EAGLE MOUNTAIN

April 2026

Off-Street Trails Master Plan



Acknowledgments

Thank you to stakeholders and the public for providing feedback through surveys, interviews, and community workshops throughout this planning process.

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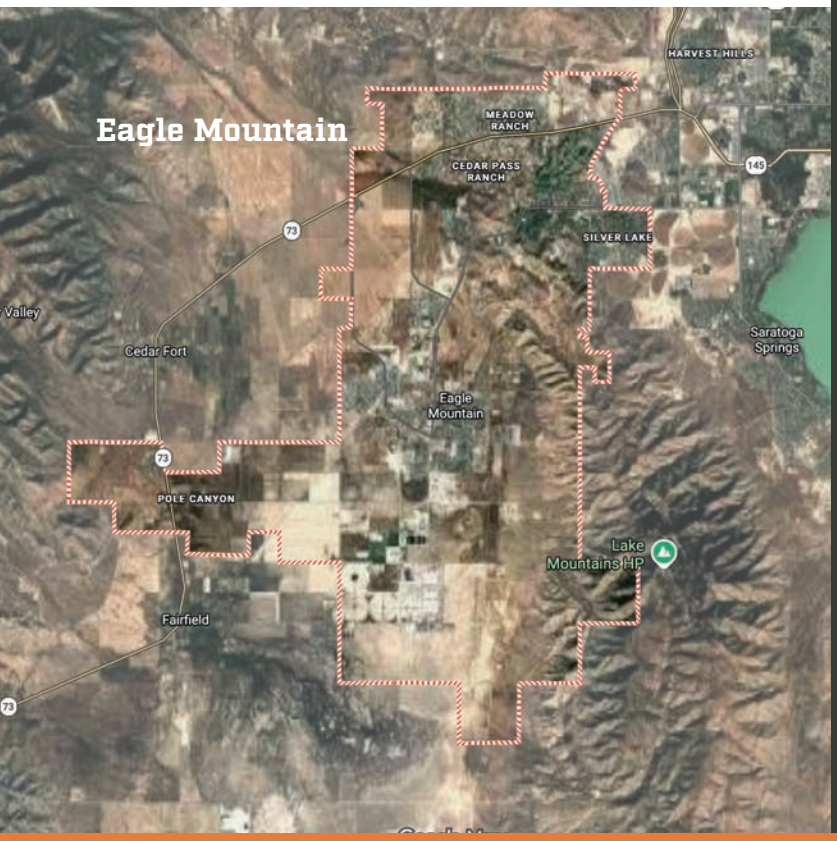
01 Introduction



How To Use This Plan

Purpose

The Eagle Mountain Off-Street Trails Master Plan serves as a guiding document to help the City and its partners develop a safe, accessible, and sustainable off-street trail network that balances recreation, connectivity, and long-term growth. This plan provides a clear roadmap for trail development, prioritization, and investment, ensuring that Eagle Mountain continues to expand its recreational opportunities while preserving the community's natural character.



Objectives

Organize Eagle Mountain's trail data
Compile and standardize existing trail data into an actionable database for future planning, including trail alignments, names, attributes, and landownership.

Identify high-priority trails for preservation
Use GIS-based assessments to identify trails affected by landownership constraints, development pressure, or environmental conflicts that warrant priority action.

Identify low-priority trails for realignment or removal
Highlight trails with limited use, poor connectivity, or conflicts that may be candidates for repurposing, realignment, or removal.

Evaluate on-the-ground trail conditions
Supplement GIS analysis with field assessments documenting physical conditions, user conflicts, signage gaps, access issues, and other operational concerns on priority trails.

Plan a comprehensive redesign of Mountain Ranch Bike Park
Develop a detailed, implementation-ready redesign, including trail realignments, system layout improvements, and high-level cost estimates.

Assess long-term viability of the Eagle Mountain NICA Course
Evaluate constraints, land use conflicts, and development pressures, and provide high-level recommendations for long-term sustainability and future planning.

Establish wayfinding and signage guidance
Provide recommendations for sign types, placement, and design at trailheads, trail entries, regulatory locations, and neighborhood access points.

Scope

This plan focuses on off-street recreational trails, defined as trails separated from roadways and dedicated primarily to non-motorized recreation and travel. In Eagle Mountain, these are typically soft-surface routes designed for mountain biking, hiking, trail running, and equestrian use, with some areas accommodating OHV recreation where appropriate.

The plan also addresses supporting infrastructure such as trailheads, signage, wayfinding systems, parking areas, and bike park improvements. While it does not provide engineering-level design, the plan serves as a strategic framework to guide trail development, prioritize projects, coordinate with partners, and support phased implementation of a connected, safe, and sustainable trail system.

Recommendations Framework

This plan's recommendations are organized into 4 chapters, each designed to function independently while contributing to a coordinated improvement strategy. Recommendations in chapters 3 and 5 are location-specific and ready to advance towards design and construction, while those in chapters 2 and 4 are high-level and intended to guide future decision-making.



Chapter 2: Trail Network Assessment

Establishes the Trail Database, intended as the City's core implementation tool. Rather than prescribing actions for every trail within this plan, the database enables the city to identify high- and low-priority trails, evaluate conflicts, and make informed decisions as conditions change and funding becomes available.



Chapter 3: Mountain Ranch Bike Park

Provides a comprehensive redevelopment concept for the Bike Park including trail realignments and skills area concepts. While additional engineering and design are needed, these recommendations are highly actionable and represent one of the plan's most implementation-ready components.



Chapter 4: Eagle Mountain NICA Course

Evaluates long-term viability of the existing NICA course and identifies significant development conflicts. Provides high-level options intended to guide planning and coordination with land managers but does not provide course realignments or parcel-level solutions.



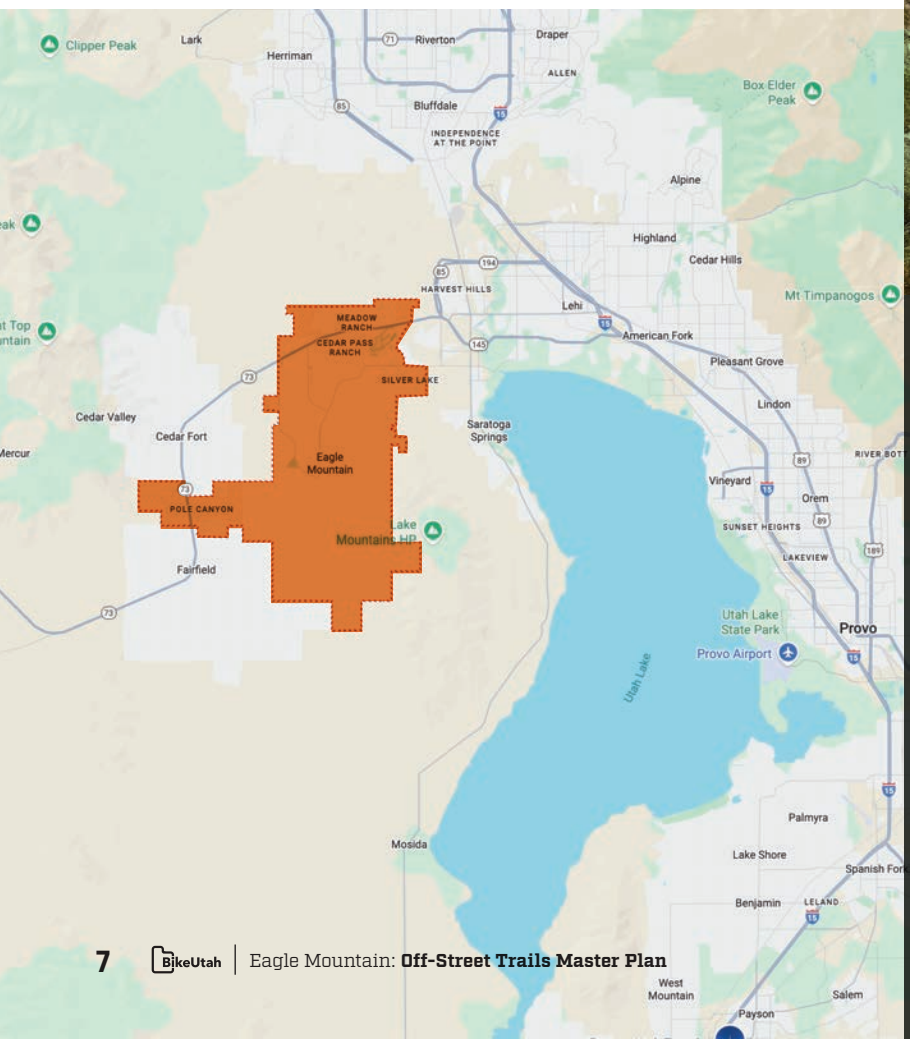
Chapter 5: Trailheads and Trail Signage

Identifies locations and amenity recommendations for 3 existing and 5 proposed trailheads. Outlines trail signage types and placement recommendations for the Bike Park, Lower Hidden Valley, and Fire Fly regions. These recommendations are suitable for near-term implementation as funding allows.

Eagle Mountain City

Eagle Mountain City is located in the heart of Utah's Cedar Valley and encompasses more than 50 square miles of high-desert terrain. Incorporated in 1996, it has grown rapidly while maintaining a strong sense of community. Today, Eagle Mountain is home to over 76,000 residents, making it one of the fastest-growing cities in Utah County and along the Wasatch Front. Despite this rapid growth, the city emphasizes preserving open space, protecting wildlife, and maintaining its dark skies, ensuring that natural character remains central to its identity.

The city offers a wide range of recreational amenities that reflect its emphasis on both growth and quality of life. In total, Eagle Mountain has more than 135 miles of trails. Of that, about 50 miles are paved or well-developed trails and over 85 miles of unpaved trails. These include multi-use trails for jogging, cycling, and equestrian use, as well as a mountain bike park, an all-abilities regional park, and an extensive ATV trail system. The semi-arid climate features hot, dry summers with average highs in the 90s°F, cold winters with moderate snowfall, and annual precipitation averaging 13 to 16 inches. This climate, combined with abundant open land, provides favorable conditions for year-round outdoor recreation.





Eagle Mountain in 2026

76,000
Population

135
Miles of Trails

Fastest-growing cities in Utah County and along the Wasatch Front.



Regional Context

Eagle Mountain has rapidly become a recreationally significant destination within Utah, particularly for mountain biking, hiking, equestrian, and off-highway vehicle (OHV) use. The community's trail system attracts visitors from across Utah County and the Wasatch Front, offering diverse terrain and access to open space that is increasingly valued as urban areas grow denser.

From a seasonal perspective, Eagle Mountain's trails are especially active in spring and fall. According to state-wide mountain biking resources, the trails are "almost always ready to ride" in late winter through early spring because of favorable drying and weather conditions. During summer, rides typically take place earlier in the day to avoid heat, and in winter, snow and cold limit use in some areas.

Eagle Mountain also includes specialized recreational infrastructure such as the Mountain Ranch Bike Park, which features jumps, slope-style trails, a pump track, and wood-feature singletrack that appeal to riders of all abilities. This facility, paired with the city's extensive trail access, reinforces Eagle Mountain's role as a destination not only for residents but for riders and recreationists across the region.

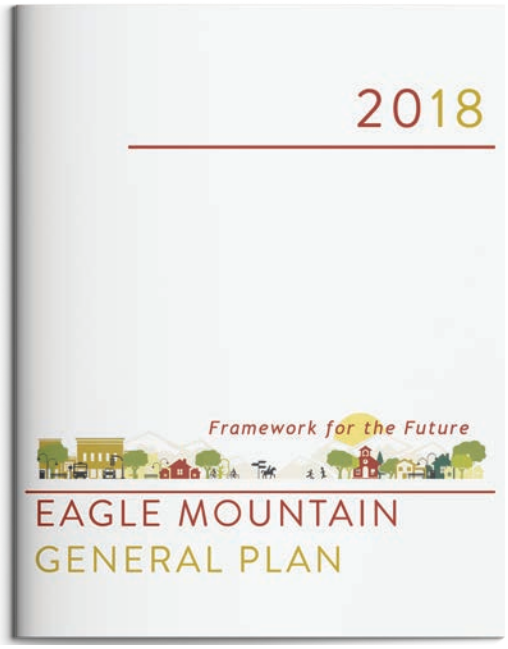
Because of its varied trail offerings, favorable seasons, and regional draw, Eagle Mountain plays an important role in Utah's outdoor recreation network. Maintaining and enhancing this system supports both local quality of life and the broader recreation economy of the Wasatch Front.

Existing Plans

General Plan (2018)

The Eagle Mountain General Plan establishes a vision for growth that integrates land use, transportation, and recreation, with a strong emphasis on an interconnected off-street trail system. This system of unpaved, multi-use trails is designed for hiking, mountain biking, and horseback riding, linking neighborhoods to parks, open spaces, and surrounding natural areas. Beyond recreation, the trails preserve scenic landscapes, provide safe and accessible routes, and encourage active transportation. By investing in these off-street connections, the plan seeks to promote healthy lifestyles, reduce traffic impacts, and reinforce Eagle Mountain's identity as a community closely tied to its natural setting.

The General Plan prioritizes preserving Eagle Mountain's undeveloped land as both a scenic resource and a foundation for recreation, with a focus on linking ridgelines, hillsides, and BLM lands to neighborhoods and parks through an interconnected network of unpaved trails. This system expands unique amenities such as the bike park, mountain bike trails, and ATV routes while also preserving natural corridors, wildlife habitat, and scenic views. By emphasizing unpaved, off-street trails, the plan reinforces Eagle Mountain's identity as a community where recreation and natural landscapes are closely connected.



This plan is currently undergoing a major update. The new plan will maintain a strong focus on outdoor recreation, connected trails, and preserving open spaces and wildlife habitat.

Parks, Trails, & Open Space Master Plan (2016)

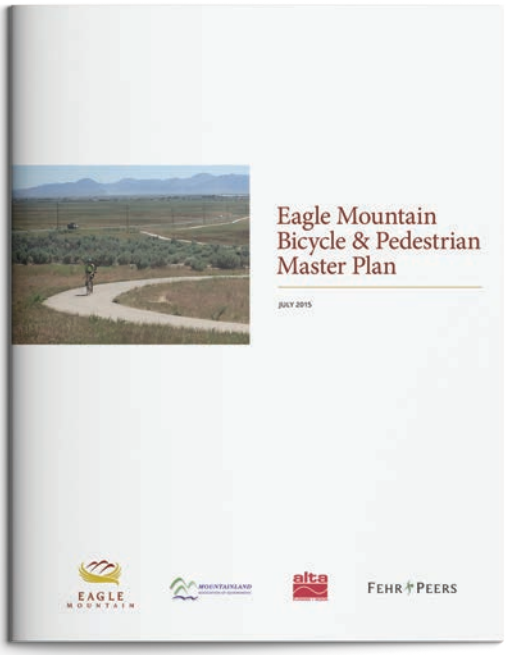
The 2016 Parks, Trails, and Open Space Master Plan provides a framework for developing Eagle Mountain's parks, recreation facilities, and natural areas, with a strong emphasis on trail connectivity. It calls for an interconnected network of paved and unpaved off-street trails linking neighborhoods, parks, schools, and regional recreation areas, while also preserving open space and enhancing access to the city's scenic landscapes.

The plan highlights the importance of linking city trails with BLM land, expanding access through well-placed trailheads, and enhancing unique recreation amenities such as the bike park and NICA course. It also calls for cohesive signage and phased trail expansion, prioritizing connections to neighborhoods, parks, and city-owned lands. These strategies directly support the goals of the Off-Street Trails Master Plan by guiding sustainable growth, improving connectivity, and strengthening Eagle Mountain's identity as a recreation destination.

This plan is currently undergoing an update, and focus on outdoor recreation remains a key element to the plan.

Bicycle and Pedestrian Master Plan

The Eagle Mountain Bicycle and Pedestrian Master Plan focuses on creating a safe, connected, and accessible active transportation network throughout the city. It emphasizes expanding bicycle and pedestrian infrastructure, filling connectivity gaps, and linking key destinations such as schools, parks, and neighborhoods. The plan also establishes design standards for bicycle facilities, shared-use paths, and sidewalks, with the goal of improving safety, reducing reliance on vehicles, and encouraging active lifestyles.





Natural Open Space & Wildlife Habitat Management Plan (2025)

The Eagle Mountain Open Space Management Plan (2025) establishes a framework for preserving, managing, and activating the city's large inventory of open lands. It prioritizes balancing growth with the protection of natural landscapes, wildlife habitat, and scenic resources, while providing meaningful recreation opportunities. The plan highlights the importance of access, stewardship, and partnerships in ensuring open spaces continue to serve residents as the community grows.

The plan identifies the need to preserve corridors for trail access, balance recreation with habitat protection, and formalize popular mountain biking and OHV areas. The plan also underscores the importance of trailheads, signage, and long-term agreements with landowners to secure trail connectivity—objectives that align closely with the Off-Street Trails Master Plan.

Stakeholder Engagement

The project team conducted a limited set of stakeholder interviews to gather qualitative, experience-based feedback from frequent and knowledgeable users of the trail system. Interviews were used to ground the plan's recommendation and better understand how the system functions for "super users" who regularly experience its strengths and weaknesses.

Input was collected through structured phone and in-person interviews with nine participants. Participants were initially identified through a brief outreach survey and then selected to reflect diversity in use type, experience level, and access patterns. Interviews followed a consistent set of questions to allow for comparable feedback, while still allowing open-ended discussion.

Key Themes:

- **Usability**
  The trail system is highly valued for its accessibility, lower elevation, and three-season usability, particularly as an early- and late-season alternative to higher-elevation Wasatch Front trails.

- **Access**
  Most users access the system from the high school parking area, nearby neighborhoods, or directly from home. While the variety of terrain and skill-level options is appreciated, participants frequently cited navigation challenges due to limited signage and an unclear trail hierarchy.

- **Priority Trails**
  Deadwood and the Prayer Flags area were consistently identified as priority trails because of their flow and connectivity. Users emphasized preserving continuous singletrack corridors and designing intentional climbing and descending routes to reduce conflict and improve ride quality.

- **Challenges**
  Common concerns included conflict points on doubletrack climbs, technical features that limit adaptive access, winter erosion, blown-out berms, and trail segments disrupted by development without clear or safe reroutes.

- **Development Pressure**
  Ongoing and anticipated development in Hidden Hollow was a major concern. Participants strongly supported securing trail easements, prioritizing realignment of high-quality trails, and maintaining connectivity through and around developing areas.

- **Management**
  Participants generally favored design-based solutions—such as directional trails, user-specific routes, and improved signage—over time-based user separation (e.g., alternating user days). Time-based restrictions were viewed as a secondary option if supported by documented conflict.

- **E-bikes**
  E-bike use is largely supported when consistent with open space regulations. Speed, rather than motor assistance itself, was identified as the primary safety concern.

- **Desired Amenities**
  Priority improvements include modern, standardized signage that clearly communicates trail difficulty and character, better wayfinding at key intersections, and additional water access during summer months. Existing restroom and waste facilities at primary trailheads were viewed positively.

What are off-street trails?

Off-street trails are recreation-focused routes located away from public roads. They include both paved and soft-surface trails that run through parks, open spaces, foothills, and public lands. These trails are designed to follow the landscape, provide a natural experience, and accommodate a range of users such as hikers, runners, mountain bikers, equestrians, and OHVs where designated.

This plan primarily focuses on soft-surface, non-motorized trails unless otherwise noted. The following design guidelines provide an understanding of how sustainable, enjoyable off-street trails are typically built.

The guidelines and visualizations referenced in this section are drawn from the Utah State Parks Trails Program Construction Guidelines.

Placement and Property Considerations

Trails should be located on public land — either city-owned property or SITLA/BLM land with a formal agreement — or on private property where an agreement or easement is in place. Trail alignments should respect property boundaries, avoid encroachments, and maintain adequate buffers from residential lots. Early attention to land ownership is essential to ensuring long-term access and preventing future conflicts.

Control Points

Good trail alignment responds to the land, seeking out positive control points while avoiding negative ones.

Positive Control Points (places to visit)

- Trailheads and parking areas
- Scenic viewpoints
- Ridges, drainages, and natural benches
- Interesting rock formations, vegetation, or other unique features
- Locations conducive to turns, switchbacks, or flow elements

Negative Control Points (places to avoid)

- Sensitive habitats or wetlands
- Steep or erosion-prone slopes
- Hazardous areas or unstable soils
- Private property boundaries
- Utilities or infrastructure corridors



Trail Layout

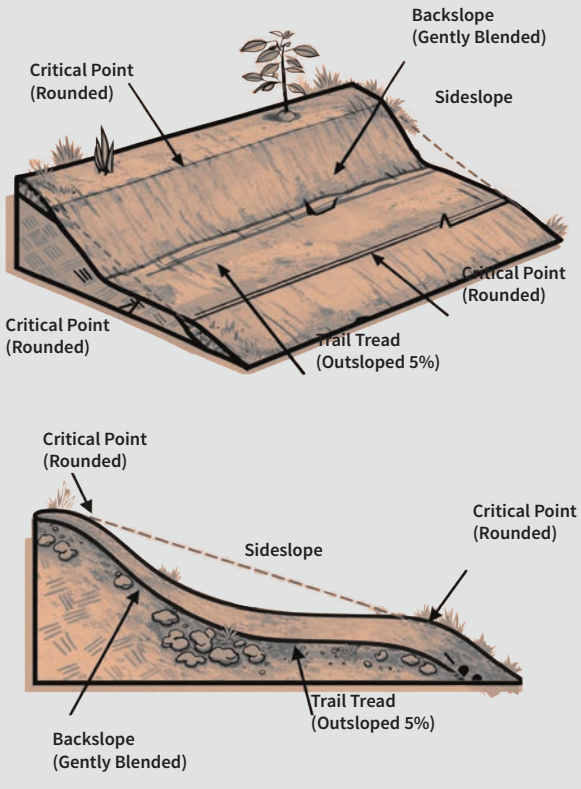
- **Favor Loops over Dead-Ends**
  Loops are more enjoyable, easier to navigate, and reduce congestion.
- **Follow Natural Contours**
  Frequent curves help maintain interest, reduce erosion, and control speed.
- **Sight Lines**
  Avoid blind corners and sharp turns at the bottom of steep descents to reduce crashes.
- **Consistent Flow**
  Trails should feel either open and flowing or tight and technical. Hybrid trails are fine, but transitions should be gradual—not abrupt.
- **Chokes and Corrals**
  Incorporate natural chokes or corridor narrowing to maintain interest, slow riders, or signal transitions.

Trail Design

- **Trail Corridor**
  Trails should generally provide about 8 ft of horizontal clearance and 10 ft of vertical clearance to improve visibility.
- **Tread Width**
  Appropriate width depends on intended use. This is typically 2-4 ft for singletrack, 3-4 ft for multi-use soft-surface, and 4-5 ft for OHV trails.
- **Outslope & Drainage**
  Use a slight outslope (about 2-5%) and incorporate regular grade reversals or knicks to shed water naturally and minimize erosion.
- **Trail Grade**
  Aim for an average grade of 8% or less, with a maximum grade of 10% for up to 100 ft segments. Apply the “half rule” by keeping trail grade below half of the hillside’s natural sideslope.
- **Turns & Switchbacks**
  Provide generous, stable turn landings, typically around 12 ft radius, with insloped approaches and outsloped departures to support good flow and reduce braking erosion.

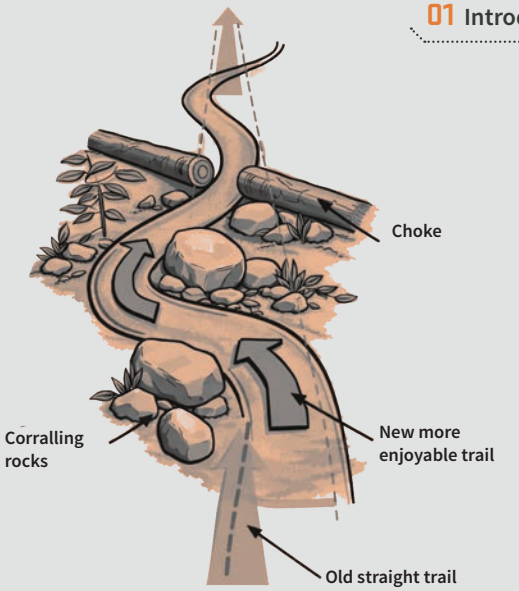
Trail Bench Cut and Critical Points

Proper bench cut construction creates a stable, sustainable trail by shaping the tread into the hillside while maintaining a consistent outslope. Rounded critical points and a gently blended backslope help shed water, reduce erosion, and improve long term durability while maintaining a natural appearance.



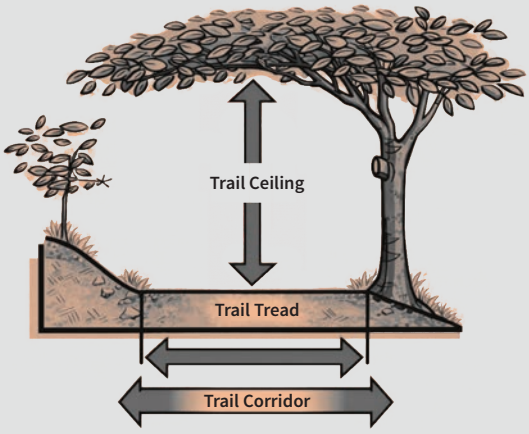
Chokes and Corralling

Chokes and corralling features use rocks, logs, or vegetation to guide users onto the intended trail alignment. These elements help slow speeds, discourage cutting straight lines, and reinforce natural flow, resulting in a more engaging and sustainable trail.



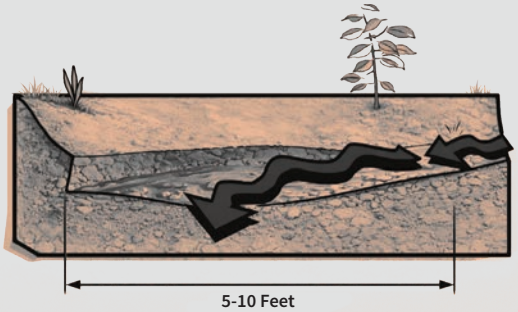
Trail Corridor

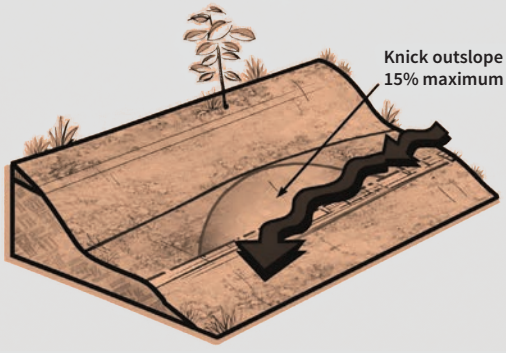
The trail corridor includes the full cleared space around the tread, providing adequate width and height for safe and comfortable travel. Maintaining a consistent corridor improves visibility, accommodates different users, and supports long term trail sustainability.



Knick and Drainage Relief

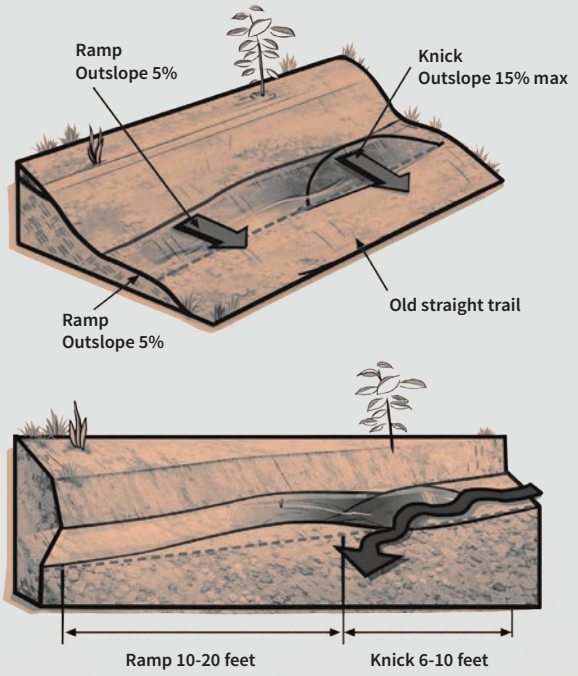
Knicks are short grade reversals that direct water off the trail and into the surrounding landscape. By incorporating a steeper outslope at these points, water is shed quickly, preventing it from flowing down the tread and reducing erosion.





Rolling Grade Dip

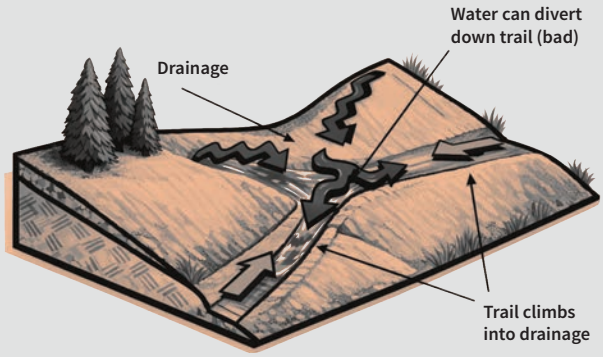
A rolling grade dip combines a gradual ramp with a knick to move water off the trail. The gentle approach maintains smooth flow for users, while the steeper outslope at the knick sheds water quickly, reducing erosion and improving long term



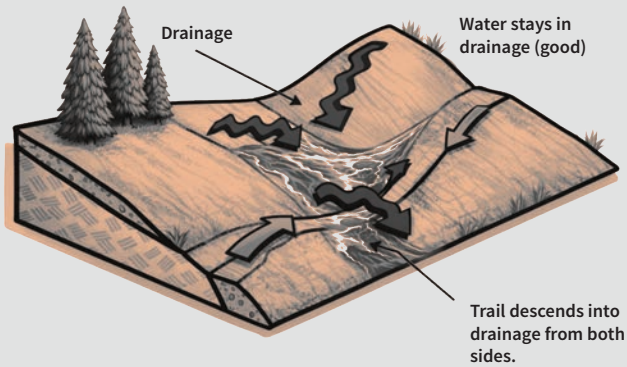
Proper vs Improper Drainage Crossing

A proper drainage crossing allows water to remain in its natural channel, with the trail descending into and out of the drainage from both sides. In contrast, improper crossings route water onto the trail surface, causing it to flow down the tread, leading to erosion and long term damage.

Improper Drainage Crossing

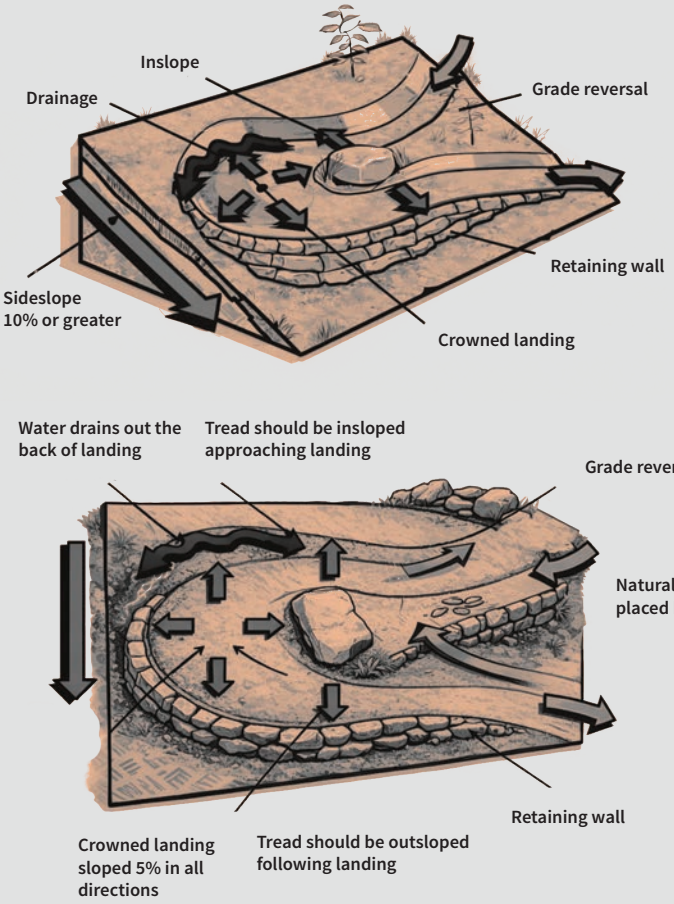


Proper Drainage Crossing



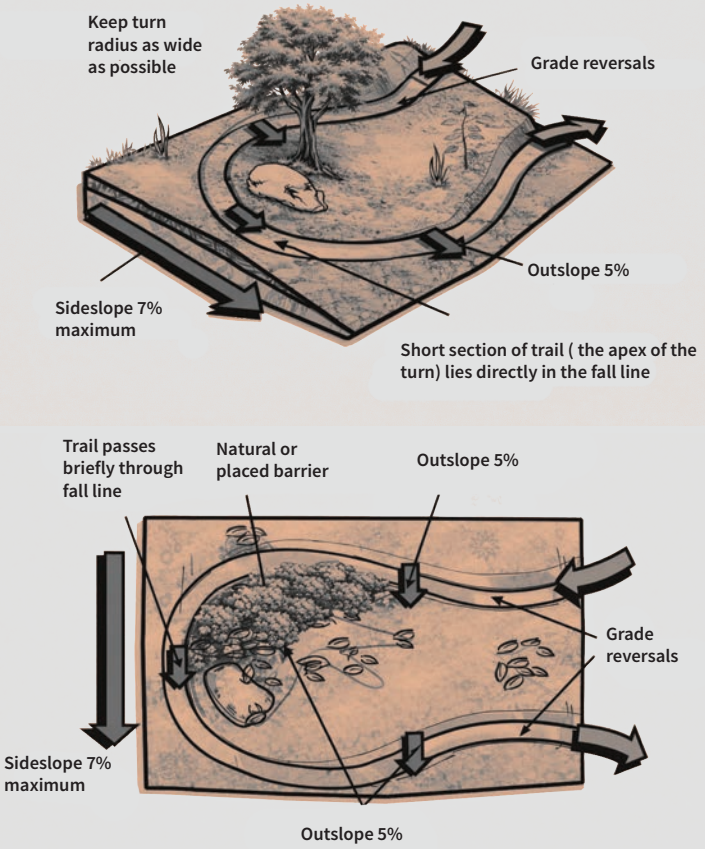
Rolling Crown Switchback

A rolling crown switchback combines grade reversals, insloped approaches, and outsloped exits to manage water and maintain flow through tight turns. The crowned landing sheds water in all directions, preventing erosion while providing a stable and durable turning surface.



Climbing Turn

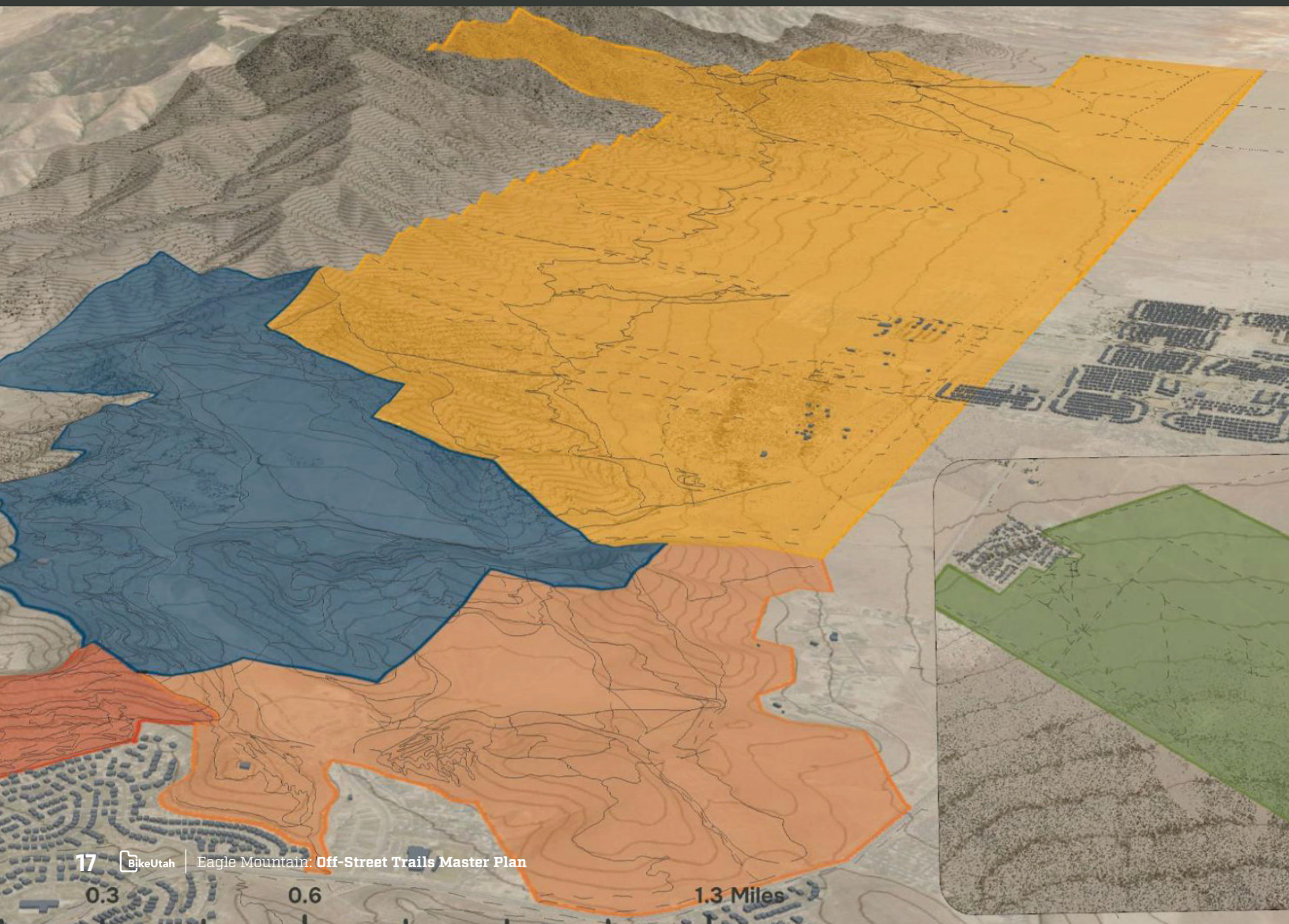
A climbing turn uses a wide radius, gentle grade, and consistent outslope to guide users through elevation changes while maintaining flow. Incorporating grade reversals and natural barriers helps manage water, prevent shortcutting, and create a smooth, sustainable turn.



CHAPTER

02

Trail Network Assessment



Overview

This plan evaluates Eagle Mountain's 87-mile trail system through two complementary methods: a **GIS Assessment** and a **Field Assessment**. Together, these analyses provide a comprehensive understanding of where the network is functioning well, where it conflicts with land ownership or future development, and where on-the-ground conditions create safety, sustainability, or user experience concerns.

Each assessment includes several components, illustrated to the right and explained in detail throughout this chapter.

GIS Assessment:

- Land ownership conflicts
- Development conflicts
- Environmental conflicts

Field Assessment:

- Signage
- Erosion
- Trail Definition
- Slope
- Width
- Hazards
- Social Trails

EMC off-road trail regions

Eagle Mountain's off-street trail system supports a wide range of recreational activities, including hiking, mountain biking, equestrian use, and OHV access. The network connects directly to neighborhoods throughout the city and extends deep into surrounding open spaces, allowing residents and visitors to access trails quickly and comfortably from their homes.

In total, the trail system includes **142 major trails** totaling approximately **88.2 miles**, distributed across over **9,100 acres**. The network is accessed through six primary trailheads and organized for this plan into five distinct regions: Mountain Ranch Bike Park, Lower Hidden Valley, Upper Hidden Valley, Firefly, and the Southern Trails situated on the lake mountains.

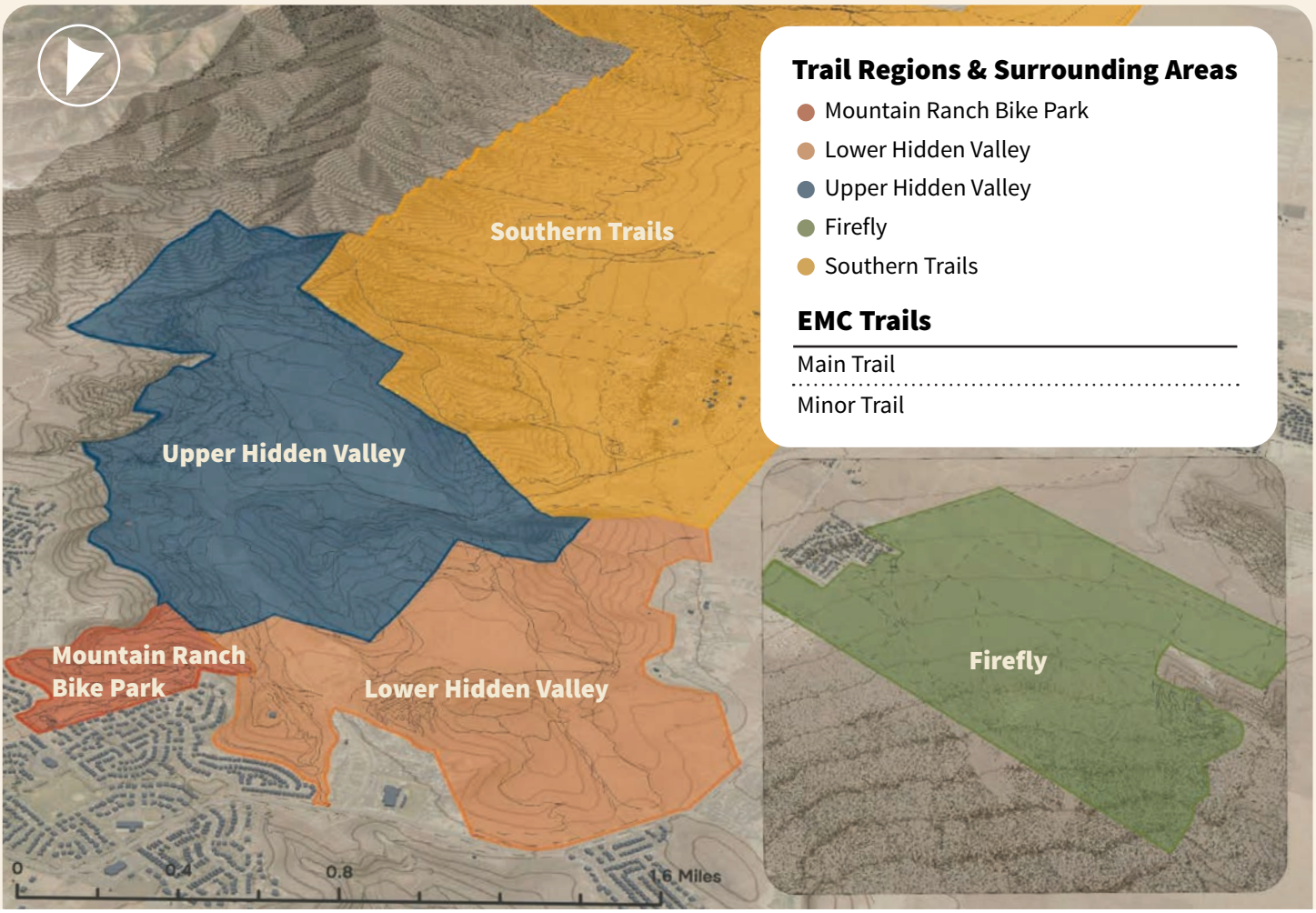
The trail network is diverse in both difficulty and user experience. Difficulty ratings include 32 access or unrated trails, 28 green, 43 blue, 29 black diamond, and 10 double black diamond trails. Most routes are constructed as singletrack (110 trails), supplemented by doubletrack trails (14), OHV roads (17), and one paved trail segment.

The system also accommodates **multiple user types**, with mountain bike access on 136 trails, hiking access on 113 trails, OHV access on 52 trails, and equestrian access on 15 trails, often overlapping within the same corridors.

Trail ownership and management are **shared across multiple jurisdictions**, with the largest share of trail mileage located on SITLA lands (44%), followed by Eagle Mountain City (23%), private property (22%), and BLM (11%).

Trail Regions	# of Trails	# of Trail Miles
Mountain Ranch Bike Park	11	4.6
Lower Hidden Valley	34	19.6
Upper Hidden Valley	55	34.4
Firefly	4	1.9
Southern Trails	38	27.7

Map: EMC Off-Road Trail Regions



Overview Definitions:

- **Major Trails**
  This overview includes only major named trails within Eagle Mountain. Minor connectors, short spurs, and insignificant segments have been excluded

- **Trail Type**
  Describes the physical form of the trail, including singletrack (generally narrow, one-direction width), doubletrack (wider routes accommodating two-way travel), and dirt or gravel roads designed for maintenance, OHV, or shared access.

- **Users**
  Identifies the predominant trail user type such as mountain biking (MTB), hiking, equestrian use, or OHV, based on observed and recorded use. This designation is informed by data from All Trails, Trailforks, Strava and Eagle Mountain City. It does not indicate designated or regulated use, and should be understood as a general characterization of observed activity rather than a formal rule.

- **Usership (2024)**
  Usership is defined by the amount of unique trips that have taken place on the trail in 2024. Strava calculates trail trip counts by aggregating GPS data from users who record hiking or mountain biking activity. Each time a recorded activity passes through a mapped trail segment, it is counted as one trip. Counts are summed across segments for specific years. These counts represent relative trail usage by Strava users, and not total trail traffic.

- **Trail Difficulty**
  Indicates the relative technical and physical challenge of a trail, ranging from access or unrated trails to green, blue, black diamond, and double black diamond. Difficulty ratings are sourced from Trailforks and may be slightly different compared to other databases.

- **Trailforks Rating**
  A user-generated rating pulled from Trailforks that reflects overall user satisfaction. Some trails have limited numbers of ratings, meaning scores may be influenced by a small number of highly positive or negative reviews.

Mountain Ranch Bike Park

The Mountain Ranch Bike Park is the most developed and heavily used region within Eagle Mountain's trail system. The area includes a dedicated skills development zone and jump lines, with 11 major trails concentrated primarily on downhill-oriented singletrack, supplemented by a paved access trail along the northern edge. This region includes approximately 3.6 trail miles within 76 acres.

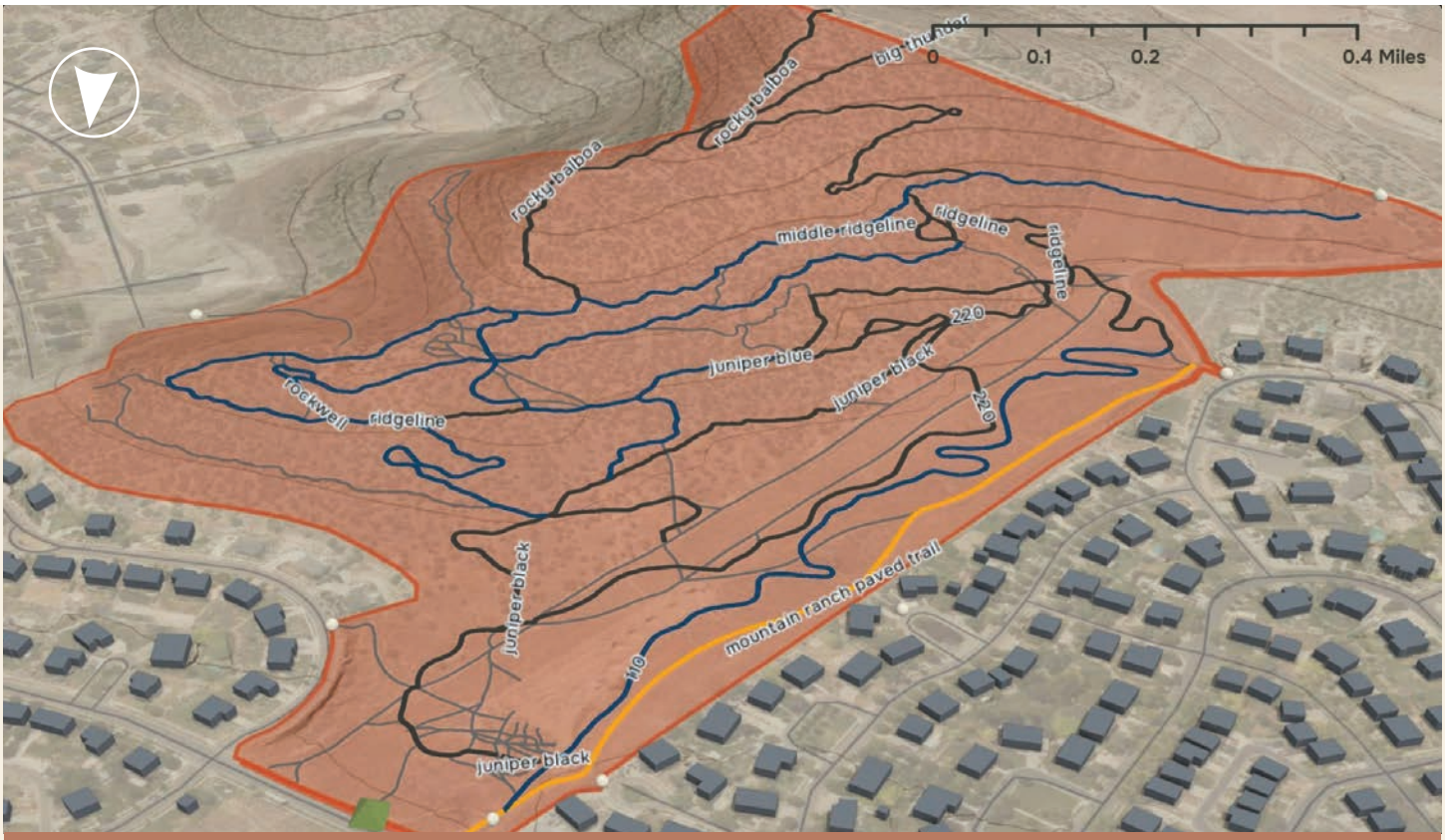
Many features and trails within the Mountain Ranch Bike Park are in significant disrepair. Chapter 3 of this plan provides a detailed assessment and recommendations to revitalize this area.

Trail Difficulty

- Access Trail or Doubletrack
- Green
- Blue
- Black Diamond
- Double Black Diamond
- Other

Trail Region Access

- Trail Head
- Trail Access
- Parking Area



Overview: Mountain Ranch Bike Park

Trail Name	Type	Length (mi)	Users	Strava Usership (MTB)	Strava Usership (Hiking)	Difficulty	Trailforks Rating
Mountain Ranch Paved Trail	Paved Path	0.38	Hike, MTB	885	115	Access Trail or Doubletrack	2
220	Singletrack	0.38	MTB	719	14.4	Black Diamond	4.5

SEE MORE ON NEXT PAGE

Overview: Mountain Ranch Bike Park

Trail Name	Type	Length (mi)	Users	Strava Usership (MTB)	Strava Usership (Hiking)	Difficulty	Trailforks Rating
Middle Ridgeline	Singletrack	0.4	Hike, MTB	549	60	Blue	0
110	Singletrack	0.49	Hike, MTB	503	N/A	Blue	3
Juniper Black	Singletrack	0.79	Hike, MTB	460	45	Black Diamond	4
Big Thunder	Singletrack	0.44	MTB	400	63	Black Diamond	5
Ridgeline	Singletrack	0.32	Hike, MTB	356	30	Black Diamond	4
Eastern Ridgeline	Singletrack	0.40	Hike, MTB	356	20	Blue	4
Juniper Blue	Singletrack	0.26	Hike, MTB	155	21	Black Diamond	4
Rockwell	Singletrack	0.36	MTB	69	N/A	Blue	3
Rocky Balboa	Singletrack	0.29	Hike, MTB	N/A	N/A	Black Diamond	4

Lower Hidden Valley

The Lower Hidden Valley region includes 34 major trails totaling approximately 19.6 miles across 557 acres. Primary access is provided via The Hollow Parking Lot, a recently constructed trailhead that functions as the gateway for both Lower Hidden Valley and the adjacent Mountain Ranch Bike Park.

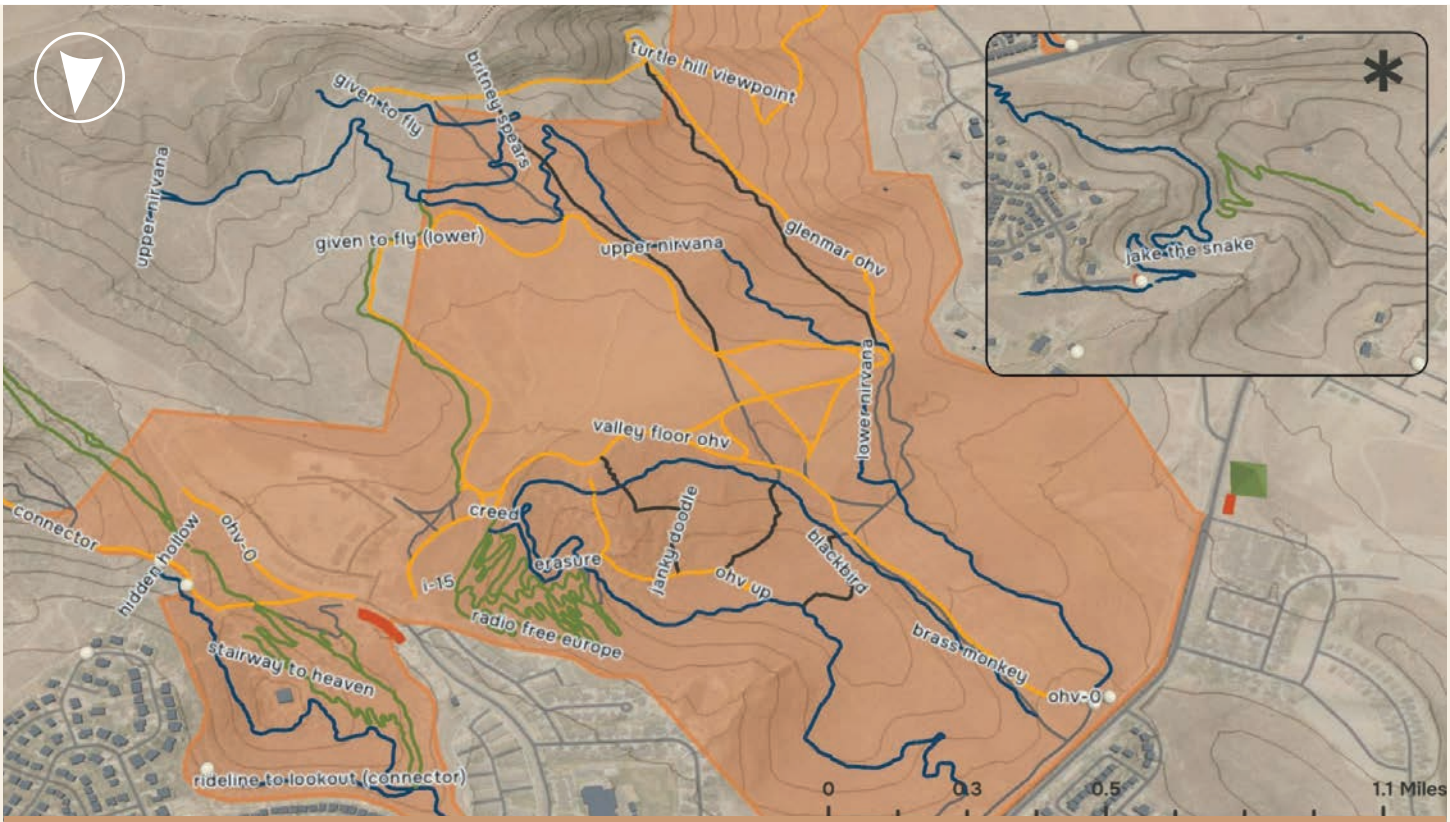
This region is currently experiencing significant and ongoing development pressure. Planned and active development is expected to directly affect multiple existing trails, creating challenges related to long-term access, continuity, and alignment with future land uses.

Trail Difficulty

- Access Trail or Doubletrack
- Green
- Blue
- Black Diamond
- Double Black Diamond
- Other

Trail Region Access

- Trail Head
- Trail Access
- Parking Area



Overview: Lower Hidden Valley

Trail Name	Type	Length (mi)	Users	Usership (MTB)	Usership (Hiking)	Difficulty	Trailforks Rating
Radio Free Europe	Singletrack	0.5	Hike, MTB	2767	65	Green	3
Rock-A-Billy	Singletrack	1.5	Hike, MTB	1860	230	Green	4

* the inset map reflects the small Jake The Snake trails just outside of the delineated Lower Hidden Valley region.

SEE MORE ON NEXT PAGE

Overview: Lower Hidden Valley

Trail Name	Type	Length (mi)	Users	Usership (MTB)	Usership (Hiking)	Difficulty	Trailforks Rating
I-15	Doubletrack	0.2	Hike, MTB	1523	71	Green	2
Creed	Singletrack	1	Hike, MTB	1473	140	Blue	5
Given to Fly (Lower)	Singletrack	0.5	Hike, MTB	1137	161	Green	4
Lower Nirvana	Singletrack	0.6	Hike, MTB	1000	592	Blue	3
RickRoll	Singletrack	0.2	Hike, MTB	984	14	Green	3
Upper Nirvana	Singletrack	1.5	Hike, MTB	926	349	Blue	3
Connector	Mixed	0.4	Hike, MTB	835	245	Access Trail or Doubletrack	3
Huey and Louie	Singletrack	0.3	Hike, MTB	662	4.6	Green	2
Hidden Hollow	Singletrack	0.7	Hike, MTB, OHV	655	120	Blue	4
Downward Spiral	Singletrack	0.5	MTB	610	160	Black Diamond	3
Love 2	Singletrack	0.1	Hike, MTB	520	15	Blue	N/A
Given to Fly	Singletrack	0.5	MTB	490	60	Blue	4
Erasure	Singletrack	0.05	Hike, MTB	409	20	Blue	4
Brass Monkey	Singletrack	0.7	Hike, MTB	405	65	Blue	4
Valley Floor OHV	Doubletrack	2.4	Hike, MTB, OHV	346	224	Access Trail or Doubletrack	0

SEE MORE ON NEXT PAGE

Overview: Lower Hidden Valley

Trail Name	Type	Length (mi)	Users	Usership (MTB)	Usership (Hiking)	Difficulty	Trailforks Rating
Turtle Hill Viewpoint	Dirt/Gravel Road	0.7	Hike, MTB, OHV	80	409	Access Trail or Doubletrack	5
Glenmar OHV	Doubletrack	0.8	Hike, MTB, OHV	75	110	Access Trail or Doubletrack	N/A
OHV-0	Dirt/Gravel Road	0.8	Hike, MTB, Equestrian, OHV	55	N/A	Access Trail or Doubletrack	2
Britney Spears	Singletrack	0.4	MTB	30	22	Black Diamond	3
HateU	Singletrack	0.2	Hike, MTB	N/A	N/A	Green	2
Janky Doodle	Singletrack	0.2	MTB	N/A	N/A	Black Diamond	2
Tears for Fears	Singletrack	0.2	MTB	N/A	N/A	Green	0
OHV Up	Doubletrack	0.3	Hike, MTB, OHV	N/A	N/A	Access Trail or Doubletrack	N/A
Captain Ahab	Singletrack	0.1	Hike, MTB	N/A	N/A	Black Diamond	N/A
Rideline to Lookout (Connector)	Singletrack	0.2	Hike, MTB	N/A	N/A	Blue	N/A
Stairway to Heaven	Singletrack	0.3	Hike, MTB	N/A	N/A	Green	3
The Alchemy	Singletrack	0.3	Hike, MTB	N/A	N/A	Green	3
Blackbird	Singletrack	0.1	MTB	N/A	N/A	Black Diamond	3
Jake The Snake*	Singletrack	1.0	Hike, MTB, OHV	N/A	17	Blue	3
Jake's Summit*	Singletrack	0.4	Hike, MTB	N/A	N/A	Green	3
Eagle Mountain Hourse*	Singletrack	0.1	Hike, MTB, Equestrian	N/A	N/A	Blue	2
Royal Rut*	Doubletrack	0.4	OHV	N/A	N/A	Access Trail or Doubletrack	2

* the inset map reflects the small Jake The Snake trails just outside of the delineated Lower Hidden Valley region.

Upper Hidden Valley

Upper Hidden Valley is located immediately south of Lower Hidden Valley and the Mountain Ranch Bike Park. The area contains 55 major trails totaling approximately 34.4 miles across 1,203 acres. Primary access is provided by the Rock City Trailhead, which currently functions as an undeveloped dirt parking area located on SITLA land without an agreement or proper permitting.

This region includes the most heavily used trails within all of Eagle Mountain, namely Deadwood and Jackrabbit. It also includes the Eagle Mountain NICA mountain bike course, which is discussed in greater detail in Chapter 4 of this plan.

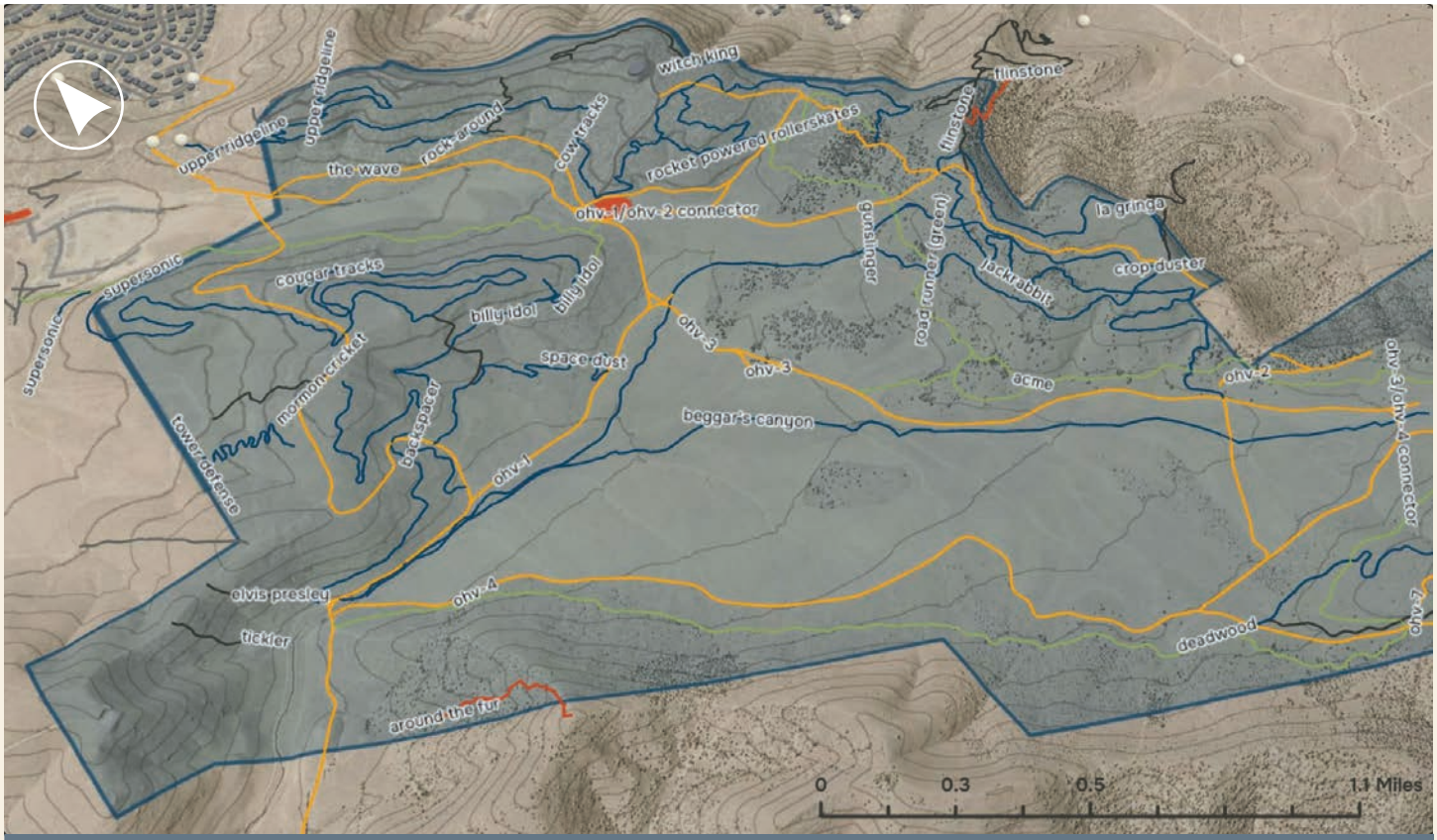
While Upper Hidden Valley remains relatively undeveloped today, it is expected to experience substantial development over the next 10 to 20 years. Planned growth is likely to significantly impact existing trails.

Trail Difficulty

- Access Trail or Doubletrack
- Green
- Blue
- Black Diamond
- Double Black Diamond
- Other

Trail Region Access

- Trail Head
- Trail Access
- Parking Area



Overview: Upper Hidden Valley

Trail Name	Type	Length (mi)	Users	Usership (MTB)	Usership (Hiking)	Difficulty	Trailforks Rating
Deadwood	Singletrack	1.9	Hike, MTB	6028	486	Green	4

Overview: Upper Hidden Valley

Trail Name	Type	Length (mi)	Users	Usership (MTB)	Usership (Hiking)	Difficulty	Trailforks Rating
Jackrabbit	Singletrack	1	Hike, MTB, OHV	4092	324	Blue	4
OHV-1	Singletrack	2.5	Hike, MTB, OHV	3448	575	Access Trail or Doubletrack	2
Paintball City	Doubletrack	0.3	Hike, MTB, OHV	3437	384	Access Trail or Doubletrack	1
ACME	Singletrack	0.1	Hike, MTB	3328	123	Green	3
OHV-3	Dirt/Gravel Road	1.3	Hike, MTB, OHV	3293	445	Access Trail or Doubletrack	0
Wile E. Coyote	Singletrack	0.9	Hike, MTB	2512	377	Green	4
Road Runner (Green)	Singletrack	0.7	Hike, MTB	2225	391	Green	3
Cow Tracks	Singletrack	0.6	Hike, MTB	1837	429	Blue	3
Treadstone	Singletrack	0.7	Hike, MTB	1605	365	Blue	4
Supersonic	Singletrack	0.9	Hike, MTB	1438	385	Blue	4
Bugs Bunny	Singletrack	0.8	Hike, MTB	1405	140	Blue	3
Backspacer	Singletrack	0.6	Hike, MTB	1295	280	Blue	4
OHV-5 (North)	Singletrack	1.1	Hike, MTB, OHV	1070	465	Access Trail or Doubletrack	N/A
Billy Idol	Singletrack	0.9	Hike, MTB	1059	192	Blue	4
Crop Duster	Singletrack	1.3	Hike, MTB	1045	115	Blue	4

SEE MORE ON NEXT PAGE

Overview: Upper Hidden Valley

Trail Name	Type	Length (mi)	Users	Usership (MTB)	Usership (Hiking)	Difficulty	Trailforks Rating
411	Singletrack	0.4	Hike, MTB	1039	123	Blue	3
OHV-5 (South)	Dirt/Gravel Road	0.1	Hike, MTB, OHV	960	115	Access Trail or Doubletrack	2
Upper Ridgeline	Singletrack	0.6	Hike, MTB	760	260	Blue	3
Rocket Powered Rollerskates	Singletrack	0.1	MTB	725	153	Blue	3
OHV-1/OHV-2 Connector	Singletrack	0.4	Hike, MTB, OHV	713	131	Access Trail or Doubletrack	3
Space Dust	Singletrack	0.4	Hike, MTB	712	88	Blue	3
Gunslinger	Singletrack	0.5	Hike, MTB	657	96	Blue	4
Cougar Tracks	Singletrack	0.5	Hike, MTB	645	310	Blue	4
Deer Tracks	Singletrack	0.1	Hike, MTB	603	216	Green	3
Fistfull of Dollars	Singletrack	0.3	MTB	475	33	Black Diamond	4
Mormon Cricket	Singletrack	0.2	MTB	402	13	Black Diamond	4
OHV-4	Dirt/Gravel Road	1.7	OHV	390	226	Blue	3
Eastwood	Singletrack	0.7	Hike, MTB	349	55	Access Trail or Doubletrack	4.5
OHV-2	Doubletrack	1.2	Hike, MTB, OHV	310	164	Access Trail or Doubletrack	3
OHV-3/OHV-4 Connector	Dirt/Gravel Road	0.3	Hike, MTB, OHV	215	60	Access Trail or Doubletrack	N/A

SEE MORE ON NEXT PAGE

Overview: Upper Hidden Valley

Trail Name	Type	Length (mi)	Users	Usership (MTB)	Usership (Hiking)	Difficulty	Trailforks Rating
Poon Panther	Singletrack	0.1	MTB	128	9	Black Diamond	4
ATV-2	Dirt/Gravel Road	0.6	Hike, MTB, OHV	115	40	Access Trail or Doubletrack	2
Reformation Canyon OHV	Doubletrack	0.2	Hike, MTB, OHV	110	35	Access Trail or Doubletrack	N/A
OHV-6	Dirt/Gravel Road	0.7	Hike, MTB, OHV	81	30	Access Trail or Doubletrack	0
The Wave	Dirt/Gravel Road	0.5	OHV	74	73	Access Trail or Doubletrack	0
Reformation Canyon (South)	Dirt/Gravel Road	0.5	Hike, MTB, OHV	64	13	Access Trail or Doubletrack	1
Elvis Presley	Singletrack	0.1	MTB	17	20	Black Diamond	4
Tickler	Singletrack	0.1	Hike, MTB, OHV	7	18	Black Diamond	3
.22 LR	Singletrack	0.2	Hike, MTB	1	1	Blue	1
Flinstone Option 2	Singletrack	0.09	Hike, MTB	N/A	N/A	Black Diamond	N/A
La Gringa	Singletrack	0.5	Hike, MTB	N/A	N/A	Blue	5
Roadrunner (Blue)	Singletrack	0.2	Hike, MTB	N/A	N/A	Blue	3
Hunting Wabbit	Singletrack	0.2	Hike, MTB	N/A	N/A	Green	0
Tower Defense	Singletrack	0.3	Hike, MTB	N/A	N/A	Blue	0
Flinstone	Singletrack	1.0	Hike	N/A	N/A	Black Diamond	5

SEE MORE ON NEXT PAGE

Overview: Upper Hidden Valley

Trail Name	Type	Length (mi)	Users	Usership (MTB)	Usership (Hiking)	Difficulty	Trailforks Rating
Launch Pad	Singletrack	0.1	OHV	N/A	N/A	Black Diamond	4
Flintstone Advanced Option	Singletrack	0.1	MTB	N/A	N/A	Double Black Diamond	4
Shooting Gallery	Singletrack	0.3	MTB	N/A	N/A	Black Diamond	4
Witch King	Singletrack	0.3	Hike, MTB	N/A	N/A	Black Diamond	0
Rock-around	Singletrack	0.1	Hike, MTB	N/A	N/A	Blue	4
Around the Fur	Singletrack	0.2	MTB	N/A	N/A	Double Black Diamond	4
Cracker Jack	Singletrack	0.8	Hike, MTB	N/A	N/A	Green	3
OHV-7	Dirt/Gravel Road	0.2	Hike, MTB, OHV	N/A	N/A	Access Trail or Doubletrack	0
Beggar's Canyon	Singletrack	1.4	Hike, MTB, OHV	N/A	N/A	Blue	4

Firefly

The Firefly region is a recently developed area located along the western edge of Eagle Mountain. The system includes four major trails totaling approximately 1.9 miles, concentrated within a relatively small, defined area despite the region encompassing 886 acres of largely undeveloped land. Trail design and construction quality in this area are notably high, reflecting more recent trail standards. Significant trail expansion potential exists to the west into BLM land.

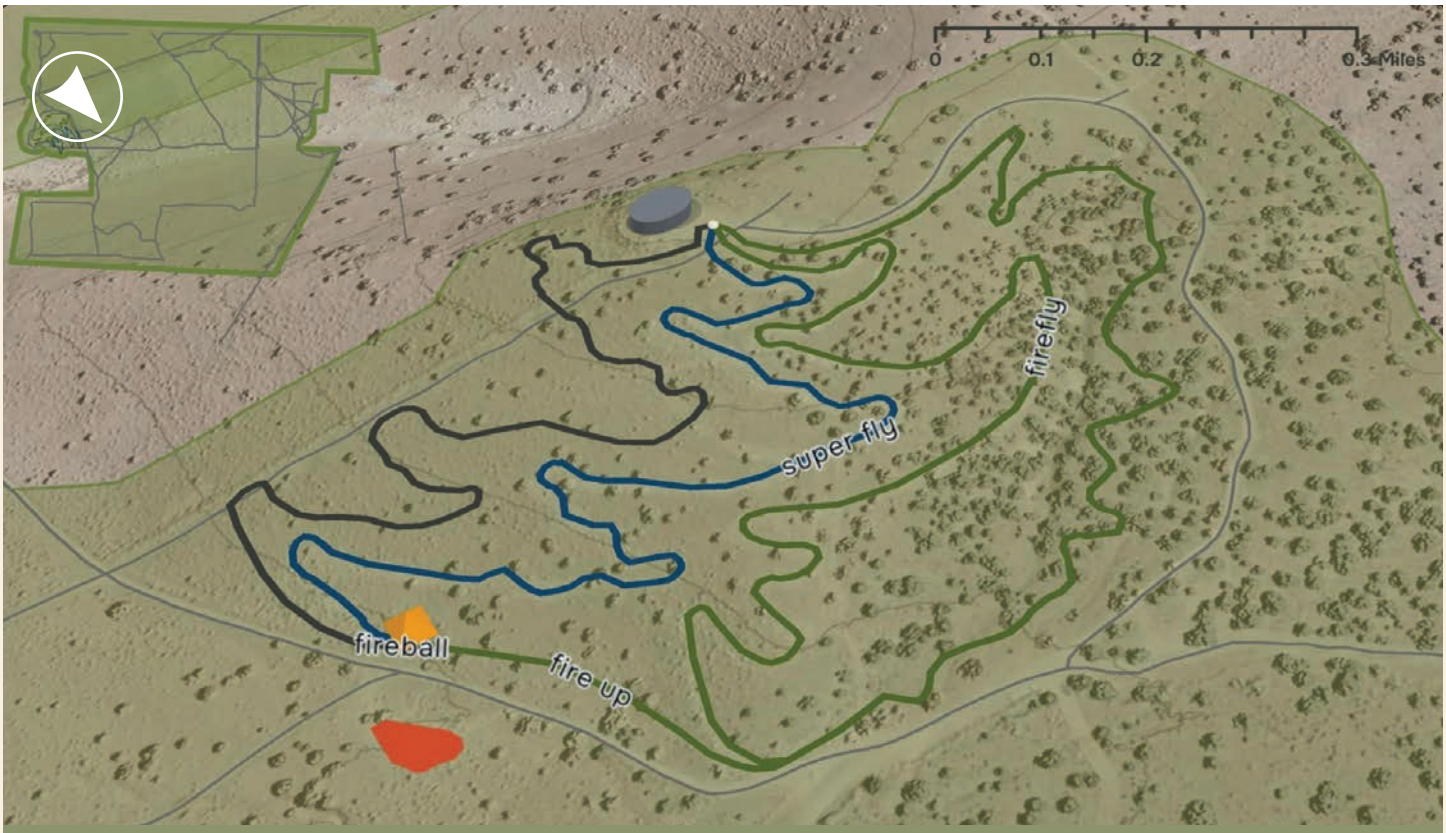
Firefly is dedicated exclusively to mountain biking and has received high Trailforks ratings. Strava usership data is not available for this region.

Trail Difficulty

- Access Trail or Doubletrack
- Green
- Blue
- Black Diamond
- Double Black Diamond
- Other

Trail Region Access

- Trail Head
- Trail Access
- Parking Area



Overview: Firefly

Trail Name	Type	Length (mi)	Users	Usership (MTB)	Usership (Hiking)	Difficulty	Trailforks Rating
Fireball	Singletrack	0.4	MTB	N/A	N/A	Black Diamond	4
Super Fly	Singletrack	0.4	MTB	N/A	N/A	Blue	4
Firefly	Singletrack	0.4	MTB	N/A	N/A	Green	3
Fire Up	Singletrack	0.5	MTB	N/A	N/A	Green	5

Southern Trails

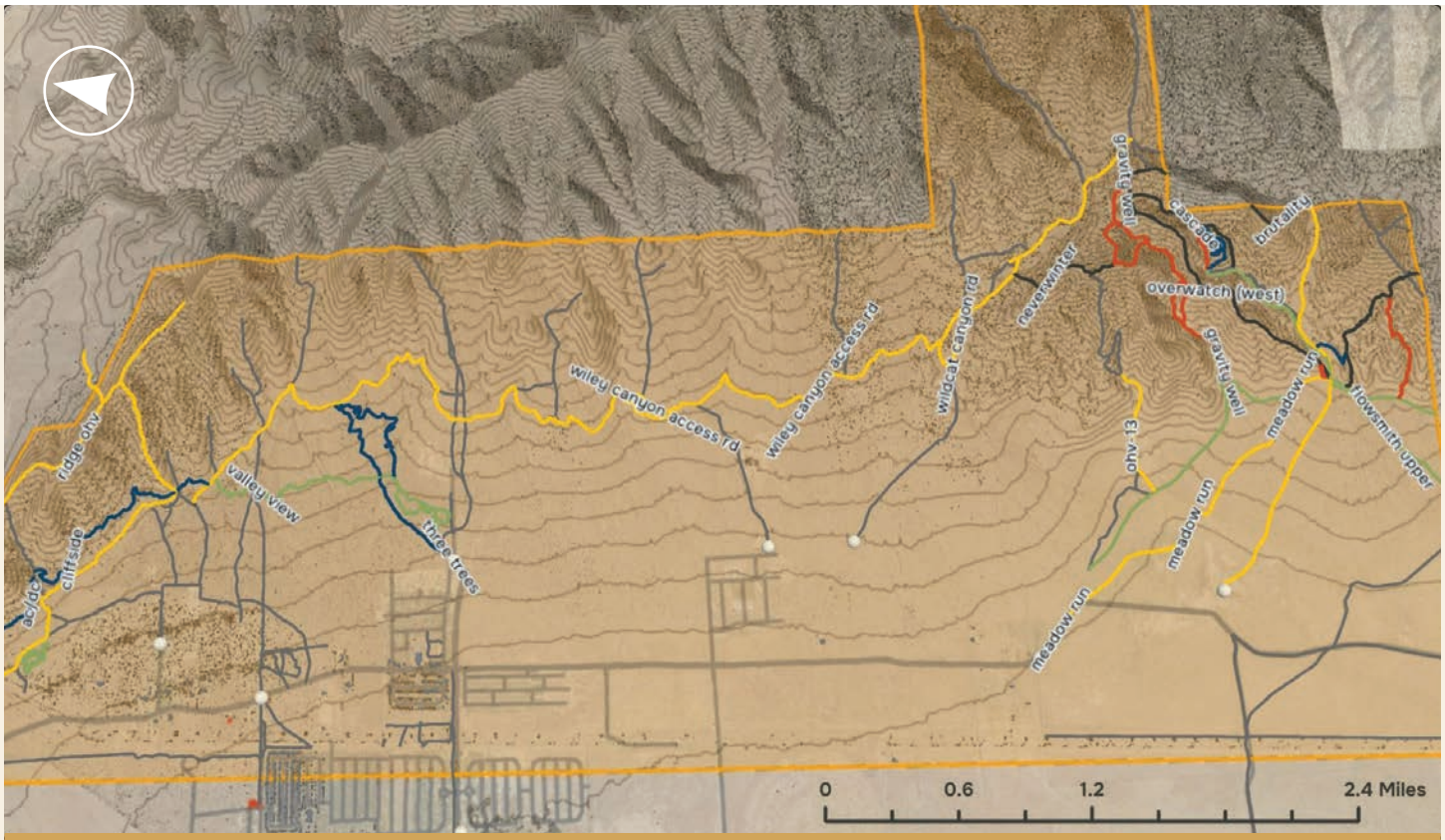
The Southern Trails region encompasses the largest land area within Eagle Mountain's trail system and includes the southernmost portion of the City's trail network along the western side of the Lake Mountains. Characterized by expansive, largely undeveloped landscapes, this region provides a more remote and dispersed trail experience with larger areas of forested landscape compared to other parts of the network. In total, the area includes 38 major trails totaling approximately 27.7 miles, distributed across approximately 7,271 acres.

Trail Difficulty

- Access Trail or Doubletrack
- Green
- Blue
- Black Diamond
- Double Black Diamond
- Other

Trail Region Access

- Trail Head
- Trail Access
- Parking Area



Overview: Southern Trails

Trail Name	Type	Length (mi)	Users	Usership (MTB)	Usership (Hiking)	Difficulty	Trailforks Rating
West OHV	Doubletrack	1.5	Hike, MTB, OHV	57	54	Access Trail or Doubletrack	0
OHV-0 (South)	Dirt/Gravel Road	0.6	Hike, MTB, Equestrian, OHV	55	N/A	Access Trail or Doubletrack	2

SEE MORE ON NEXT PAGE

Overview: Southern Trails

Trail Name	Type	Length (mi)	Users	Usership (MTB)	Usership (Hiking)	Difficulty	Trailforks Rating
Ridge OHV	Doubletrack	1.3	Hike, MTB, OHV	45	110	Access Trail or Doubletrack	N/A
Alien vs	Singletrack	0.5	Hike, MTB, OHV	40	5	Black Diamond	4
Short And Single	Singletrack	1.2	Hike, MTB, Equestrian, OHV	27	N/A	Green	N/A
The Great Pit of Karkoon	Singletrack	0.4	Hike, MTB, Equestrian	15	N/A	Green	0
Cloudsurfer	Doubletrack	0.4	Hike, MTB, Equestrian, OHV	15	N/A	Green	3
OHV-13	Dirt/Gravel Road	0.4	Hike, MTB, Equestrian, OHV	12	N/A	Access Trail or Doubletrack	0
AC/DC	Singletrack	0.9	Hike, MTB, OHV	N/A	N/A	Blue	3
Hillside	Singletrack	0.4	Hike, MTB	N/A	N/A	Green	4
Overwatch (East)	Singletrack	0.1	Hike, MTB, OHV	N/A	N/A	Black Diamond	3
Overwatch (West)	Singletrack	1.2	Hike, MTB, OHV	N/A	N/A	Black Diamond	4
Predator	Singletrack	0.05	Hike, MTB, OHV	N/A	N/A	Black Diamond	2
Brutality	Singletrack	0.1	Hike, MTB, OHV	N/A	N/A	Double Black Diamond	1
Cracked Cassette	Singletrack	0.04	MTB	N/A	N/A	Double Black Diamond	4
Rebel Yell	Singletrack	0.04	MTB	N/A	N/A	Double Black Diamond	0
ATV West	Primitive	0.3	OHV	N/A	N/A	Access Trail or Doubletrack	0
Meadow Run	Doubletrack	1.6	Hike, MTB, Equestrian, OHV	N/A	N/A	Access Trail or Doubletrack	2
Access Road 2	Access Trail or Doubletrack	0.8	Hike, MTB, Equestrian, OHV	N/A	N/A	Access Trail or Doubletrack	N/A
Neverwinter	Singletrack	0.4	Hike, MTB, OHV	N/A	N/A	Black Diamond	5

SEE MORE ON NEXT PAGE

Overview: Southern Trails

Trail Name	Type	Length (mi)	Users	Usership (MTB)	Usership (Hiking)	Difficulty	Trailforks Rating
Terminal Velocity	Singletrack	0.2	Hike, MTB, OHV	N/A	N/A	Double Black Diamond	0
Uncharted (Middle)	Singletrack	0.5	Hike, MTB	N/A	N/A	Blue	N/A
Cliffside	Singletrack	0.9	Hike, MTB	N/A	N/A	Blue	4
Valley View	Singletrack	0.8	Hike, MTB	N/A	N/A	Green	4
Fair 'n Square	Singletrack	0.4	Hike, MTB, Equestrian, OHV	N/A	N/A	Green	4
Flowsmith Upper	Singletrack	0.5	Hike, MTB, Equestrian	N/A	N/A	Green	0
Fins 'n Things	Singletrack	0.1	Hike, MTB	N/A	N/A	Blue	N/A
Three Trees	Singletrack	0.7	Hike, MTB	N/A	N/A	Blue	5
Ravine Ridge	Singletrack	0.6	Hike, MTB	N/A	N/A	Blue	4
Eleator Shaft	Singletrack	0.07	Hike, MTB, OHV	N/A	N/A	Black Diamond	N/A
Wildcat Canyon Rd	Dirt/Gravel Road	1.2	Hike, MTB, Equestrian, OHV	N/A	N/A	Access Trail or Doubletrack	N/A
Pitbulls N'chickens	Singletrack	0.5	Hike, MTB, Equestrian, OHV	N/A	N/A	Black Diamond	2
Requiem	Singletrack	0.4	MTB	N/A	N/A	Double Black Diamond	1
Gravity Well	Singletrack	1.2	Hike, MTB, OHV	N/A	N/A	Double Black Diamond	5
Wiley Canyon Access Rd	Dirt/Gravel Road	4.5	Hike, MTB, Equestrian, OHV	N/A	N/A	Access Trail or Doubletrack	0
Ladies First	Singletrack	0.1	Hike, MTB	N/A	N/A	Double Black Diamond	0
Uncharted (Lower)	Singletrack	0.6	Hike, MTB, Equestrian, OHV	N/A	N/A	Green	0
Cascade	Singletrack	0.18	Hike, MTB, OHV	N/A	N/A	Double Black Diamond	3

GIS Assessment

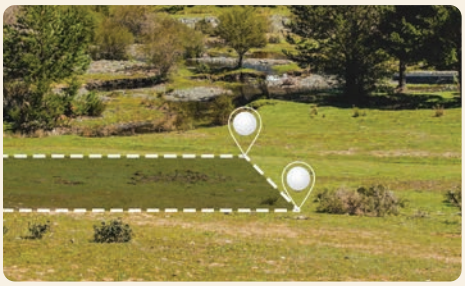
Our team conducted a spatial analysis of all mapped trails using datasets provided by the City, supplemented with statewide resources including parcel data, land ownership records, the National Hydrography Dataset (NHD), National Landcover (NLCD) data and field data to identify conflicts with property ownership, planned development, and environmental constraints. This analysis helps ensure that future planning efforts focus on sustainable and permitted alignments.

This GIS assessment included the following three components:

Landownership Conflicts
Identifies trails crossing private, state, or federal lands without authorization.

Development Conflicts
Identifies trails overlapping areas planned for future development.

Enviornmental Conflicts
Identifies trails intersecting within 25 ft of a wetland or stream feature.







GIS Assessment Results*

Region	Trail Name	Landownership Conflicts				Development Conflicts	Enviortnmental Conflict
		% EMC	% BLM	% SITLA	% Private	% Impacted	% Impacted
Mountain Ranch Bike Park	220	100%	0%	0%	0%	0%	0%
	Middle Ridgeline	100%	0%	0%	0%	0%	0%
	110	100%	0%	0%	0%	0%	0%
	Juniper Black	100%	0%	0%	0%	0%	0%
	Big Thunder	68%	0%	32%	0%	0%	0%
	REGION AVERAGE	**0%**	**0%**	**32%**	**0%**	**0%**	**0%**
Lower Hidden Valley	Radio Free Europe	62%	0%	0%	38%	69%	0%
	Rock-A-Billy	52%	0%	35%	13%	24%	1%
	I-15	100%	0%	0%	0%	100%	0%
	Creed	31%	0%	0%	69%	41%	0%
	Given to Fly (Lower)	14%	0%	57%	29%	75%	0%
	REGION AVERAGE	**53%**	**3%**	**9%**	**33%**	**45%**	**1%**

*Results shown are for the top 5 trails within each region and the region average. Assessment results for all trails provided separately.

GIS Assessment Results*

Region	Trail Name	Landownership Conflicts				Development Conflicts	Enviortnmental Conflict
		% EMC	% BLM	% SITLA	% Private	% Impacted	% Impacted
Upper Hidden Valley	Deadwood	0%	8%	13%	79%	33%	3%
	Jackrabbit	0%	0%	77%	23%	78%	0%
	OHV-1	21%	19%	27%	33%	50%	8%
	Paintball City	0%	0%	100%	0%	100%	0%
	ACME	0%	0%	100%	0%	59%	0%
	REGION AVERAGE	**1%**	**7%**	**64%**	**28%**	**50%**	**6%**
Firefly	Fireball	100%	0%	0%	0%	0%	0%
	Super Fly	100%	0%	0%	0%	0%	0%
	Fire Up	100%	0%	0%	0%	0%	20%
	Firefly	100%	0%	0%	0%	0%	0%
	REGION AVERAGE	**100%**	**0%**	**0%**	**0%**	**0%**	**5%**
Southern Trails	West OHV	0%	97%	13%	0%	3%	3%
	OHV-0 (South)	0%	0%	77%	100%	0%	0%
	Ridge OHV	0%	66%	27%	29%	5%	8%
	Alien vs	0%	0%	100%	100%	0%	0%
	Short And Single	0%	41%	100%	59%	0%	0%
	REGION AVERAGE	**0%**	**27%**	**64%**	**9%**	**0%**	**16%**
ALL	**CITY AVERAGE**	**24%**	**11%**	**44%**	**21%**	**30%**	**7%**



Landownership Conflicts

The assessment identifies which trail segments fall on Eagle Mountain City–owned land versus other ownership types, including state, federal, and private parcels. This analysis is critical because the City can only formally manage, maintain, and invest in trails that it owns or for which it has a legal agreement. Trails located on land without City ownership or an agreement are likely to be unsanctioned, creating contention with landowners, and potentially unsafe trail conditions, ultimately making them vulnerable to closure, and future land use changes. The intended outcome of this assessment is to clearly distinguish trails that are ready for near-term improvement from those that require long-term coordination, agreements, or potential realignment.

Ownership Categories:

- **Eagle Mountain City (EMC)**
  Trails on city-owned land represent the lowest risk and highest opportunity. The City already has full authority to manage, maintain, sign, and improve these facilities.

- **School and Institutional Trust Lands Administration (SITLA)**
  SITLA manages state trust lands to generate revenue for public education. They are incentivized to seek the highest and best financial return over time, meaning this land is highly vulnerable to development if the conditions (like slope) support it. Trails are allowed only through formal agreement or lease. Trails on SITLA land without agreements are considered unauthorized and are at risk of closure or relocation if conflicts arise.

- **Bureau of Land Management (BLM)**
  BLM lands are federally managed and may allow recreation, but trails typically require planning approval, environmental review, and ongoing coordination. Trails without BLM authorization are not formally recognized and may not be sustainable long term.

- **Private Property**
  Trails on private land are the most problematic from a management perspective. These trails are typically unsanctioned, expose the City to risk, and cannot be formally maintained or improved without an easement, purchase, or other legal agreement.

Key Findings:

Landownership is highly fragmented across the trail network. On average, 44% of trail miles are located on SITLA land, 24% on Eagle Mountain City property, 21% on private property, and 11% on BLM land.

While nearly one-quarter of trail miles are on City-owned land, a substantial majority rely on lands that require formal agreements or additional coordination to remain viable. Within the City boundary, only 12% (4.73 miles) of trails on SITLA land have executed agreements, while 88% (34.16 miles) do not. An additional 7.31 miles of trail outside the City boundary also have an agreement with the city.

Regional breakdowns reveal significant variation in landownership risk.

Mountain Ranch Bike Park

92% of trail miles are on Eagle Mountain City property, and 9 of the 11 major trails are entirely City-owned. The remaining two trails (Big Thunder and Rocky Balboa) include SITLA segments but currently lack agreements.

Firefly

All 4 major trails in this region are entirely on private property, with the developer planning to deed the trails to EMC for long-term management. As a result, Fire Fly is well-positioned for investment.

Lower Hidden Valley

Ownership is more mixed, with 53% of trail miles on City property, 35% on private land, 9% on SITLA, and 3% on BLM. This region has the highest percentage of trail miles on private property. Of the 34 major trails, 12 are entirely on City land while 4 are entirely on private parcels.

Upper Hidden Valley

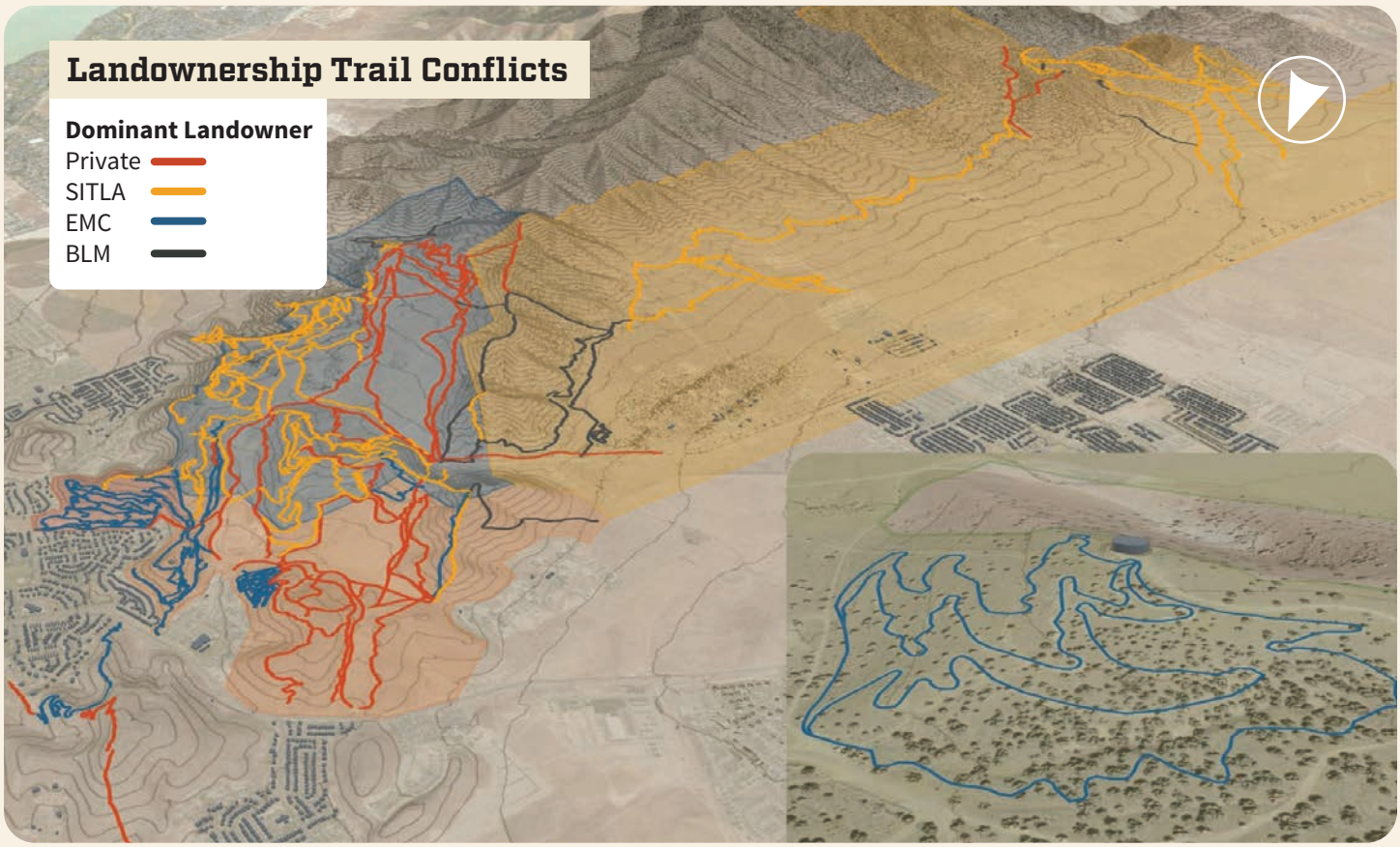
64% of trail miles are on SITLA land, 28% on private property, 7% on BLM, and just 1% on City property. Among the 55 major trails, 23 are entirely on SITLA land, 6 entirely on private land, and 3 entirely on BLM land.

Southern Trails

64% are on SITLA land, 27% on BLM land, and 9% on private property. No trail miles in this region are on city-owned land. Of the 38 major trails, 17 are entirely on SITLA land, 6 entirely on BLM land, and 1 entirely on private land.

Trail Length by Landowner Citywide*		
Landowner	**%**	**Miles**
SITLA	44%	38.82
Eagle Mountain City	24%	21.17
Private	21%	18.53
BLM	11%	18.53

SITLA Agreements		
Type	**# of major trails**	**Major trail names**
Trails with full agreements	7	• ATV-2 • OHV-3 • OHV-4 • OHV-5 (North) • Paintball City • Access Road 2 • OHV-0(South)
Trails with partial agreements	3	• OHV-2 • OHV-1 • Uncharted Lower
Trails that need agreements	72	See database



*Dominant land ownership was calculated by summing the total length of each trail segment within each land ownership type it crosses. The land ownership type containing the greatest portion of the segment is shown. Landownership data was acquired from the UGRC's Utah Parcels database.

Recommendations:

- **Prioritize EMC-owned trails**
  Identify and prioritize trails that are 80% or more on Eagle Mountain City property. These trails are primarily located within Mountain Ranch Bike Park, Firefly, and portions of Lower Hidden Valley. For short segments on other ownerships, pursue targeted solutions such as easements, agreements, or minor realignments.

- **Formalize trails on SITLA land**
  Pursue formal agreements with SITLA for priority trails located on SITLA land. Focus on high-use routes, regionally significant trails, or clusters where a single agreement could cover multiple segments. Trails without agreements should not receive City investment and may require rerouting or closure.

- **Coordinate authorization on BLM land**
  Coordinate with BLM to identify trails eligible for authorization through future planning or amendment processes. Focus on high-use routes, regionally significant trails, or clusters where a single agreement could cover multiple segments. Trails that cannot be authorized should be considered for rerouting or closure.

- **Evaluate trails on private property**
  Evaluate trails on private land for opportunities such as large parcels under single ownership, areas unlikely to be developed, or trails with a long history of public use that may be suitable for easements or acquisition. Trails without agreements should not receive City investment and may require rerouting or closure.





GIS Assessment

Development Conflicts

This section evaluates how existing trail alignments intersect with planned development areas identified with the Hidden Valley Master Development Agreement (MDA) and proposed Mid Valley Road alignment. Since both plans have been approved by the city, trails that fall within these areas are expected to be displaced as development occurs.

To conduct this assessment, the Hidden Valley MDA boundaries and the Mid Valley Road alignment were digitized and overlaid with mapped trail alignments in. Trail segments located within planned development areas of the MDA or intersecting with the Mid Valley Road alignment (including associated grading impacts) were identified as being in conflict.

The Hidden Valley MDA includes **designated open space areas and a planned trail corridor** through the center of the development. This presents a critical opportunity to preserve key connections and integrate select trails into the future neighborhoods. Trails outside these open space areas are assumed to be removed or rendered unusable over time if no action is taken.

This assessment is intended to help the City anticipate where trail mileage will be lost, identify high-priority trails at risk, and plan future realignments in advance of development.

Key Findings:

Lower Hidden Valley

45% of total trail miles impacted by development. Among the 34 major trails, 10 trails are significantly impacted (over 90%), including high-priority trails like I-15, RickRoll, and Lower Nirvana. An additional 5 major trails are majority impacted (50-90%).

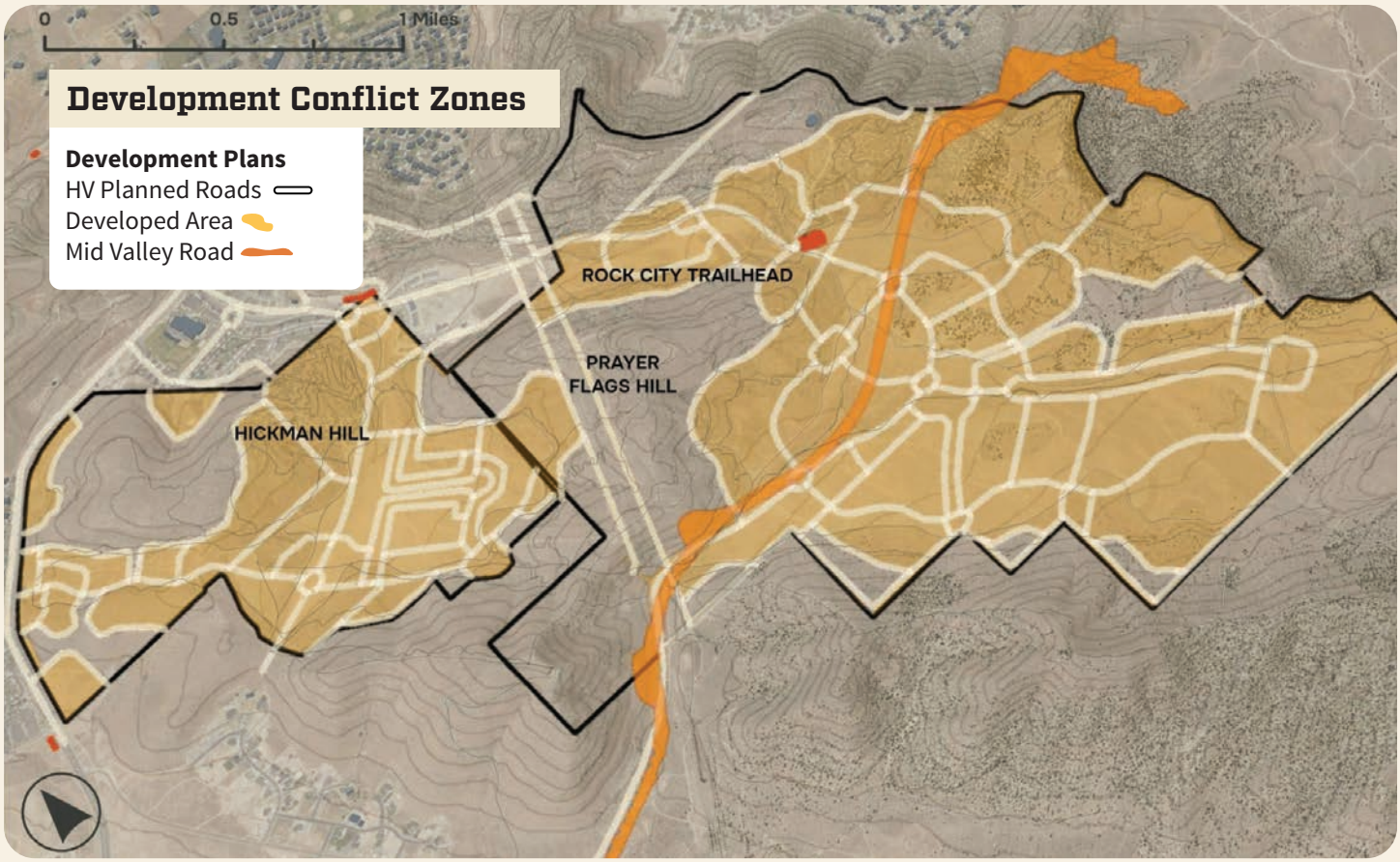
Upper Hidden Valley

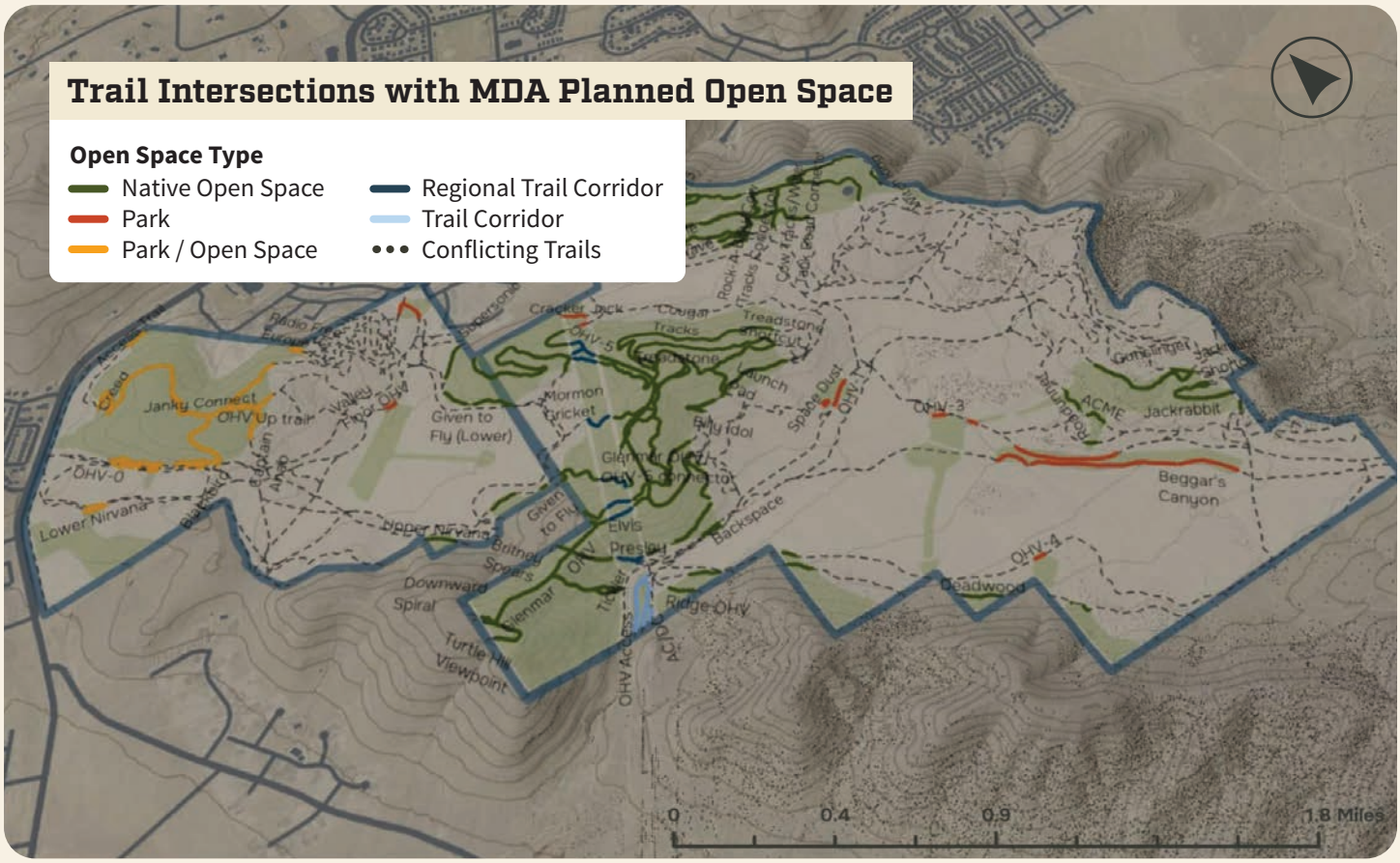
50% of total trail miles impacted by development. Among the 55 major trails, 18 trails are significantly impacted (over 90%), including high-prioritytrails like Paintball City, Bugs Bunny, Crop Duster, Road Runner (Green) and OHB-3. An additional 12 major trails are majority impacted (50-90%).

Major Trails with Development Conflicts

Lower Hidden Valley		Upper Hidden Valley	
Significant Impact (0ver 90%)	**Majority Impact (50-90%)**	**Significant Impact (0ver 90%)**	**Majority Impact (50-90%)**
• **I-15***	• **Given to Fly (Lower)***	• **Paintball City***	• HV-4
• RickRoll	• OHV Up	• Bugs Bunny	• Cracker Jack
• Huey and Louie	• **Radio Free Europe***	• Crop Duster	• **Jackrabbit***
• Love 2	• Britney Spears	• Rocket Powered Rollerskates	• Wile E. Coyote
• Erasure	• Captain Ahab	• OHV-1/OHV-2 Connector	• Flinstone
• HateU		• Space Dust	• Backspacer
• Janky Doodle		• Deer Tracks	• ATV-2
• Tears for Fears		• OHV-3/OHV-4 Connector	• **ACME***
• Valley Floor OHV		• Flintstone Option 2	• Gunslinger
• Lower Nirvana		• La Gringa	• Launch Pad
		• Roadrunner (Blue)	• Billy Idol
		• Hunting Wabbit	• **OHV-1***
		• Beggar's Canyon	
		• Road Runner (Green)	
		• OHV-3	
		• OHV-2	
		• Tower Defense	
		• The Wave	

*one of the top 5 trails by Strava ridership within each region


0
0.5
1 Miles
Development Conflict Zones
Development Plans
HV Planned Roads
Developed Area
Mid Valley Road
ROCK CITY TRAILHEAD
PRAYER
FLAGS HILL
HICKMAN HILL



Recommendations:

- **Preserve or realign high-priority trails**
  For trails with high ridership or network significance, work with developers and landowners to preserve routes or implement minor realignments where feasible.

- **Preserve city-owned trails within Lower Hidden Valley**
  Work with developers to preserve the trail system directly southwest of Hidden Hollow Trailhead. This area presents a unique opportunity to retain a compact, high-quality downhill trail system on an Eagle Mountain City parcel, despite being marked for development.

- **Plan connections within the Hidden Hollow trail corridor**
  Ensure the central trail corridor within the Hidden Valley MDA functions as a spine for the city trail network. Provide well-planned connections to neighborhoods and trail continuity throughout the corridor..

- **Plan crossings on Mid Valley Road**
  Coordinate on mid Valley Road design to ensure grade-separated trail crossings are provided for high-priority trails like Paintball City, Crop Duster and/or OHV-3 (only pursue this option if these trails will be preserved during Upper Hidden Valley development). Assume $3–$6 million per overpass and $4–$8 million per underpass.

GIS Assessment

Environmental Conflicts



This section identifies trail segments that intersect within 25 feet of washes or canyons that carry water during storm events. These areas are generally unsuitable for trail development or long-term use due to erosion risk, soil instability, vegetation disturbance, and potential impacts to water quality.

While environmental conflicts do not always require immediate trail closure, unmanaged impacts can worsen over time leading to accelerated erosion and maintenance challenges. Identifying these conflicts allows the City to distinguish between trails that can be sustained with minimal intervention and those that may require design changes, mitigation measures, or, in some cases, removal.

Key Findings:

Among the 142 major trails citywide, 92 have no identified environmental conflicts, indicating that the majority of the network avoids sensitive areas.

Mountain Ranch Bike Park

No conflicts identified.

Firefly

Only one trail (Fire Up) shows environmental impacts, with about 20% of its length affected. The remaining 3 trails have no conflicts.

Lower Hidden Valley

Only 6 of 34 major trails intersect wetland or stream buffers, and all affected trails have less than 10% of their length impacted.

Upper Hidden Valley

18 of the 55 major trails are impacted, although most impacts are under 20%. Notable exceptions include Crop Duster (40% impacted), Reformation Canyon (45%), A Fistful of Dollars (78%), and Beggar's Canyon (95%).

Southern Trails

This region has the highest concentration of environmental conflicts. 25 of 38 major trails intersect wash or canyon buffers, though only 9 trails exceed 20% impact. Several trails show substantial overlap, including Gravity Well (50%), Wiley Canyon Access Rd (51%), OHV-0 (51%), Ladies First (73%), Uncharted (79%), and Cascade (99%).

Major Trails with Environmental Conflicts Over 40%

Mountain Ranch Bike Park	Fire Fly	Lower Hidden Valley	Upper Hidden Valley	Southern Trails
None	None	None	• Crop Duster • Reformation Canyon (South) • Fistfull of Dollars • Beggar's Canyon	• Gravity Well • Wiley Canyon Access Rd • OHV-0 (South)* • Ladies First • Uncharted (Lower) • Cascade

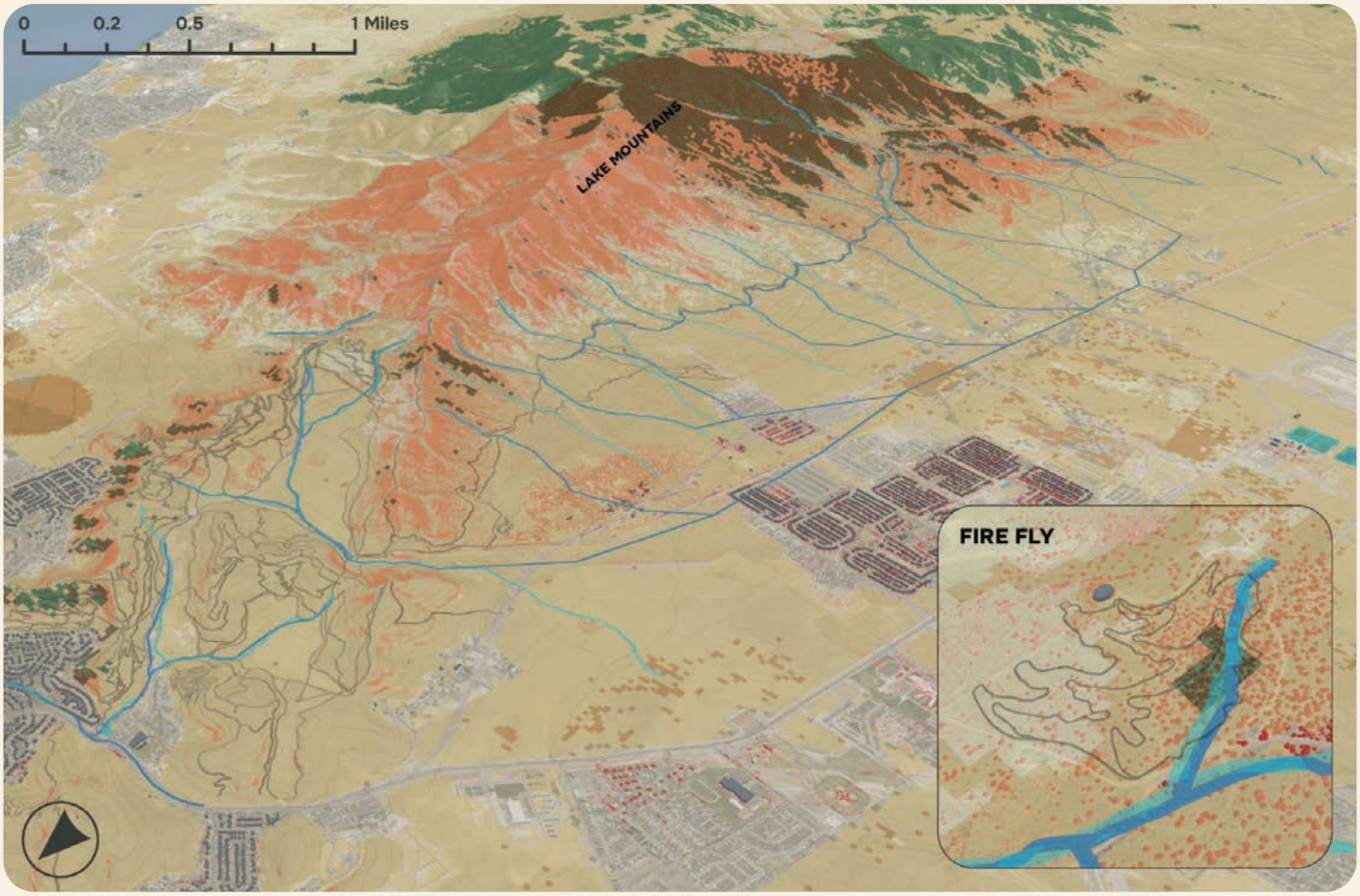
**One of the top 5 trails by Strava ridership within each region*

Environmental Conflicts

Landcover Type
Evergreen Forest
Mixed Forest
Shrub/Scrub
Grassland
Pasture
Crops

Water Feature
Stream
Wetland

Slope
Above 20°



Land cover data: 2024 NLCD. Hydrography: National Hydrography Dataset (NHD), USGS in partnership with UGRC. Slope: derived from 0.5-meter DEMs provided by UGRC.

Recommendations:

- **Remediate where impacts are limited**
  For trails with minor overlap (under 40%), use design and maintenance strategies such as improved drainage, armoring, elevated tread, or rerouting short segments to reduce impacts while maintaining trail continuity. Prioritize routes that also have high ridership or network significance.

- **Consider closure where impacts are extensive**
  For trails with substantial overlap (over 40%), evaluate closure or full realignment as a long-term solution.

- **Integrate environmental screening into future trail planning**
  Incorporate environmental conflict data when planning trail realignments or new trails to avoid future conflicts.

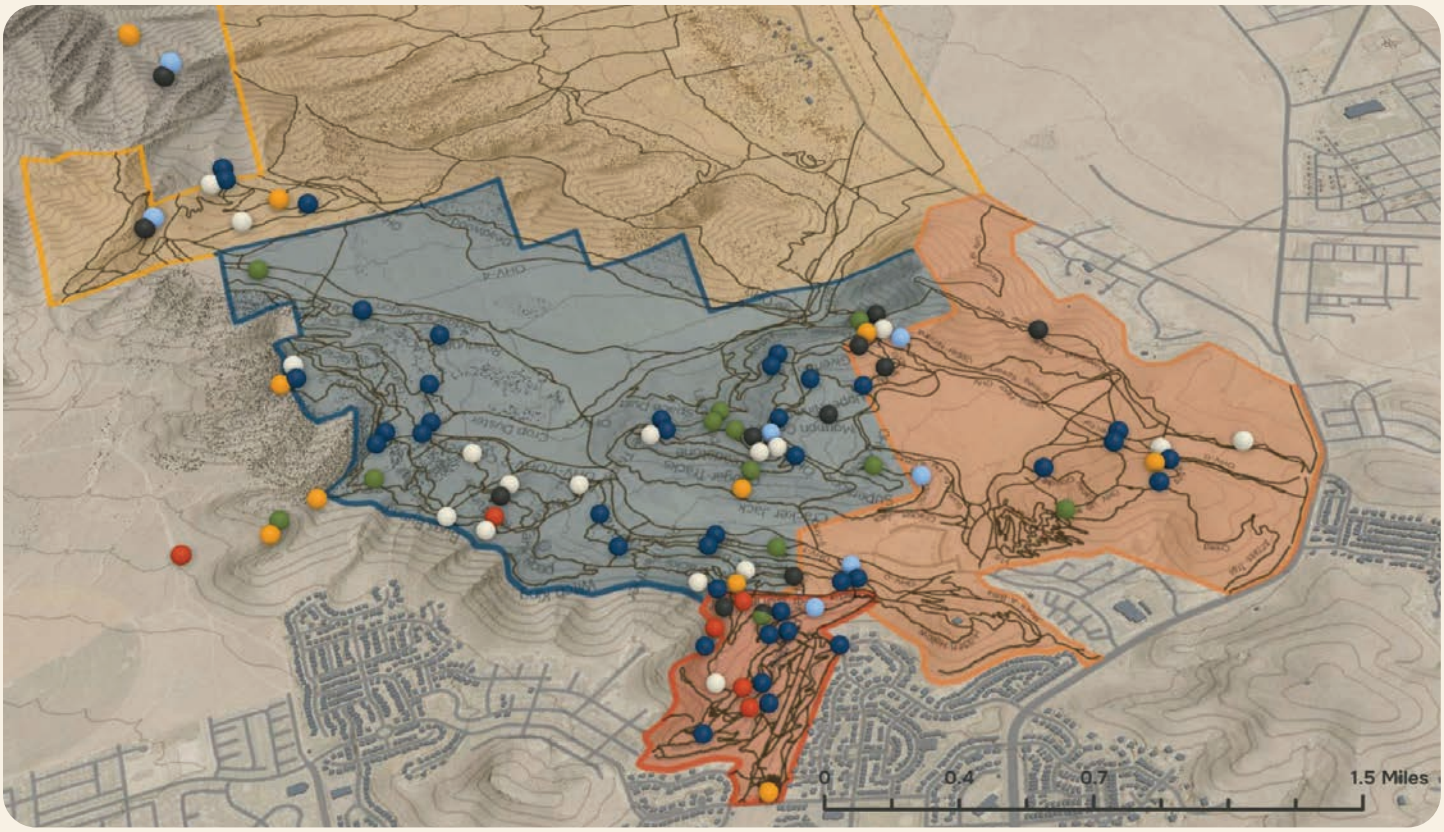
Field Assessment

Our team conducted a field assessment of the 87 miles of trails within Eagle Mountain. This assessment took place over four days in July and August 2025, and included both mountain biking and trail running to provide a firsthand perspective of the network.

During this assessment, we used ArcGIS Survey123 to map, categorize, and photograph trail conditions and issues. Those issue categories are described below.

#01	Signage			Missing, unclear, or damaged signs.
#02	Erosion			Tread erosion or surface instability.
#03	Definition			Poorly defined or confusing alignment.
#04	Slope			Grades too steep or improperly built.
#05	Width			Tread too narrow for intended difficulty.
#06	Hazards			Obstacles or unsafe conditions.
#07	Social Trails			Informal or unauthorized trails.

Field Assessment Results



Field Assessment Results*

Region	Trail Name	Signage	Erosion	Definition	Slope	Width	Hazards	Social Trails
Mountain Ranch Bike Park	Middle Ridgeline					1		
	110	1						
	Juniper Black	2						
	Big Thunder	2						
	Eastern Ridgeline	1		1			1	1
	Rocky Balboa		1	1				
Lower Hidden Valley	Rock-A-Billy	2						1
	Creed							1
	Lower Nirvana		1					
	Upper Nirvana	1						
	Connector	1			1			

SEE MORE ON NEXT PAGE

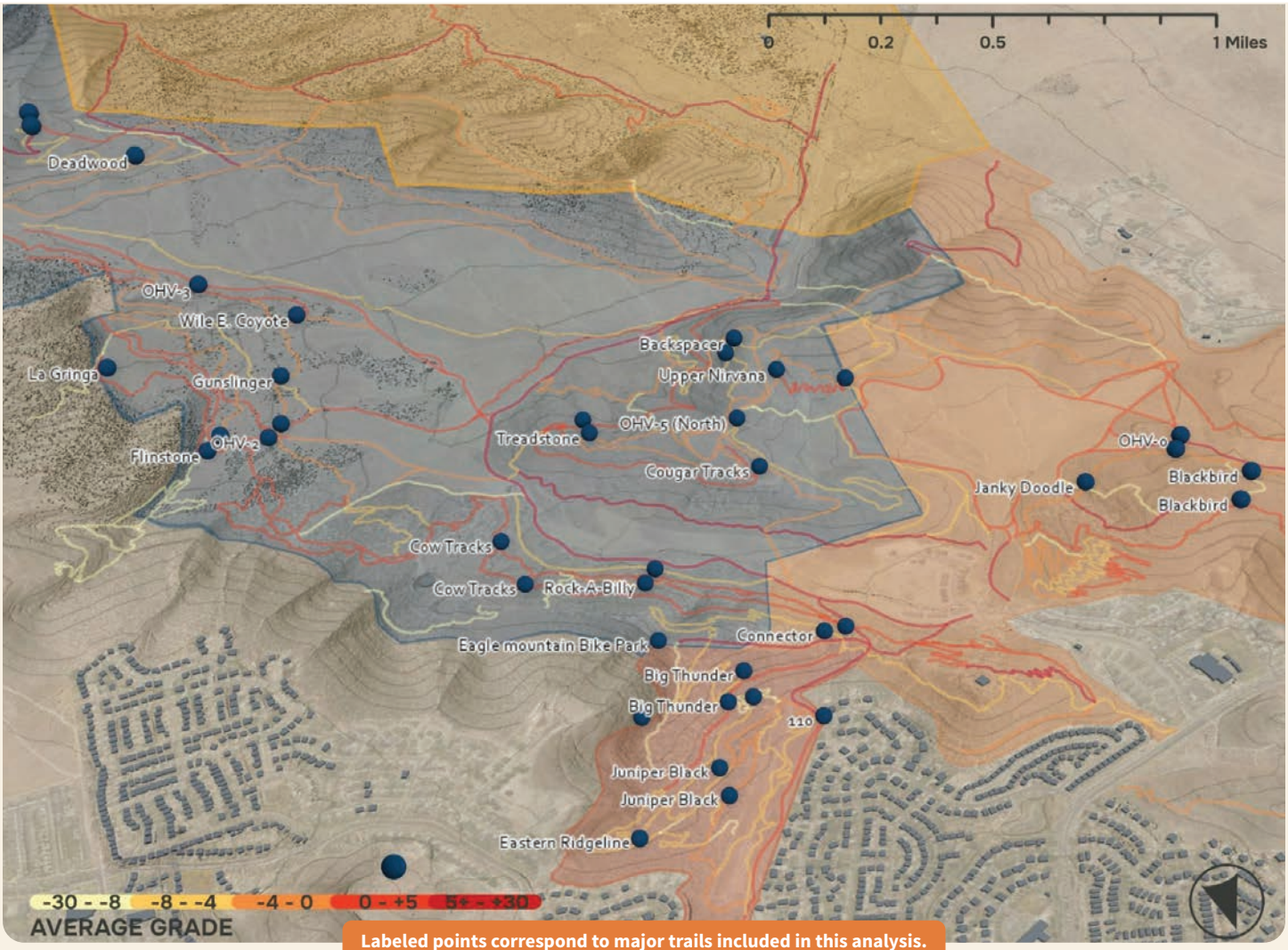
Field Assessment Results*

Region	Trail Name	Signage	Erosion	Definition	Slope	Width	Hazards	Social Trails
Lower Hidden Valley	Downward Spiral			1				
	Given to Fly	1		2				
	Glenmar OHV			1				
	OHV-0	1						
	Britney Spears		1		1	1		
	Janky Doodle	1						
	Blackbird	2	1					
Upper Hidden Valley	Deadwood	1	1					
	Jackrabbit	1						
	OHV-1	1				1		
	OHV-3	1						1
	Wile E. Coyote	1						
	Road Runner (Green)		1					
	Cow Tracks	2						
	Treadstone	1	1	1				1
	Supersonic					1		1
	Bugs Bunny		1				1	
	Backspacer	2						
	OHV-5 (North)	1						
	Billy Idol	1	1					1
	Crop Duster	1						
	411	1						
	Upper Ridgeline		1					
	Gunslinger	1						
	Cougar Tracks	1	1			1		1
	Mormon Cricket			1				
	OHV-4							
	Eastwood		1		1			
	OHV-2	1						
	Elvis Presley							1
	.22 LR			1				
	La Gringa	1	1		1			
	Roadrunner (Blue)		1	1				
	Flinstone	1			2			
	Launch Pad							1
	Cracker Jack				1			
	OHV-7	1						

**Results shown reflect conditions on major trails only. Mapped points with labels correspond to these major trails. Unlabeled points represent observations on minor or informal trail.*

Signage and wayfinding encompasses all visual communication elements that guide, inform, and orient trail users. Trail system signage includes trail markers, directional and distance signs, difficulty ratings, caution signs, and trailhead kiosks. Together, these elements help users navigate the trail system, identify routes and difficulty levels, reinforce environmental stewardship, promote safety, and encourage proper trail etiquette.

This assessment identified 39 locations with signage issues shown on the map below. While these issues limit clarity and user confidence, the network's layout is well suited for implementing standardized signage that would improve safety, navigation, and overall trail experience.



Labeled points correspond to major trails included in this analysis. Unlabeled points represent observations on minor or informal trails.

Challenges:

- **Missing Directional Signs**
  Many intersections, crossings, and key decision points lack signs, leading to confusion and safety concerns.
- **Missing Difficulty Signs**
  Several black or double black diamond trails lack difficulty signs
- **Inconsistent Style**
  Existing signage varies widely in design, materials, and placement, preventing a cohesive visual identity.
- **Insufficient Trailhead Info**
  Many trailheads lack maps, etiquette guidance, and other helpful information commonly found at trailheads.

Recommendations*:

- **Adopt Sign Standards**
  Adopt a unified signage palette, hierarchy, and placement standards for markers, directional signs, warning signs, and trailheads.
- **Install Wayfinding Signs**
  Install signs at all intersections, conflict points, and at entrances to black or double black diamond trails.
- **Install Trailhead Kiosks**
  Provide trailhead kiosks with maps, etiquette messages, emergency information, and other helpful tips for trail users.
- **Update Digital Maps**
  Ensure online maps (Trailforks, All Trails) are accurate and updated.

**See Chapter 4 for full signage recommendations and designs.*

Existing Signs







Missing Direction Signs or Intersection Signs



ObjID 46, Juniper: Trails merge with no indication of trail direction.



ObjID 39, Water Tank Road: Entrance to trail unmarked and unclear.



ObjID 46, Juniper: Trails merge with no indication



ObjID 11, Rock-A-Billy: Intersection with no signage.



ObjID 68, Backspace: Road crossing with no signage.



ObjID 75, OHV-2: Blind trail entry at ATV/MTB intersection.

Missing Difficulty Signs



ObjID 22, Flintstone: No signage to notify riders they are approaching a double black diamond trail.



ObjID 89, Shooting Gallery: No signage to notify riders they are entering a double black diamond trail.

Poor Sign Quality



ObjID 83, Eastwood: Faded, unreadable, broken signage.

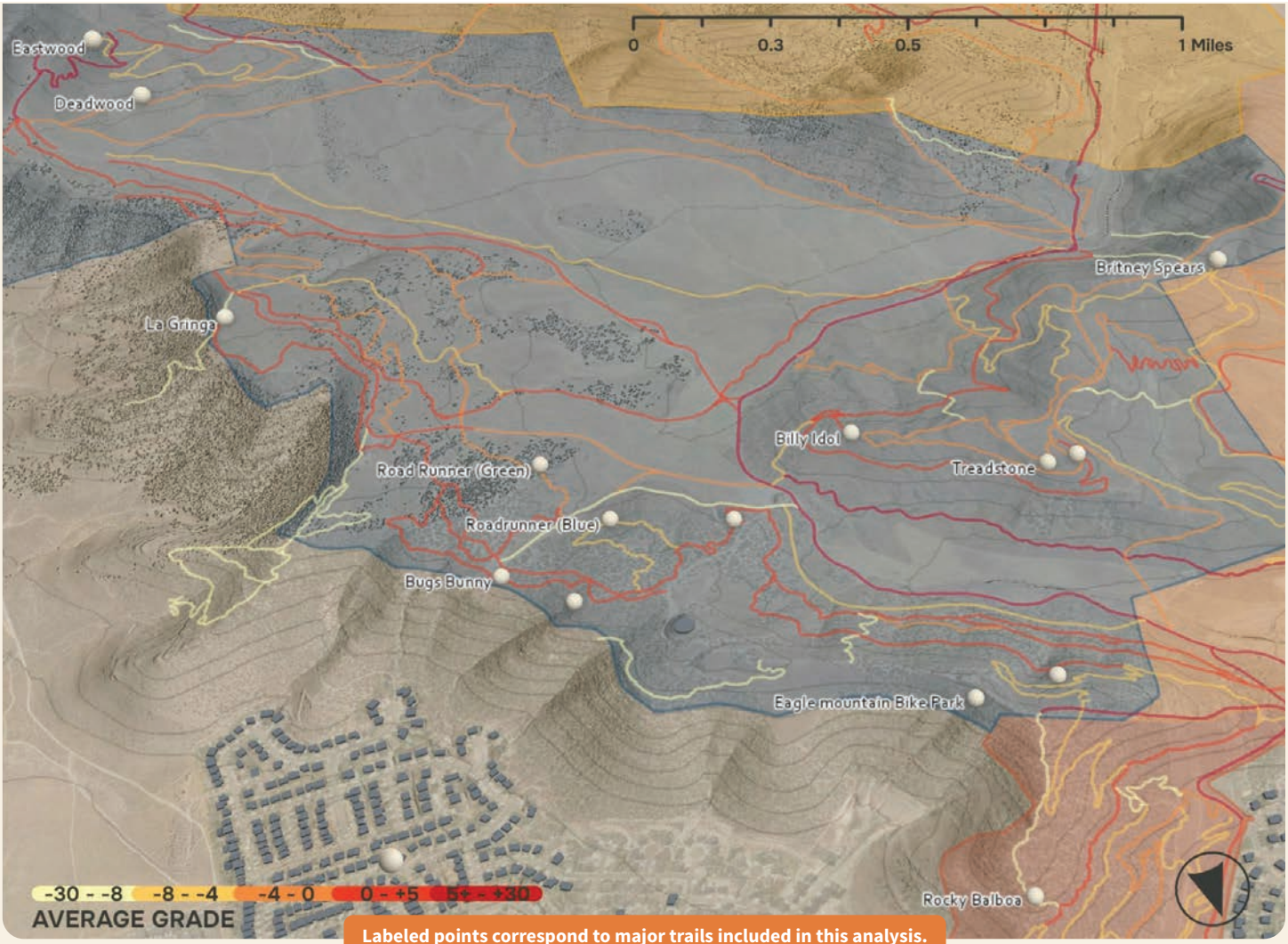


ObjID 9, Rock-A-Billy: Sign difficult to read, although cool design and fits the Eagle Mountain brand.

Trail erosion refers to the gradual displacement of soil caused by water, wind, and repeated use particularly on slopes, corners, and high traffic segments. Without proper design and maintenance, trail features such as climbs, descents, berms and drainage elements can break down over time. This leads to widening tread, loss of shape, undesired exposed roots or rocks, or degraded riding quality.

Erosion reduces the sustainability of the trail system by increasing maintenance needs, diminishing the intended flow and technical character of the trail, and creating safety issues for riders. In Eagle Mountain's arid and sloped terrain, unmanaged erosion accelerates trail deterioration and undermines the long-term functionality of the network.

This assessment identified 17 locations with erosion issues shown on the map below.



Labeled points correspond to major trails included in this analysis.
Unlabeled points represent observations on minor or informal trails.

Challenges:

- **Surface Instability**
  Several trails show visible erosion, loose soil, and degraded tread requiring repair and stabilization.
- **Insufficient Drainage**
  Steep and narrow segments often lack grade reversals or drainage features, allowing water to run directly down the trail, creating ruts and widening the tread.
- **Eroding Switchbacks**
  Many switchbacks exhibit erosion on the outside edge, worsened by riders cutting corners and bypassing the intended route.
- **Degraded Berms**
  Berms are often peeling away or losing structure, particularly on downhill and high speed corners.

Recommendations:

- **Rebuild Eroded Tread**
  Restore damaged segments. Reinforce problem areas with rocks or pavers.
- **Install Drainage Features**
  Add grade reversals, knicks, and outslope adjustments at locations with insufficient drainage.
- **Reinforce Switchbacks**
  Reconstruct switchbacks with proper design to discourage shortcutting across corners.



ObID 15, Bugs Bunny: Outspread on the uphill side of Switch back heading down Hill. Berm is peeling away.



ObjID 16, Rocket Powered Roller Skates: Switch Back is eroding on the outside.



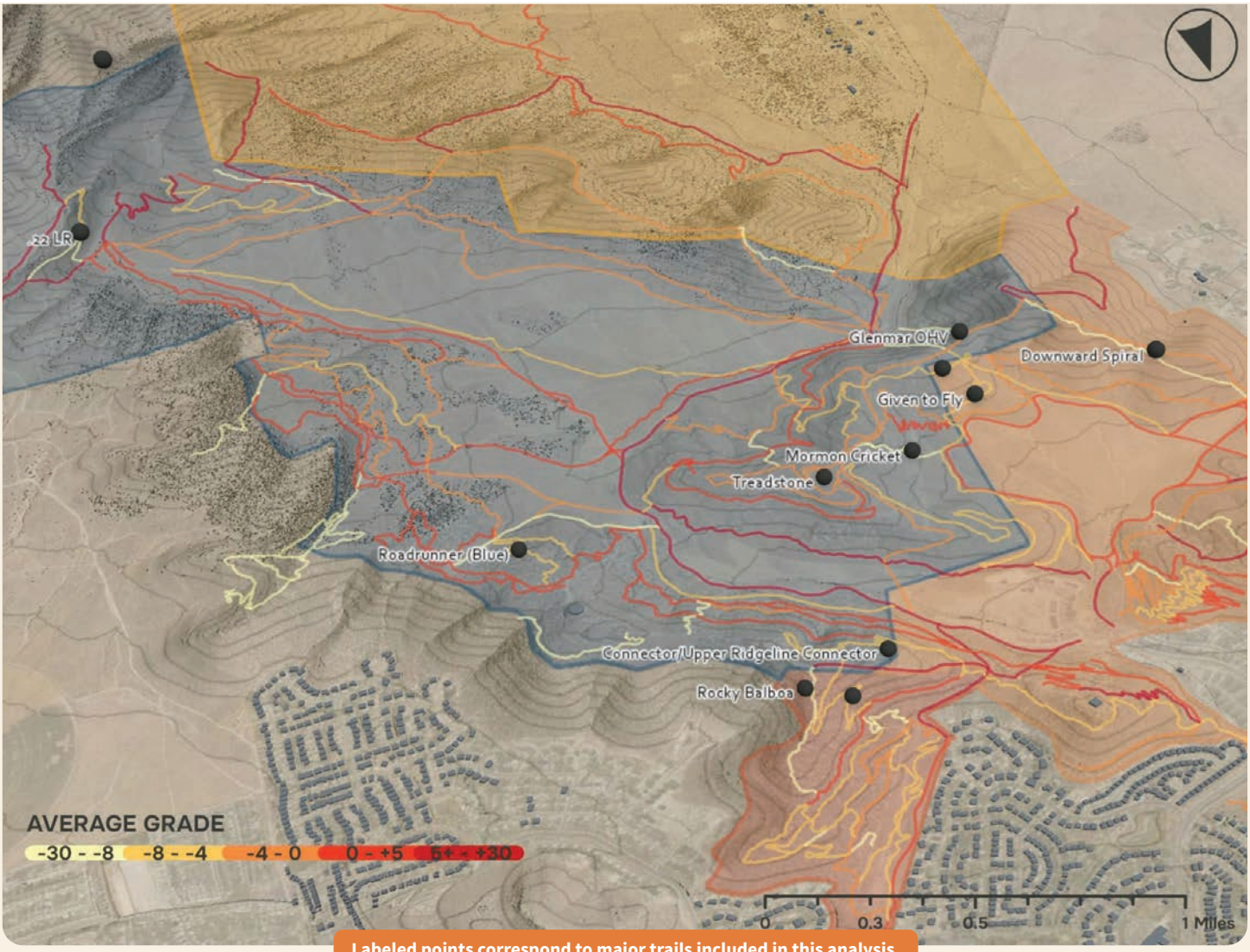
ObjID 19, Bugs Bunny: Riders short cutting the switchback.



ObjID 60, Cougar Tracks: Dirt is super soft on the outside of turn.

Trail definition refers to the clarity and distinctness of the trail corridor - how easily riders can identify the intended path, understand its boundaries, and follow the intended flow. A well defined trail network helps the user stay on the designated route and reduce the creation of unintended lines or shortcuts. In turn, this will protect the surrounding landscape, create a clear riding experience, and preserve the long term sustainability and trail character.

This assessment identified 12 locations with definition issues shown on the map below.



Labeled points correspond to major trails included in this analysis.
Unlabeled points represent observations on minor or informal trails.

Challenges:

- **Poor Definition**
  Many segments are not well delineated, causing riders to lose the intended path or unintentionally create new lines. This is often in rocky or open terrain where the route fades, splits, or lacks a clear point of reentry.

- **Offshoots and Social Lines**
  Several trails include unofficial offshoots or social lines that make the primary route unclear.

- **Overgrown or Narrow Tread**
  Vegetation encroachment and uneven tread make the trail difficult to follow.

- **Unclear Trail Entrances**
  Several trail entrances are unmarked or visually unclear, making it difficult for riders to identify where the trail begins.

Recommendations:

- **Define Corridor Edges**
  Use corridor clearing, edge treatments, guide posts, and natural features to clarify intended paths and reduce line drifting.

- **Close Offshoots and Social Trails**
  Remove and revegetate offshoots and social trails, reinforcing the primary route.

- **Mark Trail Entrances**
  Install clear wayfinding at trail entry points to help riders identify official routes.



ObjID 96, Downward Spiral: Overgrown vegetation narrowing the width of trail.



ObjID 72, Mormon Cricket: Trail disappears into an open space.



ObjID 42, Rocky Balboa: Entrance to trail unclear



ObjID 82, Unknown: Trail is hard to follow.



ObjID 39, Water Tank Road: Entrance to trail unmarked and unclear.

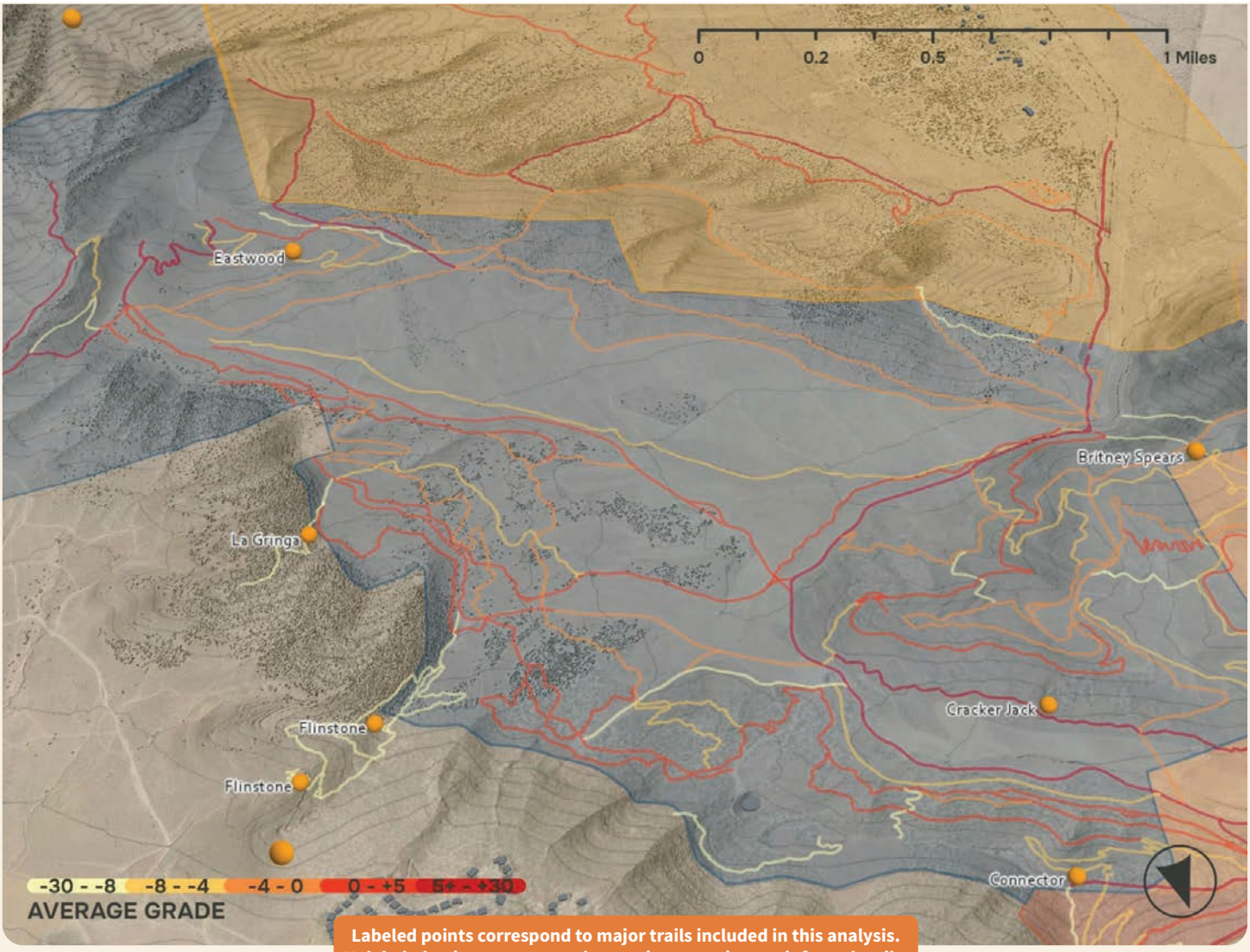


ObjID 80, 22 LR Trail: Trail is poorly maintained causing an unclear route.

Slope refers to the steepness of the trail and plays a critical role in determining rideability and safety. Well-designed grades help maintain smooth flow, control rider speed, and shed water effectively so the trail surface stays stable. When slopes become too steep without proper rideout, trails can lose stability, encourage braking and skidding, and require significantly more maintenance.

Sustainable trail design generally aims for an average grade of 8% or less, with short segments (up to 100 ft) reaching up to 10% when properly constructed. More advanced difficulty trails may include short segments approaching 20% grade.

This assessment identified 8 locations with slope issues shown on the map below.



Labeled points correspond to major trails included in this analysis. Unlabeled points represent observations on minor or informal trails.

Challenges:

- **Excessively Steep Segments**
  Some trails contain grades that exceed sustainable guidelines, reducing rideability and increasing maintenance demands.
- **Improper Slope Design**
  Steep sections often lack proper benching, outsloping, and drainage features, causing water to run directly down the trail.

Recommendations:

- **Reroute Steep Segments**
  Where feasible, adjust trail alignments to remove excessively steep sections.
- **Harden Unavoidable Steep Segments**
  Apply rock armoring, pavers, or soil stabilizers on steep segments that can't be rerouted.
- **Add Drainage Features**
  Incorporate frequent grade reversals or knicks to prevent water from channeling directly down steep segments.
- **Match Slope to Difficulty**
  Adjust trail grades so that slope and technical character align with the intended trail difficulty.



ObjID 6, Connector: Slope exceeds 10% for over 100 feet. Slope does not match difficulty.



ObjID 25, Flintstone: Switchback Slope is too steep



ObjID 86, Eastwood: Slope exceeds max recommendation.



ObjID 89, Shooting Gallery: Slope exceeds maximum

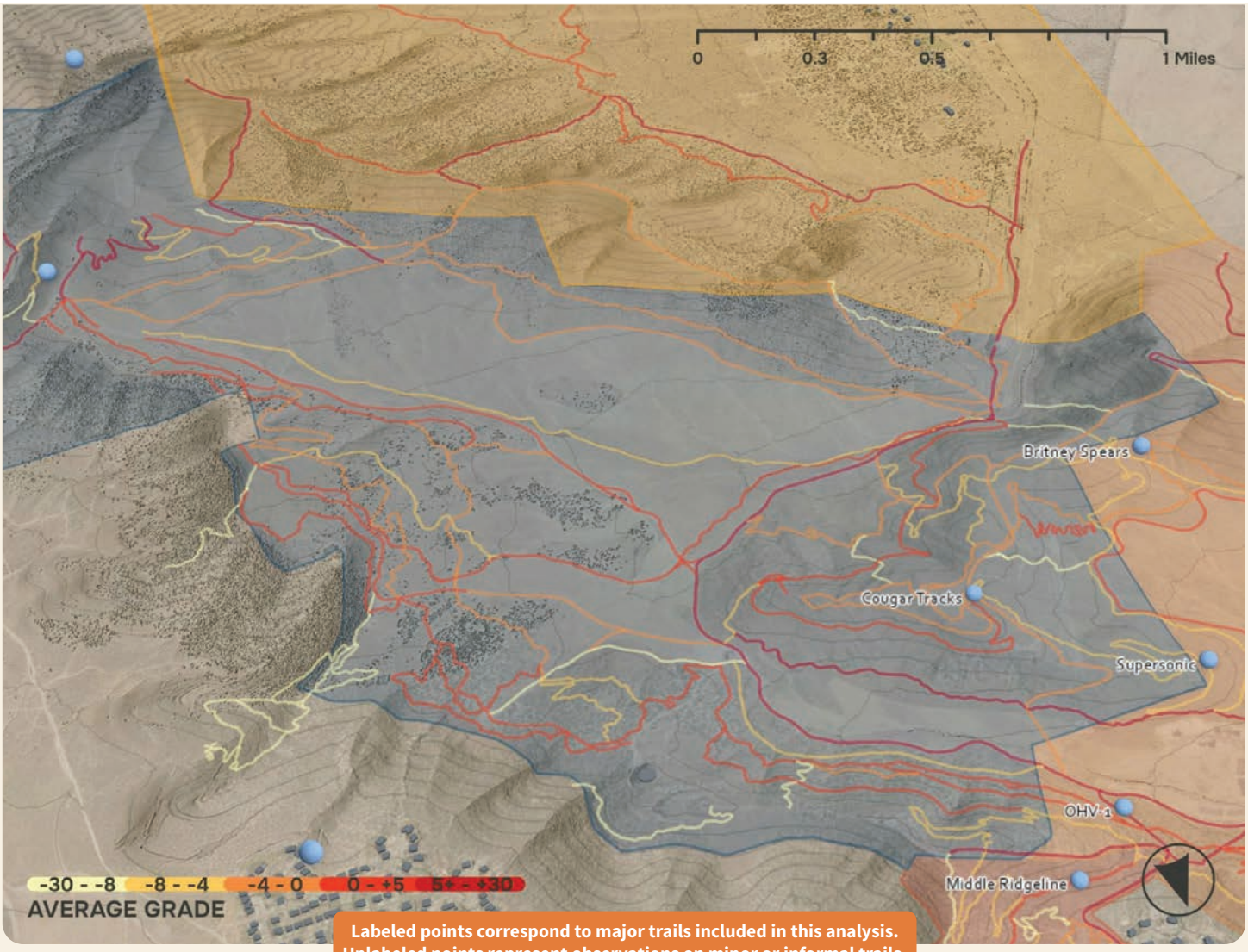


ObjID 71, Mormon Cricket: Trail too steep and overgrown

Trail width refers to the horizontal space available for riders to safely travel along the designated tread. Similar to slope, this is an important factor in determining whether a trail matches its intended difficulty rating. Appropriate width helps ensure predictable riding conditions, allows enough room to maneuver technical sections, and reduces unintended line creation.

When a trail is too narrow for its difficulty level, riders may be forced off the intended tread, increasing safety risk and contributing to trail edge breakdown, widening over time, and deterioration of the natural landscape. Trail widths must be designed and maintained to match the expected skill level, riding speed, and surrounding terrain.

This assessment identified 7 locations with width issues shown on the map below.



Labeled points correspond to major trails included in this analysis. Unlabeled points represent observations on minor or informal trails.

Challenges:

- **Undersized Tread**
  Several trail segments are narrower than recommended for their designated difficulty level.
- **Vegetation Encroachment**
  Some trails have vegetation encroaching onto the trail, further narrowing the usable tread.

Recommendations:

- **Restore and Stabilize Edges**
  Repair trail segments that are too narrow, ensure a consistent and appropriate trail width.
- **Remove Encroaching Vegetation**
  Cut back overgrown vegetation that narrows the usable tread.
- **Prevent Future Narrowing**
  Use corridor framing techniques such as placing rocks or logs along the trail edge or reinforcing the backslope to prevent the tread from collapsing inward over time.
- **Match Width to Difficulty**
  Adjust trail widths as needed to better align with intended trail difficulty.



ObjID 28, 22 LR Trail: Trail is too narrow and difficult to follow.



ObjID 54, Supersonic: Trail is narrower than 2 feet.



ObjID 63, Treadstone: Trail narrows and is overgrown.

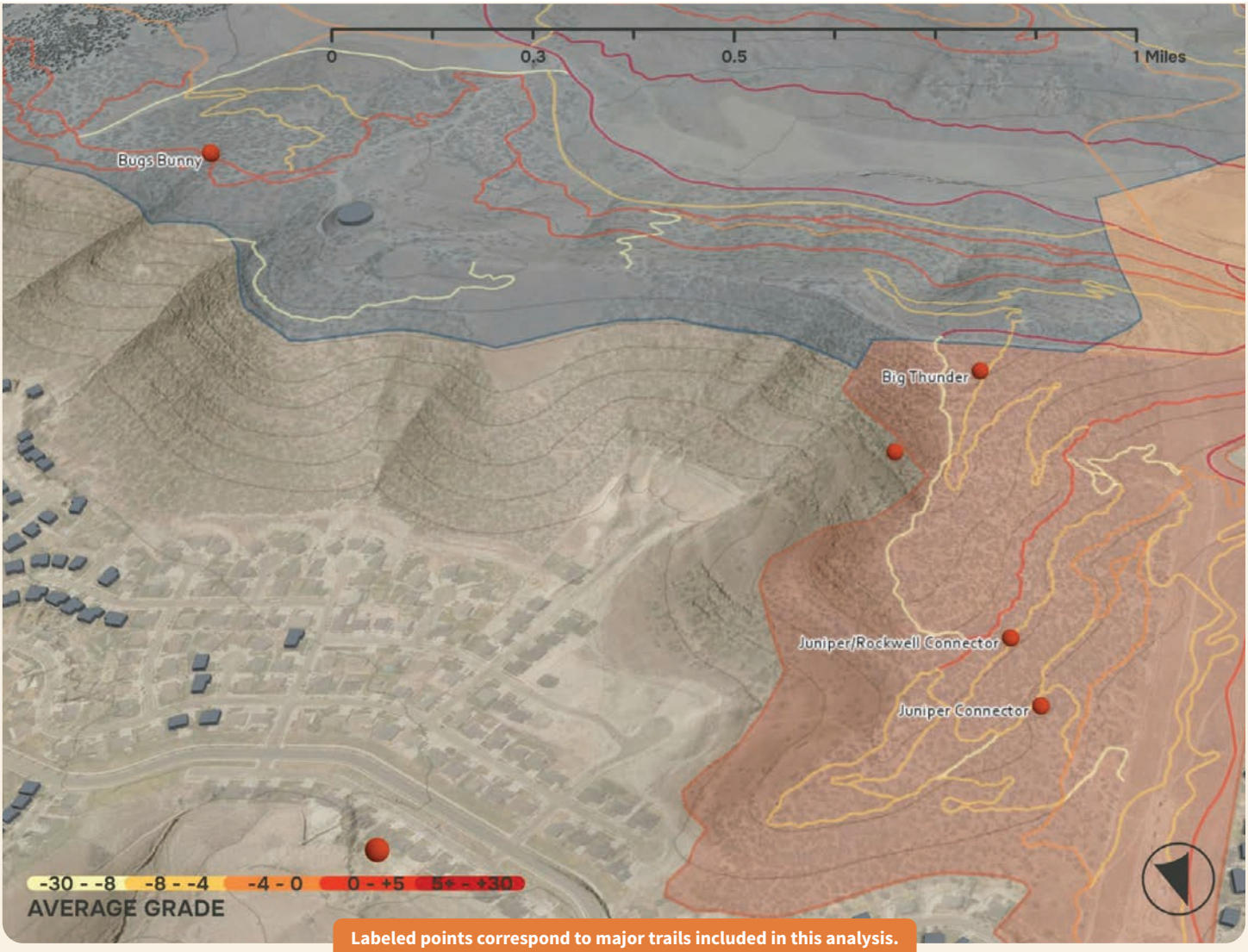


ObjID 82, Unknown: Trail is hard to follow.

Trail hazards are unintended obstacles, conditions, or deteriorated features that compromise rider safety or obstruct the intended flow of the trail. In general, a hazard is anything that forces riders to unexpectedly change speed or direction where it was not intended, limits visibility, creates a collision risk, or undermines the trial's difficulty level.

Hazards in Eagle Mountain are primarily man-made elements such as fire pits, fences, discarded materials, and other debris that block or narrow the trial corridor. Broken or poorly maintained trail features include damaged jumps, collapsed berms, and damaged wooden features.

This assessment identified 6 locations with hazards shown on the map below.



Labeled points correspond to major trails included in this analysis. Unlabeled points represent observations on minor or informal trails.

Challenges:

- **Damaged Trail Features**
  Broken or deteriorated jumps, berms, wooden features, and landings compromise safety and undermine the intended flow and difficulty.
- **Man-Made Obstructions**
  Fire pits, fences, discarded materials, and other debris block the trail corridor or force riders off the intended line.

Recommendations:

- **Repair or Replace Damaged Features**
  Rebuild or remove deteriorated jumps, berms, and wooden structures.
- **Remove Obstructions**
  Clear fire pits, debris, and other materials that block trail segments.
- **Prevent Hazard Recurrence**
  Reduce future obstructions by clearly defining trail corridors, reinforcing rules against building unauthorized structures, and maintaining a consistent schedule for inspecting and repairing trail features.



ObjID 18, Bugs Bunny: Campfire built on the trail.



ObjID 27, Flintstone: Trail hops over a fence.



ObjID 37, Big Thunder: Bridge with missing planks.



ObjID 40, Water Tank Road: Firepits on the trail.



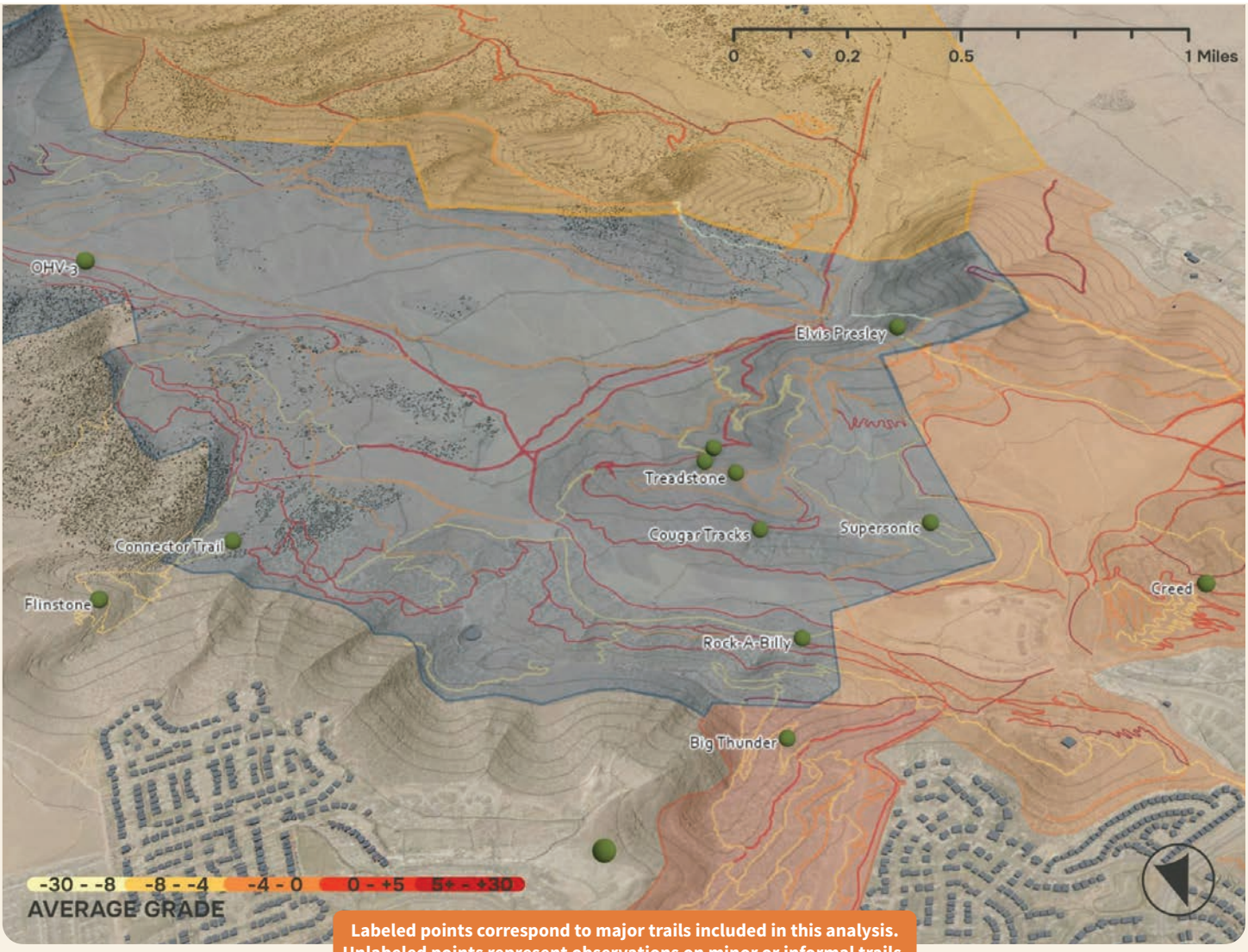
ObjID 45, Juniper Connector: While not on the main trail, this bridge is a major safety concern and if it is not repaired, it should be removed.



ObjID 47, Juniper: Feature with missing planks.

Social Trails are informal trail segments, offshoots, or skidder lines that are not part of the official trail system. These routes often develop through repeated shortcutting or unauthorized construction. While some unsanctioned lines may offer desirable connections or features, many contribute to erosion, habitat fragmentation, confusing navigation, or conflicts with land ownership.

This assessment identified 12 locations with unsanctioned trails shown on the map below.



Labeled points correspond to major trails included in this analysis. Unlabeled points represent observations on minor or informal trails.

Challenges:

- **Unsanctioned Trails**
  Social lines and offshoots make it difficult for riders to identify the primary route, weakening trail definition and degrading user flow.

Recommendations:

- **Evaluate Offshoots for Potential Adoption**
  Determine whether unsanctioned routes fill a legitimate need (connectivity, flow, user interest) and, if so, redesign and rebuild them to sustainable standards.

- **Add Wayfinding Signs**
  Provide trail maps and clear signage where needed to prevent unsanctioned lines from redeveloping.

- **Remove Unnecessary Routes**
  Close and rehabilitate informal routes that duplicate existing trails, create erosion or safety issues, or conflict with land ownership constraints.



ObjID 13, Rockabilly: New trail offshoot that's not in the trail system.



ObjID 23, Flintstone: Offshoot trail that is not blocked off.



ObjID 59, Cougar Tracks: Trail is peeling away, skidded trail cuts off to the left.



ObjID 92, Creed: Unmarked side trail.

Recommendations Summary

Assessment	Category	Actions
GIS Assessment	Land Ownership Conflicts	• Prioritize EMC-owned trails • Formalize trails on SITLA land • Coordinate authorization on BLM land • Evaluate trails on private property
	Development Conflicts	• Preserve or realign high-priority trails • Preserve city-owned trails within Lower Hidden Valley • Plan connections within the Hidden Hollow trail corridor • Plan crossings on Mid Valley Road
	Environmental Conflicts	• Remediate where impacts are limited • Consider closure where impacts are extensive • Integrate environmental screening into future trail planning
Field Assessment	Signage	• Adopt sign standards • Install wayfinding signs • Install trailhead kiosks • Update digital maps
	Erosion	• Rebuild eroded tread • Install drainage features • Reinforce switchbacks
	Trail Definition	• Define corridor edges • Close offshoots and social trails • Mark trail entrances
	Slope	• Adopt sign standards • Install wayfinding signs • Install trailhead kiosks • Update digital maps
	Width	• Rebuild eroded tread • Install drainage features • Reinforce switchbacks
	Hazards	• Define corridor edges • Close offshoots and social trails • Mark trail entrances
	Social Trails	• Evaluate offshoots for potential adoption • Remove unnecessary routes • Add wayfinding signs

CHAPTER

03

Mountain Ranch Bike Park

Prepared by
Shapeshift Terrain Parks



Overview

The **Mountain Ranch Bike Park** (also referred to as Eagle Mountain Bike Park) is a **55-acre public riding area** that provides the most developed mountain biking trails and a skill development area.

Due to its central location and unique topography, the bike park is envisioned as a regional hub for mountain biking, offering a multi-faceted riding experience suitable for a wide range of skill levels. Over time, however, the facilities have shown significant wear. Much of the site now reflects deferred maintenance and visible deterioration, underscoring the need for a comprehensive assessment and plan to restore the park to a safe, functional, and well-organized standard.

An inspection of the park was conducted by Shapeshift Terrain Parks (STP), a professional trail-building and bike park development company with extensive experience across Utah and the Mountain West.

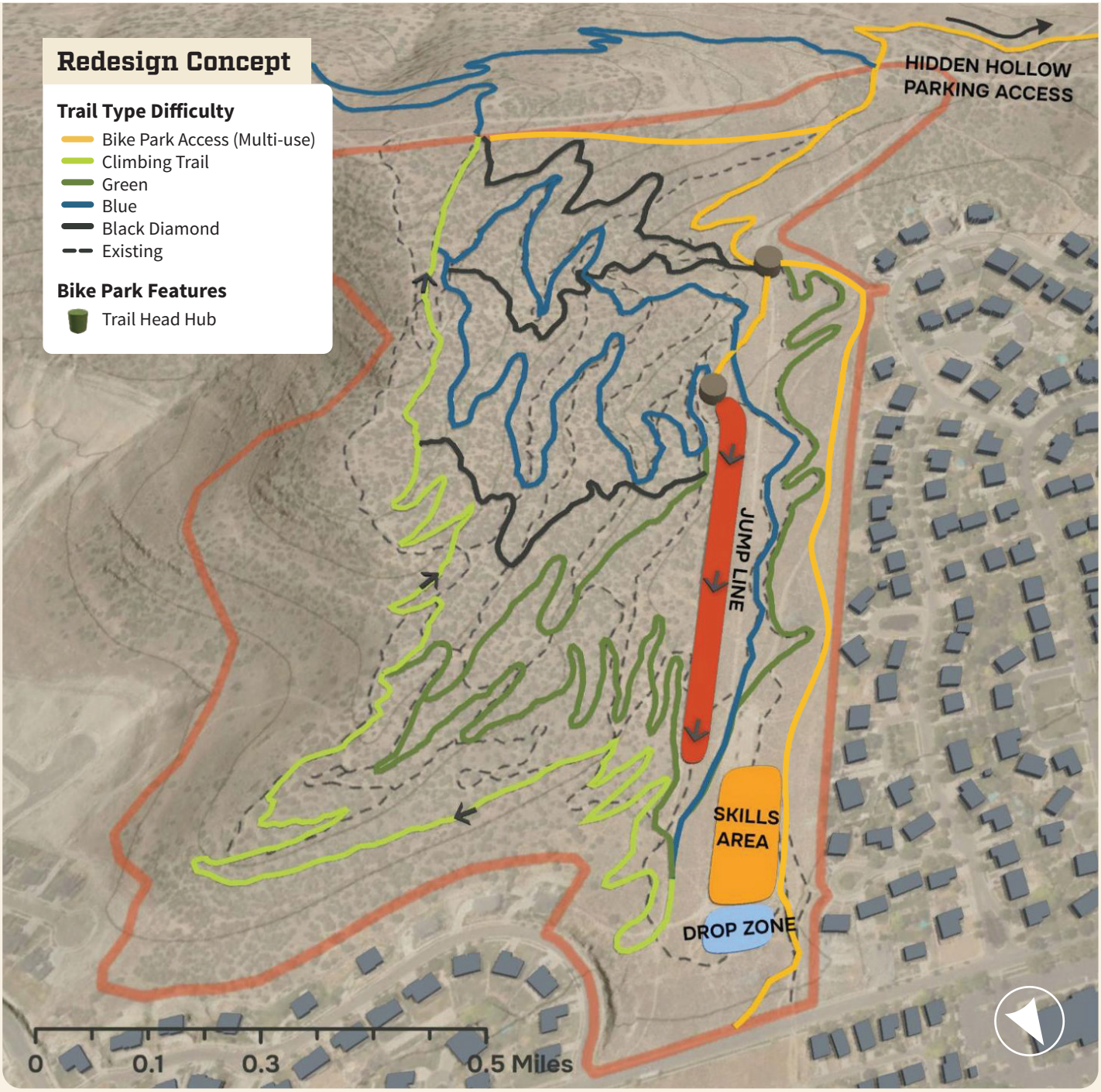
The proposed design modernizes the existing layout with clear trail directionality, sustainable surfacing, and improved user access. The park will retain its core character—highlighting mountain bike style jumps, downhill trails, and technical features—while integrating modern flow-based design principles and improved amenities.



Park Layout

The 55-acre park provides roughly 425 feet of vertical relief and diverse terrain, ideal for a broad spectrum of trail types. Existing flagship routes such as 220 and Juniper can be preserved and upgraded to honor the park's original design while also elevating its usability. With purposeful planning, professional construction, and clear organization, this area can evolve into a bike park that stands out in Utah's growing mountain biking scene.

At present, the overall organization of trails offers limited guidance and difficult access. A few user-maintained routes exist, some with rider-built structures, but only a handful of those features remain safe or functional. Most trails and structures are now in disrepair. Critically, there is no dedicated uphill trail to provide consistent access to the top of the park, making the layout fragmented and difficult to navigate.



Existing Layout Challenges

- **Lack of clear trail purpose and progression**
  The current network consists of numerous overlapping and informal routes that create a “spider-web” pattern, with no clear organization or progression from beginner to advanced difficulty.

- **Mismatch between posted and actual difficulty**
  Several trails are signed or perceived as a certain difficulty but do not align with their on-the-ground riding experience, creating confusion and potential safety concerns.

- **Limited and indirect access to upper elevations**
  There is no purpose-built trail providing reliable access to the top of the park. The Upper Ridgeline Trail is the primary route but extends outside park boundaries onto SITLA land, while the only alternative is a utility access road.

- **Poor wayfinding and system legibility**
  Existing maps are outdated, and signage is either missing or unreadable, making navigation difficult and limiting the usability of the system for new or visiting riders.

- **Use concentrated on a small number of trails**
  Trails such as 101, 202, and Juniper receive the majority of use and may be the only clearly marked routes, leading to overuse while other trails remain underutilized or confusing.

Revised Layout Benefits

- **Organized, purpose-driven trail system**
  Replaces the existing spider-web of trails with a clear, intentional network where each trail has a defined role within the overall system.

- **Clear difficulty progression**
  Establishes an intuitive progression from beginner to advanced riding, improving safety, user confidence, and overall experience.

- **Dedicated uphill access and user separation**
  Provides a designated multi-use uphill trail to the top of the park, separating climbing and downhill travel and reducing conflicts between users.

- **Improved trail flow and connectivity**
  Downhill trails are intentionally routed to flow toward the base of the park and reconnect with a single uphill access trail, creating a more cohesive and efficient riding experience.

- **Preservation and improvement of key trails**
  Retains and rehabilitates flagship routes such as Big Thunder–220 and Juniper, maintaining community favorites while improving sustainability and ride quality.

- **Reduced off-site impacts**
  Consolidates trail access within park boundaries, minimizing unauthorized use of SITLA and utility properties. Future planning can more intentionally address how SITLA’s existing and potential routes integrate with the park’s long-term vision.

- **Improved wayfinding and system legibility**
  Introduces a simplified trail hierarchy supported by updated maps and consistent, readable signage, making the park easier to navigate for all users.

Existing Layout Challenges







All trails within the park are envisioned as natural-surface facilities constructed using on-site materials and shaped to respond to existing topography. Where trail features or structures are desired, they should be professionally designed and constructed using durable, high-quality materials to ensure rider safety and reduce long-term maintenance needs.

The following recommendations outline design intent and performance standards by trail type, as identified in the revised layout.

Multi-Use Trails (YELLOW)
Designed for two-directional travel by a range of users. Trails should be machine-built, a minimum of 4 feet wide, and generally maintain an overall grade of less than 6 percent. The Upper Ridgeline Trail may be rehabilitated as a downhill route; if retained or converted to a multi-use trail, significant rerouting will be required to address safety and visibility concerns.

Uphill Trails (LIGHT GREEN)
Provide primary climbing access to the trail system. Beginner-oriented uphill segments should not exceed a 5.5 percent average grade. Uphill trails accessing more advanced terrain may exceed this threshold in short sections but should generally target an average climbing grade of 7 percent or less.

Beginner Trails (GREEN)
Envisioned as machine-built flow trails that provide a predictable, confidence-building riding experience. Big Thunder and 220 may remain hand-built where appropriate. Downhill grades should generally fall within a 4–6 percent range.

Intermediate Trails (BLUE)
Intended as progression-focused downhill trails with increased speed and technical challenge. Generally envisioned as machine-built flow trails, with overall grades typically between 6 and 8.5 percent. The existing Big Thunder–220 trails should be consolidated and rehabilitated into a single, continuous, hand-built intermediate downhill trail.

Expert Trails (BLACK)
Envisioned as hand-built, technical downhill trails designed for advanced riders. These trails are not subject to specific grade limits but should follow sustainable trail design principles to minimize long-term maintenance and erosion impacts.



Downhill Trails

Downhill trails form the core riding experience but also present the greatest maintenance and safety challenges. While jump lines require frequent upkeep, professionally designed natural-surface downhill trails provide the most versatile and sustainable long-term infrastructure. Much of the existing downhill network was built with advanced riders in mind, resulting in limited options for beginners and intermediate users and an overall lack of progression.

Existing Layout Challenges

- **Inconsistent trail difficulty and narrow tread**
  Many downhill trails include technical rock features, narrow alignments, and abrupt difficulty changes that do not align with posted or implied trail ratings.
- **Deteriorating and unsafe features**
  Wooden structures are present throughout the system, with many in poor condition and no longer meeting safety expectations.
- **Widespread informal use**
  Social and unsanctioned trails have developed between designated routes, contributing to tread creep and landscape impacts beyond intended trail corridors.
- **Lack of signage and hazard identification**
  Existing signage is minimal or faded, with no clear indication of trail direction, difficulty, or feature-specific hazards.
- **Misaligned grades and features**
  Trail grades and technical elements are often poorly matched, creating unsafe riding conditions and accelerating erosion.

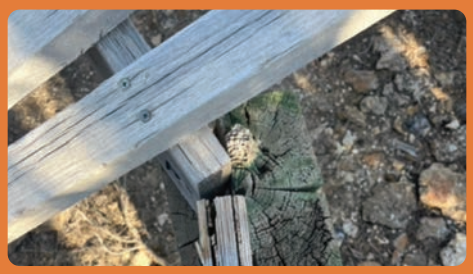
Recommendations

- **Dedicated uphill access**
  A new directional uphill trail will serve as the primary access to downhill routes, reducing conflicts and informal climbing on downhill trails.
- **Trail zoning by difficulty**
  The northern portion of the park, with gentler grades, is designated for beginner and intermediate trails, while steeper, rockier central and southern slopes are reserved for advanced riding.
- **Targeted construction methods**
  Green and blue trails will be primarily machine-built to ensure consistent tread and predictable flow. Select blue and black trails will be hand-built to retain technical character and terrain-driven design.
- **Integrated trail terminations**
  Downhill trails will generally terminate in the jump line area, with a green-level connector providing beginner access to lower flow trails and the skills zone.

Existing Layout Challenges








Skills Area

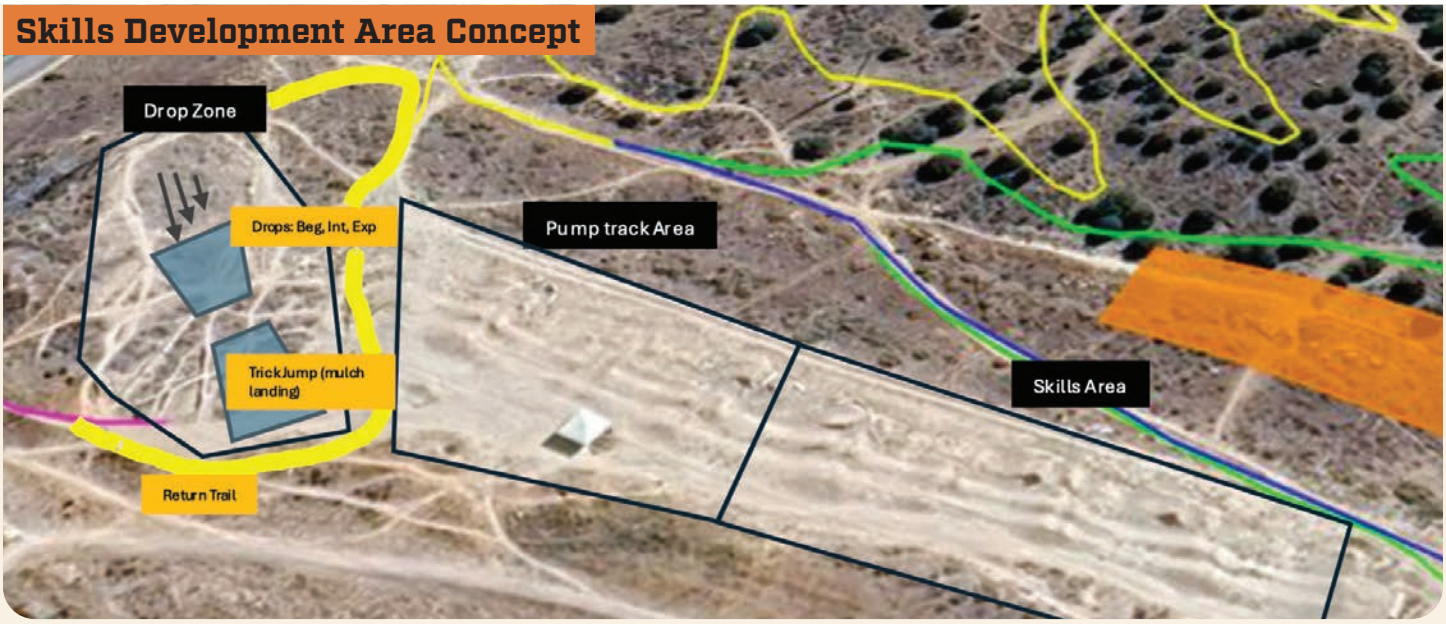
The former jump line is repurposed to support a redesigned skills area and pump track, allowing the City to retain prior investments while expanding the functionality, accessibility, and long-term durability of this portion of the park. A new jump line is relocated to the foothills below the flow trails, as shown in the revised layout.

The current skills area consists primarily of elevated wooden features woven through low vegetation. While engaging for advanced riders, these features rely on buried wooden supports and function as a standalone challenge course, limiting progression opportunities and long-term sustainability.

Challenges

- **Aging and unsafe structures**
  Many wooden features require reinforcement at a minimum, with widespread issues such as backing-out fasteners and deteriorating supports.
- **Limited accessibility and progression**
  The current design caters almost exclusively to advanced riders, limiting its usefulness to the broader riding community.

Skills Development Area Concept



Recommendations

- **Repurposed Jump Line**
  Convert the former jump line into a redesigned skills area and pump track, maintaining its role as a key park feature while expanding usability.
- **Drop Zone**
  Develop a progression-based drop area using natural elevation, with beginner (rollable), intermediate, and expert options and properly sloped landing zones.
- **Trick Jump**
  Construct a low-risk trick jump with a soft landing surface (mulch or sand) to support skill development and repetition.
- **Pump Track**
  Install a hard-surface (asphalt or concrete) pump track in the flattest portion of the park to improve durability and reduce maintenance demands.
- **Skills Area**
  Create a gently sloped, ground-level skills area with multiple line choices, beginner-accessible features, and durable materials such as steel, wood decking, and natural rock.
- **Return and Access Trails**
  Provide clearly defined, wider return and access trails with visual edge treatments to improve circulation, safety, and wayfinding.

Jump Line

The original jump area was constructed with three parallel lines—small, medium, and extra-large—on a consistent downhill grade. While the smaller lines remain partially rideable, the overall system has proven difficult to maintain and does not effectively serve riders across a range of abilities. The extra-large line has fallen into disrepair, reflecting both its limited user base and high maintenance demands. These conditions present an opportunity to re-envision the jump line as a safer, more durable, and more inclusive feature within the park.

Challenges

- **Unsustainable construction**
  Existing lips and landings lack sufficient material and structural support to maintain their shape over time.
- **Limited progression**
  The current layout does not provide a clear or accessible progression path for beginner riders.
- **Poor flow and consistency**
  Jump spacing, alignment, and approach speeds do not support predictable riding or a broad range of skill levels.

MTB Jump Line Concept



Recommendations

- **Relocated Jump Line**
  Replace and relocate the former dirt jump area with a new MTB jump line situated along the foothills below the flow trails, as shown in the revised layout.
- **Progression-Based Design**
  Design the jump line to support progression, with a minimum of four distinct jump tiers that serve beginner, intermediate, and expert riders.
- **Multiple Takeoff Options**
  Provide multiple takeoff options at each tier, including dirt-shaped beginner lips and fabricated intermediate and expert ramps, with ride-arounds where appropriate.
- **Integrated Use of Topography**
  Utilize natural terrain to manage speed and flow, allowing jump lines to meander into the hillside as needed.
- **Predictable Jump Geometry**
  Construct tabletop-style jumps with consistent takeoffs and visible landings to improve safety and rider confidence.
- **Durable Construction**
  Use native and imported materials as needed, with metal-framed fabricated ramps and compacted, well-draining landing surfaces.
- **Safety and Testing**
  Professionally test and fine-tune all jump features to ensure proper flow at trail speed and reduce the need for excessive braking or pedaling.



Wayfinding and Amenities

Amenities within the bike park include signage, shade structures, a bike repair stand, and water hydrants. While these elements establish the park as a functional recreation space, they are inconsistently distributed and, in some cases, in poor condition. Park boundaries and circulation routes are not clearly defined, with trails and amenities extending into adjacent neighborhoods, utility easements, and nearby properties, creating confusion for users and maintenance staff.

Challenges

- **Limited and ineffective wayfinding**
  Existing signage is minimal, difficult to read, and lacks clear information. The trail system itself lacks a clear hierarchy, making navigation and orientation challenging even where signage is present.
- **Aging shade infrastructure**
  The main shade structure shows signs of deterioration, including cracking in the concrete pad and surface rust on structural elements.
- **Lack of public water access**
  No drinking water fountain is currently available for park users.
- **Incomplete bike repair amenities**
  Repair stations are present but missing functional tools.
- **Unclear boundaries and utility conflicts**
  Pedestrian paths and utility easements are not clearly delineated within the park, increasing the potential for user confusion and conflicts with maintenance activities.

Recommendations

- **Wayfinding**
  Improve wayfinding throughout the park; refer to Chapter 5 for detailed signage, mapping, and system hierarchy recommendations.
- **Shade Structures**
  Retain and upgrade the lower shade structure; remove or replace the upper structure as part of the revised park layout, with new structures aligned to the overall design.
- **Water Access**
  Maintain the existing water hydrant for construction and long-term maintenance needs.
- **Public Water Access**
  Install a public drinking water fountain near the primary shade structure.
- **Bike Repair Station**
  Repair and replace missing or damaged tools to restore functionality.
- **Utilities and Easements**
  Clearly delineate utility easements and pedestrian paths and integrate them into the park design to reduce conflicts and improve safety.









Accessibility & Parking

The bike park's primary access point is along Golden Eagle Road, a major neighborhood corridor. While this location provides visibility within the community, the park entrance is not clearly marked, and formal parking is not provided. In practice, visitors park informally along the roadway, and access into the park occurs via steep, informal trails or stairways that are not suitable for bikes or beginner riders. Additional access occurs through surrounding neighborhoods and adjacent trail systems, though these routes are not clearly designated or coordinated.

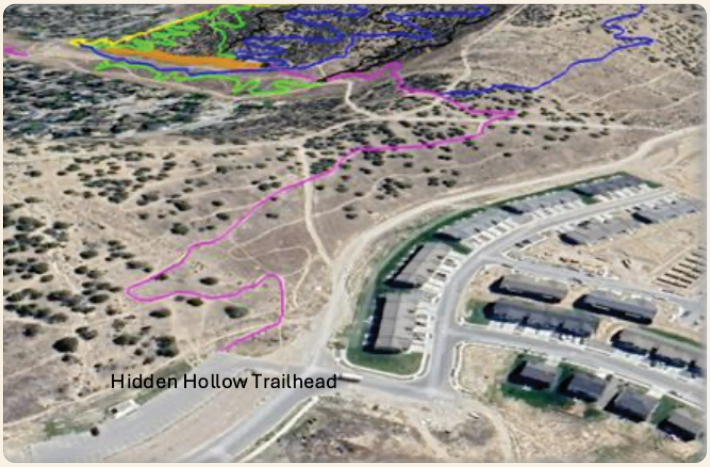
Challenges

- **Poorly defined primary access**
  The entrance from Golden Eagle Road is difficult to identify, and steep grades make ingress and egress challenging, particularly for beginner riders.
- **Safety concerns at roadway connections**
  Steep trail exits directly onto Golden Eagle Road create conflicts with vehicle traffic and limit safe use.
- **Lack of ADA access and amenities**
  No ADA-compliant access routes or amenities currently exist within the park.
- **Informal and unsafe parking**
  Parking occurs along Golden Eagle Road without designated stalls, signage, or traffic-calming features.
- **Fragmented access network**
  Emergency, utility, and user access routes rely heavily on neighborhood connections without clear hierarchy or signage.

Recommendations

- **Golden Eagle Road Access**
  Improve delineation of the primary park entrance and replace existing informal trails with a purpose-built access route that meets a maximum 6 percent grade and a minimum 60-inch width. Stair access should remain limited to foot traffic only.
- **Street Parking**
  Formalize limited on-street parking along Golden Eagle Road with designated parking signage and basic roadway markings to improve safety and visibility.
- **Access Controls**
  Consider gates or physical barriers where appropriate to discourage unauthorized motorized vehicle access.
- **Hidden Hollow Connection**
  Designate Hidden Hollow Trailhead as a secondary access point, leveraging its existing parking and restroom amenities.
- **Dedicated Access Trail**
  Identify and construct a clearly signed multi-use trail connecting Hidden Hollow Trailhead to the bike park to reduce informal trail use and improve wayfinding.






Main Entrance
Primary On-Street Parking
Shade Structure
w/Concrete Pad
Entrance
Entrance
Entrance





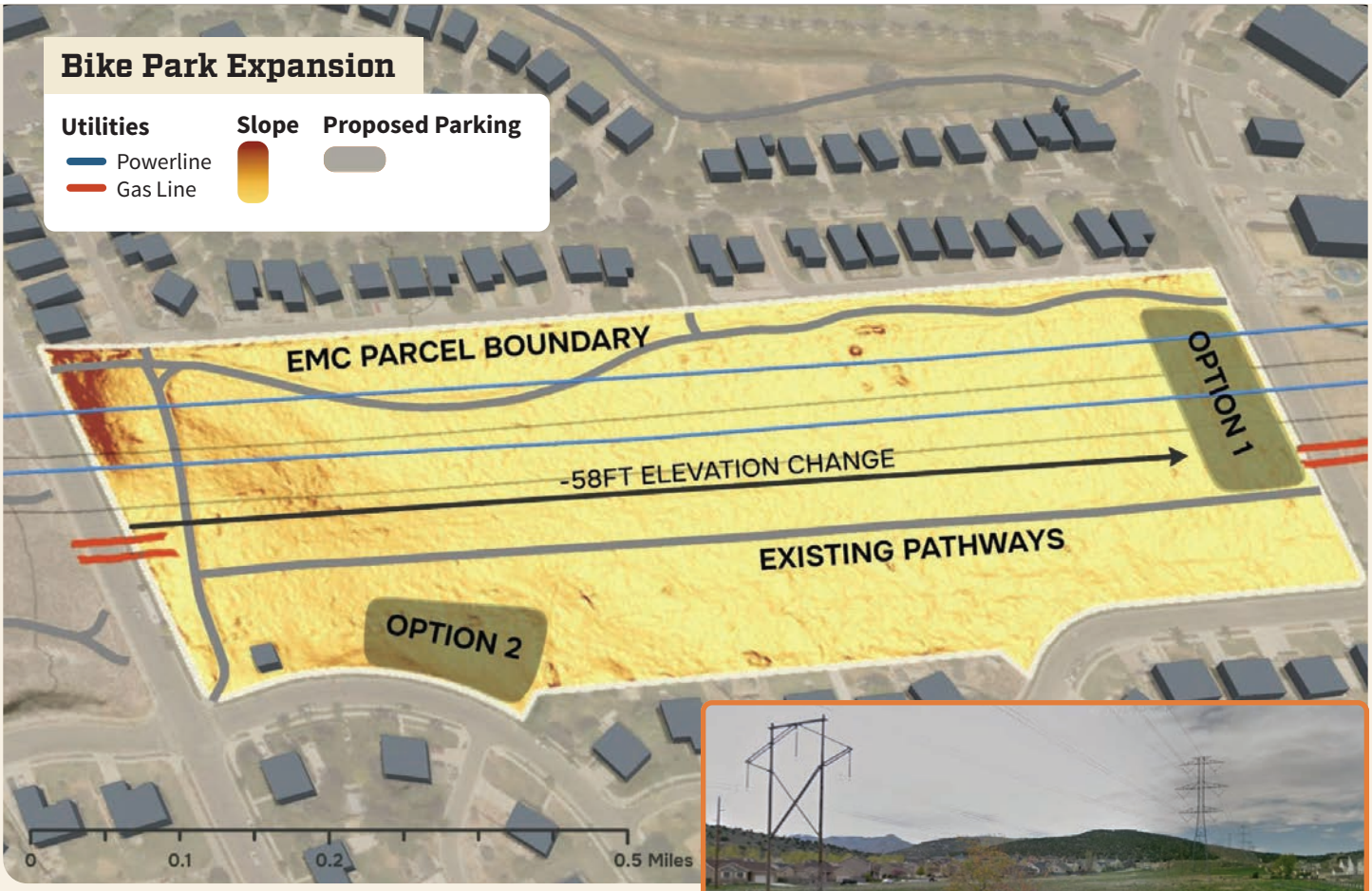




Bike Park Expansion

Long-term expansion of the Eagle Mountain Bike Park may be considered after priority improvements within the existing park boundary are completed. Expansion concepts described below are therefore intended as future opportunities, not near-term recommendations.

Directly north of the bike park is a City-owned parcel located between Golden Eagle Road and Ranches Parkway. This parcel consists of a large, undeveloped area that is partially constrained by active power and gas line corridors on the eastern edge. A paved access trail already runs along the western edge of the property, providing an existing circulation spine that could support future park amenities.



Additional Parking Opportunities

Lack of dedicated parking remains one of the bike park's most significant access challenges. The expansion parcel offers an opportunity to provide off-street parking that better supports the park without relying on informal roadside parking.

While the southern portion of the parcel would provide the most direct access to the bike park, steep slopes may limit feasibility. Two alternative locations should be evaluated in the future:

- **North side access from Ranches Parkway**, where grades may be more favorable.
- **Southeast corner access from James Street**, adjacent to the existing neighborhood pocket park.

At a planning level, surface parking lots typically range from **$6–$10 per square foot**, depending on grading, drainage, surfacing, and stormwater requirements

RC Park Opportunity

The expansion area may also support a future RC (radio-controlled) park, which could broaden the site's appeal and provide a complementary recreational use. RC parks typically include compact dirt or paved tracks, small-scale jumps or obstacles, and open staging areas for users. These facilities are relatively low-impact, compatible with utility corridors, and often attract younger users and families.



Peak View RC Raceway, Spanish Fork

RC Rock Crawler Park, West Valley City

Five Year Improvement Plan

This five year improvement plan is organized into three phases:

Phase 1 (years 1-2) focuses on completing the formal review and planning to move from vision to implementation. By the end of this phase, the City will have a fully defined project proposal, an approved scope, and a clear funding strategy ready for bid solicitation. The city may also remove and/or repair damaged wood features and address other immediate safety concerns during this planning phase.

Phase 2 (years 3-4) includes contractor selection, construction of all park elements, and commissioning of the facility.

Phase 3 (years 5+) focuses on maintaining the park's safety, ride quality, and long-term sustainability after the park is built and open to the public.

Phase	Duration	Category
Phase 1: Planning, Review, and Procurement	Years 1-2	• Review the concept plan, cost forecasts, and phasing recommendations through City Council. • Pursue applicable recreation and infrastructure grants at the state and federal levels. • Prepare and finalize the Request for Proposals (RFP) for construction and related services. • Define clear scopes of work for specific regions of the park: ▫ Asphalt Pump Track (one scope package) ▫ Flow Trails and MTB Jump Line (one scope package) ▫ Drop Zone, Skills Area, and Access improvements (one scope package) • Ensure that the final RFP and project documentation align with industry standards for professional bike park construction. • Include specialized contractor language that recognizes the unique expertise required for features such as asphalt pump tracks, jump lines, and hand-built trail work. • Remove and/or repair damaged wood features and address other immediate safety concerns.

Phase	Duration	Category
Phase 2: Construction and Implementation	Years 3-4	• Select qualified contractors through a transparent RFP process based on experience, scope alignment, and cost efficiency. • Begin phased construction of trail networks, jump lines, and skill zones according to finalized designs and approved scopes. • Coordinate infrastructure work such as access trails, signage, and shade structures to ensure integration with the city's existing recreation network. • Complete construction close-out, final inspections, and park commissioning. • Prepare a detailed maintenance and budget plan for Year 5 and beyond to ensure sustainability.

Phase	Duration	Category
Phase 3: Maintenance, Evaluation, and Stewardship	Years 5+	• Implement the maintenance plan through City staff and/or community stewardship programs. • Conduct annual safety and condition assessments of trails, features, and infrastructure. • Recompact or resurface natural-surface areas that have settled or eroded. • Inspect and address any drainage or grading issues identified during the first operating seasons. • Develop an ongoing annual maintenance schedule for the park's natural-surface trails, jumps, and amenities. • Continue exploring grant or partnership opportunities to fund major resurfacing or new feature development as the park evolves.

Budget Considerations and Cost Estimates

Redevelopment costs will vary based on final scope, design complexity, feature density, and construction methods. Key cost drivers include the length and type of trails constructed, the use of fabricated features or asphalt infrastructure, contractor specialization, and material availability.

Budget Development Approach

Final budgets should be confirmed through direct coordination with City engineering staff and peer agencies and validated during the RFP and design development process. This approach allows Eagle Mountain City to align investment with industry standards and regional market conditions, while maintaining flexibility to adapt scope and detail to available funding sources.

Next Steps:

- **Refine cost forecasts during early design**
  Develop more detailed cost estimates during trail design in coordination with trail designers and bike park–specific contractors.

- **Benchmark against peer communities**
  Coordinate with municipalities that have recently completed similar facilities, including:

    - Lehi City - Lehi's Dream Jump Line
    - West Jordan City - West Jordan Wheels Park
    - Park City - Trailside Bike Park
    - Highland City - Highland Glen Bike Park
    - Hurricane City - Thrill Hill Bike Park
    - Vernon City - Becker Bike Park
    - Springville City - Cherry Ridge Bike Park
    - Salt Lake City - 9-Line Bike Park

- **Establish unit costs by facility type**
  Use peer projects to validate assumptions for asphalt pump tracks, jump lines, flow trails, and skills areas.

- **Plan for scalable implementation**
  Recognize that total project cost will scale with trail mileage, number of features, and level of fabricated infrastructure, allowing the City to adjust scope based on available funding.

Planning-Level Cost Ranges

Based on recent regional projects and industry benchmarks, the following planning-level unit costs may be used to guide early budgeting and scenario development:

- **Flow Trails (downhill)**
  Approximately $12–$18 per linear foot, depending on terrain, feature density, and construction method. Jump lines should be assumed to include standard flow trail costs plus the cost of individual jump features. Fabricated jump lips typically range from $3,000–$5,000 per feature.

- **Multi-Use Trails**
  Approximately $7–$9 per linear foot, reflecting wider tread, gentler grades, and machine-built construction.

- **Skills Area**
  Estimated cost of $50,000–$150,000, depending on the number of features, materials used (steel, wood, rock), and overall size of the area.

- **Asphalt Pump Track**
  Estimated total cost of $400,000–$700,000, or roughly $40–$50 per square foot, consistent with recent projects in Utah and the Intermountain West.

Eagle Mountain Bike Park - Redevelopment Cost Estimates

Feature	Length/size/#	Unit Cost	Total Cost
Flow Trails (downhill)	• 9,596 ft (dedicated Flow) • 9,458 ft (handbuilt DH)	$12–$18 per linear foot	$229k - $343k
Multi-Use Trails	9,594 ft	$7–$9 per linear foot	$67k - $86k
Skills Area	n/a	n/a	$50k - $150k
Asphalt Pump Track	10,000 - 14,000 sqft	$40-50 per sqft	$400k - $700k
Jump Line	1,000 ft (12 features)	• $12–$18 per linear foot • $3,000–$5,000 per feature	$48k- $78k
Trail Signage	• 1 Kiosk • 11 Posts • 9 Signs	• $3,000 - $5,000 per kiosk • $400 per post or sign	$11k - $13k
Trailhead Improvements	• $1 paved parking lot • 1 restroom	• $20,000 - $40,000 per lot • $80,000 -120,000 per restroom	$100k - $160k
		Total:	**$0.905 - $1.530M**

*see chapter 5 for wayfinding sign types and placement recommendations.

CHAPTER

04 Eagle Mountain NICA Course



Introduction and Context

The Eagle Mountain NICA Course is a youth-focused recreational asset within Eagle Mountain's trail system. The course is used by the Utah High School Cycling League, a chapter of the National Interscholastic Cycling Association (NICA), which organizes middle school and high school mountain bike practices and races across Utah.

NICA race venues are regionally significant facilities. On race days, they can host between 800 and 2,500 student-athletes, along with coaches, spectators, and event staff. As a result, these venues function not only as trails, but as large-scale event sites that require substantial staging areas, parking, emergency access, and coordination with land managers. Communities that are able to accommodate NICA courses often become recurring hosts, strengthening their role in regional recreation networks and youth sports programming.

In Eagle Mountain, the NICA course is located in the Upper Hidden Valley area. Its location, terrain, and trail characteristics align well with NICA's programmatic needs, while also intersecting with broader city objectives related to parks, trails, and open space. Unfortunately, the course is situated in an area experiencing significant planned roadway and land development, raising questions about its long-term viability and integration with future infrastructure.

This chapter documents the course's role, requirements, and constraints to inform long-term planning and decision-making.



NICA Course Design and Operational Requirements

NICA-sanctioned race venues must meet a consistent set of design and operational criteria to ensure safety, fairness, and a high-quality experience for student riders of varying skill levels. These criteria provide a useful framework for evaluating the suitability and long-term feasibility of existing and future NICA course locations.

- **Course length and terrain**
  NICA courses are typically designed as looped routes ranging from 4 to 6 miles per lap, with total climbing between 300 and 650 feet per lap. Courses should include a balanced mix of singletrack, doubletrack, and dirt road segments. Excessive singletrack can limit passing opportunities, while too much road riding reduces rider experience and safety. Moderate technical features are encouraged, provided that riders across a wide range of abilities can successfully complete the course.

- **Trail configuration and safety**
  Preferred courses avoid high-speed downhill road descents and instead emphasize singletrack descents that naturally manage rider speeds. Courses may include alternate "A" and "B" lines to provide passing opportunities and accommodate different skill levels. Emergency vehicle access must be feasible at multiple points along the course, and evacuation routes must be practical in the event of injury or severe weather.

- **Start and finish areas**
  Race starts require wide, open areas that allow riders to line up 4 to 5 abreast, typically on a dirt road or open field. An uphill or neutral start is preferred, with at least 0.5 to 1 mile of separation before entering singletrack to allow the field to spread out safely. Finish areas must be flat or uphill, with no downhill finishes permitted, and must widen sufficiently in the final 200–500 meters to allow safe passing and accurate race scoring.

- **Staging, pit zones, and event support**
  NICA events require substantial open space near the start and finish for team pit zones, registration, volunteer check-in, neutral mechanical support, sponsors, food vendors, and portable restrooms. Team pit zones alone typically require 1.9 to 2.4 acres for a 1,000–1,200 rider event. This need is a defining characteristic of NICA venues and often exceeds that of typical trailheads or day-use recreation sites.



04 Eagle Mountain NICA Course

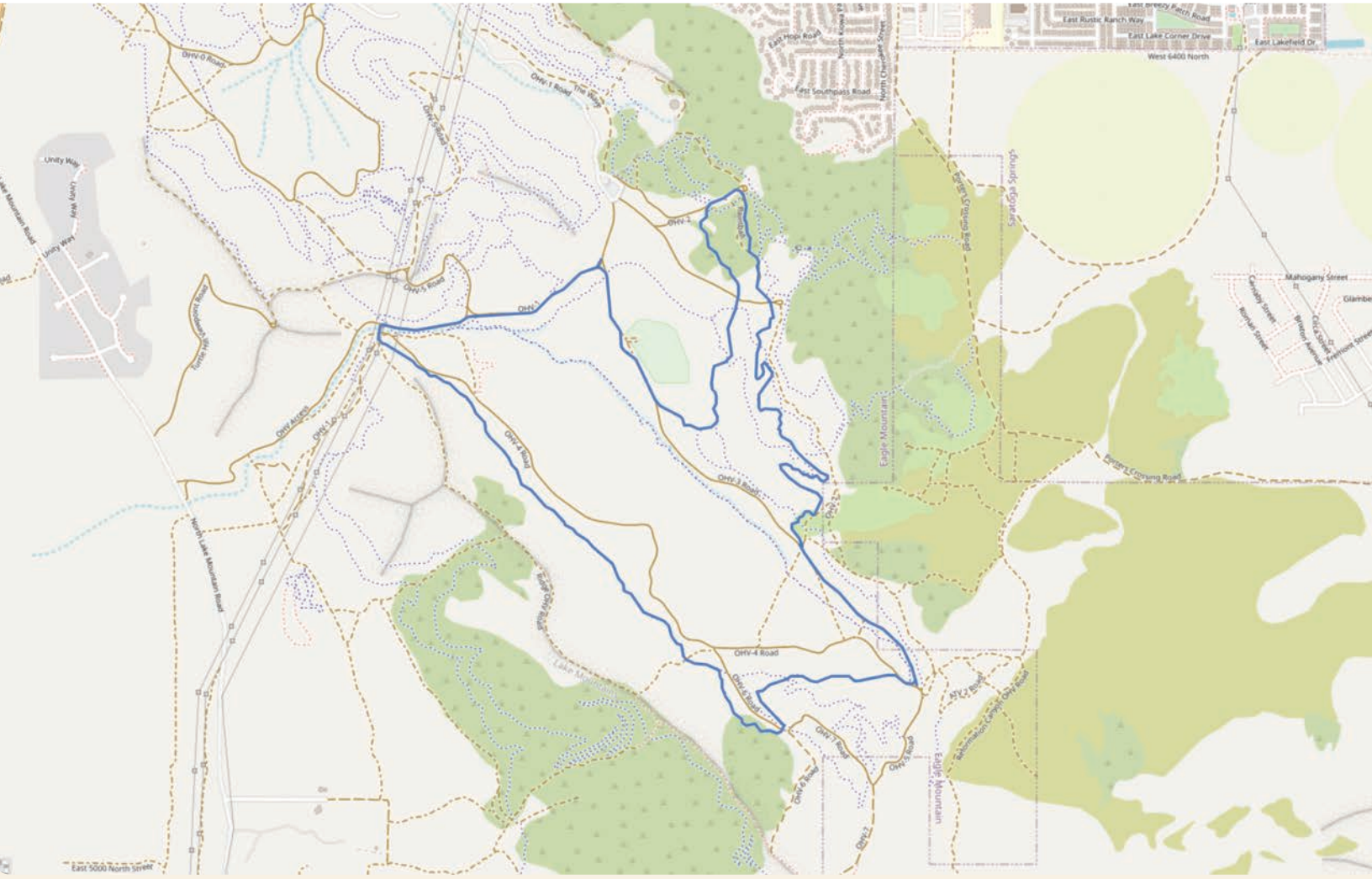
- **Parking and access**
  Parking capacity is another critical constraint for NICA venues. These events typically require parking for 1,000 to 1,500 vehicles, which can translate to 10–15 acres if accommodated in undeveloped or gravel areas. Efficient access, traffic circulation, and proximity to the course are essential for safe and functional event operations.

- **Location and regional accessibility.** Course selection also considers proximity to population centers, with an emphasis on keeping travel times within two to three hours for most teams. Elevation, seasonal weather patterns, and heat exposure are factored into scheduling and venue selection to ensure safe racing conditions throughout the season.and functional event operations.

Eagle Mountain NICA Course

The Eagle Mountain NICA course is located in the Upper Hidden Valley area and consists of an approximately 5.6-mile loop with roughly 520 feet of total elevation gain. The course generally aligns with NICA's preferred range for course length and climbing. Its layout includes a mix of singletrack and wider trail segments.

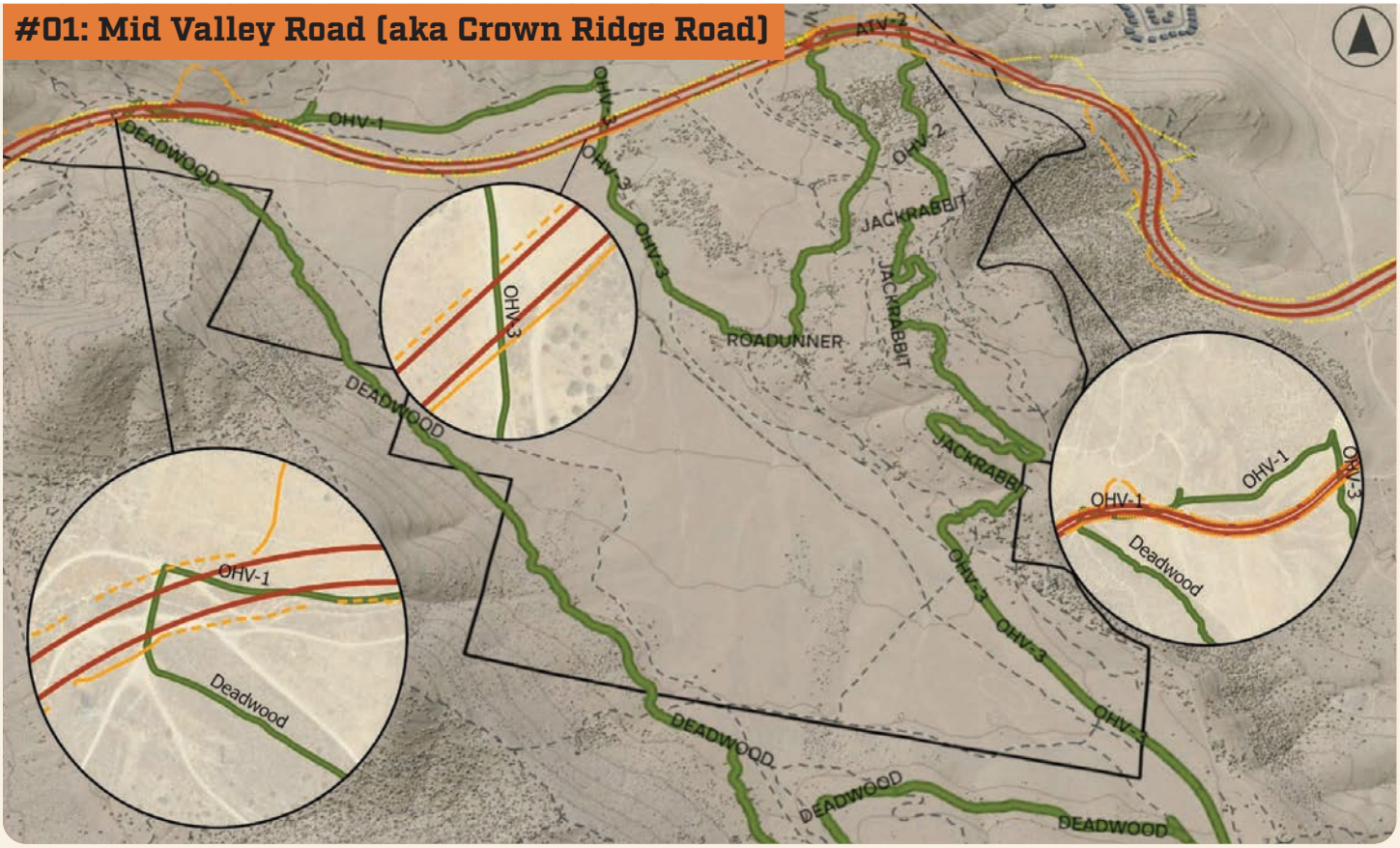
The course is situated within a largely undeveloped landscape that provides flexibility for race operations but also creates long-term uncertainty as adjacent roadway and land development plans advance. Parking and event staging are currently accommodated in undeveloped areas near the Rock City Trailhead.



Development Conflicts

Long-term viability of the Eagle Mountain NICA course is threatened by two major planned projects in the Upper Hidden Valley area, described below. These projects introduce physical and operational conflicts that would substantially affect the course's continuity, safety, and event functionality

#01: Mid Valley Road (aka Crown Ridge Road)



Mid Valley Road, recently named by the State as Crown Ridge Road, is a planned five-lane, east-west arterial intended to provide regional connectivity between Eagle Mountain and Saratoga Springs.

Mid Valley Road Plan
- Edge of Pave Road
- Roadway Slope Feature

NICA Course
- Trails

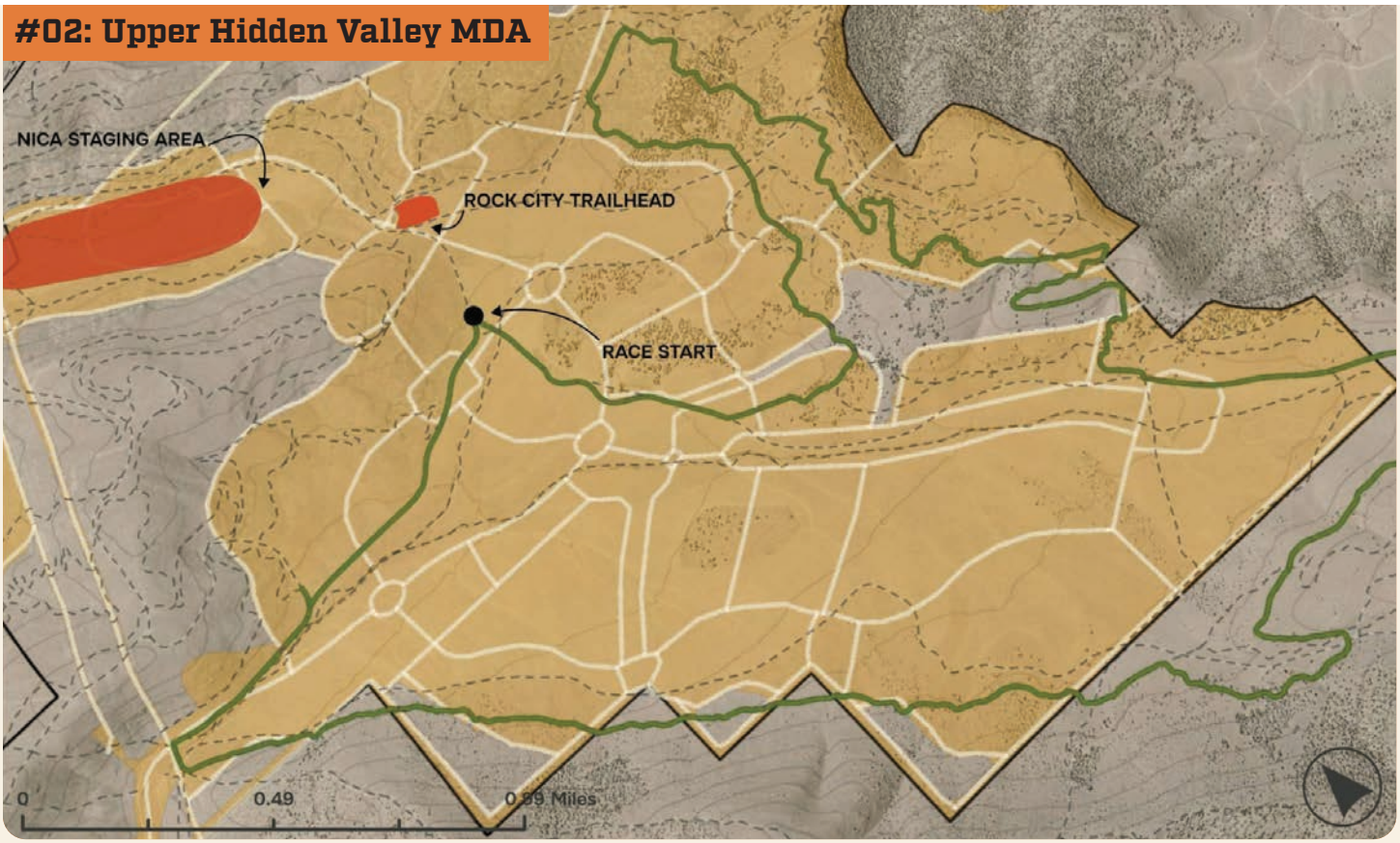
Hidden Valley

Recent State legislation transferred this facility to state jurisdiction, allowing UDOT to assume responsibility for funding and construction. This road will provide a critical access between the two valleys, and is a high priority for Eagle Mountain. Funding for this project would be possible only following environmental studies, detailed road design planning, and based on available state funding. This project is realistically about 5-10 years out, although construction could be accelerated should funding become available.

The planned road alignment intersects with the existing NICA course at four locations. These crossings present significant challenges. At-grade crossings are not feasible as they would disrupt race flow, rider separation, and course integrity. Without grade-separated crossings or substantial rerouting, the roadway would effectively fragment the course into discontinuous segments.

1- East	2 - North East	3- North West	4 - West
OHV-1	OHV-3	Road Runner	Paint Ball City
Deadwood	9,594 ft	ATV-2	ATV-2

#02: Upper Hidden Valley MDA



The NICA course is located within the Upper Hidden Valley MDA, an area identified for future development. Development in the Upper Hidden Valley MDA is not expected to occur until major utility infrastructure is extended into the area. This is anticipated on a similar timeline to Mid Valley Road, approximately 5–10 years out.

This MDA indicates that most of the course and its parking and staging areas would be impacted by development.

Development Plans

- HV Planned Roads
- Developoed Area
- HV MDA Boundary

Trails

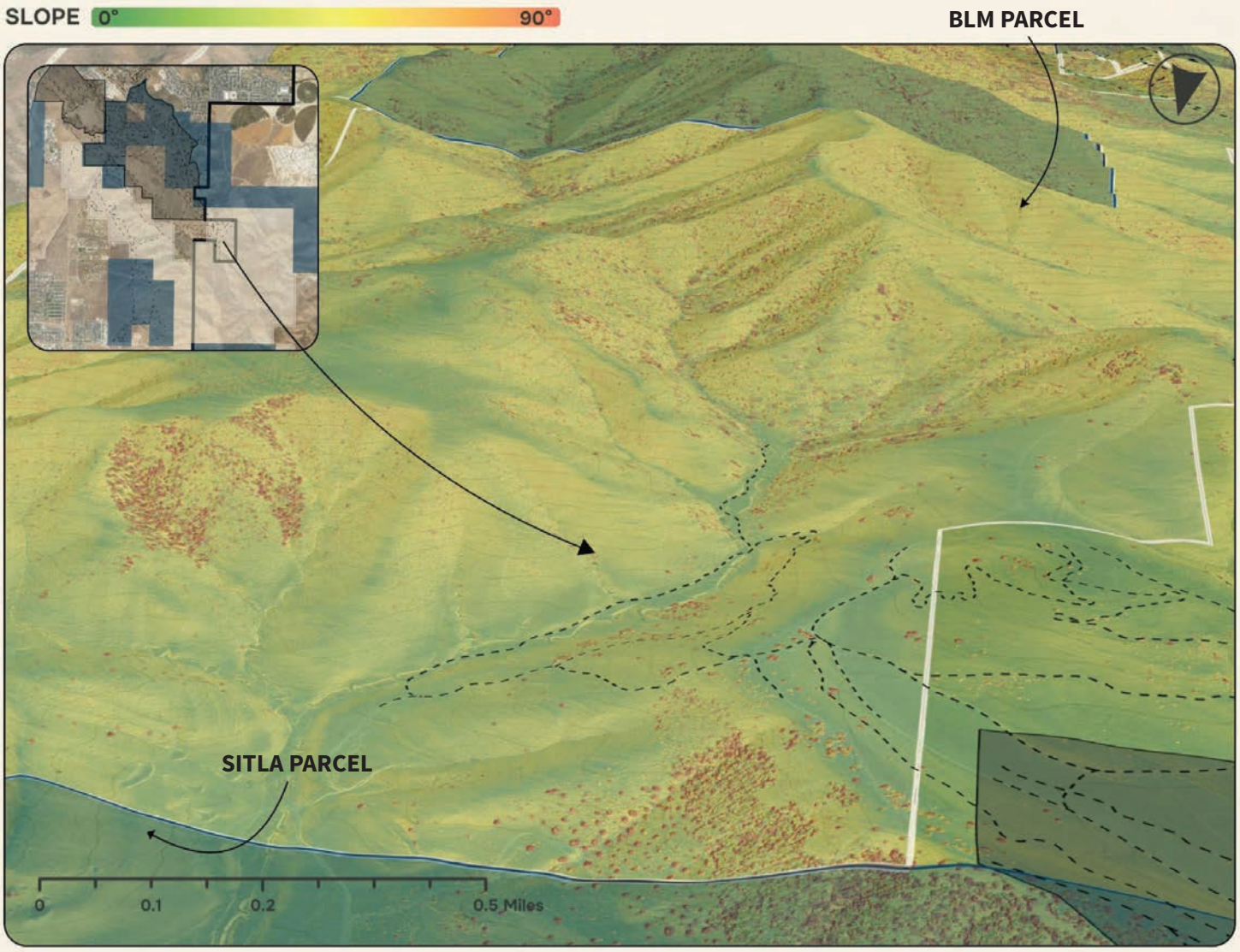
- NICA Course
- Other

Recommendations

Planned development in the Upper Hidden Valley area will make the existing Eagle Mountain NICA course increasingly constrained and ultimately unusable within the next 5–10 years. Due to the scale of development, minor realignments would not be sufficient to preserve the course long term.

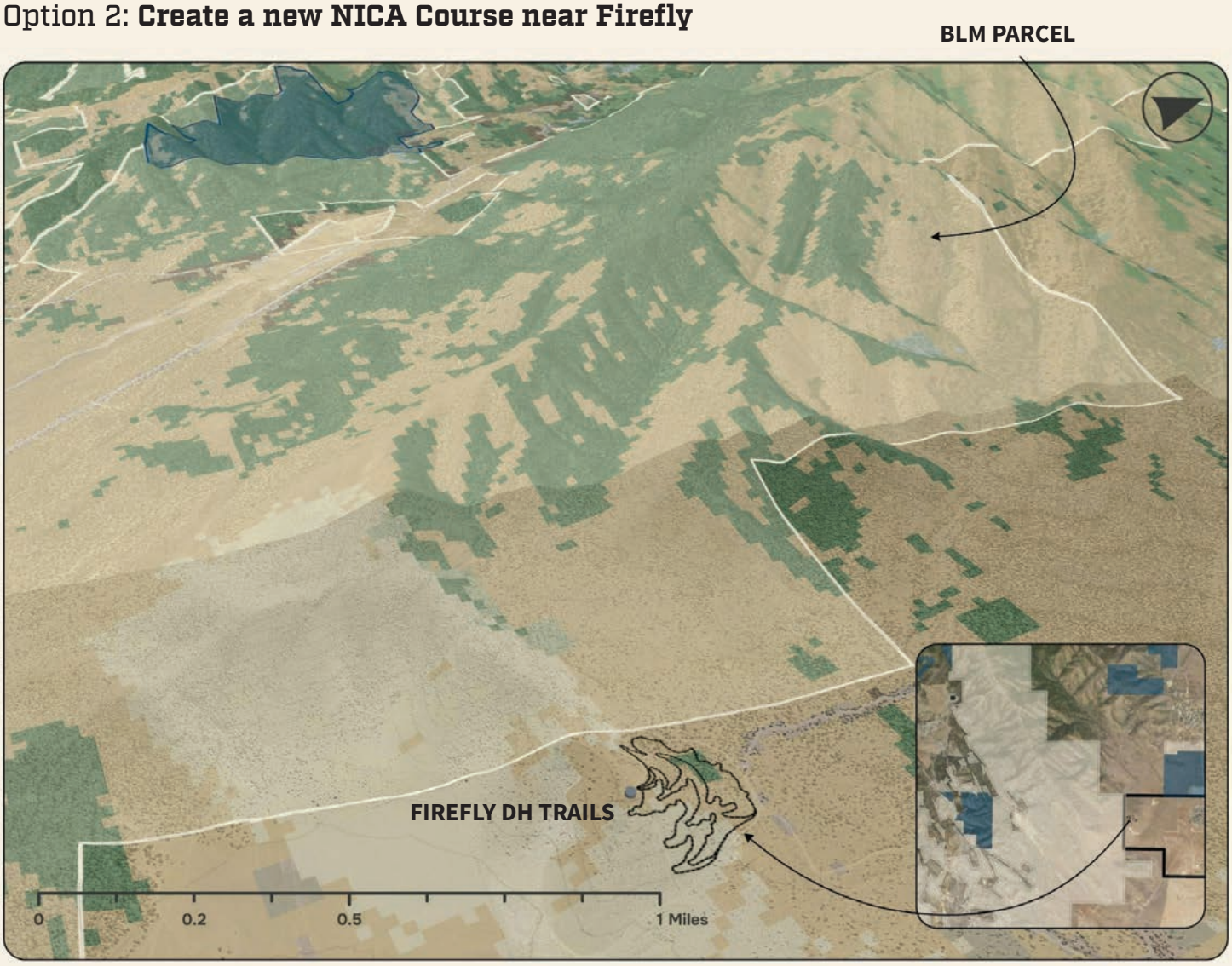
The City can continue to operate the NICA course in its current configuration for the near term. However, if Eagle Mountain intends to maintain long-term NICA events and programming, proactive planning for course relocation or replacement is needed. Given these constraints, the City should consider the following:

Option 1: **Relocate to the southeast in BLM land**



There is potential to relocate the NICA course southeast into nearby public lands. The City has expressed interest in expanding trail development into the Lake Mountain area, and a NICA-compatible course could be integrated into a broader trail expansion strategy that improves existing trails and adds new facilities designed to accommodate both competitive and recreational use. Additional assessment and planning is needed to identify trail alignments that may accommodate this NICA course relocation.

Option 2: **Create a new NICA Course near Firefly**



The Firefly developers is already pursuing development of a second NICA course near the Firefly development, expanding into the hills west of the existing trails. The area is unlikely to be impacted by development and offers suitable terrain for competitive riding.

Expansion in this area could also support improved trailhead amenities, including a formal parking area, which would benefit both NICA events and general access to trails in Firefly.

CHAPTER

05 Trailheads and Trail Signage



Overview

Trailheads and trail signage are essential components of a safe, intuitive, and enjoyable trail system. Trailheads provide the primary points of access to the network, supporting parking, orientation, and basic amenities, while signage guides users through the system, communicates expectations, and helps establish a clear and consistent identity for Eagle Mountain's trails.

Findings from the field assessment (chapter 2) indicate that trailheads and trail signage are both significant systemwide deficiencies. Many trails lack basic directional signs, difficulty ratings are often missing, and signage styles vary widely across the network. Trailheads frequently lack maps, rules, or other key information that help users orient themselves before entering the system.

To address these issues, this chapter provides recommendations for trailheads, parking and amenities, and trail signage including design and placement.



Trailheads

Trailheads are primary access points to the trail network. At a minimum, trailheads should include parking, a map, and trail etiquette information. More developed trailheads may also include pavilions, bathrooms, and other amenities to support trail users.

While Eagle Mountain has 3 existing trailheads, conditions are inconsistent and do not meet the minimum standards for parking or wayfinding. Improvements are needed at all existing trailheads. In addition, 5 new trailhead locations are recommended to expand trail network access.

Existing Trailheads:

- **Eagle Mountain Bike Park Trailhead (Golden Eagle Rd)**
  Functions as the primary access point to the Bike Park. Currently includes street parking, a trailhead kiosk with a system map, and a pavilion with a picnic table. While well-used, the site lacks a dedicated parking lot and consistent wayfinding signage.

- **Hidden Hollow Trailhead (Hidden Valley Pkwy)**
  The city's most developed trailhead with paved parking, and a restroom, provides access to the Bike Park and Lower Hidden Valley.

- **Rock City Trailhead**
  A gravel parking area serving Upper Hidden Valley and the Eagle Mountain NICA course. This trailhead is located on SITLA land and is currently used without formal authorization.

Proposed Trailheads:

- **Hidden Hollow Trail Corridor**
  Developers plan to include a new trailhead southeast of the existing Hidden Hollow Trailhead to provide access to the trail corridor within the MDA.

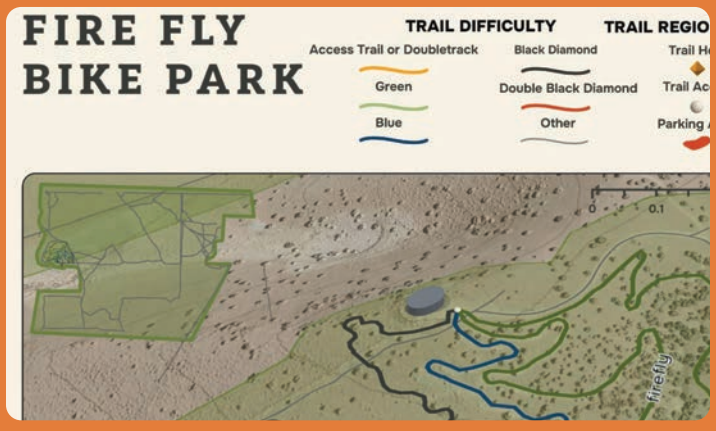
- **Jake the Snake Trailhead (Ruby Valley Dr)**
  An informal dirt parking area at the edge of a residential neighborhood serving trails north of Lower Hidden Valley, including Jake the Snake, Jake's Summit, and Royal Rut.

- **Firefly Trailhead**
  No formal trailhead currently exists. Access is provided via dirt roads leading to the Firefly trail system. A designated trailhead is recommended to support growing use and improve wayfinding.

- **Fair 'N Square Trailhead (Eagle Mountain Blvd)**
  Includes street parking and an unauthorized gravel parking area on private property. Serves several trails in the Southern Trails region including Fair 'N Square, Wiley Canyon Access Road, Three Trees, Hillside, Ravine Ridge, and Valley View.

- **Southern Trailhead**
  There is currently no trailhead serving the southern extent of the trail system, including trails such as Uncharted, Alien VS, and Gravity Well. A new trailhead is recommended in this area to support southern access.





Trail Signage

Neighborhood Access

Neighborhood access points provide local connections between trails and residential areas. These sites generally do not include parking lots or major amenities, but should include basic wayfinding confirming the connection to nearby trails.



Trail Entry

Trail entry signs are located at the beginning of individual trails. They help users make informed decisions about route selection, expected difficulty, and permitted uses while also reinforcing the trail network branding.

Many Eagle Mountain trails already have trail entry signs, however, these signs vary widely in format, content, and visual design. Establishing a consistent trail entry sign standard is a critical step toward improving system legibility and user confidence.

Standard trail entry signs should include:

- Trail name
- Trail length
- Trail direction
- Difficulty rating
- Permitted users
- City and partner branding

This plan recommends a phased approach to trail entry signage given the uncertainty created by landownership conflicts and planned development. Initial implementation should focus on trails within the **Bike Park, Lower Hidden Valley, and Firefly areas** where trail alignments are more established and expected to remain long-term. Additional trail entry signs can be installed as land issues are resolved and development conflicts are addressed.













Proposed Trail Entry Design:



Regulatory Signs

Regulatory signs communicate rules and restrictions that govern how trails are used. Common regulatory signs in Eagle Mountain include downhill-only designations, restrictions on motorized vehicles, and private property notices. These signs help set clear expectations and reduce user conflicts.

This plan provides recommendations for downhill-only sign placement within the Bike Park, Firefly, and Lower Hidden Valley areas. These locations include trails where alignments are well established and expected to remain in place, allowing the City to invest. In areas with ongoing land ownership uncertainty or anticipated development, regulatory signage should be deferred until trail status is resolved.

The trail database identifies many trails that cross private property. Additional coordination with private landowners is needed to determine which trails may continue to operate, which require formal agreements, and which should be closed or rerouted. As a result, this plan does not recommend a specific number or placement of private property signs.

Similar coordination may also be necessary on BLM and SITLA lands, where trail use, signage standards, and authorization requirements may differ from City-owned property.







Interpretive Signs

Interpretive signs provide educational information that highlights notable features of the landscape, helping users better understand and appreciate the natural, cultural, and historical context of the trail system. Unlike wayfinding or regulatory signage, interpretive signs are typically located at scenic viewpoints, destinations, or areas with unique environmental or cultural significance.

One identified opportunity for interpretive signage is Prayer Flag Hill. Additional work is needed to identify other suitable locations, develop interpretive themes, and coordinate with partners or subject-matter experts. As such, this plan does not recommend a specific number or placement of interpretive signs.

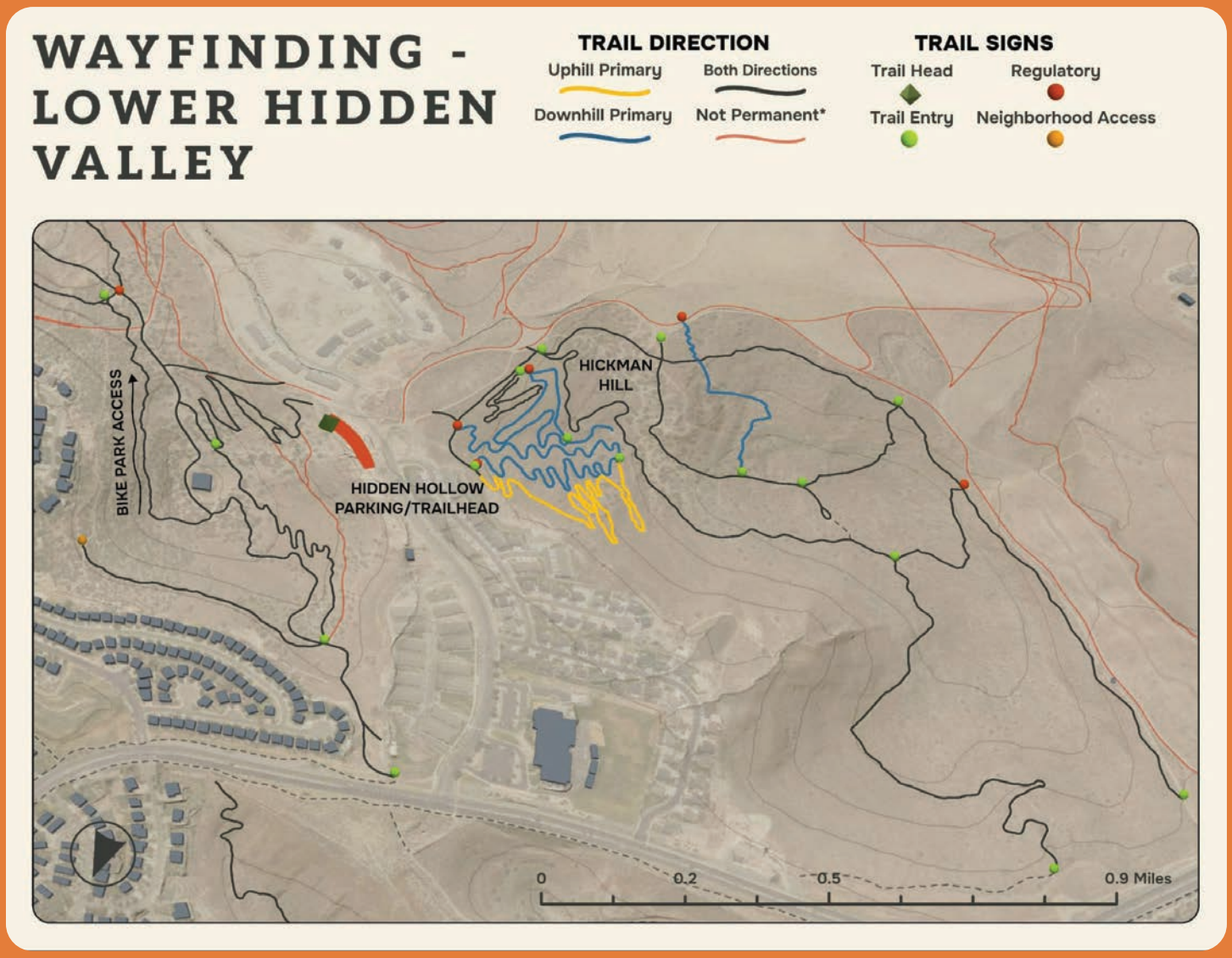


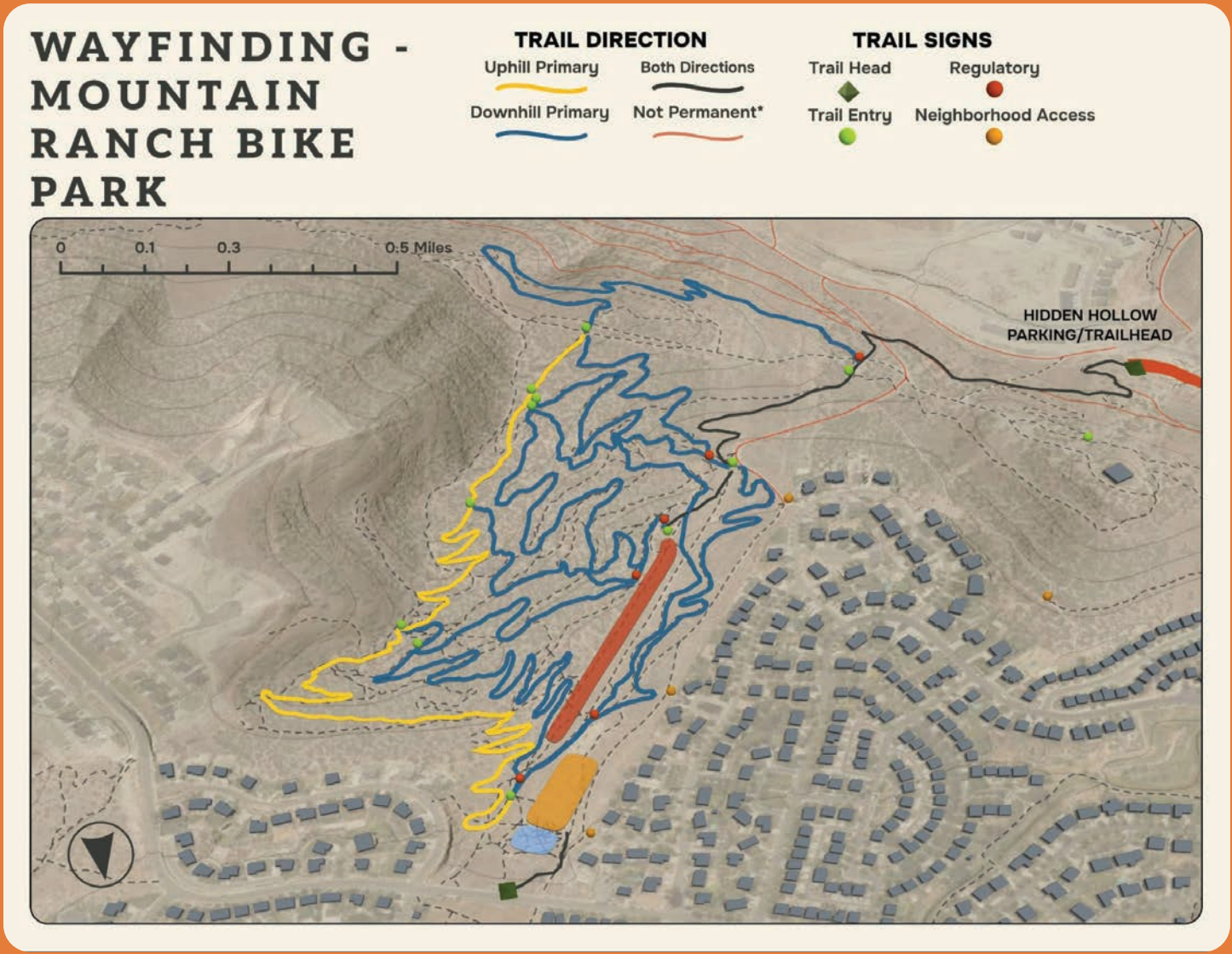
Town history educational sign on the Shoreline Trail in The Colony, Texas (American Trails)



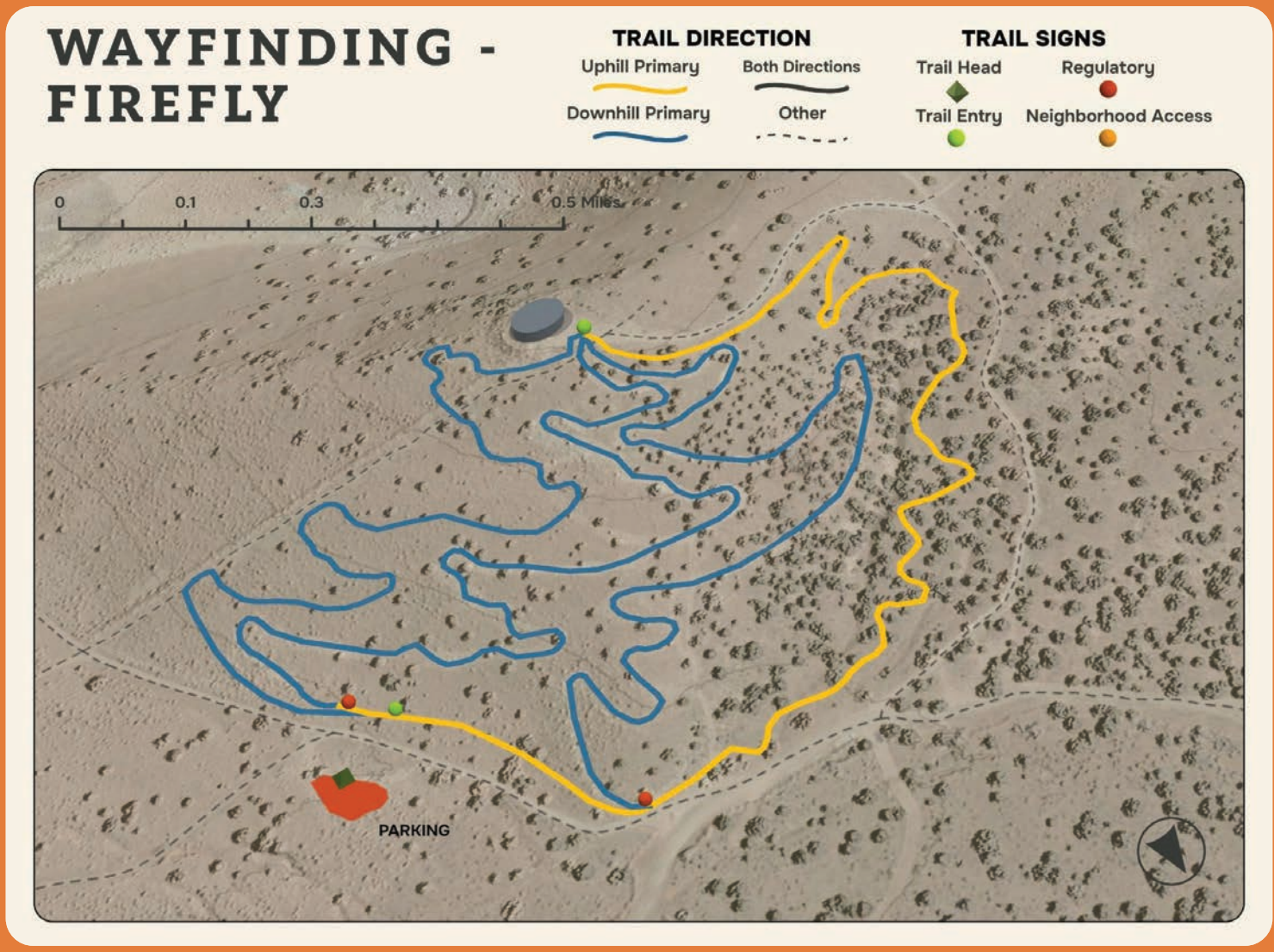
Interpretive signs on the Jordan River Parkway (The Jordan River Foundation)

Recommendations





** Trails labeled as Non Permanent are those that have development conflicts and will likely be disrupted under current Hidden Hollow MDA plans.*



The following maps identify proposed trailhead and signage locations within the Bike Park, Lower Hidden Valley, and Fire Fly areas. The corresponding table summarizes recommended sign quantities, unit cost assumptions, and planning-level cost estimates.

Trailhead and Trail Signage Cost Estimates*

Type	# proposed	Unit Cost	Total Cost
Trailheads	7 kiosks 5 gravel parking lots 1 paved parking lot 3 restrooms	$3-5k / kiosk $5-10k / gravel lot $20-40k / paved lot $80-120k / restroom	$251k - 575k
Neighborhood Access	1	$400 / sign	$400
Trail Entry	18	$400 / post	$7,200
Regulatory Signs	8	$400 / sign	$3,200
Interpretive Signs	n/a	$400 / sign	n/a
		Total:	**$262k - $586k**

**Trailhead and signage costs for the Mountain Ranch Bike Park are accounted for in Chapter 4 and are not included in the costs shown here.*

CHAPTER

06 Implementation Plan



Next Steps

This final chapter outlines implementation strategies for Eagle Mountain City to follow including

- **Plan Adoption**
  City Council should formally adopt the Off-Street Trails Plan to signal commitment to its recommendations and establish it as a guiding document for trail investment, coordination, and decision-making.

- **Establish a Trails Advisory Committee**
  Consider establishing a Trails Advisory Committee to oversee plan implementation. The committee may include City officials and staff, Lake Mountain Trails Association, developers, MAG, and other partners. Responsibilities may include prioritizing projects, coordinating with land managers, resolving implementation issues, supporting grant applications, and monitoring progress. In the absence of a committee, the City's Community Services Board may take on some of these responsibilities.

- **Use the Trail Database**
  The trail database is a primary deliverable for this plan and should be used to guide implementation. The database organizes trail alignments, attributes, landownership, and condition information and is intended to support identifying high- and low-priority trails, tracking conflicts, and guiding investment decisions.

- **Engage Community Stakeholders**
  While this plan included targeted stakeholder interviews and outreach, additional engagement is needed to communicate plan goals, build consensus, and support implementation. Ongoing coordination with community partners, particularly the Lake mountain Trails Association, will be critical to successful trail maintenance, remediation, and development.

- **Engage Landowners and Agencies**
  This plan identifies significant landownership constraints affecting many high-priority trails, including lands managed by SITLA, BLM, and private property owners. Engagement with these entities, particularly public land managers, may take several years and should begin as soon as possible.

- **Initiate Bike Park Engineering and Design**
  This plan provides high-level concepts and alignments for the Mountain Ranch Bike Park. However, additional engineering and design work is needed before projects are construction-ready. This will define alignments, confirm feasibility, develop more accurate cost estimates, and improve eligibility for grant funding.



Implementation Timeline and Costs

This plan's recommended actions are presented across 4 chapters, each designed to function independently. Recommendations in Chapters 3 and 5 are location-specific and ready to advance toward design and construction, while those in Chapters 2 and 4 are high-level actions intended to guide future decision-making.

The implementation timeline and cost estimates below reflect those differences in readiness and level of detail. See each chapter for additional information.

Implementation Actions			
Project	**Short-Term (<1 year)**	**Long-Term (1-5 years)**	**Cost Estimate**
Trail Network Assessment (Chapter 2)	• Confirm high-priority trails for preservation • Confirm conflicted trails for realignment or closure	• Work with partners to improve trails and address issues	n/a
Mountain Ranch Bike Park Redevelopment (Chapter 3)	• Engage with stakeholders and community members • Pursue state and federal grants • Contract for engineering and design	• Contract for construction • Develop maintenance plan with stakeholders • Consider expansion opportunities	$0.905 - $1.530M
NICA Course (Chapter 4)	• Coordinate with BLM, NICA, and other stakeholders	• Assess trail feasibility southwest on Upper Hidden Valley • Assess trail feasibility west of Fire Fly	n/a
Trailheads and Trail Signage (Chapter 5)	• Confirm trailhead and trail signage locations • Adopt sign standards • Coordinate with developers in Lower Hidden Valley • Engage with stakeholders and community members • Work with landowners to obtain legal access to property for trails, signs, and temporary trailheads	• Contract for trail signage construction • Contract for trailhead engineering and design • Consider additional signage as needed	$262k - $586k
		Total:	**$1.167 -$2.116M**

Special Considerations by Use Type

Eagle Mountain serves a wide range of trail users with different needs, expectations, and impacts. As implementation moves forward, the City should consider how trail design, designation, and management decisions affect each user group and where targeted strategies may be needed to reduce conflict and improve user experience.

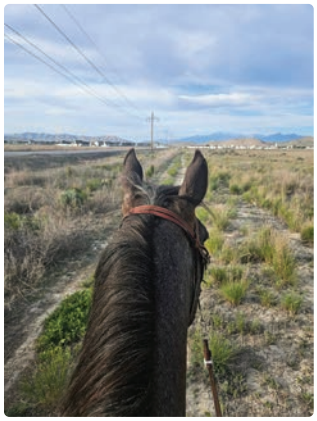
- **Mountain Biking (MTB)**
  The dominant user type. Many trails — particularly in the Bike Park, Lower Hidden Valley, and Fire Fly regions — are purpose-built for biking and include downhill flow characteristics, technical features, and grades that are primarily appealing to riders. The city has an organized biking community that may support trail remediation, maintenance, and development through volunteer efforts and partnerships.



- **Hiking**
  Hiking trails tend to prioritize moderate grades, clear sightlines, and a quieter recreational experience, which differs from many existing MTB-focused trails. Expanding opportunities for hike-only or hike-priority trails can help reduce user conflict and provide more inclusive access to the trail system.

  Priority should be placed on developing short loop trails and neighborhood-accessible routes near existing and future residential areas to support frequent, everyday use. Additional hiking routes should focus on corridors less suited to high-speed biking—such as steeper slopes, ridgelines, and areas with scenic viewpoints like Turtle Hill Viewpoint—to create a distinct and complementary trail experience.

- **Equestrian Use**
  Equestrian trails typically require wider tread, gentler slopes, avoidance of technical features, and access to mounting or staging areas. Where feasible, equestrian-priority routes may be designated along existing dirt roads or doubletrack corridors, which can accommodate horses while minimizing construction needs. These routes should connect to trailheads with adequate trailer parking and avoid high-speed downhill bike trails. As development occurs, the City should coordinate with landowners and agencies to preserve or reestablish key equestrian access corridors that may be displaced by road or residential development.



- **Off-Highway Vehicles (OHVs)**
  OHV use is popular in Eagle Mountain and is allowed along dirt roads in the Hidden Valley area under an agreement with SITLA. As development proceeds and these roads are formalized or removed, existing OHV access will likely be displaced. The City should coordinate with SITLA to identify and designate alternative OHV routes that maintain connectivity while avoiding conflicts with residential areas and high-use trails. Clear route designation, signage, and enforcement is needed to keep OHV use on intended alignments and minimize impacts to other trail users.

- **E-Bikes**
  Utah law allows e-bikes on trails but enables local jurisdictions to set specific e-bike rules as needed. Federal policy is more restrictive, allowing e-bikes only on OHV routes or nonmotorized trails with explicit authorization. As e-bike use grows, the city should coordinate with land managers to align policies across jurisdictions, and use consistent signage to reduce confusion and conflicts among trail users.

Funding Strategies

This plan identifies approximately $1.167 to $2.116 million in recommended trail improvements, in addition to many recommended actions that do not have cost estimates. While the City may lead many of these investments, strategic cost sharing with partners will be essential to advancing projects effectively.

Cost-Sharing with Partners

- **Lake Mountain Trails Association**
  Local trail organizations can leverage volunteer labor, trail maintenance expertise, and community stewardship capacity for trail maintenance and development needs. These partnerships will be essential to building and maintaining trails throughout the city.

- **Private Developers**
  Development presents both a challenge and an opportunity for the trail system. Developers are often willing to contribute to trail development through on-site improvements, realignments, or trail connections as part of subdivision or site plan requirements. Early conversations with developers can align private investment with public trail objectives and reduce net costs to the City.

- **Friends of Eagle Mountain Trails**
  The City may create or support a nonprofit organization such as "Friends of Eagle Mountain Trails" to facilitate private fundraising, volunteer coordination, and stewardship programs. Businesses and philanthropic groups are often more willing to contribute to a 501(c)(3) than to the city directly.

- **Regional Governments & Agencies**
  Governments such as Utah County, Mountainland Association of Governments (MAG), and state partners can contribute funding, planning support, or matching funds for larger planning and capital projects. Coordination with these entities can help align Eagle Mountain's trail priorities with regional transportation and recreation funding programs.

Grants and Sponsorships

Trail projects are eligible for a wide range of state, federal, and private grants designed to support trail construction, maintenance, connectivity, and recreational access.

- **State & Federal Grants**
  The Utah Division of Outdoor Recreation administers many state and federal grant programs, including:

  - Utah Outdoor Recreation Grant (UORG)
  - Utah OHV Recreation Grant (OHVR)
  - Utah Recreation Restoration Infrastructure Grant (RRI)
  - Utah Outdoor Recreation Planning Assistance (ORPA)
  - Utah Community Parks & Recreation Grant
  - Recreational Trails Program (RTP)
  - Land & Water Conservation Fund (LWCF)

- **Corporate Sponsors**
  Local businesses and corporations may sponsor specific trail segments, trailheads, signage, or amenities (e.g., benches, trail maps, water stations) in exchange for recognition. This can reduce project costs and build community buy-in.

- **Foundations & Nonprofits**
  Organizations that support outdoor recreation may provide grants for trail development. Examples include trail-focused nonprofits, outdoor equipment manufacturers' grant programs, and community foundations that fund outdoor access and recreation equity.