



SALT LAKE CITY FOOTHILLS TRAIL SYSTEM PLAN

*A Vision for Sustainable Recreation
in the Foothills Natural Area*





ACKNOWLEDGMENTS

Salt Lake City Parks & Public Lands would like to thank the partners and residents who helped shape this plan. Special thanks to *Trails Utah* for their advocacy, encouragement, and assistance with trails improvements in Salt Lake City. Additionally, special thanks and acknowledgment to the *Bonneville Shoreline Trail Committee* and their many partners for their efforts to complete the Bonneville Shoreline Trail's Salt Lake City sections.

Prepared for:



Prepared by:



Support From:





A man and a woman are hiking over a rustic wooden fence on a grassy hill. The man is on the left, wearing a blue t-shirt and shorts, and the woman is on the right, wearing a blue jacket, a backpack, and a cap. They are both looking towards the right. The background shows a cityscape and mountains under a warm, orange-hued sky at sunset or sunrise.

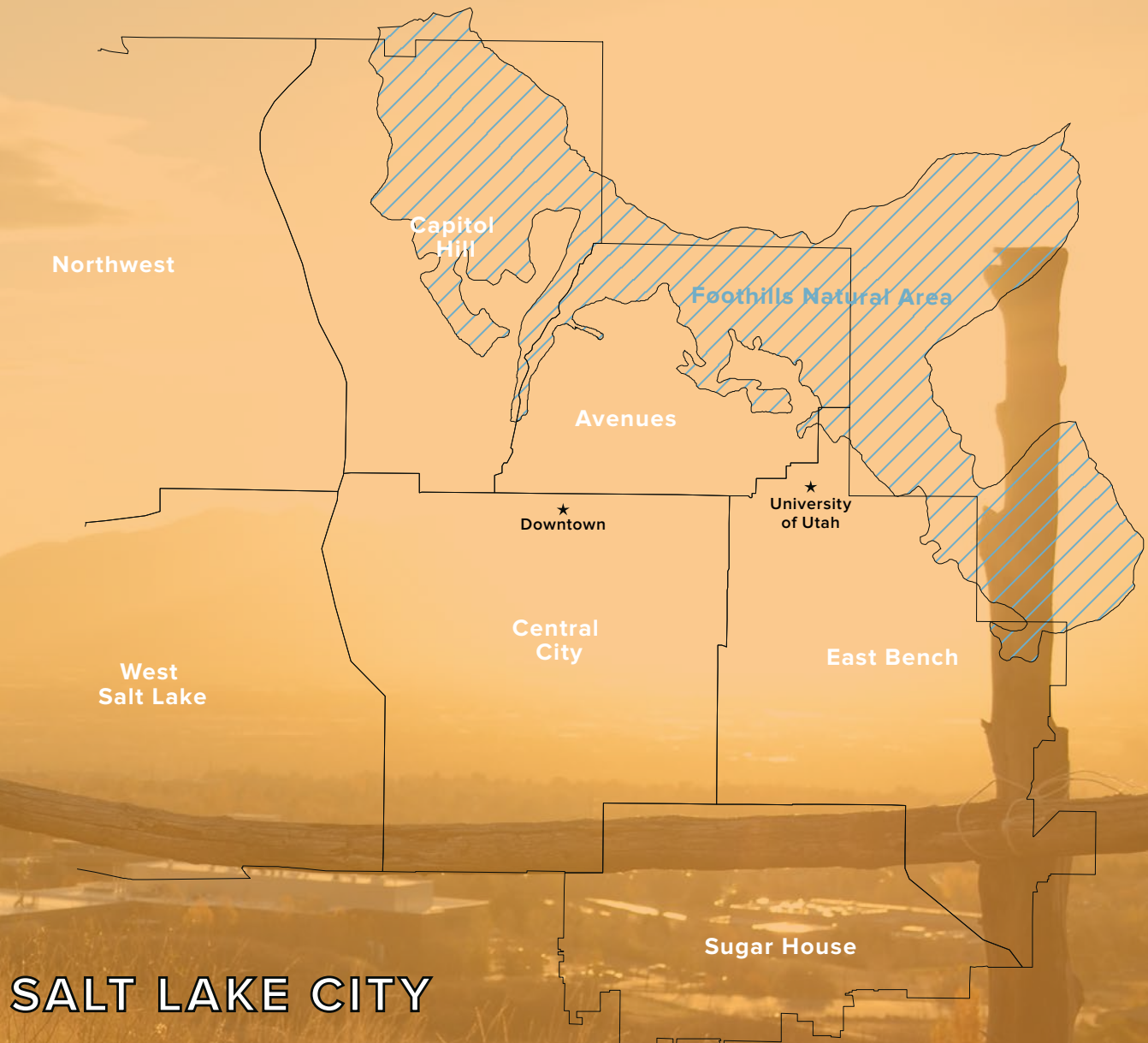
THE FOOTHILLS NATURAL AREA

The Salt Lake City Foothills Natural Area consists of approximately 6,000 acres of canyons and foothills bordering the northern and eastern limits of Salt Lake City. The Foothills are bordered by Davis County to the north, established neighborhoods to the west and south, and protected Salt Lake City watershed lands to the east.

The Salt Lake City Foothills Natural Area ("Foothills") consists of open sagebrush grasslands and scrub-oak woodlands that rise from the upper line of development at around 5,000 feet above sea level. These slopes rise steeply to prominent peaks and ridgelines above the city, at

elevations ranging from 6,000 to 7,000 feet above sea level. In some places, distinct terraces are present which indicate the shoreline level of ancient Lake Bonneville. The Foothills are bisected by City Creek Canyon, Red Butte Canyon, and bordered on the south by Emigration Canyon. Many smaller canyons and gullies also exist in the Foothills, including Dry Creek, Perry's Hollow, and others.

The Foothills Natural Area provides important habitat for a variety of birds, small mammals, and other wildlife, and many plants native to the Salt Lake Valley. Big game such as deer and elk also utilize the Foothills, and the upper



SALT LAKE CITY

slopes and ravines are important winter range for these mammals. Agricultural use of the Foothills, especially sheep grazing during the early years of the last century, created substantial erosion and vegetative disruption, the results of which can still be observed today. In many ways, the Foothills ecosystem is fragile and susceptible to lasting damage. These lands also have tremendous potential to provide a refuge for the public, and an escape into the natural world only minutes from the heart of downtown SLC. In order to minimize our human footprint and ensure that this unique natural area is protected for future generations, it is imperative that recreational trails in the Foothills be

carefully planned, designed, and constructed. This Foothills Trail System Plan establishes a vision for a recreational trail system that balances user needs with the needs of the Foothills environment so that the property can be enjoyed by Salt Lake City residents and visitors for decades to come.

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ACRONYM LIST

AASHTO- American Association of State Highway
Transportation Officials
BST- Bonneville Shoreline Trail
CPTED- Crime Prevention Through Environmental Design
UDNR- Utah Department of Natural Resources
IMBA- International Mountain Biking Association
NEPA- National Environmental Policy Act

SHPO- State Historic Preservation Office
SLC- Salt Lake City
SLCo- Salt Lake County
UDOT- Utah Department of Transportation
USFS- United States Forest Service
USGS- United States Geologic Survey
UTA- Utah Transit Authority

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01

INTRODUCTION

PROJECT VISION

The Foothills Natural Area will provide a variety of recreational trail experiences for diverse ages and abilities while managing the Foothills' environmental resources for future generations.

INTRODUCTION

PROJECT BACKGROUND

The Salt Lake City Foothills Natural Area consists of approximately 6,000 acres of canyons and foothills bordering the northern and eastern limits of Salt Lake City. The Foothills are bordered by Davis County to the north, established neighborhoods to the west and south, and protected Salt Lake City watershed lands to the east.

Nearly 100 miles of official and user-created trails currently exist within the Foothills Natural Area. Of these trails, the Bonneville Shoreline Trail (BST) is the most well-known. As envisioned by the nonprofit Bonneville Shoreline Trail Committee, the BST will one day stretch from the Idaho border, nearly 310 miles south to Nephi. The route attempts to follow the shoreline of the ancient lake Bonneville at an elevation of approximately 5,250 feet.

Trails in the project area are managed by the city's Trails & Natural Lands Division. The Trails & Natural Lands Division manages trails in the City's foothills, such as the Ensign Peak Trail and Bonneville Shoreline Trail. Trail maintenance is accomplished with dedicated maintenance crews as well as volunteer stewards.



Development and implementation of this Foothills Trail System Plan is consistent with the specific policy guidance and recommendations of the 1992 Salt Lake City Open Space Master Plan, and addresses many of the issues currently facing the lands and trails in the Foothills Natural Area.

INTRODUCTION

TRAIL SYSTEM GOALS



ENVIRONMENTALLY SUSTAINABLE

Trails avoid sensitive habitat, minimize erosion / sedimentation and vegetation disturbance, and make efficient use of available natural lands. The wild and scenic nature of the Foothills landscape is protected. Fragile natural or cultural features are avoided, and trails direct users away from closed or protected watershed areas.



ENJOYABLE

Trails cater to a variety of recreation types, and also to a variety of desired experiences, including solitude, escape and connection to the natural world; challenge and exercise; and fun and excitement. Trail layout and construction is optimized to the intended user group(s) of any individual trail segment, and trails are routed to take users to desirable areas and points of interest.



ACCESSIBLE

Trails are accessible to a broad audience of beginner-to-intermediate trail users, including families, seniors, and people with disabilities. Trailheads are sited and designed to make it easy for people to get on the trails, and are connected to transportation routes. Wayfinding signage and supplemental trail information makes it easy for people to understand and navigate the trail system.



SAFE

Trail user collisions and conflicts are mitigated and minimized through trail design and use regulations. Signage and natural barriers minimize incidences of lost or disoriented persons, and make it easier for emergency personnel to respond when needed. Trails are routed to discourage trespassing on private property. CPTED principles are incorporated in trailhead design to mitigate theft and vandalism to parked cars.



LOW-MAINTENANCE

Trails drain water naturally, follow contours instead of fall-lines, and effectively encourage users to remain on-trail, minimizing maintenance and reconstruction needs and costs. Thoughtful trail layout reduces the creation and use of informal trails and routes. Trails are sited to bring regular trail users through “problem areas” to reduce incidences of vandalism, graffiti, and illicit activity.





02

EXISTING CONDITIONS

EXISTING CONDITIONS

REVIEW OF EXISTING STUDIES

The first efforts to plan for the Foothills Natural Area dates back to 1992. The Salt Lake City Open Space Plan laid out the vision for the Bonneville Shoreline trail as a multi-use facility that would limit land development into the foothills. Since then, numerous plans, studies, and ordinances have been developed by the various institutions and communities located throughout and adjacent to the Foothills Natural Area. The review of existing studies summarizes the important role that Foothills trails can play in connecting people to places, and providing an important recreation asset for residents and visitors.

SALT LAKE CITY OPEN SPACE PLAN (1992)

Document purpose: Define an approach to connecting open space resources and providing a safe, and enjoyable experience of the natural features of Salt Lake City.

Relevant goals:

- "Conserve the natural environment;"
- "Enhance open space amenities for all citizens;"
- "Connect the various parts of the City to natural environments;"
- "Educate the citizens on the proper use of open space."

Key recommendations related to this study: The vision for the Bonneville Shoreline Trail is a combined hiking and mountain biking trail that allows controlled access to other trails into the foothills and provides a development limit line protecting the natural foothills environment from further residential encroachment into the foothills.



Volunteer constructing a trail in the Foothills Natural Area.
Photo Credit: Bingham Cyclery

UNIVERSITY OF UTAH HERITAGE PRESERVE MANAGEMENT PLAN (2007)

Document Purpose: Provide a guide for the administration, management and use of the Heritage Preserve property that fosters a predominantly natural and open condition to the area.

Relevant goals:

- Provide a space for various activities, including non-motorized recreation, that does not interfere with other environmentally-related activities taking place.

Key Recommendations related this study:

- Series of erosion control projects;
- Restrict access or enhance enforcement of trail protection policies in the Lime Kiln area;
- All trail improvements to the BST need to follow AASHTO guidelines. Backcountry secondary trails should be constructed to IMBA standards.
- Redundant trails should be removed and the landscape restored to natural conditions.

EMIGRATION CANYON TRAILS MASTER PLAN (2007)

Document Purpose: Identify a preferred trail system for Emigration Canyon in order to provide good connectivity with the regional trail system.

Relevant goals: Providing good trail connections within the canyon and at least one regional trail link, avoiding conflicts with private land, and locating alignments on public land wherever possible.

Key Recommendations related to this study:

- Mouth of Canyon Trailhead located on the north edge of Emigration Canyon Rd. This trailhead already exists, however the plan called for a facility containing "modern bathroom facilities, drinking fountains and picnic facilities."
- New mid-slope trail located on the north side of the canyon (North Slope Regional Trail) with connections to the Bonneville Shoreline Trail and continuing northwest to Lookout Peak.

EXISTING CONDITIONS

REVIEW OF EXISTING STUDIES (CONT.)

UNIVERSITY OF UTAH CAMPUS MASTER PLAN (2008)

Document Purpose: Guide the University of Utah's campus development in a way that fosters the University's goals of serving as a place for the dissemination of knowledge, technology, arts, and community engagement. The plan has a 20-year reach and embodies strategic business, educational, and service initiatives.

Relevant goals: Enhance routes to better support bicycling on campus, as well as walking, and recreation.

Key Recommendations related to this study:

- Proposed connection to foothills trails on Upper Campus next to the Huntsman Cancer Institute.
- Two buildings are proposed along North Campus Dr (Huntsman Cancer Institute Phase III and Medical Research Lab), as well as an additional access path between these buildings.
- Medical Drive is proposed to be improved to include a safe walking environment.
- Current and predicted university shuttle routes accessing Medical Drive.

UNIVERSITY OF UTAH BICYCLE MASTER PLAN (2011)

Document Purpose: Provide recommendations for the establishment of a safe, sustainable, and integrated bicycling and walking network within the University of Utah campus.

Relevant goals: Encourage campus residents and users to travel by bike more frequently, and accommodate bikes on University shuttles.

Key Recommendations related to this study:

- Shared Lane on Medical Drive and Wakara Way that can be used to connect to the foothills trails.
- Bonneville Shoreline Trail (BST) Signage: Coordinate with SLC to install wayfinding signage on the south side of Dry Creek to encourage people to use appropriate trail alignments; boulders may be desirable to prevent use of unofficial trails.
- Proposed trailheads are located behind Huntsman Cancer Hospital, at the Parking lot SE of Huntsman Cancer Hospital, and at the Parking lot NW of Red Butte Canyon Rd (Recommendation originally from the Heritage Preserve Management Plan); see p.13.



Photo Credit: University of Utah Campus Master Plan (2008). Vision for the Interdisciplinary corridor connecting the Health Sciences Center to the College of Engineering and Science.

PLAN SALT LAKE (2014)

Document Purpose: Citywide vision for Salt Lake City that aims to guide sustainable growth and development until 2040.

Relevant goals: Neighborhoods that provide a safe environment, opportunity for social interaction, and services needed for the wellbeing of the community therein, and protecting the natural environment while providing access and opportunities to recreate and enjoy nature.

Key Recommendations related to this study:

- Provide access to opportunities for a healthy lifestyle (including parks, trails, and recreation).
- Provide accessible parks and recreation spaces within 1/2 mile of all residents.
- Protect and enhance existing parks, recreational facilities, and trails allowing for modifications to enhance usability and promote activity.
- Enhance trail and open space connectivity through improved visual and physical connections.
- Create opportunities to connect with nature in urban areas.

EAST BENCH MASTER PLAN (2017)

Document Purpose: Chart a course for future growth of the East Bench community by providing policy direction and a framework to measure future achievements. This community plan works by following the citywide “Plan Salt Lake” study guidelines, which provide recommendations for Salt Lake City’s growth for the next 25 years.

Relevant goals: Providing choices to connect people to places, and protecting the natural environment while providing access and opportunities to recreate and enjoy nature.

Key Recommendations related to this study:

- Future development near the foothills above the East Bench should integrate pedestrian and bicycle connections to the foothills trail system. The City and the regional facilities should develop a partnership for the purpose of implementing the Salt Lake City Open Space Plan related to the Red Butte Creek Corridor.
- Better access to cultural facilities such as the Hogle Zoo, This is the Place State Heritage Park, the Natural History Museum, and Red Butte Gardens from the Bonneville Shoreline Trail.
- Incorporate the Bonneville Shoreline Trail into the Cultural District. Cultural facilities could utilize the nearby trails, or the BST, as part of their learning and other programs.
- Provide off-leash dog areas within walkable distance of the community.
- Preserve and expand foothills trails and trailheads. The City and County should work with the owners of the property located outside of the city boundary to establish trail easements to the public U.S. Forest Service lands. The foothill trail system should be designed to reduce user conflicts and enhance the user experience.

EXISTING CONDITIONS

REVIEW OF EXISTING STUDIES (CONT.)

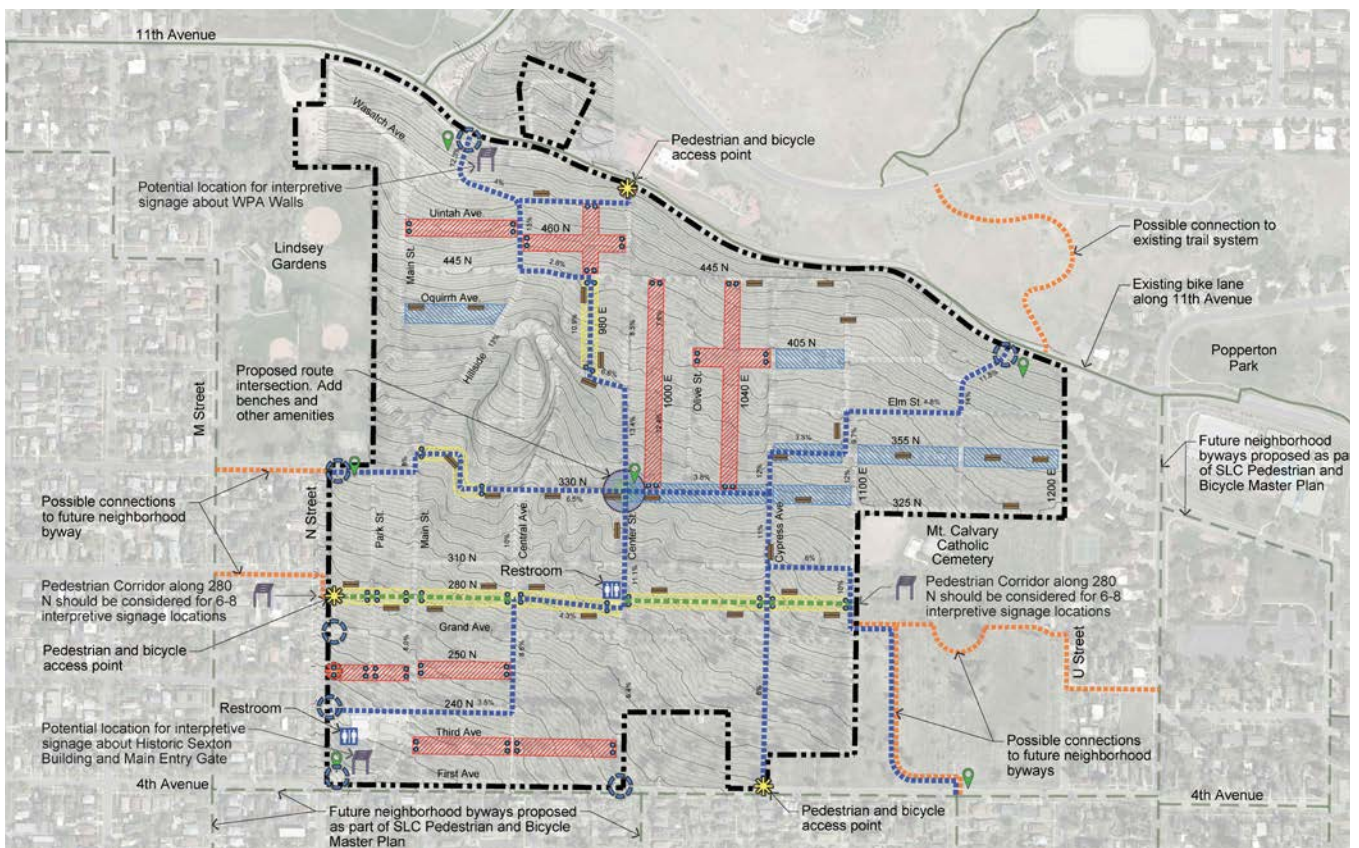
SLC CEMETERY MASTER PLAN (2017)

Document Purpose: Combine community feedback with national best practices to enhance the cemetery's historic, natural, and recreational assets.

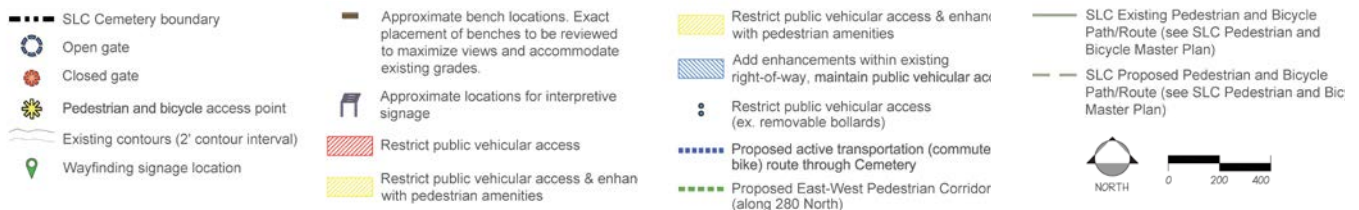
Relevant goals: Improve pedestrian and bicycle connections within the cemetery and surrounding areas.

Key Recommendations related to this study:

- Trail connection between 11th Ave and Chandler Dr. This will allow foothills trail users to access 4th and M Streets via internal cemetery paths.
- Pedestrian and bicycle access points on 4th and 11th avenues, as well as N street (opportunity for wayfinding).



LEGEND



SECONDARY PLANS REVIEWED

In addition to the previous plans and studies, a number of additional documents that have some relevance to the current Foothills trail system were also reviewed. These included:

- 1988 City Creek Canyon Master Plan
- 1999 SLC Watershed Management Plan
- Avenues Master Plan (1987)
- Beck Street Reclamation Framework and Foothill Area Plan (1999)
- Capitol Hill Master Plan (2001)
- Wasatch Cache Forest Travel Plan (2003)



Key Recommendations related to these studies:

- Inventory existing foothills trails and identify trails to be preserved, desired trails, and maintenance strategies (Avenues Master Plan).
- Specify appropriate trails uses and coordinate with respective landowners to promote a cohesive, official, and protected trail system (Avenues Master Plan).
- Prioritize preservation of public lands, bench lands, and trailhead locations (Beck Street Plan).
- Provide a pedestrian connection between Warm Springs Park and the foothills (Capitol Hill Master Plan).
- Redevelop the salt storage site on Bonneville Boulevard into a trailhead facility serving the foothills (Capitol Hill Master Plan).
- Enhance the Radio Tower road for trail use (Capitol Hill Master Plan).

EXISTING CONDITIONS

EXISTING TRAIL SYSTEM

OVERVIEW

The largest designated or planned trail in the Foothills Natural Area, the Bonneville Shoreline Trail (BST) was conceived to follow the shoreline of the ancient Lake Bonneville, as well as to represent the encroachment limit from development into the foothills. About 20 miles of the BST is located within Salt Lake City limits, providing a space for people to bike, hike, run, and recreate.

However, the Foothills Natural Area trail system is largely comprised of informal social trails. Users have carved out these trails to the various peaks, canyons, and groves through years of use. Approximately 87 miles of social trails exist within the study area.

The majority of these social trails follow ridgelines or drainage bottoms, and run perpendicular to existing contours. Some trails follow old jeep roads and routes, almost all of which were established at grades that are unsustainable and have substantial erosion issues.

Therefore, the existing network consists of a regional multi-use “through-trail” that traverses the Foothills Natural Area at mid elevation, and a great number of social trails that accommodate direct access to the BST and area peaks. The relationship between these two trail types is not intentional. As a result, there are few loop trails that cater to any particular user experience. The BST often becomes a funnel for more trail users than can be safely accommodated.

In these locations, trail conflicts between users are commonplace. Limited user experiences are available and many trails are steep or difficult to walk or ride. Severe erosion becomes commonplace as user-traffic increases on any unsustainably steep trail.

Access to the trail system is also problematic. As build-able land near the upper line of development was subdivided and platted in the 1980s and 1990s, public trail easements were retained by the City to preserve public access. However, in most cases, these access easements were not associated with any trailhead infrastructure, and some occur behind gated subdivisions. In the vicinity of Capitol Hill, access to the foothills trail system is primarily funneled through the Ensign Peak trailhead, which occurs on a small residential street with no off-street parking. Impacts to nearby residents at this area are sometimes severe, and the

public has few other options for trail system access. Above the Avenues, trail access points are more commonplace, but the majority of these have little or no place to accommodate public parking, and parking and traffic impacts can be quite disruptive. In the vicinity of the University of Utah and This Is The Place Heritage Park, almost all parking near the trail system is designated for other uses, leading to frequent parking conflicts and frustration.


EXISTING CONDITIONS

EXISTING TRAIL SYSTEM











The existing trails system in the Foothills Natural Area consists of at least 87 miles of informal social trails and 20 miles of the Bonneville Shoreline Trail, or 127 total existing trail miles.

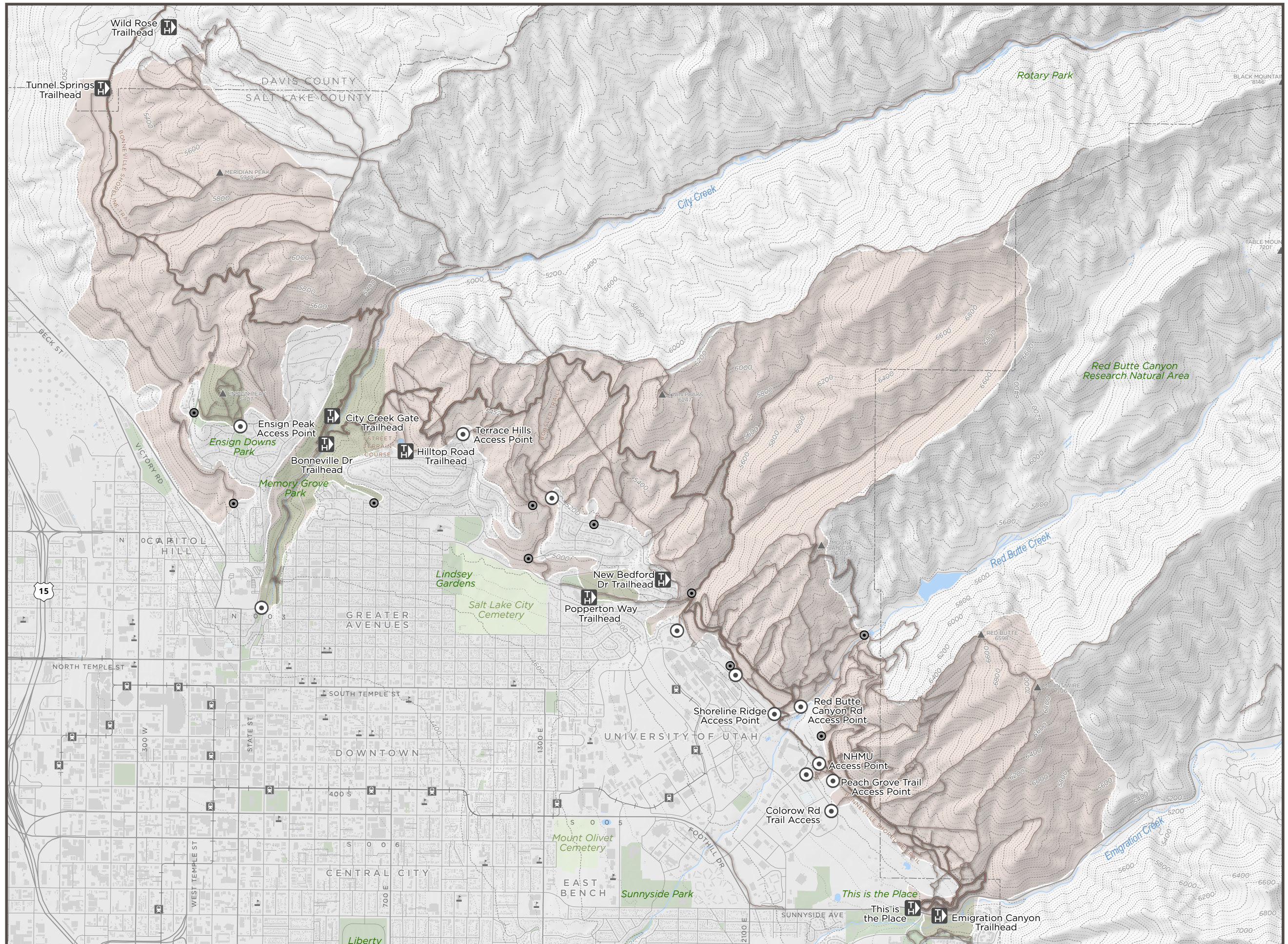
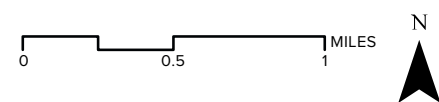
TRAIL NETWORK

EXISTING

- Existing Trails and Paths
 Other Trails

DESTINATIONS + BOUNDARIES

-  Major Trailhead
-  Access Point
-  Secondary Access Point
-  Train Stations
-  School
-  Plan Boundary
-  Cemetery
-  Parks
-  Water Body
-  Salt Lake City



EXISTING CONDITIONS

EXISTING TERRAIN

Slope and terrain are critical considerations to developing a sustainable trail system. Steep slopes suffer from increased erosion and level ground is difficult to drain well. The most suitable slopes for trail constructions range from 8 to 20% and require less construction and maintenance efforts over time.

SALT LAKE CITY
FOOTHILLS TRAILS PLAN

TRAIL CONSTRUCTION
SUITABILITY

- Most Suitable (8-20%)
- Moderate (0-8% or 20-40%)
- Moderate to Low (40-55%)
- Least Suitable (55%+)

TRAIL NETWORK

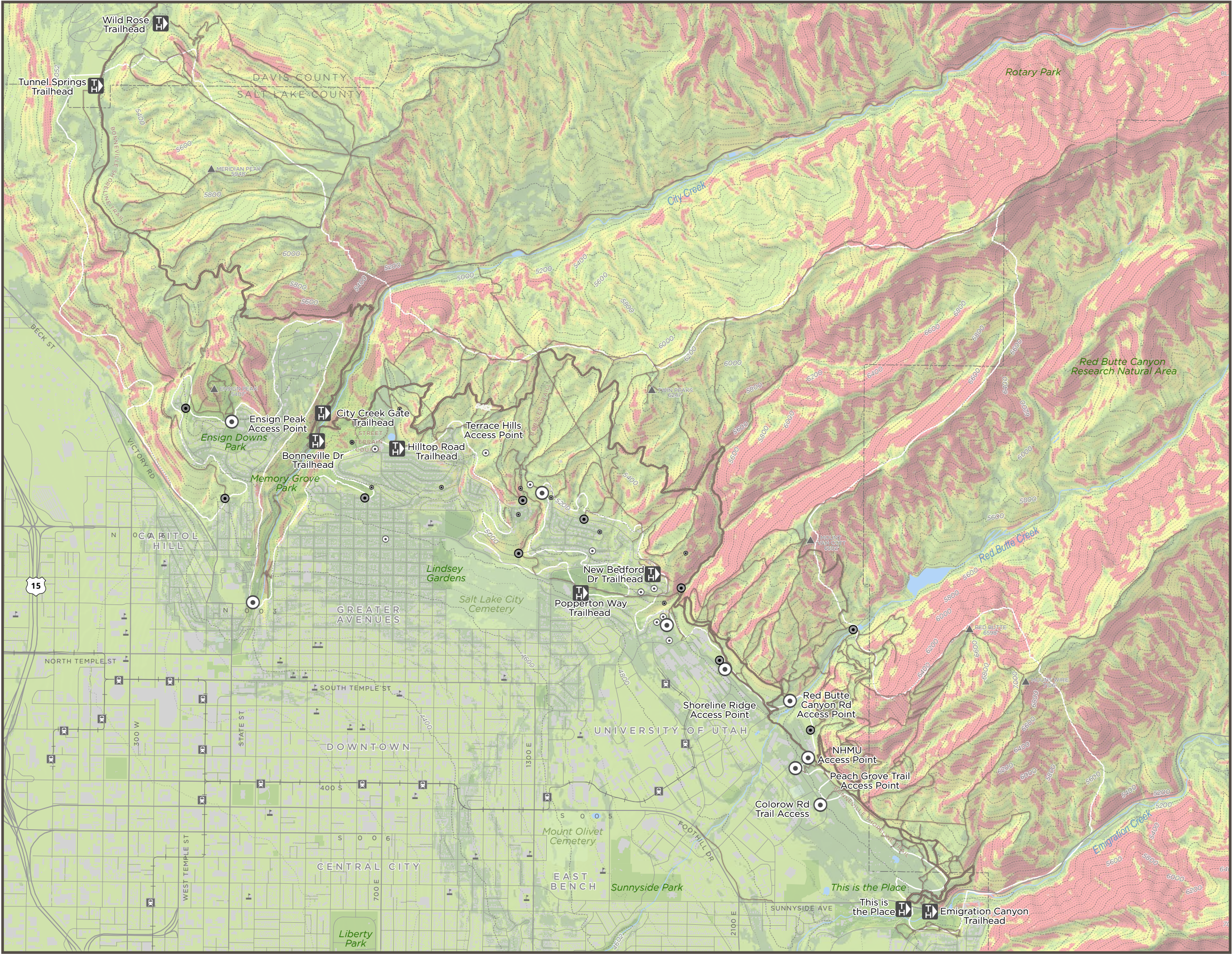
EXISTING

- Bonneville Shoreline Trail
- Other Trails

DESTINATIONS + BOUNDARIES

- Official Trailhead
- Major Access Point
- Secondary Access Point
- Train Stations
- School
- Project Boundary
- Special Use Area
- Cemetery
- Parks
- Water Body
- Salt Lake City

0 0.5 1 MILES



EXISTING CONDITIONS

EXISTING TOPOGRAPHY

OVERVIEW

Slope and terrain are some of the most important considerations in the layout of a sustainable trail system. Steep slopes are inherently more prone to erosion than gentle slopes. On the other hand, very gentle slopes (0-5%) are difficult to drain adequately and present their own challenges for trail construction and ongoing maintenance.

The map at left has categorized the slopes at the Foothills Natural Area into four categories

- 8 - 20% cross-slopes (most suitable)**
- 0-8% and 20 - 40% cross-slopes (moderate suitability)**
- 40- 55% cross-slopes (moderate-low suitability)**
- 55% + cross-slopes (least suitable)**

Slopes in the central and southern Foothills canyons of City Creek, Dry Creek, Red Butte, and Emigration are relatively steep*. However, slopes in the north Foothills adjacent to Davis County are more moderate facilitating easier trail construction and more user-friendly trail grades**.

*(see photo at bottom left)

** (see photo at bottom right)



Slopes in the central and southern Foothills are generally steep.



The north Foothills possess more gradual slopes.

EXISTING CONDITIONS

EXISTING TRAIL GRADES

OVERVIEW

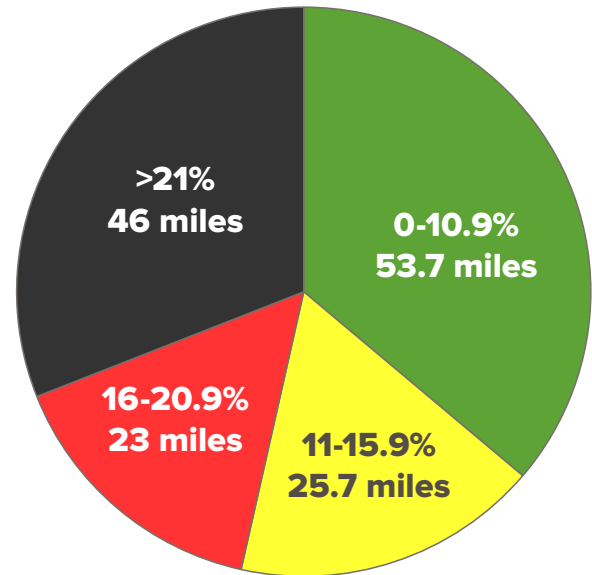
The Foothills Natural Area (Foothills) contains over a hundred miles of existing trails. Some of these trails have been carefully planned and constructed while others are simply the result of decades of informal, social use. As such, the steepness and subsequent sustainability of trails throughout the Foothills can vary significantly.

As a rule of thumb, sustainable trails should be constructed with an overall grade (running slope) of 10% or less. Short sections of trail may approach 15-20% based on a variety of factors such as soils, anticipated user types, desired level of difficulty, and site-specific constraints. These should be carefully considered in the implementation of any trail segment.

The graphic on the right illustrates existing trail profile slopes throughout the Foothills. This analysis reveals the share of trail segments that are constructed at reasonably sustainable slopes and those that likely should be considered for re-alignment, closure, or abandonment, as described in detail on p.60.

As the map on page 23 illustrates, many of the existing ridgeline trails throughout the Foothills greatly exceed sustainable trail grades. The mainline BST, Freedom Trail, and a handful of trails in the north Foothills are some of the few examples of existing trails that are aligned at relatively sustainable or moderate grades.

Existing Trail Grades in Foothills Natural Area



Trails that follow existing contours are less prone to erosion and are accessible by a wider range of trail users



Fall line trails, such as the one, above are prone to erosion and rutting.

EXISTING CONDITIONS

EXISTING TRAIL SYSTEM
PROFILE SLOPES

The existing trails in the Foothills vary widely in steepness and sustainability. Sections with grades of 10% or less are generally considered sustainable. Overall sustainable trails might also contain short sections of 15-20% grade. Trails that are largely over 10% should be considered for re-alignment, closure, or abandonment.

TRAIL SEGMENT SLOPE

Bonneville Shoreline Trail

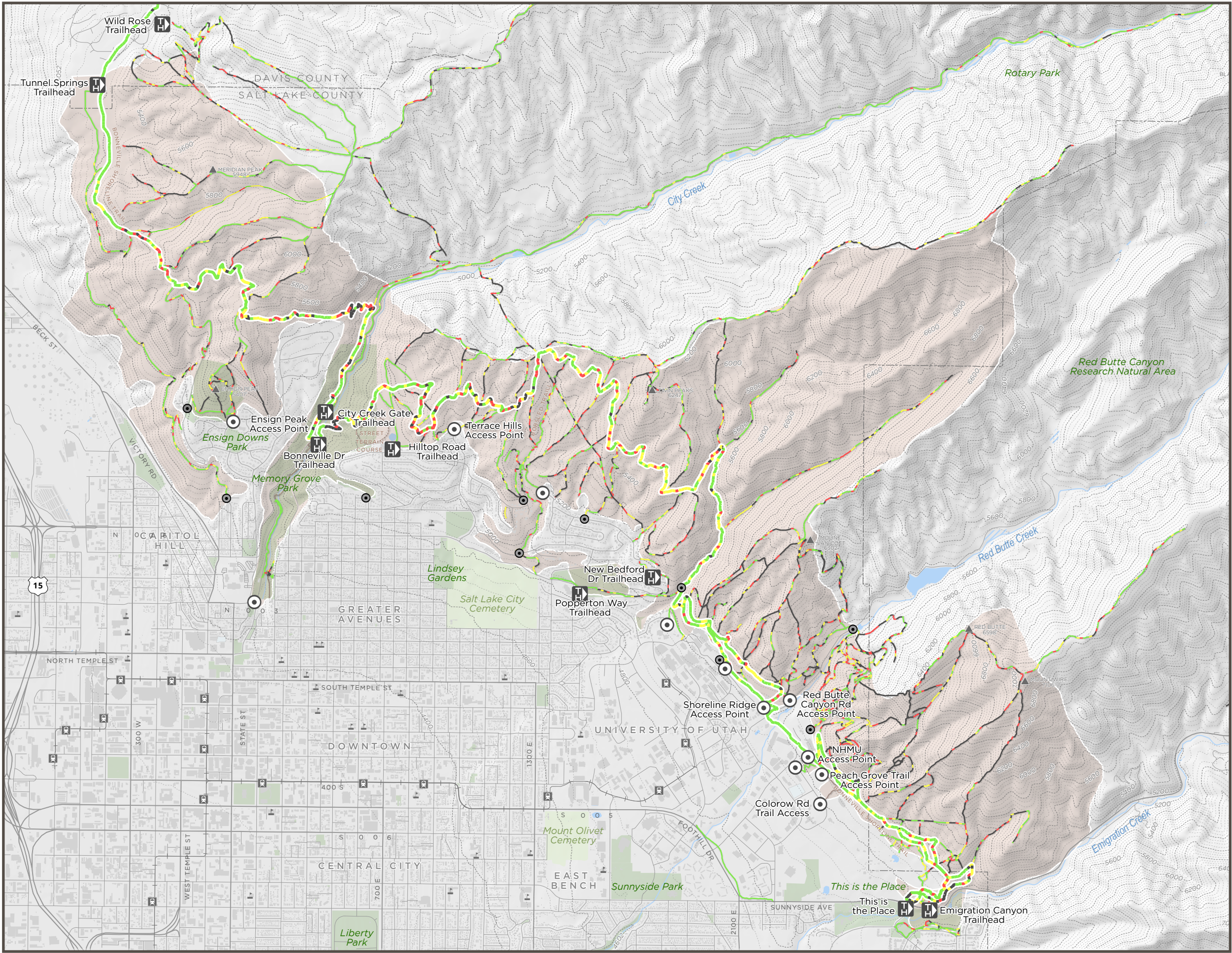
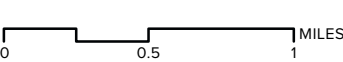
- 0 - 10.9%
- 11 - 15.9%
- 16 - 20.9%
- 21%+

Other Trails

- 0 - 10.9%
- 11 - 15.9%
- 16 - 20.9%
- 21%+

DESTINATIONS + BOUNDARIES

- Official Trailhead
- Major Access Point
- Secondary Access Point
- Train Stations
- School
- Project Boundary
- Special Use Area
- Cemetery
- Parks
- Water Body
- Salt Lake City

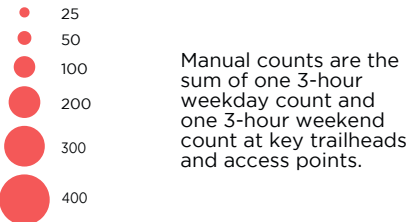


EXISTING CONDITIONS

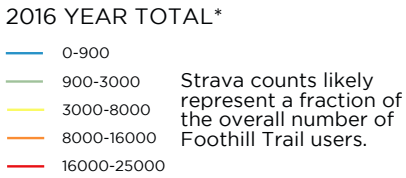
EXISTING DEMAND

Analysis of manual count and Strava Metro data informed identification of the most popular trailheads, trails and on-road routes that connect to the study area. The understanding of existing demand and use is important for planning an attractive trail system.

MANUAL COUNTS



STRAVA METRO COUNTS



* Intervals determined using Jenks Natural Breaks Optimization

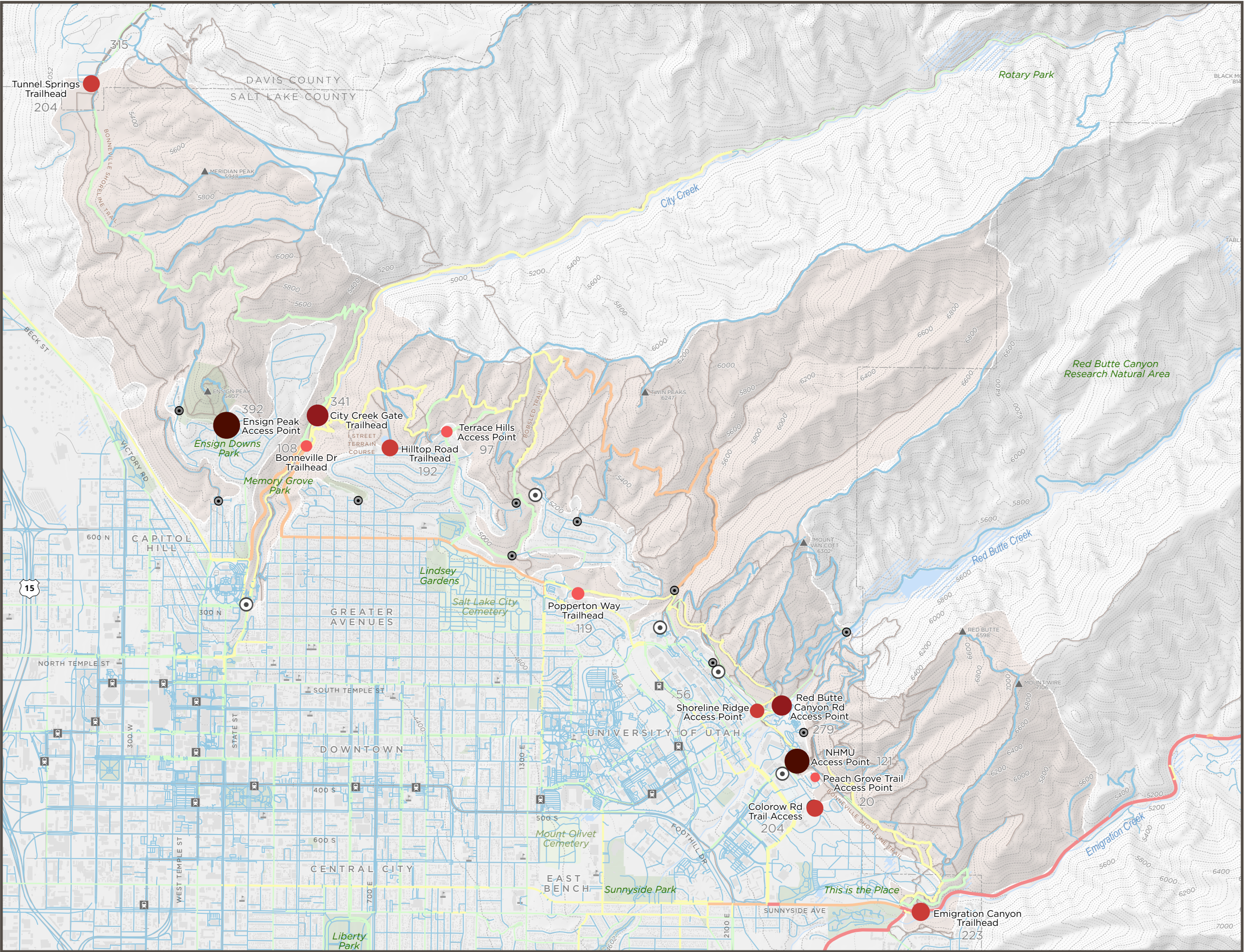
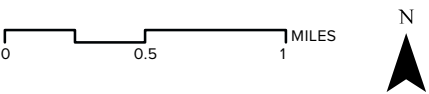
TRAIL NETWORK

EXISTING

- Bonneville Shoreline Trail
- Other Trails

DESTINATIONS + BOUNDARIES

- Official Trailhead
- Major Access Point
- Secondary Access Point
- Train Stations
- School
- Project Boundary
- Special Use Area
- Cemetery
- Parks
- Water Body
- Salt Lake City



EXISTING CONDITIONS

EXISTING DEMAND

OVERVIEW

Understanding existing demand and use of the Foothills trails system is important for present and future planning and decision-making. As a part of this plan, manual counts at key trailheads were conducted to gather data on existing demand and use. Although not without limitations, these counts agree with casual observations of use patterns.

Foothill Trails Plan Survey and Manual Counts

Manual trail user counts were conducted at 14 access points to the foothills trail system. Three hour counts were taken on several days during both weekdays and weekends. Each count was subdivided into 15 minute increments, and included user type, perceived gender, presence of on-leash or off-leash dogs, as well as number of cars at the trailhead.

The Ensign Peak, City Creek, Red Butte Canyon and Emigration Canyon trailheads saw the most users during the count period. Identifying high-usage trailheads and access points helped to focus and deepen an understanding of popular trails, amenities, and user types.

Automated Trail Counts

Automated Infrared Trail Counters were installed at five trailhead locations (Emigration Canyon, Bobsled, Hilltop Road, Ensign Peak, and Tunnel Springs) and provided hour-by-hour user counts. These counts did not differentiate user types (hikers vs. mountain bikers) but they do provide information about peak use times and total daily use at the various access points where they were placed.

Strava Metro Counts

Strava is an application designed and marketed primarily toward outdoor recreational users. It reports trip route, length, speed, and elevation gain. It provides various methods of display and comparison with previous trips. The Strava user base is biased toward middle-aged males, and although it is also used by runners and mountain bikers, it is primarily used by road cyclists. This is reflected in the existing demands map, showing very heavy use of the Emigration Canyon.

With these limitations in mind, and understanding that Strava data represents only a fraction of the user population, the inclusion of Strava data provides an opportunity to reduce the time, expense, and effort required to understand bicycle trip use in the study area.

Overall, the BST shows moderate to high usage throughout the study area, especially leading to the Bobsled Trail, a popular mountain biking route. Analysis of popular on-road routes connecting to the Foothills also provides good insight on trail access and usage. An example is 11th Avenue in the Avenues Neighborhood. Via this street, riders are able to connect from the bottom of the Bobsled Trail to adjacent trailheads, such as Popperton Way and New Bedford Dr, as well as west to Bonneville Dr.

Projected Demand

With Salt Lake City's growing population and an expressed public interest in trails and trail-related recreation, user demand in the Foothills is steadily climbing, and could see dramatic growth in users from both Salt Lake City and the region. Currently, lack of trailhead facilities and crowded trails are likely limiting factors in attracting broader public use. With improvements to parking areas, better connectivity to transit and the active transportation network, and more trail opportunities; the Foothills Natural Area could accommodate significant growth in recreational pressure while maintaining desirable trail experiences and limiting environmental degradation.

EXISTING CONDITIONS

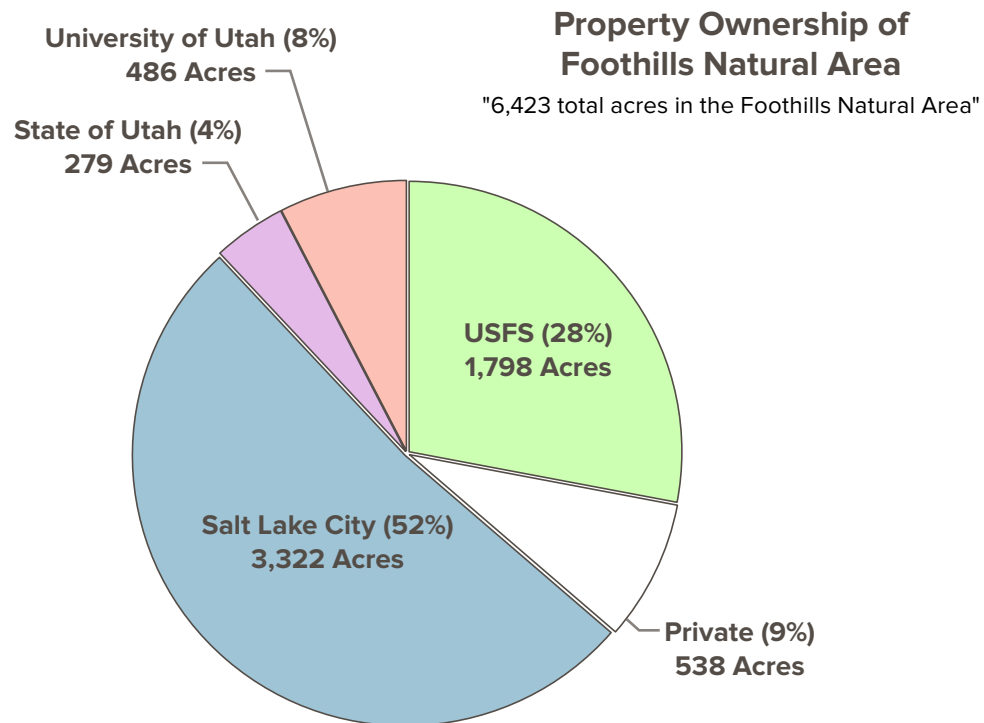
PROPERTY OWNERSHIP

OVERVIEW

Although trail users generally think of the Foothills as a singular open space system, the underlying ownership is comprised of many different entities including:

- Salt Lake City Corporation
- The US Forest Service
- The State of Utah
- The University of Utah
- Private lands with public trail easements

Although the intent of this planning process is to have the trail system function consistently regardless of underlying ownership, landowners ultimately hold the final decision-making power in deciding if and where trails should be routed and what types of impacts are acceptable. The following section gives an overview of each landowner and any unique management or implementation considerations that may exist on their property.



Note: 493 acres (57 acre Bonneville Shoreline Preserve + 436 acre University Heritage Preserve) in the Foothills Natural Area are held under conservation easement by Utah Open Lands and Salt Lake County. Utah Open Lands & Salt Lake County jointly hold conservation easements on the Bonneville Shoreline Preserve.)



Salt Lake City Corporation
3,322 acres

Salt Lake City owns over 3,300 acres within the Foothills Natural Area. Much of this land has been purchased primarily with water quality protection in mind and managed with non-motorized recreation as an acceptable secondary use. Watershed protection requirements around City Creek and Red Butte Canyons are of primary importance and require limited trail development in these areas. Vegetation disruption by invasive weeds and associated soil erosion could have catastrophic consequences for Salt Lake City’s drinking water supply, or impede protection of key habitat in the Red Butte Natural Area. Due to the unavoidable distribution of invasive species along recreational trail corridors, expanded recreation into protected areas and buffer lands should be prevented or extremely limited. At the time of this study, SLC ordinances prohibit e-bikes and off-leash dogs on city open spaces except where specifically designated for such uses.



The US Forest Service
1,798 acres

The US Forest Service owns many parcels within the Foothills Natural Area. Many of these properties abut the urban interface or are isolated inholdings. As such, Salt Lake City will need to work with the US Forest Service to facilitate trail access within the Foothills Natural Area where appropriate and feasible. Implementation of trails on USFS land would require that proposed trails receive a categorical exclusion, or that a National Environmental Policy Act (NEPA) analysis be performed for the proposed trail segment(s), and the trail be approved. Additionally, the USFS and other Federal land managers have (at the time of this study) ruled that e-bikes are “motorized vehicles”. As such e-bikes are officially prohibited in areas that are closed to motorized vehicles.



The State of Utah
279 acres

The State of Utah owns This is the Place Heritage Park as a State Park. The park is managed by a non-profit foundation created by the Utah Legislature in 1998, with additional oversight by the Heritage Board of Trustees. This is the Place is a unique state park that is operated to provide visitors firsthand experience with the history and settling of the West. Entrance to the park is by paid admission, and the park offers myriad activities for visitors, including historical tours, horseback trail rides, handcart demonstrations, and festivals. Access to the property by trail users is permitted and free, as long as trail users remain outside the park proper and obey regulations, including on-leash requirements for dogs, but conflicts between trail users and park visitors are becoming increasingly commonplace. Coordination will be required to ensure that new or realigned trails and trailhead facilities do not negatively impact the This is the Place Heritage Park operations or visitor experience, and that trail user access to the BST above This is The Place is protected.



The University of Utah
Acreage: 486 acres

The University of Utah owns much of the land adjacent to the University Medical Center, Research Park, and the Natural History Museum. The University is willing to consider public use of existing and future Foothills trails for recreational purposes so long as:

- The use is consistent with and does not impede or interfere with the current or future operations of the University.
- The use is consistent with the University’s mission and its property management plans.
- The use does not pose unreasonable legal risk to the University or violate the provisions of any applicable agreements.
- The use does not create a financial burden on the University that would be at odds with the University’s legally-defined financial requirements.

Additionally, the University maintains the right to relocate or close trails it deems necessary and at its discretion.



Private lands
538 acres

Some lands in the Foothills Natural Area are privately owned, though a number of these parcels are subject to public trail easements and/or open space protection easements dedicated to Salt Lake City. The majority of these properties are above the Avenues Neighborhood, in the vicinity of the Federal Heights Subdivision. Currently, the easements on private lands in the Foothills Natural Area provide important benefits for recreation, wildlife habitat, and scenery. Realignment or expansion of existing easements to accommodate the proposed trail system will require coordination and collaboration with willing landowners.

EXISTING CONDITIONS

PROPERTY OWNERSHIP

Land ownership in the Foothills Natural Area is made up of a variety of Federal, state, Salt Lake City, and private lands.

Note: Inclusion of USFS, State, University of Utah, and private lands in the Foothills Natural Area planning area is for trail planning purposes only. Inclusion does not confer any special protection or designation, or require any action by the landowner.”

OWNERSHIP TYPE

- Private - Easements may exist
- University of Utah
- City
- County
- State
- USFS
- Conservation Easements

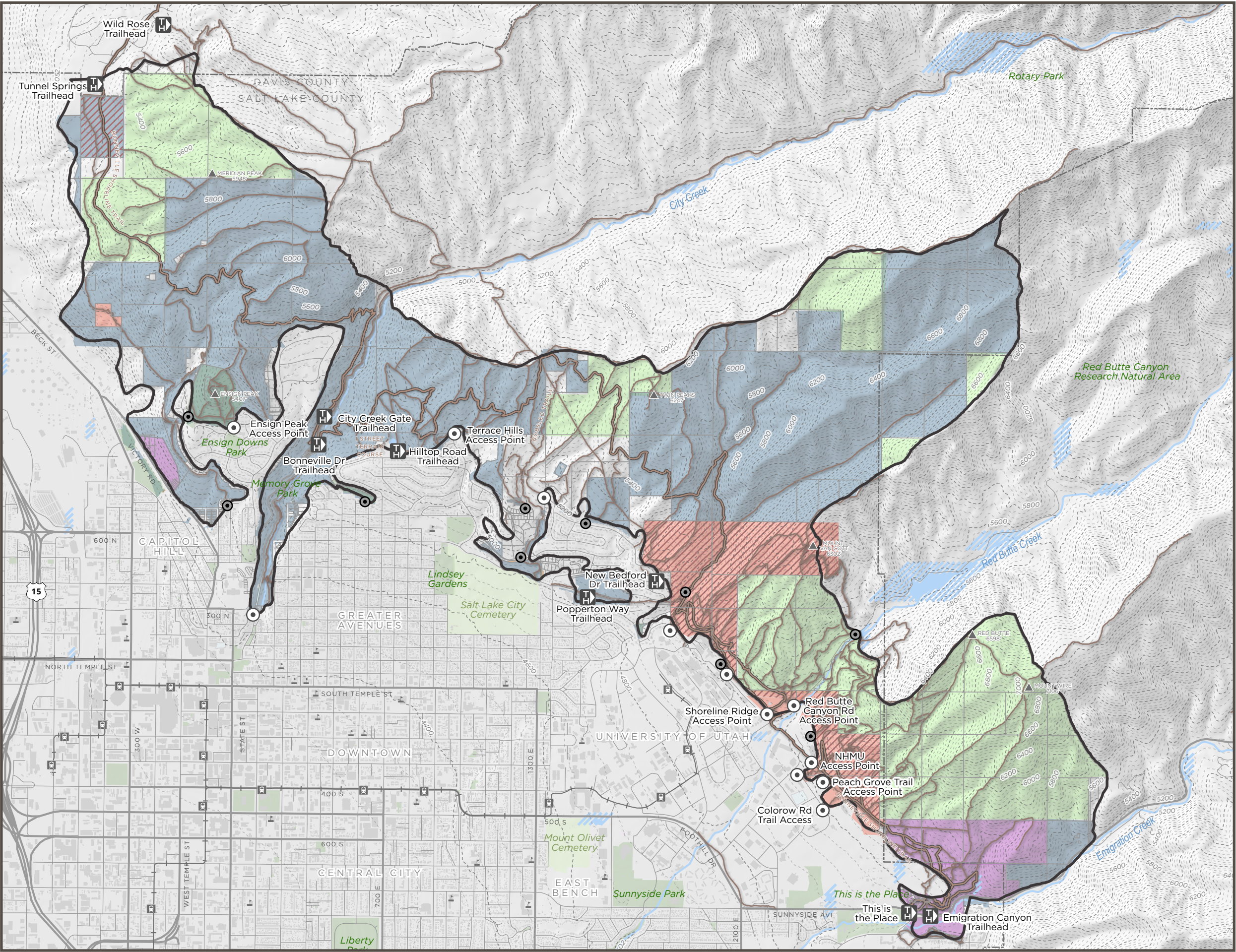
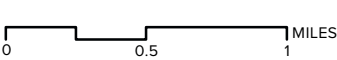
TRAIL NETWORK

EXISTING

- Bonneville Shoreline Trail
- Other Trails

DESTINATIONS + BOUNDARIES

- Official Trailhead
- Major Access Point
- Secondary Access Point
- Train Stations
- School
- Project Boundary
- Special Use Area
- Cemetery
- Parks
- Water Body
- Salt Lake City





EXISTING CONDITIONS

POSITIVE & NEGATIVE CONTROL POINTS

CONTROL POINTS

Identifying control points is an important step in planning a recreational trail system. Positive control points reflect places that should be connected to the proposed trail system. These could be scenic views, existing stream crossing infrastructure (culverts or bridges), unique landscapes, or other interesting features. Negative control points are features that the proposed trail system should avoid. These could be sensitive natural or cultural resources, areas that pose safety or security hazards, or areas where trespassing is a concern.



Historic quarry structure



Natural Warm Springs South of Beck St



Existing Beck Street gravel pit



Wildflower meadow overlooking Salt Lake City



Steep and Eroded Slope near Ensign Peak

EXISTING CONDITIONS

POSITIVE & NEGATIVE CONTROL POINTS

Positive control points are places which should be connected to the trail system, such as scenic views or existing bridges. Negative control points are places to be avoided, such as areas with safety hazards or locations where trespassing may occur.

CONTROL POINTS

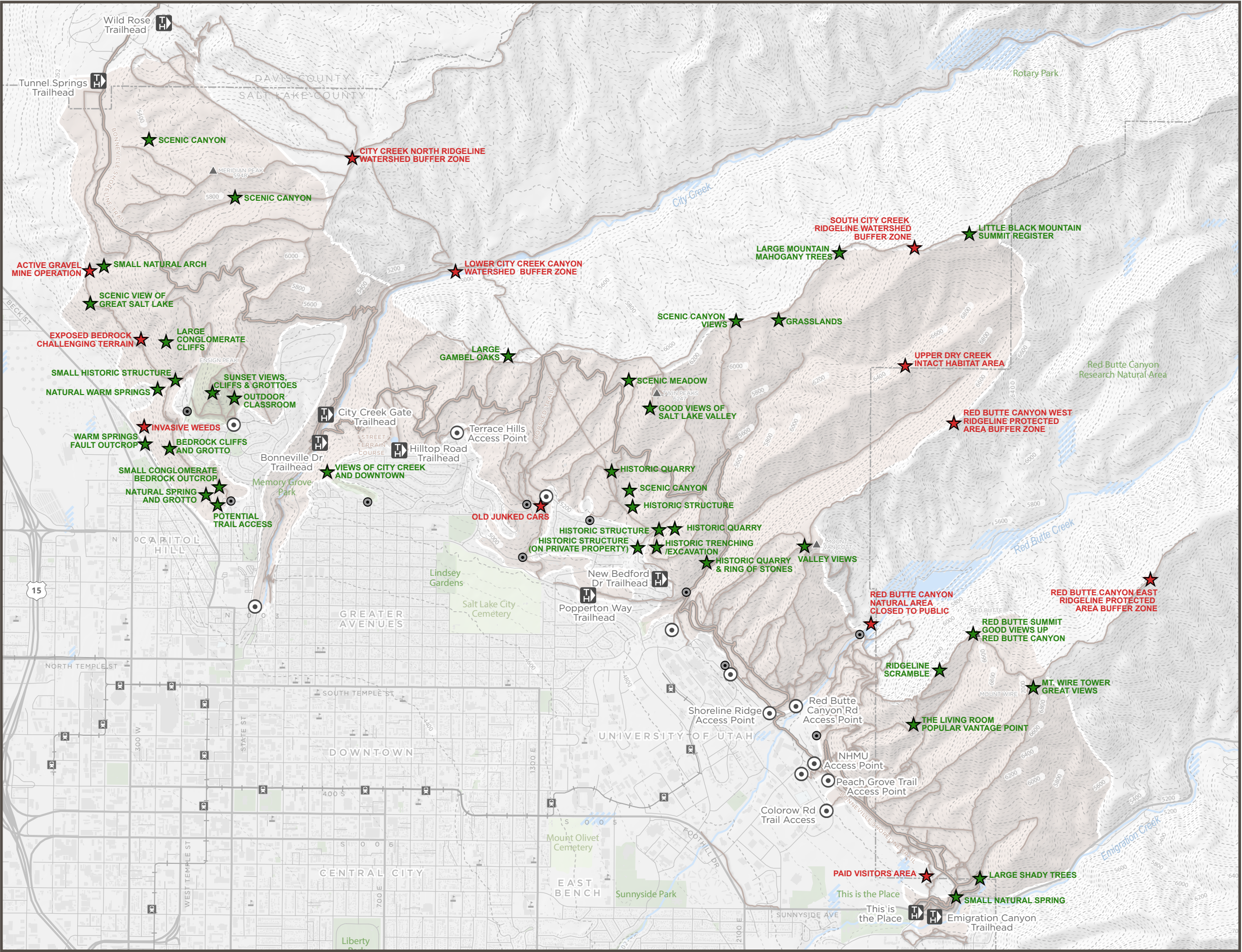
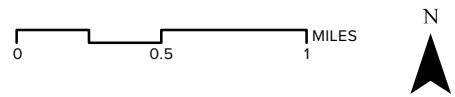
- ★ Positive
Positive control points are places where resource managers want users to visit, including scenic overlooks, historic sites, waterfalls, rock outcroppings, lakes, rivers, and other natural features or points of interest
- ★ Negative
Negative control points are places resource managers want users to avoid (such as low-lying wet areas, flat ground, extremely steep cross slopes or cliffs, unstable soils, environmentally sensitive areas, sensitive archaeological sites, safety hazards, and private property).

TRAIL NETWORK

- EXISTING
- Bonneville Shoreline Trail
 - Other Trails

DESTINATIONS + BOUNDARIES

- Official Trailhead
- Major Access Point
- Secondary Access Point
- Train Stations
- School
- Project Boundary
- Special Use Area
- Cemetery
- Parks
- Water Body
- Salt Lake City



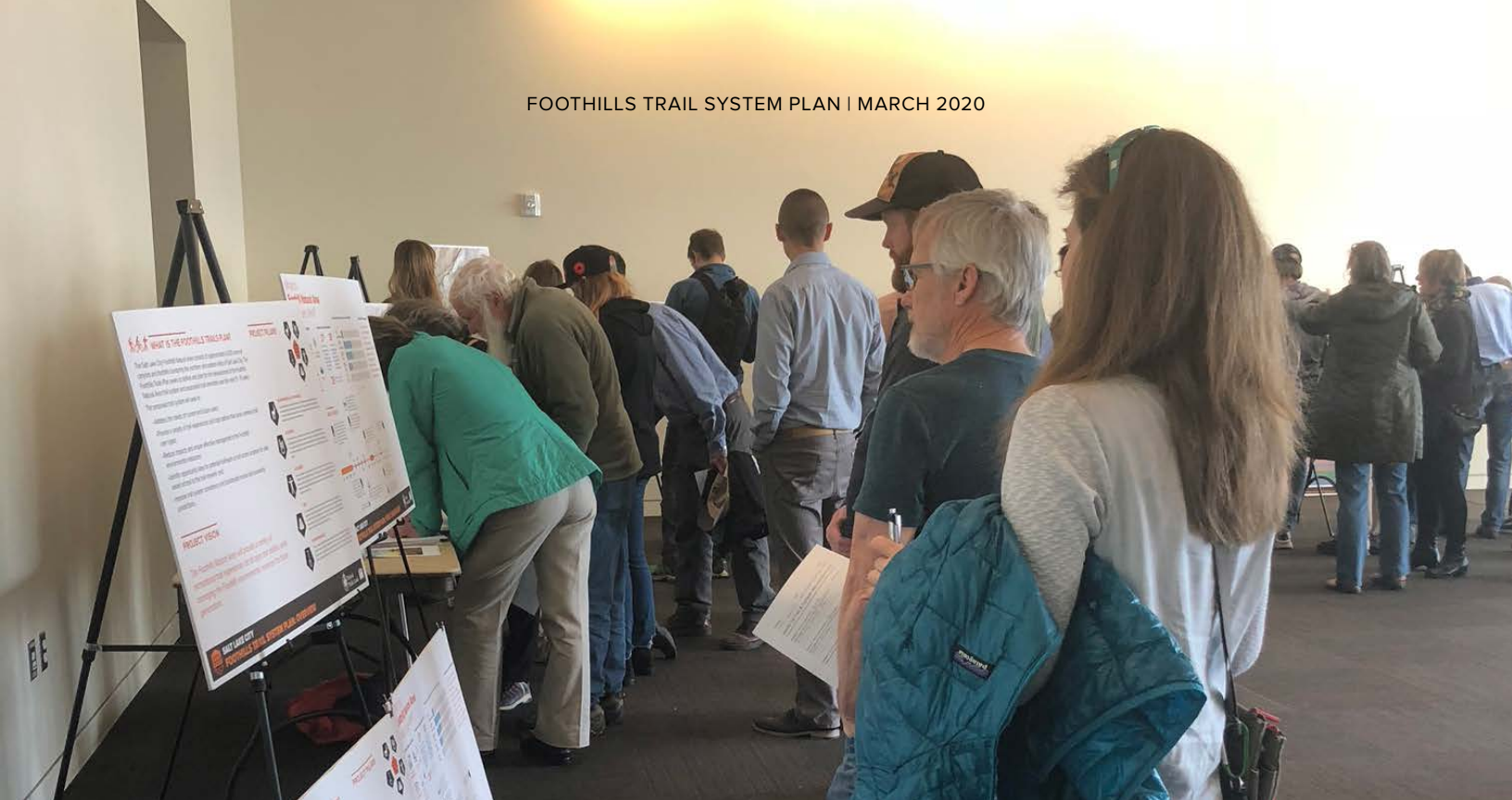
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03

PUBLIC INPUT



April 2018 public meeting for the Foothills Trail System Plan at the Natural History Museum of Utah

PUBLIC INPUT

OVERVIEW

Efforts to understand public needs and desires for the Foothills Trail System have effectively been underway since the Summer of 2016. Between 2016 and 2018, Salt Lake City Parks and Public Lands staff and the Planning Team project consultants conducted a variety of outreach strategies including surveys, interviews, workshops, online outreach, and traditional public meetings. This robust and diverse outreach approach has resulted in a well-vetted plan with broad public support among landowners, stakeholders, and trail users. While not every potential trail user engaged in the planning process, and not every stakeholder will agree with each recommendation, the plan has been based on a thorough understanding of public interests for the Foothills Natural Area, the Foothills Trail System, and surrounding neighborhoods... and the balance of these interests with the five fundamental plan goals.



PUBLIC INPUT

TIMELINE



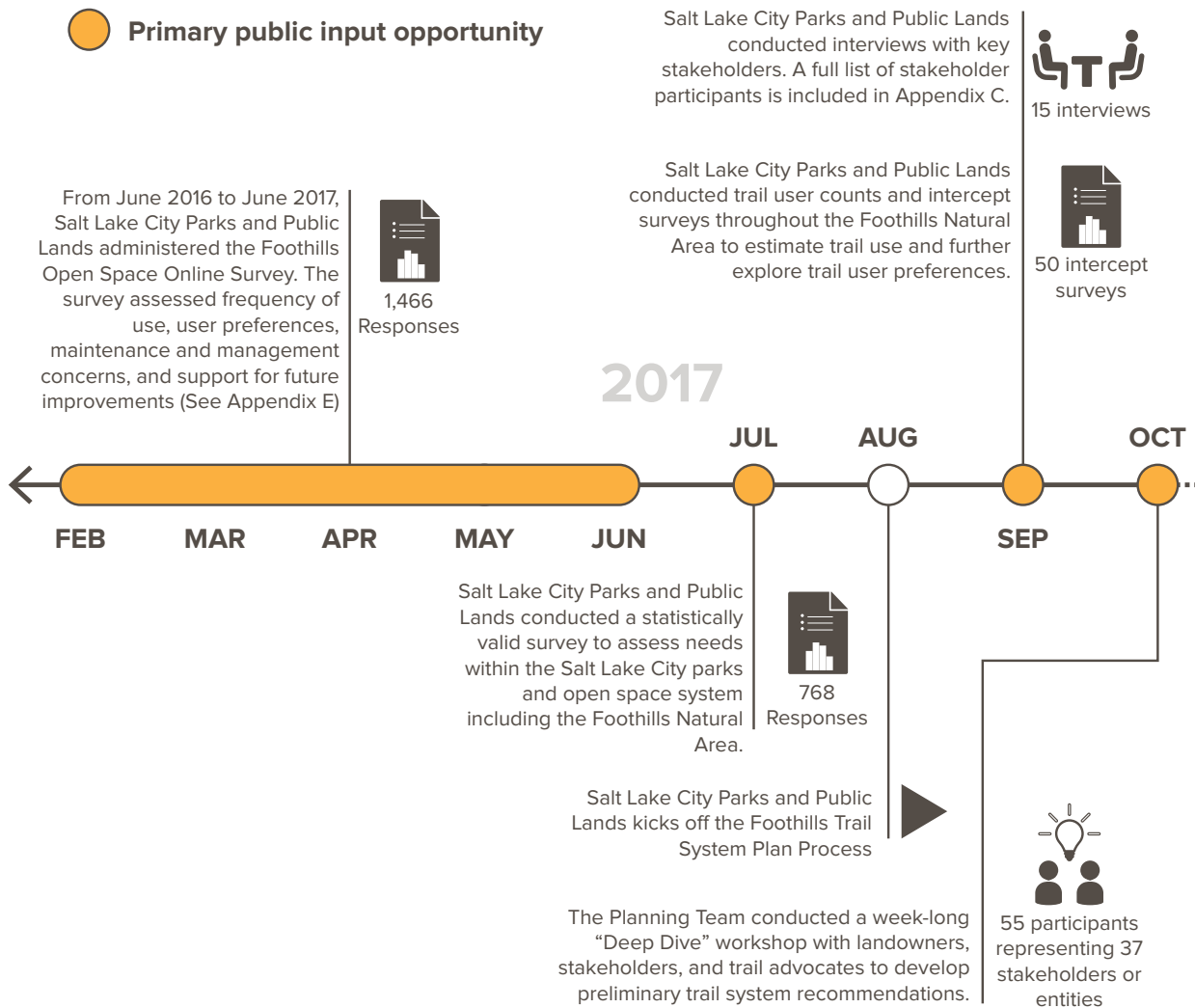
Deep Dive workshop



April 2018 public meeting at the Natural History Museum



April 2018 public meeting at the Sweet Library Branch



PUBLIC OUTREACH BY THE NUMBERS

15 stakeholder interviews

758 survey responses

50 intercept surveys

7 council / committee presentations

273 public meeting participants

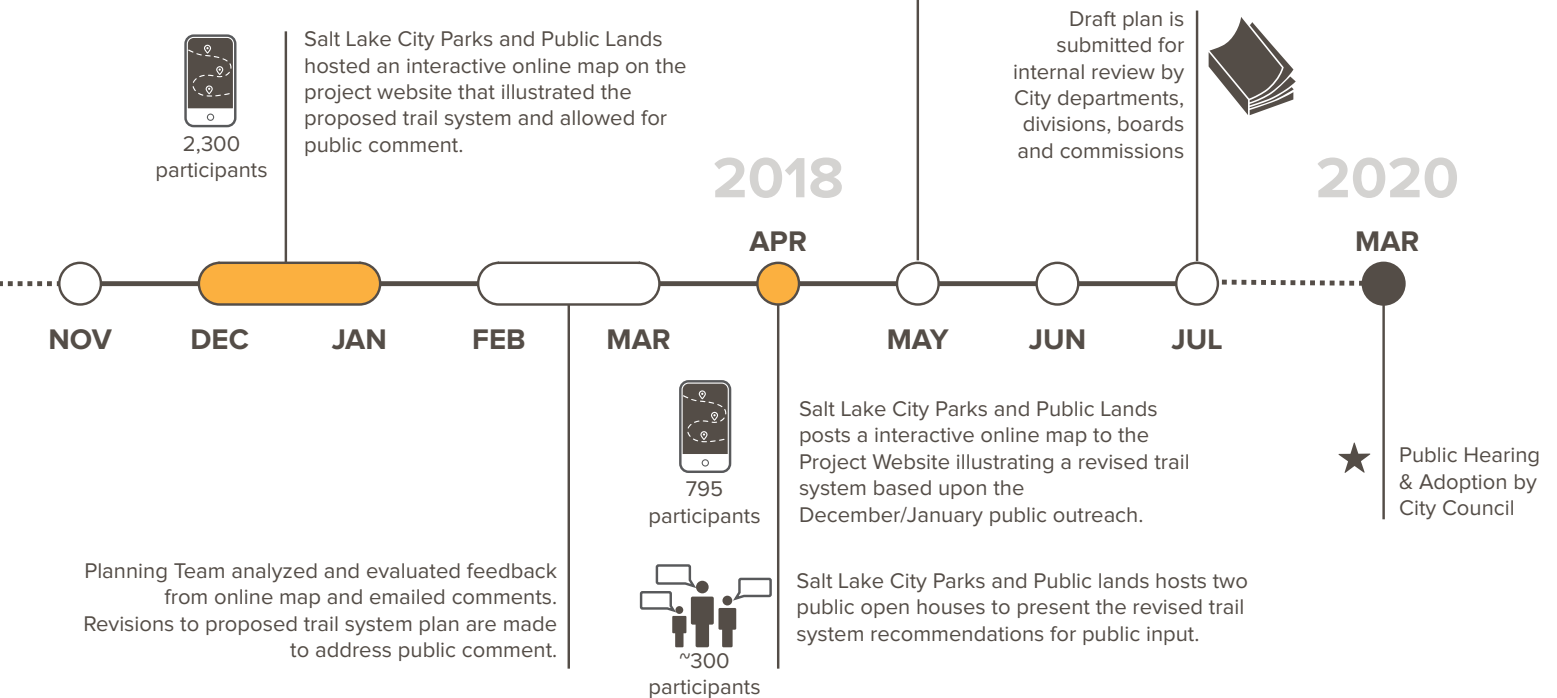
3,130 online map participants

Note: A full list of stakeholder participants is included in Appendix C.



Commenting station at the April 2018 public meeting

Planning Team analyzed and evaluated feedback from open houses and the second iteration of the online map. Comments are used to fine-tune the proposed trail system. Additional interviews with key stakeholders are conducted. A full list of stakeholder participants is included in Appendix C.



PUBLIC INPUT

OUTREACH ACTIVITIES



FOOTHILLS OPEN SPACE ONLINE SURVEY

Dates: June 2016 - June 2017

Participants: 1466

Outreach Description:

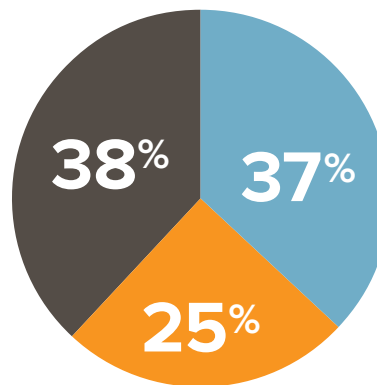
Salt Lake City Parks & Public Lands advertised a 21-question survey via email lists, social media, and other events in order to acquire answers from a diverse group of people that live near and/or recreate in the Foothills area. The survey polled participants on how they used the Foothills trail system (hike, bike, dog-walking, etc...), how often they visited the Foothills Natural Area, what their priorities are for the future of the open space, and their willingness to support trail and open space improvements through tax increases.

The survey identified the following top priorities for improvements within the Foothills Natural Area:

1. Sustainable trail construction
2. Protecting natural open space
3. More trail mileage
4. Posted rules and etiquette
5. Enforcing trail rules and regulations
6. Separation of user groups
7. Better information on trails
8. Security at trailheads
9. More or improved trailhead parking
10. Wayfinding signs and maps

Trail Type & Trail Density

38% of respondents stated,
"THE MORE TRAILS, THE BETTER, ESPECIALLY FOR TRAILS DESIGNED FOR SPECIFIC USER GROUPS."



37% of respondents stated,
"THE MORE TRAILS, THE BETTER, ESPECIALLY FOR TRAILS DESIGNED FOR ALL USER GROUPS."

25% thought there are enough trails or too many trails.



SALT LAKE CITY PARKS AND PUBLIC LANDS NEEDS ASSESSMENT

Dates: July 2017

Participants: 768

Outreach Description:

For this survey, 768 Salt Lake City residents completed online surveys. Survey invitations were sent to randomly selected mailing addresses in Salt Lake City and residents were given instructions to complete the online survey (provided in English and in Spanish). The data was weighted to reflect the demographics of Salt Lake City residents according to US Census data and the American Community Survey, specifically age, gender, home ownership, and ethnicity. Although the survey was focused on the entire Salt Lake City Parks & Public lands system, the following key conclusions were derived regarding the Foothills Natural Area.



USER COUNTS & INTERCEPT SURVEYS

Dates: September 2017

Participants: 50

Outreach Description:

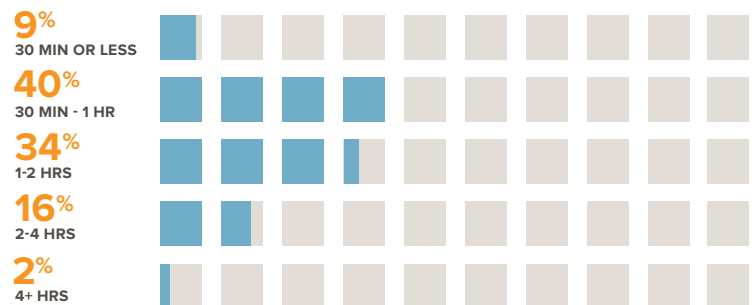
To fill gaps in understanding from the Foothills Natural Area survey and the Salt Lake City Parks and Public Lands assessment, the Planning Team conducted counts and user intercept surveys at key locations throughout the Foothills Natural Area. Counts and surveys were facilitated by Salt Lake City Parks & Public Lands staff and the University of Utah Urban Rangers program. This effort helped to identify why users are visiting the Foothills trail system and on average, how long they are staying.



**MOST VISITED
PARK/OPEN SPACE**

in Salt Lake City

How much time does the average user spend in the Foothills? (from intercept surveys)



PUBLIC INPUT

OUTREACH ACTIVITIES, cont.

STAKEHOLDER
INTERVIEWS**Dates: September 2017 - October 2017****Participating Entities :**

- Trails Utah
- Singletrack Trails
- State Historical Preservation Office
- Capitol Hill Community Council
- Natural History Museum of Utah
- East Bench Community Council
- Red Butte Garden
- Huntsman Cancer Institute
- Salt Lake Valley Trails Society
- University of Utah Active Transportation & Sustainability
- University Trails Committee
- University of Utah Commuter Services
- University of Utah Healthcare
- Mayor's Accessibility & Disability Advisory Council
- Wasatch Mountain Club
- US Forest Service, Uintah-Wasatch-Cache National Forest

Outreach Description:

The Planning Team developed three unique interview templates for land managers, neighboring residents or businesses, and trail users. Salt Lake City Parks & Public Lands and the SLC Public Engagement Team conducted interviews over a 2-month time frame leading up to the Deep Dive workshop. These interviews established a better understanding of stakeholder issues.



DEEP DIVE WORKSHOP

Dates: October 2017**Participants: 53****Outreach Description:**

The Planning Team organized and facilitated a week-long "Deep Dive" workshop at the University of Utah Guest House in October, 2017 to explore and develop the preliminary Foothills Trail System Plan. The agenda included:

Day 1: Preliminary Trail Routing / Stakeholder Interviews

Day 2: Trail Master Plan Refinement

Day 3: Trail / Trailhead Design Guidelines

Day 4: Trail System Refinement with Key Stakeholders

Day 5: Presentation to Stakeholders

Over 53 stakeholders representing 39 agencies or organizations attended throughout the week including the primary landowners within the Foothills Natural Area (This is the Place, Heritage Park, University of Utah, Salt Lake City Parks & Public Lands, Salt Lake City Public Utilities, and the US Forest Service). Trail alignments and narratives were developed coincident with field work to ground-truth recommendations. At the conclusion of the Deep Dive, the Planning Team had developed a relatively complete trail system layout that had broad support from a diverse group of stakeholders. The trail system layout was further refined and input into an online interactive map for public comment. A full list of deep dive participants is included in Appendix C.



The Planning Team worked closely with stakeholders such as Davis County, Salt Lake City Utilities, and North Salt Lake during the Deep Dive workshop.



ONLINE INTERACTIVE MAP- PHASE I

Dates: December 2017 - January 2018

Participants: 2,303

Outreach Description:

Following the Deep Dive, the Planning Team refined the trail system plan and developed an online mapping tool to illustrate the proposed trail recommendations in order to facilitate public comment on specific trail alignments. The interactive map was live for almost two months, from December 2017 through January 2018. Participation was encouraged by emailed outreach to thousands of names on email lists maintained by Salt Lake City Parks & Public Lands, Planning, and City Council and Community Council online newsletter distribution lists; news articles on KSL, KUER, and the University of Utah's online newspaper and blog; thousands of flyers distributed in public locations around the city; postings at all major foothill trailheads; and newsletters and social media posts by many of the Plan's stakeholder participants.

In addition to the interactive mapping tool, PDF versions of the recommended trail system were also posted to the project website at www.slc.gov/parks/trailsplan.



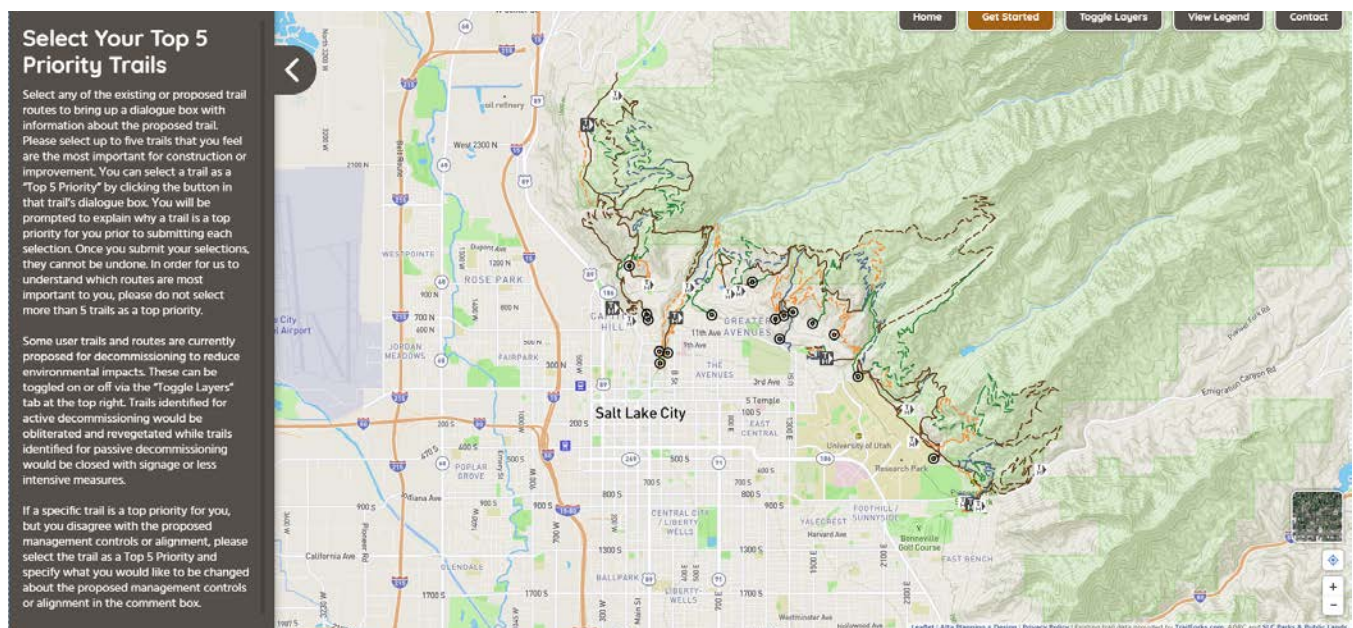
ONLINE INTERACTIVE MAP- PHASE II

Dates: March / April 2017

Participants: 827

Outreach Description:

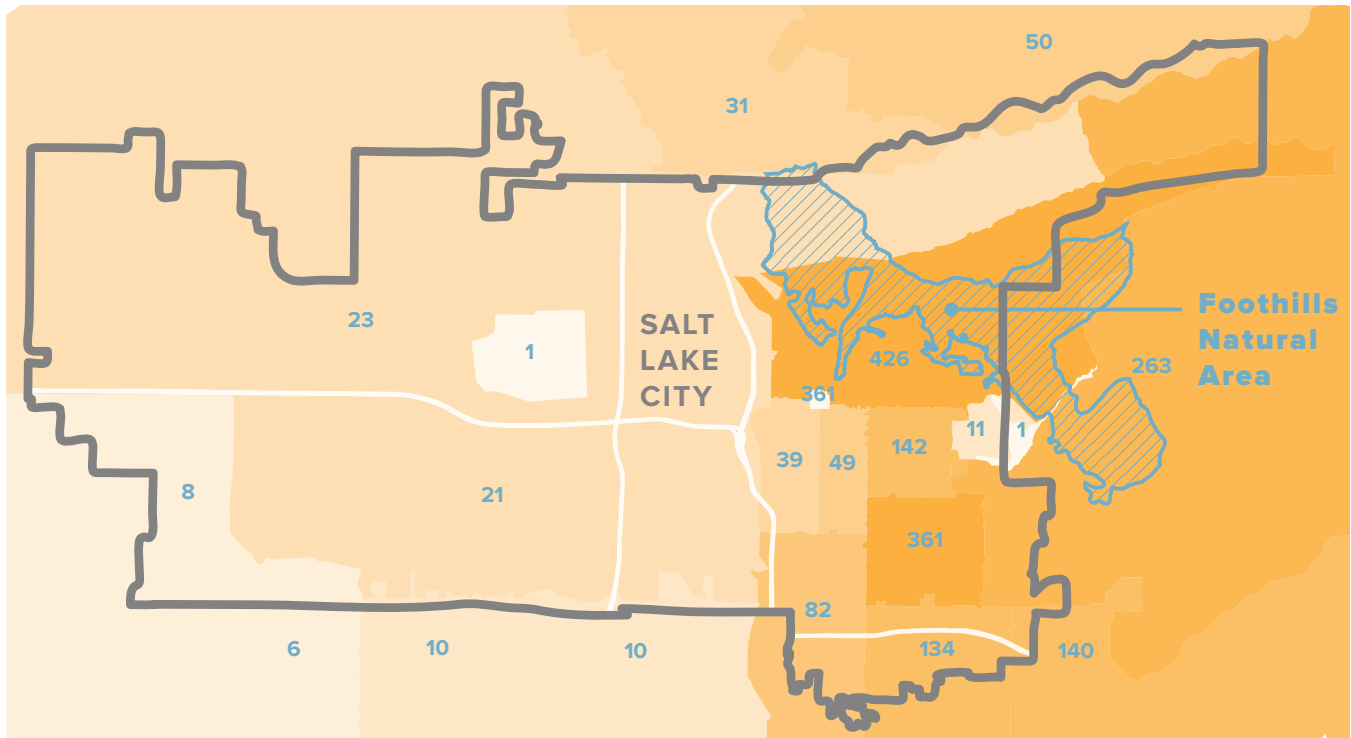
After the closure of the initial online interactive map in January 2018, the Planning Team reviewed hundreds of comments and thousands of other contributions on the draft trail system recommendations. Modifications were made to the proposed trail network based on public input, and a second version of the interactive map was posted online in May of 2018. In addition to online outreach, Salt Lake City Parks & Public Lands printed 1,000 flyers promoting the online map that were posted at popular local destinations such as bike shops and the University of Utah. This interactive map again allowed for public comment on proposed trails, but also allowed participants to identify their "Top 5" trails. This ranking process informed the prioritization of projects, and ultimately the project phasing.



Online Interactive Map- Phase II screen shot.

PUBLIC INPUT

OUTREACH ACTIVITIES, cont.


**ONLINE INTERACTIVE MAP-
RESPONSES BY ZIP CODE**


*Darker colors represent higher response rates in zip code areas.
Numbers represent number of online map participants in each zip code area.*

Public participation in both phases of the interactive online maps was strong with 2,303 people commenting during the December/January outreach period and 827 commenting during the April/May outreach period. The map above illustrates the number of online map participants by zip code for both phases. Neighborhoods adjacent to the Foothills Natural Area, such as the Avenues and Capitol Hill, are well-represented, and there was also strong participation throughout much of Salt Lake City. Additionally, interest in the project was high outside of Salt Lake City, reinforcing the Foothills value as a regional recreational destination.



PUBLIC MEETINGS

Dates: March - April 2018

Participants: 273

Outreach Description:

In tandem with the rollout of the Phase II Online Interactive Map, the Planning Team also conducted two in-person public meetings. The meetings were held at the Natural History Museum of Utah and the Sweet Branch Library in the Avenues. Meeting attendees were invited to review maps of the proposed trail system and the supporting improvements for trailheads and wayfinding signage. Similar to the Online Interactive Map, participants were asked to identify their top five priority projects for implementation. This input was compiled with the online responses and tabulated to provide a clear picture of the public's priorities. Public Meetings were advertised via postings and flyers at public locations around the city, email newsletters and list serves, social media posts by project partners, notification to Community Councils, and 10,000 direct mailings to all postal service routes that bordered the Foothills Natural Area between Emigration Canyon and North Salt Lake.



April public meeting at the Sweet Branch Library.



March public meeting at the Natural History Museum of Utah.