canyon Park portion of the study area. In addition, there are approximately 400 acres of BLM lands that do not currently have mineral claims. These Federal mineral rights are open to acquisition, appropriation, and development under various Federal laws.

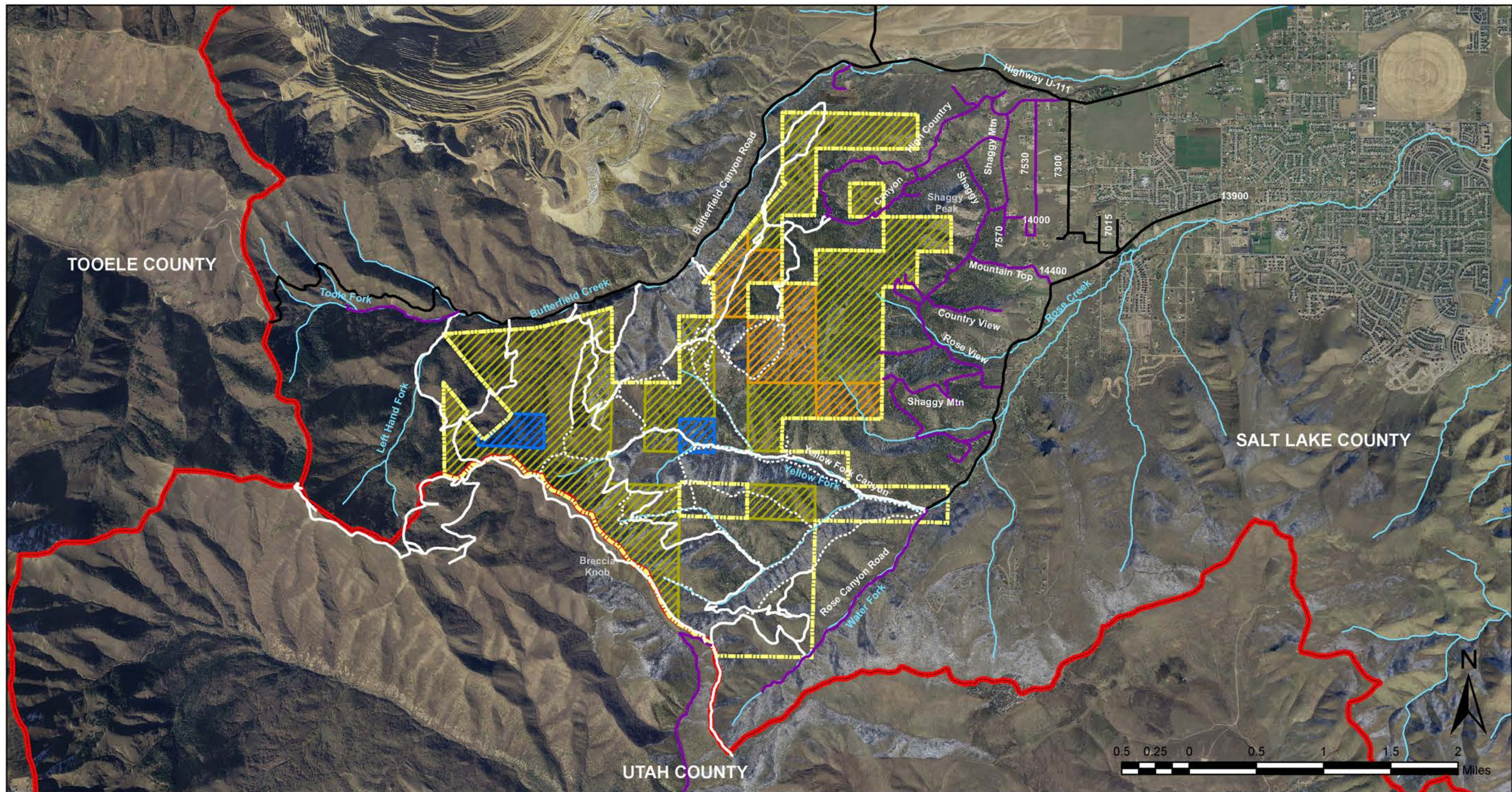
Salt Lake County has made application to the BLM to acquire these Federal mineral rights. Kennecott Utah Copper has located unpatented mining claims on the same lands. Pursuant to an agreement between





Kennecott Utah Copper and Salt Lake County, the County has put its application on hold while Kennecott Utah Copper proceeds with a phased mineral exploration process to assess the mineral potential of these lands. In the event Kennecott is unable to identify the presence of an economic mineral deposit of interest, it has agreed to support the County in its application to acquire the mineral rights. The validity of the Kennecott Utah Copper claims and the potential for future mineral development are contingent upon the results of the exploration activities.

There are also two State mineral claims within the study area that are administered by the School and Institutional Trust Lands Administration. One of these encompasses approximately 40 acres within the Yellow Fork Canyon Park portion of the study area and does not show a current mineral lease. The other encompasses approximately 50 acres within the Rose Canyon Ranch portion of the study area and is subject to a metalliferous mineral lease in favor of Kennecott Exploration Company issued in October, 2007. All other lands within the study area, approximately 1,300 acres, contain private mineral rights. The various categories of mineral rights within the study area are shown in Figure 5.






 <p>BIO-WEST, Inc. 1063 West 1400 North Logan, Utah, 84321 www.bio-west.com 435-752-4202</p>	<h2>Rose Canyon / Yellow Fork Canyon Master Plan</h2>		<h2>Mineral Rights Map</h2>		
	<p>Legend</p> <ul style="list-style-type: none"> - - - Project Boundary — Streams — County Boundary — Public Road — Private Road — Primary Trail - - - Secondary Trail State of Utah Mineral Estate Unpatented Federal Mineral Claims Federal Lands without Mineral Claims 				

Figure 5. Rose Canyon / Yellow Fork Canyon Master Plan Mineral Rights Map.



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CHAPTER 3: PROPOSED LAND USES

Salt Lake County envisions that the study area would be utilized for low intensity public recreation purposes. Public uses of the property are intended to be subordinate to preservation of the natural character of the landscape. This master plan recommends that low intensity recreation uses be defined as equestrian, hiking, mountain biking, cross-country skiing, snowshoeing, picnicking, nature study, and wildlife viewing. Recreational facilities that would support these uses include natural surface trails, paved or gravel parking areas, trailhead facilities, non-obtrusive signs for orientation and interpretation, graded and gravel roads where vehicle use is permitted, trail bridges, non-obtrusive gates and fencing, public restrooms, drinking water, picnic tables, and picnic pavilions.

This master plan further recommends that a number of activities be prohibited such as off-road motorized vehicles, paint ball games, camping, disturbance or removal of plants or animals, livestock or pets out of the physical control of their owners, sports fields or BMX courses, travel off of established trails, hunting, trapping, and commercial activities. Currently, hunting is allowed on BLM lands within the study area according to Utah Division of Wildlife Resources regulations, but is prohibited on county owned lands according to county ordinances. Because the nature of recreation changes over time, it will be necessary for Salt Lake County to review and determine if proposed recreational activities conflict with the intended preservation of the study area.

As more people in the Salt Lake Valley discover the beauty and serenity of the Rose Canyon / Yellow Fork Canyon area, it will be necessary for the community to take an increasingly active role in using the area responsibly and respecting private property. Currently, trespassing violations and destruction of public and private property occur regularly. All users and residents must be committed to preserving these natural resources which are so close to the urban environment and rural neighborhoods, as well as one of the State's largest employers, Kennecott Utah Copper.

Future developed facilities at the study area would help to control access and contain motorized uses on a relatively small portion of the property. Developed access points would largely be on the periphery of the study area. Most facility development should be in the form of trails and trailheads that will accommodate access within the interior of the study area. The visitor experience should include exposure to





nature, scenic viewing, relative solitude, passive recreational activity, natural resource education, and healthy exercise. Most of the land within the study area has significant value for wildlife and important habitat areas should be identified, protected, and improved where necessary. Damaged or disturbed areas should be repaired, and care should be taken to design low-impact facilities. Proposed land uses and facilities are described below in more detail. Proposed facility development locations are shown on Figure 6.

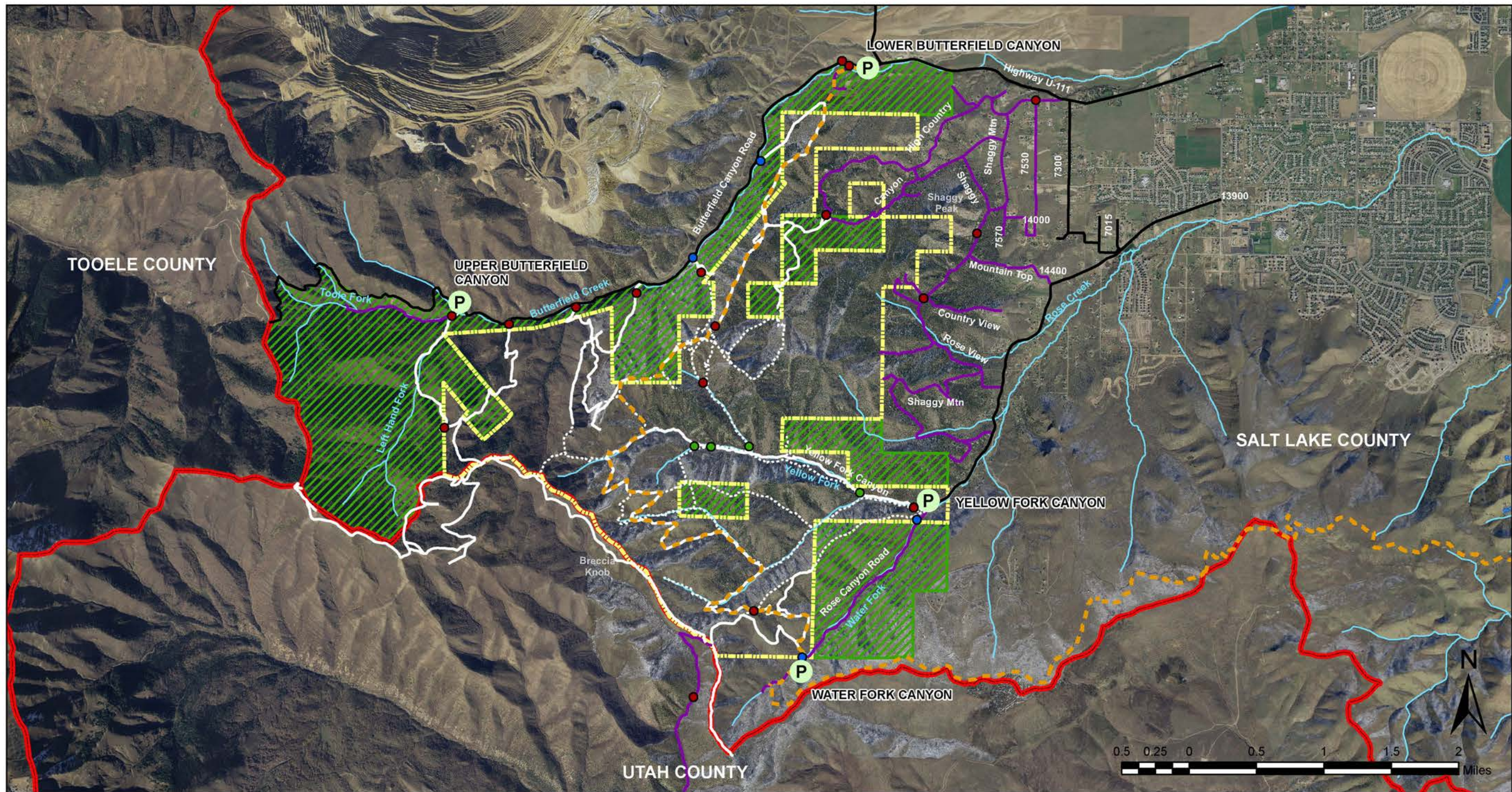
Parking and Access

As Salt Lake County and BLM move forward with any improvements to access via parking and trailheads, it is imperative to coordinate and negotiate all potential improvements with neighboring property owners, including Kennecott Utah Copper, Camp Williams, and High Country Estates. The options listed in this document are for discussion purposes only, and should not be construed as providing public access.

It will be important to manage the study area in a way that prevents motor vehicles from leaving established roadways and designated parking lots. Parking along Rose Canyon and Butterfield Canyon roads should be prohibited for safety and resource protection reasons. Existing undeveloped parking areas should have barriers installed to prevent future use and those areas that have been disturbed should be rehabilitated. Proposed parking areas should be paved and include vault toilet type restroom, picnic, and trailhead facilities. The following sections discuss those parking and access locations that should be developed as part of implementation of this master plan.

Yellow Fork Canyon Parking Area and Trailhead

The existing paved parking area at the Yellow Fork Canyon trailhead should be retained and expanded, as appropriate, for passenger vehicle parking (see Figure 6). The existing undeveloped parking area nearby, currently used for equestrian trailer parking, should be abandoned and the area restored to a more sustainable natural condition. A new paved or gravel parking area for equestrian and other users should be developed northeast of the existing parking area. An existing primitive road that intersects with Rose Canyon Road currently provides access to this new parking area. The access should be improved and a new trail should be developed to connect the parking area with the existing trail system. The existing unimproved road up Yellow Fork Canyon, which leads to several picnic areas, should be improved (i.e., re-graded and possibly paved) and a turn-around constructed at its western terminus.






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<p>Legend</p> <ul style="list-style-type: none"> ● Existing Picnic Area ● Existing Locked Gate ● Proposed Gate P Proposed Parking Area and Trailhead Potential Land Acquisition Project Boundary Streams County Boundary Proposed Bonneville Shoreline Trail Public Road Private Road Primary Trail Secondary Trail 		<h3 style="font-size: 2em;">Master Plan Map</h3>		

Figure 6. Rose Canyon / Yellow Fork Canyon Proposed Master Plan Map.



Water Fork Canyon Parking Area and Trailhead

This proposed parking area would be developed in close coordination with Camp Williams under an agreement with the County. Because of steep terrain and important riparian areas along the Water Fork tributary of Rose Creek, the ideal location for development of a new parking area at the terminus of Rose Canyon Road would be on Camp Williams property (see Figure 6). A large, relatively flat, area of sagebrush shrubland and grassland is of sufficient size to accommodate this proposed use just beyond the County's property boundary. This location is ideal for connecting to the future Bonneville Shoreline Trail and the current trail system within the study area. The parking area may have a paved or gravel surface.



Development of a parking area at this location would require relocation of existing gates along Rose Canyon Road and improvements to the road itself. A new gate should be installed near the Yellow Fork Canyon trailhead to prevent vehicular access onto this unpaved portion of the road during winter and spring conditions to preserve the road surface and adjacent riparian habitats (i.e., similar to the current seasonal restrictions on Butterfield Canyon Road). Improvements to the road should include re-grading and re-alignment where necessary, as well as paving the road if deemed appropriate. In addition, fencing may be required along the road to prevent trespass onto private property.

Lower Butterfield Canyon

This location coincides with the location of the current gate on Butterfield Canyon Road. The gate is closed seasonally to motor vehicles to protect and preserve the road surface from damage, and to minimize maintenance during winter. The existing gate allows for pedestrians and OHV's to bypass the gate when it is closed. When the gate is closed, recreationists are parking along the roadway which is causing vegetation disturbance along Butterfield Creek and uncontrolled erosion to occur.



A proposed parking area should be developed just down canyon from the existing gate that closes Butterfield Canyon Road on property owned by Kennecott Utah Copper adjacent to the entrance of the BLM's Wild Horse and Burro Center (see Figure 6). A large, relatively flat area that is currently managed for agricultural uses would readily accommodate this proposed use. This location is ideal for connecting to the future Bonneville Shoreline Trail and serving as an important trailhead facility for the study area. An agreement between the County, BLM, and Kennecott Utah Copper would be necessary for development of this location.



Upper Butterfield Canyon

This location coincides with an existing gated access to the study area. Butterfield Canyon Road becomes narrow and steep beyond this point, restricting use by certain vehicle sizes and trailers. This proposed parking area would be closed seasonally by Salt Lake County as part of the closure in lower Butterfield Canyon. The ideal location is owned by Kennecott Utah Copper on a relatively flat area that would be suitable for this use (see Figure 6). Areas nearby are currently being used illegally for camping.

Trails and Trailheads

All trails within the study area should be designed for non-motorized uses. Primary uses include hiking, running, mountain biking, and horseback riding. The International Mountain Bike Association multi-use trail standards should guide design of current and future trails. Depending on safety, location, and characteristics of the trail, some trails may need to be limited to specific uses to prevent conflicts.

An inventory of the location of existing trails within the study area was completed during the master planning process. This inventory was helpful in determining which trails should remain and which ones should be closed. However, information on the current condition or maintenance needs of these trails was not collected during the inventory. A more thorough inventory would help to address future trail needs, as well as maintenance, repair, and reroute issues.

Both single track trails and two-track maintenance roads within the study area are used as trails by recreationists. Primitive roads within the study area should be managed for trail uses, as well as for Salt Lake County maintenance access and for fire breaks. The Unified Fire Authority should be consulted regarding maintenance of primitive roads for fire breaks.

Trailheads are envisioned to be developed at each of the four proposed parking areas that provide access to the study area. Each trailhead should have kiosks for visitor information and orientation, picnic areas, and vault-type restrooms should be provided. The parking areas are proposed to have a paved or gravel surface with defined parking stalls, including those for horse trailers. Fencing should also be provided to control access and prevent trespass at all trailheads and parking areas.

The Bonneville Shoreline Trail (BST) is proposed to be located through the study area. A proposed route for the BST has been identified and is shown on Figure 6. The proposed BST route follows





existing primary and secondary trails through the study area and should require only limited new trail construction to complete the alignment. The BST requires directional signs and use of the BST logo. It should accommodate equestrians, hikers, and mountain bikers. Development of the BST on BLM lands will require appropriate environmental approvals.

All parking areas and trailhead facilities should be designed to provide accessibility for users of all abilities. Making these facilities accessible involves removing barriers and providing gentle grades for parking lots, picnic areas, restrooms, and walkways. While not every facility must be accessible in a recreation area, a person with mobility impairment should be able to park, leave their car, travel to a picnic site or pavilion, travel to and read interpretive exhibits, travel to and experience a scenic overlook, and travel to and use a restroom. Paved trails may be needed to connect these facilities.

Winter Recreation

There has been some interest in winter recreation opportunities within the study area. Because both Butterfield Canyon and Rose Canyon roads will continue to be closed during the winter, winter recreationists will need to access the study area from either the Lower Butterfield Canyon or Yellow Fork Canyon parking areas. Winter recreation uses will be limited to non-motorized activities such as cross-country skiing and snow shoeing. Development and rental of a yurt on the property has been suggested by stakeholders and will be carefully considered by the county.



CHAPTER 4: PROPERTY MANAGEMENT

Natural Areas Land Management Plan

In December 2007, Salt Lake County completed its *Natural Areas Land Management Plan Standards and Operations Manual* (Salt Lake County 2007b) to guide maintenance and management activities at natural areas under its stewardship. The purpose of the manual is to assist County Parks and Recreation staff in identifying, monitoring, and maintaining properties under their jurisdiction that are to remain primarily in a natural state. Natural areas are remnants of Salt Lake Valley's presettlement landscapes that contain rich, diverse plant and animal communities and are minimally developed. The manual establishes standards and guidelines for classifying natural areas by landscape type, planning for and performing maintenance and monitoring activities, and rehabilitating or restoring degraded and disturbed areas. It will be used by County Parks and Recreation staff to guide maintenance and management activities on study area lands.

Natural Areas Maintenance

Maintenance of study area lands will focus on maintaining healthy native vegetation communities, stabilizing soils in disturbed areas, minimizing disturbance related to recreational activities, and reducing noxious weed infestations. The *Natural Areas Land Management Plan Standards and Operations Manual* addresses maintenance activities such as weed management, erosion control, and revegetation of disturbed areas. The manual provides information on weed identification and various control methods, erosion control practices and installation techniques, and revegetation planning and implementation techniques. It will be used by County Parks and Recreation staff to guide maintenance and management activities within the study area.

Trail maintenance will be an important management activity on study area lands. Established standards for the design and maintenance of hiking, mountain biking, and equestrian trails should be used by the County throughout the study area. Trails within the study area should be designed, constructed, and maintained using standards developed by the U.S. Forest Service (USFS 1996), the International Mountain Bicycling Association (IMBA 2004), and the Bonneville Shoreline Trail Alignment Plan (BSTC 2005). County Parks and Recreation staff will use these resources to guide trail construction and maintenance activities within the study area.





Management Staffing

The Rose Canyon / Yellow Fork Canyon properties will require management capabilities that are different from the typical developed park management and maintenance activities. The size of the study area, limited accessibility, dispersed facilities, varying public uses, extensive trail systems, and neighboring land uses all contribute to the unique staffing and equipment demands that are anticipated. A part-time to full-time manager is recommended to handle regular maintenance activities, develop project budgets, oversee development projects, implement restoration and weed control projects, coordinate with law enforcement, program recreational and educational activities, organize and direct volunteer projects, and serve as the liaison to Herriman City and adjacent property owners.



Wildfire Management

Wildfire management on study area lands will be an important priority for managing and maintaining the Rose Canyon / Yellow Fork Canyon properties. The study area is part of the “urban-wildland interface,” where suburban residential areas are adjacent to and/or intermixed with wildlands or undeveloped areas. Wildfire is an important natural process that is often necessary to maintain healthy ecosystems, but it also presents a significant hazard to residents and properties within the urban-wildland interface. Management strategies within the study area should include management and maintenance of vegetation and fire breaks, as well as public education, to mitigate some of the wildfire hazards.

To begin the process of wildfire management on study area lands it will be necessary for the County to conduct a wildfire hazard assessment. The County Parks and Recreation staff should coordinate with personnel from the County Unified Fire Authority and the BLM to foster communication of wildfire risks and mitigation plans between all agencies involved. The purpose of the assessment is to identify fire-prone vegetation, fuel breaks, properties at risk, emergency access locations, water sources, and wildfire mitigation strategies. Wildfire mitigation strategies should include fuels modification, guidelines for fire response and evacuation routes, and homeowner education.



Collaboration with Stakeholder Partners

Cooperation and collaboration with agency, special user group, and community partners will be essential to the successful implementation of the Rose Canyon / Yellow Fork Canyon Master Plan. Both Salt



Lake County and BLM staff will provide the primary oversight and management of study area lands. Other critical partnerships should be established and continue with adjacent property owners such as Kennecott Utah Copper (Rio Tinto), Camp Williams (Utah National Guard), Herriman City, and High Country Estates to deal with access and parking area developments and improvements, as well as wildfire management. Additional partnerships should be established with user groups such as the Bonneville Shoreline Trail Coalition, the Utah Chapter of the International Mountain Bicycling Association, and equestrian users to assist the County with trail design, construction, and maintenance activities.

Potential Land Acquisition

A number of undeveloped properties exist immediately adjacent to study area lands that are suitable for acquisition (see Figure 6). As opportunities arise and funding becomes available, the County should work towards the acquisition of key properties with its partners. Potential acquisitions should be prioritized based on criteria such as securing access to study area lands, eliminating in-holding areas, ecological importance, and community support. The County should also consider the transfer of study area BLM lands to County ownership in order to consolidate and simplify management activities as opportunities arise or as requested.

Education and Interpretation

The Rose Canyon / Yellow Fork Canyon study area provides significant opportunities for education and interpretation. Environmental education and outdoor recreation topics are numerous and proper locating of interpretive facilities throughout the study area would enhance visitor enjoyment. The extensive trail system provides linkages to various habitat types and scenic overlooks. Interpretive facilities could include kiosks at trailheads, wayside exhibits at interesting features, brochures with plant and animal lists, and trail guides. Trailhead facilities would provide for distribution of interpretive materials. The County and BLM should work with local school districts to provide outdoor classroom opportunities for students and school groups.

Signs

Appropriate signage should be developed and installed at key locations throughout the study area. A uniform sign system using standard County and BLM sign materials should be developed and used to assist





with visitor orientation and management. Parking areas and trailheads should contain much of the needed signs, though smaller signs to help visitors with way finding along trails will also be needed. Signs will also be needed at key locations along the study area boundary to prevent trespass and motorized access. Kiosks at trailheads should include information panels with interpretive messages, orientation maps, park rules, emergency contact numbers, trail descriptions, announcements of park events, etc.

Fencing and Gates

Uniform fencing and gate materials should be developed and used to assist with access control and trespass issues. Fencing will be necessary at parking areas and trailheads to define use areas and to restrict vehicular travel off established roads. Fencing at these locations should have a rustic look that blends with the landscape, such as buck and rail or other wood-type fencing. Boundary fencing may also be needed at key locations, such as adjacent to residential subdivisions and along major roads, to prevent encroachment and resource damage. Wildlife friendly t-post and wire fencing would be appropriate at these locations. Gates will be required at each trailhead and parking area, as well as at maintenance access locations, to prevent off road travel by motorized vehicles and to enforce operational closures. Gates should accommodate passage of horses, mountain bikers, and hikers. The County and BLM will coordinate installation of fencing and gates with adjacent property owners.

Pets and Working Animals

Pets and working animals used within the study area, such as dogs, horses, and llamas, must be under the physical control of their owners. This follows existing County ordinances and is necessary to prevent conflicts with other park users on the trails and in recreation areas. Watering of pets and pack animals should be accomplished by providing water sources at study area trailheads.

Law Enforcement

One of the keys to the successful implementation of this master plan is the presence of law enforcement officials. With increases in the local population and more interest in public uses within the study area, there will be an even greater need for rules and regulation enforcement to provide for public enjoyment of the study area and to ensure public safety. The Salt Lake County Sheriff and BLM law enforcement officers are responsible for law enforcement on their respective study



area lands. In addition, the Utah Division of Wildlife Resources is responsible for enforcing hunting regulations on BLM lands. Herriman City currently has a contract with Salt Lake County for law enforcement. The County should pursue an agreement with BLM for joint law enforcement of study area lands, which would enable both entities to monitor each other's lands. The County and BLM should also engage volunteer user groups to help patrol on monitor study areas lands as appropriate.



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CHAPTER 5: IMPLEMENTATION

Determining priorities for completion of proposed facilities and management studies is a function of both opportunity and necessity. In general, projects that provide for public health and safety, or that secure the protection of study area property, should receive a high priority for funding and scheduling. In actual practice, the availability of a specific funding source, the opportunity to form a beneficial partnership, the availability of resources for implementation, the interdependency of projects, or other factors may have the greatest influence on the order in which proposed projects are accomplished. Because funding will come from a variety of sources, it is possible that several projects could be under way simultaneously. The following discussion attempts to address priorities for implementation.

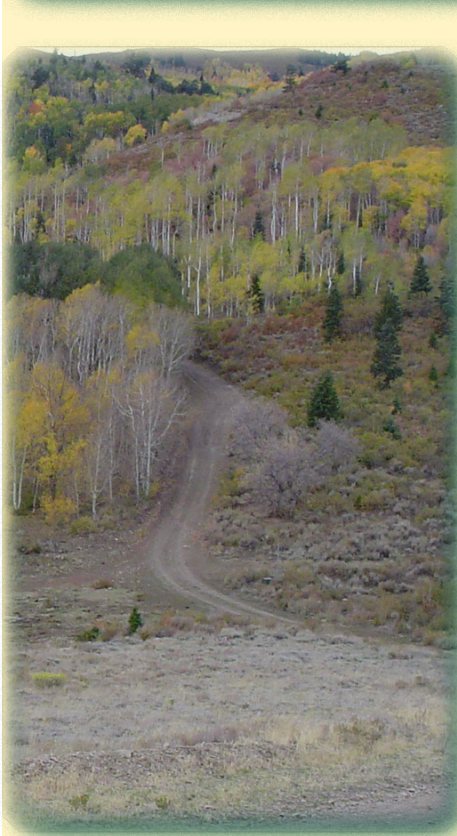
Prioritization of Proposed Facilities and Projects

Both the Yellow Fork Canyon and Lower Butterfield Canyon parking areas and trailheads are the highest priorities for funding and implementation. Due to the lack of developed facilities at these locations, current uses are resulting in substantial resource damage within the study area. Restoration of damaged areas should happen concurrently with implementation of the new facilities. With the continued seasonal closing of upper Butterfield Canyon and Rose Canyon roads, these two parking and trailhead facilities would be utilized year-round by visitors to the study area. New gates and associated fencing will likely be required at both locations to prevent motorized access to the upper portions of both roads. Because the Lower Butterfield Canyon parking area and trailhead is located on private property, early and close collaboration with the property owner (i.e., Kennecott Utah Copper) will be necessary.

Improvements to Yellow Fork Canyon road and its associated picnic areas are also a high priority. The Yellow Fork Canyon road, which provides for vehicle access to a series of four picnic areas, is currently in very poor condition which limits accessibility to high-clearance, four-wheel drive vehicles only. Grading, drainage, and road width issues need to be addressed to allow for safe vehicle access. The lower picnic area should be designated for group activities, and a picnic pavilion and vault-type restroom should be considered for development.

Both the Water Fork Canyon and Upper Butterfield Canyon parking areas and trailheads are medium priorities for funding and implementation. These two parking areas and trailhead facilities would be open seasonally in coordination with the seasonal road closures.





Because both facilities are located on non-County property (i.e., Kennecott Utah Copper and Camp Williams), close collaboration and agreements with property owners is essential.

Closure, reconstruction, and restoration of trails within the study area are also medium priorities for funding and implementation. Salt Lake County and BLM should work with trail user groups to phase and implement individual trail projects. A more thorough inventory of trail conditions is necessary as a beginning point for this effort. Equestrian, mountain biking, and hiking organizations, including the Bonneville Shoreline Trail Coalition, should be enlisted to help implement needed trail improvements, perhaps including adoption of trail segments for maintenance.

Lower priority projects include development of additional trail segments and small-scale trailhead facilities at those locations beyond the proposed parking areas. A number of study area trails connect to Butterfield Canyon Road on the north, the private road system associated with the Hi Country Estates developments to the east, and primitive road systems to the south and west in Utah County, Tooele County, and Camp Williams. To the extent that access is determined to be appropriate in these adjoining areas, implementation of trail signage, stream crossings, and vegetation restoration should be implemented at these locations.

Funding Sources and Opportunities

Implementation of public facilities and management activities discussed in this master plan deserves the support of Herriman City and Salt Lake County citizens. Potential grants, individual donations, county and BLM appropriations, and contributions from partnerships with non-profit organizations and local, state, and federal government agencies are the likely funding sources for implementation of recommended facilities and activities. The principal partnership for development and management of the study area is between Salt Lake County and the BLM, who will jointly allocate resources and capabilities to be shared on an annual basis. Individual projects can be potentially matched by a variety of grant sources at the local, state, and federal levels.



Annual Assessment Monitoring and Work Plan Development

The study area should be monitored jointly at least once annually by both BLM and county staff. Aerial photographs should be used to document information describing study area problems and issues. Additional on the ground photographs should be taken and used for documentation. Upon the completion of the annual monitoring visit, an annual work plan should be used to direct specific effort that are required to address any problems or issues discovered. The work plan should include the specific locations, actions, time of year, and labor and funding needs for each item. Annual work plans should incorporate anticipated facility development projects that receive funding.



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APPENDIX A: STUDY AREA ISSUE STATEMENTS

The Rose Canyon / Yellow Fork Canyon Master Plan Issue Statements present the issues and opportunities, identified through public and agency scoping that will be addressed and solved through the course of the planning process. Although the Issue Statements provide a necessary foundation for the master plan by representing both public and agency opinions, some of the statements may reflect “perceptions” rather than factual data. The Issue Statements are intended to clarify the scope of each concern and to provide the foundation for the development of the master plan Goals and Objectives.

The contents of these Issue Statements were based on comments received (1) from the Advisory Committee Meetings held on November 13, 2008; (2) from the BLM IDT Meeting held November 17, 2008; (3) from the general public at the Public Workshops held in January 14, 2009, in Herriman City, Utah; and (4) from the Advisory Committee Meeting held January 21, 2009. The Advisory Committee is comprised of approximately 30 individuals who represent nearby residents, management agencies, conservation organizations, and resource user groups that have a significant interest in the future management and use of the Rose Canyon / Yellow Fork Canyon Master Plan study area. The Advisory Committee has provided the primary input for the development of these Issue Statements.

Issue 1: Public Access and Parking

Currently, public access and parking within and adjacent to the study area is limited. Many have suggested that the existing parking area at the Yellow Fork Canyon trail head needs to be re-designed and expanded to allow for appropriate use by horse trailers and other vehicles. Additionally, the number of parking and access areas needs to be increased throughout the study area to help disperse use, especially in Butterfield Canyon where potential access locations are currently gated. Input from the public included suggestions to improve and widen Rose Canyon and Butterfield Canyon roads and to consider additional access points through High Country Estates and the BLM Wild Horse Facility.

Gates that belong to private landowners adjacent to the study area have become problematic for nearby private property landowners who need access to their property. At the same time, private property owners are concerned about trespass and vandalism activities that have occurred on their properties in the past. There are a series of gates on Rose Canyon road that are locked, even though the road itself has a public access easement. It has been stated that public access may be the most important and difficult aspect of the master plan project.

Salt Lake County has jurisdiction (i.e., ownership and maintenance responsibilities) over both Rose Canyon and Butterfield Canyon Roads. Both roads are classified as “local” roads within a 50-foot right-of-way. Rose Canyon Road is currently scheduled for spot improvements between the years 2009 and 2012. Currently, there are no major improvements planned for either road.

Issue 2: Butterfield Creek

Kennecott has spent millions of dollars to clean up Butterfield Creek and monitoring is ongoing. The creek is intermittent and does not support a fishery. However, there are numerous at-grade vehicle crossings of the creek that are damaging the associated riparian environment. Suggestions for improvements have included



fencing stream segments to protect their riparian values and installing culverts or bridges at potential trail or vehicular access crossings.

Issue 3: Property Acquisition

Should Salt Lake County acquire adjacent and/or in-holding properties to expand the current study area open space and park boundaries? County acquisition of private in-holding lands is an issue that should be addressed in the master plan document. Consideration should be given to public safety, funding, maintenance, access, and environmental issues in all land acquisition proposals. Some adjacent landowners have approached the County about selling their land, but currently the County does not have designated funding to support these efforts.

Issue 4: Minerals Development

There is U.S. Government owned minerals that are unpatented within the study area that could be developed in the future. The unpatented mineral lands include approximately 1200 of the 1700 acres in the Rose Canyon Ranch portion of the study area and another 80 acres in the Yellow Fork Canyon Park portion. The federal minerals were open to appropriation under the applicable federal laws, and pursuant to which Kennecott holds rights to the federal minerals within the study area. An agreement between the County and Kennecott provides for phased mineral exploration to assess the mineral potential of these lands. Further development is contingent upon the presence of an economically viable mineral deposit. Salt Lake County has applied to the federal government to acquire the federal minerals within the study area.

There are two exploratory mine shafts in the north area by Butterfield Canyon that are twenty plus feet deep. These mineshafts need to be closed or researched as a possible habitat for bats. Abandoned mines and mining operations remain a safety concern for the study area.

Issue 5: Motorized vs. Non-motorized Uses and User Conflicts

Salt Lake County regulations currently prohibit motorized uses on County lands while the BLM currently allows for motorized uses on BLM lands on existing designated roads and trails. There is some interest from local residents to allow for off highway vehicle (OHV) access to the study area, while others have suggested that the entire study area be designated as non-motorized. In order to close the area to motorized uses, the BLM would need to modify their current Pony Express Resource Management Plan. Currently, there are no officially designated roads or trails on BLM lands within the study area. Keeping hiking, mountain biking, equestrian, and motorized uses separate is of high concern to each user group to reduce conflicts.

Issue 6: Camp Williams

The Utah Army National Guard's Camp Williams shares a common boundary with the southern portion of the study area. Some of the land within the study area used to be part of the Camp Williams property. Currently, there is no boundary fence between the study area and Camp Williams but there are warning signs posted every 100 feet. There have been instances of unexploded ordnance from Camp Williams being found in the study area. The Army National Guard is undertaking a feasibility study to determine the nature and extent of munitions and explosives of concern across the study area and to evaluate potential treatments for performance



and costs. The study should be completed this summer (2009). Public safety is of primary concern and signage at trail heads warning of this potential has been suggested.

Issue 7: Public Education

There is a need to educate the general public on the role of the various management jurisdictions involved in the planning process. The master plan public meetings and committee meetings can be tools to disseminate information and to help create consensus, openness, and understanding. Following adoption of the master plan, there needs to be several mechanisms to distribute information to civic organizations, county commissions, city councils, and study area users. On site interpretive signage, web-sites, brochures, local newspaper (South Valley Journal), municipal water bills, community councils, and other volunteer organizations could be used to disseminate such information. In addition, the planning process should engage residents from throughout the County since the study area is intended to serve everyone.

Issue 8: Wildfires and Fuel

Wildfire is a concern to nearby residents whom live down-slope from the study area. Historically, wildfires have ignited south of the study area and moved northward. The BLM has implemented a number of fuel reduction projects (e.g., juniper removal) on approximately 600 acres of land within the study area over the last 5 years. In addition, Camp Williams spends over \$200,000 per year on fuels reduction projects along the south study area boundary. The Utah FFSL, High Country Estates, Camp Williams, Cedar Fort, and the BLM have been working together for over 10 years to address wildfire mitigation issues in the area. The County needs to join these partners in fuel management on study area lands to reduce the potential for catastrophic wildfire conditions. A Community Wildfire Plan for both the High Country Estates and Camp Williams areas have been prepared and should be incorporated into the master plan document. The nearest fire station is in Herriman City, within approximately 5 miles from the study area.

Issue 9: BLM Wild Horse and Burro Center

The BLM currently leases land from Kennecott for the horse center located at the north end of the study area. The lease has an approximate 30-year term and was established in the 1990's. This area has been mentioned as a possible access point for the study area, but potential proposals would need to take into consideration the protection and safety of the animals.

Issue 10: Winter Uses

Are there opportunities for winter uses such as cross country skiing, yurt rentals, and/or snowmobiling in the study area? Winter use is limited at the present time to some snowmobiling on existing roads within the BLM portion of the study area and cross country skiing and snowshoeing in the County portion of the study area. However, there is a high possibility of winter use intensifying in the future with population growth in the area. There have been requests for the County to install yurts to rent and also to groom some ski trails within the study area. Many in the public do not want the area open for snowmobile use and current County ordinances prohibit snowmobile use on park lands.



Issue 11: Wildlife Habitat and Hunting

There is a healthy deer herd and large number of wild turkeys found in the study area. A portion of the study area is crucial winter range for deer. Hunting within the study area is regulated by the Utah Division of Wildlife Resources. Some County residents would like to hunt within the study area, especially bow hunters. However, fire arms and hunting are currently prohibited on County owned land. Allowing hunting in the study area would require a change in the County ordinance. Many residents feel that the study area is not large enough to allow hunting and they are concerned about safety. Off-leash dogs that accompany visitors are also a concern for their affect on wildlife within the study area.

Issue 12: Law Enforcement

The Salt Lake County Sheriff and BLM law enforcement officers are responsible for law enforcement on their respective lands. Herriman City currently has a contract with Salt Lake County for law enforcement, but many complain that law enforcement within the study area is lacking. With increased public use of the project area, there will be an even greater need for rules and regulation enforcement to provide for public use, enjoyment, and safety. One of the keys to the successful implementation of this master plan project is the presence of law enforcement officials. Some have suggested collaborating with volunteer user groups to help patrol the study area.

Issue 13: Agency and Stakeholder Cooperation

Multiple agencies and stakeholders have management responsibilities on or interest in different portions of the study area (i.e. Salt Lake County, BLM, Utah Division of Wildlife Resources, High Country Estates, and Kennecott). This situation sometimes results in discrepancies between land management agencies as to how regulations are enforced or how resources are managed between different jurisdictions. Communication between resource management agencies, land owners, stakeholders, and users needs to be consistently maintained. Implementing consistent rules and regulations across the study area would be helpful to users.

Issue 14: User Fees

Currently there are no fees charged for access to study area lands or use of existing facilities. If facilities are provided (e.g., parking, restrooms, picnic pavilions, day camps), should fees be charged for their use? Many residents do not want fees charged for use of study area lands while others have suggested a fee to park in designated areas. These fees could be used to maintain and upgrade facilities, or used as support for additional law enforcement. Organizing volunteer groups and using existing volunteer organizations to implement management or maintenance projects within the study area have also been suggested as ways to reduce costs.

Issue 15: Invasive Species

The introduction and spread of noxious and invasive weeds and pests within the study area are major concerns. An Integrated Pest Management Plan is needed to address the control problematic plant and animal species.



Issue 16: Utility Corridors and Utilities Access

There is a possibility that Rocky Mountain Power will develop a new powerline corridor adjacent to the study area. A Draft EIS has been prepared and released for public comment that shows a possible alternate route for the powerline through Butterfield Canyon. There are also a number of communication equipment sites to the west of the study area and maintaining access to these sites is an issue.

Issue 17: Recreational and Trail Head Facilities

Appropriate facilities at designated trail heads need to be provided, as well as accessible facilities for handicapped visitors. The proposed master plan should determine what recreational facilities are needed for public access, picnicking, hiking, mountain biking, and equestrian activities, as well as facilities for motorized users if those activities are permitted. There are also suggestions for posting trail use, access, and safety signage for study area users at all trail head locations.

