Preliminary Draft

TRI-CANYON TRAILS PLAN

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SUSTAINING DIVERSE RECREATION IN A HEALTHY WATERSHED

Winter 2024

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INTRODUCTION

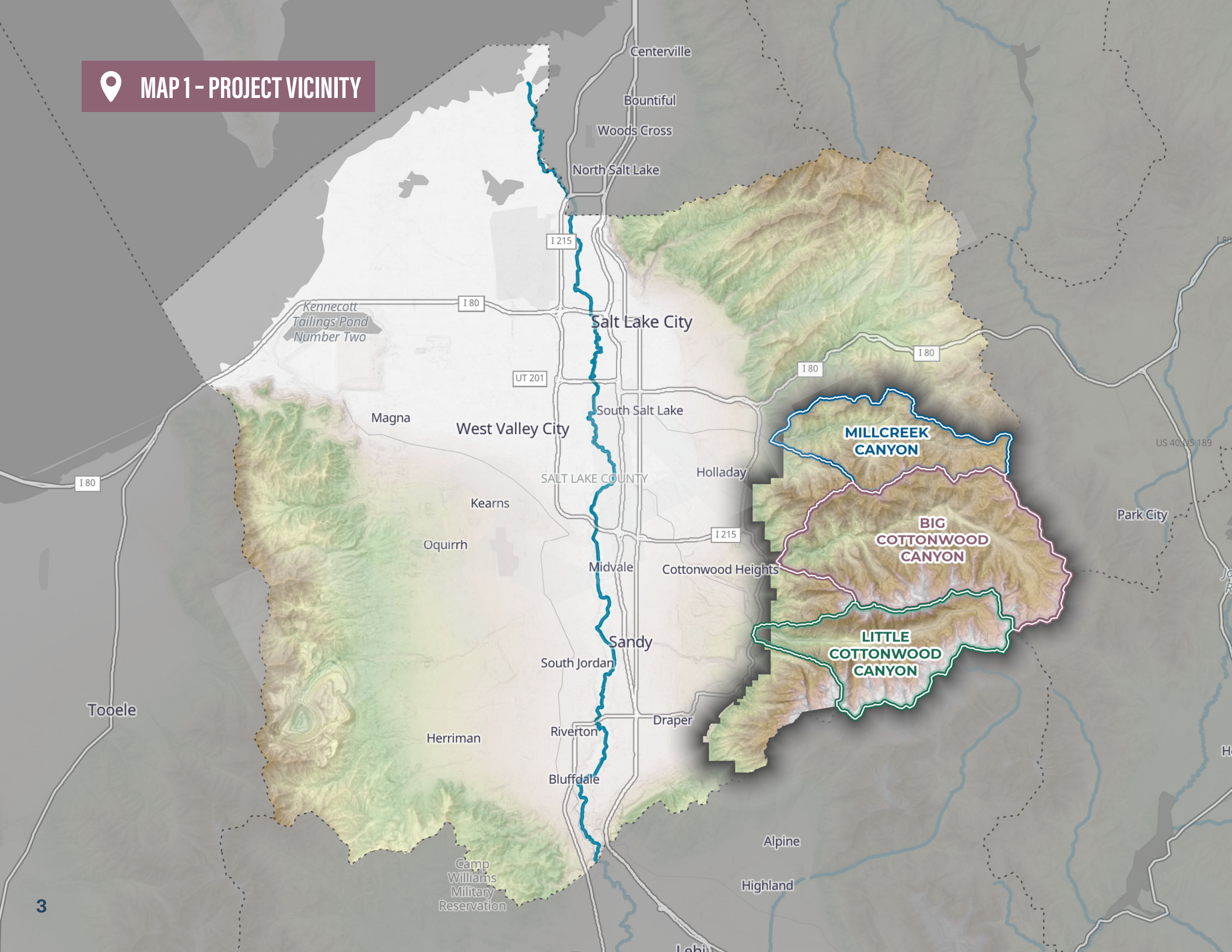
The Salt Lake Ranger District (SLRD) of the Uinta-Wasatch-Cache National Forest manages nearly 80,000 acres of National Forest land within the Tri-Canyon Area (Little Cottonwood, Big Cottonwood, and Millcreek Canyons).[1] This area sees over 3 million visits per year on 170 miles of official trails, 3 wilderness areas (Mount Olympus, Twin Peaks, Lone Peak), and 4 ski resorts (Alta, Brighton, Snowbird, and Solitude).[1] This urban Forest provides backyard, year-round recreation opportunities for over 2 million residents living within the Wasatch Front.[1,2] The Tri-Canyons offer diverse recreation opportunities to more than 3.2 million visitors annually, ranging from hiking and nature watching, mountain biking and skiing, picnicking and camping, and much more.[1]

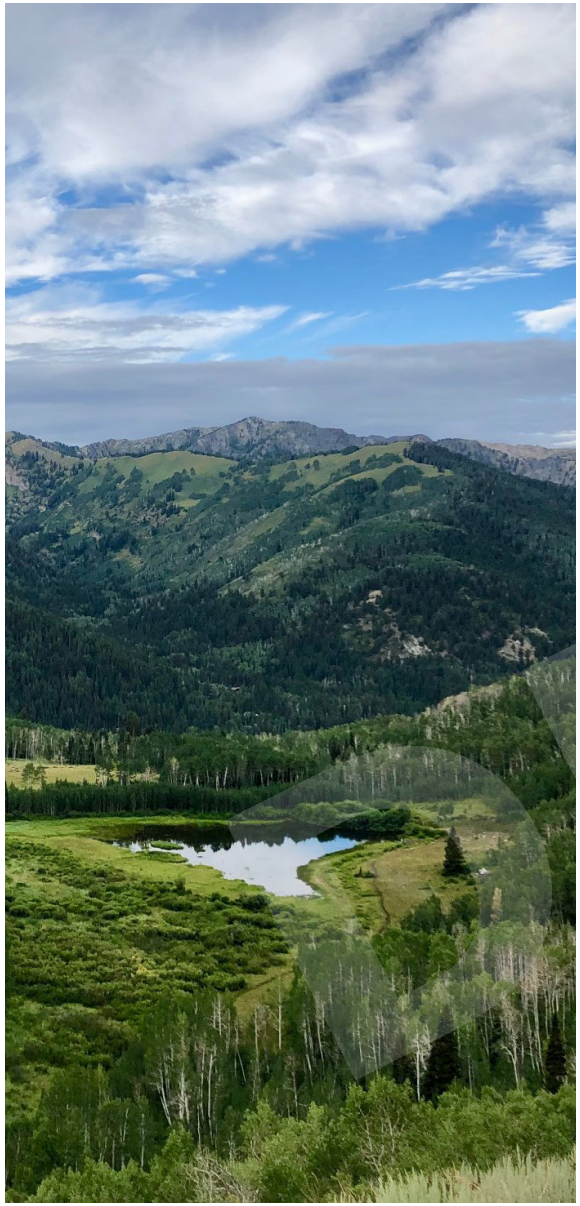
PURPOSE AND NEED

The current trail network in the Tri-Canyon Area no longer meets the needs or desires of today's visitors. A few short trails see a large concentration of use, while unsustainable user-created trails experience repetitive visitation causing resource degradation. A sustainable Tri-Canyon Trails Plan will protect our watershed and natural resources, while providing diverse recreation opportunities.

Salt Lake County Parks and Recreation and the US Forest Service have partnered to develop this long-range plan to address the growing visitation in the Tri-Canyons by assessing needs within the trail network and identifying potential improvements to trailheads and trails and management actions. This Plan enhances the capacity of the Forest Service by developing a shared vision of recreation and trails with partners, stakeholders, and local governments. This guiding document facilitates collaboration and implementation of projects to improve trailheads and bolster the trail network via maintenance, reroutes, overhauls, and new trails. This dynamic plan will be reviewed regularly to reassess or reprioritize projects, to remain responsive to changing needs for resource protection and recreation trends.

MAP 1 - PROJECT VICINITY





BACKGROUND

The Tri-Canyon area has a history of providing resources to its visitors — from prehistoric Fremont, Shoshone, and Ute tribes finding fish and game in the mountains; to trappers, pioneers, and miners extracting resources; to today's visitors discovering diverse recreation opportunities.[3,4] As surrounding populations grew, so did concern for the area's natural resources — especially water. To protect these vital resources, the Wasatch National Forest was created in 1906, legislation was passed to protect Salt Lake City's watershed, and citizens became involved in protecting a shared backyard.[5,6,7]

Over the past decades, the Salt Lake City metropolitan area has continued to grow, leading to increased visitiation in the Tri-Canyons and the ongoing need to plan for continued recreation and resource protections. Locally, this includes plans by Salt Lake County Parks and Recreation, Salt Lake City Public Utilities, the Mountain Accord, and Central Wasatch Committee.[8,9,10,11] The SLRD shares these concerns for resource protection and recognizes that the current trail network no longer meets the desires of today's visitors. Additional direction for recreation and trail planning comes from national legislation for federal land managers, Forest Service policies, guidance for Wilderness, safeguards for wildlife and vegetation, best practices for managing visitors, and trail building standards.[12,13,14,15,16]

PLANNING PROCESS

In 2020, the SLRD began the *Tri-Canyon Trails Plan* process by quantifying recreation trends, which included an inventory of trails and a measurement of their visitation[17] These data sets provide valuable insight into the trail network and recreation patterns (when and where visitors recreate), which is imperative to developing a sustainable and desirable trails plan.[18]

In 2022, the SLRD engaged with local governments, stakeholders, partners, and the public to learn more about values and concerns for the Tri-Canyon area's watershed, natural resources, recreation opportunities, and trails. Takeaways from this engagement process are summarized in the *Listening Sessions Report*.[19,20] These takeaways, paired with agency knowledge, policy and academic literature, have guided the development of this draft plan.

FIGURE 1 – PROJECT TIMELINE: THIS DOCUMENT COVERS STEP FOUR, THE DRAFT PLAN

1	2	3	4	5	6
Field Data Collection	**Situation Assessments**	**Listening Sessions**	**Draft Plan Development**	**Final Plan Review**	**Final Plan Adoption**
Summer 2020 - Present	Summer/Fall 2022	Winter 2022/2023	Winter 2024	Winter 2025	2025

A combination of community input, ground truthing, and continued research will culminate in a Final Trails Plan. The Final Plan will provide more details on potential trailhead improvements, trail alignments, opportunities for partnership and stewardship, monitoring and thresholds, and a phased implementation schedule. Implementation will be influenced by an individual project's readiness or ripeness, such as needs for environmental assessment, funding, scale, impacts, and visitation.

WHAT THIS PLAN IS (AND IS NOT)

The *Tri-Canyon Trails Draft Plan* explains how guiding principles influence the proposed improvements at trailheads, modifications to the trail network, and recreation strategies. Guiding principles were developed from agency policy and expertise, relevant research, and public input (Listening Sessions).

This planning process recognizes other projects occurring in the Tri-Canyons but does not affect those outcomes or final decisions. Such projects include the Recreation Fee Proposal, Federal Lands Access Program in Upper Millcreek Canyon, Little Cottonwood Canyon Environmental Impact Statement (gondola B), or neighboring recreation plans (i.e., Draper, Sandy, Cottonwood Heights, Salt Lake City Foothills).[21,22,23,24,25,26,27] Other topics this draft plan does not address include environmental review, phased implementation, project cost estimates, monitoring or thresholds, or private land purchases and easements. These important topics will be addressed in the Final Plan.

GUIDING PRINCIPLES

Three guiding principles influence all proposed improvements to trailheads, the trail network, and recreation strategies in this Plan.

FIGURE 2 – GUIDING PRINCIPLES

ENVIRONMENT: Protecting watersheds and ecosystems is a top priority of this plan. Environmental protections implemented will reduce detrimental impacts to water, wildlife, vegetation, scenery, and natural landscapes.

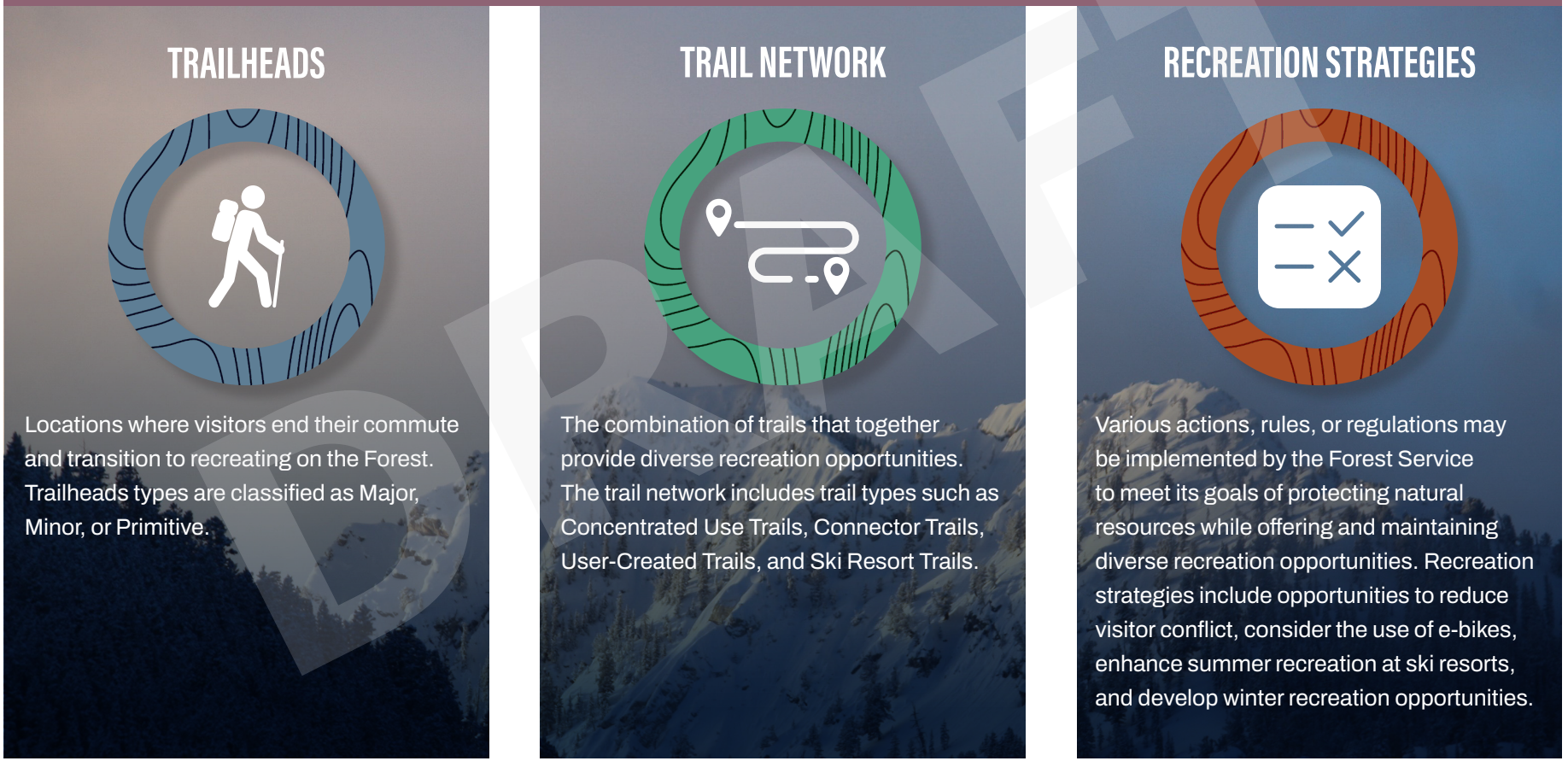
VISITOR: Diverse, quality recreation opportunities are a priority of this draft plan. Recreational experiences may range on trails that are short and easy to steep and rugged, from popular trails with high visitation to quiet trails offering solitude, from a single-use hiker-only trail to a multiple-use trail designed for hikers, dogs, and mountain bikes.

INFRASTRUCTURE: Providing infrastructure to protect resources while supporting visitor needs is the balance this plan strives for. Infrastructure includes what is built, constructed, or developed in an area, such as bathrooms, parking lots, transit options, signage, and picnic tables.

FOCUS AREAS

This plan addresses three primary focus areas. Each is comprised of more specific types with a series of “should statements” that provide a pathway to meeting the guiding principles.

FIGURE 3 – FOCUS AREAS



2- Trailheads

- Major Trailheads
- Minor Trailheads
- Primitive Trailheads

TRAILHEADS

Trailheads are locations where visitors end their commute and transition to recreating on the Forest. In the Tri-Canyons, this may range from large ski resort parking lots to Forest Service trailheads to roadside parking.

Trailheads in the Tri-Canyons are classified as **Major**, **Minor**, or **Primitive**. Each trailhead type has a set of desired future conditions or "should" statements to help achieve the guiding principles of this plan (environment, visitors, and infrastructure).

TABLE 2 – TRAILHEAD CLASSIFICATIONS

MAJOR	MINOR	PRIMITIVE
		

TABLE 1 – ALL TRAILHEADS SHOULD:

- ✓ Provide designated parking or transit options
- ✓ Be engineered to mitigate environmental impacts
- ✓ Be designed to support a visitor's experience
- ✓ Vary in size according to visitation levels, available recreation opportunities, and landscape restrictions

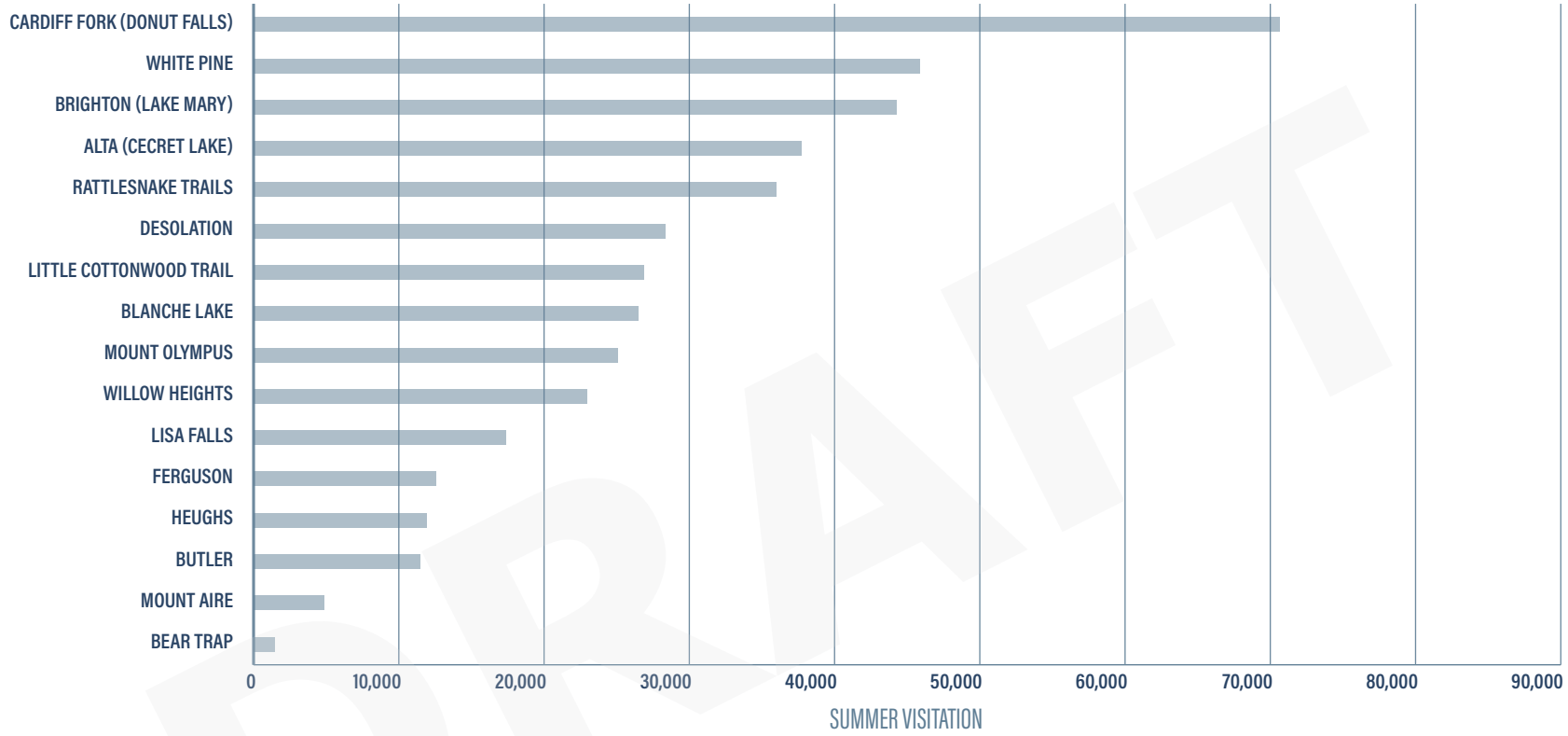
2 - TRAILHEADS

Trailheads in the Tri-Canyons see different volumes of visitors and have varying infrastructure to protect the environment from detrimental impacts. For example, Major Trailheads with the highest visitation levels, should have the most infrastructure to reduce detrimental impacts. ***Table 3*** summarizes the infrastructure that should generally exist at each trailhead type throughout the Tri-Canyons.

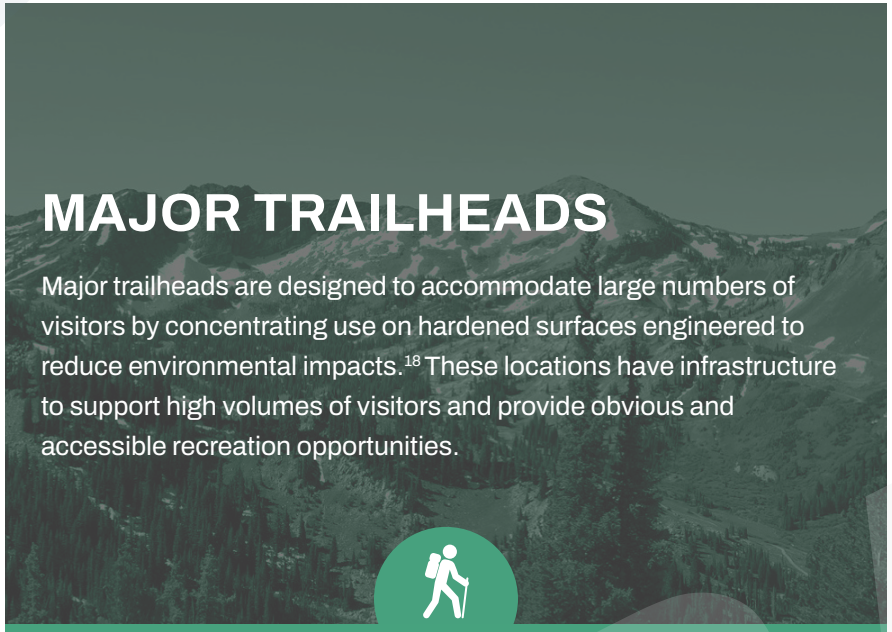
TABLE 3 – RECOMMENDED INFRASTRUCTURE BY TRAILHEAD TYPE

INFRASTRUCTURE	MAJOR	MINOR	PRIMITIVE
Parking Lot	Y	Y	N
Winter Plow	Y	N	N
Public Transit	Y	*as appropriate*	N
Bathrooms	Y	*as appropriate*	N
Kiosk and Trailhead Signs	Y	Y	N
Concentrated Use	Y	*as appropriate*	N
Park Ranger Presence	Y	Y	*as appropriate*

FIGURE 4 – SUMMER VISITATION



The Salt Lake Ranger District's Trail Counter Program[17] reveals the current visitation levels on trails and at related trailheads. Classifying trailheads according to their visitation levels and related infrastructure needs helps minimize detrimental impacts to the watershed and environment.



MAJOR TRAILHEADS

Major trailheads are designed to accommodate large numbers of visitors by concentrating use on hardened surfaces engineered to reduce environmental impacts.[18] These locations have infrastructure to support high volumes of visitors and provide obvious and accessible recreation opportunities.

TABLE 4 – MAJOR TRAILHEADS SHOULD:

- ✓ Intentionally attract and concentrate visitors in hardened locations
- ✓ Capitalize on known popular areas
- ✓ Provide accessible parking or transit options[31], bathrooms, and trailhead kiosks
- ✓ Provide clear, welcoming messaging
- ✓ Enable recreation near the trailhead or disperse visitors on various trails
- ✓ Engineer pathways for visitors to easily locate diverse and desirable recreation experiences

TABLE 5 – HOW MAJOR TRAILHEADS ADDRESS THE GUIDING PRINCIPLES:

ENVIRONMENT is protected by hardened surfaces around parking lots, transition zones (kiosks and bathrooms), and natural barriers (rocks and logs) placed along an obvious trail to keep people on the trail — reducing detrimental impacts.

VISITORS feel welcome, whether they are new or long-term Forest visitors. Recreation opportunities are obvious and include a range of experiences from easy short loops to longer, steeper destinations. These locations will often feel busy, especially as some visitors may spend most of their time near the trailhead. Signage highlights the trail network and appropriate behaviors, enabling positive recreation experiences while protecting others and the environment. Frequent ranger presence provides educational messaging and enforcement when necessary.

INFRASTRUCTURE concentrates visitors on hardened surfaces at trailheads where visitors move between parking, transit, bathrooms, and trailhead kiosks. Built structures or hardened surfaces (boardwalks, walkways, platforms) along with wayfinding signage (junction signage) are designed to enable highly concentrated visitation on durable surfaces within the initial 1-2 miles of trails.

MAP 2 - MAJOR TRAILHEADS

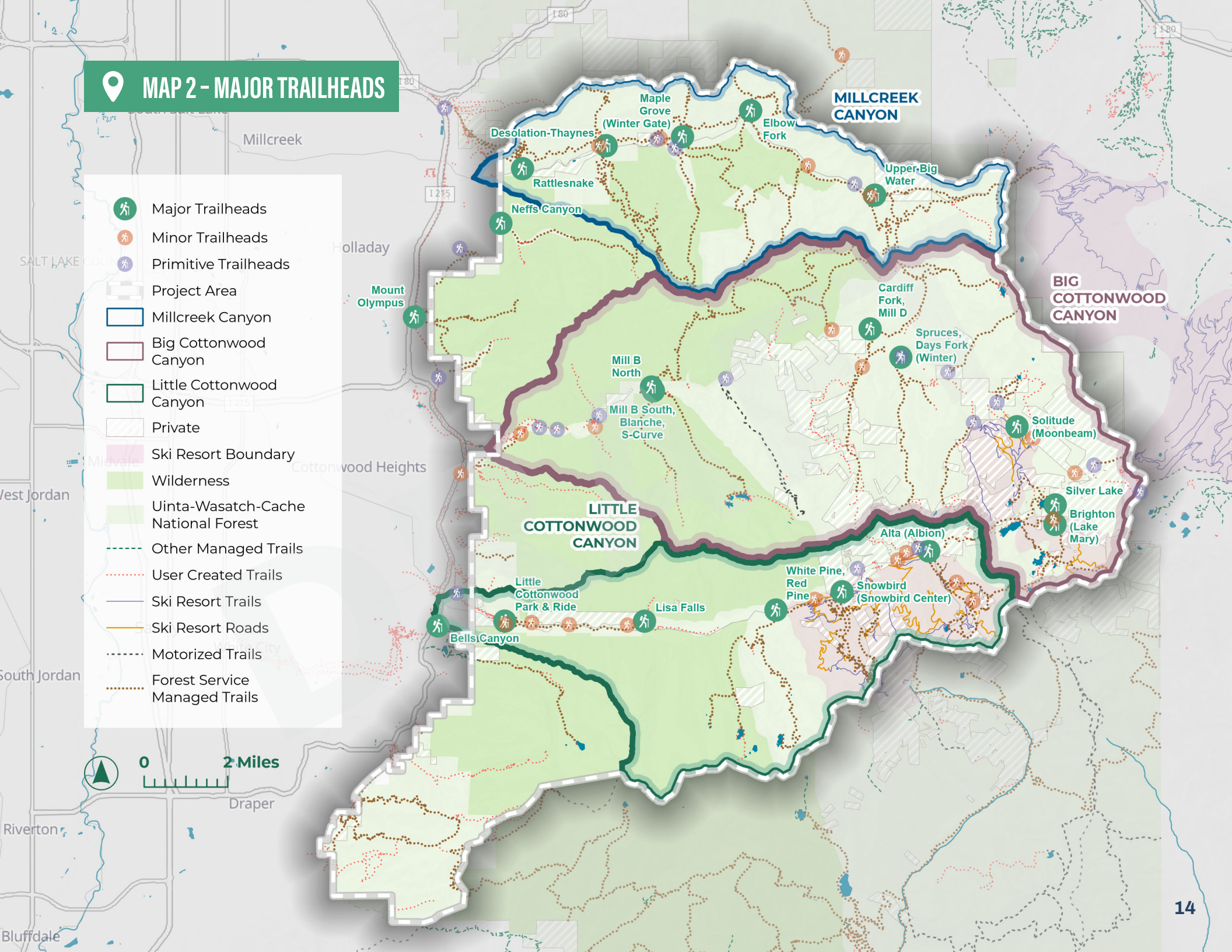
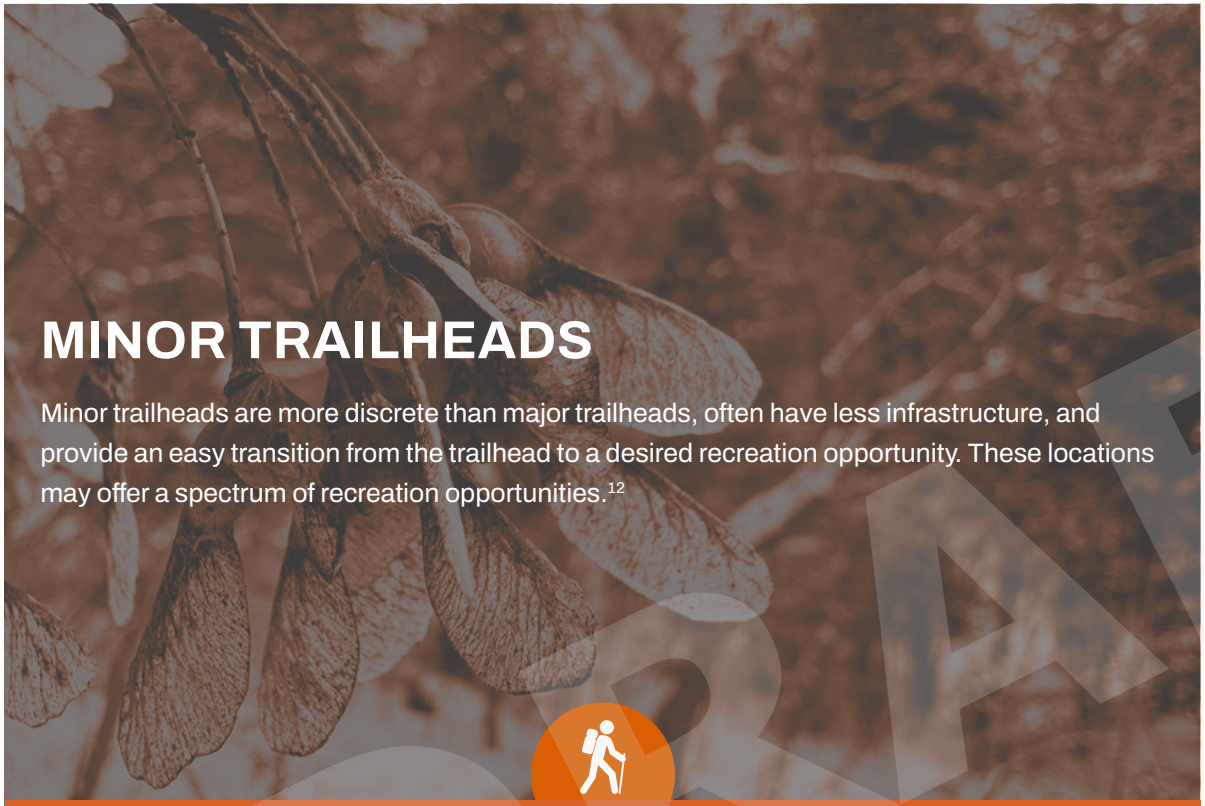


TABLE 6 – MAJOR TRAILHEADS BY LOCATION

MILLCREEK CANYON	BIG COTTONWOOD CANYON	LITTLE COTTONWOOD CANYON	WASATCH FRONT
Desolation-Thaynes	Brighton (Lake Mary)	Alta (Albion)	Bells Canyon
Elbow Fork	Cardiff Fork, Mill D	Lisa Falls	Mount Olympus
Maple Grove (Winter Gate)	Mill B North	Little Cottonwood Park & Ride	Neffs Canyon
Rattlesnake	Mill B South, Blanche, S-Curve	Snowbird (Snowbird Center)	
Upper Big Water	Silver Lake	White Pine, Red Pine	
	Solitude (Moonbeam)		
	Spruces, Days Fork (Winter)		



MINOR TRAILHEADS

Minor trailheads are more discrete than major trailheads, often have less infrastructure, and provide an easy transition from the trailhead to a desired recreation opportunity. These locations may offer a spectrum of recreation opportunities.[12]

TABLE 7 – MINOR TRAILHEADS SHOULD:

- ✓ Appear natural and less developed
- ✓ Provide clear and obvious opportunities for visitors to easily transition from commuting to recreating
- ✓ Provide a specific recreation opportunity where appropriate (hike, climb, bike, ski)

TABLE 8 – HOW MINOR TRAILHEADS ADDRESS THE GUIDING PRINCIPLES:

ENVIRONMENT feels more natural than engineered and visitors quickly transition from parking to the trail. Beginning sections of the trail may be obvious or wide, but narrows further down the trail. Wayfinding enables visitors to stay on the trail, reducing detrimental impacts.

VISITORS likely have some recreation experience or are not first-time visitors. These trailheads may offer focused or single-use recreation opportunities, such as hiking, biking, climbing, and skiing. The first 1-2 miles are obvious and may be easier to follow than the rest of the trail.

INFRASTRUCTURE includes designated parking and possible transit options that efficiently move visitors toward bathrooms, a simple informative kiosk, and an obvious trail. Wayfinding exists at trail junctions.

MAP 3 - MINOR TRAILHEADS

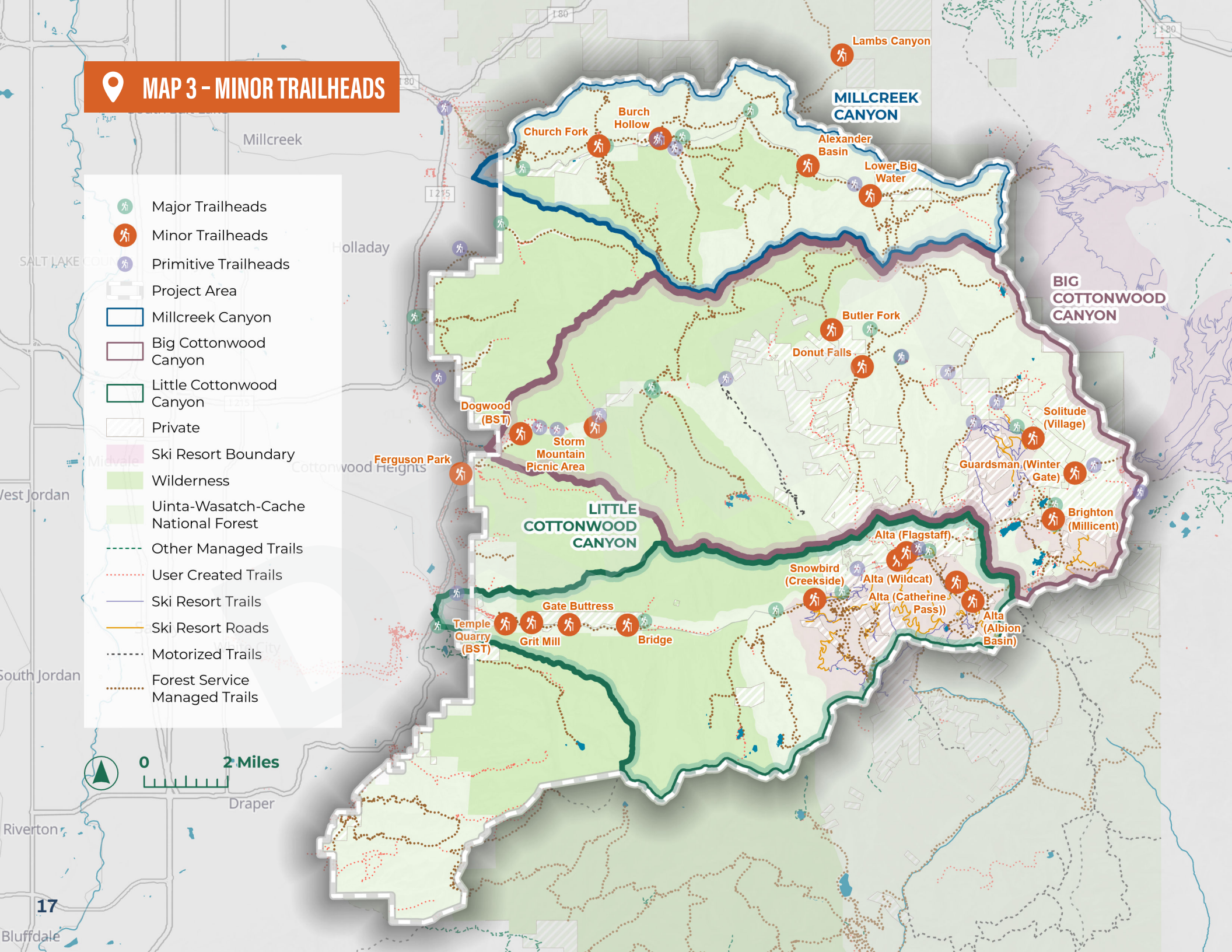
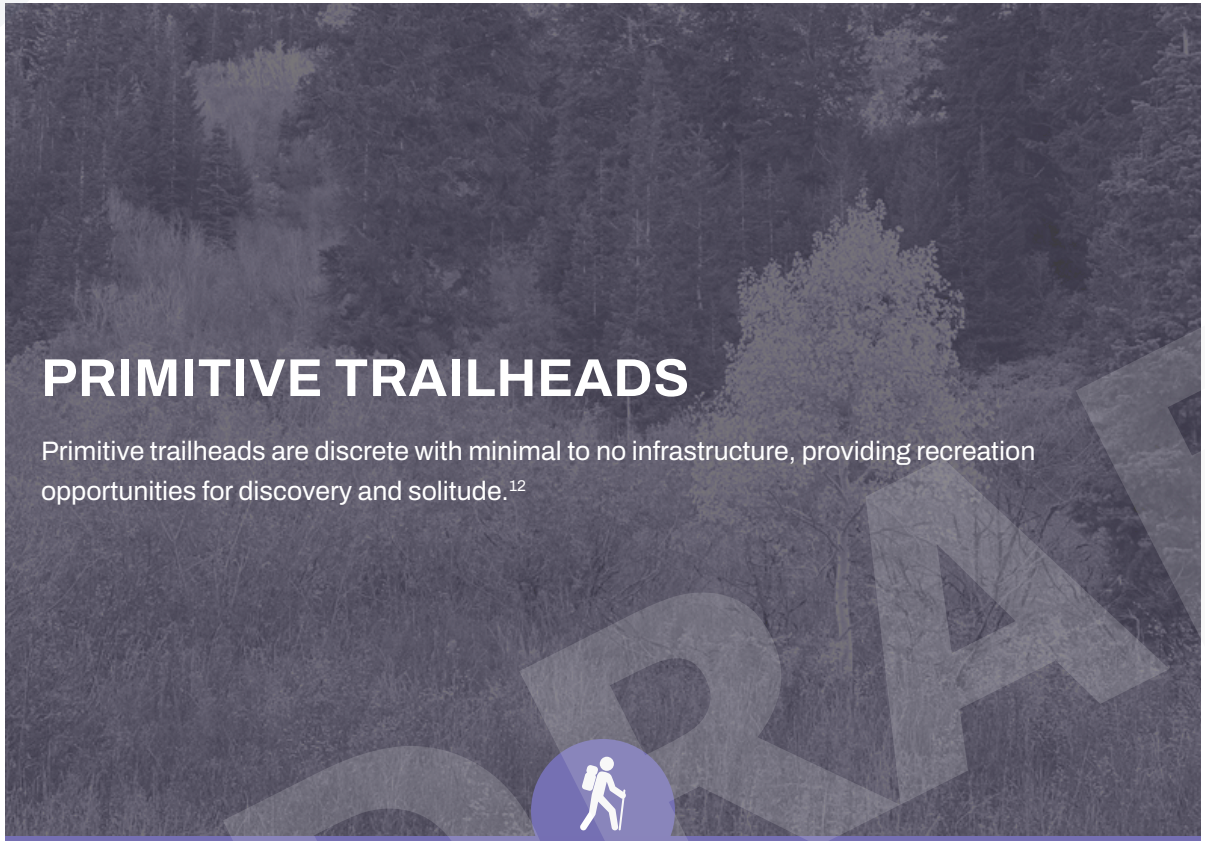


TABLE 9 – MINOR TRAILHEADS BY LOCATION

MILLCREEK CANYON	BIG COTTONWOOD CANYON	LITTLE COTTONWOOD CANYON	WASATCH FRONT
Alexander Basin	Brighton (Millicent)	Alta (Catherine Pass))	Ferguson Park
Burch Hollow	Butler Fork	Alta (Flagstaff)	
Church Fork	Dogwood (BST)	Alta (Wildcat)	
Lambs Canyon	Donut Falls	Bridge	
Lower Big Water	Guardsman (Winter Gate)	Grit Mill	
	Solitude (Village)	Snowbird (Creekside)	
	Storm Mountain Picnic Area	Temple Quarry (BST)	
		Gate Buttress	
		Alta (Albion Basin)	



PRIMITIVE TRAILHEADS

Primitive trailheads are discrete with minimal to no infrastructure, providing recreation opportunities for discovery and solitude.[12]

TABLE 10 – PRIMITIVE TRAILHEADS SHOULD:

- ✓ Appear inconspicuous and informal (may not have a kiosk or trailhead sign)
- ✓ Provide designated parking (often roadside)
- ✓ Be separated from Major or Minor Trailheads

TABLE 11 – HOW PRIMITIVE TRAILHEADS ADDRESS THE GUIDING PRINCIPLES:

ENVIRONMENT is protected by natural limits to visitation via the terrain, fluid boundaries, and available parking. While intentional low attraction and use levels protect these areas, tracking visitation and resource conditions will allow for the assessment of impacts.

VISITOR numbers are lower as there is no built infrastructure to attract people. These areas may offer a sense of discovery, self-reliance, or solitude. Primitive trailheads may focus on a single type of recreation opportunity (hike, bike, climb, fish, ski) and may not have formalized trails.

INFRASTRUCTURE may range from nonexistent to a simple small kiosk, since there is no effort to attract visitors to these locations. Parking lots may exist, with possible roadside parking available.

MAP 4 - PRIMITIVE TRAILHEADS

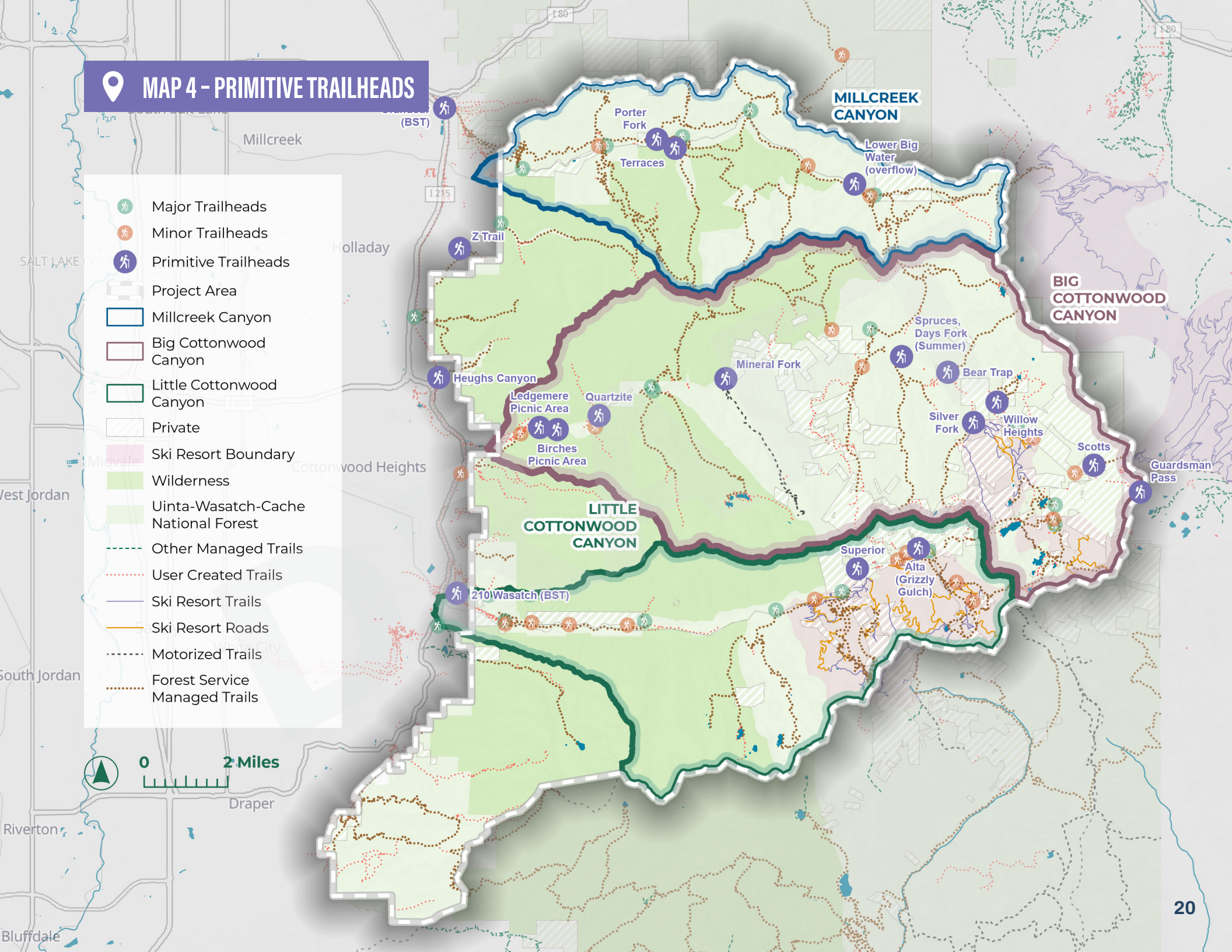


TABLE 12 – PRIMITIVE TRAILHEADS BY LOCATION

MILLCREEK CANYON	BIG COTTONWOOD CANYON	LITTLE COTTONWOOD CANYON	WASATCH FRONT
Lower Big Water (overflow)	Bear Trap	Alta (Grizzly Gulch)	210 Wasatch (BST)
Porter Fork	Birches Picnic Area	Superior	Grandeur (BST)
Terraces	Guardsman Pass		Heughs Canyon
	Ledgemere Picnic Area		Z Trail
	Mineral Fork		
	Quartzite		
	Scotts		
	Silver Fork		
	Spruces, Days Fork (Summer)		
	Willow Heights		

3- Trail Network

- Proposed Concentrated Use Trails
- Proposed Connector Trails
- Proposed User-Created Trails

TRAIL NETWORK

The combination of trail types throughout the Tri-Canyons forms a trail network providing diverse recreation opportunities. The current network, a mix of Forest Service System Trails and user-created trails, does not meet the needs of today's visitors. A few short trails see a large concentration of use, while unsustainable user-created trails (not intentionally designed nor maintained by the FS) experience repetitive use, causing resource impacts.

TABLE 13 – TRAIL NETWORK CLASSIFICATIONS

CONCENTRATED USE	CONNECTOR	USER-CREATED
		

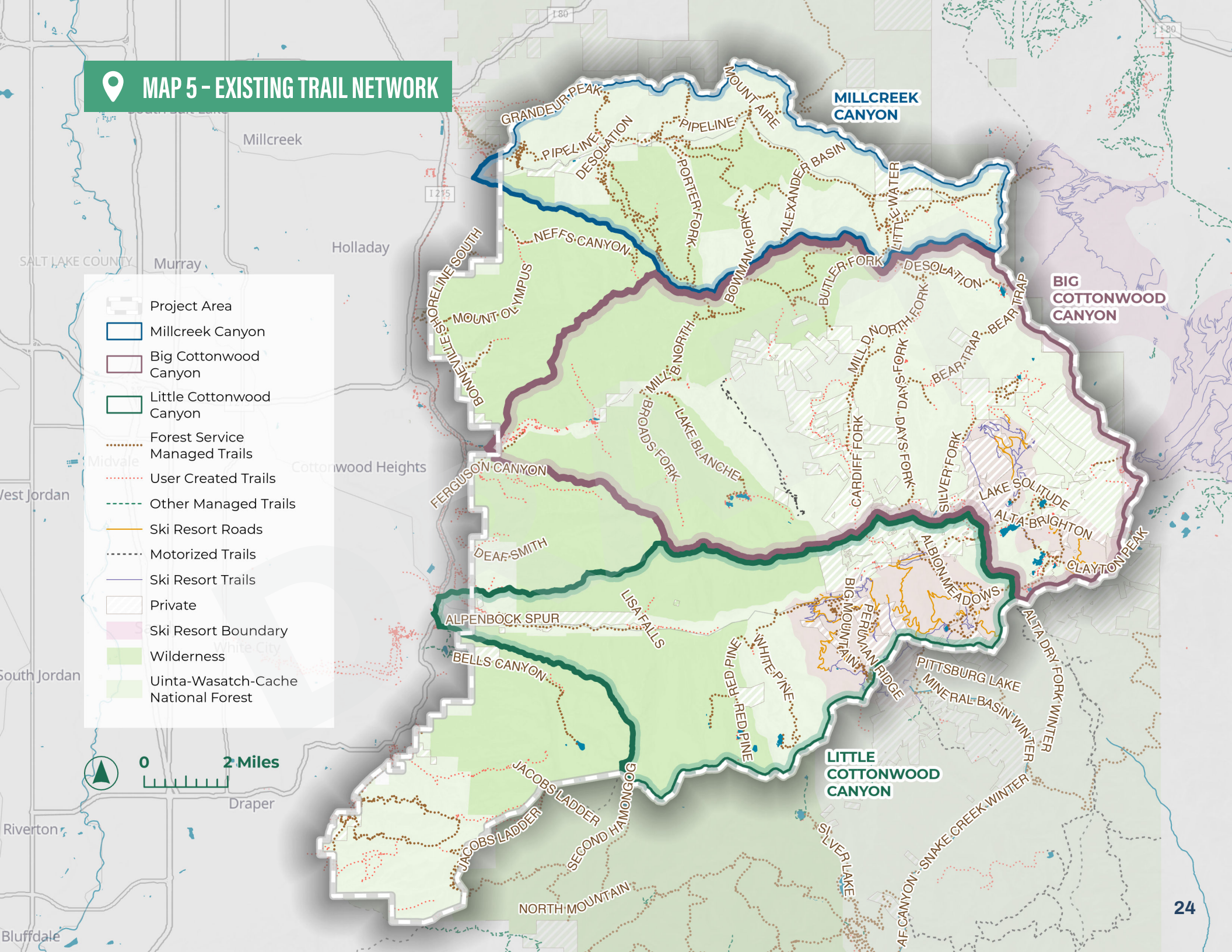
Opportunities to improve the current trail network to meet the guiding principles include identifying and modifying trails, such as those that see **concentrated use**, provide new **connections** within the network, and integrate popular **user-created trails**. Each trail type has a set of desired future conditions or "shoulds" which address the guiding principles in this plan (environment, visitors, infrastructure).

Note that proposed trails are conceptual, not actual alignments or exact locations.

TABLE 14 – ALL TRAILS SHOULD:

- ✓ Recognize various levels of trail use (concentrated to dispersed)
- ✓ Provide diverse recreation opportunities (busy, solitude, endurance, discovery)
- ✓ Offer seasonal opportunities for recreation (hike, bike, climb, ski, snow play)
- ✓ Utilize existing options (ski resorts, user-created trails)

MAP 5 – EXISTING TRAIL NETWORK



CONCENTRATED USE TRAILS

(high visitation, family friendly)

Concentrated Use trails in the Tri-Canyons experience the highest visitation levels and are often "family friendly". Examples include Silver Lake, Cardiff Meadow, and Albion Meadows.

TABLE 15 – CONCENTRATED USE TRAILS SHOULD:[18,28]

- ✓ Accommodate high levels of visitation and a desirable experience without resource damage
- ✓ Generally coincide with Major Trailheads where visitors already are
- ✓ Provide a generally accessible or family-friendly trail for the first couple miles of the trail[33]
- ✓ Provide a destination within the first couple of miles of the trail

TABLE 16 – HOW CONCENTRATED USE TRAILS ADDRESS THE GUIDING PRINCIPLES:

ENVIRONMENT is protected by intentionally designed trails that often allow side-by-side travel, reducing trail widening. Trailside barriers (rocks and logs), designed destinations (viewpoints or endpoints), and possible regulations keep visitors on trail, reducing off-trail detrimental impacts to the environment.

VISITORS feel welcome in popular areas, where high visitation should be expected. Information is easy to find at kiosks or visitor centers, explaining the area's various recreation opportunities. Recreation experiences begin immediately - with options to learn, play, and discover along the first mile or two of the trail. Future needs may include a suggested direction of travel (one-way loop) to reduce congestion.

INFRASTRUCTURE is welcoming and obvious, similar to Major Trailheads. Trails are maintained to be wide with few obstructions in the tread, though natural barriers exist along the tread to keep visitors on the trail. Trails have good wayfinding signage and resting spots. Trails lead to an obvious destination, endpoint, viewing platform, or are part of a loop.

TABLE 17 – SUMMER HIKING DISTANCES IN FERGUSON CANYON

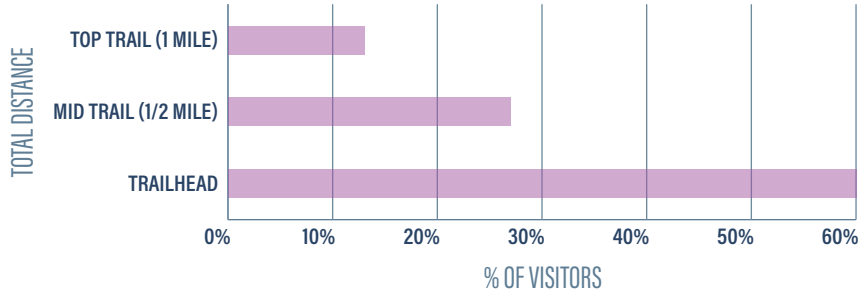
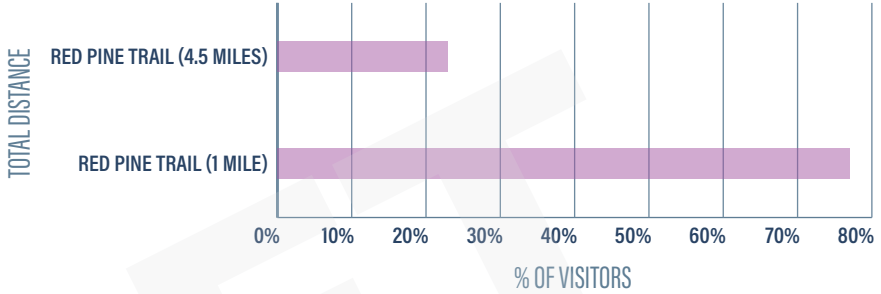
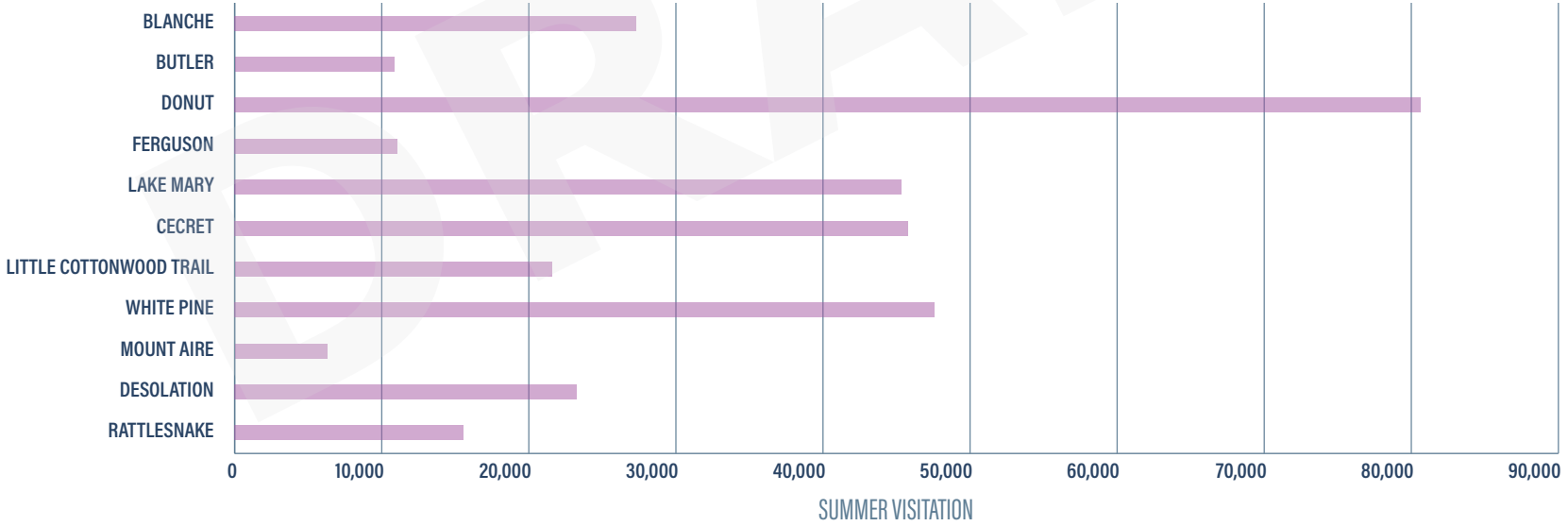


TABLE 18 – SUMMER HIKING DISTANCES ON RED PINE TRAIL



The Salt Lake Ranger District's Trail Counter Program[17] shows a desire for shorter hiking opportunities with a large percentage of visitors hiking less than 2 miles. The Trail Counter program also reveals which trails have high levels of visitation, where concentrating visitation on durable surfaces and sustainable trails can reduce detrimental impacts to the watershed and environment.

TABLE 19 – CONCENTRATE VISITORS AT LOCATIONS WITH HIGH USE



MAP 6 - PROPOSED CONCENTRATED USE TRAILS

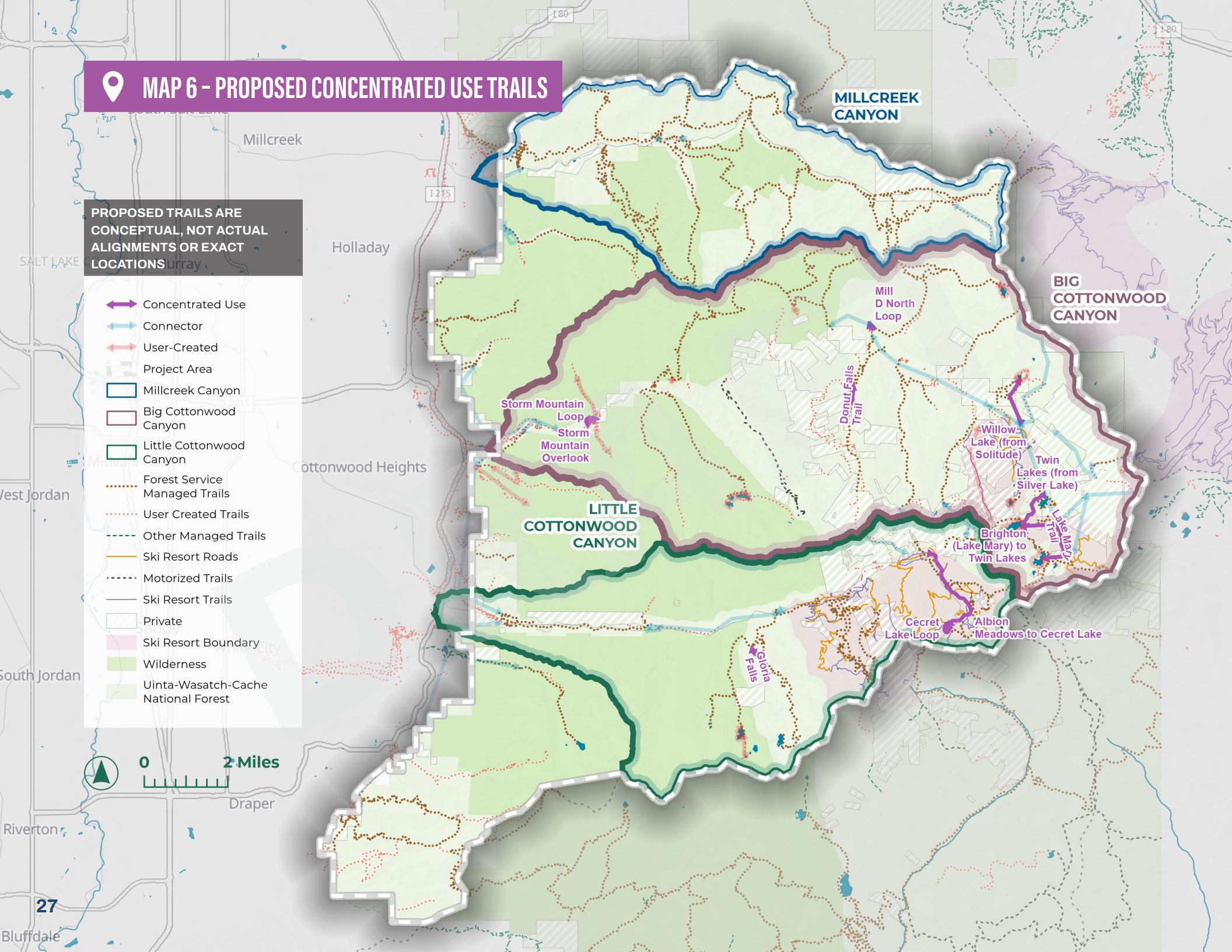
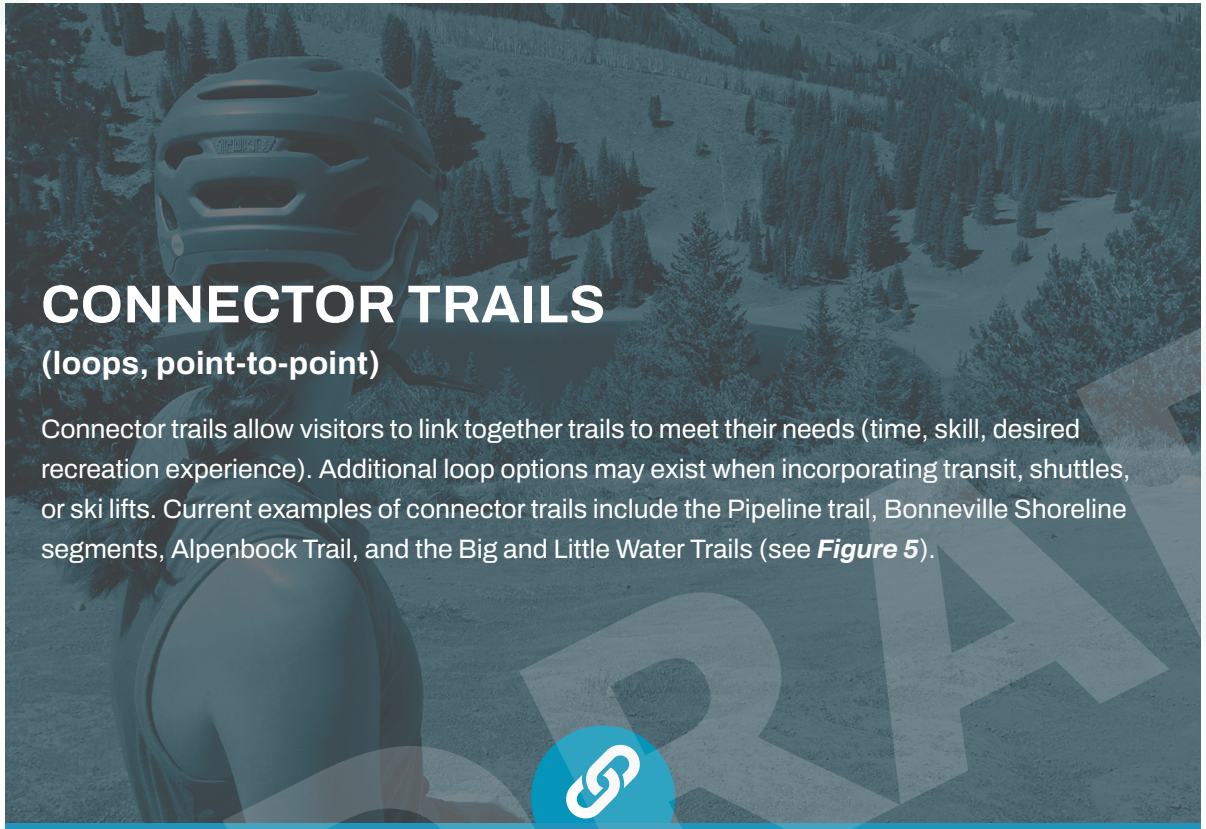


TABLE 20 – PROPOSED CONCENTRATED USE TRAILS BY LOCATION

BIG COTTONWOOD CANYON	
TRAIL	**DESIRED OUTCOME**
BRIGHTON (LAKE MARY) TO TWIN LAKES	Sustainable trail grades following contours with engineered hardened destination
DONUT FALLS TRAIL	Reroute the trail out of the water to reduce impacts to watershed and shoreline vegetation. Design a wide trail with moderate grades to an engineered hardened destination (reduce waterfall climbing). Close and restore old trail and user-created trails.
LAKE MARY TRAIL	Reroute the beginning of the trail away from the Alpine Rose. Design trail to have easier grades to an engineered hardened destination. Close and restore user-created trails.
MILL D NORTH LOOP	Design a short loop trail with easy grades, with a spur trail to an old mine.
STORM MOUNTAIN LOOP	Coordinate with concessionaire (URC). Design a loop hike around the meadow on a wide trail with easy grades. Close and restore user-created trails.
STORM MOUNTAIN OVERLOOK	Coordinate with concessionaire (URC). Design a wide trail with moderate grades to an engineered hardened destination. Close and restore user-created trails.
TWIN LAKES (FROM SILVER LAKE)	Improve existing trail to be easier; reduce trail grades, improve tread, remove large obstacles, engineer hardened destination.
WILLOW LAKE (FROM SOLITUDE)	Phase with BCC Mobility Plan. Connect a major trailhead to a popular hiking area. Design a wide, sustainable trail with easy grades. Coordinate with Solitude and Udot on highway crossing options.
LITTLE COTTONWOOD	
TRAIL	**DESIRED OUTCOME**
ALBION MEADOWS TO CECRET LAKE	Design an obvious and continuous trail connecting hikers from the Albion Trailhead to Cecret Lake.
CECRET LAKE LOOP	Design a sustainable trail around the lake to protect the watershed and lakeshore vegetation. Close and restore user-created trails.
GLORIA FALLS	Improve trail alignment away from riparian zone. Design a wide trail with easier grades up to an engineered hardened destination (reduce waterfall climbing). Close and restore user-created trails.



CONNECTOR TRAILS

(loops, point-to-point)

Connector trails allow visitors to link together trails to meet their needs (time, skill, desired recreation experience). Additional loop options may exist when incorporating transit, shuttles, or ski lifts. Current examples of connector trails include the Pipeline trail, Bonneville Shoreline segments, Alpenbock Trail, and the Big and Little Water Trails (see ***Figure 5***).

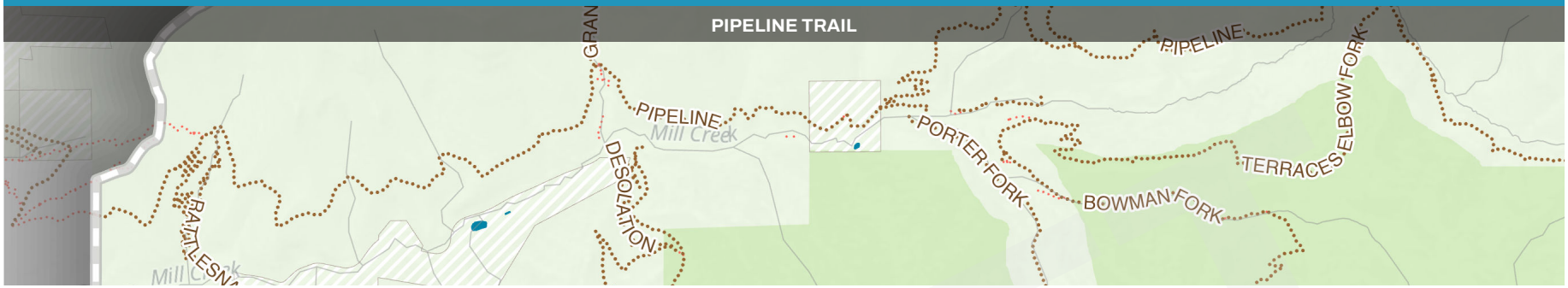
TABLE 21 – CONNECTOR TRAILS SHOULD [18,28]:

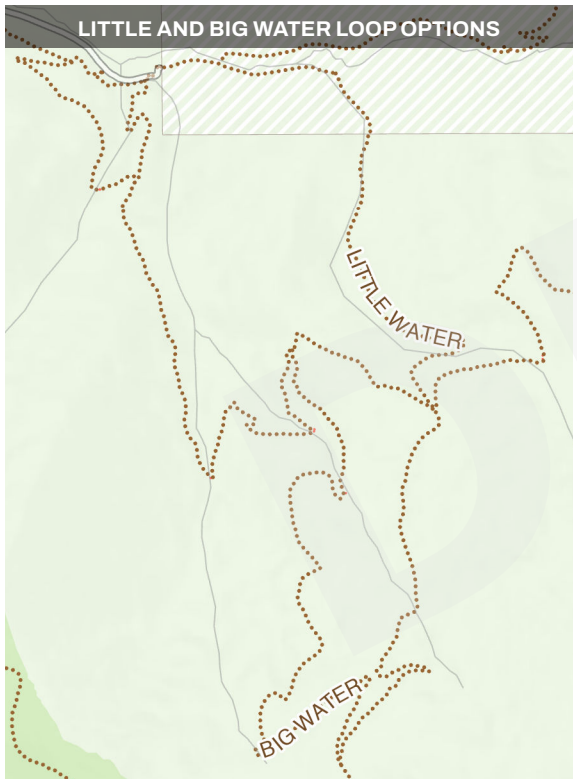
- ✓ Increase trail connectivity (loops, point-to-point)
- ✓ Provide freedom for visitors to design their own route (instead of out and back trails)
- ✓ Focus on where loops are currently desired
- ✓ Include adequate wayfinding
- ✓ Recognize shuttle options (bike shuttle, ski lifts, gondola, transit)

TABLE 22 – HOW CONNECTOR TRAILS ADDRESS THE GUIDING PRINCIPLES:

- **ENVIRONMENT** is protected by sustainably designed trails providing desired recreation opportunities while reducing off-trail travel and the creation of user-created trails — both of which may cause detrimental impacts.
- **VISITORS** experience the freedom to create their own route to satisfy their needs (time, skill). Trails may not provide consistent character (grade, width, elevation, trail condition).
- **INFRASTRUCTURE** includes consistent wayfinding signs at intersections to enable visitors to connect to their intended trails. Connectivity is designed to promote legal and proper recreation types occur (i.e., no bikes in wilderness areas).

FIGURE 5 – EXAMPLES OF CONNECTOR TRAILS





TOP: PIPELINE TRAIL, LEFT: LITTLE WATER AND BIG WATER LOOP OPTIONS

The Pipeline Trail throughout Millcreek Canyon connects with many other trails, providing a freedom for visitors to design their own routes by connecting trails. Trails like Little Water and Big Water in upper Millcreek Canyon provide loop options, eliminating the need to hike the same trail out and back

MAP 7 - PROPOSED CONNECTOR TRAILS

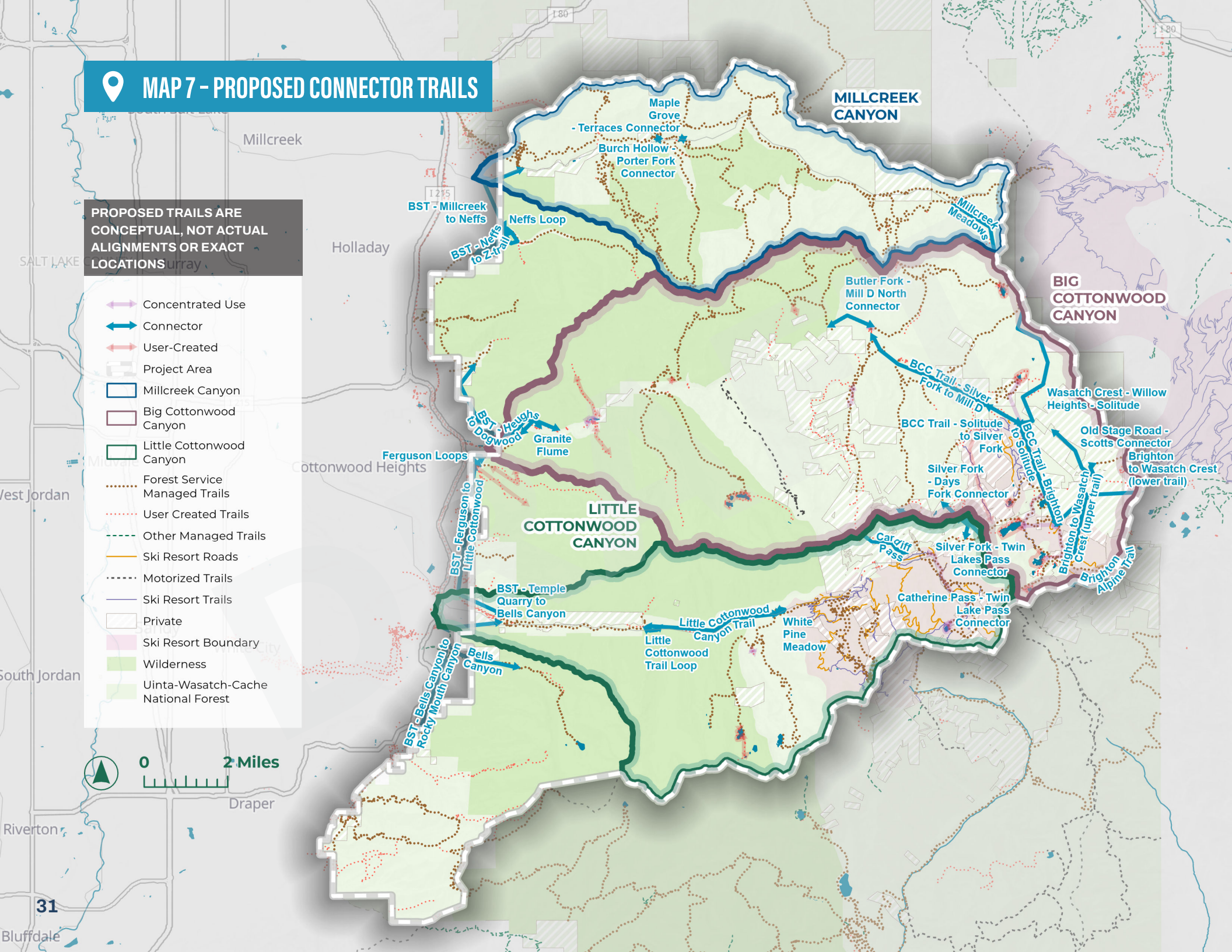


TABLE 23 – PROPOSED CONNECTOR TRAILS BY LOCATION

MILLCREEK CANYON	
TRAIL	**DESIRED OUTCOME**
BURCH HOLLOW - PORTER FORK CONNECTOR	Connect Burch Hollow trailhead (minor) to the Porter Fork trailhead and trail.
MAPLE GROVE - TERRACES CONNECTOR	Phase with FLAP implementation. Utilize large parking area; design short, sustainable trail with easy grades to access other trails.
MILLCREEK MEADOWS	Design a short, wide loop trail with easy grades, with a spur trail to an old mine.
BIG COTTONWOOD	
TRAIL	**DESIRED OUTCOME**
BCC TRAIL - BRIGHTON TO SOLITUDE	Design a sustainable trail with easy grades connecting Brighton, Silver Lake, Redman, and Solitude. Coordinate with landowners.
BCC TRAIL - SILVER FORK TO MILL D	Design a sustainable trail with easy grades connecting Silver Fork, Spruces, Cardiff Meadow, and Mill D. Coordinate with landowners.
BCC TRAIL - SOLITUDE TO SILVER FORK	Design a sustainable trail with easy grades connecting Solitude and Silver Fork. Coordinate with landowners.
BRIGHTON TO WASATCH CREST (LOWER TRAIL)	Design a sustainable bike trail to connect lower Brighton (Lake Mary Trailhead) to the Wasatch Crest.
BRIGHTON ALPINE TRAIL	Coordinate with Brighton Ski Resort to design sustainable alpine trails accessed from ski lifts (Clayton, Preston Peaks).
BRIGHTON TO WASATCH CREST (UPPER TRAIL)	Design a sustainable bike trail to connect upper Brighton (Majestic Lift) to the Wasatch Crest.
BST - MILLCREEK TO NEFFS	Continue to implement sections of the BST - a mixed-use recreation trail connecting the Wasatch Front.
BUTLER FORK - MILL D NORTH CONNECTOR	Design a sustainable trail connecting Butler Fork and Mill D North.
GRANITE FLUME	Future BST connection. Design a sustainable trail with easy to moderate grades. South-facing, lower-elevation trails provide cold weather hiking options. Close and restore user-created trails. Needs bridges, engineering support, and historical review.
OLD STAGE ROAD - SCOTTS CONNECTOR	Design a sustainable mountain bike trail to connecting the Old Stage Road and Scotts. Provide additional access to the Wasatch Crest.
SILVER FORK - DAYS FORK CONNECTOR	Connect Silver Fork and Days Fork trails via the ridge over Davenport Hill/East Pass.
SILVER FORK - TWIN LAKES PASS CONNECTOR	Design a sustainable trail to connect Silver Fork trail and Twin Lakes Pass (utilize Lazy Prince Trail).
WASATCH CREST - WILLOW HEIGHTS - SOLITUDE	Design a sustainable mountain bike trail with moderate grades to connect the Wasatch Crest, upper Willow Lakes, and Solitude. Reduce traffic on Guardsman Pass, provide various loop and access points. Verify property ownership and necessary easements.

PROPOSED CONNECTOR TRAILS BY LOCATION (CONTINUED)	
LITTLE COTTONWOOD	
TRAIL	**DESIRED OUTCOME**
CARDIFF PASS	Utilize mining road to design a sustainable trail from Alta to Cardiff Pass. Coordinate with landowners.
CATHERINE PASS - TWIN LAKE PASS CONNECTOR	Design a sustainable trail connecting Catherine's Pass and Twin Lakes Pass (over Patsy Marley, Mnt Wolverine, Mnt Tuscarora). Coordinate with landowners.
LITTLE COTTONWOOD CANYON TRAIL	Formalize a sustainable multi-use trail or separate uses, on trails running the length of Little Cottonwood Canyon. Utilize existing trails where possible. Phase with Udot's LCC EIS.
LITTLE COTTONWOOD TRAIL LOOP	Clarify wilderness boundary and recreation opportunities. Design short loop trail with easy grades to be set back from Little Cottonwood Creek to protect watershed and shoreline vegetation. Close and restore user-created trails.
SILVER FORK - ALTA-BRIGHTON TRAIL CONNECTOR	Design a sustainable trail to connect Silver Fork and the Alta-Brighton trails.
WHITE PINE MEADOW	Phase with Udot LCC EIS proposal for trailhead improvement. Design short, easy loop trails in the aspen grove.
WASATCH FRONT	
TRAIL	**DESIRED OUTCOME**
BELLS CANYON	Improve trail alignment with easier grades to an engineered hardened destination (reduce waterfall climbing). Close and restore old trails and user-created trails.
BST - BELLS CANYON TO ROCKY MOUTH CANYON	Continue to implement sections of the BST - a mixed-use recreation trail connecting the Wasatch Front.
BST - FERGUSON TO LITTLE COTTONWOOD	Continue to implement sections of the BST - a mixed-use recreation trail connecting the Wasatch Front.
BST - HEUGHS TO DOGWOOD	Continue to implement sections of the BST - a mixed-use recreation trail connecting the Wasatch Front.
BST - NEFFS TO Z-TRAIL	Continue to implement sections of the BST - a mixed-use recreation trail connecting the Wasatch Front.
BST - TEMPLE QUARRY TO BELLS CANYON	Continue to implement sections of the BST - a mixed-use recreation trail connecting the Wasatch Front.
FERGUSON LOOPS	Design short loop trails, with easy to medium grades, North of Ferguson Trailhead. Close and restore user-created trails.
NEFFS LOOP	Phase with Neffs Trailhead reconstruction and floodplain planning. Design short, easy to medium-grade loop options. Close and restore user-created trails.

USER-CREATED TRAILS

User-created trails are illegally constructed trails not designed or maintained by the Forest Service. This Plan implements direction in the Wasatch-Cache Forest Plan to inventory user-created trails (completed in 2020), retain and modify trails where needed, and close and naturalize trails causing detrimental impacts.[12] Examples of areas with concerning user-created trails include Red Pine Lake, Blanche Lake, and Neffs Canyon (See ***Figure 6***).

TABLE 24 – USER-CREATED TRAILS SHOULD:

- ✓ Be inventoried to track detrimental impacts
- ✓ Be closed and naturalized when:
  - They facilitate Illegal uses (enable bikes in wilderness, crosses private property)
  - Cause unnecessary detrimental impacts (parallel or braided trails, impact watershed and lakeshore vegetation)
- ✓ May be formalized into the Forest Service system if:
  - The trail experiences high visitation
  - No other options exist to achieve desired recreation experiences (climbing access, lakeshore loops)
  - A sustainable redesign of the trail is possible
  - Nearby user-created trails are closed and the areas are restored

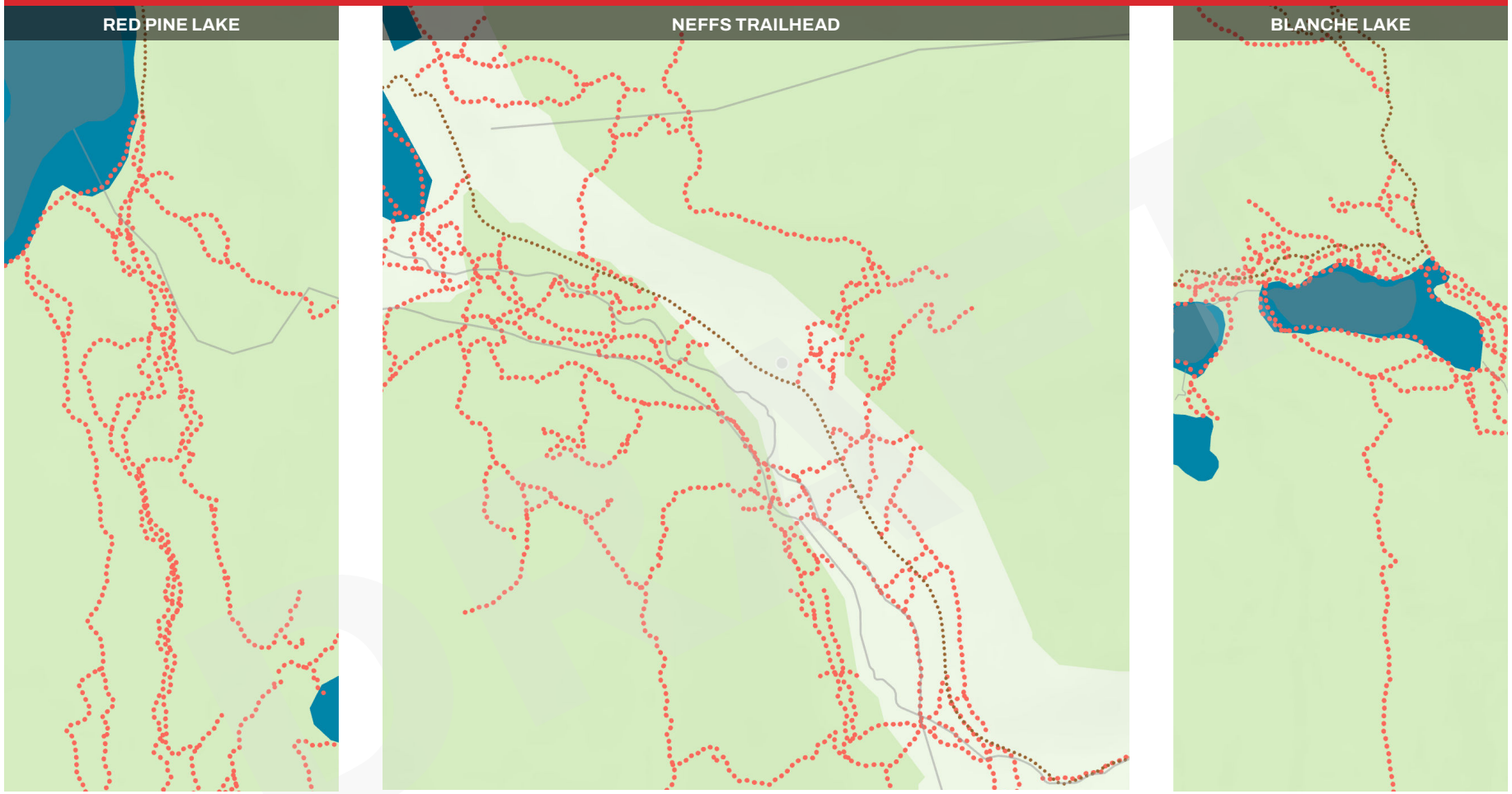
TABLE 25 – HOW USER-CREATED TRAILS ADDRESS THE GUIDING PRINCIPLES:

ENVIRONMENT is protected when user-created trails are formalized or redesigned to be sustainable, when detrimental impacts are tracked, or closed to stop detrimental impacts. Impacts may include erosion, stream sedimentation, interference with wildlife, or damage vegetation.

VISITORS experience may improve as designed, sustainable trails offer new recreation opportunities in an area. User-created trails may be rerouted in segments to be more sustainable, which often results in reduced grades (steepness) to protect the surrounding ecosystem from the negative effects of erosion.

INFRASTRUCTURE includes signage at junctions to improve visitors' ability to find a desired trail or recreation opportunity and to help protect the environment.

FIGURE 6 – EXAMPLES OF AREAS WITH CONCERNING USER-CREATED TRAILS



FROM LEFT TO RIGHT: RED PINE LAKE AREA, NEFFS TRAILHEAD, LAKE BLANCHE AREA.

These three examples illustrate parallel and braided user-created trails. Desired outcomes for such areas may include formalizing one sustainable trail that protects the watershed, lakeshore or hillside vegetation. All other user-created trails would be closed and restored.

MAP 7 - PROPOSED USER-CREATED TRAILS

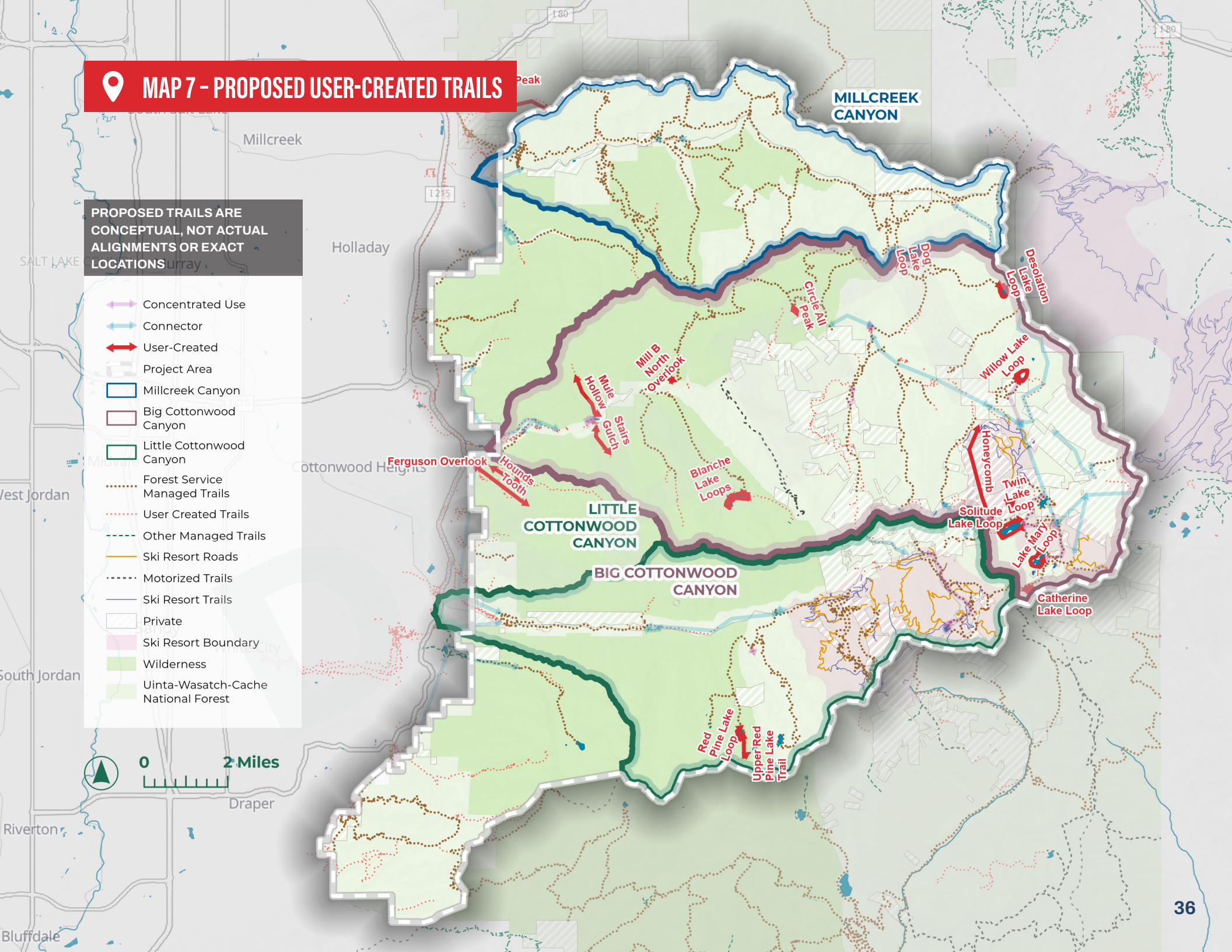


TABLE 26 – PROPOSED USER-CREATED TRAILS BY LOCATION

MILLCREEK	
TRAIL	**DESIRED OUTCOME**
DOG LAKE LOOP	Design a sustainable trail around the lake to protect the watershed and lakeshore vegetation. Close and restore user-created trails.
BIG COTTONWOOD	
TRAIL	**DESIRED OUTCOME**
BLANCHE LAKE LOOPS	Design a sustainable trail around the lake to protect the watershed and lakeshore vegetation. Close and restore user-created trails.
CATHERINE LAKE LOOP	Design a sustainable trail around the lake to protect the watershed and lakeshore vegetation. Close and restore user-created trails.
CIRCLE ALL PEAK	Formalize a short, sustainable trail providing a desired summit recreation opportunity. Close and restore user-created trails.
DESOLATION LAKE LOOP	Design a sustainable trail around the lake to protect the watershed and lakeshore vegetation. Close and restore user-created trails.
HONEYCOMB	Phase with ski resort mountain bike developments to consider a downhill mountain bike trail. Coordinate with landowners.
LAKE MARY LOOP	Design a sustainable trail around the lake to protect the watershed and lakeshore vegetation. Close and restore user-created trails.
MILL B NORTH OVERLOOK	Formalize a short, easy-grade trail to an engineered hardened destination (overlook). Close and restore user-created trails.
MULE HOLLOW	Phase with trailhead improvements. Coordinate with Salt Lake Climbers Alliance on community needs. Formalize a sustainable trail with medium to steep grades to provide desired recreation experiences. Close and restore user-created trails.
SOLITUDE LAKE LOOP	Design a sustainable trail around the lake to protect the watershed and lakeshore vegetation. Close and restore user-created trails.
STAIRS GULCH	Phase with trailhead improvements. Coordinate with Salt Lake Climbers Alliance on community needs. Formalize a sustainable trail with medium to steep grades to provide desired recreation experiences. Close and restore user-created trails.
TWIN LAKE LOOP	Design a sustainable trail around the lake to protect the watershed and lakeshore vegetation. Close and restore user-created trails.
WILLOW LAKE LOOP	Design a sustainable trail around the lake to protect the watershed and lakeshore vegetation. Close and restore user-created trails.
LITTLE COTTONWOOD	
TRAIL	**DESIRED OUTCOME**
RED PINE LAKE LOOP	Design a sustainable trail around the lake to protect the watershed and lakeshore vegetation. Close and restore user-created trails.
UPPER RED PINE LAKE TRAIL	Formalize a sustainable trail with moderate grades between lower and upper Red Pine Lakes. Close and restore user-created trails.
WASATCH FRONT	
TRAIL	**DESIRED OUTCOME**
FERGUSON OVERLOOK	Sustainable trail with moderate grades up to a ridgeline with an engineered hardened destination. Close and restore user-created trails.
GRANDEUR PEAK WEST	Design a sustainable trail with moderate to steep grades providing a desired recreation opportunity.
HOUNDS TOOTH	Sustainable trail with moderate to steep grades providing a desired recreation opportunity. Close and restore user-created trails.

PHOTO COURTESY OF MARK WHITE

4- Recreation Strategies

- Reduce Visitor Conflict
- E-bikes
- Ski Resort Summer Recreation
- Winter Recreation Opportunities

RECREATION STRATEGIES

The Forest Service has many opportunities to implement Recreation Strategies (policies, rules, and regulations) to meet its top priority of protecting natural resources while offering and maintaining diverse recreation opportunities.

TABLE 28 – RECREATION STRATEGIES

REDUCE VISITOR CONFLICT	E-BIKES	SKI RESORT SUMMER RECREATION	WINTER RECREATION

Approaches to meet this priority include implementing new policies, rules, or regulations to **reduce visitor conflict**, consider **e-bike use**, enhance **summer recreation at ski resorts**, and **develop winter recreation opportunities**. Each recreation strategy has a set of desired future conditions or "should" statements, which strive to address the guiding principles of this plan (environment, visitors, infrastructure).

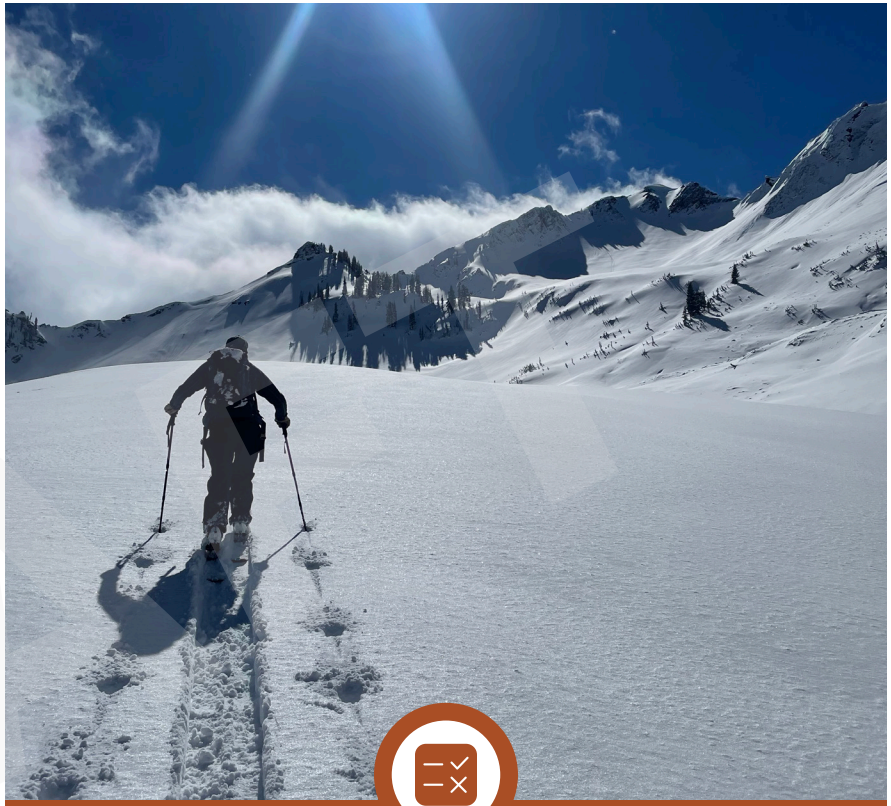


TABLE 27 – RECREATION STRATEGIES SHOULD:

- ✓ Implement actions that achieve Forest Plan Desired Future Conditions
- ✓ Protect natural resources from detrimental impacts
- ✓ Provide diverse recreation opportunities
- ✓ Facilitate positive recreation experiences

REDUCE VISITOR CONFLICT

Forest Service trails in the Tri-Canyons have historically allowed multi-use, or hikers and bikers on the same trail. With increasing visitation, user-conflicts have increased in some areas, prompting the need to implement strategies to reduce conflict.

TABLE 29 – STRATEGIES USED TO REDUCE VISITOR CONFLICT SHOULD:

- ✓ Utilize a spectrum of strategies including education, recommendations, and regulations.[18]
- ✓ Be used sparingly to avoid confusion, reduce recreation opportunities, or remove access.
- ✓ Be implemented where:
  - Similar management exists
  - Forest Service presence is high
  - No other solution exists
  - Existing use patterns are reflected
  - No visitor group feels a major loss
- ✓ Utilize trail design options to separate visitor types or to encourage directional travel
- ✓ Consider existing recreation patterns and conflicts when designing new trails and applying recreation strategies (directional travel, single use trails, odd/even day use)

TABLE 30 – HOW REDUCING VISITOR CONFLICT ADDRESSES THE GUIDING PRINCIPLES:

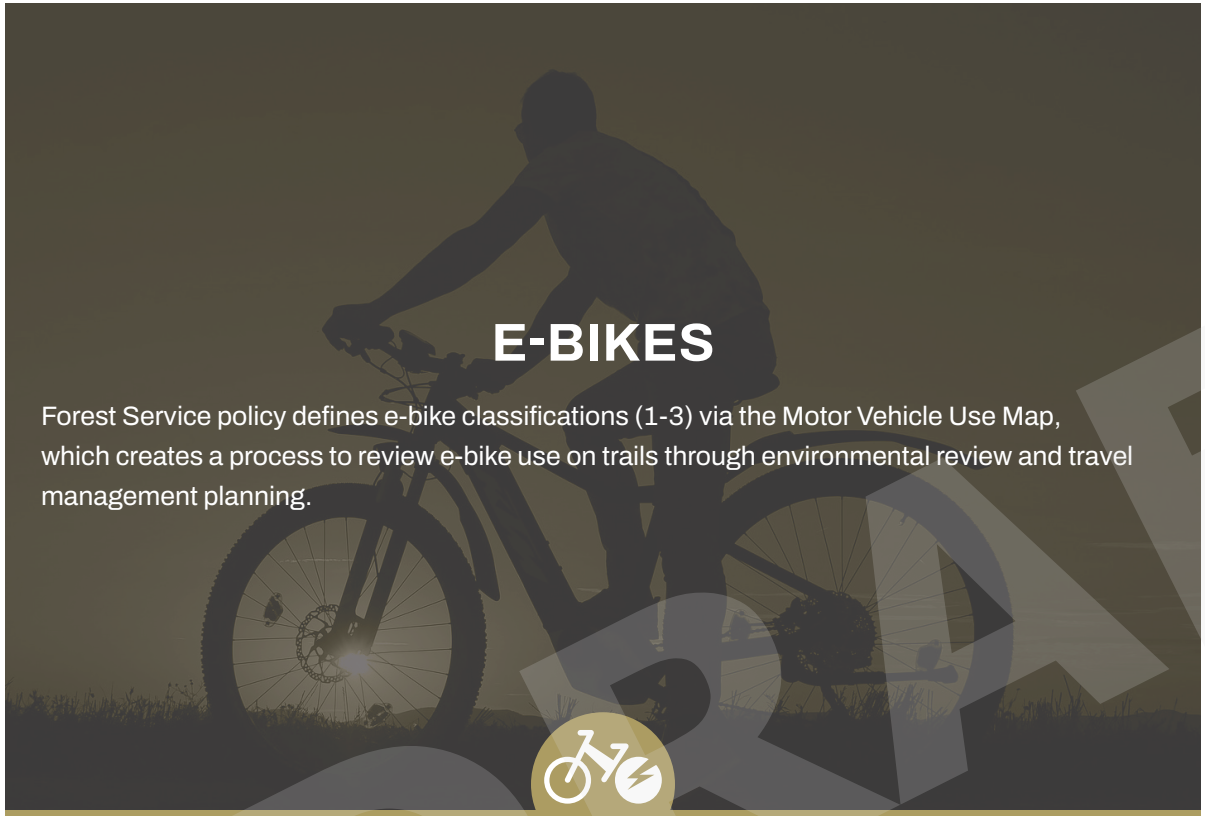
ENVIRONMENT is protected by reducing visitors' need to step off trail for others to pass via directional travel, allowing a single type of use (hike, bike), or an area closure, all of which reduce detrimental impacts.

VISITORS will enjoy a higher quality experience if conflict with others is reduced, especially in popular areas with high visitation levels. One-way travel allows higher concentrations of visitors to enjoy a natural experience. Single-use trails reduces interaction with conflicting uses (hike, bike).

INFRASTRUCTURE includes engineering trails built for specific types of visitor use (hike, bike, ski). This enables higher use levels on trails intentionally built to be sustainable and or hardened.

TABLE 31 – PROPOSED RECREATION STRATEGIES TO REDUCE VISITOR CONFLICT

STRATEGY	POSSIBLE LOCATIONS	RATIONALE
SEPARATE BIKERS AND HIKERS	Hiker only trails: Lake Mary, Twin Lake, Catherine Pass, Willow Lake, Albion Meadows, Cecret Lake	When conflict occurs, separate hiker and bikers. Prioritize education and trail design to separate hikers and bikers. Implement regulations as a last resort[34]
REQUIRE HIKERS TO STAY ON TRAILS	Cardiff Meadow (existing locations: Silver Lake, Albion Meadows)	Reduce detrimental impacts to the watershed, vegetation, and wildlife. May be necessary in areas experiencing high levels of off-trail travel
REQUIRE MOUNTAIN BIKES TO STAY ON FOREST SERVICE TRAILS	Tri-Canyons	Reduce detrimental impact to watershed, vegetation, and wildlife. Eliminate illegal mountain bike trail construction
EXPAND EVEN/ODD DAY MOUNTAIN BIKE USE	Millcreek Canyon (whole canyon)	Consistently apply the odd/even mountain bike rule on all trails in Millcreek Canyon



E-BIKES

Forest Service policy defines e-bike classifications (1-3) via the Motor Vehicle Use Map, which creates a process to review e-bike use on trails through environmental review and travel management planning.

TABLE 32 – OPPORTUNITIES FOR E-BIKE USE ON TRAILS SHOULD:

- ✓ Identify locations appropriate for Class 1 e-bikes[29,30] (i.e. what makes a good e-bike trail)
  - Opportunity for longer rides
  - Opportunity to commute by e-bike
  - Provide alternate transportation (within or between communities)
- ✓ Treat Class 1 e-bikes as mountain bikes[30]
- ✓ Allow e-bikes within ski resort boundaries or specific trails

TABLE 33 – HOW E-BIKE RECREATION STRATEGIES ADDRESS THE GUIDING PRINCIPLES:

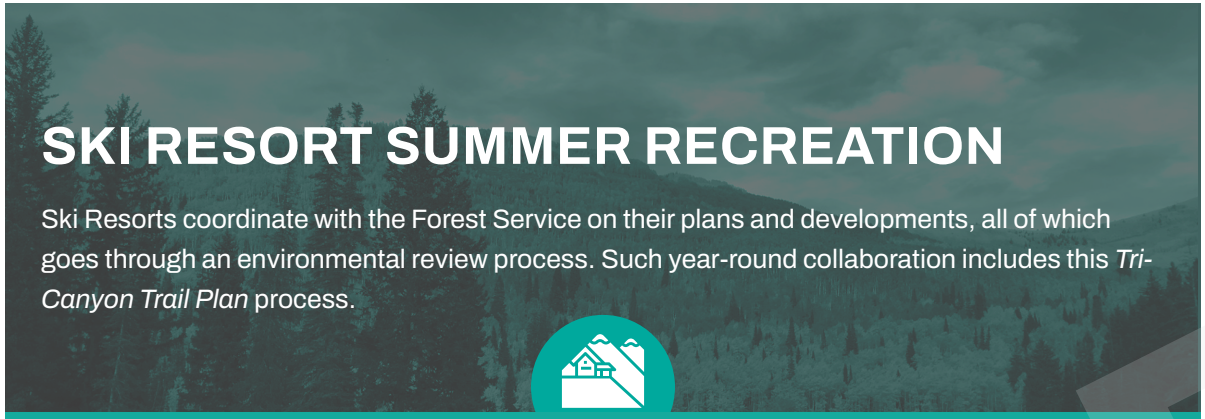
ENVIRONMENT will reflect how similar the impacts from e-bikes and mountain bikes are[30]. Trails that are intentionally constructed to sustain mountain bike traffic will also sustain Class 1 e-bikes.

VISITOR numbers might increase on mountain bike trails. This new type of recreational opportunity may bring different visitors to trails, enabling people with different abilities to recreate on these trails. Additional visitors on e-bikes may have faster uphill travel speeds, but have similar speeds as downhill mountain bikes.

INFRASTRUCTURE for Class 1 e-bikes have similar needs as mountain bikes[30]. They create similar impacts on the trail, though the motor on an e-bike creates a reduced frequency of “peel outs.” E-bike and mountain bike trails can be engineered to reduce speed and control the direction of travel.

TABLE 34 – PROPOSED E-BIKE RECREATION STRATEGIES

OPPORTUNITIES TO ALLOW E-BIKES	POSSIBLE LOCATIONS	RATIONALE
SPECIFIC TRAILS	Bonneville Shoreline Trails	Opportunity is easy to communicate, provides active transport (is close to urban commuters), and has similar impacts as mountain bikes.
	Wasatch Crest	E-bike use is increasing on the Wasatch Crest producing impacts similar to mountain bikes.
	Pipeline (upper and lower)	E-bike use is increasing on the Pipeline trails, producing impacts similar to mountain bikes.
	Jacob's Ladder Downhill Trail	Trail is close to Corner Canyon where e-bike use has been allowed for years.
SKI RESORTS	Select trails and roads approved for mountain bikes	Offer unique opportunities to connect ski resorts trails.
MILLCREEK CANYON	Trails approved for mountain bikes	Opportunity is easy to communicate and monitor, e-bike use is increasing in Millcreek Canyon; produces impacts similar to mountain bikes.
ALL FOREST SERVICE TRAILS	Trails approved for mountain bikes	Opportunity is easy to communicate and monitor, e-bike use is increasing throughout the Forest and nearby trails; produces impacts similar to mountain bikes.



SKI RESORT SUMMER RECREATION

Ski Resorts coordinate with the Forest Service on their plans and developments, all of which goes through an environmental review process. Such year-round collaboration includes this *Tri-Canyon Trail Plan* process.

TABLE 35 – RECREATION OPPORTUNITIES AT SKI RESORTS SHOULD:

- ✓ Continue coordinating with the Forest Service on decision making and management within ski area boundaries
- ✓ Utilize infrastructure to support high visitation levels (parking, bathrooms, signage, work roads)
- ✓ Provide unique summer seasonal recreation opportunities the Forest Service does not typically provide, such as:
  - Lift-serve options for bikers and hikers
  - E-bike use
  - Single-use trail network (access may differ during and after operating hours)
  - Directional travel routes (uphill and downhill routes for mountain bikes)
- ✓ Provide easy to moderate hiking trail options to alpine lakes and meadows
- ✓ Balance increasing seasonal recreation opportunities with protections for watershed and scenery to:
  - Address user-created trails (from rogue bikes and disc-golf courses)
  - Maintain viewshed integrity (minimize winter recreation impacts on summer scenery)
  - Screen, manage, and track special events

TABLE 36 – HOW SKI RESORT SUMMER RECREATION OPPORTUNITIES ADDRESS THE GUIDING PRINCIPLES:

ENVIRONMENT may appear more developed than natural when compared to the surrounding Forest land. All ski resort development goes through an environmental review process with the Forest Service, requiring ski resorts to take precautions to protect water, wildlife, and vegetation.

VISITORS will experience a more developed setting near parking lots with several amenities (large paved parking lots, hotels, restaurants, bathrooms, and signage). This provides an opportunity outside of the Forest for different recreation opportunities and concessions. Visitors will find a more natural setting as they travel away from the ski resort base operations.

INFRASTRUCTURE is very developed in ski resorts, offering different recreation opportunities than typically found on the Forest (lift service, e-bikes, restaurants, special events)

TABLE 37 – SKI RESORT SUMMER RECREATION OPPORTUNITIES

RECREATION OPPORTUNITIES	SKI RESORTS			
	ALTA	BRIGHTON	SNOWBIRD	SOLITUDE
TRAILHEADS	Ski Resort trailheads provide large hardened areas to concentrate high levels of visitation, infrastructure, and diverse recreation opportunities.	Ski Resort trailheads provide large hardened areas to concentrate high levels of visitation, infrastructure, and diverse recreation opportunities.	Ski Resort trailheads provide large hardened areas to concentrate high levels of visitation, infrastructure, and diverse recreation opportunities.	Ski Resort trailheads provide large hardened areas to concentrate high levels of visitation, infrastructure, and diverse recreation opportunities.
TRAIL NETWORK	Continue collaborating with the Forest Service to improve trails.	Continue collaborating with the Forest Service to improve trails.	Continue collaborating with the Forest Service to improve trails.	Continue collaborating with the Forest Service to improve trails.
MOUNTAIN BIKE TRAILS	Prioritize human powered recreation, no lift-serve options for hikers or bikers.	Develop downhill mountain bike trail network utilizing ski- lifts.	Prioritize human powered recreation, no lift-serve options for mountain bikers (lift serve options do exist for hikers).	Develop downhill mountain bike trail network utilizing ski- lifts.
SKI LIFTS	Ski lifts do not operate outside of winter recreation.	Continue to utilize ski lifts to move hikers and bikers up and down the resort.	Continue to utilize ski lifts to move hikers up and down the resort.	Continue to utilize ski lifts to move hikers and bikers up and down the resort.
E-BIKES	May be allowed in the future.	May be allowed in the future.	May be allowed in the future.	May be allowed in the future.
DISC GOLF		Design disc golf course with future trails to reduce user conflict.		Design disc golf course with future trails to reduce user conflict.
EVENTS	Continue to host events.	Continue to host events.	Continue to host events.	Continue to host events.

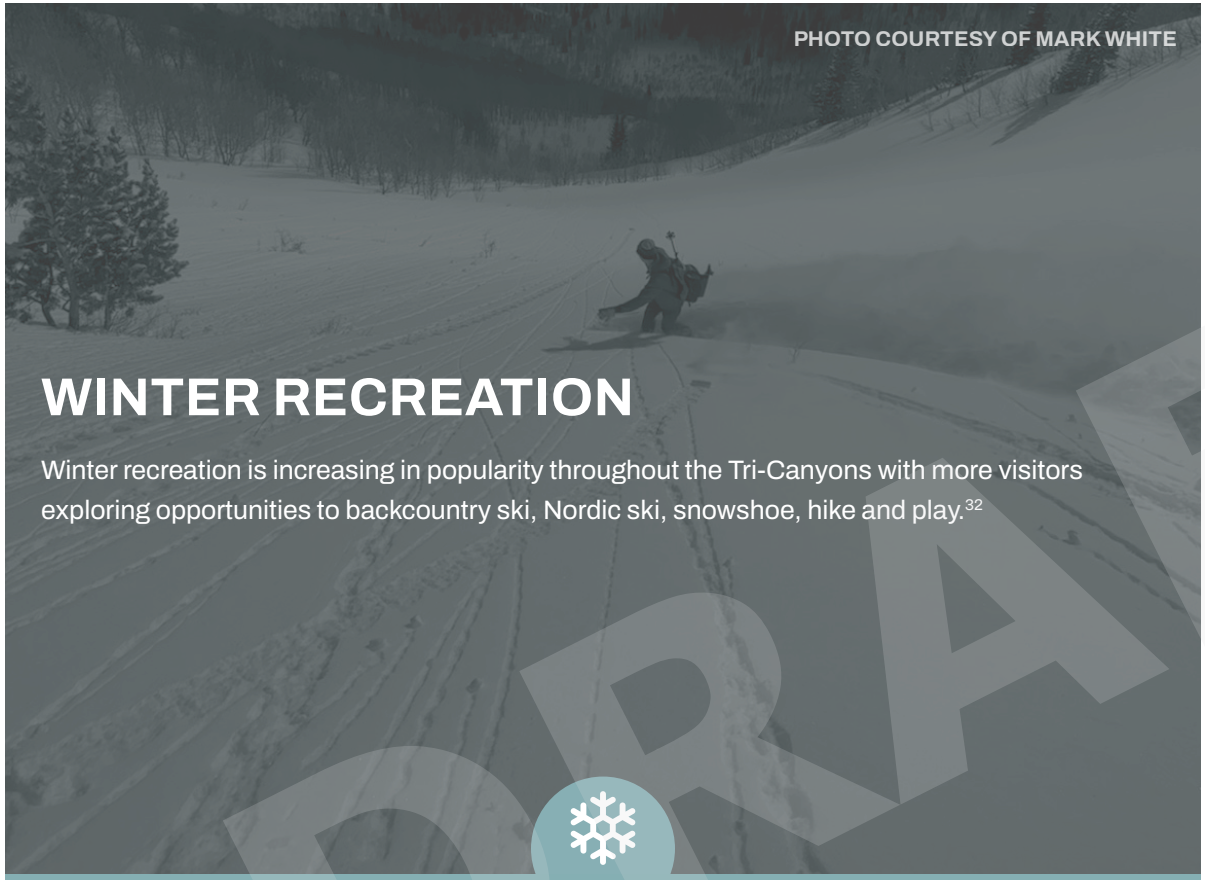


PHOTO COURTESY OF MARK WHITE

WINTER RECREATION

Winter recreation is increasing in popularity throughout the Tri-Canyons with more visitors exploring opportunities to backcountry ski, Nordic ski, snowshoe, hike and play.[32]

TABLE 38 – WINTER RECREATION OPPORTUNITIES SHOULD:

- ✓ Provide designated parking, trailheads, bathrooms
- ✓ Help new winter visitors find winter recreation opportunities via signage and ranger presence (groomed or packed trails)
- ✓ Investigate winter recreation opportunities (grooming, gladding, packed trails, snow play)

TABLE 39 – HOW WINTER RECREATION OPPORTUNITIES ADDRESS THE GUIDING PRINCIPLES:

- **ENVIRONMENT** is protected by focusing new winter visitors to specific trails, which helps protect critical winter habitats for wildlife and concentrate possible impacts on a few areas.
- **VISITORS** are provided a welcoming introduction to winter recreation opportunities such as snow play, cross country skiing, snowshoeing, and sledding via kiosks at trailheads and roving Forest Service presence.
- **INFRASTRUCTURE** of groomed, gladed, or packed trails provides new visitors obvious paths to explore winter recreation opportunities. Plowed parking lots, maintained toilets or heated bathrooms, and informational signage provide an obvious starting point for recreation.

TABLE 41 – PROPOSED WINTER RECREATION OPPORTUNITIES

STRATEGY	POSSIBLE LOCATIONS	RATIONALE
WINTER PLOWING	Mill B, Grit Mill, Quarry Trail, Neffs	Provide winter parking options and access to winter recreation
WINTER BATHROOMS	Mill B, Grit Mill, Quarry Trail, Neffs	Provide bathrooms in select locations as winter recreation increases[32]
GLADING	TBD	Investigate interest and opportunities for glading
WINTER GROOMING	TBD	Consider future grooming locations for cross-country ski and fatbike trails
UPHILL ACCESS	Ski resorts	Designate time and location for skiers to travel uphill during and outside of operating hours

WORKS CITED

1. Central Wasatch Commission Visitor-Use Study
2. United States Census Bureau
3. Early History of the Uinta National Forest
4. Friends of the Salt Lake Ranger District
5. Brief History of the Combined Uinta-Wasatch-Cache National Forest
6. Salt Lake City Watershed Management Programs: 1847-1997
7. Central Wasatch Commission Watershed History
8. Salt Lake County Regional Trails Master Planning
9. Salt Lake City Public Utilities Watershed Management Plan
10. Mountain Accord Final Report
11. Central Wasatch Commission Projects
12. Revised Forest Plan Wasatch-Cache National Forest
13. The Wilderness Act
14. Forest Service Standard Trail Plans and Specifications
15. Forest Service Trail Fundamentals and Trail Management Objectives
16. Forest Service Trail Accessibility Guidelines
17. Salt Lake Ranger District Trail Counter Program
18. Interagency Visitor Use Management
19. Tri-Canyon Trails Plan Listening Report
20. Tri-Canyon Trails Plan Listening Report Appendix
21. Proposed Changes to Recreation Fees on the Uinta-Wasatch-Cache National Forest
22. Upper Mill Creek Canyon Road Improvements Project
23. Little Cottonwood Canyon Environmental Impact Statement
24. Draper Parks, Recreation and Trails Master Plan
25. Sandy Parks and Recreation Trails Master Plan
26. Cottonwood Heights Parks, Trails, and Open Space Master Plan
27. Salt Lake City Foothills Trails System
28. Outdoor Recreation and Ecological Disturbance
29. Forest Service Policy on Electronic Bicycle Use
30. The Future of E-bikes on Public Lands Research Study
31. Central Wasatch Commission Big Cottonwood Canyon Mobility Action Plan
32. Wasatch Backcountry Alliance Trail Counting Program
33. Forest Service Accessibility Resources

TRI-CANYON TRAILS PLAN

SUSTAINING DIVERSE RECREATION IN A HEALTHY WATERSHED

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