

DRAFT



CENTERVILLE CITY **TRAILS MASTER PLAN PROPOSAL**

Taking steps to protect Centerville's natural and recreational resources for future generations.

SECTION 1

INTRODUCTION AND PURPOSE



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Interest, usage, and demand for Centerville City's recreational trail system continue to grow. Improvements and ongoing management of the existing trails are essential to meet these rising needs. This master plan evaluates the current system and identifies future upgrades and policy to ensure the trails can handle increased usage.



1.1 Master Plan Purpose

The Centerville City Trails Master Plan is the City's first standalone trails master plan. This master plan answers a long-standing need to plan for the future of our trails system and to integrate with the County's vision and our neighboring City's' visions, in order to provide a cohesive trails network, protect our trail access, and to connect our existing trails as well as provide connections to our open spaces and recreational opportunities.

The primary purposes of this document are to identify the needs of the community, establish goals, and to identify and prioritize trail projects to keep up with demand and to ensure sustainability of the natural spaces and the safety of its visitors.

1.2 Executive Summary

Centerville Utah is nestled between the Great Salt Lake and the beautiful Wasatch Mountains. Acres of undeveloped foothills provide a unique and stunning backdrop to this friendly city. While Centerville still has that small town vibe, the city increasingly feels the pressures of the ever-growing

population of the Salt lake valley. Along with this rapid growth comes an accelerated interest and need for more public recreational opportunities. In the past 3 years especially, Davis County has seen a rapid growth in the use of its current trail systems. Many of the neighboring cities too have realized this situation and have worked to produce plans for the future of their trails.

1.2.1 Needs Assessment

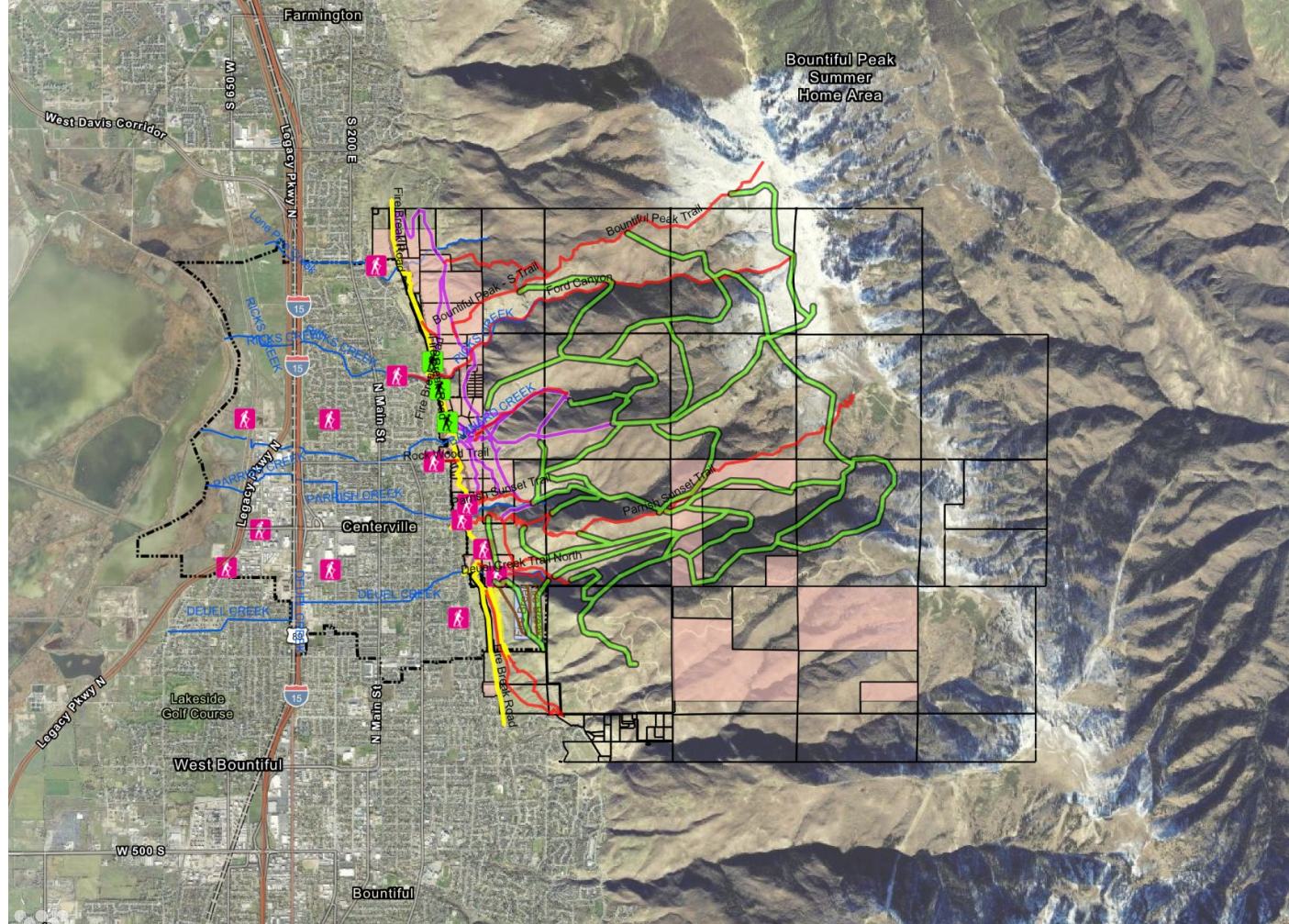
To identify future needs and necessary improvements, a multi-faceted approach was used. This included regular meetings with the Centerville Trails Committee, coordination with City staff, and public engagement through community surveys and an open house.

The findings confirmed high demand for trails among various user groups (hikers, bikers, equestrians) and highlighted the need for a cohesive, guiding plan to prioritize funding and projects.

In addition, the existing recreational trails system was inventoried and mapped to assist in planning of improvements and development of new trails and connection. (see Map A on following slide)

Map A - Trails Committee Working Map

-  Proposed Trailheads (3)
-  Proposed Trails (35 mi)
-  Existing Trailheads
-  Existing Official - Non Motorized (20 mi)
-  Existing Official - All Uses (6 mi)
-  Existing Social - Need Easement (6.7 mi)
-  Access Road
-  Private Hillside Parcels
-  Gun Range Property
-  Creeks
-  All Uses Area
-  Parcels East Hillside
-  City Limit
-  Weber Basin Aqueduct ROW



Volunteers assisting
with trail work on the
Parish Creek Trail



1.2.2 Vision, Goals, and Objectives

Based on the needs assessment, the vision, goals, and objectives were developed to reflect community priorities.

This plan will focus on five main objectives:



Objective 1: Identify Centerville's current trails and resources.



Objective 2: Identify needs for future trails, connections of current trails, coordination with neighboring trail systems



Objective 3: Identify needs for trail infrastructure such as parking, restrooms, signage.



Objective 4: Devise a plan to work towards land acquisition, trail easement, etc. to maintain access to our trails, canyons, and the National Forest Service lands.



Objective 5: Work with neighboring Cities, governments, non-profits, and stakeholders for planning and funding

1.2.3 Proposed Improvements

Improvements include but are not limited to improving existing trails, developing new trails, improving and adding amenities, and devising plans for trail sustainability and maintenance

Key Trail projects include: improving existing trails for sustainability and safety, developing new multi-use trails and trail connections, and defining trail access points. Trail parking is a necessity and where possible, restroom facilities should be installed in high traffic areas.

Signage includes: Developing cohesive and consistent trail signage to improve information and wayfinding, providing trailhead signage and kiosks, adding directional and mileage signage for improved navigation.

Regional Trail Connectivity and coordination with neighboring city's trails systems. This includes working with the City of Bountiful and Farmington, Davis County, The National Forest Service, and The City Of Centerville. Trail connectivity also includes coordination with the Bonneville Shoreline Trail Project.

SECTION 2

NEEDS ASSESSMENT



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Centerville has a well loved and fantastic network of trails and trailheads. However, growing demand and misuse of some facilities highlight the need for improvements to better serve users and preserve the system's quality.

2.1 Existing Facilities

Centerville's recreational trail system includes several trailheads and numerous designated trails that provide access to the mountains, canyons, creeks, and other natural features. These trails accommodate activities such as hiking, biking, running, and equestrian use. There are also numerous well used social trails that are not yet designated trails.

Through inventorying the current established and social trails using previous maps and physical observation and GIS, an inventory map was created. This map also includes planned new trails and connector trails. Each category is color coded to differentiate between current all use, current non motorized, social trails, and future trails. The map will be a guiding document as plans move forward for trail projects, including but not limited to: adjusting current trails, adding trailheads and access points, construction of new trails and connectors, connections to other trail systems, addition of parking and other facilities, as well as locations of parcels for potential land acquisitions and easements.




*Hillside south of
Barnard's Creek*

2.2 Needs Assessment

A structured process was used to evaluate the current trail system and identify improvements, including: Trails Committee input, coordination with Centerville City Staff, and community engagement.

These efforts confirmed strong demand for additional trails, improved access, and better amenities like trailheads, parking, and wayfinding.



Sunset viewed from the hillside property purchased by the City for the residents to enjoy for years to come. Sagebrush grasslands provide grazing for overwintering deer.

2.2.1 Trails Committee

The Centerville Trails Committee has actively worked to identify needs and focus efforts for over 11 years. Through regular monthly public meetings, the committee has worked to understand the existing system, its strengths and deficiencies, and to identify priority projects that would meet the Trails Committee's and community's needs and goals.

Their key contributions to this plan include:



Identifying priority projects



Refining the plan's vision, goals, and objectives



Coordinating with Centerville City departmental staff and city council



Developing content to engage public in order to gather community feedback

2.2.2 Community Survey

As part of the Trails Master Plan, Centerville City administered a community-wide survey to gauge the public's interest and usage of the existing trail system and to gather input as to desired additions and improvements. There was a significant response to the survey with over 600 surveys taken. Survey questions and charts summarizing answers to each question are included (see Section 5 - Community Survey Results) with full content included in the Appendix. Key trends included:

High Demand for New Trails: Residents want more trails, with hiking and biking being the most common activities. Residents also voiced a desire for connector trails and more trail loops

Barriers to Use: Many non-users cited a lack of clear trail access points as a barrier.

Desired Amenities: Trailheads with restrooms, parking, and wayfinding signage were identified as top priorities.

Additional Community Desires and Interests Included: Strong support for adding trails and improving access and interests in providing volunteer time and resources for trail projects

SECTION 3

VISION, GOALS, AND OBJECTIVES



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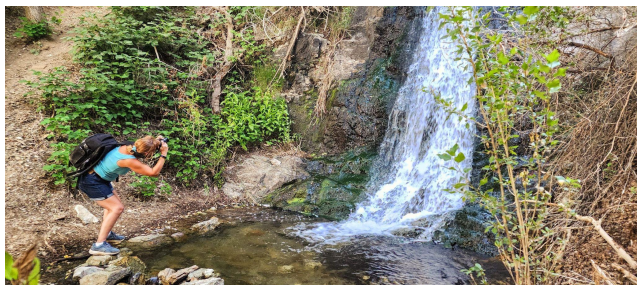


"Vision without execution is delusion"

- Thomas Edison

3.1 Vision

Centerville City is uniquely situated between the Farmington Bay wetlands and the Wasatch foothills. Much of the foothills leading up to the mountains is undeveloped. The open natural spaces creates a stunning backdrop to the City. In addition, there are four canyons with year around creeks flowing: Rick's Creek, Barnard's, Creek, Parish Creek, and Duel Creek. Centerville has a variety of stunning natural trails and the opportunity to provide additional recreational access to the City's stunning natural environment, providing unsurpassed benefits to the resident's physical, mental, and emotional health.





Almond blossoms,
hillside open spaces
above Chase Lane

3.2 Goals & Objectives

Objectives Recap:



Identifying current trails and improvement needs



Identify future trails, trail connections, and coordination with neighboring trail systems and plans



Pinpoint infrastructure needs



Address easements, land acquisitions, maintaining trail access



Achieve funding opportunities

3.2.1 Trail Connectivity and Expansion of the Current Trail System

- Achieve connectivity with existing trails, national forest land, and canyons
- Expand and improve the current system of natural trails for a variety of users and abilities, adding additional trails and improving current trails and social trails.

3.2.2 Trail Accessibility

- Provide and maintain access to the trail system. This includes defining key trailheads and access points. Parking for access to key trailheads is also necessary. If possible, parking should be available at points near each of the four creeks/canyons. Additional amenities such as restrooms where feasible must be included
- Maintaining trail access also includes continued efforts to work with private landowners for acquiring permanent conservation easements, trail easements, and/or land acquisitions.
- Provide and maintain access to Centerville's canyons and creeks and access to the adjoining National Forest Service lands. This coincides with land acquisitions as well as planned public parking for trail system access.
- Protect recent Centerville City acquired hillside open space and future acquired open space from potential future developmental threats and pressure. Any City owned natural open space should have a conservation easement placed on it or it should have a zoning created that designates the parcel as Open Spaces.



3.2.3 Increase Public Awareness

- Develop an appreciation among the public for Centerville's trails and natural spaces
- Improve the public's awareness through various educational opportunities and materials
- Plan and/or attend community events as trails committee members
- Provide regular volunteer opportunities with community members, schools, and clubs

3.2.4 Promote Health and Recreation

- An improved and expanded trail system will increase recreational opportunities.
- Support programs that encourage outdoor activities within Centerville's natural spaces.
- This can enhance community health and interest in exercises and outdoor recreation

3.2.5 Improve Signage & Wayfinding

- Develop a consistent signage program to improve trail navigation
- Provide trailhead markers, mileage information where applicable, and directional signage
- Provide informational Kiosk and maps

3.2.6 Sustainability of the Natural Spaces

- Improve existing trails and develop new trails in a sustainable way to ensure longevity and minimal impact to the surrounding environment
- Provide regular maintenance of trails to ensure safety and sustainability
- Officiate sustainable social trails and remove/ re-naturalize social trails that are not viable

3.2.7 Develop Partnerships

- Develop working and supportive partnerships with stakeholders, other organizations, neighboring cities and counties
- Work with neighboring cities trails plans for better trail coordination and connectivity.

3.2.8 Secure Financial Resources

- Seek grant opportunities, city bonds, donations, private funding from local businesses and other stakeholders.
- Funding is necessary for trail projects, facilities, maintenance, and land acquisitions/ easements

SECTION 4

PROPOSED TRAIL IMPROVEMENTS AND RECOMMENDATIONS



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*"In every walk with nature, one receives far more
than he seeks."*

- John Muir

Participants of a community hiking event taking a break at the top of the Parish Sunset Trail



4.1 List of Trail Types

There are a variety of uses and types for the trails system. Below is a list of the main uses by the public and types of trails. As the trails are developed, the proper use type for the trail will be established based on the sustainability of the trail and safety.

Hiking only – foot traffic only. These trails are not suitable for motorized nor bicycle traffic

Multi use – these trails may include all uses, or may be for all traffic other than motorized

Non motorized – these trails are not safe for motorized and non-motorized use to be combined and/or it is not a sustainable use for the trail

Bike only – this trail may provide a way for mountain bikers to continuously climb or descend a trail system to access other areas, or the trail may have specialized terrain for mountain biking

Downhill only – same as the bike only

Connector trails – these trails are developed to link other trails and recreational systems

Social trails – these trails are not fully established/planned trails, but may be well used and have been in place for quite some time

Paved surface trails

Natural surface trails



4.2 Trail Improvements and Additions

- There are a number of current trails that need improvements including: adding switchbacks, widening and improving grade of the trail, adding steps and water bars
- Many social trails exist that need to be dedicated as established/ official trails, while others need removal and revegetated.
- Other existing trails that already have improvements need proper signage and directional markers. Some trails need informational signs to inform motorized vehicles that use in that area is not permitted.
- Multiple connector trail opportunities have been identified that will connect current trails, future trails, forest service, and canyons
- There are numerous future trails that have been identified. These additions will create a cohesive and inclusive network of trails for a multitude of users and interests. These trails run along the foothills as well as connect to the ridges and skyline drive
- Trails access points have been identified along with planned and current trail heads. Many of these are at canyons/creeks providing access to multiple other trails
- Where applicable coordination with Centerville's Active transportation plan should be included in trail expansion.
- A paved "pump track" is planned. This will be accessible to a variety of users such as cyclist, skateboarders, scooters, wheelchairs, fruit-booters (rollerbladers), etc. Pump tracks cater to a wide variety of rider skill levels. See following slide for information.
-

Velosolutions Pump Track

Velosolutions Pump Tracks are both playgrounds and training facilities for bikers, skateboarders or scooter riders of all skill levels. Asphalted tracks are hotspots for all kinds of riders who seek a fun and action-filled sports experience. Velosolutions Pump Tracks are highly popular destinations that become a hive of community activity. Riders enjoy practicing the basic skills of carrying momentum, improving balance and building speed by using their arms and legs to pump their bike/board/scooter around the track. As riders improve their skills, the tracks are designed to provide the option for more challenges with increased speed and skill, without needing to change the construction. A feature that a 5-year-old can roll through can be used as a gap jump for a professional.



Existing pump track

Velosolutions Pump Track - Examples



Velosolutions Pump Track - Proposed Location



4.3 Trail Signage

4.3.1 Trail Signage Materiality



Corten Steel: Weathering steel, often referred to by the genericized trademark COR-TEN steel and sometimes written without the hyphen as corten steel, is a group of steel alloys that form a stable external layer of rust that eliminates the need for painting.



Blackened Steel is simply when metal goes through a process to give it a darker finish than its original color. There are multiple methods that can be used to achieve a blackened aesthetic, such as using hot chemicals or oil.



Plywood is made by gluing thin layers of wood veneer, called plies, together in alternating directions. The grain of each layer runs perpendicular to the layer below it, which gives plywood its strength and stability. The layers are glued with a waterproof resin adhesive, and the core layers increase the separation between the outer layers.



Brushed Aluminum is a type of aluminum with a matte finish that's created by brushing the metal with fine lines in a single direction. The process enhances the texture of the aluminum and reduces the appearance of fingerprints and smudges.

4.3.2 Trail Signage Inspiration

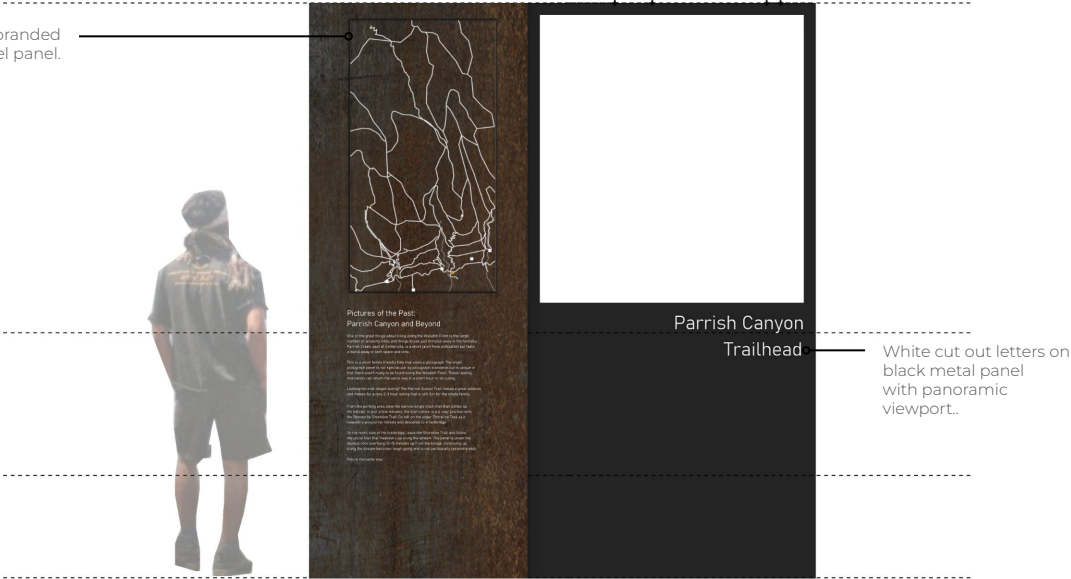


4.3.2 Trail Signage Proposal

The lack of consistent signage along Centerville's trails has been a recurring concern for trail users. Clear and standardized signage is essential for navigation, safety, and enhancing the trail experience.

The plan begins with establishing a **consistent signage theme** for all trailhead and trail marking signs. This includes choosing a unified design and ensuring all signs are properly maintained over time.

Trail Map and Information branded into folded Corten Steel panel.



4.3.3 Trail Signage Inspiration



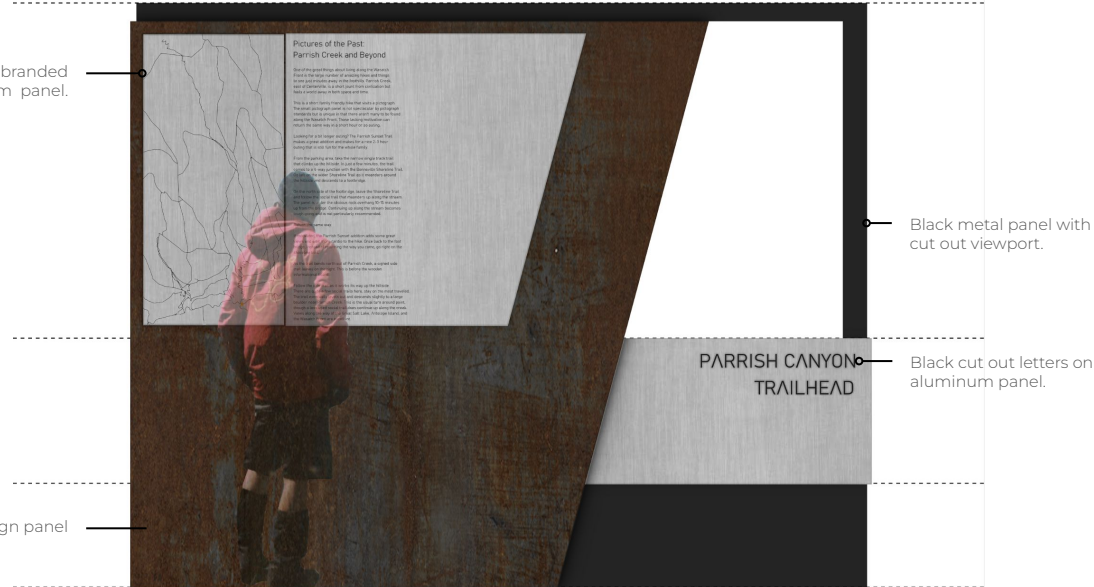
4.3.4 Trail Signage Proposal

To improve accessibility and user experience, the plan calls for **signage at every trailhead and trail crossing**.

Additionally, the proposal includes placing **information kiosks** at all main trailheads to provide users with maps, rules, and key information about the trails.

Trail Map and Information branded into aluminum panel.

Folded Corten steel sign panel

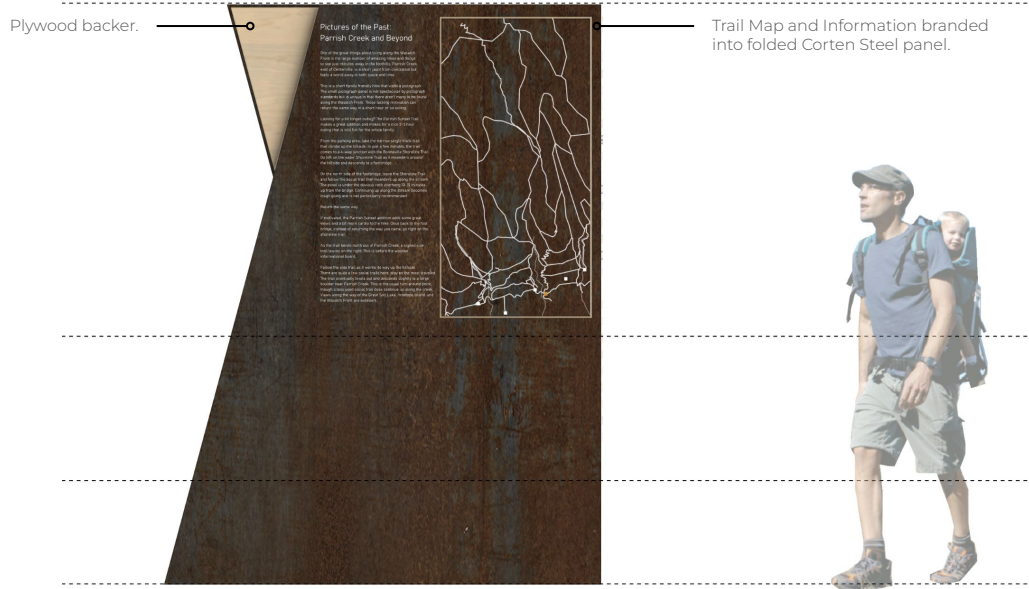


4.3.5 Trail Signage Inspiration



4.3.6 Trail Signage Proposal

Navigating trails should be straightforward and intuitive. As part of the plan, **directional and mileage markers** will be installed. These markers will include distances to key points such as joining trails, trailheads, or the end of a trail, helping users plan their routes efficiently.

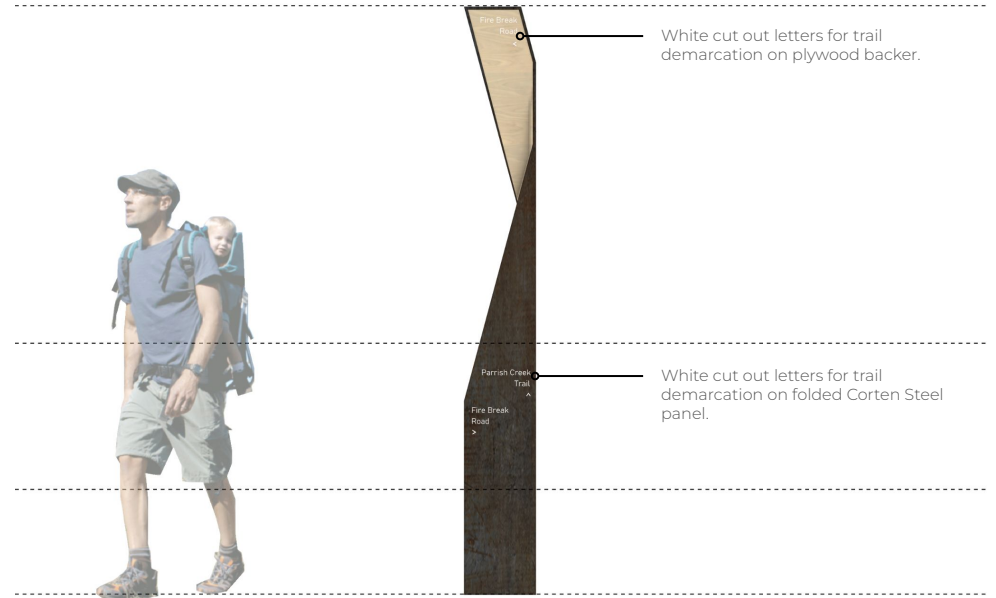


4.3.7 Trail Signage Inspiration



4.3.8 Trail Signage Proposal

The plan also emphasizes the importance of **informational signage** to guide proper trail use. Signs will indicate motorized and non-motorized areas, provide trail courtesy reminders, and clarify the appropriate use types for each trail. This will help maintain safety and respect among trail users.

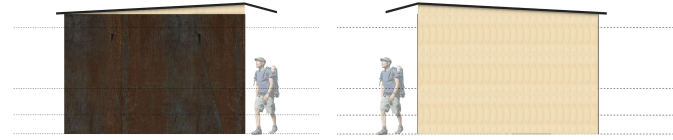


4.3.9 Trail Signage Inspiration

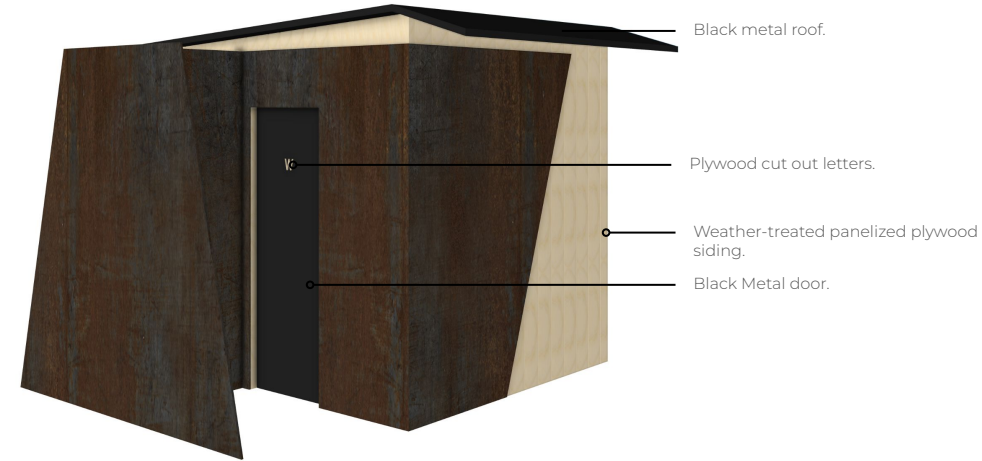


4.3.10 Trail Facilities

A trailhead is a designated public access point to a trail, often — but not always — located at its terminus points. The trailhead is typically a place where users begin or end their journeys and where they get oriented to the trail or trail network. While there will normally be other minor access points along a trail, for example at road crossings, within neighborhoods or where two trails intersect, a trailhead tends to be a developed site, purposefully designed to provide amenities to trail users.



Folded Corten steel panel and divider..



4.3.11 Trail Facilities Inspiration



4.3.14 Trail Facilities

Facility amenities include some combination of:

- Parking
- Signage
- Information kiosks
- Restrooms
- Drinking fountains
- Bike racks
- Bike repair stations
- Seating (benches, picnic tables, etc.)
- Public art
- Landscaping
- Trash receptacles

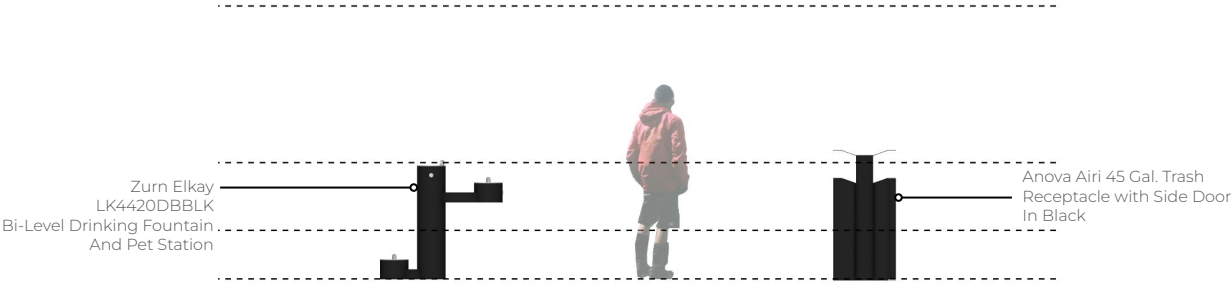


4.3.13 Trail Facilities Inspiration



4.3.12 Trail Facilities

Trailheads can act as the interface between trails and their adjacent communities. They can also pique the curiosity of residents and visitors alike, welcoming them to use the trail. There may be opportunities to celebrate the culture or history of a place through interpretive signage, historic markers and public art placed at the trailhead. Trailheads can also be ideal gathering places for events such as organized bike rides or runs, or community celebrations.





4.4 Regional Trail Connectivity

4.4.1 Coordination with Other Organizations and Stakeholders

- The planning of new trails and connector trails will take into account the adjoining trail systems of the neighboring cities such as Bountiful and Farmington
- Additionally, partnerships should be achieved with Centerville City Government departments, the US Forest Service, and private landowners
- Partnerships should be maintained, keeping communication open in order to have a cohesive trails network along the Wasatch front.

4.4.2 BST Trail System

- Completing the Bonneville Shoreline Trail (BST) remains a critical regional priority. This iconic trail will enhance Centerville's connectivity to other Wasatch Front communities and offer residents a long-distance recreational opportunity.
- While the BST alignment through Centerville is managed at the county level, the city supports its development and integration into the local trail network.

4.4.3 Land Acquisitions and Easements

A large percentage of the undeveloped hillside is held by private landowners. To achieve and maintain access to the four canyons east of the city, maintain access to the adjoining National Forest Service land, and to connect the current Centerville trails as well as connect Farmington and Bountiful trails, the City must work with private landowners to acquire conservation easements, trail easements, and achieve land acquisitions. These measures will insure improved and expanded access to our trail system and insure access for future generation.

4.5 Funding

Expansion and improvement of our current trail system, continued trail maintenance, community outreach, and land acquisitions each require financial means to achieve these goals. For example, professional construction of a new trail cost on average about \$50,000 per mile. Covering the cost of developing and maintaining the trails network will require efforts to draw funding from various sources. Sources of funding will include but are not limited to:

Applying for State, Federal, and Non-Profit Organization grants

Seeking and accepting donations from businesses and other stakeholders

Private donations from the public via various means. This can include use of QR codes at trail kiosk and at community events to provide donors with a link to securely and suitably donate to the City's fund.

Working with the City to set up bonds



SECTION 5

TRAILS SURVEY RESULTS



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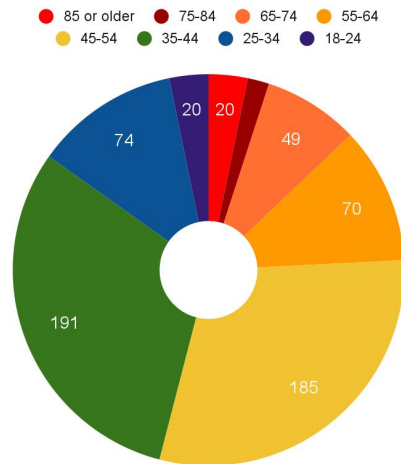
Feedback collected from Centerville community members on their preferences and opinions when interacting with the trail system. The survey will help us assess how to best serve the users of the trail system.



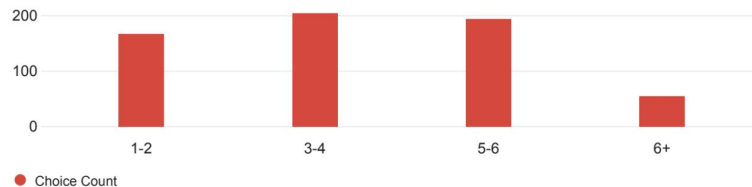
5.1 Respondent Information

The survey was conducted using a pool of 620 respondents, who first answered a few questions to help us understand the demographics of respondents.

5.1.1 - What is your age?



5.1.2 - How many members are in your household?



5.1.3 - What is your ZIP code?

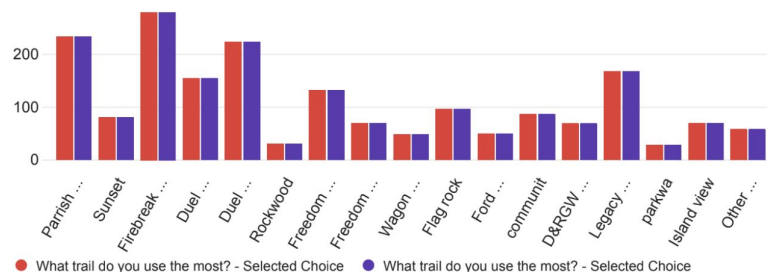
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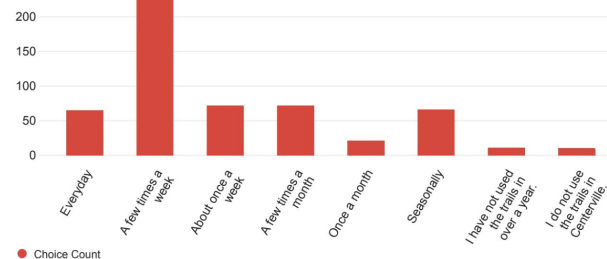
5.2 Trail Usage

Questions to understand the current habits of the Centerville trail system users.

5.2.1 - What trail do you use the most?

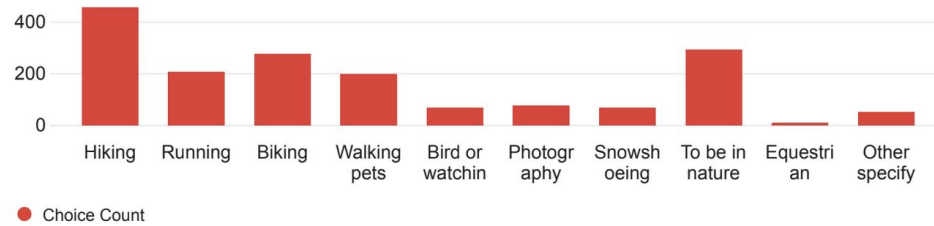


5.2.2 - How often do you use trails in Centerville? (For the purpose of this question, trails include established trails and walking trails in parks)

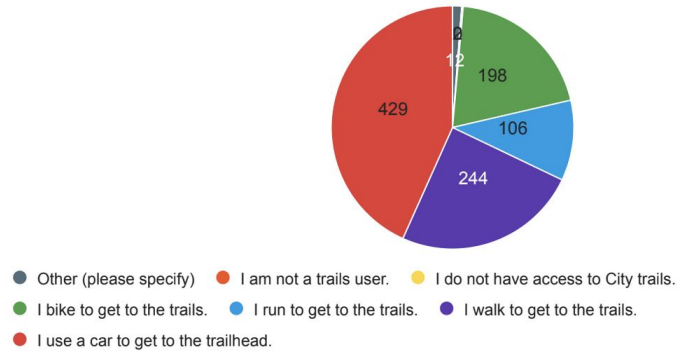




5.2.3 - How do you use the trails? Check all that apply. - Selected Choice

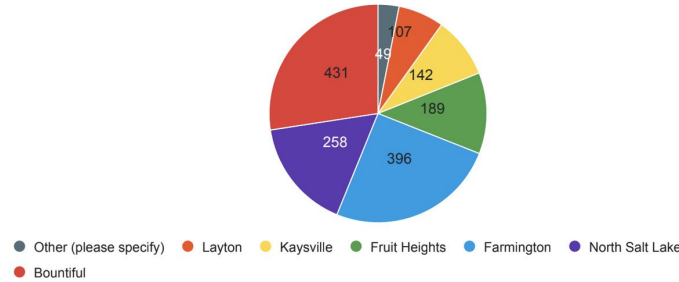


5.2.4 - How do you get to the trails? Check all that apply. - Selected Choice





5.2.5 - Which neighboring city's trails systems do you currently use? (Check all that apply.) - Selected Choice



5.2.6 - Why are trails important to you and Centerville as a whole?





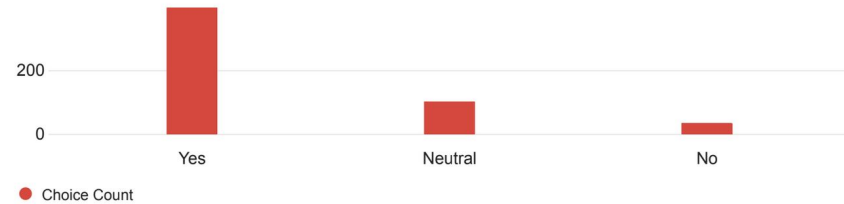
5.3 Feedback and Opinions

Respondents' interest in different proposed improvements.

5.3.1 - What types of trails would you like to see in Centerville?



5.3.2 - Does Centerville need more trails?

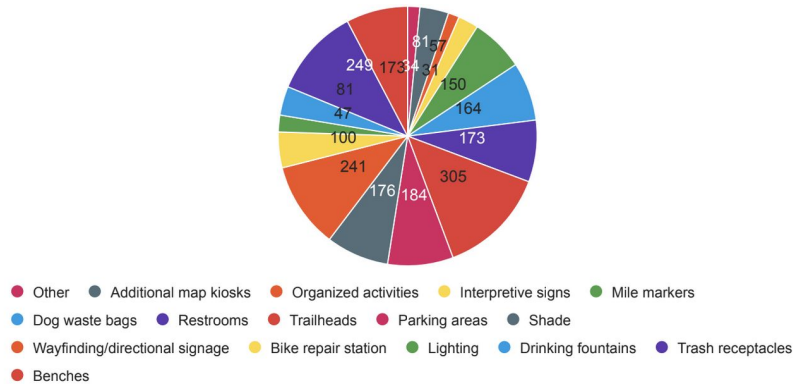




5.3.3 - Are you satisfied with the trail system in Centerville?

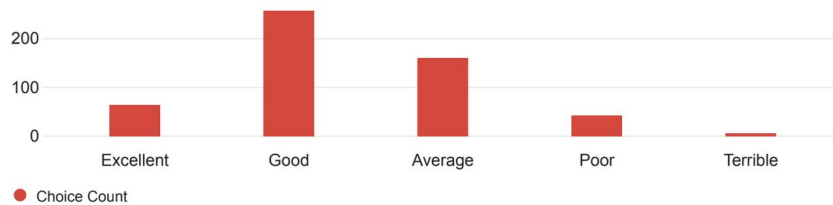


5.3.4 - What kind of trail amenities would you like to see? (Check all that apply.) - Selected Choice





5.3.5 - Rate the condition of Centerville trails



5.3.6 - Do you feel that Centerville trails are safe?

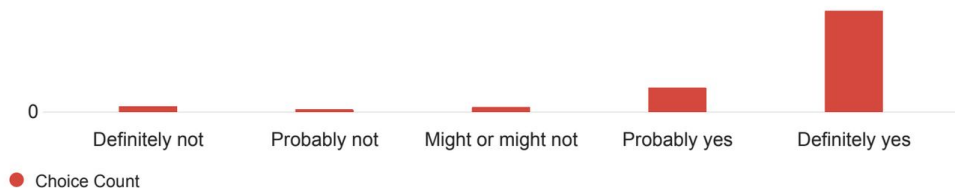




5.3.7 - Do the Centerville trails provide good access to the mountains and natural areas?

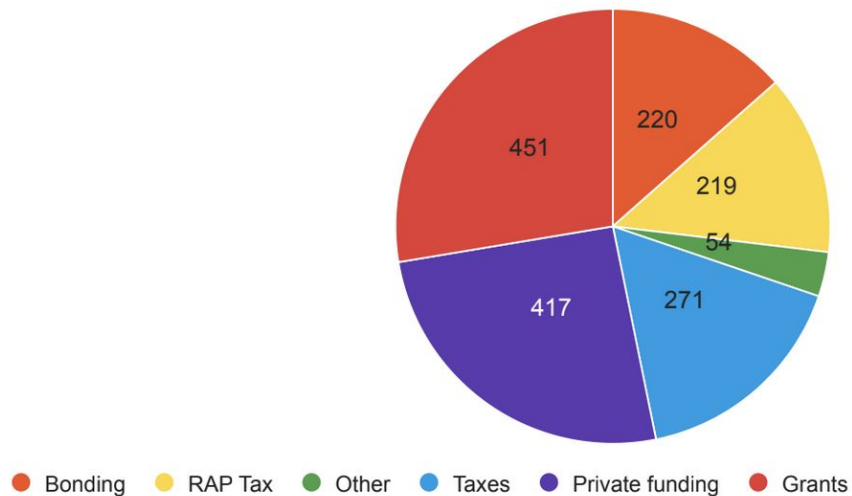


5.3.8 - Do you support the City of Centerville developing and promoting more trails and trail systems when the opportunities arise?





5.3.9 - What sources of funding would you support in the development and maintaining Centerville trails. (Check all that apply.) - Selected Choice





5.4 Thoughts and Engagement

Questions with room for unstructured ideas and opportunities for community engagement from respondents.

5.4.1 - What other trail projects would you like to see completed?

New trails that meet up with skyline drive

Off leash dog walking trails

Connect east to west. Easier access to north and south on BST

Connecting trail

Be able to hike up all of the canyons to the top

Bike park surrounding the firebreak road

Wider paved walking and biking paths.

Mountain biking trails

More trails leading into the mountains, similar to Deuel Creek.

Need better Dirt Bike access

The Bonneville Shoreline Trail formalized

Groomed bike trails like the Farm in Farmington

Extension of Bonneville Trail from Bountiful

5.4.2 - What maintenance concerns do you have?

Why is the legacy trail still blocked when the area construction is complete?

Bridges that have washed out

Flag rock trail is overgrown and could use some clearing and grubbing.

Poison oak up Barnard Trail

The very narrow and steep sections that get washed away. Always scary each spring to know of the land is stable because it's so steep (start of deuel creek south).

Maintaining highly trafficked trails and better signage. Hole fill in from water run off by bridge under jurassic gate.

Just want to see more official trails created.

Deuel creek lots of downed trees

Erosion

Why are there a bunch of dirt piles at the motorcycle track? To fill up the lake that has no drainage?



5.4.3 - What are the main concerns you have about trails in Centerville?

Less or no motorized traffic in the trails above Centerville.

More established/posted SAFETY guidelines for bicyclists who share the trail with hikers.

More police patrol on streets with canyon access. On 100 south in Centerville trucks (many not from this area) constantly speed up to the motorbike and ATV areas endangering kids and pets.

We need more trails in Centerville

Some of the trails are confusing, especially when there are multiple options and no signs

Steep and sometime fall coming down

Trails being built without permits are low quality

Need more official trails above Bonneville Shoreline trail.

Need dirt bike access

Aren Zamani's destruction of the hillside

5.4.4 - Which of the following would you be willing to donate time or resources to in relation to trails?



Other (please specify)

Design and breaking new trails.

Only if I have access with my dirt bike

Our scout troop is always looking for service and eagle projects.

I have averaged a full day per week maintaining mountain trails in Davis County for 5 years. I plan to continue.

I am unable to do hard physical labor but I'd like to help. During the 9/11 clean up of Lagoon Trail I donated water and snacks for the volunteers.

Promotion

Feedback on design. Marking or walking out potential routes through the brush.

Getting information out, designing infographics, As a physical therapist - input on making them accessible to all abilities (older adults, kids, wheelchairs), leading hikes

SECTION 6

USE STRATEGY AND RECOMMENDATIONS REPORT



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*Recommendations compiled by the Community
Development Department*

6.1 Background

Previously, the Foothills Management Task Group completed a “Current Conditions Summary Report,” which was given to the City Council earlier this year. The Current Conditions Summary Report completed the first of three (3) phases for establishing a Future Use and Management Plan. The second phase or next step was “Synthesizing A Management/Use Strategy.” The City Council then directed city staff to expand the original task group, which was to also include residents from the immediate adjacent neighborhood (i.e. Island View Park area).

This expanded task group met on three (3) occasions: August 27, October 09, and November 1, 2018. The task group was divided into sub-groups and each sub-group worked on the following four (4) subject matters, as recommended in the 1st report to the City Council:

- Access Management Control and Stormwater Management
- Slope Maintenance and Erosion Control
- Acceptable Recreational Use & a Preferred Priority List
- Risk Management and Liability Issues

6.2 Task Group's Use Analysis, Findings, and Conclusions





6.2.1 - Access Management Control and Stormwater Management

The sub-group reviewed the previous study performed by ESI and also researched and visited the roadway up Farmington Canyon to see how it has been managed. The sub-group has concluded the following:

Findings:

- The roadway up Farmington Canyon requires a significant commitment to maintain and still is susceptible to failure.
- The use of 100 South and then connecting with firebreak road (then south to the City's property) has or may have similar problematic roadway surface maintenance issues.
- The State regulations and requirements for use of the existing basin (generally the OHV use area) may be problematic (e.g. is it a dam, catch basin, or detention area).
- The basin has been breached in several places and in part helps attenuate the basin from being labeled as a dam and required to be inspected as such.
- Historically, the original use of the basin was for "flood control management" and later considered as well-head recharge basin.

- If a future threat of flooding risk is possible (e.g. a burn scar above), then the breaches could be filled in as an emergency or last resort mitigation strategy to attenuate flooding homes below to the west.
- The basin is located within a wellhead protection zone boundary, as defined in the City's Municipal Code.
- The allowed uses within the protection zone may pose risk to a portion of the City's well water use resources.

Conclusions:

- The primary focus of the basin area should be for "flood control management."
- A storm-water capture and discharge system should be installed from the basin, along the lower access road to the Deuel Creek Drainage channel for release.
- As part of the storm water system, or shortly later, an all-weather surface roadway (12-18 feet wide) with several passing bulb-outs should be constructed from 100 South to the west side of the basin (see attached map from ESI Engineering).



6.2.2 - Slope Management and Erosion Control

The sub-group took a field trip to the property and took photos to categorize the various major erosional features of the property. Additionally, the categorization attempted to identify the causes and the contributing factors to the erosional features. Finally, the erosional features were given risk and priority levels with regards to an environmental risk versus a restoration priority, along with listing potential mitigating actions. These assignments are not necessarily directly related to one another. It is possible for a high-risk level to be assigned but the amount of effort or cost of remediation may NOT be equal. The sub-group has concluded the following:

Findings/Conclusions:

OHV Misuse

- Causes:
 - o Off Highway Vehicles & Storm Water Runoff
- Contributing Factors:
 - o Uncontrolled user activity
 - o Lack of focused riding uses and activities
 - o Minimal regulatory framework
 - o Lack of enforcement
 - o User disregard of environment
- Conclusions:
 - o Erosion Risk – High Level

- o Restoration Priority – Low Level, if OHV controls are in place
- o Set-up area restrictions & signing
- o Spring and fall maintenance of area boundaries
- o Provide regular enforcement weekends with a Spring and Fall focus
- o Engage users and user groups (education)

Gully/Water Runoff

- Causes:
 - o Channelized Storm/seasonal Water runoff (piping)
- Contributing Factors:
 - o Upper roadway stormwater runoff
 - o Un-Stabilized soil at pipe outlets
 - o Inadequate water outlet pipe design
 - o Lack of strategic stabilization measures
- Conclusions:
 - o Erosion Risk - High
 - o Restoration Priority – Moderate/High Level
 - o Re-design upper roadway runoff capture system
 - o Install rip-wrap reinforcement at pipe outlets
 - o Reduce runoff velocity



Surface Rill (Water) Erosion

- Causes:
 - Storm/snowmelt runoff on moderate to high roadway grades
- Contributing Factors:
 - Slope angle of roadway
 - Differing surface planes
 - Lack of regular roadway maintenance
- Conclusions:
 - Erosion Risk – Low Level
 - Restoration Priority – Low/Medium Level
 - Perform regular surface maintenance to reduce runoff velocity

Road Surface Widening Erosion

- Causes:
 - Vehicles driving along roadway shoulders
- Contributing Factors:
 - Regular use by Vehicles
 - Roadway travel lane deterioration
 - Lack of regular roadway maintenance

- Conclusions:
 - Erosion Risk – Low Level
 - Restoration Priority – Low Level
 - Mark/identify travel lanes (e.g. shoulder markers/use shoulder obstructions)
 - Perform regular surface maintenance of the travel lanes

Road Surface Deterioration and Surface Loss

- Causes:
 - Frequent Vehicular Usage
- Contributing Factors:
 - Regular use by Vehicles/Wash boarding
 - Roadway Slope Grade & Storm Water Runoff
 - Lack of regular roadway maintenance
- Conclusions:
 - Erosion Risk – High Level
 - Restoration Priority – High Level
 - Stabilize Surface & Mitigate Erosion Potential
 - Perform regular surface maintenance of the travel lanes



6.2.3 - Acceptable Recreational Use & a Preferred Priority List

The sub-group reviewed the informal survey results and the existing conditions report. The sub-group concludes that the likely primary use of the City's property should be for passive recreation activities, such as hiking, walking, dog park, running, etc., which carries a low environmental and safety risk for such activities.

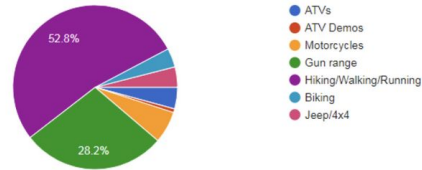


Figure 1- Informal Survey Results

Future recreational use expansion ought to be centered around improving access for existing passive recreational uses. Such improvements needed or suggested are:

- Better access
- Hiking Trail Improvements
- Mountain Biking Trails
- Restrooms

Uses	Currently In Use	Future Potential	Environment/Safety
Hiking Use Types			
Day hiking	x	TO BE DETERMINED	Lowest Environmental Impact Lowest Safety Risk
Back hiking			
Section hiking			
Thru hiking			
Biking Use Types			
Mtn Biking	x	TO BE DETERMINED	Low Environmental Impact
BMX	x		Slightly Elevated Safety Risk
Shooting Range Use Types			
Shooting (aka Firing Range)	x	TO BE DETERMINED	Elevated Environmental Impact
Archery Range			Elevated Safety Risk
Off-Highway Vehicles			
Dirt bike (motorcycle)	x	TO BE DETERMINED	High Environmental Impact High Safety Risk
All Terrain Vehicle (ATV or 4 wheeler)	x		
Side by Side (aka Razor)	x		
Jeep/4x4 (4WD)	x		
Misc			
Picnic Places		TO BE DETERMINED	
Dog Walking/Park	x		
Scenic View Areas			
Equestrian Pleasure Riding	x		
Paragliding	x		
Paragliding Landing Pad			
Camping			
Conservation/Preservation Mgmt Areas			

Figure 2 - Environmental & Safety Risk Ranking

There may be a demand to continue the Gun Range use, if such a facility is better managed for erosion mitigation and access roadway stabilization. The other more active uses, such as OHV use, carry a high environmental and safety risk and will need to be mitigated and substantial effort invested for land rehabilitation and use control OR it should be eliminated.



6.3 Risk Management and Liability Issues

The sub-group was asked to research the liabilities and risk elements for recreational use of the property. The sub-group concludes that establishing recreational uses for the property does carry a liability risk for the City and the key is to manage such risk through a proper and responsible risk management program. Despite such liabilities there are significant protections set forth in Utah Law to protect both the public and private landowners and limit such liability when land is made available for recreational use (see Utah Limitation on Landowner Liability Act - LLLA).

The sub group members also contacted Park City and Draper City (known for encouraging recreational uses) and asked about mitigation measures they have taken. Below is a brief summary of various risk management elements:

- Trail systems need to be clearly marked and designated for specific and compatible uses of each trail
- Access for emergency vehicle use should be made available
- Parking area and use regulations need to be established to control usage based on capacity and need to be enforced
- Signs need to address hours of use, allowable and prohibited uses, maps, directions, and other information

- Regular patrols are needed by the police and by “watch groups.”
- Education and training materials needs to be created and provided to the public, emergency responders, and volunteer groups

6.4 Management Task Group’s “Next Step” Recommendations

In accord with the Council’s expected outline for developing a Foothills Management Plan, the next step would be the actual formulation of a Master Use Plan for the City’s Property. The next step recommendations would be as follows:

Trails Committee Evaluation and Input:

The Council ought to forward both the Current Conditions Report and the Use Strategy and Preliminary Recommendations Report to Trails Committee. The Trails Committee should then review and as a Committee provide input and suggestions for potential development and use of the City’s Property. The Committee should provide to the City, their suggested written recommendations with a deadline of February 01, 2019.



Parks Committee Evaluation and Input:

The Council ought to forward both the Current Conditions Report and the Use Strategy and Preliminary Recommendations Report to the Parks Committee. The Parks Committee should then review and as a Committee provide input and suggestions for potential development and use of the City's Property. The Committee should provide to the City, their suggested written recommendations with a deadline of February 01, 2019

Assign the staff of the Community Development Department to prepare for the Ad-hoc Committee a preliminary draft Master Use Plan using the 2 Task Group Reports and the recommendations of the Trails and Parks Committees. Deadline for the preparation of preliminary draft Master Use Plan would be March 01, 2019.

Upon receipt of the two Committee's Recommendations, the Council should establish an Ad-hoc Committee of about 8-10 individuals, consisting of the following:

- Selected City Staff
- A Trail Committee Representative
- A Park Committee Representative
- A Planning Commission Representative
- A City Council Representative
- Selected User Interests
- Selected Resident Interests

The Ad-hoc Committee would review all related reports and the preliminary draft Master Use Plan and make a formal recommended Draft Master Use Plan for the City. The deadline for a formal recommendation would be April 2019.

Upon receipt of the Ad-Hoc Committee's recommendation, the City Council would decide how the Master Use Plan should be adopted or sanctioned (e.g. Capital Improvements Plan, Budgeting, and/or inclusion in the City's General Plan. Deadline for formal adoption and/or sanction would be June/July 2019.