



HERRIMAN HILLS OPEN SPACE MASTER PLAN



Submitted to:
Herriman City

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June 18, 2018

Executive Summary

Accessibility to a the Herriman Hills Open Space with a well connected trail network is a key goal for this vibrant, livable, healthy community. Well planned trailheads and recreation amenities are also an integral part of a complete and attractive recreation system to help increase economic viability. The integration of well planned access locations in the community aids in reducing traffic congestion in residential neighborhoods, while also helping to improve the health and quality for life of residents and communities.

An active lifestyle is a primary component in the allure of Herriman City to many new residents. In recognition of these benefits and to provide support for active recreation and the related lifestyle, Herriman City contracted with Project Engineering Consultants (PEC) to create the first Herriman Hills Open Space Master Plan. The plan focuses specifically on exploring recreational solutions that are compatible with the Army Compatible Use Buffer (ACUB) and balancing the City's desire to attract economic activity with the residents desire for maximum natural open space. The primary goal of the plan was to develop a complete, comprehensive recreational amenities feasibility study to identify potential recreational amenities and destination locations for the Herriman Hills area. The plan process included coordination with municipal agencies and local committees that own and manage the land.

Tasks completed by the project team during the development of the feasibility study and open space master plan include:

- Collection of existing trails and City data, including geographic information system (GIS) shapefiles, zoning maps, City trail plans, etc;
- Compilation and organization of existing data into a single dataset;
- Coordination with local municipality and contributing committees;
- Completion of a public open house;
- Completion of a user attitudes and needs survey (online and available at public open house);
- Completion of various site analysis and space allocation map iterations with revisions and changes as directed by the project team;
- Completion of project and planning evaluation of potential recreation amenities;
- Preparation of a cost economic impact study (provided by Zions Public Financial);
- Recommendations for project prioritization, implementation, and funding; and
- Completion of preliminary conceptual design and this open space master plan document.

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1.0 Introduction

In October 2017, Herriman City contracted with Project Engineering Consultants Ltd. (PEC) to complete an open space feasibility study for the Herriman Hills area. The Herriman Hills Open Space Master Plan was developed to provide a framework for creating a connected system of trails and recreation amenities throughout the property and determine the feasibility of access points, trailhead locations, and additional recreation development options. This non-motorized system is envisioned to serve a diverse range of users, providing safe and well-maintained linkages to important natural, recreational, cultural, and civic destinations and other points of interest within and outside of the area. The plan will also include important links to trail systems in surrounding regions, such as the Bonneville Shoreline Trail, Bluffdale, and Yellow Fork/Rose Canyon.

1.1 Project Setting

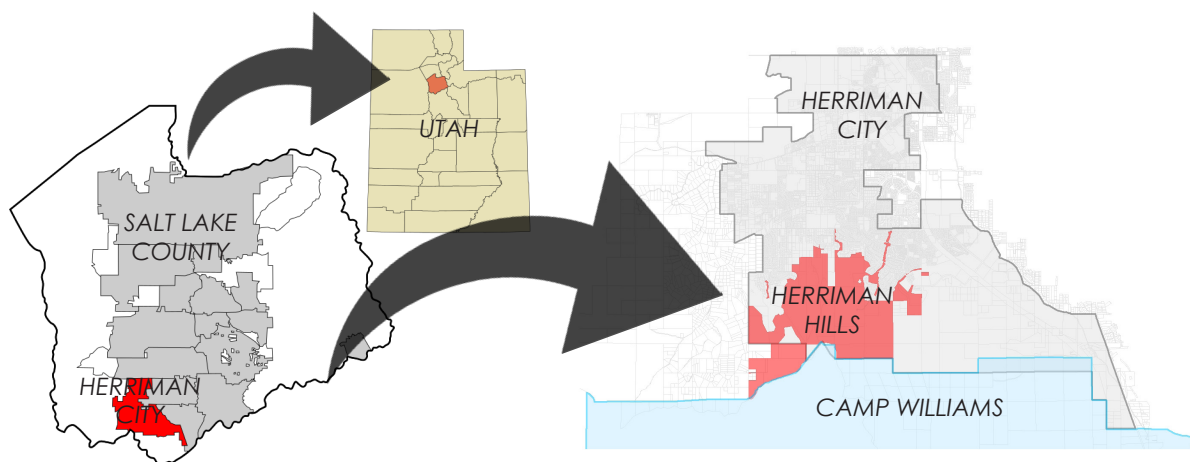
Herriman City is located on the north slope of the southern foothills of the Oquirrh Mountains. The City has roughly 51,000 inhabitants within 20.3 square miles, according U.S. Census Bureau estimates, equating to a population density of about 2,512.3 inhabitants per square mile.

The City is bordered by Camp Williams to the south, Bluffdale to the east, Riverton to the north and north east, and unincorporated Salt Lake County to the west (see Figure 1). Most of the City consists of residential zoned land (see Figure 3).

The proposed study area for the Herriman Hills Open Space Master Plan, focuses primarily on the approximate 1,800 acre site (see Figure 2). Consideration of major connections to surrounding cities and/or open lands were part of the process (see Appendix A: Site Analysis Maps).

1.2 Importance of Open Space Planning

Good open space planning does more than create amenities for a community; a unified open



From left to right, Figure 1: This map of the state of Utah shows the location of Salt Lake County and where Herriman is located within Salt Lake County; Figure 2: The Herriman City map shows the defined project area in red.

HERRIMAN CITY ZONING

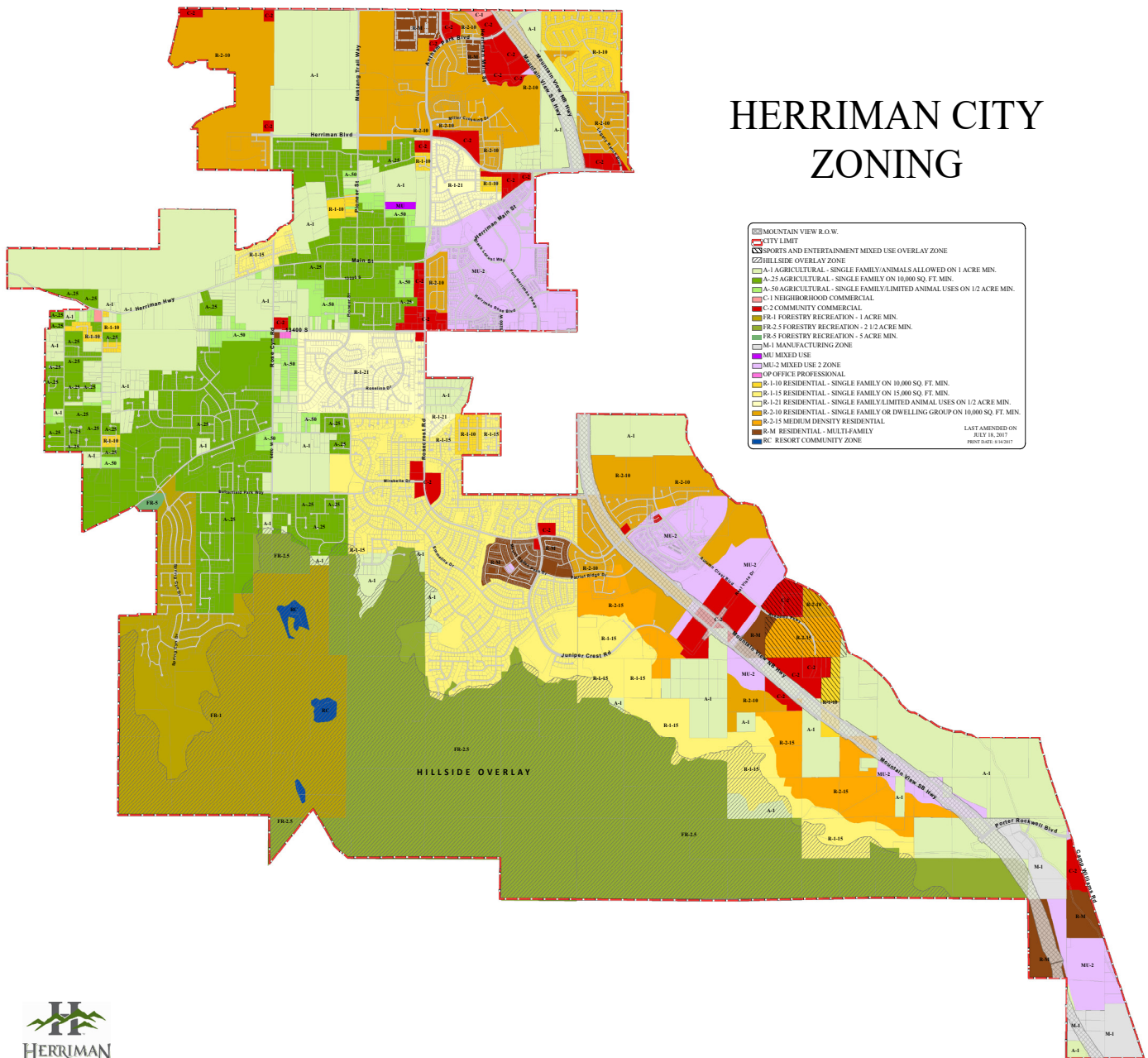


Figure 3: Herriman City Zoning Map. Provided by Herriman City.

space master plan does the following:

- Connects open space and trail users into a municipal and regional network;
- Connects communities;
- Encourages integrated development planning;
- Connects the local trail network to public lands and recreation areas;
- Helps preserve open space;
- Fosters an active lifestyle (see Figure 4);
- Helps communities better prioritize the development and construction of trails, trailheads, and recreation amenities; and
- Strengthens a community's ability to secure outside funding to build trail, trailhead, and/or recreation amenity projects.



Figure 4: This Herriman City resident enjoys a healthy lifestyle while mountain biking.

1.3 Purpose of the Master Plan

Herriman City (City) with the help of federal funding purchased approximately 1,800 acres of native foothills open space to accommodate the Army Compatible Use Buffer (ACUB) Zone adjacent to Camp Williams. The City's vision is to create a regional recreational hub to draw visitors to the area and increase local commercial prospects for the City. Due to an increasing interest in recreation throughout the county and a decrease in available open space for recreational opportunities, a niche for a regional development of open space for recreation is prudent. Population growth and urban expansion have created a demand for unique outdoor experiences which once established could draw new residents and regional day-trippers. This proposed extensive network of backcountry trails, trailheads, and unique recreational opportunities could put Herriman on the map as well as create a cohesive community, connecting backcountry trail nodes with an urban transportation trail network.

The City also anticipates the likelihood of the population spilling over into the communities adjacent to Herriman Hills affecting future access and impacts to the natural environment. By establishing a comprehensive open space master plan now, the City can implement trail infrastructure and trail access seamlessly with applications for funding and development

in the area. The development of trails and trailheads will also limit damage to the natural environmental and habitat by discouraging social trails and unlimited access.

The purpose of the Herriman Hills Open Space Master Plan project is to identify the feasibility of potential recreation amenities and destination locations for the area which are compatible with the ACUB Zone. To fulfill the purpose of the master plan, the following goals and objectives were outlined:

- Inventory existing trails and access points within the study area (see Figure 5);
- Provide a list of possible recreation opportunities that are compatible with the ACUB;
- Define the recreation amenities that best suit the City and its residents, recommend strategies for implementation, funding, and prioritization of the proposed master plan; and
- Create a comprehensive concept plan to provide direction for future recreation development and implementation of the strategies and goals of this open space master plan.

1.4 Project Team Members

Representatives from Herriman City, Herriman Trails Committee, and Trails Utah were involved in the planning and development of the open space master plan; they are listed below:

Project Engineering Consultants (PEC)

Lars Anderson, Principal-in-Charge

Greg Klobberdanz, Project Manager

Geoff Dupaix, Public Involvement Specialist

Debora Shepard, Landscape Architect/Planner

Zachary Scott, Trail Designer

Zions Public Financial

Benj Becker, Economic Analyst

Herriman City

Wendy Thomas, Director of Parks and Events

Gordon M. Haight II, Assistant City Manager

Eric Blackett, GIS Technician

Trails Utah/Super Fly

Sarah Bennett

Senta Beyer, Open Space/Trail Planner

Herriman Trails Committee

Jo Darton, Committee Chair

Team members were individually consulted when the project was initiated to gather existing information and input regarding the study area. Following these consultations, team meetings were held to determine solutions and manage efforts.

1.5 Public Involvement

Herriman City and the surrounding communities have an active population with a passion for outdoor recreation. The project team determined that public opinion and support for the master plan would be essential in its development and implementation. It also became apparent that due to the geographic nature of the area and the neighboring land uses, that coordination between the trails committee, Camp Williams, and residents would be crucial for success. The

project team used the following tactics to involve the general public and coordinate between agencies:

- Conducted a public open house;
- Conducted an online user survey;
- Created presentations and informational materials; and
- Collected comments from the online user survey and from the public open house and organized them into a matrix.

1.6 Goals, Objectives, and Policies

PEC originally identified a basis for the goals, objectives, and policies in the project proposal. This basis was then tailored through interactions with city staff and residents. The goals, objectives, and policies for the Herriman Hills Open Space Master Plan consist of the following:

- Build upon existing and proposed trails to create a comprehensive municipal and regional trails plan for the Herriman Hills area;
- Identify, review, and present the vision and goals of city officials and residents;
- Gather data regarding the use of existing trails and the implementation of new trails and amenities through a needs and attitudes survey;
- Determine desired recreation amenities that are compatible with the ACUB Zone;
- Estimate costs for trail and amenities construction;
- Research maintenance requirements for a variety of trail types;
- Make suggestions for prioritization as it relates to the open space master plan;
- Suggest funding options for implementation and maintenance;
- Compile data collected during the above listed objectives; and
- Produce area concepts and a written open space master plan document.

1.7 Benefits of Open Space

Trails and open space have tremendous benefits for local communities. Not only do they connect cities and towns to surrounding lands, but they also enhance the local quality of life through positive impacts to health, economy, and environment. Herriman City recognized this importance and has taken the steps to prepare a municipal open space master plan so the community can benefit from a unified trail system and limited development of their natural open space. Examples of benefits from trails and open space are listed below.

- **Improving Health:** Trails and open space reduce medical costs by encouraging exercise and other healthy outdoor activities at low to no cost relative to other recreational services.

- **Improving Economy:** The costs of land acquisition for trails, trail construction, open space, and maintenance are far outweighed by the economic benefits generated, which can include increased property values, increased spending at local businesses, and increased business development. A healthy trails and open space system fosters a desirable destination for regional travel.

2.0 Project Approach

Although Herriman City consists of a little more than 20 square miles of land, the 1,800 acre Herriman Hills area is an incredible asset to the community and residents. Determining recreational amenities and destination locations that are suitable for the Army Compatible Use Buffer (ACUB) is the goal. These recreation solutions will include the City's goal of generating more tourism and economic activity in the area while protecting the activities of Camp Williams.

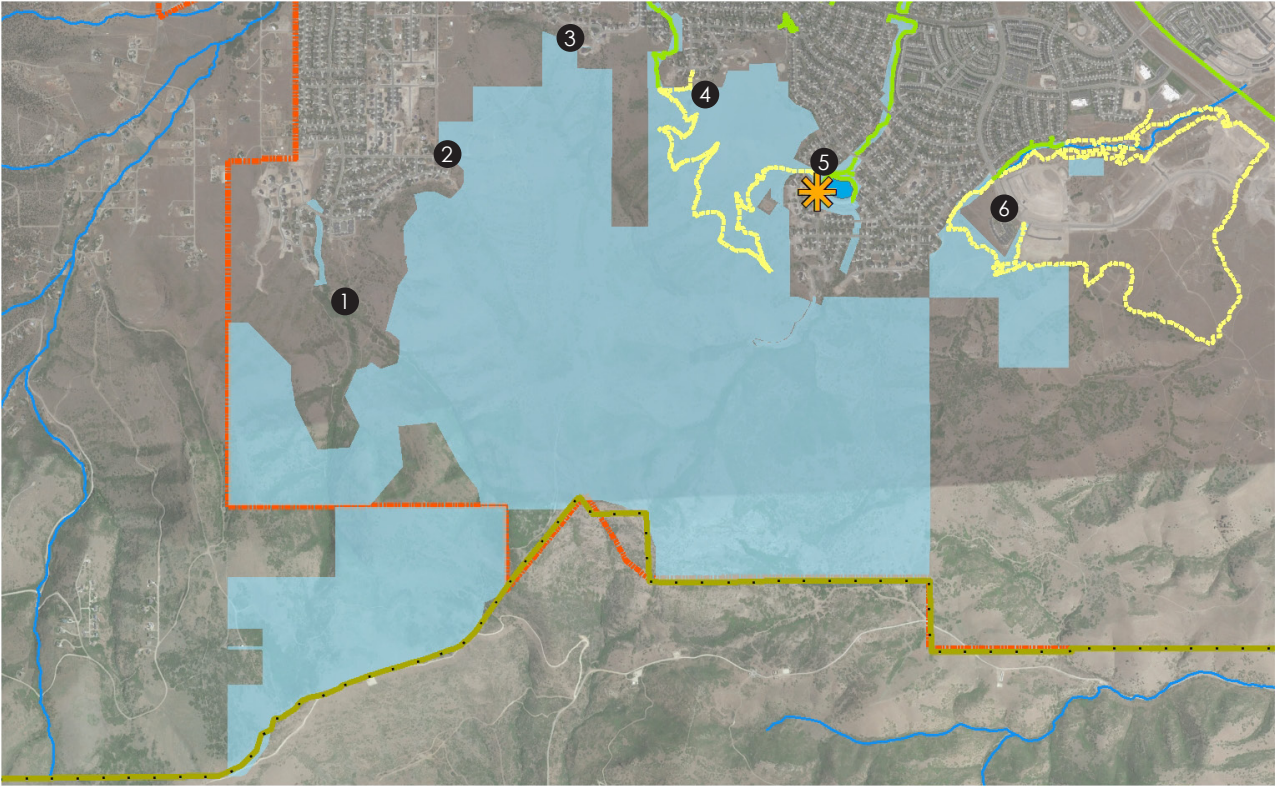
2.1 Study Area

The 1,800 acre Herriman Hills site is located between Herriman City and Camp Williams. At 5,000 feet in elevation this high desert environment sees only 10 to 15 inches of precipitation per year. This rocky, semi-arid foothill landscape consists of desert shrubs and grassland which support a range of wildlife including deer, small mammals, reptiles, and birds. With human activity moving further and further into the foothills, preserving a portion of this valuable habitat will enhance the community and attract visitors from the region.

2.2 Existing Infrastructure

Herriman Hills has ample opportunities for trails and amenities plus a supportive group of trail users. However, access to the area is limited to Blackridge Reservoir, a few trail connections within the city, and social trails through empty residential lots. The following systems are components of the existing trail infrastructure within the city which are connected to the area (see Figure 5).

- **Blackridge Reservoir Trailhead:** This is the only designated trailhead for the Herriman Hills Open Space currently. The extreme popularity of this destination has overwhelmed the parking capacity. Neighborhood residents are concerned with on street parking and increased traffic in the area.
- **Blackridge Reservoir Trail System:** Herriman City developed a trail corridor from Leila Lane, crossing at Rosecrest Road and Emmeline Drive, to Blackridge reservoir. This paved urban trail is popular with residents for trail activities and access to the reservoir area.
- **Juniper Crest Trail System:** From Mountain View Corridor to Herriman Hills are a group of trails bordering an intermittent stream drainage. A small portion of these trails are paved and cross Juniper Crest Road to reach the Herriman Hills Open Space. This trail corridor is essential in connecting the community and activities on the east



Figures 5: This map shows existing trails, trailheads, and access points in and around the Herriman Hills Open Space.

side of Mountain View Corridor including the REAL Salt Lake Academy and Salt Lake Community College Herriman Campus with Herriman Hills. Some visitors are accessing the open space by parking in the LDS Church parking lot on Juniper Crest Road.

- **Butterfield Park Trail System:** Herriman City developed a trail from Butterfield Parkway to Blackridge Reservoir which traverses the Herriman Hills area. The trail from Butterfield Parkway to the Friendship Drive area is paved and from there to Blackridge Reservoir the trail is not paved.
- **Cuchara Way/Friendship Dr. Access:** A 24' wide right of way access was created by the City during neighborhood development. An unpaved trail links with the Butterfield Park Trail System.
- **Herriman View Way/Fort Pierce Way Access:** Two trail right of ways were established for resident access to Herriman Hills, however only socially created trails exist at this time.
- **Graffiti Rock Access:** At the intersection of Wide Hollow Dr. and 6600 West a social trail has been created to access the open space area. Many visitors are parking along this narrow road creating traffic problems and damaging bordering vegetation.
- **The Cove Area Access:** Between Spring Canyon Dr. and Cedar Falls Dr. an intermittent drainage swell was set aside as open space during residential development. This future trail system area could connect Vista Springs Dr. to Herriman Hills through future neighborhoods if planned successfully.

2.3 Data Collection

Herriman Hills encompasses such a large area , that the collection of existing data was essential to the creation of a universal data set from which future decisions could be made. Data for the project was collected in the form of ESRI shapefiles and hardcopy maps from Herriman City. PEC contacted Eric Blackett with the City to request data applicable to the study area.

2.4 Data Compilation

Any available ESRI shapefiles were merged into one single shapefile. The new universal shapefile was evaluated to determine missing components. Hard copy maps were used to cross check data, and any missing or incorrect parts of the data were added to the new shapefile using geographic information system (GIS) software. In the urban areas, digital data was verified using current aerial imagery and agency representatives. When all data had been compiled and verified, a universal set of base maps was created and used in planning and mapping workshops with the project team.

2.5 Mapping

The team used the universal set of basemaps in public meetings and in planning sessions with managing agencies and municipal planners. Full size scaled maps were used to draw conceptual trail alignments, outline existing trails, and define proposed trailheads and

development for the master plan (See Appendix A: Site Analysis Maps). During the creation of these maps, PEC and team members determined that due to the large number of trails being proposed and the large study area, developing a core network of primary trails and priority trailheads would be necessary.

2.6 Core Network

The Herriman Hills Open Space Master Plan is a network of the primary trails and trailheads in the study area that provide connections to key access points, points of interest, and regional trails with the addition of priority and proposed trailheads with recreation amenities. The core network was developed throughout the mapping process and committee meetings with the project team. After identifying key access points in the study area, the team began to draw conceptual alignments between these locations. Through revision and refinement, a core network was developed.

The project team found that connections between the Bonneville Shoreline Trail (BST) and municipal trail systems were essential. In addition, key connections needed to be made between the city commercial center, REAL Salt Lake Academy, Salt Lake Community College Herriman Campus, and the open space. Finally, the team determined that providing access to communities through existing and future right of ways was crucial for resident and visitor access. By proposing solutions to these basic needs, the core network was developed.

3.0 Public Involvement

Public involvement (PI) played an integral role in the development of the Herriman Hills Open Space Master Plan. Generating support among residents and adjacent communities in Herriman City was crucial to building an area-wide plan that connects neighborhoods to open space and ties the recreation locations into the core network of trails. To accomplish this goal, the project team held committee meetings, conducted a public open house, and organized an online survey to gauge frequency of trail use, recreational activities and amenities, and willingness to find alternatives to fund trail, trailhead, and amenity construction and maintenance.

3.1 Committee Meetings

Developing a unified open space plan required collaboration with the trails committee, a group of key representatives who speak for their municipalities and organizations and champion the creation of trails within Herriman City and the surrounding area.

The purpose of the meeting was to review project goals and outcomes, objectives, and identify trail user groups and access locations. The team wanted to create a plan that identified a core network of trails that would connect to residential areas, establish access and trailheads, and incorporate recreational activities important to the community. The second goal was to create a public input survey to collect data concerning trail use and recreational needs and wants. The group identified the following objectives for the plan:

- Relocate the Bonneville Shoreline Trail (BST) alignment;

- Minimize development areas and roads to interior of open space in order to enhance the natural quality of the environment and habitat;
- Exclude motorized activity from the area; and
- Create a comprehensive public input survey in order to determine the desires of the residents for the area.

Additional refinements were made to the proposed trail network. The team also reviewed the public survey and provided comments. The team wanted to explore how willing respondents would be to pay an additional park fee to build and maintain trails.

3.2 Public Open House

The team scheduled a public open house on March 22, 2018 at Herriman City Hall. The purpose for the meeting was to present to the public the existing trail network, proposed BST alignment, potential trailhead locations, and proposed trail classifications that had been developed and gather feedback. The public was given the opportunity to review the maps of the proposed trail routes and trailhead locations and make suggestions. Approximately 50 people attended the meeting, with 41 signing the attendance roster.

Several methods were used to promote the open house, including using the City website and implementing social media tools.

The City website was used as the primary information source. The project survey, open house announcement, and all project materials were posted to the website, allowing stakeholders to look at the information at their convenience. Table 2 summarizes the comments from the March 22, 2018 public open house.

Number of Comments	Topic	Comment Descriptions
12	Add Trails	Include a trail network to accommodate hiking, biking, trail running, and equestrian with connectivity and loop trails
8	Skills Trails	Low, medium, and high level skills trails for mountain biking
6	No Motorized Vehicles	No ATV's or motorized vehicles to tear up natural environment, damage trails, create noise, dust, or sparks.
6	Pump Track	Include a mountain bike pump track for variety and regional draw
4	NICCA Course	Mountain bike race course for regional and state events.
3	Dog Park	Include an off leash dog park
2	Cross Country	Create a 5K or 3 mile course for Herriman Cross Country team practice and events
2	Trailheads	Add trailheads/access which include restrooms, drinking fountains, and off street parking

Number of Comments	Topic	Comment Descriptions
2	Shooting Range	Public/private partnership to develop a managed shooting range for regional draw and revenue
2	Leave As Is	Leave property as it is with no improvements
1	Picnic Areas	Develop picnic areas for outdoor eating on the trail
1	Obstacle Course	Create an obstacle/rope/climbing course for unique experience
1	Challenge Stair-case	Include a challenge staircase for a unique outdoor fitness and recreational experience
A total of 15 people submitted comments at the open house		

Table 1: Summary of comments from the March 22, 2018 public open house.

3.3 Public Opinion Survey

The project team developed an online survey of 17 questions to measure topics such as frequency of trail use, primary use of trails, desired recreational amenities, trailhead and access locations, and willingness of the public (or trail users at least) to pay additional fees or taxes to build and maintain trails. The survey was posted on the City website and each member of the trails committee sent out a link to the survey on social media to each of their communities and user groups.

The data may be skewed in favor of trail users and may not reflect a true sample of the population of Herriman City residents, since almost 72% of respondents are trail users. That said, the information from the survey provides good information to influence the direction or the project and in future conduct more research and analysis.

More than 735 persons responded to the survey, with 234 respondents answering all the questions. Of those who responded to the survey, 81% of respondents came from Herriman.

Some key findings from the survey included the following:

- 84% of respondents would like to see only small scale development of the area (hiking/running/biking trails, parks, limited vehicular access);
- Hiking trails were the most important small scale activity at almost 65% and mountain biking came in second with over 57%;
- The only medium scale activity rated important was a year-round terrain park (e.g. biking trail in summer/snowboard, snowshoe, tubing in winter), however it was only important to 39% of respondents;
- Less popular was large scale development with the highest important activities including 23% for access roads to interior trailheads and almost 19% for access roads to view areas;
- Off-leash dog parks were almost a tie with 51.5% indicating they should be considered and 49.5% that they shouldn't be a part of the open space;

- Due to the limited access available into the open space respondents were asked about increased traffic in the adjacent neighborhoods. The answers were fairly even opposed to in-favor;
- Proposed trailhead locations include Juniper Crest at 30%, The Cove area at 26%, Graffiti Rock (6600 West) area 25%, Herriman View area 17%, Cuchara Way area at 12%, and all of the above at 51% and none of the above at 11%;
- Popular amenities to include at trailheads include trash receptacles - 87%, area rules - 80%, trail maps - 80%, restrooms - 76%, dog waste station - 63%, and benches - 52%;
- Over 78% of respondents said they would be willing to pay additional fees to improve and maintain trails;
- The most popular trail types are all natural surface trails;
- Only 114 of respondents indicated safety concerns with most of the comments about traffic considerations and fire safety; and
- 32% of those surveyed included additional development suggestions including additional trees, off-leash dog trails, revenue generating development, and ATV/UTV use. Some respondents also requested the property be left as is.

Most of the respondents were current trail users. Their responses could mean that if residents see the benefits of creating a unified trail system, they may be more likely to pay an additional fee to build and maintain trails. The majority of respondents support an increase in city park fees to fund the improvements and maintenance. The complete survey can be found in Appendix B: Public Involvement Materials.

4.0 Trail Classification

To plan for proposed trails and improve existing trails, a trail classification system was developed as part of the open space planning process. Four different categories were proposed and adopted to serve as a guide for developing a functional, sustainable trail system: Safety, accessibility, connectivity, function, and economics. These categories will help planners and professionals find creative solutions when providing for trail connectivity within a variety of conditions.

The design concepts and attributes presented were derived from current trail design guidelines provided in the American Association of State Highway Transportation Officials (AASHTO), Bonneville Shoreline Trail Guidelines, and International Mountain Biking Association (IMBA) for sustainable, urban and backcountry trail construction and design standards. These standards, combined with the collective interests from the trails committee, were instrumental in developing the classification system and design standards specific to the needs of the Herriman Hills Open Space Master Plan.

4.1 Improved Multi-Use Trail - Class 1

Multi-use trails are major community arterial routes that are independent of vehicular routes and provide adequate separation from vehicles. They may bisect parks and open space, as well

as parallel natural features, such as rivers and streams. These trails are both transportation and recreation oriented and should provide connections to cities, towns, backcountry trails and trailheads, parks, points of interest, and other transportation nodes. Where possible, these trails should comply with AASHTO standards (See Figures 6-8). Although no improved multi-use trails are proposed with the Herriman Hills Open Space many of the connector trail corridors and arterials are improved multi-use trails.



Figures 6-8: Examples of improved multi-use trails. Images courtesy of Google and Deseret News.

4.2 Urban Soft Surface Trail - Class 2

Urban soft surface multi-use trails are major community arterial routes independent of vehicular routes (see Figures 9-10). They may bisect parks and open space, as well as parallel natural features, such as rivers and streams. These trails are both transportation and recreation oriented and should provide connections to the city, backcountry trails and trailheads, parks, points of interest, and other transportation nodes. These trails may differ from other multi-use trails in surface material and width. Soft surface trails are constructed of compacted road base, preferably a 6-inch depth of 3/4-inch material that allows for firm compaction. Soft surface trails provide a suitable surface for all user types (e.g., walkers, runners, mountain bikers, and equestrian users). Currently, no urban soft surface trails are planned for the area but future improvements and widening of trails may be needed that would qualify as class 2 trails.



Figures 9-10: Examples of urban soft surface trails. Images courtesy of Google and PEC.

4.3 Improved Pedestrian Trail - Class 3

Improved pedestrian trails are collector trails (including sidewalks) that connect users to community trails (see Figures 11-12). They may bisect neighborhoods, open spaces, commercial developments, parks, schools, etc., and parallel rivers and streams. Improved Pedestrian Trails are popular connectors to the Herriman Hills Open Space.

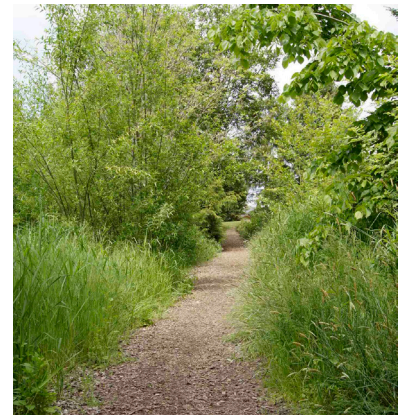


Figures 11-12: Examples of improved pedestrian trails. Images courtesy of Google and PEC.

Efforts should be made to maintain a consistent width and for residential sidewalks to remain between 4 to 6 feet. Primary sidewalks should be constructed to a minimum width of 6 to 8 feet.

4.4 Backcountry Trail - Class 4

The majority of the proposed trails within the Herriman Hills Open Space area will be designated as backcountry trails. For the purposes of the master plan, backcountry trails (single-track type) are defined as trails that provide access for users to explore areas outside of the urban trail network. These non-motorized trails are typically designed and constructed for a variety of recreational users, such as hikers, trail runners, mountain bikers, and equestrians (see Figures 13-15). The Bonneville Shoreline Trail (BST) realignment will fall in this category. According to the proposal, the BST trail construction will be 4 feet wide to match existing unpaved trails in the area.



Figures 13-15: Examples of backcountry trails. Images courtesy of Google and PEC.

Because they are located outside of the urban network, the surface typically consists of natural dirt, creating an undeveloped feel for users. In some rare cases, other materials, such as gravel, may be implemented to aid in erosion control or stabilization. Backcountry trails accommodate a variety of uses, such as hiking, running, mountain biking, equestrians, and snowshoeing. Backcountry trails range from 2 to 4-feet wide.

In some cases, bridges, and boardwalks may be necessary to traverse through or over natural features in the backcountry. These structures should be designed and constructed to be compatible with all backcountry uses.

5.0 Trailhead Classification

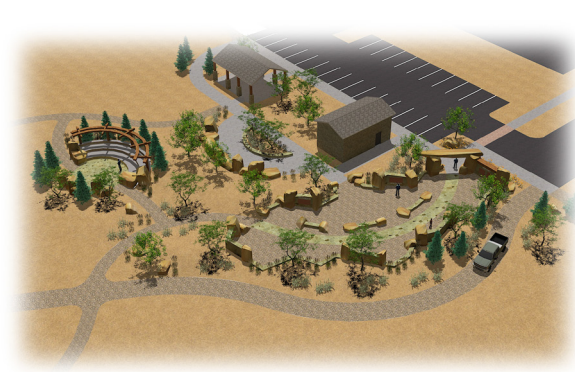
Access to a trail system is one of the primary elements for a successful trail network. Trailheads serve the local and regional population who access the trail network by car, transit, bicycle, foot, and/or other modes of travel. These access points provide essential connections to the system and serve as an information hub to educate and provide users with directions, maps, rules and regulations of the trails and area, closures, events, etc. Where appropriate, support facilities, such as resting areas, interpretive signs specific to the area, trail maps, restrooms, drinking fountains, and bike racks, may be provided. To plan proposed trailheads and improve existing ones, a trail classification standard was developed. Three different classes are proposed based on capacity, location, trail access, and amenities.

5.1 Large Trailhead - Class 1

Class 1 trailheads are classified as major developed parking hubs for both community and regional trails where heavy use is anticipated. Class 1 trailheads should include, but are not limited to, a minimum of 25 paved parking stalls, direct and safe trail access, restrooms, information kiosks, with maps and educational information, drinking fountains, bike racks, security lighting, public art, and monument signs, as determined at the time of approval, evaluation, and development. Class 1 trailheads should address good circulation patterns, site distances, proper drainage and storm water run off, and landscaping, as required (See Figures 16-18).



Figures 16-18: Class 1 trailheads have a minimum of 25 total parking stalls, major amenities, and direct access to trails. Images courtesy of Google and the City of Phoenix.



Figures 19-20: Class 1 trailhead concept designs. Images courtesy of the City of Phoenix and the City of Provo.

5.2 Medium Trailhead - Class 2

Class 2 trailheads are classified as trail parking areas that include less than 25 parking stalls but more than six. Parking surfaces may be improved with road base, gravel, or pavement (see Figures 19-21). Amenities may include, but are not limited to, restrooms, map kiosks, signs, safe and direct trail access, and other items, as determined at the time of approval, evaluation, and development. These trailheads should address good circulation patterns, site distances, and proper drainage and storm water run off, if necessary.



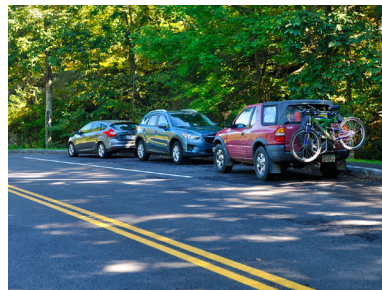
Figures 21-23: Class 2 trailheads include six to 25 total parking stalls, minor amenities, and direct access to trails. Images courtesy of Google.



Figures 24-25: Class 2 trailheads concept design and possible structures. Images courtesy of the City of Phoenix and Google.

5.3 Small Trailhead - Class 3

Class 3 trailheads are classified as small, undeveloped, legal trail parking areas that provide ten or less parking stalls and accommodate off-street parking (see Figures 22-24). There are typically no trailhead amenities, such as restrooms, bike racks, etc. They do provide direct access to trails and often provide a map kiosk with trail information.



Figures 26-28: Class 3 Trailheads include less than six parking stalls, no major amenities, direct access to trails, and trail information or kiosk. Images courtesy of Google.

5.4 Priority Trailhead Recommendations

Through the data collection and analysis process the study identified three priority trailhead sites with multiple other future areas of potential development. The primary constraints of the site are access from adjacent residential areas to the developable areas and access between developable areas due to terrain or land acquisition. The study has identified the most probable locations for both vehicular and pedestrian access as well as locations for activity centers, amenities, and trails (see Appendix D: Open Space Concept Plans). These three trailhead sites are priority recommendations based on their current access, buildable areas, and more direct access routes:

- **Wide Hollow Trailhead (5 Acres):** A Class 1 to 2 trailhead is suggested for this priority site located on 6600 West and Wide Hollow Drive. Potential activities/amenities for this area include parking (not to exceed 60 stalls), restrooms with drinking fountain/bottle filler, picnic tables, small picnic pavilion, trail map/rules kiosk, trail access for hiking and mountain biking with potential for loops, and a recommended off leash fenced dog park with dog waste station and/or small challenge staircase (150 to 300 stairs) (see Figures 29-31).



Figures 29-31: Wide Hollow Trailhead proposed amenities. Images courtesy of Google.

- **Friendship Trailhead (2 to 3 Acres):** This priority Class 2 to 3 trailhead will be accessed through 24' wide trail right of way off of the intersection at Friendship Drive and Cuchara Way. Potential activities/amenities may include a small parking area (6 to 10 stalls), restrooms with drinking fountain/bottle filler, picnic tables, trail map/rules kiosk, dog waste station, trail access for hiking and mountain biking, and suggested fit trail from Butterfield Parkway to Friendship Trailhead. The right of way access to the site is narrow but could accommodate a road for access to a small parking lot to help reduce on street parking in the area. Class 3 trailheads, however, do not require parking. If a small parking area is not constructed a minimum 10 foot wide with 2 foot shoulder multi-use soft surface trail will need to be constructed for maintenance access to the trailhead area and restrooms. An access bar barricade is recommended to block unauthorized vehicular access at the entrance. A minimum 50 foot landscape buffer is recommended between the residential property line and parking, if installed.
- **Juniper Crest Trailhead (5 Acres):** This area is a key connection point between the new SLCC Campus/REAL Center and Herriman Hills. The current north trail from Juniper Crest Road to Mountain View Corridor is partially paved where it is located south of the residential development. The soft surface portion of the trail is planned to be paved and connect under Mountain View Corridor and to the planned commercial area at the intersection of Mountain View Corridor and Juniper Crest Road. This urban trail could provide a unique opportunity for family friendly strolls with a destination or through traffic from the east to Herriman Hills Open Space. The five acre site is tucked back behind currently undeveloped residential property with access off of Juniper Crest Road via Juniper Trail Drive. This priority 5 acre site is a priority site for a Class 1 trailhead which will include parking (130 to 150 stalls), restrooms with drinking fountain/bottle filler, picnic tables, small/medium picnic pavilion, dog waste station, race start area (cross country, running, etc.), 5K loop, pump track, gravity flow trail, small amphitheater, trail map/rules kiosk, and access to trails. Other proposed amenities include an off-leash dog park, playground, reception/event center, and outdoor gym. The project could be phased. The first phase might include a 60 stall road base parking lot, restrooms with drinking fountain/bottle filler, trail map/rules kiosk, and picnic pavilion area (see Figures 32-34).



Figures 32-34: Juniper Crest Trailhead proposed amenities. Images courtesy of Google and City of Provo.

5.5 Potential Future Trailhead Recommendations

Additional areas of the site have been identified as potential trailhead locations or development areas. However, access to these areas is limited creating the need for City planning and land acquisition. The following areas are suggested for future site development (see Appendix D: Open Space Concept Plans):

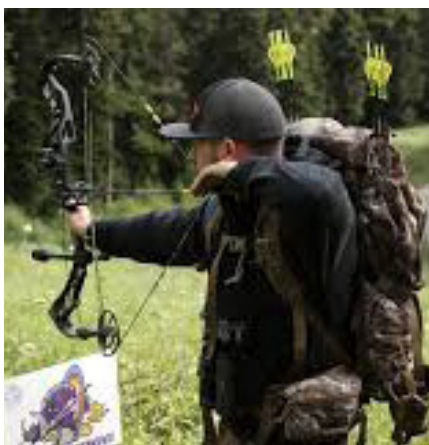
- **The Cove Area (2 Acres):** Establish future access off Spring Canyon Drive through proposed residential development to create small Class 2 trailhead with potential small to medium parking area, restrooms with drinking fountain/bottle filler, trail map/rules kiosk, and dog waste station. The developable area of the site is small, however, there is currently a portion of land just outside the property boundary that is used as a parking and turn around area that could increase the size of the parking lot making it a good location for equestrian trailer parking and access area. If this could be accomplished it is recommended that a watering trough and hitching post also be added. The trail right of way behind the residential lots between Spring Canyon Drive and Cedar Falls Drive has been established from Vista Springs Drive and needs to be continued through future developments to connect to the proposed trailhead and Herriman Hills Open Space.
- **Table Top Area (150 Acres):** This area of the south mountain foothills provides an elevated relatively flat destination location for hikers and bikers. Though not recommended to have public vehicular access, the area has potential for several activities/amenities rewarding ambitious visitors. This trail node area is proposed to include trail loops for hiking and mountain biking, off leash dog area/trail, back country (no fire) camping sites, view areas, a mountain living room, and restrooms (pit toilets or a possible location for package treatment sanitary sewer). There would be no drinking water at this location which limits activities. A ten foot with 2 foot shoulder wide soft surface trail will need to be constructed up to the site for maintenance and emergency access.
- **Tickville Gulch Area (100 Acres):** Tickville Gulch is situated in the southeast corner of the property away from residential areas. However, vehicular access will need to be constructed to access this potential year round terrain park. Access is recommended off of Juniper Crest Drive with another future access from Mountain View Corridor from Porter Rockwell Boulevard. Both routes require additional land acquisition. Suggested future activities in the Tickville Gulch area, once vehicular access can be established, include a Class 1 trailhead, parking (50 to 200 stalls with room for food trucks), restroom with drinking fountain/bottle filler, picnic pavilion, interpretive/educational trail loops, amphitheater, mountain bike recreation area (pump tracks, downhill biking, skills course, etc.), NICCA course, challenge staircase (two or three sets of 200 stairs serpentine with a trail loop), winter slope activities such as tubing, and/or rope/obstacle course possibly with short zip lines incorporated for a unique outdoor experience. The mountain bike and hiking season on the lower foothills is longer than the mountain canyons which



Figures 35-37: Tickville Gulch Area proposed amenities. Images courtesy of Google.

creates an advantage for regional users, however it limits winter activities. It is suggested that snowflex be installed for a year round tubing hill creating an exclusive recreational opportunity. This area could provide a desirable destination area for public/private partnership opportunities to create and wilderness/outdoor leadership and education camp to attract regional tourists and potential corporate or team retreat events (see Figures 35-37).

- **Bluffs at Herriman Springs Area (350 Acres):** Lack of access limits the current options for this area. Access is gained through Salt Lake County jurisdictional land. This area offers the potential as a future Class 1 trailhead with a large parking area to accommodate trailers for equestrian use or if the West Traverse Trail is open to ATV/UTV users parking for those visitors. The area also has the opportunity to include an archery/paintball site. This amenity would be developed as a public/private partnership and could provide revenue for the site. We recommend this outdoor range provide unique shooting and sitting experiences with themed obstacles and events. The area could also accommodate overnight camping (no fires) or a yurt village retreat area. Expeditionary Learning centers and corporate retreats could be established at this location (see Figures 38-40).



Figures 38-40: Bluffs at Herriman Springs Area proposed amenities. Images courtesy of Google.

6.0 Design Standards

Trails can be formal or informal, paved or unpaved, and designated for a variety of users, such as cyclists, pedestrians, or equestrians. The classification or standard of each route depends on the intended user group, the project setting, and the requirements of the funding or approving agencies. Trails should also cater to the needs of a range of users, including equestrian users, pedestrians (including joggers), disabled persons, and bicyclists (both road and mountain bikes).

The design standards section summarizes standards and guidelines for equestrian, pedestrian, and bicycle facilities that may become a part of the proposed trail network. The intent of these standards is that all new trails constructed in the area will adopt these standards. This will help to create uniformity throughout the area. As Herriman City expands and grows, these standards and guidelines should be revisited and adapted to better serve future needs. Several agency design standards for trail and bike facilities were researched and consulted during the compilation of the Herriman Hills Open Space Master Plan (See Table 1).

Trail Type	Tread Width	Pavement Section/ Material	Maximum Grade	Notes
Improved Multi-Use Trail	10-14 feet	3-inch depth of hot mix asphalt over a 6-inch deep compacted road base	8%	Surface treatment may vary to include pavers, brick, or concrete.
Urban Soft Surface Trail	10-12 feet	6-inch depth of compacted roadbase or stone fines.	8%	
Improved Pedestrian Trail	6-8 feet	4-inch depth of concrete over 6 inches of 3/4 inch gravel	8%	Surface treatment may vary to include pavers, brick, or stamped/ stained concrete
Backcountry Trail	2-4 feet	Natural surface	10-20% (17-20% for short distances only)	Refer to IMBA standards

Table 2: Table of trail standards.

6.1 Improved Multi-Use Trail - Class 1

Improved multi-use trails are major community arterial routes within the urban network. Because improved multi-use trails are designed for large volumes of users with varying uses, the surface materials should be a durable pavement. Asphalt is the preferred pavement type due to cost, ease of maintenance, and surface smoothness.

Typical pavement cross sections for an asphalt multi-use trail should consist of the following:

- a properly graded and compacted subgrade that has been stripped of all organics and lined with a structural weed barrier fabric;
- a 6-inch depth of compacted road base material; and
- a 3-inch depth of hot mix asphalt (HMA) pavement.

In some circumstances, concrete or concrete masonry unit (CMU) pavers may be used to create a unique look or feel. These surfaces should be avoided in most areas due to the uneven joints and score lines that cause undesirable riding experiences for cyclists.

The Federal Highway Administration (FHWA) requires a minimum 10-foot wide tread width with 2-foot wide shoulders for a trail to be considered multi-use. For improved multi-use trails in Herriman City, a tread width between 10 and 14 feet is recommended. Trails with a 14-foot tread width should be actively pursued where cost and space permit. By constructing wider trails initially, the county, cities, and other agencies will have made preparations for a growing population in the area. Wider trails will also accommodate larger trail specific competitions and events (see Figure 41). Maximum slope should not exceed 8%. All improved multi use trails should be constructed within a 20 foot easement with a 50 foot temporary construction easement where terrain requires it.

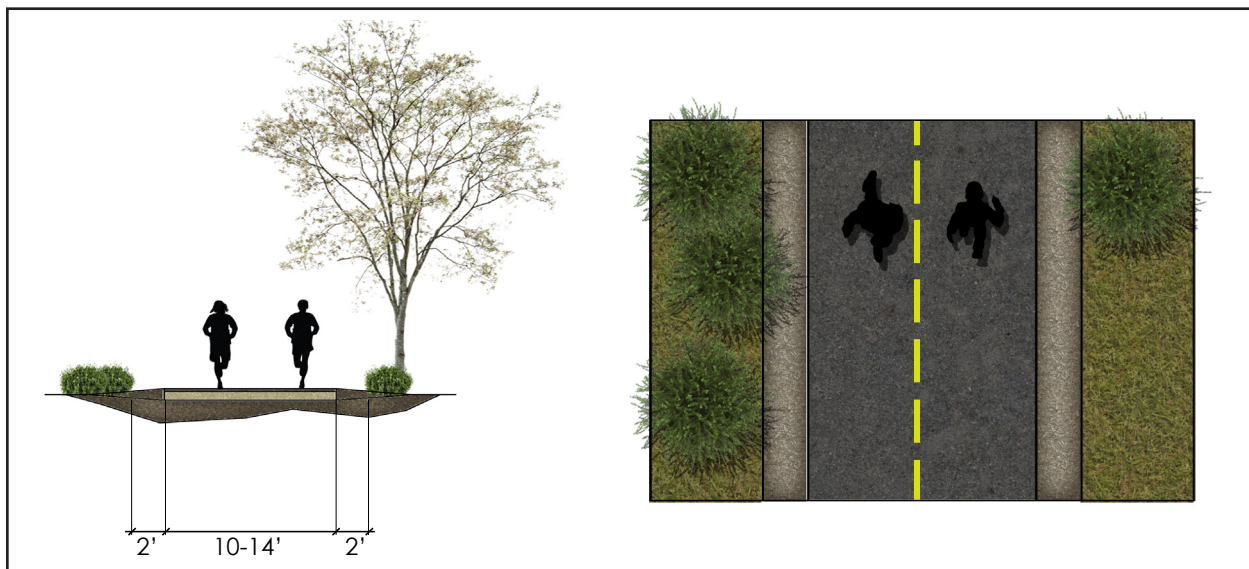


Figure 41: Typical cross section (left) and plan view (right) of an improved multi-use trail.

6.2 Urban Soft Surface Trail - Class 2

Urban soft surface trails are major community arterial routes within the urban network but are located in more natural settings. Soft surface trails are targeted toward recreational use and should be implemented in equal proportions with improved multi-use trails to meet the needs of various users. These trails are constructed of compacted road base or fine stone materials and provide a more suitable surface for runners and equestrian users. The typical cross section for these types of trails should consist of the following:

- a properly graded and compacted subgrade that has been stripped of all organics and lined with a structural weed barrier fabric; and
- a 6-inch depth of compacted $\frac{3}{4}$ inch road base; color of the road base should match the surrounding materials to provide a natural appearance (see Figure 42).

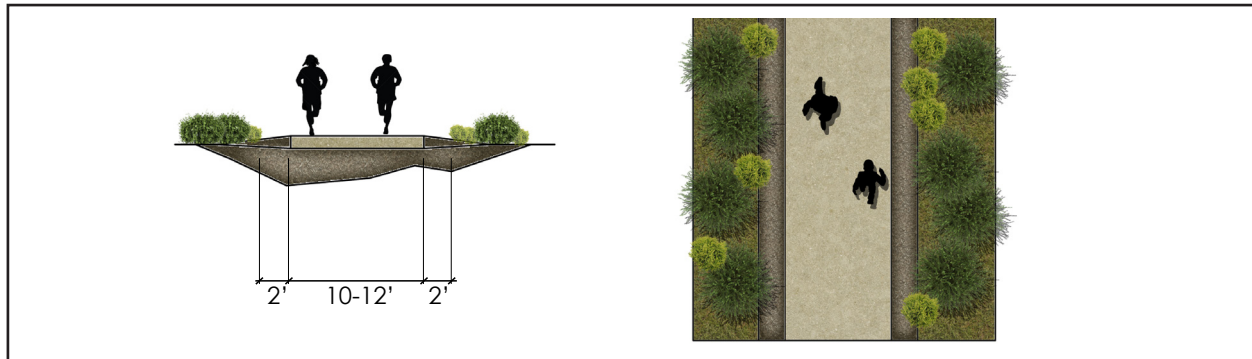


Figure 42: Typical cross section (left) and plan view (right) of an urban soft surface trail.

FHWA requires a minimum 10-foot wide tread with 2-foot wide shoulders for a trail to be considered multi-use. For improved multi-use trails in Herriman Hills, a tread width between 10 and 12 feet is recommended. Trails with a 12-foot tread width should be actively pursued where cost and space permit. Maximum slope should not exceed 8%. By constructing wider trails initially, the county, cities, and other agencies will have made preparations for a growing population in the area. Wider trails will also accommodate larger trail specific competitions and events. Trails in Herriman Hills should consist of a properly graded and compacted subgrade, lined with a structural weed barrier fabric, followed by a 6-inch depth of compacted $\frac{3}{4}$ inch minus road base material. All urban soft surface trails should be constructed within a 20 foot easement with a 50 foot temporary construction easement where terrain requires it.

6.3 Improved Pedestrian Trail -Class 3

Improved pedestrian trails are more commonly referred to as sidewalks. The objective of the master plan is that future construction of major sidewalks will be adapted to meet the standards of improved pedestrian trails. The typical cross section of an improved pedestrian trail in Herriman City should include an 6 to 8-foot wide tread surface. Trail construction should consist of a properly graded and compacted subgrade that has been stripped of all organics and lined with a structural weed barrier fabric followed by a 4-inch thick concrete pavement on top of a 6-inch depth of $\frac{3}{4}$ inch gravel (see Figure 43).

Efforts should be made to update all existing improved pedestrian routes in the urban system to meet these standards. Residential and collector sidewalks can remain at 4- to 6-foot widths, but primary sidewalks should be constructed at 6 to 8-feet wide. All improved pedestrian trails should be constructed within a 20 foot easement with a 50 foot temporary construction easement where terrain requires it.



Figure 43: Typical cross section (left) and plan view (right) of an improved pedestrian trail.

6.4 Backcountry Trail - Class 4

Backcountry trails, as classified in this document, are recreational trails outside of the urban network. Because they are located outside the urban network, tread material is often created from the natural sub-grade. In some cases other materials such as gravel may be implemented to aid in erosion control and/or stabilization. In all cases, these materials should be derived from adjacent areas to match the surroundings. Any imported materials should complement the features in the area and maintain a natural look and feel. Tread width of backcountry trails will vary based on vegetation, obstacles, and use. In most cases, backcountry trails should not exceed 48 inches wide. Most backcountry trails will have a tread width of 24-30 inches, depending on the use. In situations where backcountry trails share corridors with fire access roads or all terrain vehicle

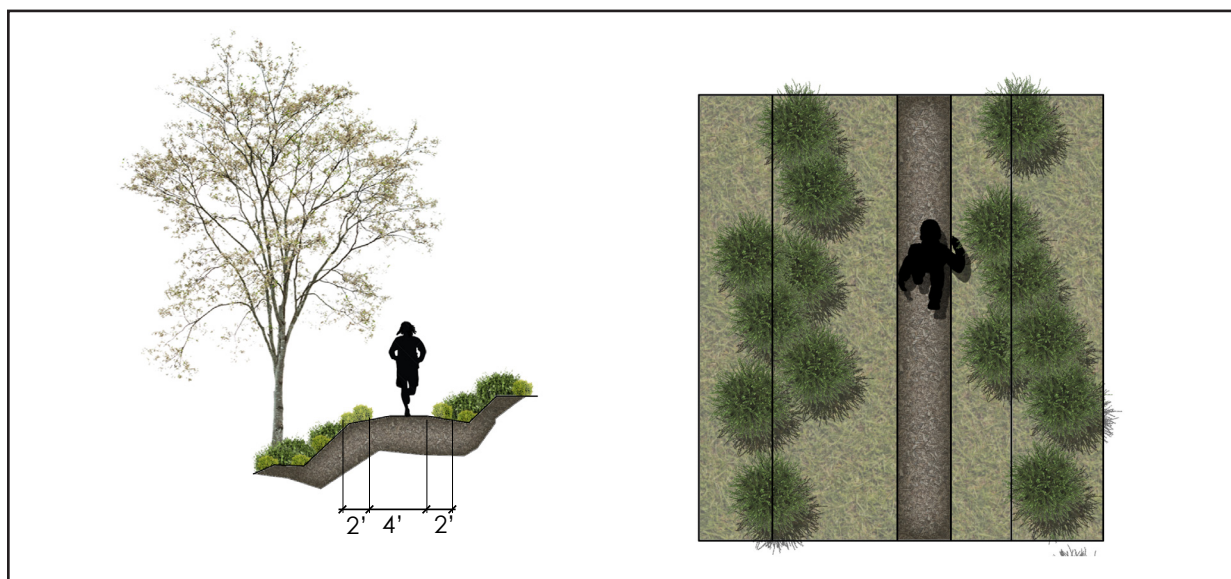
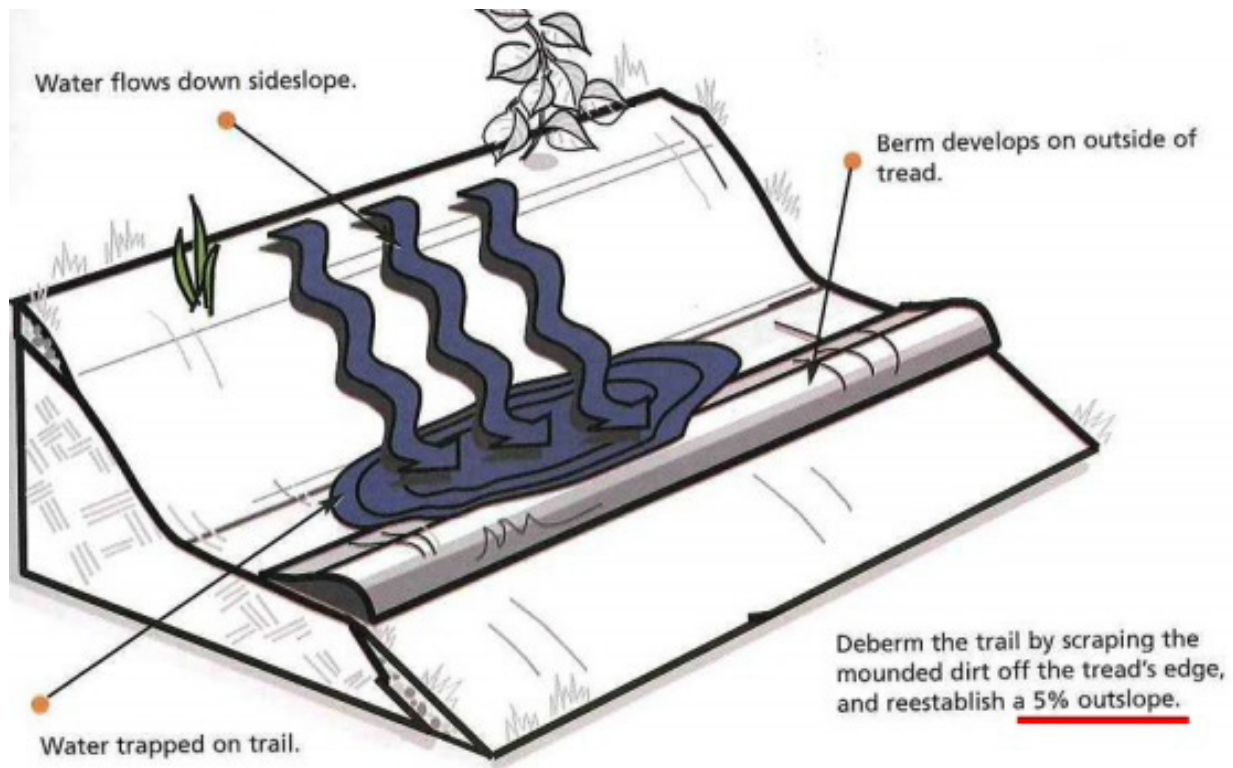
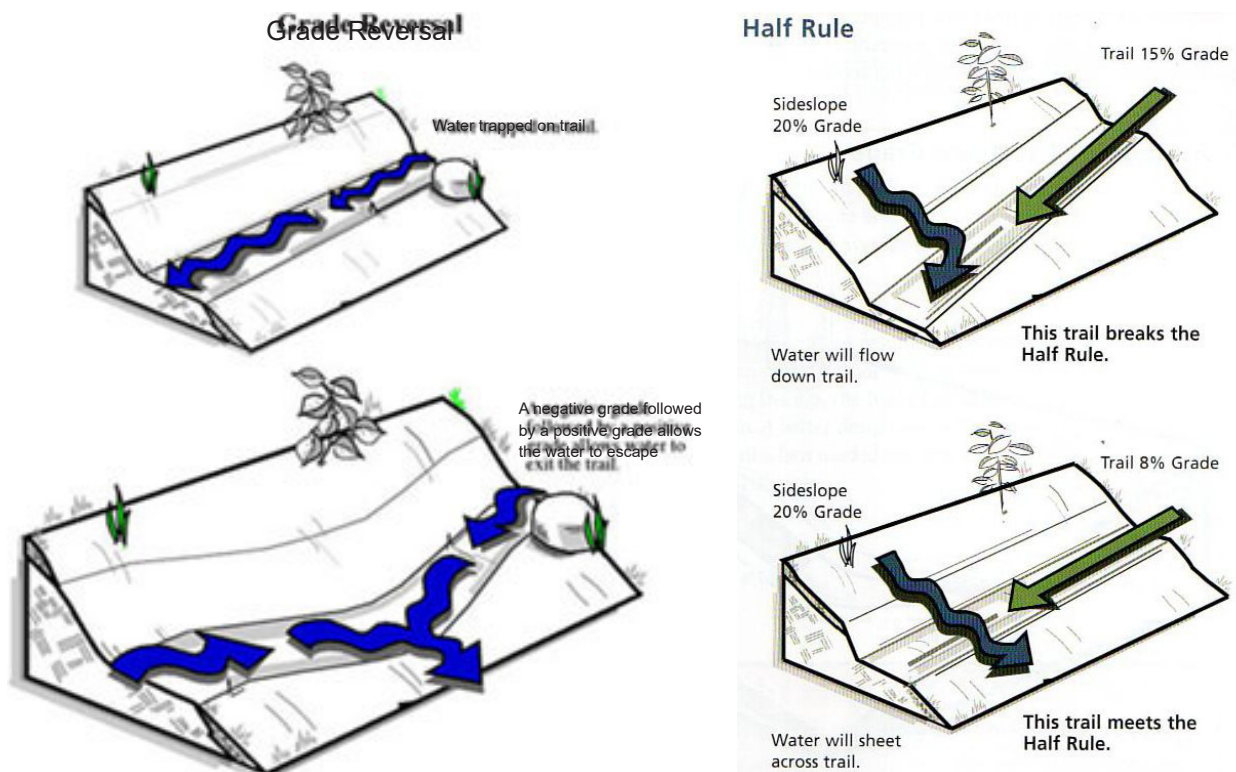


Figure 44: Typical cross section (left) and plan view (right) of a backcountry trail.



SOURCE: IMBA

Figure 45: Image showing the problems from trails constructed without proper cross slope.



Figures 46-47: Images illustrating proper grade reversal and bench cut construction.

(ATV) routes, the tread width may be wider (see Figure 44). Maximum slope should not exceed 20%, and slope should only exceed 17% for short distances, with ideal slopes ranging from 10 to 16%. All backcountry trails should be built within a 10 foot easement with a 25 foot temporary construction easement where terrain requires it.

All backcountry trails should be designated with a rating to allow potential users to make safe and informed decisions. The International Mountain Bicycling Association (IMBA) has developed a standard trail difficulty rating system applicable to mountain bike trails. By providing ratings on trail signs in accordance with IMBA's standards and by providing general trail characteristics such as total length, elevation change, and projected trip times at trailheads, all potential users can make educated decisions about the trails they use.

Backcountry trails should be built to IMBA standards. Surface treatment shall be a natural surface constructed with a bench width of 2 to 4 feet, which ensures environmental stewardship and allows for long-term sustainability by (see Figure 45-47):

- Incorporating bench-cut construction with a tread surface that has an outward slope to the outer edge from a grade of 2 to 8% in the downhill direction; and
- Incorporating grade reversals and dips to reduce water erosion; these grades should average between 8 and 10%, with a maximum grade of no more than 15%, into the trail design and construction specifications.

Adding these features will help minimize tread erosion by allowing water to drain in a gentle, non-erosive manner and ensuring the soil stays on the trail where it belongs.

6.5 Signage and Wayfinding Standards

Successful trail systems require appropriate and adequate signage that informs the trail users about route attributes, distances, or regulations. Placement and design of trail signage is essential in creating an enjoyable experience for users. Three types of signage are typical in trail systems: regulatory signs, informational signs, and interpretive signage. These types of signs are used in different locations based on the information they display. Signage can be themed based on the region or area in which the trail is located and may be built from a variety of materials based on cost and the climatic demands of the region.

Regulatory Signs

Requirements for the use and placement of signs, including regulatory signs at intersections, should follow the standards set forth in the Manual on Uniform Traffic Control Devices (MUTCD), specific to the section on traffic control devices for bicycle facilities, and will apply to all improved multi-use trails.

Information concerning specific rules and regulations can also be depicted within regulatory signage. All signs should have engineer grade reflective coating and be graffiti proof.

- *Stop Signs*—Shall be installed wherever paved multiple use trails cross public streets, unless traffic is required to stop at trail intersections or at other potentially hazardous locations.
- *Speed Limit, Steep Grade, Danger Warning, and Slow Signs*—These signs should be installed where trails approach maximum slopes, areas with limited sight distance, and areas with dangerous conditions ahead. Signs indicating warnings should appear at least 50 feet before the hazard.
- *Sharp Curve Signs*—Signs should be posted when a curve has a smaller than recommended travel radius or limited sight distance. Signs indicating warnings should appear at least 50 feet before the hazard.
- *Dismount Sign*—Such signs should be posted in areas where slope exceeds recommended standards and where trail width or vertical clearance is less than the recommended standards.
- *School Zone Signs*—For the safety of schoolchildren and trail users, school signs should be posted on the trails in school areas.
- *Private Property*—Signs identifying private property should be posted where needed.

Informational Signs

Informational signs include signs indicating distances, destinations, and trail conditions. Dimensions for destination/distance signs vary from community to community. However, to create some level of uniformity for the core network, sign standards should be created for the types of signs to be used. These signs need to conform to standards and guidelines established in chapter 9B of the MUTCD (see Figures 48-50).



Figures 48-50: Various directional and distance signs. From left to right, photo courtesy FHWA, Deseret News, and Trails Utah.

For destination/distance signs, FHWA is experimenting with sign dimension standards of 30-inch tall signs that vary in width to allow space for the destination names and distance. These signs would be placed where different routes intersect and would provide useful information to the trail user. Examples of similar signs can be found along the Murdock Canal Trail in Utah County.

Mile markers can use the standard signs found in chapter 9B of the MUTCD, or communities have the flexibility to create their own standard. For example, several trail mile markers may use a specific trail logo or logo from a municipality with the mile posting placed underneath. What is important is that the markings are consistent throughout the network (see Figures 51-53).



Figures 51-53: Various types of mile marking posts are available. To maintain consistency along the core trail network, posts and markings should be standardized. From left to right, photos courtesy Santa Clara, americantrails.org, and Provo City.

Interpretive Signs

These signs benefit the users by explaining some feature available on the trail route. The features may include historical, biological, natural resources, or cultural facts about an area to encourage interaction and curiosity among visitors. Often these signs are educational and will serve to relay management goals and increase appreciation of an area. These must be located in appropriate areas. These signs will be required to follow MUTCD guidelines.

Sign Construction Features

There are many design solutions to signage along a trail. One commonly used design that functions well is a post that ranges in size from 4 to 6 inches square, and may consist of pressure treated wood or recycled plastic that requires less maintenance. These posts are not visually obtrusive, provide a barrier to motorized use that can be removed for emergency and maintenance in select locations, and would be in a style that denotes a seamless network while allowing for individual jurisdictions to display information specific to their areas.



Figures 54-61: Various trailhead and trail sign ideas. Courtesy Google.

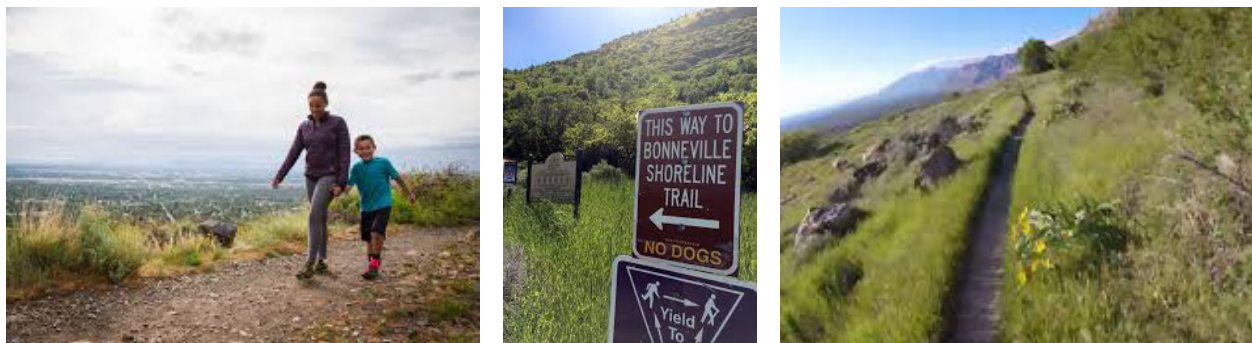
Post locations will conform to the standards set forth in the MUTCD Traffic Control Devices for Bicycle Facilities. Posts should be embedded into the ground a minimum of 24-inches, unless other materials are specifically approved. Depending on the size of the posts, square reflective decals should be mounted on heavy gauge aluminum plates that are placed into the routed post.

Backcountry directional trail signage should provide users with wayfinding information, keeping them on the trail and identifying junctions and intersections for other trails and routes. Directional markers such as carsonite signs provide a sustainable trail marker that can house sticker decals, similar to bollard plates, to denote information specific to the trail and general area. Single-slat carsonite posts, pedestal signs with maps, or triangular posts are all effective sign options for the backcountry (see Figures 54-61 for various trailhead and trail sign ideas).

6.6 Trail Recommendations

Recent recommendations by the Herriman Trails Committee and Trails Utah to the state have prompted a realignment of the Bonneville Shoreline Trail (BST) from the south edge of the property to the north edge of the property. By weaving along the north edge of the open space this will allow greater access to the trail by the community (see Appendix D: Open Space Concept Plans). The implementation and construction of the new BST alignment is a priority which could provide funding opportunities from regional and state governmental sources. All BST trails will be non-motorized, Class 4 backcountry trails, 4 feet wide with 1 foot shoulders using BST standard trail design, revegetation of disturbed areas, and trail signage.

- **Blackridge Reservoir to Juniper Crest (2.28 Miles of new urban soft surface trail):**
This segment of the Bonneville Shoreline trail needs to be the number one priority. The installation of this segment of trail will provide connectivity turning the Herriman Trail system into a trail network.
- **Friendship Trailhead to Blackridge Reservoir - Sidewinder Trail (0.69 Miles of new urban soft surface trail and 1.16 Miles of established trail requiring improvement):**
Although there is a current trail from Butterfield Parkway to Blackridge Reservoir the proposed BST route runs closer to the edge of the property creating more community access opportunities. This trail segment will consist of new backcountry trail and improved existing trails.



Figures 62-64: Bonneville Shoreline Trail trail examples. Courtesy Google.

- **Wide Hollow Trailhead to Friendship Trailhead (0.91 Miles of new BST backcountry trail and 1.37 miles of new backcountry trail):** This segment of trail will require a portion of the alignment through private property. Either land acquisition or right of way needs to be established prior to implementation. This trail segment will provide connection through the open space to west Herriman residents and link all the priority trailheads. A backcountry trail link to Herriman View Way and Fort Pierce Way through the trail access right of ways will also need to be included as part of this project.
- **Tickville Gulch Trails (8.95 Miles of new backcountry trails):** The creation of the Tickville Gulch backcountry trails could begin immediately with the use of donations and volunteer resources. This area already has some social and game trails that could be utilized. Trail alignments for Eric's Trail and Mustang Trail have already been laid out and are ready for construction. Accurate trail mapping will also need to be conducted in order to provide future trail maps.
- **Juniper Crest Trail Loop Improvement for BST (1.7 Miles of improved BST backcountry trail):** A section of the current Juniper Crest Trail Loop will become part of the new Bonneville Shoreline Trail (BST) alignment. The current 4 foot wide soft surface trail meets the proposed requirements for the BST but will necessitate the improvement of the existing trail and installing the appropriate signage for the trail.

7.0 Implementation, Cost, and Conclusion

Herriman City and the greater Herriman area are positioned to implement a quality non-motorized transportation trail system that can be used for transportation and recreation. This type of system can enhance the quality of life for existing residents and those desiring to move into the area.

The foundation to develop a unified trail system is desirable. City planners and trail interest groups have a strong desire to implement a functional system for residents and visitors. This plan focuses on the need to connect neighborhoods, schools, cities, regional lands, business districts, backcountry trails, and environmental features.

7.1 Implementation

The Herriman Hills Open Space Master Plan should complement the various planning documents currently in place within Herriman City and Salt Lake County. The plan is a planning tool and policy guide for consideration of future land use and development proposals, as well as capital improvement plan expenditures.

Implementation of individual projects or facilities may be subject to city approvals. Minor modifications to the master plan are expected to be made from time to time due to situations and circumstances, such as engineering constraints, resident concerns, land use changes, topographical constraints, or other unforeseen circumstances.

If major modifications to the plan are desired, these changes should be discussed and implemented during the annual review of the open space master plan. Regardless of the changes made to the plan, the idea is to promote the overall goals and objectives defined as part of the plan and to implement a successful non-motorized trail system, ultimately incorporating integral recreation opportunities as well as contributing to the quality of life in Herriman City.

Implementation of the open space master plan throughout the area is essential to the plan's success. Some recommended implementation strategies are as follows:

- Prioritize trail and trailhead projects outlined in the open space master plan and source funding based on priorities;
- Encourage the adoption of the open space master plan as part of local general plans, parks and open space master plans, and public facilities plans;
- Encourage private developers to incorporate features of the open space master plan into their development project designs, including offering incentives to developers if trail features are built as part of the development;
- Help the City identify potential funding sources to be used in trail, trailhead, and amenity construction and design; and
- Provide community outreach events to educate the public about the benefits of creating a unified trail network and open space plan.

7.2 Trail and Trailhead Prioritization

Herriman Hills area has just begun the process of trail network development. With the amount of growth and development planned for the Herriman area, creating an open space plan that provides for future access, trailhead development, and recreational purposes is critical. Trail and trailhead prioritization is a vital component to the open space master plan to develop a seamless trail network that connects communities with the recreational areas in an order that makes sense logistically and financially.

The recommended Bonneville Shoreline Trail and trail network builds upon existing plans and ongoing local and regional planning efforts and reflects input from the local governmental entities, the Trails Advisory Committee, Trails Utah, and others.

Priorities were developed with information gathered from public input and City planners by assessing the most important connections and recreational uses for the community. With these priorities, the decision makers can search and secure funding in an efficient manner (see Table 3).

Priority Projects	Total Estimated Cost
Bonneville Shoreline Trail	\$338,000
Juniper Crest Trailhead	\$2,000,000
Friendship Trailhead	\$300,000
Wide Hollow Trailhead	\$400,000

Table 3: Estimated costs for priority projects (Costs provided by Zions Financial).

7.3 Cost/Funding

To aid in securing funding and for use in open space planning, design, and construction, the following cost estimates for the open space master plan have been prepared (see Table 4). These costs are conservative estimates and will vary with the location of trail corridor to be constructed.

Trail Type	Cost per Linear Foot	Proposed Linear Feet as per the 2018 Trails Master Plan	Total Estimated Cost
Backcountry Trail	\$4	224,531 LF	\$900,000
BST Backcountry Trail	\$4	84,430 LF	\$340,000

Table 4: Estimated costs for the trail improvements (Costs provided by Zions Financial).

Funding for the trails master plan implementation will need to come from a variety of sources, including but not limited to the following:

Federal Sources

- Federal transportation funding and grant programs

State Sources

- Integrating proposed trail improvements with planned roadway construction
- Recreation Trails Program (RTP), associated with state funding for trail projects
- Other state trail funding sources such as the Waypoint Grant

Local

- Developer contribution improvements as part of planning and development process and approvals
- Local funding sources, such as trail/park impact fees, bonds, special service districts, restaurant tax, public-private partnerships, etc.

Nonprofit Organizations

- Active transportation initiatives from non-profits and healthcare providers that offer funding for bicycle and trail projects

A complete list of funding sources can be found in Appendix C: Economic Impact Study.

7.4 Maintenance Guidelines

Building and maintaining trails and trailheads that are safe for users is a high priority. Herriman City will need to implement considerations for construction and maintenance within each project budget (see Table 5 and Appendix C: Economic Impact Study).

Maintenance Activity	Protocol
Inspections	Seasonal; beginning and end of summer
Trailhead pavement sweeping/blowing	Early spring after snow melts, weekly in fall, and as needed
Trailhead pavement sealing, resurfacing	Every 5 to 15 years
Trailhead Restroom/Trash Cleaning	Weekly
Culvert and drainage grate inspection	Before winter and after major storm events
Pavement markings	Replace every 3 to 5 years, or as needed
Trail signs	Replace every 3 to 5 years, or as needed
Shoulder areas (weed control)	Spray annually and as needed
Major damage (e.g. washouts, fallen trees, flooding)	As quickly as possible

Table 5: Maintenance guidelines for the trail improvements (Maintenance protocol provided by Zions Financial).

Trailhead Maintenance

Maintenance for trailheads requires weekly checks of restrooms and removal of trash/waste. The parking lots, sidewalks, amenities, and structures need to be inspected twice a year to catch needed repairs. Paved parking lots should be swept or cleaned in early spring and in the fall as needed. Proper signage should be in place and in good order.

Backcountry Trail Maintenance

Backcountry trails should be checked in the spring for downed trees and deadfall that may have come down over the winter months or areas where erosion has deteriorated trails. If trails are built to sustainable standards, incorporating grade reversals and proper drainage, little should have to be done to ensure proper drainage and run-off. If not, drainages should be cleaned out where necessary. Vegetation should be cut back to allow for good site distances, and weeds should be sprayed where necessary. Proper signage should be in place and in good order.

7.5 Conclusion

The Herriman Hills Open Space Master Plan is a dynamic document that should be updated, modified, and improved as circumstances require. Each update of the open space master plan should address four primary elements of the plan.

Review of Proposed Trail Routes

This includes all proposed trails and a review of their status, potential funding sources, and proposed construction dates. The review may also consider potential or proposed trails that

may not have been included in the original plan but have since been considered as potential routes. Potential trails not included in the original master plan should be reviewed by representatives from the original team to certify that all original goals and objectives are still being met by the addition of new proposed trails.

Inventory of Existing Trails, Trailheads, and Recreation Amenities

Each time the plan is updated, existing trails, trailheads, and recreational amenities should be verified and identified on the open space master plan maps. Trails that have been built since the last update of the open space master plan should have their status changed on maps, GIS shapefiles, and in the written portion of the open space master plan.

Design Guidelines

Design guidelines include specific directions that can be used as appropriate in designing individual trails. Over time, different uses, increase in use, or advances in construction processes and materials may require that the design guidelines in the open space master plan be updated. City planners involved with the open space master plan are responsible for keeping current with the latest practices used worldwide and for the careful review of these practices to determine their applicability to the trails and amenities as outlined in the master plan.

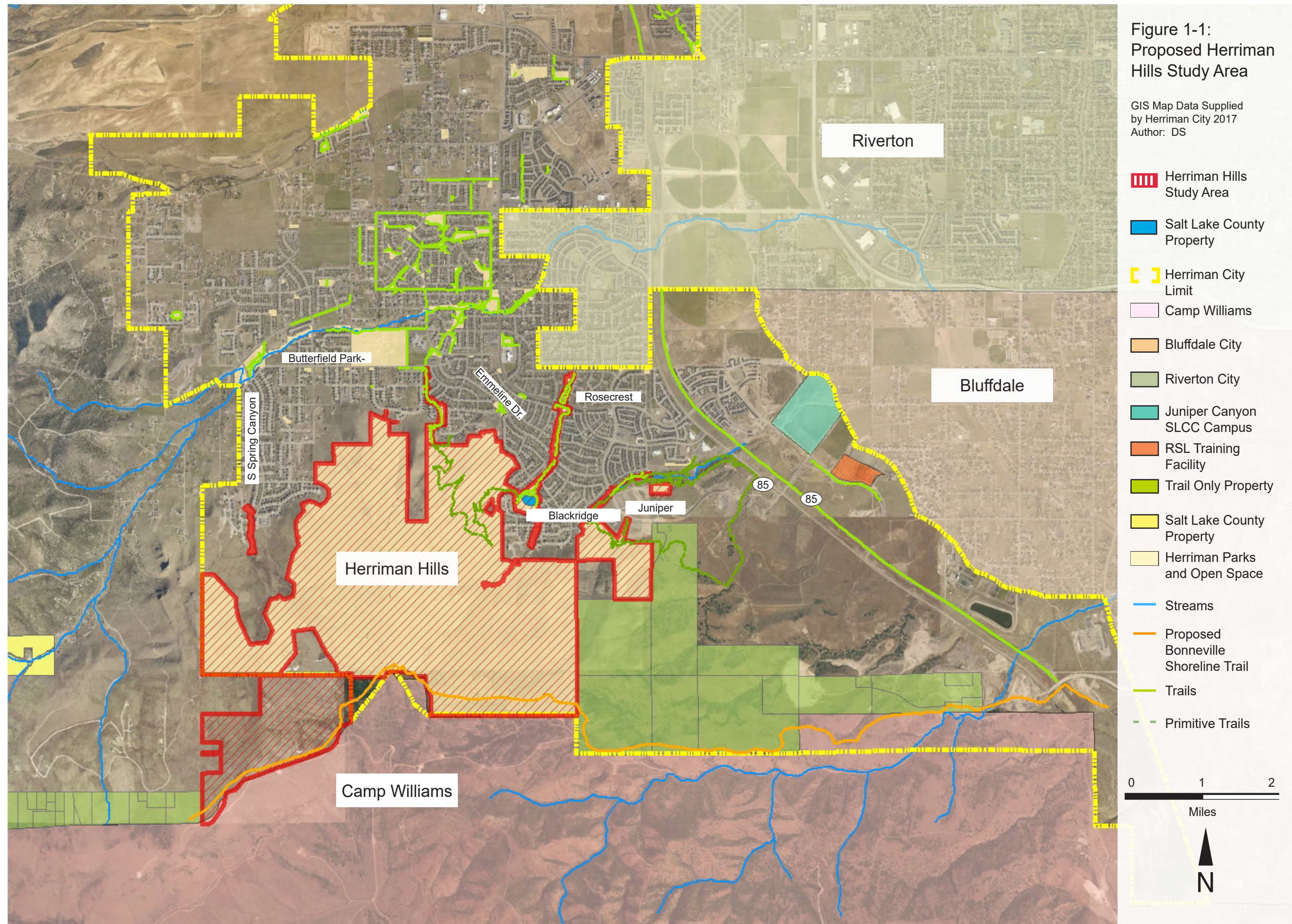
Use and Management Guidelines

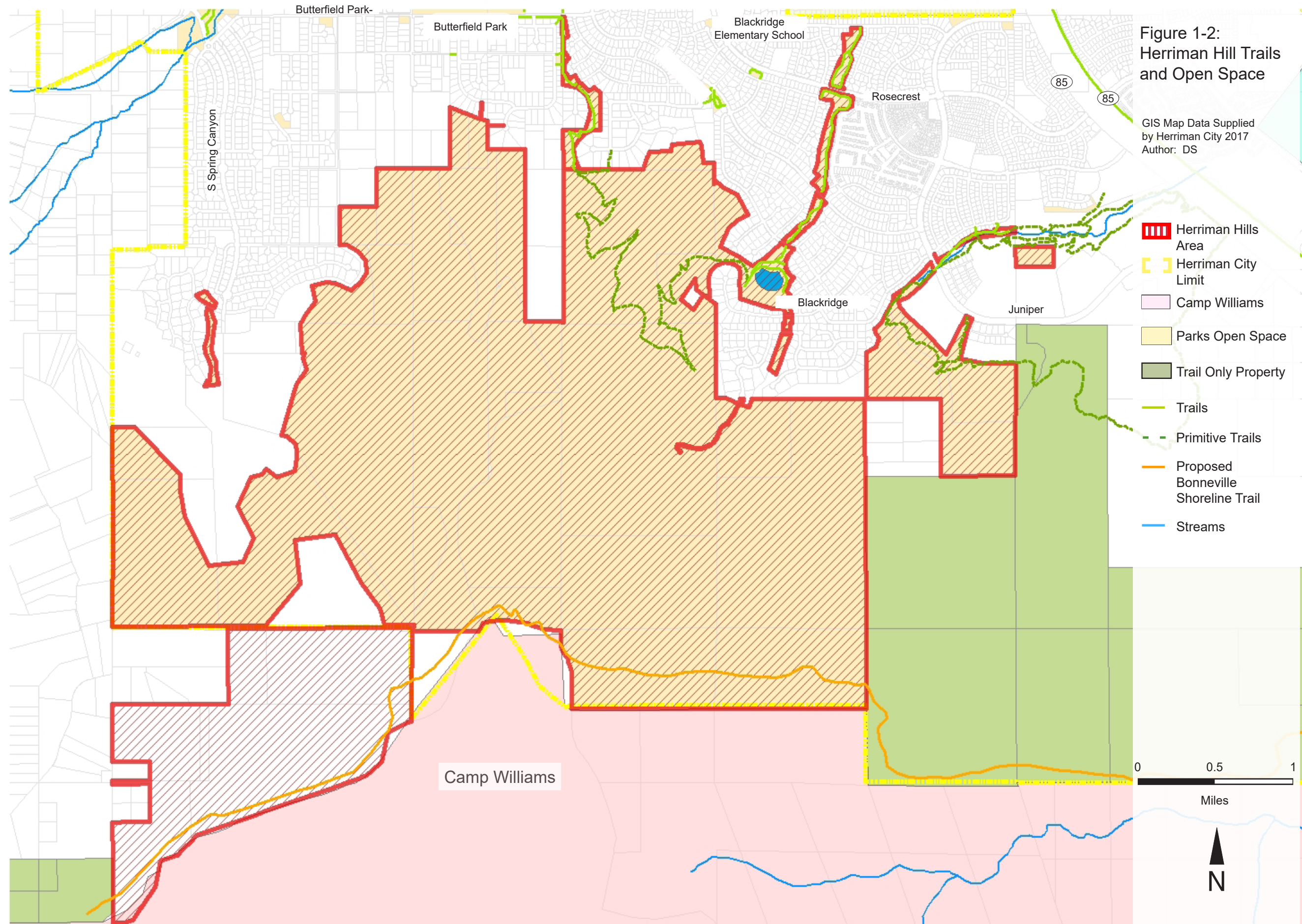
Use and management guidelines are specific directions that can be used as appropriate to determine the use and management of individual trails and amenities. As the City grows and urban dynamics change, it may be necessary to revisit some of the guidelines in the open space master plan regarding maintenance and use. It also may become necessary, as municipal boundaries change, that agencies responsible for certain trails also change to ensure proper care and management (see Appendix C: Economic Impact Study).

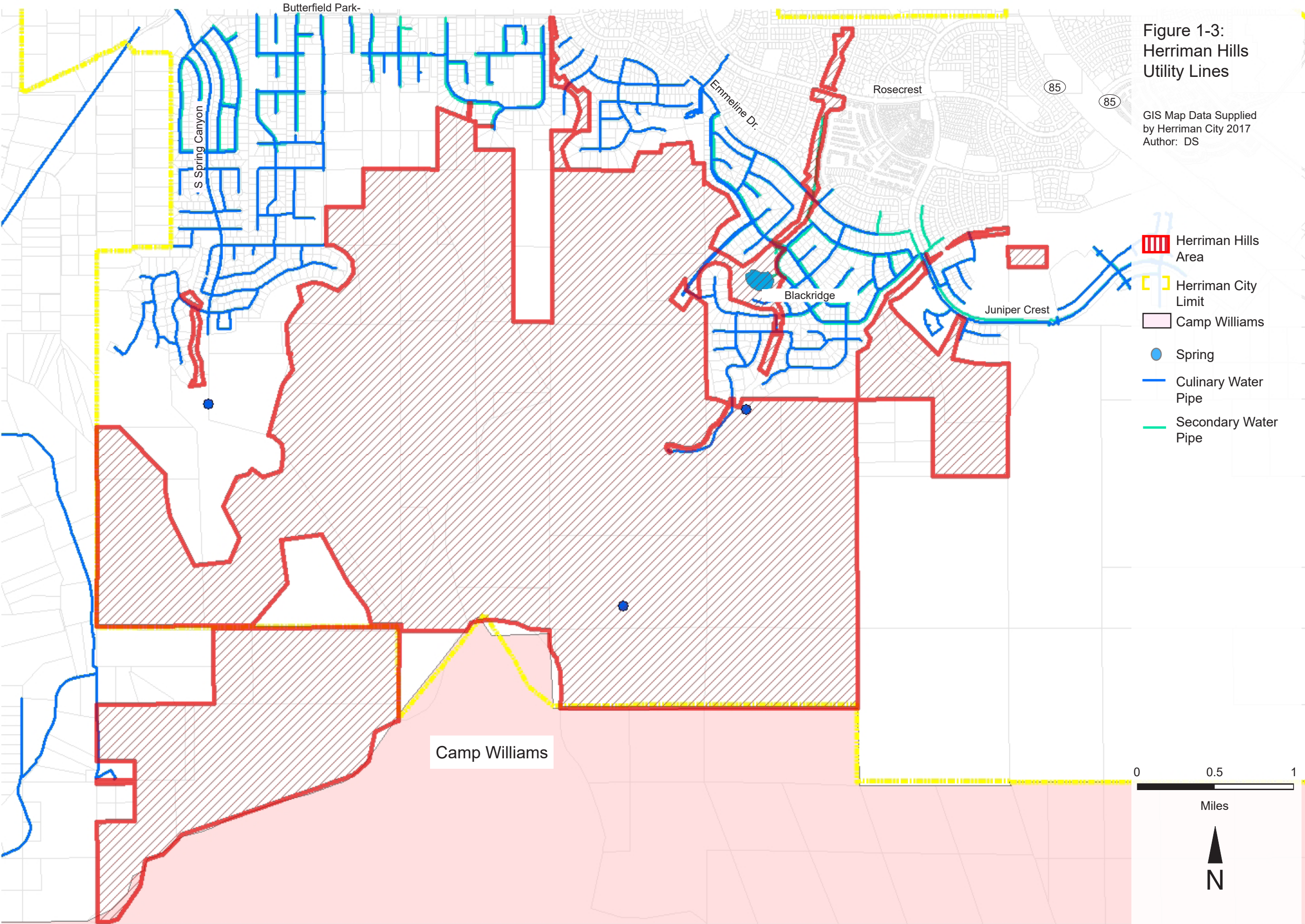
Herriman Hills Open Space Master Plan Appendix

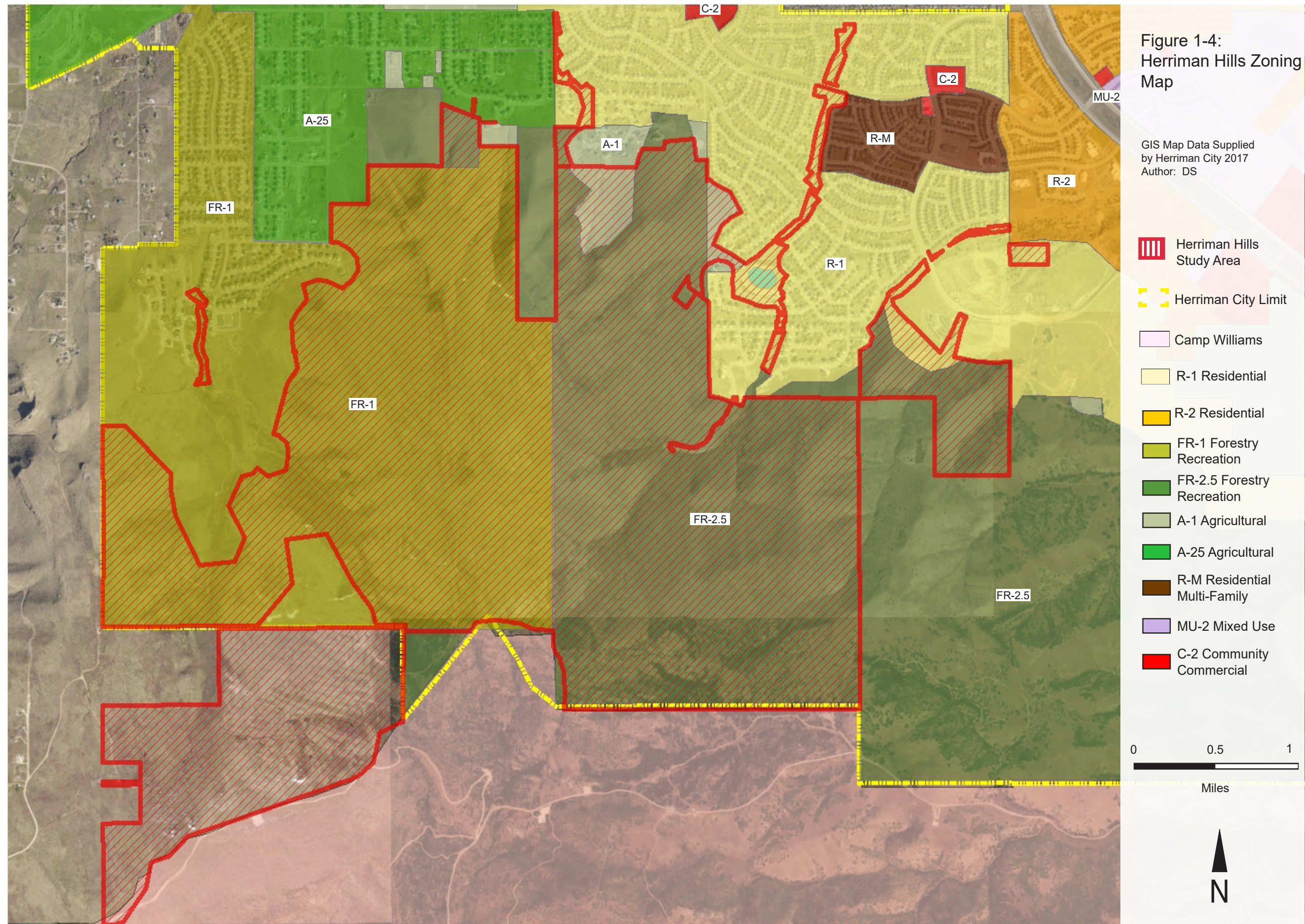
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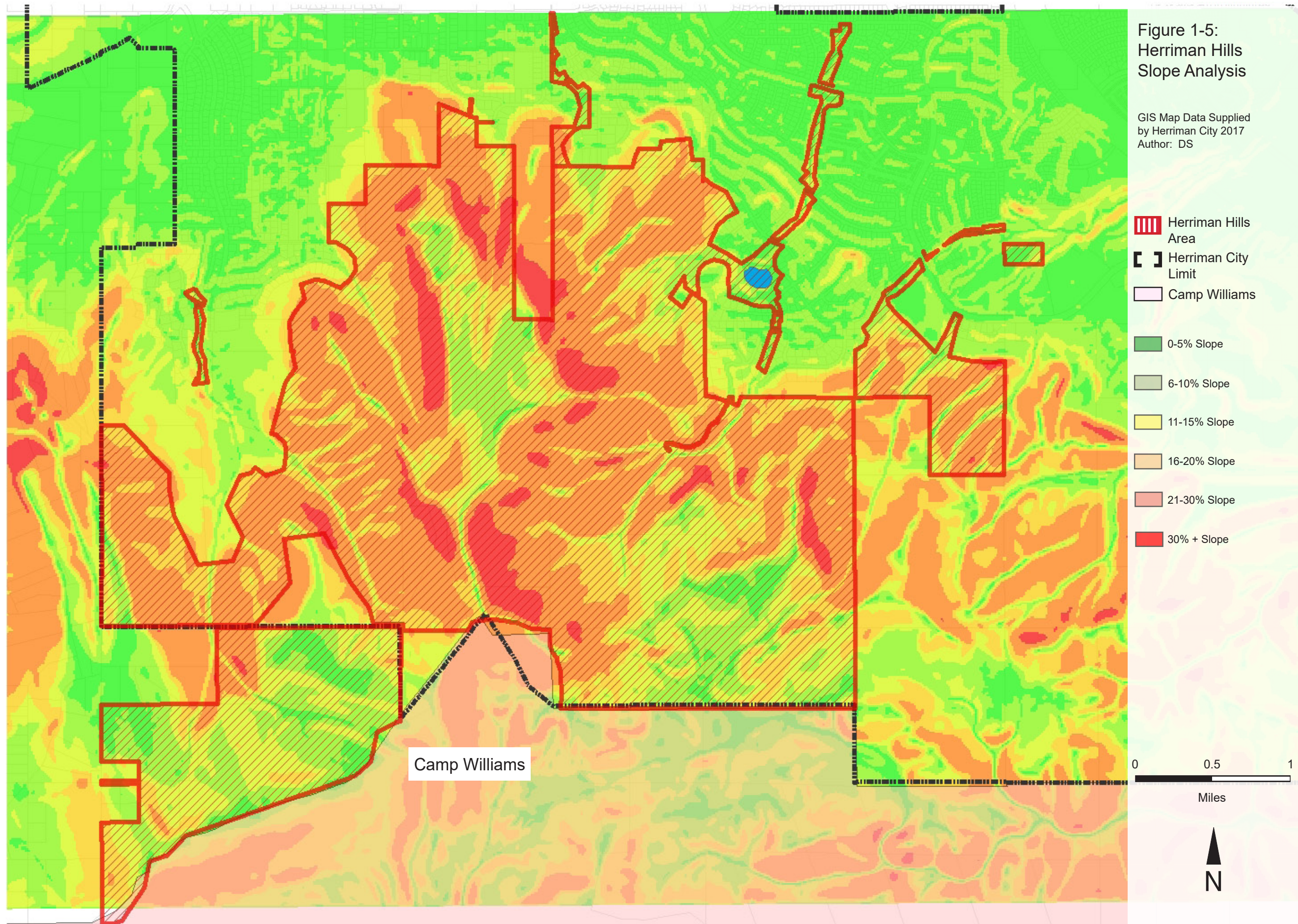
Site Analysis Maps

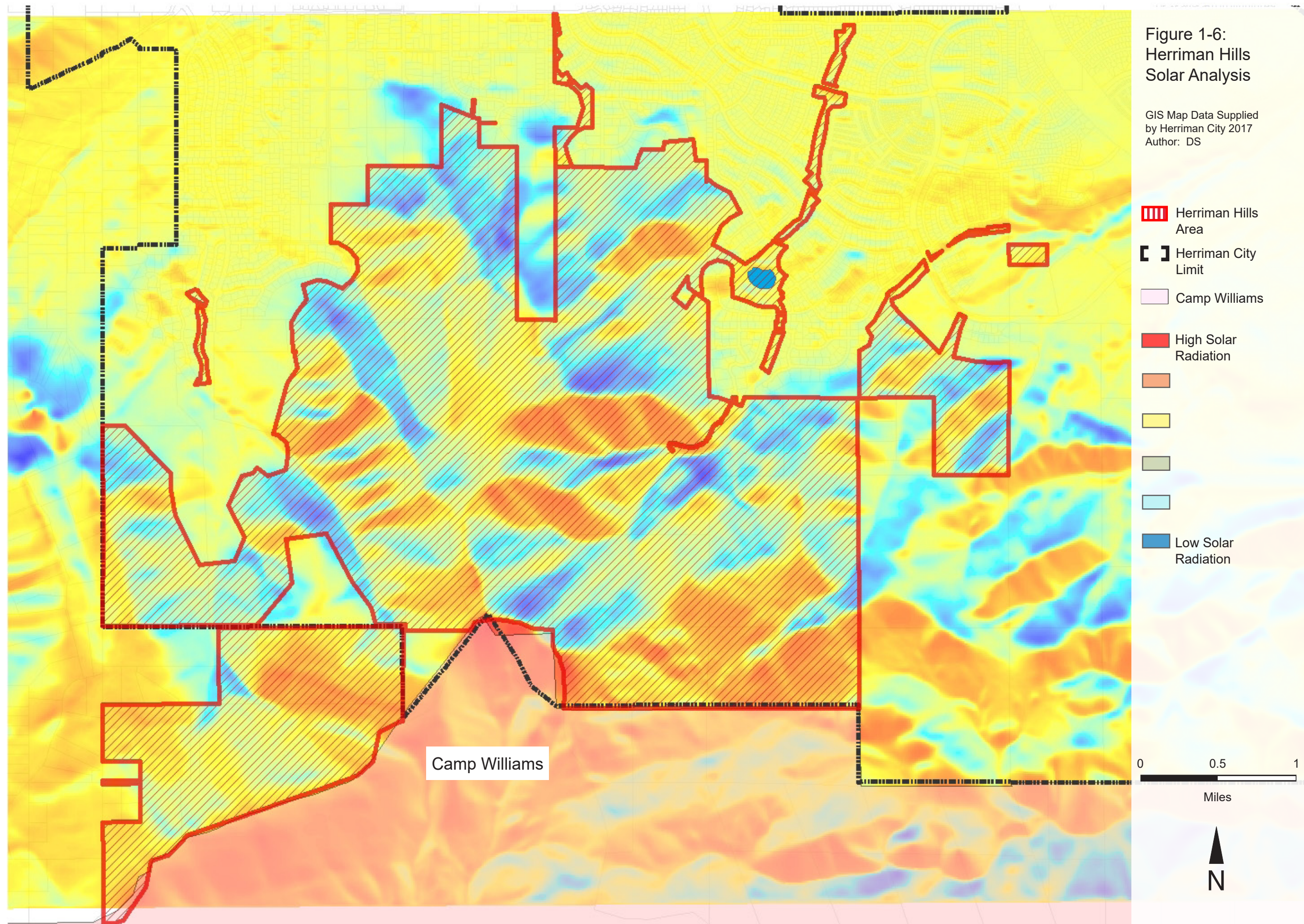


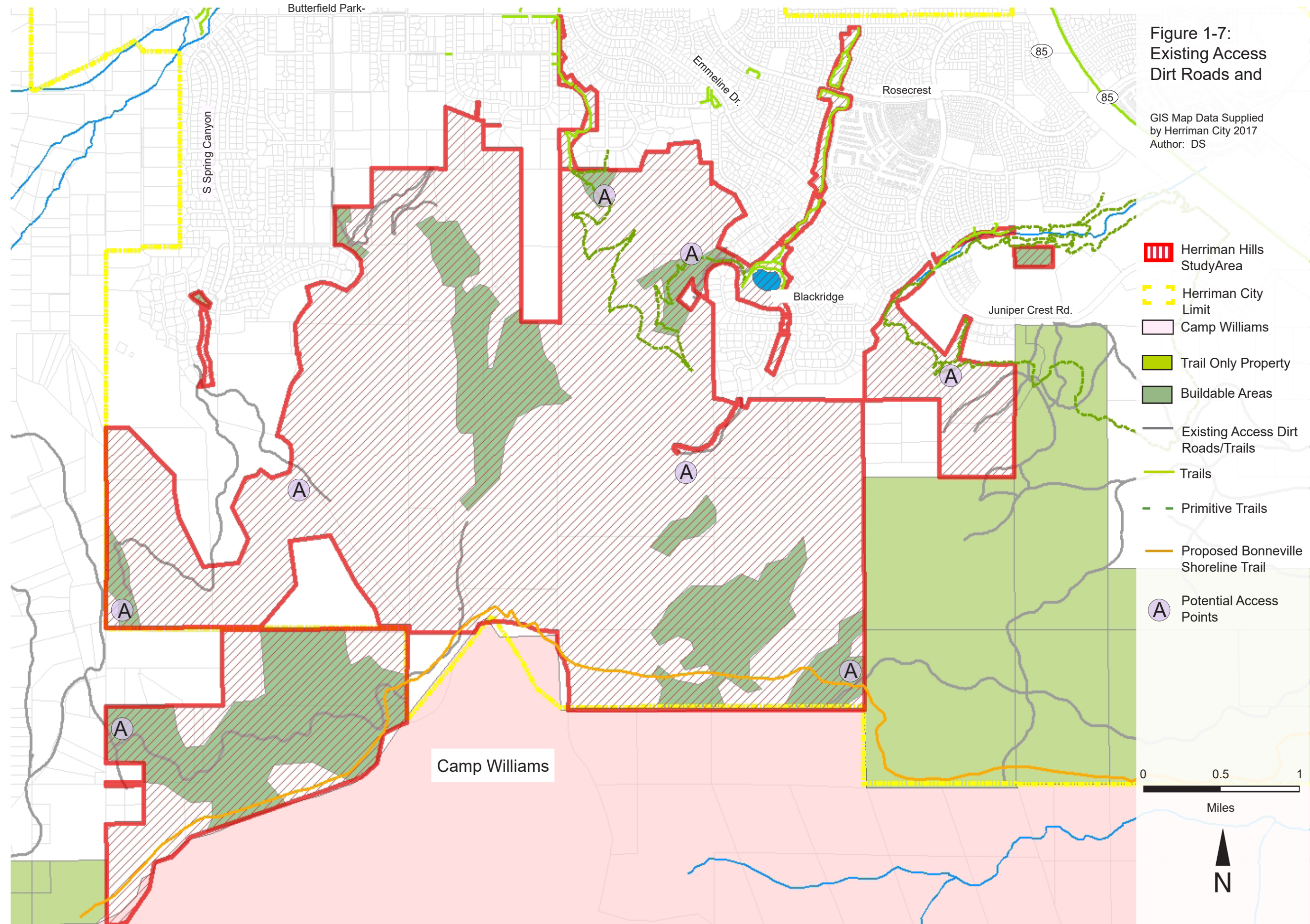


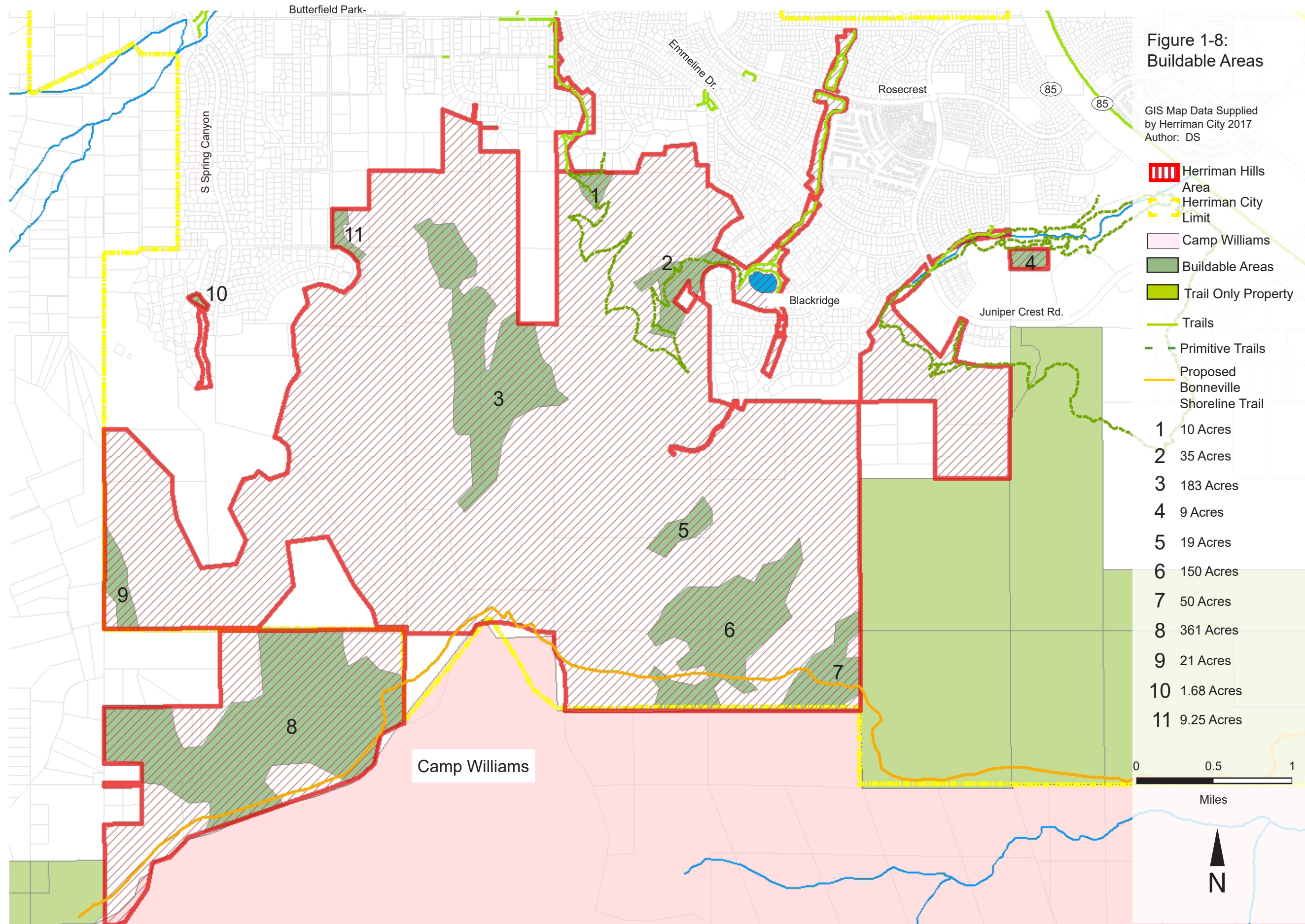


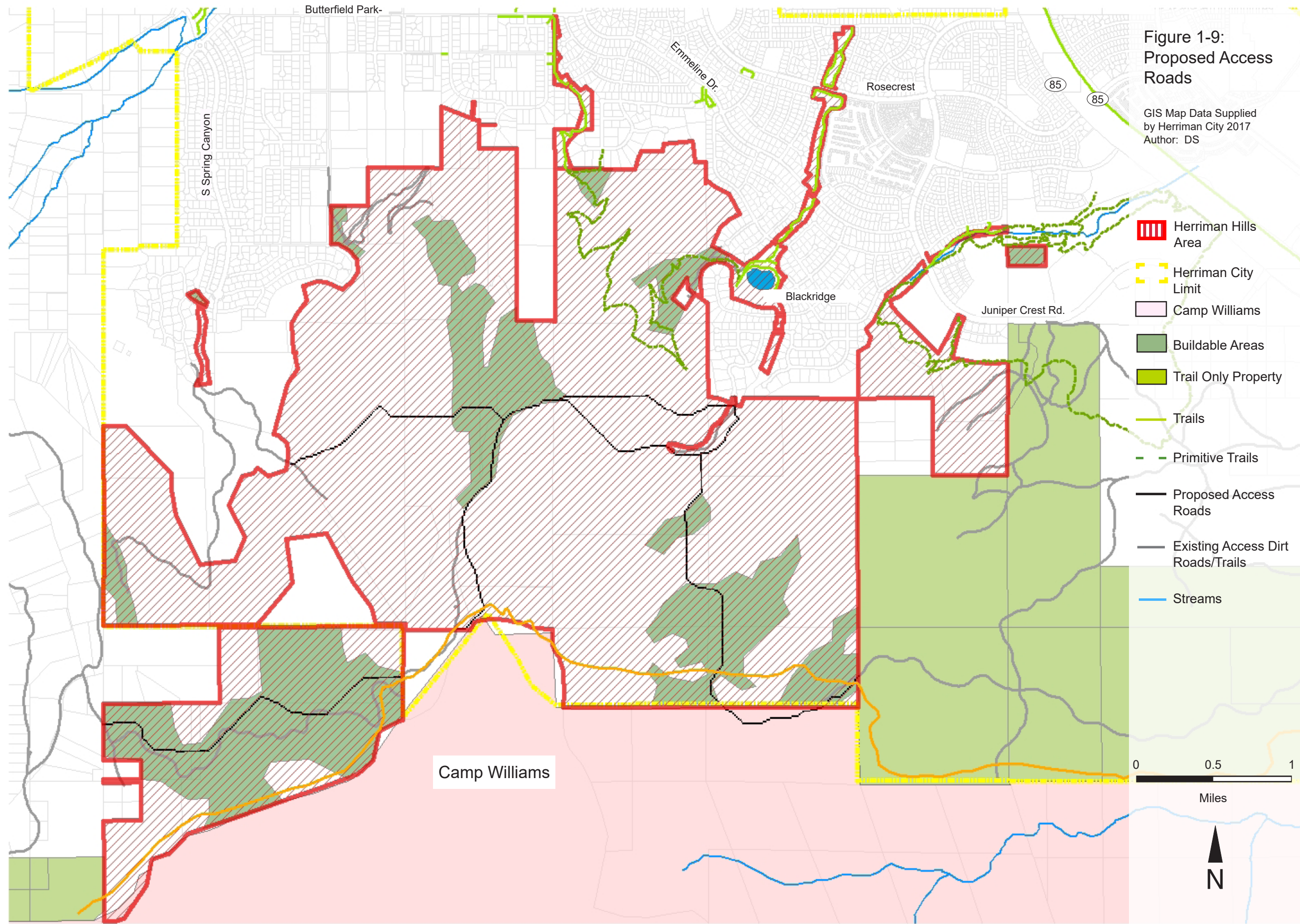


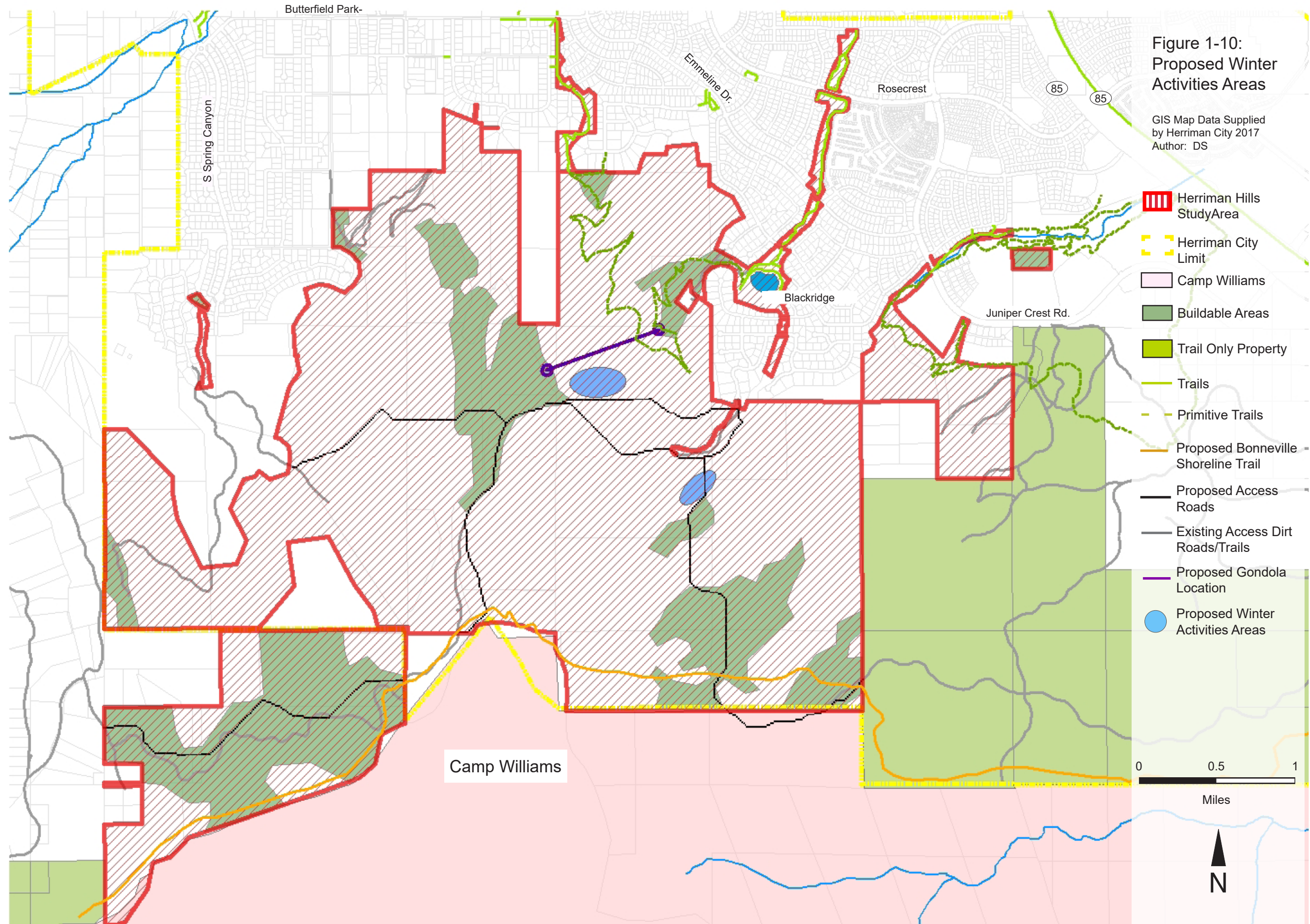


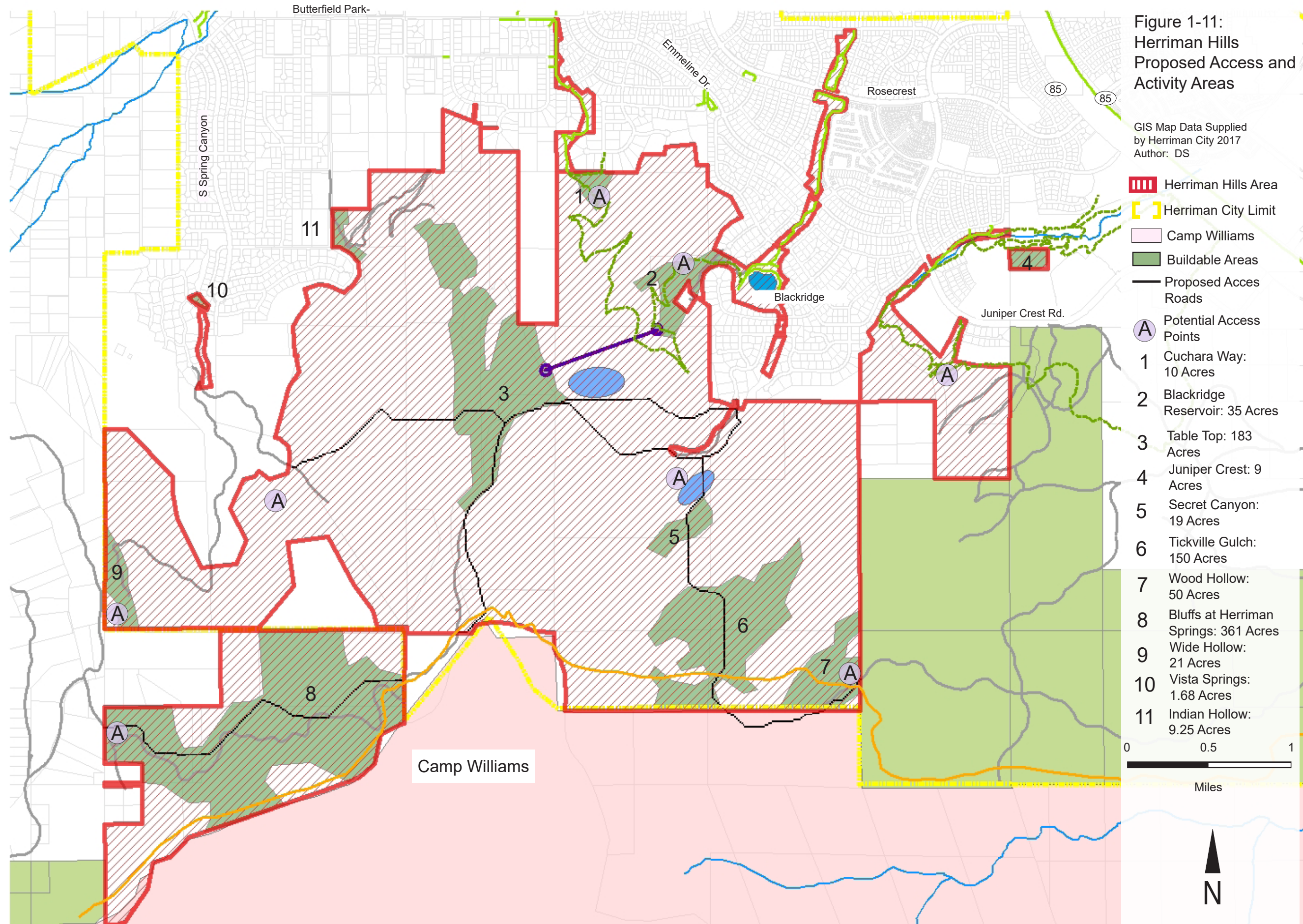


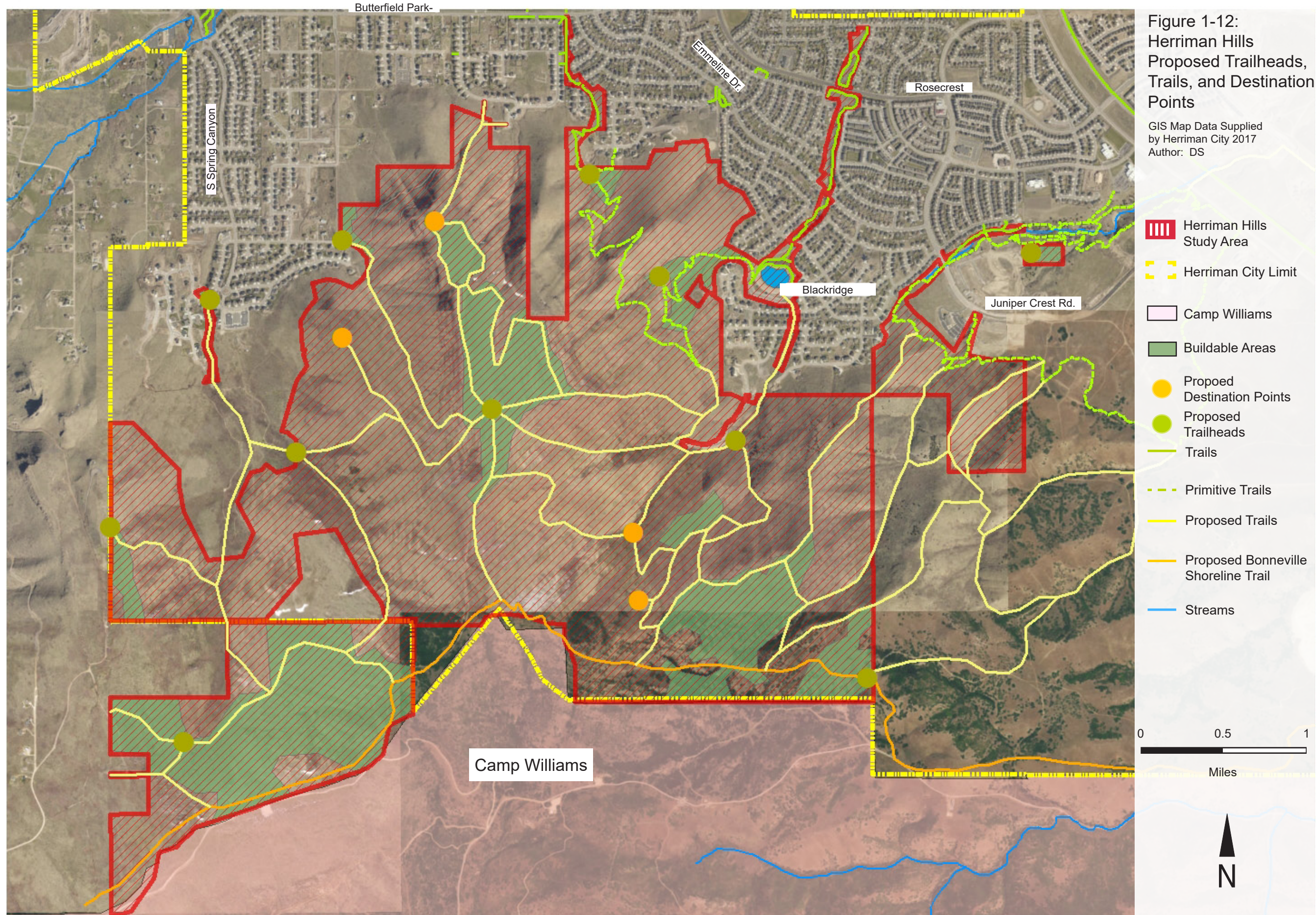


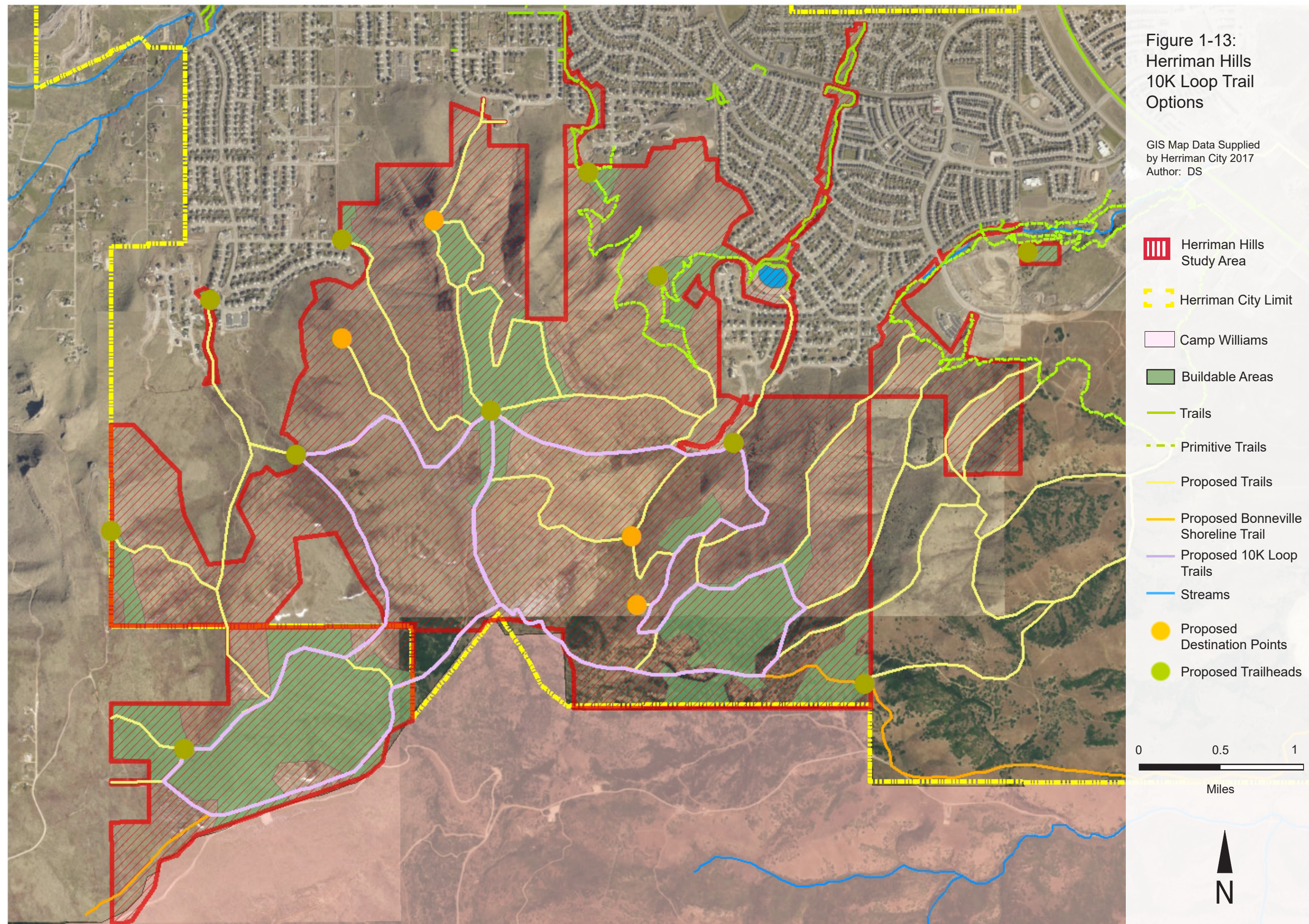


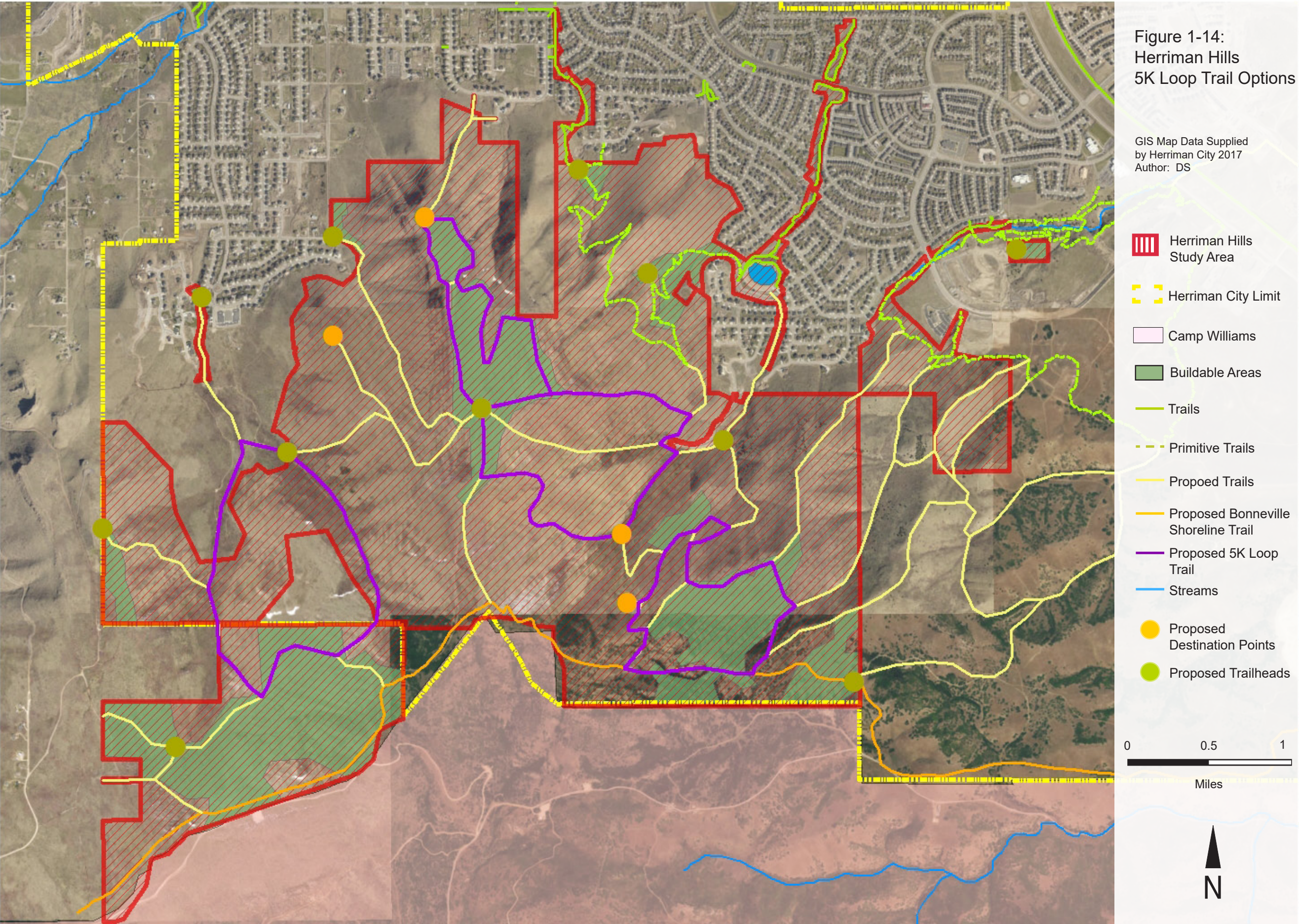


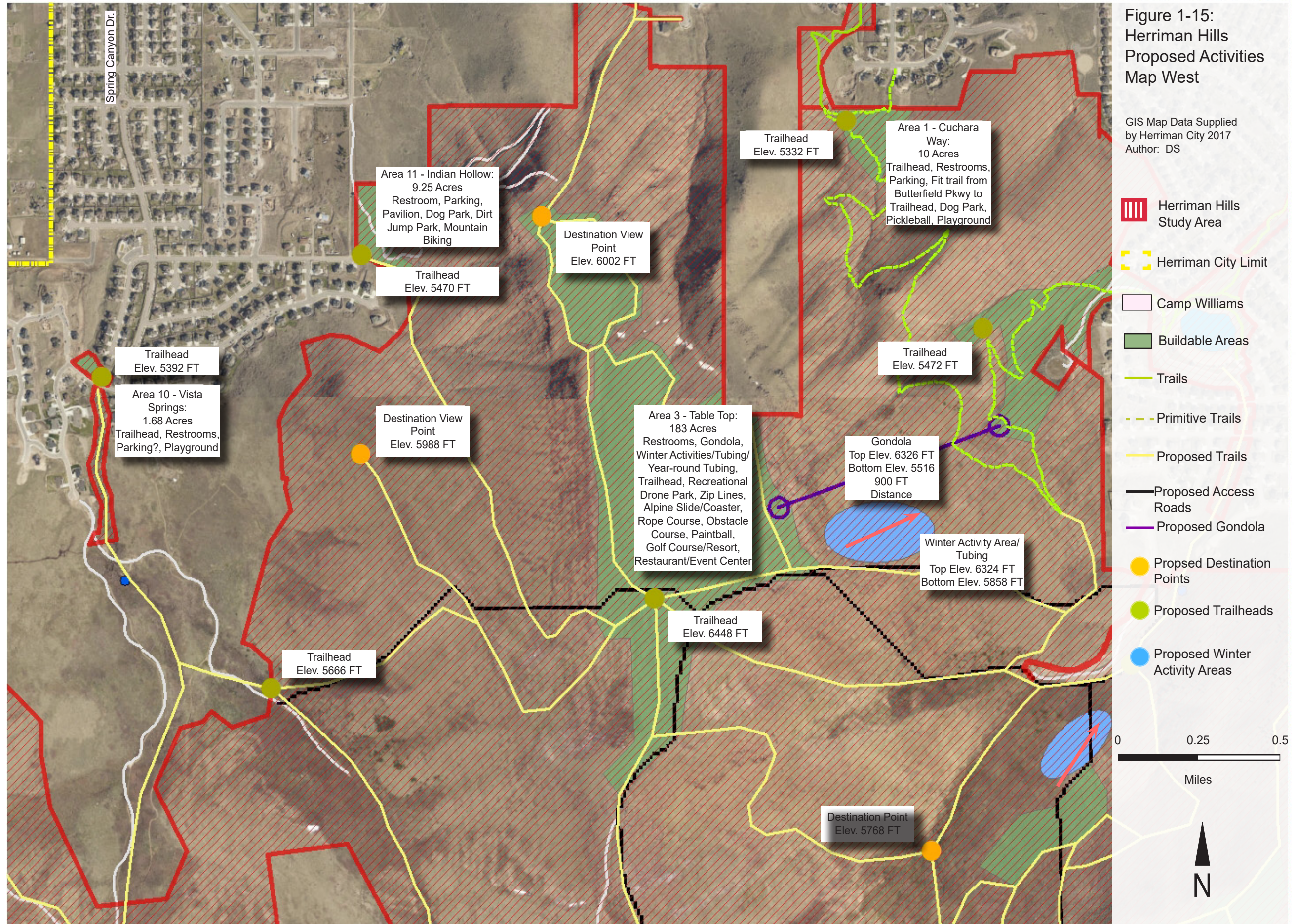


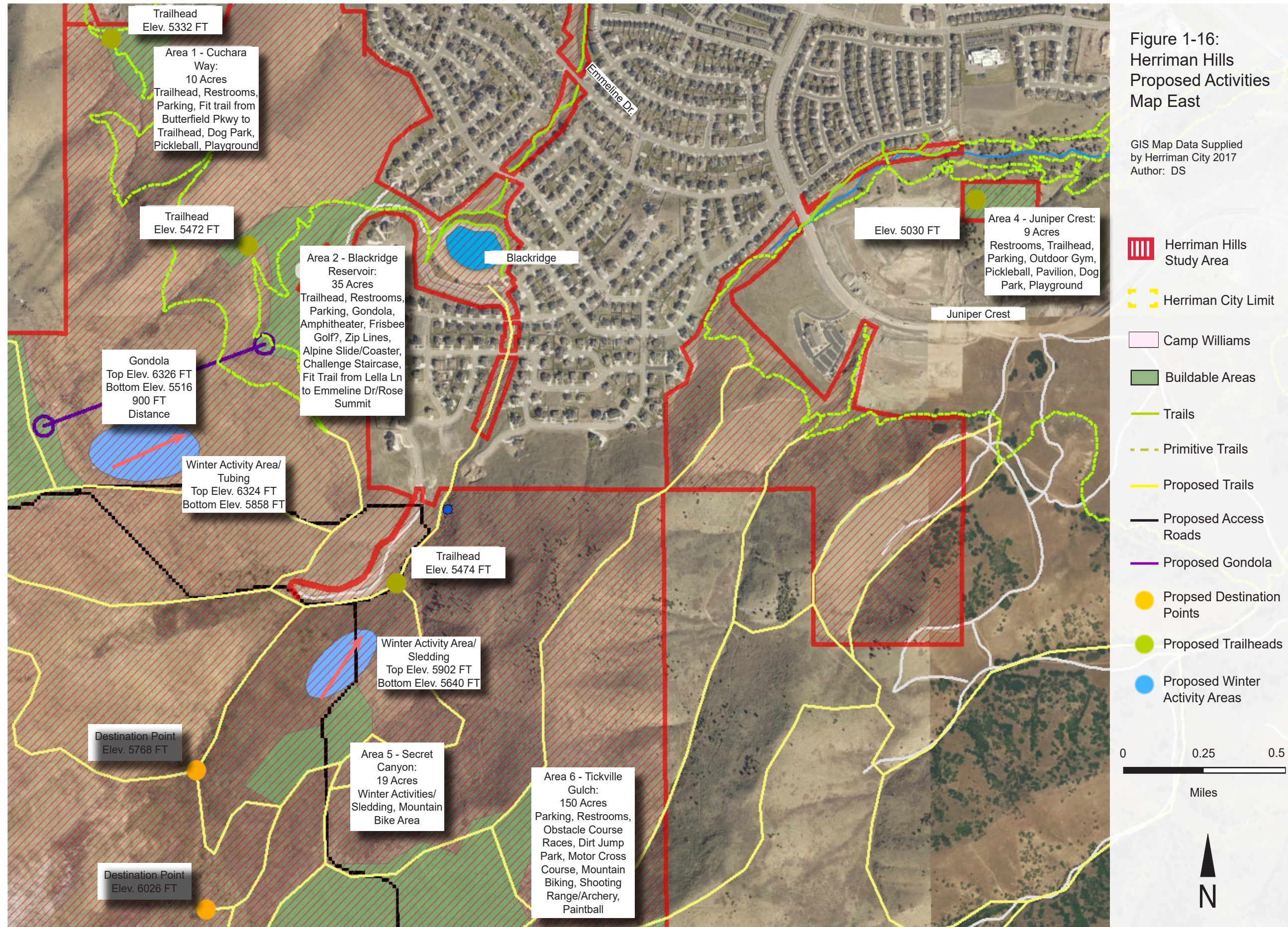












Herriman Hills Open
Space Master Plan
Appendix

Public Involvement Materials

B

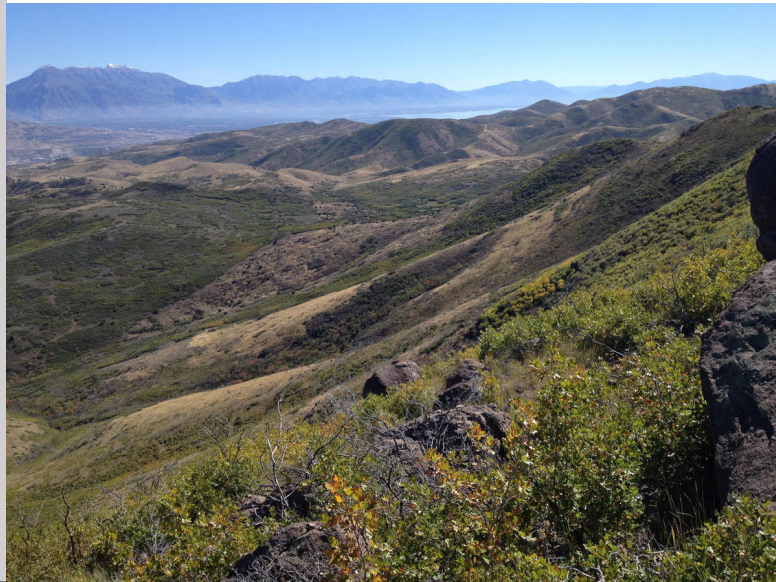
Public Survey Results



Herriman Hills Open Space Master Plan

AGENDA ITEMS:

- ❖ SUMMARY
- ❖ SURVEY RESULTS
- ❖ CONCEPT PLANS
- ❖ PRIORITY TRAIL SEGMENTS
- ❖ MASTER PLAN
- ❖ ECONOMIC IMPACT STUDY



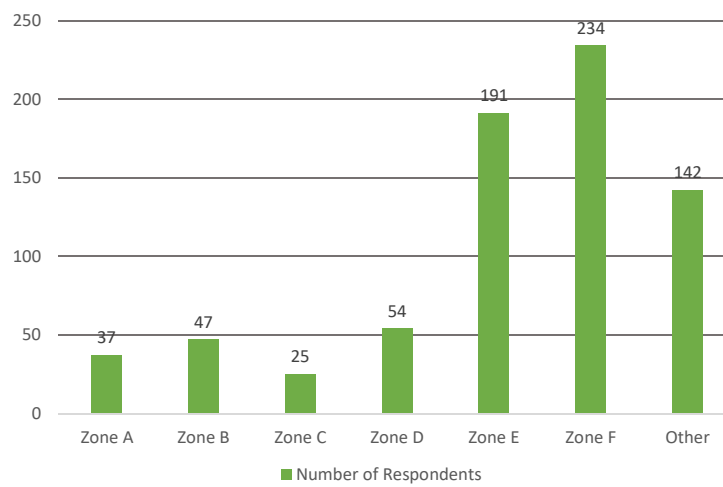
Open Space Master Plan

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Demographics: Place of Residence

Q1: Please indicate on the attached figure where you live?





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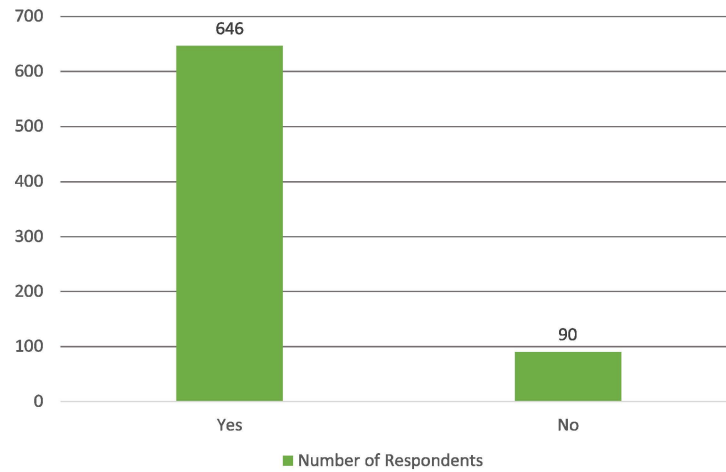
QUESTION 14

QUESTION 15

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Place: Familiar With Area

Q2: Are you familiar with the current Herriman Hills Area?



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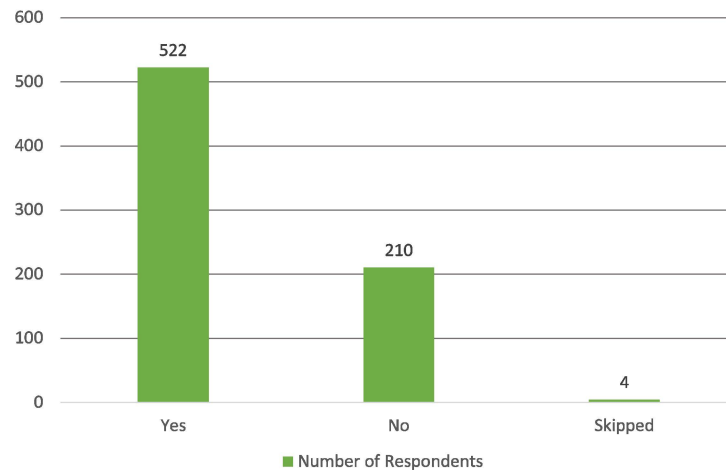
QUESTION 14

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Place: Use the Area

Q3: Do you currently use or recreate in the Herriman Hills Area?



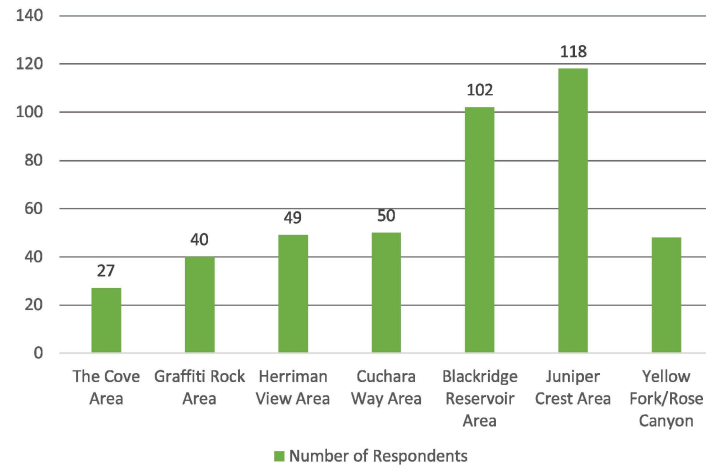


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Access: Locations

Q4: What roads or locations do you use to access the area?

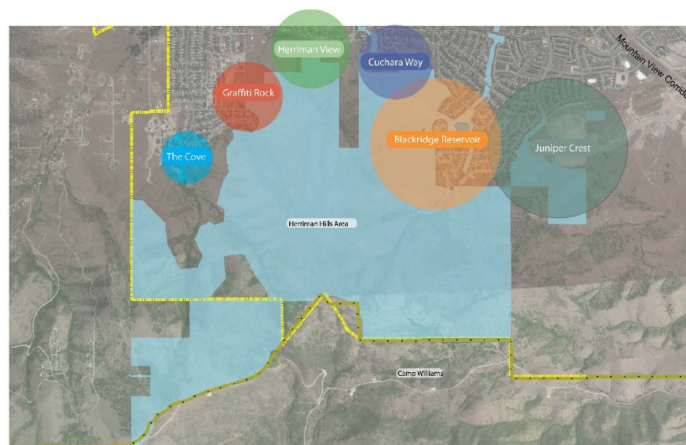


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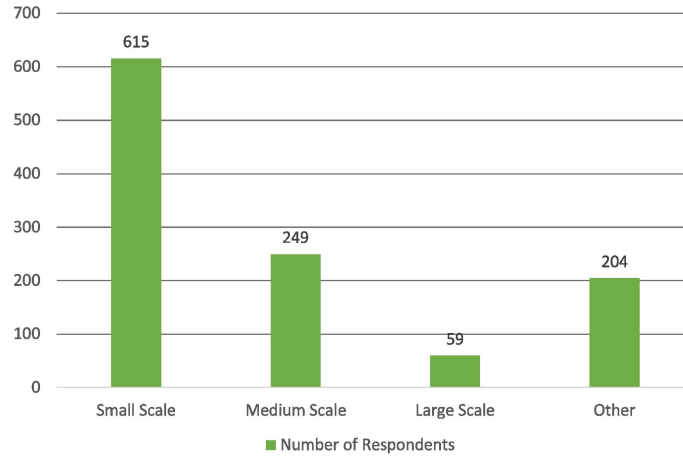


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Development Size: Options

Q5: What types of options would you like to see in the Herriman Hills Area?

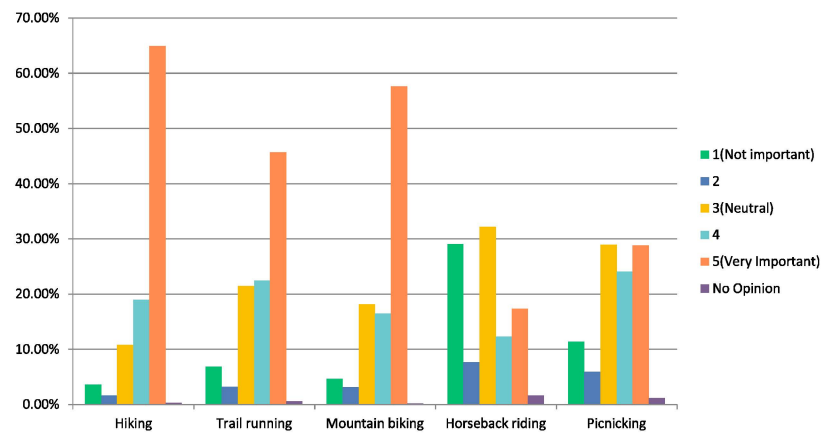


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Development Size: Small Scale

Q6: On a scale of ONE meaning "not important" to FIVE meaning "very important", please tell us how important these proposed SMALL scale development options are:



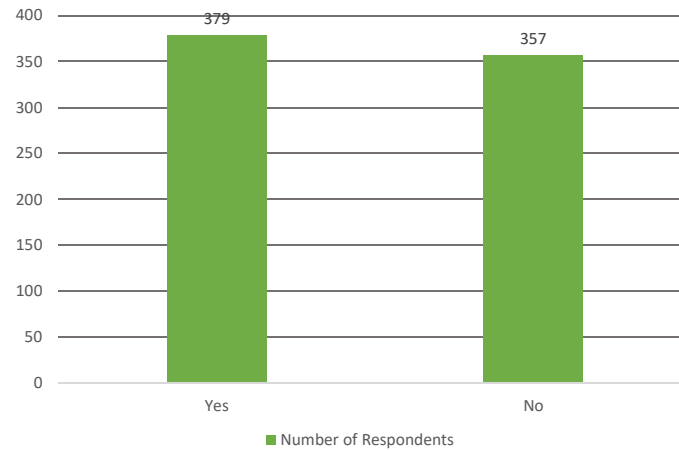


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Amenities: Off-Leash Dog Park

Q9: Should Herriman City consider an off-leash dog park within the Herriman Hills Area?

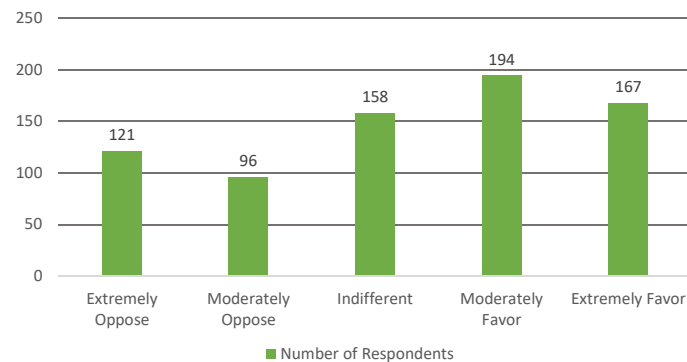


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Access: Increased Traffic

Q10: Accessing the Herriman Hills Area will require vehicles to use local roads to connect to trailheads at various locations. This may result in increased traffic in the neighborhoods. In your opinion, would you favor or oppose accommodating additional traffic?





Open Space Master Plan

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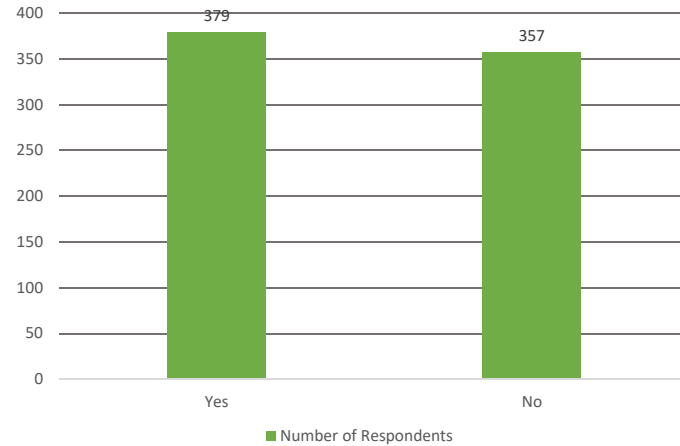
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Amenities: Off-Leash Dog Park

Q9: Should Herriman City consider an off-leash dog park within the Herriman Hills Area?



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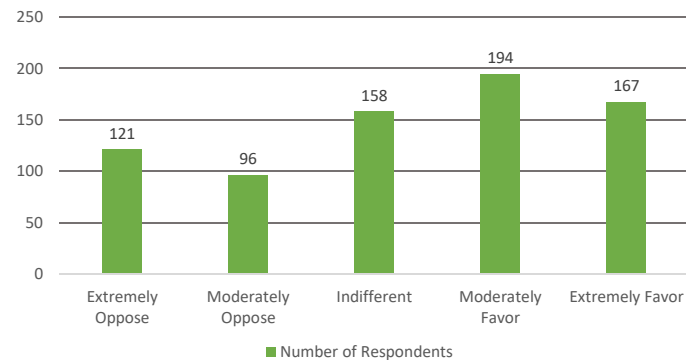
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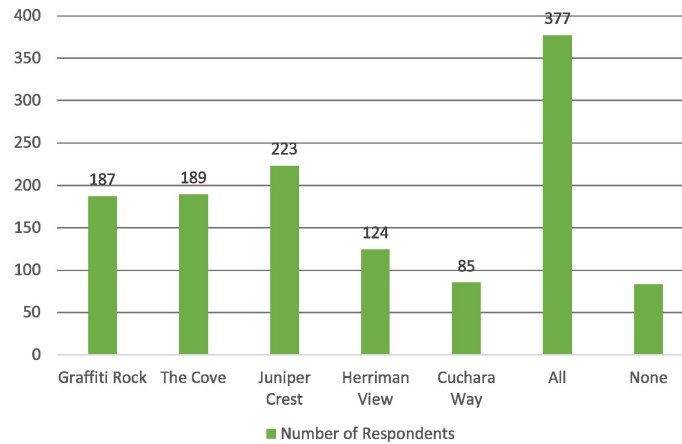


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Access: Trailhead Locations

Q11: Where should trailhead locations be placed for access to the area?

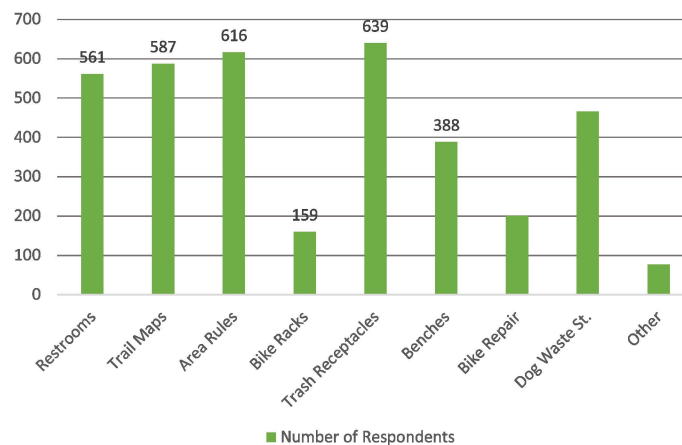


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Amenities: Trailhead Locations

Q12: What types of amenities should be provided at the trailhead access points?



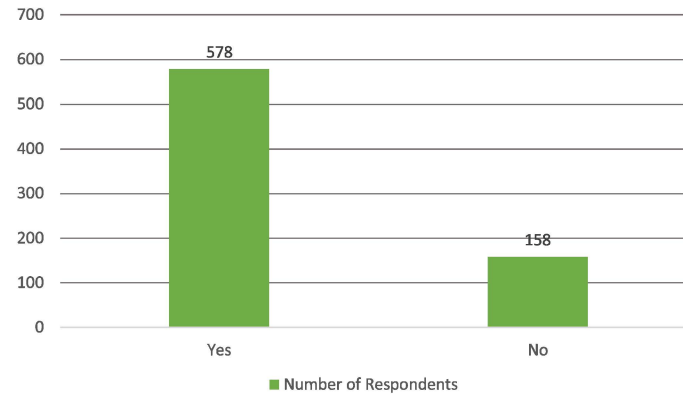


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Funding: Park Fees

Q13: Maintaining the Herriman Hills Area will require ongoing maintenance and improvements. Are you willing to support an increase in city park fees to maintain and improve the area?

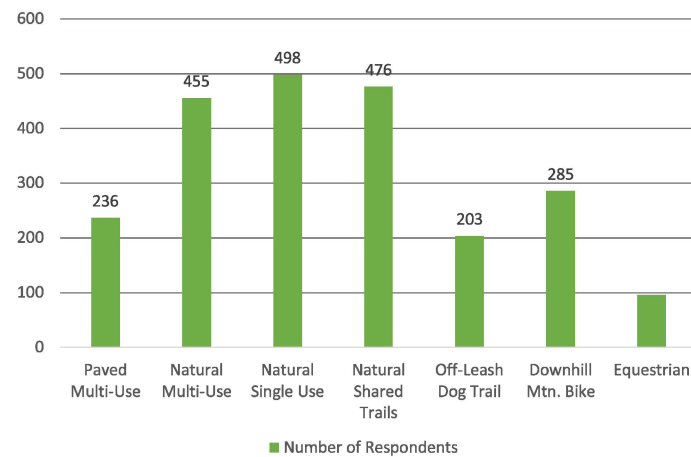


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Trails: Types

Q14: What types of trails would you use most in Herriman Hills Area?



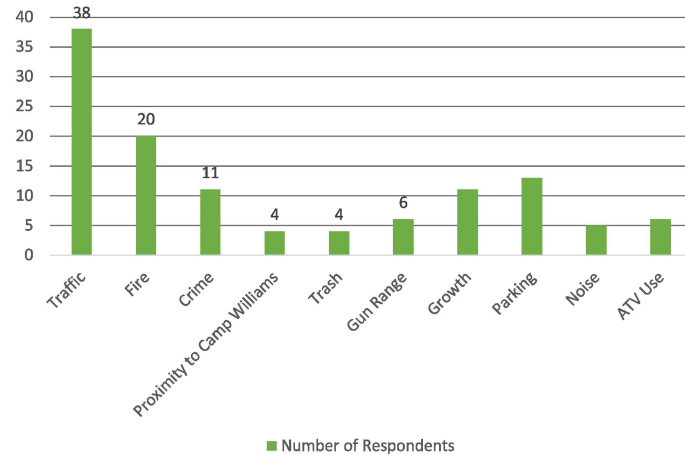


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Concerns: Safety

Q15: Do you have any safety concerns about building improvements/amenities in the Herriman Hills Area?

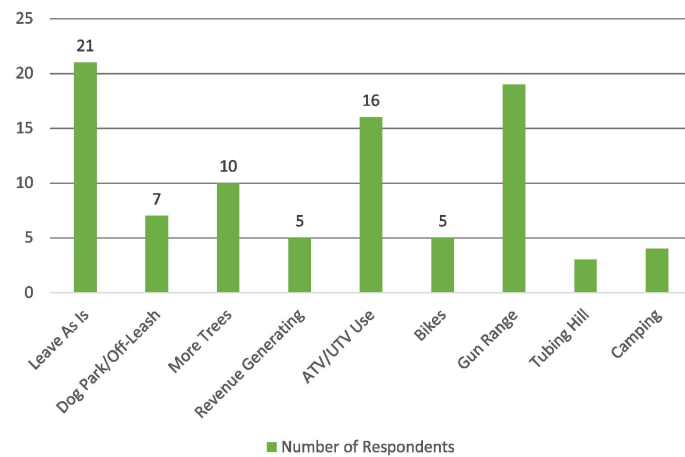


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Amenities: Suggestions

Q16: What other suggestions or improvements would you like to see in the Herriman Hills Area?



Q4 Comments: What roads or locations do you use to access the area?

All of them; 10600 south; 1-15; 12600 S; Rose Canyon; 13200 S; 13400 south; 6400 west; rose canyon road; 13400; Mountain View; 13500 S; 14284 Trail View Way; Juniper Crest; 215; 5600 West 13400 south and rose canyon; 6400 (West); 6400 W.; 6400 west; 6600 W; 6600 W; 6600 W; 6600 W; 6600 W; 6600 west; 6600 west; 6600 West; 6600 West; 6600 West; 6600 West 14600 south; 6600 west and Friendship Drive; 6600 west and Herriman view above Ft Pierce; 6600 West; the Blackridge Reservoir parking area or up the trail from the LDS on Butterfield Park Way. I've also come along the ridge from the west, starting from Step Mountain Road.; 6600 West; trail across from fort herriman; 6600 West, Rosecrest; All of the Herriman trial system; All of them; All of them; Ambermont and Juniper Crest; Ambermont and Juniper Crest Rd.; Ambermont drive and juniper crest road; Ambermont, blackridge; Any I'm currently walking on that let's me; Anything but the cove; Arnold hollow; Ashland Ridge; Ashland Ridge; Ashland Ridge; Ashland ridge Blackridge reservoir; Ashland Ridge Dr.; Herriman View Way; Ashland Ridge Drive, Juniper Crest; Ashland ridge, juniper crest; Aurora Vista Road; Autumn crest; Autumncrest rd; Baccus Hwy, 134th, Rosecrest; Back yard, and multiple other roads and trails starting around the Black Ridge Reservoir; Backyard; Bike/run at Rose Canyon/Yellow Canyon, trails by Blackrock, used to bike off of Juniper Crest; black ridge lake area; Black Ridge reservoir; Black Ridge Reservoir; Black ridge reservoir; Black ridge reservoir; Black ridge reservoir area; Black ridge reservoir Butterfield parkway 6400 w, Oslo alto; Black Ridge Reservoir parking Lot; Black ridge reservoir, Butterfield Parkway, Cuchara Way, Juniper Crest; Black ridge reservoir, lookout ridge neighborhood-secret canyon circle; Black ridge trail. Juniper trails; Black ridge trial; black rock reservoir; Blackridge res.; Blackridge; Blackridge Res; Blackridge Reservoir, Juniper Crest, Fort Herriman Middle School; Blackridge reservoir; Blackridge reservoir; Blackridge reservoir; Blackridge reservoir; Blackridge Reservoir; Blackridge reservoir; Blackridge reservoir parking lot; Blackridge reservoir parking lot, Muirwood Circle, church parking lot next to Fort Herriman middle; Blackridge reservoir trail; Blackridge Reservoir, 6600 West, or from Step Mountain Road via the ridge south of the Cove; Blackridge reservoir, Fort Herriman Middle School, Graffiti Rock, Juniper Crest; Blackridge Reservoir, Juniper Crest; Blackridge Reservoir, Juniper Crest Road; Blackridge Reservoir, Trailhead paths off Emmeline & Butterfield Parkway; Blackridge Reservoir; Blackridge Reservoir and the trails around it; Blackridge side; Blackridge trail, yellow fork; Bonnie Jean; Briar park rd, Ashland; Buckridge; Butterfield Canyon; Butterfield Canyon; Butterfield canyon road; Butterfield park way; Butterfield Parkway; Butterfield Parkway; Butterfield Parkway; Butterfield Parkway, Friendship, Blackridge, Juniper Crest; Butterfield Parkway, Muirwood, Cuchara; Butterfield, Rose and yellow canyons; By graffiti rock and top of cove; By the pond next to the church; Cedar butte rd; Cove, Black ridge reservoir, trails and stuff; Crimson Patch Way; Diamond Back / Blackridge trails, 6600 W; Don't know, not real familiar but would like an additional choice besides Corner Canyon that is easily accessible; Due to the goat heads I use Ashland downs to access the mountains. When hiking we use the trail across from Fort Herriman Middle school; Dunno the ones near my house; Either through High Country or The Cove; Emmeline, Aurora Vista, Emmeline; Emmeline to reservoir; Emmeline; Fort Pierce Way; Fort Pierce Way; Friendship; Friendship and Juniper Point; Friendship dr and Blackridge reservoir trailhead; Friendship Dr.; Friendship Dr.; Friendship Dr.; Friendship Dr.; friendship drive; Friendship Drive, Diamond Back trail; Friendship or Butterfield parkway; Friendship, Blackridge reservoir; Friendship, Butterfield, black ridge reservoir; Friendship, Fort Pierce Way; Friendship, Juniper, Ashland ridge it; Graffiti rock; Graffiti Rock; Graffiti Rock; Graffiti rock dirt road and cove main road spring canyon; Graffiti rock trail; Herriman trail system; Herriman View Cove; Herriman View way; Herriman view way; Herriman view way, Fort Pierce Way, 6600 West; Herriman View Way, Muirwood Cir,

6600 W; Herriman view, juniper crest, Paulo alto area; Hike up the ravine, access from Blackridge reservoir; Hiking by Blackridge and by Providence Hall; Hiking off Juniper Crest Road; Hiking trail off of Butterfield; Hiking trails; Hunt Harder; I assume it'd be Redwood or the end part of Mtn View?; I can't remember but through Butterfield canyon I think; I can't! It's all private land as far as I saw! There needs to be more trail heads and markers for the trails; I don't go there because there isn't much to do there; I enter from the Cove; I live on Wide Hollow Drive and walk to the graffiti rock.; I run from my house past the Ft Herriman middle school straight up the trails to the mountain and lake; I run in the hills described in your paragraph; I run to it; I typically Park at Blackridge Reservoir; I use the trails; I usually run the trails from my house to the trailhead south of the middle school on Butterfield parkway; I usually walk from my home up juniper crest road; I-15; Juniper; Juniper; Juniper (Something), Rosecrest Road, and Rose Canyon Road; Juniper canyon trails; Juniper crest; Juniper Crest; Juniper Crest; Juniper Crest; Juniper crest; Juniper crest; Juniper crest; Juniper Crest; Juniper Crest; Juniper crest; Juniper crest; Juniper Crest; Juniper Crest; Juniper crest; Juniper Crest; Juniper Crest; Juniper crest; Juniper Crest; Juniper Crest; Juniper Crest; Juniper Crest; Juniper crest; Juniper crest; Juniper Crest; Juniper crest; Juniper Crest; Juniper Crest; Juniper Crest; Juniper Crest & roads near Blackridge Reservoir. Also areas near Butterfield Park; Juniper Crest and Ashland Ridge; Juniper Crest and Emmeline; Juniper crest and the cove; Juniper Crest Rd; Juniper Crest Rd; Juniper Crest Rd. Blackridge Reservoir; Juniper Crest Road; Juniper Crest Road; Juniper crest road; Juniper crest road; Juniper Crest to the trails S. of the bridge; Juniper Crest Trailhead; Juniper crest, Rose Summit, Juniper crest, 6600 W. Also, Fort Pierce Way and Butterfield Park Way, Friendship and Spring Canyon; Juniper crest, black ridge reservoir; Juniper crest, cove & summit; Juniper crest, friendship dr; Juniper Crest, Graffiti Rock; Juniper Crest, Graffiti Rock; Juniper Crest, Killington Ct/Friendship, Butterfield Park, 6600 West/Wide Hollow, other nearby trails; Juniper Crest, Muirwood; Juniper crest, rose canyon road, roads to black ridge, mirabella; Juniper Crest, Summit Ridge Circle; Juniper Crest, various trailheads; Juniper Crest; Juniper crest?; Juniper hills; Juniper point; Juniper Point; Juniper Point; Juniper point trailhead, Blackridge trailhead; Juniper, Ashland Ridge, Butterfield Parkway; Juniper, friendship; Jupiter Crest and Rose Canyon; Killington; Lake Ridge Circle; Lookout Ridge; Lookout Ridge area; Many different; Most, if not all have No Trespassing signs on them; Mostly the reservoir or Juniper Crest, near the church and the ravine; Motorcycle trails; mountain view; Mountain View; Mountain View; Mountain View Corridor; Mountain View corridor; Mountain View corridor; Mountain View corridor; Mountain View Corridor; Mountain View Corridor; Mountain View corridor; Mountain View Corridor; Rosecrest Road; Juniper Crest Road; Mt. Ogden peak. Rosecrest; Muirwood Circle; Muirwood, Rose Canyon; MV Corridor; VC; My home on Aurora vista drive; My local neighborhood ones 6600 West and the Cove; My neighborhood, Herriman view way; N/A; N/A; N/A; N/a; N/A; NA; Na; Near the reservoir and south by lookout ridge; None; None; None; None, it is accessible from my home; None. Didn't know it was accessible; Not sure what it's called but there are trails just behind Ft Herriman Jr. high that I go up; Off of Blackridge Reservoir or Lookout Ridge; Only the reservoir, not sure if this is part of Herriman hills area? But the only way to access is through a neighborhood, which is very, very unfortunate!; Out my back door; Palisade rd and juniper crest rd; Providence Hall High School; Quiet Shade Drive; Reservoir / Lake Ridge; Reservoir and Rosecrest; Reservoir, juniper crest church bldg.; Ride from my house; Ride my Mtn bike from my house; Ridgecrest road; Right at the bridge; River Chase road; River Chase Road and Juniper Crest Road; Road near graffiti rock; Roads to Blackridge res.; Rose canyon; Rose Canyon; Rose Canyon; Rose Canyon; Rose Canyon and 6400 West; Rose Canyon Area; Rose Canyon et al; Rose Canyon MTB trails; Rose Canyon Rd; Rose canyon rd; Rose Canyon Rd; Rose Canyon Rd; Rose Canyon Rd; Rose Canyon Rd / Yellow Fork Area; Rose Canyon Rd Yellow fork; Rose Canyon Road; Rose Canyon road; Rose canyon road; Rose Canyon Road; Rose Canyon Road; Rose Canyon Road and Blackridge Reservoir Trailhead; Rose canyon road and juniper crest road; Rose Canyon road, Rose canyon road, juniper crest; Rose Canyon, Butterfield Canyon, roads by Providence Hall;

Rose Canyon, friendship; Rose Canyon, Juniper Crest, Blackridge Reservoir; Rose Canyon, Yellow Fork, Friendship, Emmeline, Juniper; Rose canyon/ yellow fork; Rose crest road to Ashland ridge, Rose summit; Rose Summit Drive, Briar park road; Rose Summit Rd., Emmeline Rd; Rose summit, etc; Rosecrest; Rosecrest; Rosecrest; Rosecrest; Rosecrest; Rosecrest; Rosecrest Rd; Rosecrest Rd; Rosecrest Rd, Mountain View Corridor

Rosecrest road, juniper crest, Butterfield parkway, rose canyon road, 13400 south; Rosecrest, Emmeline; Spring Canyon; Spring Canyon; spring canyon, 6600 west; Spring Canyon, Juniper Crest, Black Ridge Reservoir; steep mountain; Sun bloom to Emmeline; Sunbloom; The Cove (I live in the Cove); The cove, black ridge and around Butterfield park areas; The only ones that exist and aren't blocked off due to the whims of construction companies; The reservoir; The trail just south of Fort Herriman middle school behind the houses; Top of the cove ; Trail access above Blackridge Reservoir; Trail across from Fort Herriman as well as 6600 W.; Trail behind Herriman View Way; Trail by the LDS church and also trail by the reservoir; Trail to the west of the Blackridge reservoir; trail up and over to Blackridge res. and to Herriman trails area in Rosecrest; Trailhead at Blackridge Reservoir, Patriot Gulch trails; Trails; Trails above Blackridge. Yellow fork.; Trails above the reservoir and trails at Juniper Crest; Trails near my home; Trails no roads park and hike; Trails, entering by the church near Juniper Crest; Typically from my house, 6600 W, Butterfield Park way, Juniper Crest Road; Unknown; Up by the church; Use the trail system that goes up and over to Black Ridge Res from Herriman View Way. I also just hike the hill right south of Herriman View way to get to the top of the hill to the flag; Use to be from Juniper heights area until the trails were destroyed; Varies; various; Walk; walk from home; Walk from home or bike ..take Wide Hollow; Walk from our home; Walk up through Blackridge Reservoir; We access from Juniper Crest Road, from Blackridge Reservoir , and some of the side streets on the other side of the mountain by Butterfield Park; We park at Blackridge; We park at the equestrian/rodeo grounds and access the trail from there; We walk from our home; We walk from our home on Pulley Lane; Whatever Google maps tells me to get to a trail head; Wide Hollow Dr.; Yellow Fork; Yellow fork; Yellow fork; Yellow Fork Canyon; Yellow Fork Canyon; Yellow Fork Canyon; Yellow Fork Canyon; Yellow fork canyon; yellow fork canyon, black fork trails; Yellowfork, Rosecrest; Zone E.

Q5 Comments: What types of options would you like to see in the Herriman Hills Area?

Some ATV uses; Gun range; Mt. Biking ! Flow Trails, downhill, cross-country, Possible winter tubing hill (assuming snow conditions); Nothing. I vote you leave it alone; No structures; All of those and a Big Gun Range with a training and Pro shop to buy , with Paintball and Archery; Why do we have to develop it to enjoy it? Why do we have to create something to bring in more people to destroy our area? Why can't we leave it as is?; Camping would be nice!; It depends on the venue. If it generates income to pay for itself, then I would be more inclined to be for it. I just don't want to have to pay for large venues that would make the roads/ population much more busy that it currently is (unless it can be handled and paid for properly). I would enjoy a gun range, hiking/biking/running trails, camp grounds. Also, just a good way to find these items (website or pamphlet); Nothing more. It's great how it is. Some of the trails have already been disturbed or taken away due to building. It's very sad. We moved to Herriman for the hills and trails and there quickly disappearing and being replaced with houses.; Picnic tables; I would love to see an amphitheater similar to Draper or Sandy at the base of the mountain. We have ATV/UTV's and would love more/longer trail options close by.; A DOG PARK would be absolutely fantastic!!!!; Off leash walking trail; Golf course, absolutely no more high density, we need commercial here in Herriman, our taxes are going to be out the roof once the residential building permits run out, think sustainability, stop ruining our city, we are the joke of Riverton; Disc golf would be a great addition to the small scale. It would still keep the area foot and/or bike traffic; Shooting Range; Motox track, shooting range, Flight park for paragliding; mountain biking!; ATV use; Something similar to the Jordan River Parkway. A bunch of trails, benches, some areas to picnic and have family bbq's, open grass fields for kids to run and play with a frisbee or soccer ball.; GUN RANGE!; Gun range; We bought in this area because it was quiet and natural. We would like very much for it to stay that way.; Camping areas and lake; Horse Trails we ride these trails 2 times a week; Nothing to much traffic!!!; Dog park. No vehicular traffic, only for parking vehicles to walk/bike/run/hike. Biking needs to be separate from running/hiking/walking areas.; Golf course; campgrounds; I would like to see a mix of uses - a large outdoor amphitheater for concerts, while keeping the trails unpaved for hiking and mtn biking. Herriman is one of the few places in the valley where you can ride your mtn bike from your house and access trails in minutes. I would like to see these unpaved hiking trails expanded, and connect to the paved bike/jogging trails that are already in place (and it would be nice of more of the paved trails in Herriman connected with each other - especially in the Rosecrest area - to make the area more walkable/bikeable); Mountain bike trails. From beginner to experts level; Ohh trails please, we don't have any in the area for use dirt bikers. Especially single track that bikers could use too!; A venue for events such as running or biking events would be great.; Dirt bike trails; connect trails from yellow fork to those by providence hall; Horse trails; NO HOUSES!!; Bathrooms; ATV trail; Motorcycle single track; ATV trails; Big feature Downhill mountain biking trails; Tons of MTB trails.; I would love to see a great variety of mountain biking trails including beginner and advanced (Black Diamond) expert trails that could bring a wide variety of people and skill sets into the area. In turn I think it would boost the local economy and would encourage more people to move to Herriman, similar to what Draper has done with corner canyon.; Rest rooms; Downhill bike only trails. This would decrease trail issues with non-bikers.; Leave it alone and allow ATV's to access it.; Dog parks; golf course like was originally planned would be nice; Archery Deer Hunting; ATV Trails; Mountain Bike Trails and Mountain bike parks; Downhill mountain biking, similar to corner canyon.; No motorized vehicles.; More trails. Bathroom possibly.; Dog Park; Mostly small scale I'd love to see it stay natural.; Bike trails!! I'm moving to Herriman next month and I would LOVE to see them. Directional, easy, intermediate, and advanced, etc. Please!!!!; Please keep the trails! So many have already been ripped up for construction.; Just

maintain the trail system that is there STOP building anything out there the trails that were awesome have been destroyed. Terrible planning on the city's part.; Shooting sports. ATV park and trails.; Picnic areas; Pit toilets at all trail heads, trash cans at all trail heads, noise restriction (can't hike, bike etc. without personal listening device i.e. no boom boxes).; I am fairly new to the area but would love some easily accessible hiking trails.; Gun range; Golf Course; Gun Range. It was a selling point when we decided to move out here. I know the land was already donated. Not sure what happened to this plan. Based on previous comments on Facebook, it is a very popular idea.; Mountain biking trails established and maintained.; Why don't Herriman just leave it as it is and save there money for public safety. It's working fine for hiking, biking and horse back. Why do you feel that we need to spend money on it!!; Eating establishments in the hills. A beer garden bar; Better trail system similar to what is offered in Corner Canyon in Draper. Connected trails and loops.; Rifle and pistol range; Golf course; Shooting range; An off-leash dog park.; Small scale vehicular access, If bikes are allowed at a minimum dirt bike single track should be allowed. it would great to see multi use access instead of limiting the land to only biased traffic. Herriman being one of the last open spaces to live in the valley should accommodate the many users of OHV's since the whole rest of the county already exclusively services hiking, running, and biking.; Less is more when it comes to development.; With the rest of Herriman blowing up with HDH and smaller lot sizes, please keep this a nature area much like Draper has on their hiking path back towards Ghost falls. It is truly a treasure to have that space open and free to use.; shooting range; Multi Use Trails with a well established, well supporting trailhead. A disc golf course would be a ton of fun!; ATV trails; Include ATV and UTV trails with day picnic areas throughout; UTV and Dirt Bike Trails; disc golf included in the small scale; Some separate trails for biking and hiking, in particular a downhill bike traffic only route.; I wouldn't mind a disk golf. But no on zip lining... and no vehicles.; please, the area is being overbuilt without planning for roads and parking for multiple housing projects. We see it every day on Rosecrest - townhome owners are parking on main roads due to improper planning by developers.; Not sure about the vehicular access. This type of activity sounds great but people abuse it and ruin it for everyone else.; ATV trail. One way. 20 MPH ; Nothing. It's fine how it is.; 4 wheeling, ATV; Very limited vehicular access. The hills are utilized by joggers and bikers. I see them all the time walking dogs, running and biking on trails. It's why we moved to Herriman.; I would love to see Herriman trails turn into a corner canyon trail system! Hiking and biking!; More parks; We would love to see a bike park with various levels of jumps and terrain for kids, teenagers as well as adults. Moab City has a new great skills bike park. Draper, as well as Eagle Mountain has one that our whole family loves to go to. Would be awesome to see one locally! Also, a motorcycle track would be great! As of now the closest tracks for my young boys to ride are Jordan River OHV State park near Woods Cross and the track out in Tooele.; Mountain bike trails. Make the trails link together to Rose Canyon / Yellow fork.; We should have some horse only trails. I know my biking is hard on horses and there are lots that like to get out.; Mountain Bike skills practice facility. Jumps, drops, pump track. Also, downhill oriented mountain biking trails.; More biking trails; Dog park; ATV trails, shooting range; Gun Range, ATV trails, Gun range; Bike trails. Bike trails. Bike trails.; Motorized OHV trails, as well as mountain bike singletrack; mountain bike trails; Leave it alone; Gun range; Let's keep it open and quiet; Archery Range; Golf course, ATV trails with map signs!; UTV/ATV trail system. More hiking trails.; Off road access, archery range; ATV use. Trails;Off leash dog area; The Herriman High School Cross Country team desperately needs a Cross Country Course. There are some specific details that it would require but it would enable our City to be recognized by other high schools competing and Herriman residents could use it when a race is not happening.; Jeep trails; Mountain bike park; Mountain biking; ATV; Dog park!!!; Gun range! (Not necessarily free as it could bring revenue if there's a charge and pay for its own upkeep.) Second choice would be OHV trails. (There's plenty of hiking paths and bike trails already.); ATV access; OHV Park, Outdoor Gun Range, Mountain biking course, Obstacle Course, Hiking, Zip Line; 4 wheeler; Restrooms; As a resident who would be greatly affected by this

change, I would like the hills to be left alone in a "natural" state. We already have unauthorized hikers walking through (day and night) our property to access the hills. We built here for the peace, quiet, and view.; Gun range Sledding hill; Separate Bike/Hiking trails; Mountain Bike trails; Outdoor shooting range!; Outdoor shooting range; off leash dog park, pavilion areas for day camping/picnicking; Great biking trails, and ATV trails, shooting sports, and possibly a winter tubing hill with tow rope (similar to Soldier Hollow).; Mountain bike trails; DOG PARK! PLEASE! Most of us go to Draper for their dog park. I GUARANTEE there will be lots of demand for a dog park!; horse riding trails we currently ride out there and would like to keep that option; Please, please don't do anything on the hills that face Herriman! Just look to the east at the point of the mountain. It is a destroyed eye sore. Please don't allow recreation to ruin what currently looks like a mountain; Please NOT a gun range; There is a lot of area to build mountain bike, walking & running trails; BMX bike course, possibly a zip line (but not with "moderate vehicular access"), possibly a gun range if there could be a single road in/out to limit vehicular access; Downhill bike trail; Shooting range; Keep them natural. I'd love to see markers to make it easy to see how far we've hiked or biked. I'm a new scout leader and scouts need to do specific hikes and bike rides so it would be great to plan them easily. I'd also love to see a campground for HERRIMAN residents only, preferably where you can't see the valley. It is so hard to get campgrounds in this state and we need to take our scouts camping.; A shooting area; Amphitheater, picnicking ; Shooting range; Mountain bike trails systems with extensive trail network, trailhead with restrooms; Open space and trails; More MTB trails connected to existing networks; I'd drive from slc to ride a bike park in this area; Trail network similar to Corner Canyon; More singletrack "bikes only" trails, particularly "downhill bikes only" trails where bikers can go faster without worrying about scaring a hiker, horseman or uphill rider. Also, a singletrack connection from the rose crest trails to the yellowfork trails would be great allowing for longer distance rides.; A gun range would be nice; Gun range; No GUN Range!; Forced to choose an option. Nothing. Leave it as is.; we need a gun range, that's it! Leave a small part of Herriman alone. No more high density housing in Herriman. The roads have become unbearable. We can't take more traffic! Stop the madness!!! ; Trash cans, restrooms and parking lots at trail heads; Quit spending money on stupid crap; Shooting range; Gun range, gun range; ATV biking hiking; Gun range and OHV trails; My preference is to just leave it alone. Thank you!; Golf course; Leave the hills as is. I live on the hill this is my backyard. I don't want a bunch of people hanging out; Off road vehicle trails, well operated/managed gun range; Golf course (not disc golf) would be nice, we used hear talk of one going in out here.; Managed shooting range on southmost edge of area, butting up against Camp Williams; Multi use. With access in some trails to OHV; NOTHING. Leave it as is.; Shooting range...; OHV trails; Hiking and mountain biking trails are the best for most people to enjoy nature. Low cost to make & maintenance; Campground; Would still like to see a ski area somewhere around here; I work in Park City and the mountain biking and hiking have made it a destination location, not just for skiing.; No motor vehicular access. Amphitheater, What happened to the survey results sent out a couple years ago?; Off leash dog hiking trail; Motocross track, riding trails. Everybody in my neighborhood has dirt bikes, it be great to be able to use them in this area.; Dog friendly trails; Shooting range; Dog park; Off road vehicle trails; ATV trails, and it would be great if lots of trees could be planted throughout the area.; It would be nice to have a field where we can enjoy playing cricket; Nothing! Please leave the hills natural!; Please reconsider a shooting range!; Keep natural!!!!!!; Mt.Bike race course, Interconnected trail system with access easements every 11/2 - 21/2 miles.; Paragliding Launch/ Landing area/ Windsock; Paint ball, tubing parks, ATV trails; Just build a couple MTB (mountain bike trails). Don't develop it too much; Shooting range, archery, RC park, Drone park; Pump track, more trails for Herriman MTB team to train on; Picnic Tables, Rest Rooms, Sun Shelters, Park Benches; Hiking, ATV Trail; Mtn. bike trail & pump track.

Q11 Comments: Where should trail head locations be placed for access to the area?

All of the above can help spread the traffic problems, instead of having them in one neighborhood.; Extra traffic in our neighborhoods sounds terrible! We already have enough extra traffic with the lake and random vehicles parking in all the circles in the neighborhoods above the lake.; They should originate at existing parks or community areas near the points of interest.; Leave the hills as is; I live in this area and do not want traffic or anything built here.; Reservoir; Just let it stay as it is; if I had to chose one I guess juniper point cuz it's already a mess with construction; As I live in Zone A I obviously like any access points, I'd assume people that live in those areas would care more.; Leave the mountain area alone! Don't develop it and devalue what little natural area Herriman has left!; No strong opinion; Please keep this area natural. Blackridge Reservoir has been nothing but a disaster for us and local residents. The last thing we need is to draw more people into the area.; NOT SURE; I'm not familiar with these areas; No opinion; The trail head needs to be off Mountain View by Providence Hall or the new high school being built. The trail needs to be similar to the Corner Canyon trails head. On trail that can access every trail/Terrain Park on the mountain where the neighbor hoods will not limit the trails or people parking in their neighborhoods.; No input; Being a non resident, I don't have much to say about location or traffic. But I travel all over the SLC area to mountain bike and am also willing to pay reasonable fair use fees. Millcreek Canyon access is a good example.; ATV's can access it multiple ways already; I worry about the traffic and crime; I don't want trails. Isn't this already available in Herriman? Can we please have some other options to everyone else who won't use them?; Leave it alone; Really do not want extra traffic through the Cove. Limit residential traffic when possible.; Don't provide additional access; On my side by Juniper Crest, the development is increasing year over year, along with Blackridge reservoir becoming more popular, I would be willing to drive to the other access points.; The reason I moved to the area is to have undeveloped land around me. The addition of trailheads will put me in a position that I will sell and move away.; Please do not bring more traffic to Graffiti rock, it is turning into graffiti hillside!; Mountain view Corridor; Hmmm?; This survey isn't submitting unless I fill this out; NA; Not sure; Not sure.; ATV trail only. There is already enough traffic for other things elsewhere in the valley; It would nice to return trail access parking back on juniper crest south of the church where it was located 2 yrs ago and move parking away from the bridge; Any trails; As long as the big even area parking, access and venues with loud noise and lights do not encroach on the peace that current home owners enjoy now. Loud events and light with traffic will keep families and children awake and worried.; I don't want more traffic for me or others; Just leave the hills as they are!; Don't want more; The more trailhead/parking areas, the more the traffic will dispense to all the different parking lots. This decreases the congestion in any one isolated area.; Leave it alone; No preference; I would love to see a trail connect up with Yellow Fork Canyon; You should have put these locations on the map above because I, and I'm sure others, don't know exactly where they all are so I'd have to see that before being able to select any.; The more access points the better; I would prefer ZERO trails; Would love to see multiple access points to interconnected trails; I think it should be kept for local access by foot but otherwise it should be in each area so the traffic is spread rather than centralized in one area; I think a lot of residents live in Herriman to be AWAY from traffic. The last thing we need is our neighborhoods clogged with people from around the valley (especially hauling all their ATV's) driving through neighborhoods. Safety!!! These people will be focused on their final destination, not the safety and peaceful environments that neighborhoods be.; None, leave it alone; Indifferent; Don't know the area well enough to answer; Improve access via bicycle/walking. Not more parking lots.; A trailhead at the top of Lookout Ridge by the water tank.; None...leave it as it is; NA; Doesn't matter to me; Unfamiliar with these areas; Don't do it!; None. Nothing. Leave the hills

as-is.; Quit spending money on stupid stuff; No opinion; I want it all to be left alone; Mountain View; LEAVE EVERYTHING AS IS; Blackridge Reservoir; No roads or parking; Blackridge where there is already the reservoir etc.; Leave the hills natural; None. Don't develop.

Q12 Comments: What types of amenities should be provided ?

Trail Signs; Trail Markers; Water fountain; Leave the hills as is; None. Please leave it alone.; Horse trailer parking and Hitching rails. Picnic area's, stretching area's; Just leave it alone; Fire pit with safe ring and area nearby. Water. It would be nice to have a trail are also for ATV motorcycles.; parking; A simple sign stating which trail head it is; Parking; Parking, lots of parking.; Water fountain; Access to drinking water ; picnic area; Covered picnic tables; Power washers for muddy MTB and dirt bikes; Parking lot; No opinion; All abilities flat surfaces for wheelchair access; Use corner canyon as an example; Leaving everything alone and allowed ATV access or let people hike and bike as is; Water bottle filling station or drinking fountain; Large enough parking area that it can become the "place to hike" on the West side of the valley. If you want more people to shop in Herriman, you need to get them here. A large trail system that is good for families is the way.; Don't want to pay for something else I won't use; The only problem with dog waste bags is some people will collect the waste in a bag and throw off the trail and into the weeds. Now you have a bag of waste that takes forever to decompose.; If people are going to pick up dog crap they need to put it somewhere other than hang it on the sign; Eating establishments, beer garden. NO ANIMALS; And off leash dog park; Nothing; Pavilion/ lunch area. Water.; Water fountains; I already have enough problems with people letting their dogs shit on my lawn without adding a trailhead nearby. The less developed the better.; Just for hiking only; bathrooms- drinking fountain; Do nothing. Leave it how it is.; Recycle bin for cans and plastic; Parking area so people do not utilize side streets as they do around Blackridge reservoir; Leave the hills as they are!!!; Water fountain; Maps aren't very useful when most people just use their phones; I like natural/primitive feel and look; Picnic tables; Water bottle fill up station; Camp ground; Trash cans; Outdoor gun range, OHV park; ZERO TRAILS; Trail etiquette guides, it is important for trail users to know and use proper etiquette. What type of trail users yield to other types. Leashes required for dogs in that particular area?; NOTHING; Small Parking areas; Too many "extras" make it hard and costly to maintain. Corner Canyon seems to do it right, for example, the Coyote Hollow trailhead has a port a-potty (less expensive than permanent restrooms), no benches or trash receptacles (pack in/pack out), bike racks, etc.; Drinking fountain and water bottle refill spot; ***fee for use and parking for nonresidents if my park fee goes up; Water fountains; None. Leave it as it is; None leave it be!; water fountain; None; Quit spending money on stupid stuff; Dog waste would be great on all trail systems along with signs. Our yard is used by dogs on the daily basis we also need someone to clean the trails. There is always dog feces on the trail; Golf course; Shooting range; There needs to be a plan for EMS to be able to quickly and easily access any potential emergencies; drinking water; Bulletin board, key-hooks and other area for "Lost & Found".

Q15 Comments: Do you have any safety concerns about building improvements/amenities in the Herriman Hills Area?

Extra traffic in the neighborhood which increases risk for children playing and fowl play in the neighborhoods; None- areas like this attract patrons who are familiar with these types of activities ; Leave hills as is ; I live here and do not wish to have anything built here; Increased traffic through neighborhoods; none, use at there own risk. you can't bubble wrap stupid; Yes, the hills have been know to be a fire hazard and we don't need maintained parks that will cause us to pay for damage and bring in those to steal and damage our property. LEAVE IT AS IT IS.; Just make sure traffic can be handled; No fires allowed clearly stated by picnic areas; no; There's always the concern of another fire. Do you run into the chance of activating any unused explosives from Camp Williams?; No; Unwanted people lurking on trails with easy access; Yes! Herriman has been filled in with HOA neighborhoods that have tiny roads!! Lots of families and kids need safe access points and good lighting!!!; No; Absolutely! We purchased our homes up in the Herriman View area for the natural area of the mountain. We already gave an abundance of people speeding thru the streets up here by people in ATV's!! We also already have people parking in the cul-de-sacs, drinking and doing drugs!! (According to the police that patrol up here!) The police don't come up here very often and now you want to increase the traffic up here!; No more high density!!! No more tiny houses, tiny yards, only commercial; No; Above mentioned drones so close to Camp Williams; No; Keep teen gathering spots in consideration - Have had issues in hills with them; Taxes/Rates being raised... They are already extremely high compared to other cities; Make sure roadways are adequately improved to ensure safety for residents already living in the area; none; Nope; Increased traffic in the cove area is very unvafaorable. Road is already busy with local traffic and increasing as homes continued to be built up there. Other areas have larger roads that would be more suited for this type of recreational activities.; Yes. Blackridge reservoir has already drawn in many undesirable activities into local neighborhoods. Including frequent issues of drug sales, vandalism, and theft. Lets not make it worse.; No; none; FIRE! NOISE! TRAFFIC! TRASH!; None right now; The increase of garbage in the area, illegal fires.; No; No ATV or off road vehicles. Noise pollution!; N/A; Yes, increased traffic to area where there are a lot of pedestrians and vehicles speed regularly; No; No; Limit access to backyards of existing homes. Curfew times; No; No; No; No; Shooting range would be a major concern for me; No; no; Roads and access are a problem. It seems in Utah, you build houses and business first, then expand the roads when it's too crowded. There needs to be more urban development studies with inlets and outlets that are correctly planned. Now we have a giant shopping center being built in Riverton, with a lack of access and freeways getting to it. The 13400 south intersection is a nightmare and will only get worse as people move in and go to the shopping center. We need more thought put into access.; No; No; No; No; It would be best to separate Horses and Mountain bikes; Cell coverage is still pretty good in the area and the fire stations are close, common sense and the usual personal safety measures should be fine; Surveillance will definitely need to be considered; I'm very interested to see all of the trails connect. The recent development in the Juniper crest area has chopped big portions of access. I'd love to be able to go all the way across the hills to Yellow Fork Canyon without setting a foot on the pavement.; anything that increases vehicle traffic in this area I am extremely opposed to; Keep it simple. I don't want taxes to increase at all; No; No; Increased crime; Increased traffic on our steep street; No; no; Motorized vehicles, guns, wildlife; You need direction specific trails to minimize user conflict; I'm strongly opposed to developments that would increase fire danger in the area, such as OHV trails. I like shooting, but I don't think it's the right place for a gun range, either.; Stop building in the hills; No; Predatory actions by morons; Paving trails will destroy what makes this area great. I hike these areas to connect with nature please do not take that

away; No; No; No; Wildlife (threats to humans from wildlife), less-savory characters that have become prevalent with the high-density housing the city has embraced and loves.; Yes, diversity. Stop with all the hiking trails.; No; Make sure there is enough parking; No; Steep roads in winter; No; No; Fire; No, Taxation is theft, but that's a different issue; Increased traffic and people that don't live in the community. Too many people in the hills that don't respect the area and will trash it. Leave the hills as is.; I live by the reservoir and traffic is already increasing due to high density housing going in and the reservoir during the summer. Would need that taken into consideration before any projects; Traffic; Well placed signage for any trail access limitations and one way trails (bikes); No gun range please; It already attracts a lot non residents and requires steady police presence in the roads during weekends and nights.; Yes, I worry about the traffic on the streets. I worry about theft occurring to vehicles left at trailheads and theft occurring from the increased traffic on our streets.; none; none; Traffic in the neighborhood, overnight campers; Directional bike trails are great for safety; No; More traffic; No; Area needs security or some type of police. Maybe off-duty officers for extra pay. SAFETY FIRST; trash being dumped, teens congregating and smoking and setting accidental fires; Night time noise; Yes. More traffic. Absolutely no gun range. More people means more hazards and crime.; Traffic near my home; Folks drive way too fast on Ambermont dr and juniper crest rd. They drag race on juniper crest. It's ridiculous.; No; Add a cell tower with access for all major carriers nearby to allow for calls in the event of an accident or emergency; Too much traffic through residential and school areas; No; We don't need anymore traffic up here, leave them alone!; car security; No; more traffic more danger to neighborhood children; Don't build homes and keep as is; Traffic through neighborhoods. If possible, look to build small access roads that take off from already main roads, trying to bypass direct access through neighborhoods as much as possible.; No; Fire; Local traffic in the Herriman area. Our local roads are already congested with traffic. Adding more in the neighborhoods could be hazardous; I love this idea!!!; No; no; Yes, it's too close to the military base where they practice; More traffic in resident areas; Stop building leave it natural; Over building, ruining the serenity of the area; Would be good if the streets were at least improved enough to handle the normal traffic first.... maybe even pavement before adding traffic for this.; Landslide/mud slide mitigation, earthquake-durable; No; No shooting range. Is it safe for pets to be in this area?; No. The risks are inherent; No; No; Enforcing rules/laws. Access for emergency vehicles. There must be a curfew & lockable gates like at Blackridge Reservoir.; Low impact; We already have a high theft/crime rate going on. Concerned about traffic increasing as well as the crime. Also, raising tax increases.; Traffic and parking; No; Please no range; crime; Traffic; No; ATV's on the hiking and biking trails they go way too fast and will run someone over.; Increase traffic. And maintaining the space. Catching violators; Yes. The hills are my backyard and we already have people walking through our properties to hike the mountain. I believe that is a safety issue.; Keep it natural. The hillside is open to the city views...things like zip lines should be nestled away in canyons.; Don't want people sleeping/living up in the area; No; no; No; No; No; Fire danger; No; Traffic/parking; No; yes it should be left natural that is the attraction; Yes!; No; I just really don't want to a gun range; no; Sandy recently implemented "milepost signs" (<http://www.good4utah.com/news/local-news/trail-markers-to-speed-up-finding-distressed-hikers/802969973>) so this would be a good safety addition in the design/implementation phase.; I'd rather not have horses because I don't like what they do to Yellow Fork Canyon, or at least have only a few horse trails; Yes, please no shooting ranges (noise/safety), and no ATV's (same reasons); No; I don't want to see the natural beauty of the area fall to over development; No gun ranges!; Yes; No; Increase in crime. Traffic right by my house. I live right by graffiti rock. The trail head being abused. Not cleaned up. I don't want to constantly look at filth.; No; No; No; No; Na; No; No; If there is allowed camping then no campfires or open flames should be allowed; No. But leave it as it is. Herriman is becoming too crowded.; I would like people to pick up their dog poop.; More potential for crime in the neighborhoods people travel through to get to the hills; No; no; No; No; no; Yes. FIRE; No; No; There's too many people. crime has gone up. Drugs are in our city. I miss old Herriman.; No;

Heavy traffic; Stupid people do stupid things there is no safety items that will prevent that; No; Increased traffic on local roads; No; No; I want this area to be left alone; I worry that as a Herriman resident my taxes will go up to provide recreation for the rest of the State, and then they go to spend their money at Riverton's new mall. It makes me mad.; No more houses, especially hdh. The city hall is a joke btw, an expensive overkill for this small town. It's not likely you will make any good decisions on this either.; No; Yes. Increased motor vehicles in the hills.; No, build a shooting range; Possibility of increased crime/theft in the area due to increased traffic; Yes. This could lead to others coming that don't respect the area or the property of those that live here.; Traffics monitoring to keep speeds down in neighborhoods that link to trail network; Emergency services. Wildfire potential.; They would need to be maintained; Traffic; Do not put in ATV trails or a shooting range; No; Camp Williams and fires; Fire, traffic congestion; Yes. Same as Blackridge reservoir ; I do not want to see motorized OHV allowed on the Hill. I would like to see it left more quiet & natural.; The more people that go up into the hills the more chances fire can be started; No; Yes. Fire. You open this up and more and all of our homes are going to burn down the next time some idiot rides a four wheeler or flicks a cigarette.; No; Bike traffic, especially downhill, can be a danger to hikers and equestrians.; Fire buffer zone; I would like to avoid allowing activities that have noise impact on neighbors: Disallow ATV's, Firearms, Drones; No; Build the access so traffic isn't a nightmare; Just don't develop it to much. Don't ruin a perfectly foo mountain with dog parks, amphitheater, and event areas. It is not needed at all.; erosion from heavy rains could cause mud slides during construction; have a pump track and lots of MTB trails. And a mtn. bike skills course.; Too much building over trails.

Q16 Comments: What other suggestions or improvements would you like to see in the Herriman Hills Area?

I would like to see partnerships with Private Sector Companies such as Real to partially fund this project. I would also like to see if Jordan Valley Water Conservancy District would contribute to the improvements in the area. If there were stations at which you could rent bikes to use on the paved trails such as the shared bikes in Salt Lake City you could fund maintenance of the trail with minimal fees to the citizens.; Someone operating Blackridge Reservoir and possibly a fee for everyone using it.; Draper has done a terrific job in Corner Canyon. We have the same opportunity here.; These are good ideas- a trail system that connects more areas should be considered - a trail system to Yellow fork that gets people off the roads (horses runners bikers etc); Please leave it alone and in its natural state; N/A; no structures; Tubing hills , Hang gliding, overnight camping, motocross and ATV/UTV; No improvements are needed; Plant native trees that will survive with little involvement and that will beautify the area, making a greater desire to be there.; It would be nice to have something that can generate revenue for the city; Snake control; I would love to see thicker/greener foliage like pine trees; Still just a Dog Park; OFF LEASH WALKING TRAIL; At this point try to not affect peoples homes who have already built. Limit the area to stay a good distance from existing homes. Going forward people can decide if they want to build by the trails etc.; More mountain bike trails; Keep it natural, don't develop it! We all bought our houses up here to be out of the way and a little secluded. Please don't devalue my property anymore than it already is. There is SO much HDH going in here in Herriman that I may never be able to sell my home!; Leave it be or I liked the idea of golf course because they are nice and bring in revenue; Single track motorcycle trails; NO HOUSES!!!!!!; Would love maintenance of trails to preserve them like draper does!; Trees, that would be great up there!; MORE DOG (and off leash) FRIENDLY PLACES!!; We mountain bike and hike regularly at Corner Canyon in Draper. We would love to see something similar to that here in Herriman.; Wildlife reserve area; Something similar to the Jordan River Parkway; Gun Range!; Low cost/ low tax; A large Family park; minimal development. We have an opportunity to preserve a natural and wild place on the doorstep of our town. Let's not miss out on the opportunities it provides for our current residents as well as those that will live in Herriman long after we're gone.; Limited Access or charge admission to attract people that will respect it. Black Ridge reservoir is a mess because it's free. Free promotes abuse!; Shooting range; Downhill only flow tracks for mountain biking; Golf course; dedicated overnight campgrounds; I love what Draper City has done in regards to trails and think we could make Herriman a destination to mount bikers and a great benefit to the local community. ; Keep it as it is.; Nothing just dirt bike single track, with easy medium hard and extreme difficulty levels please.; Multi use Trails similar to black ridge trails, corner canyon; I support a small increase in park fees, but not large; Look at corner canyon. Copy it.; The biggest user conflicts come from bikers going too fast downhill. If you build specific use trails for downhill bikes it will help reduce conflicts.; Family friendly; green space preserved with all the building going on; All ability trails for wheelchairs; Off-road motorcycle park. Like trials riding/ single track loops; ATV trails; Ambassador program for Herriman Trails, much like Park City does with the Mountain Trails Foundation.; N/a; Keep it simple. Keep in natural.; flow mountain bike trails would be amazing!; Mountain bike loop trails, need at least 10 miles in connected trails with loops, single track is preferred. Directional trails with options for downhill only for bikers. Restrictions on horse use for specific trails. Snow biking options with winter grooming on selected trails.; Better planning when it comes to roads. If an area is planned, access is important. Unfortunately most of the time, homes and business's are built first, then expand the roads. This causes traffic issues and is a large inconvenience. Bangerter Highway never should have been built with stop lights. It should have been a freeway to begin with.

We also need a proper east to west freeway on the south end of the valley. Ideally around the 104th south area. It can take up to 45 minutes to travel 5 miles due to the poor city planning and stop lights during rush hour. We need better urban development.; No; Connect in to Yellow Fork via BST; None at this time; Gun range; I think a native plant garden with labels would be a nice addition to one of the parks; Awesome! We need more trails in the area. I live in draper and many Herriman residents come and use our trails and I look forward to coming over and using Herriman trails.; No more housing or "reservoirs"; Maps, vault toilet; It would be really nice if there were designated parking areas/driving road to access the trails. This could really make Herriman a value to the community as a whole.; a golf course at the zone where MTV Corridor and Juniper Crest meet; Archery range or rifle range; ATV Trails; Mountain Bike Trails; An interlocking trail system that won't be destroyed for construction; Maps; I'd like it to stay as natural as possible; Draper City trail system is a great example of what Herriman should look like. They have a great mix of multi use trails and downhill mountain bike trails.; Parking; I like the idea of the medium or large scale amenities so that we can draw people into our city. While I am not opposed to an increase in park fees to facilitate the improvements needed, I would hope that the increased tax base would allow us to decrease the park fee over time as the commercial taxes we collect could be used to replace that money.; I've seen a lot of ideas about what could be done in the area. The only ones I am completely opposed to are OHV trails and a gun range. From the online discussion I've seen, most of the strongest proponents for an OHV park don't live in Herriman anyway, so they aren't concerned about the impact it would have on property values or the fact that the cost of developing and maintaining such a facility would fall disproportionately on the city of Herriman and its residents. If people want an OHV park in Salt Lake County, then maybe they should take it up with the county and see if some open land can't be found that abuts an industrial area where it won't negatively impact neighborhoods and residential properties.; Trees; Please stop doing things over there. The more that gets put in the harder it will be for residents to access the area as it will be over run by those who do not live in the city.; Shooting sports. ATV park.; Trail improvement near and just above the graffiti rock on 6600 west. The current grade is steep and very slippery.; Keep it nice without increasing taxes too much. Rely on volunteers.; Thank you for considering this!!! I am super excited!; Gun range; Gun range, won't use it but horse trails or ATV.; Don't spend any money on it; Mostly just mountain bike trails; Add water stations; Gun range; Better trail system similar to what is offered in Corner Canyon in Draper. Connected trails and loops.; Will it be patrolled by law enforcement? It should.; Alpine slide, Oktoberfest facilities, Bring more revenue in with what you make of the area so stuff like this doesn't hit the tax payers. ; unbiased access, your survey has been very selective to not advocate OHV access.; Public Gun range; Much lower speed limits to ANY of the access points, along with more law enforcement; None; Leave the area with limited impact; shooting range; For trails, a status page with conditions and closures. Well designed markers establishing trails as public / private / closed; Limiting noise and disturbance of the natural geography. Keeping Herriman's "small town" feel is very important.; Get the local high school mountain bike team involved. We have built dozens of trails in the last few years. And we maintain them.; UTV and Dirt Bike trails; Please don't do any development! I would hate to see a hillside cluttered with zip lines, roadways, drones, etc.; Remove graffiti rock; none; NA; None, you got some good ideas, make it happen!!; Limited home development; I really don't know why we can't just leave it as is; Keep it as natural as possible. LIMIT multi-housing units. It is unethical to overbuild an area we all moved to for its "natural amenities"; I like parks; Look to Draper city and park city for examples. They have both built fantastic trail systems.; That's it. NOTHING commercial. Recreational only; Leave it alone. It's fine how it is.; Just running and biking trails; Wheelchair accessibility; Adequate parking to support events and patrons; More trees. Less dense housing.; Absolutely NO to shooting range or ATV trails!! We live right next to the hills and do not want that noise, danger, or more traffic! Please leave the hills be! Thanks; I love to see that these ideas are being discussed! Our family loves to recreate outside on the weekends! Whether it's hiking, mountain

biking, boating in the summers or riding motorcycles and ATV's. We do it all as a family. We spend our weekends recreating in other parts of the valley. We'd love to be able to stay in our own little corner of the valley to do these things! It would be such a wonderful asset to our area.; More trails the better; lots of access points so all the travel isn't in 1 or 2 places; trails that go for a long way so you can travel for a good distance; off leash dog trail like Tanner Park; Na; If considering trails please consider directional trails for mountain bikes. It will help with safety; Focus on connecting the new neighborhood to MVC and getting business in Herriman.; A Santa's Village would be great; Finding something self sustaining not going to increase taxes; Love this!!!; trails but limited other things keep it natural. also using volunteers to maintain trails.; Picnic areas; Fire block of some sort; Gun range; Marked multi-use trails so everybody isn't just making up their own. Some maintenance. Erosion engineering. Keeping as much as natural as possible.; Golf course, Like Cedar Hills golf course. Keep the integrity of the mountain. Separate parking lot so no one is parking in neighborhoods.; Youth groups could help with hiking/mountain bike trail maintenance for service opportunities; No; More trails, and connect to rose canyon trail system; ATV / UTV trails; 4x4; Nothing leave it alone; More mountain biking trails; I would love to keep it as is. Natural trails for hiking/biking/equestrian trails.; An area that will increase tourism for Herriman and make people say "I want to live there because of the amazing recreation areas.;" Additional reservoir(S); I would love to see a trail system that rivals Drapers trail system in Corner Canyon. If possible I would love to see another reservoir similar to Black Ridge.; See other comments above regarding gun range or OHV trails; Gun Range, OHV Park; Decent parking by trailheads; Make the bike trails big enough to bring in the High School Mountain Bike race. This would bring in a lot of people to the area that would help with the tax base. There are grants available to build trails. We could be the next corner canyon!; More parks; Leave it natural. We don't have to build on every free space in this valley.; Keep the trails natural as possible. Directional or activity specific trails help avoid trail issues.; We need an outdoor shooting range; Camping; Negative impacts for local residents (me): Fire danger, noise, erosion, watershed damage, flooding, increased traffic, decreased property value due to aforementioned; Connect to yellow fork trails; Leaving a large OPEN space for family gatherings. Something Herriman currently does not have (small pavilions in poorly kept parks don't count).; DOG PARK! DOG PARK! And easily accessed trail heads; none; No access through neighborhoods!!! This cannot be stressed enough.; Don't have any; Connection to Yellow Fork Canyon would be amazing; Just please, please keep it small and natural, but a campground for HERRIMAN residents only would be great!; Leaving some are 'as is' could also be an option; ATV Trails; More trees; Shooting areas; Trees planted along trails?; Better access. Driving through these small neighborhoods to get there isn't great for anyone.; Leave it alone or only do minimal like hike trails; Even more mountain bike trails; I think it's great the way it is. Maybe some more trails; Don't regulate the hell out of it; Plan for and keep open space and trails. We need to keep our connection to nature; Na; Hurry; I would like to see the land between Juniper Crest and Yellow Fork used to connect the two areas via mountain bike trails or multi use singletrack. Similar to a Corner Canyon style system, that land would be perfect for it.; More singletrack "bikes only" trails, particularly "downhill bikes only" trails where bikers can go faster without worrying about scaring a hiker, horseman or uphill rider. Also, a singletrack connection from the rose crest trails to the yellowfork trails would be great allowing for longer distance rides.; Geologic information about the formation of the Herriman Hills; None; Leave it as it is; A gun range; Gun range; Don't build anymore homes up on the mountain. Don't build anything. Make a few trails for those of us that hike, horses. Bike.; I just done with so many houses. Let's stop building & make fun things to do. People are doing all this any ways so why not improve it & make better use for everyone.; Some UTV trails would be great; none; less is more; None; More natural trails that are hikeable and tunable. A Trail system to the top (flag rock) and some trails above (before getting to the camp Williams property). For hikers some benches. Trail maps, markers, regular maintenance and improvements.; No more building; Outdoor pool; Keep it to small outside activities. No ATV access and no huge developments. Keep it

simple; Leave it natural and quit spending money on stupid stuff; Maybe charging a fee for non Herriman residents; Noise from a gun range and ATV's would be a big concern; Shooting/archery range; Limit development to low impact use. No medium or large scale developments.; How about an observatory (like Griffith observatory in LA)?; OHV access and Gun Range; I would like it all to be left alone; none; Weed control along trail and animal waste clean up weekly; Gun range; We used to hunt there, that's likely going, going, gone.; None. If people are too lazy to use now that's their fault. I don't want my taxes increased to pay for amenities that won't get used. We have 2 amphitheater's in the area already. There is st enough snow to do winter activities.; Not much because we will have to pay for it as taxpayers; Campground; Rather than raise our taxes, there should be fees for those that are not from Herriman/Riverton. This will also help manage the traffic.; At one point I heard about a tubing hill. That still a possibility?; Landscaping and vegetation (more trees); No more houses!; Gun Range and UTV trails; No more horse trails, open up the areas for people to go ride dirt bikes; One; Protect the land and keep it natural; I'd like it to remain the same. Untouched!; ATV trails; Lots of trees along the trails; Do not allow anymore development; More equestrian access; Please leave them alone; Trails is my priority. Keep it natural, like corner canyon; None. Leave it as is. Open and undeveloped.; Or leave it just open no development ; Dog park; Possible planting of trees; Paved walkway for the disabled; Skills bike park for kids & adults; A couple of mountain bike trails. Make it like eagle mountain and Corner Canyon. Those places are great and aren't over the top with man made things.; shooting range, Pro drone filming regulation and rules; I am on the Herriman High mountain biking team and we would like to see a pump track 5 mile track for races so Herriman could host mountain biking races witch will bring a lot of people in to Herriman/ will bring in money I would also like to see hiking trails also. but no motor vehicles they would ruin the land and are loud and for someone who lives by the hills/ I do not want that by my house/ parking is also an issue we should learn from the????/we want lots of parking.

WELCOME

HERRIMAN HILLS OPEN SPACE MASTER PLAN



The purpose and need



Create a Master Plan

- Form a trails blueprint and organize sources of funding for future growth and protection of planned trail routes.

Establish a Core Network

- Link city and regional trails to Herriman Hills Open Space.
- Establish trailhead and access point locations.
- Connect back county trails to urban network at coordinated trailheads.

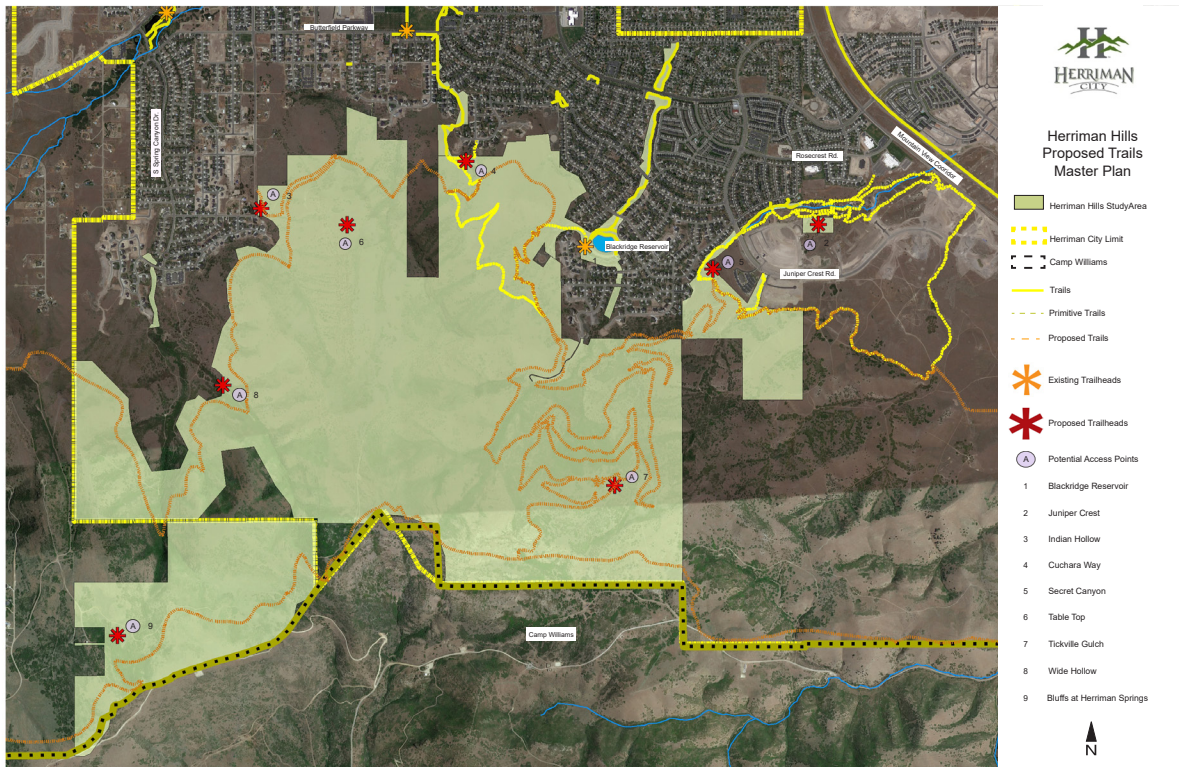
Identify Potential Amenities

- Identify viable amenity options.
- Determine desirable amenities and development scale for area.

How you can help!



1. **Sign-in** to help us keep you informed of upcoming activities and plan updates.
2. **Study and review** the trail map, trailhead locations, and potential amenities to familiarize yourself with existing and proposed elements and key locations/destinations.
3. **Consider trail routes** that could be improved or developed to connect existing trails or provide recreational or transportation opportunities.
4. **Ask questions** to help you understand planning concerns and to learn what other stakeholders and trail users are saying about the study.
5. **Provide valuable feedback** that will help the study team develop a master plan best suited for trail users, land owners, cities, and the protection of the natural environment.



Herriman Hills Open Space



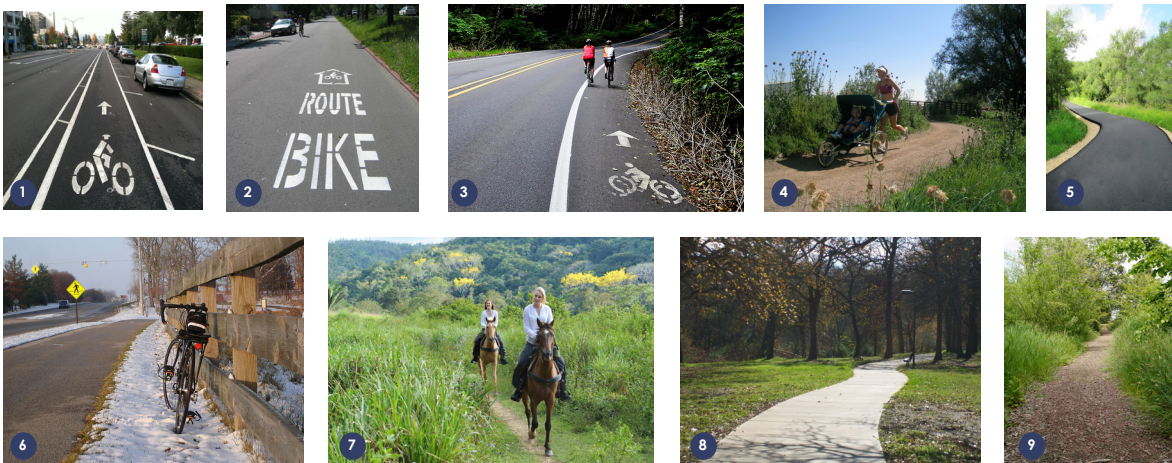
Trail Classification System

Trail Attributes	Bike Routes	Paved Multi-Use Trail	Soft Surface Multi-Use Trail	Equestrian Trail	Improved Pedestrian Trail	Backcountry Trail
Description	Bike routes include a variety of cyclist based infrastructure. On these routes, extra emphasis is made on bike travel, increased awareness signs, roadway striping, fewer traffic signals, and lower speed limits are common features. Bike routes include but are not limited to bike lanes, sharrows, or separated cycle tracks.	Paved multi-use trails are major arterial trails that are independent of vehicular routes. They may bisect open space and parallel natural features such as rivers or streams. These trails are recreation and transportation oriented. These trails should provide connections to backcountry trailheads, points of interest, and other transportation nodes.	Soft surface multi-use trails are major arterial trails that are independent of vehicular routes. They may bisect open space and parallel natural features such as rivers or streams. These trails are recreation and transportation oriented. These trails should provide connections to backcountry trailheads, points of interest, and other transportation nodes. These trails differ from other multi-use trails in pavement material and width only.	Equestrian trails may bisect open space and parallel natural features such as rivers or streams. These trails are dedicated to equestrian use but may also be used by pedestrians. Equestrian trails may parallel or be bisected into multi-use trails where space permits. These equestrian specific trails are located in urban environments where other multi-use trails may not be suited for equestrian use.	Improved pedestrian trails are collector trails that connect users to arterial trails. They may bisect open space or residential developments and often parallel natural features such as rivers or streams. These trails are recreation- and travel-oriented for pedestrian users. Due to their size and location, these trails are not suited for bicycle travel. Includes urban and neighborhood sidewalks and walking paths through parks and public spaces.	Backcountry trail networks access or explore areas outside of the urban trail network. Backcountry trails may be connected by other backcountry trails or by a combination of other trails such as bike routes or multi-use trails. They are typically recreation oriented and are suited for pedestrians, bicyclists, and equestrian users. Includes single track bike trails, hiking trails, and equestrian routes.
Primary User Groups	Bicyclists	Pedestrians and Bicyclists	Pedestrians, Bicyclists, and Equestrian Users	Equestrian Users	Pedestrians	Pedestrians, Bicyclists, and Equestrians
Design Width	Dependent on Width of Travel Lane Shared	10-14' Tread Width 2' Minimum Shoulder	10-12' Tread Width 2' Minimum Shoulder	6' Minimum Clear Area 12-18" Tread	4-6'	2-4'
Design Surface	Asphalt or Concrete	Asphalt, Concrete	Compacted Roadbase, Crushed Rock with Fines	Crushed Rock with Fines or Natural/Existing Material	Asphalt or Concrete	Crushed Rock with Fines, Compacted Road Base, or Natural/Existing Materials

Herriman Hills Open Space



Trail Classification Reference Images

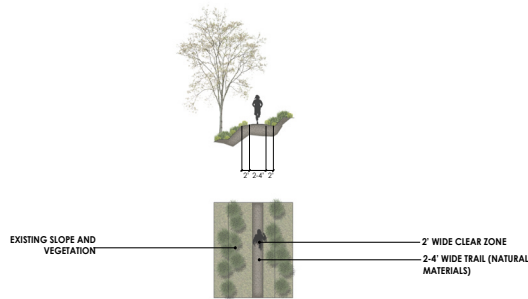


1-3 - Bike Routes
4-6 - Multi Use Trails
7 - Equestrian Trail

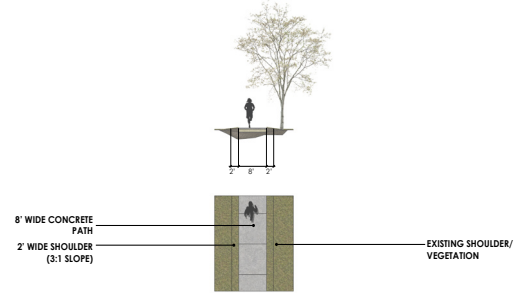
8 - Improved Pedestrian Trail

9 - Backcountry Trail

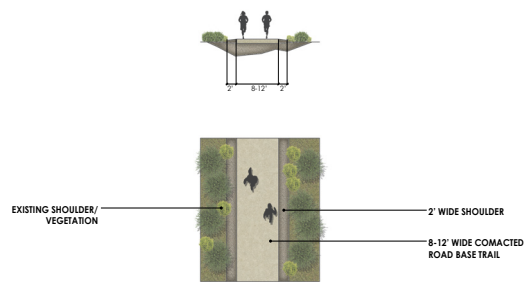
Herriman Hills Open Space



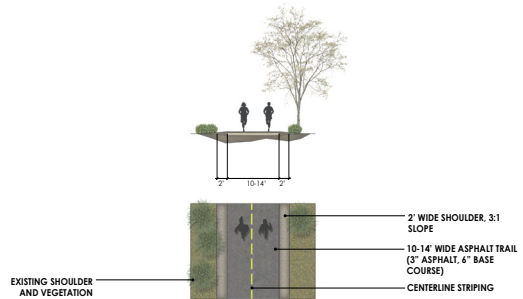
TYPICAL BACKCOUNTRY TRAIL CROSS SECTION
BACKCOUNTRY TRAIL ~ \$10/LINEAR FOOT



TYPICAL IMPROVED PEDESTRIAN TRAIL CROSS SECTION
IMPROVED PEDESTRIAN TRAIL ~ \$60-80/LINEAR FOOT



TYPICAL URBAN SOFT SURFACE TRAIL CROSS SECTION
URBAN SOFT SURFACE TRAIL ~ \$35/LINEAR FOOT



TYPICAL IMPROVED MULTI-USE TRAIL CROSS SECTION
IMPROVED MULTI-USE TRAIL ~ \$80-100/LINEAR FOOT

Herriman Hills Open Space



2 - Proposed Juniper Crest Trailhead



Proposed Juniper Crest Trailhead Amenities

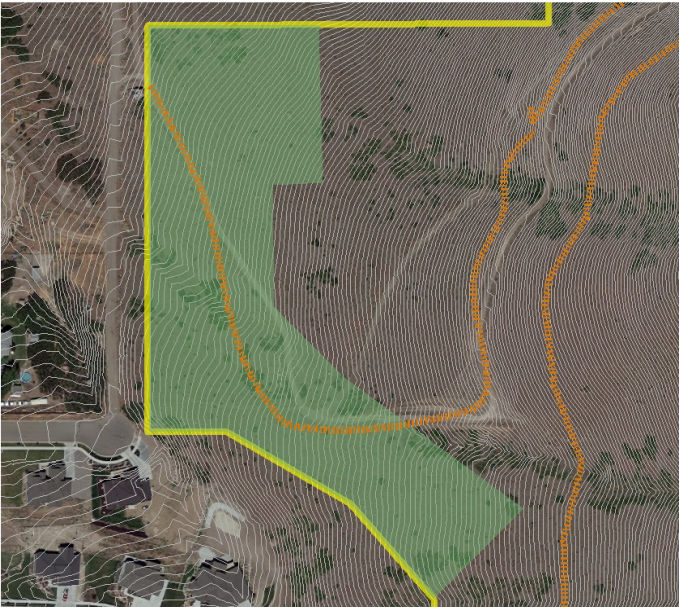
Restrooms
Parking
Outdoor Gym
Fit Trail
Pickleball

Pavilion
Picnic Tables
Dog Park
Playground







Herriman Hills Open Space



3 - Proposed Indian Hollow Trailhead



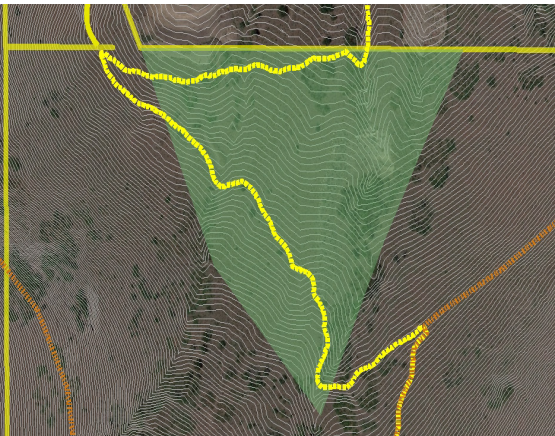
Potential Trailhead Amenities

 Dog Park	 Picnic Tables
 Challenge Staircase	 Red Neck Waterslide
 Fit Trail	 Amphitheater

Herriman Hills Open Space



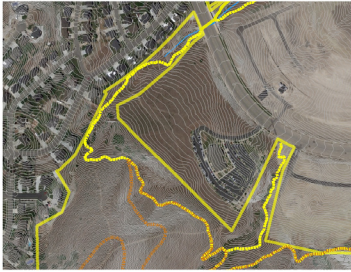
4 - Proposed Cuchara Way Trailhead



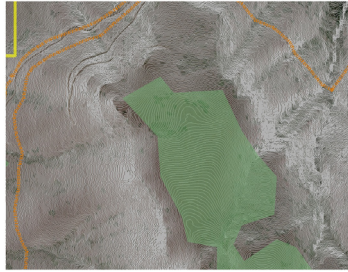
Proposed Cuchara Way Amenities

Restrooms Parking Fit Trail	Pavilion Picnic Tables Playground
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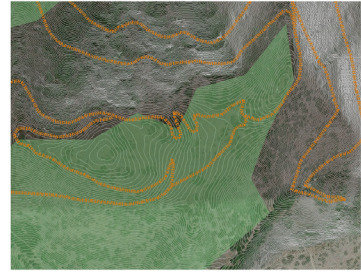
Herriman Hills Open Space



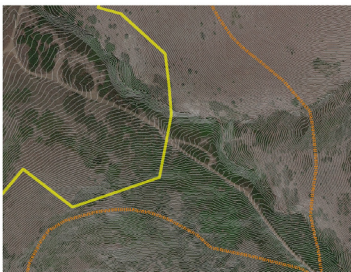
5 - Proposed Secret Canyon Trailhead



6 - Proposed Table Top Trailhead



7 - Proposed Tickville Gulch Trailhead



8 - Proposed Wide Hollow Trailhead



9 - Proposed Bluffs at Herriman Springs Trailhead



1 - Existing Blackridge Reservoir Trailhead

Herriman Hills Open Space Master Plan Appendix

Economic Impact Study

C



Economic Study Report

Herriman Hills Analysis

The purpose of this study is to address the following:

- Possible uses* – market trends and demand
- Initial costs of possible uses
- Perpetual maintenance costs
- Funding options

** Possible uses based on the community survey results*



Herriman Hills Analysis – Executive Summary

The economic summary presented herein highlights potential uses and their estimated costs for the Herriman Hills recreation area. The focus of the study is based on the results of the resident survey conducted by Project Engineering Consultants (PEC). Consequently, the proposed uses, and their associated costs, are not necessarily considered as “highest and best uses” from a revenue generating potential. They are, however, the uses highlighted as possible recreational opportunities that are desired by the survey responders.

Summary analysis on following pages will show the market demand for certain uses, including trail construction, trail events (races), mountain biking, pump tracks, archery and shooting ranges, camping, and possible corporate retreat activities. All of these uses are being met with solid market demand in Utah at present, and the Herriman Hills area presents an opportunity to satisfy some of the existing need. Estimated costs of construction for most proposed improvements are noted to be relatively limited, as the uses primarily involve utilizing natural, existing features. The majority of expenses involve trailhead construction, which includes parking lots, restroom facilities, and trail signage.

Economic benefits, while not a focus of this study, can be seen through some revenue generation from a few of the proposed uses. Overall, however, the likely utilization of the open space is not seen as a major income source, but rather a desirable amenity to further promote the quality of living in Herriman. Property values may see escalations due to the proximity of a major recreation area, but this will be dependent on the eventual uses, location, and timeline of improvement construction.

Z P F I

Herriman Hills | Herriman, Utah

This analysis first considers the feasibility of possible recreation uses. These uses are based on the results of the community survey performed by Project Engineering Consultants (PEC). As a result, while the uses may not represent the areas of greatest economic feasibility or overall market demand, they do reflect the desired needs of the local public. They include:

- Trail Running Events
- Mountain Bike Events
- Corporate Training
- Pump Track Courses
- Gun/Archery Range
- Campground Rentals



Z P F I

Herriman Hills | Herriman, Utah

Trail Running Events

Participation is greatest when:

- Multiple events
 - 5k, 10k, Family 1k
- Continuity
 - Most communities note a steady increase in interest following the third year of the same event
- Events are successful when they are well-branded, they focus on a local need or the community, they include a destination or a unique challenge, and they have an after-run gathering event



Is There Market Demand?

- Yes – Access to trails and trail events are consistently in the highest categories for residents regarding “community needs.”
- Having varying course lengths appeals to a wide-variety of users
- A recent sampling of community trail events in Utah County and Davis County showed age ranges from 2 to upwards of 80, with 88 percent indicating they looked forward to next year’s event



Mountain Bike Events

- There is limited appeal in comparison to trail running events, but interest is growing
- Mountain biking is typically a male-dominated sport, particularly in the age category of 14-35 years
- The physical impact is notably more on the trails than hiking/running options
- Year-round use of mountain biking trails has become more popular in the past several years



Is There Market Demand for Mountain Bike Events?

- Yes, from high-school aged participants. This user base is growing with the increase of school clubs
- The demand for trails is notable from non-event users, while interest in events is less pronounced outside of the high school clubs – other venues within the state are popular and better suited for events (Snowbasin, Snowbird, Park City, Corner Canyon)



Corporate Training

- There is strong growth for corporate training uses, particularly amongst technology tenants

Is There Market Demand?

- Yes, but unless the amenities are notable, options are significant along the Wasatch Front
- Companies want access to food options, something “unique,” and an ability to gather in an amphitheater or meeting space environment





Herriman Hills | Herriman, Utah

Pump Track Courses

- Numerous communities in Utah are putting in pump track courses
- They have become a destination spot for bikers
- Maintenance for pump trails is slightly more complex than typical trails
- Shared uses are not likely, considering the specific layout of pump tracks

Is There Market Demand for Pump Tracks?

- Yes, particularly from high school teams. Pump tracks have a limited ability to generate revenue, but they have become more and more requested of cities from residents throughout Utah



Herriman Hills | Herriman, Utah

Gun/Archery Ranges

- Gun and archery ranges are widely popular and gaining in use along the Wasatch Front
- They can require as little as two acres, with some utilizing more than 20 acres
- They can be combined with paint-ball courses and other uses to create multi-use facilities
- Ranges require a large buffer area, but typically have limited, built amenities
- Indoor ranges have increased significantly in recent years throughout Utah, and demand is noted to be high for outdoor ranges that provide experiences that the indoor ranges do not





Campgrounds

- Campgrounds at Herriman Hills would be usable nearly year-round
- Many communities use online reservation systems for campgrounds. These systems have limited costs, and are easy to implement
- According to other communities, trash and noise complaints are largest concerns for maintaining and operating campgrounds
- At improved campgrounds, water is typically brought to a single point, with pit toilets often provided
- Initial costs for a campground facility are limited to grading, firepits, tables, and appropriate signage



Initial Costs of Possible Uses

Potential costs of construction of the previously highlighted options are now discussed. These costs are taken from recent projects throughout Utah. They are noted to be flexible, and are highly contingent upon existing infrastructure, slopes, soil conditions, vegetation, etc.



Most likely **average** cost for Herriman Hills = \$4.00 per linear foot – natural surfaces

New Trail Construction – Hiking/Trail Running

- New construction on **flat to slightly sloped hills**, with limited water navigation, limited scrub oak or mature vegetation = \$8,500 to \$12,500 per mile, or near **\$1.60 to \$2.40 per linear foot**
- New construction on **moderately sloped hills**, with some mature vegetation - \$18,500 to \$25,000 per mile, or near **\$3.50 to \$4.75 per linear foot**

Costs are heavily influenced by vegetation, slope, soil types, and erosion factors.



Initial Costs of Possible Uses

Herriman Hills | Herriman, Utah

Total Planned Trail Length

Proposed new trail network inside Herriman Hills – 224,532 lineal feet, or, 42.5 miles

Cost – Roughly \$900,000, not including trailheads, water crossings, or sensitive environmental areas. Roughly \$4.00 per linear foot, and \$21,130 per mile

Mountain Bike Flow Trails - \$4.50 to \$5.00 per linear foot

Mountain Bike Pump Track - \$5.00 to \$6.00 per linear foot

Pump tracks can range from 600 to 5,000 linear feet



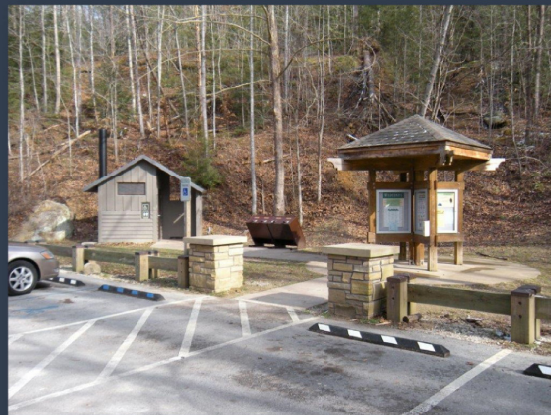
Initial Costs of Possible Uses

Herriman Hills | Herriman, Utah

Trailhead Costs

Trailhead costs typically consist of the following:

- Restroom facilities – cost is heavily dependent upon proximity to water and sewer lines
- Parking – significant cost differences between gravel and paved lots
- Signage





Initial Costs of Possible Uses

Trailhead Costs

- If sewer and water lines are in near proximity, most communities anticipate restroom costs near \$40,000
- Parking, including circulation (large turnaround areas are needed for equestrian-oriented trails) ranges from near \$10,000 to \$15,000 per stall, dependent upon grading and existing vegetation
- Signage is typically less than \$5,000 per trailhead

Standard Trailhead Cost – \$300,000

- Restrooms, 20 parking stalls, and standard signage



Herriman Hills | Herriman, Utah



Initial Costs of Possible Uses

Trail Race Event Costs

- Most cities indicate that profits from trail races are limited until roughly the third year, and are heavily influenced by the following:
 - Availability of local sponsors to offset production costs
 - The number of roads/trails along the route that require police assistance
 - Quality of participation awards and race concessions
 - Need for additional restroom facilities

Herriman Hills Race Analysis –

Revenues should initially cover costs, with likely profits coming within three years. Profits will be minimal unless participation is significant and/or notable sponsorships are secured



Herriman Hills | Herriman, Utah



Initial Costs of Possible Uses



Estimated costs for Herriman Hills for a gun/archery range - \$550,000 – Includes parking, restrooms, site clearance, equipment and range improvements

Gun/Archery Range Costs

- There is a large variance in possible amenities and costs – most notable considerations include the following:
 - The acreage to be cleared and made relatively level
 - The amenities of a shooting pavilion/range (i.e., restrooms, electrical capacity)
 - The amount of supplied parking
 - The required buffer area (how much land needs to be acquired/set apart)
- Most community, open-air gun ranges are run at a nominal profit. Costs cover facility maintenance and upgrades, general upkeep, and ensuring safety measures.



Initial Costs of Possible Uses



Campground

- The variance in proposed costs is based on the level of amenities provided. These include:
 - Access to restroom facilities, potable water
 - Paved or gravel parking and roads
 - The amenity level of firepits, grass areas, picnic tables, etc.
- Additional costs may include an online reservation system, if deemed necessary

Estimated costs for Herriman Hills for a campground facility (assuming near ten, separate spaces) - \$80,000 – Includes gravel parking, pit restrooms, some site grading and vegetation removal, picnic equipment and firepit improvements. Does not include online reservation costs.



Perpetual Maintenance Costs

Herriman Hills | Herriman, Utah

The following table highlights potential maintenance costs for the noted, suggested improvements

Use	Initial Cost	Perpetual Maintenance Costs	Notes
Trails – Hiking and Trail Running	\$4.00 per linear foot	Less than \$600 per mile, annually, not including bridges – some of this cost is lessened in communities with volunteer groups	Trailheads, including restrooms, will require regular maintenance. Ongoing costs in other communities vary significantly for this, ranging from \$200 to \$1,500 per month per facility
Mountain Bike – Flow and Pump	\$4.50 - \$6.00 per linear foot	Typically require maintenance two to three times per year – often maintained by local bike groups. Costs are less than \$0.10 per linear foot unless significant erosion issues	Occasional storms will result in the need for erosion measures that require heavy equipment. Maintenance largely depends upon initial construction quality
Gun/Archery Range	Estimated at \$550,000, large variety of potential cost differences	Requires ongoing landscaping maintenance to keep ranges free of vegetation growth. Daily maintenance is necessary with shrapnel removal – these costs are typically covered by range fees	Maintenance fees largely depend upon usage and amenity features. Most ranges operate on minimal costs, and are often undertaken by volunteer and local community groups
Campground	Estimated at \$80,000 with gravel parking, picnic tables, and firepits for roughly ten dedicated sites	Cleaning and maintenance of firepits, picnic tables, and roadways. Costs vary significantly, but can be up to \$1,000 per year per campsite	Entities report that large groups and un-monitored sites can result in additional expenses. Partnerships with Land America result in offsetting liability and expenses, with limited profit. A larger area dedicated to camping would be required, however.



Funding Options

Herriman Hills | Herriman, Utah

Funding options are considered to address the potential costs of various improvements to Herriman Hills

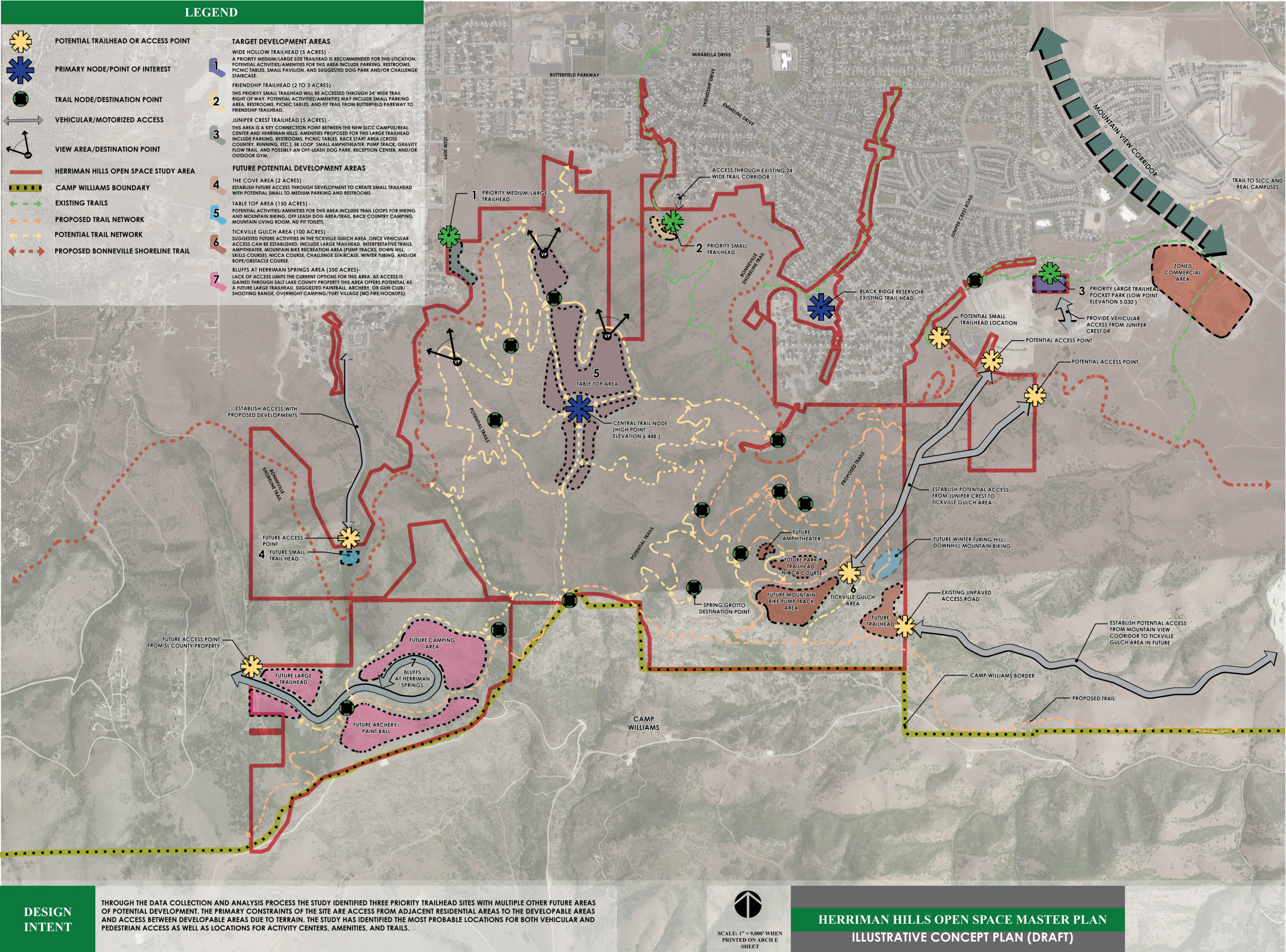
- Grants – numerous grants exist on both federal and state levels that focus on new trail construction. Most require a local match
- Park fees - Herriman has a monthly park fee per household. An increase to that fee could help support maintenance and show new projects, although a significant escalation is unlikely
- Sales tax revenue bonds – this funding source has been used in other communities for recreation and outdoor funding
- Establishing a recreation district



Herriman Hills Open Space Master Plan Appendix

D

Open Space Concept Plan





WIDE HOLLOW TRAILHEAD

CONCEPT PLAN (DRAFT)



DESIGN INTENT

THE FRIENDSHIP TRAILHEAD CAN ACCOMMODATE A SMALL TO MEDIUM SIZE TRAILHEAD. AMENITY RECOMMENDATIONS INCLUDE RESTROOMS, PICNIC AREAS, LANDSCAPE SCREENING, AND TRAIL MAPS. ADDITIONAL AMENITIES TO CONSIDER ARE A SMALL PARKING LOT (NOT TO EXCEED 12 STALLS) AND/OR FIT TRAIL TO BUTTERFIELD PARKWAY.



SCALE: 1" = 60'

FRIENDSHIP TRAILHEAD

CONCEPT PLAN (DRAFT)



DESIGN INTENT

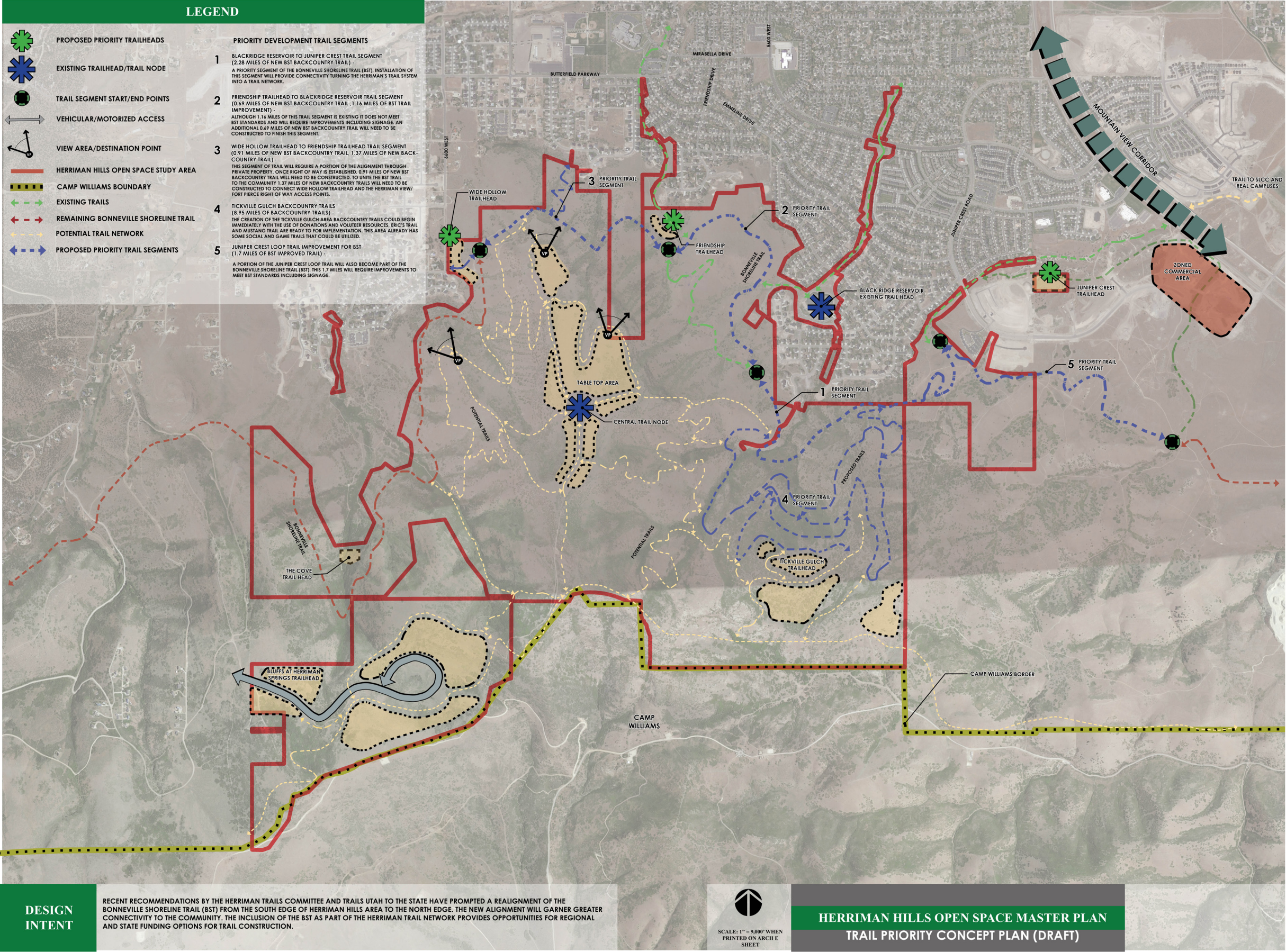
THE JUNIPER CREST TRAILHEAD CAN ACCOMMODATE A LARGE SIZE TRAILHEAD. AMENITY RECOMMENDATIONS INCLUDE PARKING (130 TO 150 STALLS), RESTROOMS, PAVILION, PICNIC AREAS, AND TRAIL MAPS. ADDITIONAL AMENITIES TO CONSIDER ARE AN RACE START AREA FOR 5k RACES, SMALL AMPHITHEATER, RECEPTION/EVENT CENTER, OFF LEASH DOG PARK, PUMP TRACK, GRAVITY FLOW TRAIL, AND/OR OUTDOOR GYM.



SCALE: 1" = 60'

JUNIPER CREST TRAILHEAD

CONCEPT PLAN (DRAFT)





TRAIL INTENT

IN ORDER TO CREATE A TRAIL NETWORK WITHIN HERRIMAN CONNECTIVITY IS CRUCIAL. BY JOINING THE JUNIPER CREST TRAIL WITH THE BLACKRIDGE RESERVOIR TRAIL A TRAIL NETWORK CAN BE ESTABLISHED. THIS 2.28 MILE NEW SECTION OF THE BONNEVILLE SHORELINE TRAIL WILL BENEFIT LOCAL AND REGIONAL VISITORS.



SCALE: 1" = 200'

BLACKRIDGE RESERVOIR TO JUNIPER CREST

TRAIL SEGMENT (DRAFT)



TRAIL INTENT

ALTHOUGH 1.16 MILES OF THIS TRAIL SEGMENT IS EXISTING THAT PORTION OF THE TRAIL WILL NEED TO BE IMPROVED TO MEET BONNEVILLE SHORELINE TRAIL STANDARDS. A 0.69 MILE LONG NEW SEGMENT OF TRAIL WILL NEED TO BE CONSTRUCTED TO LINK THE FRIENDSHIP AND BLACKRIDGE TRAILHEADS.

SCALE: 1" = 200'

FRIENDSHIP TRAILHEAD TO BLACKRIDGE RESERVOIR

TRAIL SEGMENT (DRAFT)



TRAIL INTENT

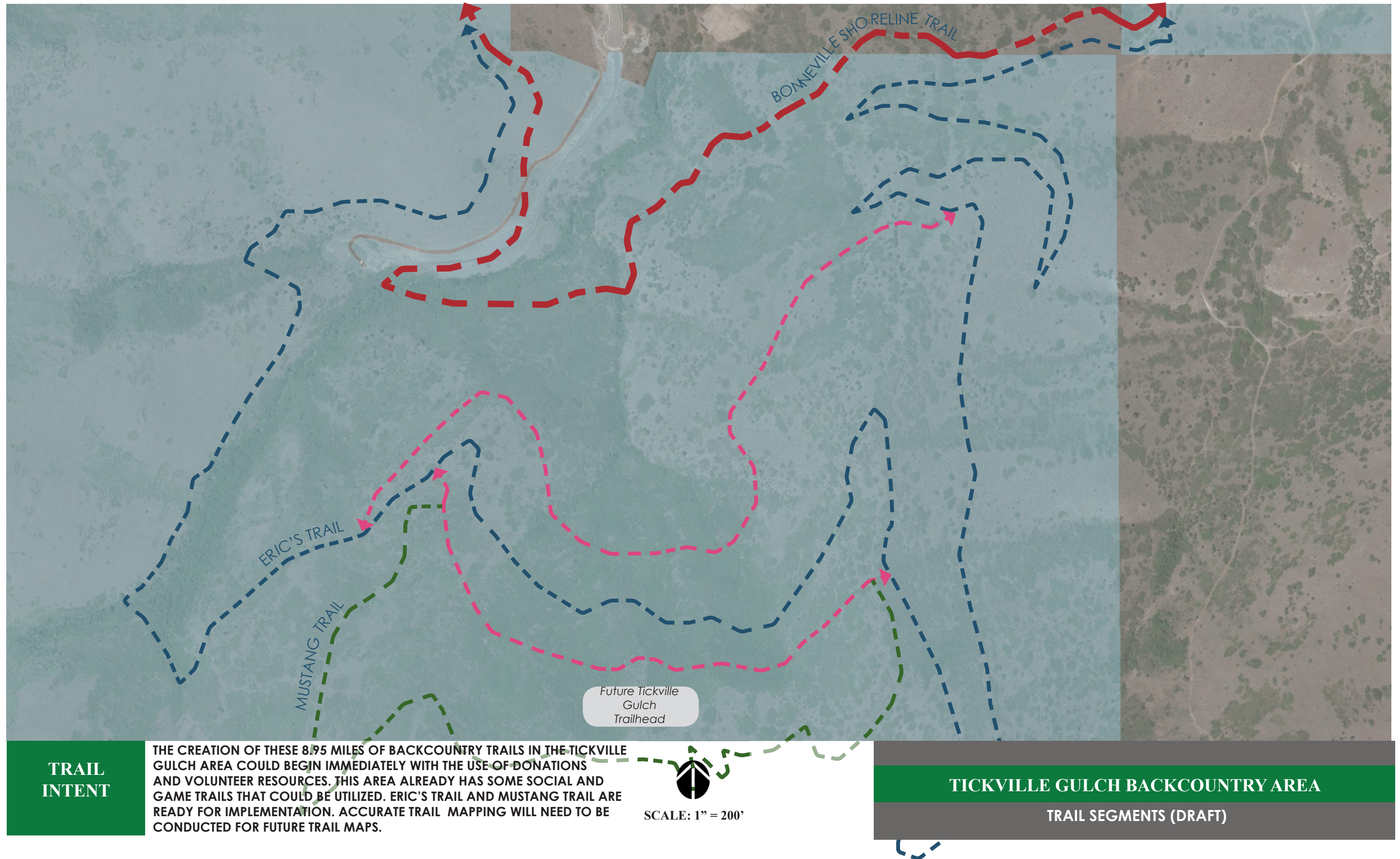
THIS SEGMENT OF THE BONNEVILLE SHORELINE TRAIL WILL REQUIRE A PORTION OF THE ALIGNMENT THROUGH PRIVATE PROPERTY. EITHER LAND ACQUISITION OR RIGHT OF WAY NEEDS TO BE ESTABLISHED PRIOR TO IMPLEMENTATION. THE 0.91 MILES OF NEW BST BACKCOUNTRY TRAIL AND 1.36 MILES OF NEW BACKCOUNTRY TRAIL WILL PROVIDE CONNECTION TO THE TRAIL NETWORK FOR WEST HERRIMAN RESIDENTS.

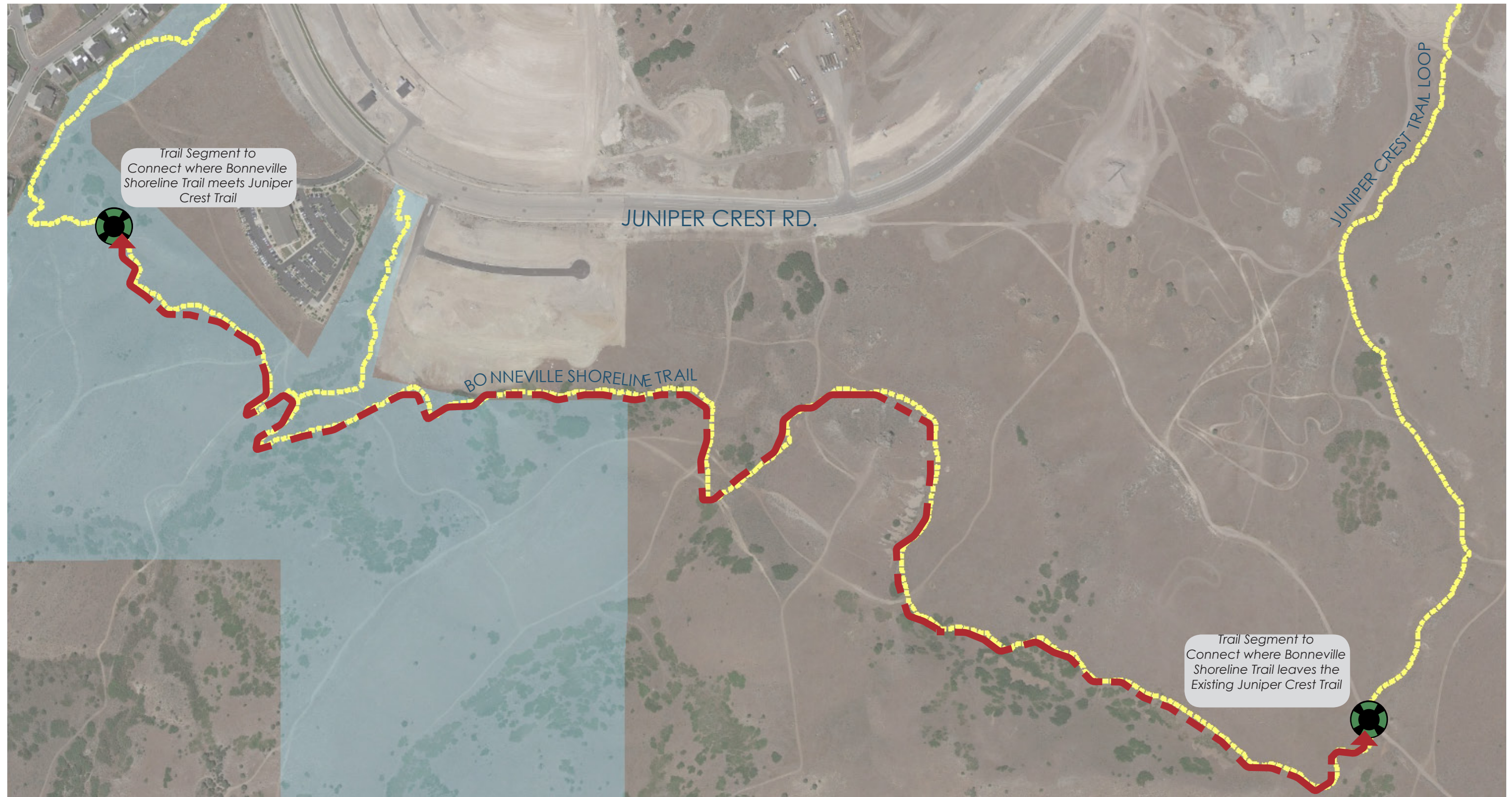


SCALE: 1" = 200'

WIDE HOLLOW TRAILHEAD TO FRIENDSHIP TRAILHEAD

TRAIL SEGMENT (DRAFT)





TRAIL INTENT

A PORTION OF THE JUNIPER CREST TRAIL LOOP WILL BECOME PART OF THE BONNEVILLE SHORELINE TRAIL. THE EXISTING TRAIL WILL NEED TO BE IMPROVED TO MEET BST STANDARDS INCLUDING SIGNAGE. THIS 1.7 MILE SEGMENT ONCE FINISHED WILL BRING THE HERRIMAN BST TOTAL LENGTH TO 6.75 MILES. IN ORDER TO COMPLETE THE TRAIL THROUGH HERRIMAN ANOTHER 9.25 MILES OF TRAIL WILL NEED TO BE CONSTRUCTED.



SCALE: 1" = 200'

JUNIPER CREST TRAIL IMPROVEMENT

TRAIL SEGMENT (DRAFT)