



Ring the Peak: Overcoming Political and Physical Trail Development Challenges

by Wileen Genz, 2017-18 State of the Rockies Project Fellow

Introduction

More than 500,000 visitors travel to the prominent fourteener that inspired Katherine Lee Bates' "America the Beautiful," to experience its accessible, breathtaking views. Instead, visitors to Pikes Peak are greeted with graffiti, dog waste, and noise pollution along the Barr Trail, a scenic non-motorized trail that is the most popular hiking trail to the summit. Alternative travel methods require less effort, but experience similar congestion, whether it be the Pikes Peak Highway full of heavy traffic or the Cog Rail that's been described as carrying passengers, "Like cattle going to slaughter" (Faughn 2016).

Tourism is the third largest industry in Colorado Springs. For instance, Aramark, the private concessionaire that pays the City of Colorado Springs \$1 million annually to operate the Summit House on top of Pikes Peak, illustrates the lucrative nature of the mountain ("RFP to be Released"). To gain a broader sense of how much impact the tourism industry imparts to Colorado Springs, the revenue generated from tourism totaled \$2.25 billion in 2016 ("Pikes Peak Region Welcomed").

As more people become aware of the recreational opportunities Colorado Springs has to offer, the attractions are having difficulty accommodating the growing population while still maintaining high quality visitor experiences. Overcrowding is evident all throughout the Pike National Forest, where outdoor recreation is deeply ingrained into the culture of Front Range communities. Garden of the Gods, another popular site that was designated as a National Natural Landmark within the forest, is one of the most densely visited public parks in America, and rated the "Best Park" on Trip Advisor (Benzel 2014). Along with this prestige comes the high cost of maintenance, and the declining quality of user

experience. As a means to satisfy the recreational demand and minimize environmental impacts, the Ring the Peak (RtP) trail's development intends to accommodate those needs. The completion of RtP aims to combat concerns and ecological impacts of overcrowding on America's mountain and neighboring attractions. Moreover, the trail would elevate the profile of Pikes Peak by encouraging overall visitation, providing greater access to the region's natural assets, and promoting economic growth in the region.

Ring the Peak History

Surrounding the iconic Pikes Peak massif lies discontinuous segments of trails yet to be connected. Once the sections are joined, they will comprise the non-motorized trail proposed in the 1999 Pikes Peak Multi-Use Plan (PPMUP), where RtP was referred to as the "Perimeter Loop Trail" ("Pikes Peak Multi-Use Plan"). The finished product was envisioned to be a continuous recreational trail encircling Pikes Peak that would reduce foot traffic on the heavily used Barr Trail, address parking limitations, and improve accessibility for elderly and disabled community members. Since then, the name was changed to Ring the Peak, and 50 miles of the loop (80%) have already undergone planning and construction by Friends of the Peak (FOTP), a non-profit that exists for the purpose of "preserving, restoring, and appreciating Pikes Peak" (Susan Davies, personal communication 2017; "Donate to Friends of the Peak"; TOSC Request for Proposal). Most parts of RtP linked pre-existing United States Forest Service (USFS) trails and backcountry roads, but four sections were constructed by FOTP members (Carol Beckman, personal communication 2017).

The remaining 20% is composed of two gaps. One missing segment consists of a 5-mile stretch on the

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northeast side of the peak, between Manitou Springs and Chipita Park, known as the Ute Pass Regional Trail. The other gap is an 8-mile segment on the southwest side, from Pancake Rocks in Teller County to USFS Road 376 (“Ute Pass”). El Paso County has already approved the Ute Pass Regional Trail Master Plan, and the Colorado Springs Department of Transportation (CDOT) granted funds to the section that permits construction to proceed accordingly under the authority of El Paso County (“Ute Pass Regional Trail”). The trail development process is more contentious for the southwest segment that is still in the nascent stages of development, namely due to challenging natural hindrances and the conflicting values of a complex web of stakeholders.

Remaining Obstacles on Ring the Peak

Trails and Open Space Coalition (TOSC) and FOTP, both local non-profit advocacy groups, are in the process of developing a Trail Master Plan to fill in the missing sections. Their agenda includes identification of the least invasive trail alignment based on public input, and implementing a public outreach program to engage residents and governments. As recipients of a \$100,000 trail planning grant from Great Outdoors Colorado (GOCO), the City of Colorado Springs, in partnership with TOSC, hired the N.E.S. Inc. land consulting team to analyze potential trail alignments (Falcone 2017b; Stanley 2016). They will be responsible for identifying specific issues along the original proposed route to ensure the least ecologically and socially invasive development possible.

The trail’s completion is contingent on addressing several factors. There are sensitive wildlife habitats in the region, such as bighorn sheep areas, Game Management Unit 5B, and the Teller County Shooting Range that requires further discussion with the USFS biologists. The cities of Cripple Creek and Victor have requested for the trail to avoid watershed areas that could potentially contaminate their drinking water. Lastly, the trail traverses multiple categories of land ownership, notably 10-15 private land parcels, depending on the selected trail alignments. Negotiations will be conducted with the identified landowners for potential conservation easements (TOSC Request for Proposal).

Despite these physical impediments and unfavorable

federal environmental politics, RtP has received the support of Governor Hickenlooper, who has designated the trail as one of the 16 high-priority trails under the “16 in 2016” initiative. He proclaimed its importance by declaring, “Once Ring the Peak is done, it will be a national and ultimately an international destination” (Boster 2016).

Methods

RtP’s history and challenges to development were compared to those of six successful trail development case studies in the United States (**see Appendix I**). These trails were selected based on their successes in development and similarities to RtP’s circumstances. The trail case studies were collectively assessed to identify broad trends of preliminary constraints and the respective actions taken to address those constraints. The common themes from the other trail planning processes were divided into four elements. These strategies were applied accordingly to the ongoing RtP master planning process to guide the trail building process on the southwest segment.

Literature review sources include relevant non-profit trail advocacy groups’ websites, federal agencies’ websites, news articles, and books. In-person interviews, as well as written response interviews, were administered to non-profit trail advocacy directors, historians, land stewards, federal park rangers, and biologists. RtP stakeholders were consulted during N.E.S. meetings.

Through Geographic Information System (GIS) mapping tools, maps displaying pre-existing and proposed trail alignments of RtP, as well as fundamental constraints, were produced to illustrate the situation. These obstacles include bighorn sheep habitat and big game areas, shooting ranges, watersheds, and multiple jurisdictions.

Actors

The proposed RtP trail corridor encounters numerous properties and jurisdictions that are impacting development of the trail. Key stakeholders and their conflicting as well as shared interests have been identified to facilitate a collaborative approach to management. The TOSC Request for Proposal planned several stakeholder meetings to convene in the municipalities of interest to establish common ground.

Trails and Open Spaces (TOSC) is a non-profit advocacy group that preserves open space and parks, as well as creates a network of trails and pathways in the Pikes Peak Region. TOSC is initiating the planning process on the southwest side with a \$100,000 grant from **Great Outdoors Colorado (GOCO)**. GOCO, a trust fund supported by the Colorado Lottery, allots grants to preserve and enhance Colorado's parks, trails and wildlife ("About Us"). The organization awarded \$100,000 to TOSC in order to hire a project team and create a Master Plan for completing RtP's southwest side (TOSC).

Susan Davies, the Executive Director of TOSC, is facilitating stakeholder meetings and discussions in the municipalities surrounding the vicinity of the impending trail corridor. TOSC has partnered with **Friends of the Peak (FOTP)**, a non-profit trail advocacy group that has been involved in the development and maintenance of RtP since its inception, and continues to contribute to the southwest side's planning and development.

The **City of Cripple Creek** and **City of Victor** are both strongly opposed to proceeding with trail construction, with concerns stemming from the trail's potential detriment to their water supply system. The Cripple Creek municipal watershed contains two reservoirs that supply the city with drinking water, and are leased to the private Timberline Fishing Club (Volpe 2016). Similar to Cripple Creek's arrangement, Victor's Bison reservoir is leased to the private Gold Camp Fishing Club (Benzel 2015). The city officials are also not convinced of the economic benefits the project would yield, as there is a low possibility of hikers traveling 4 to 5 miles from RtP to either city (Susan Davies, personal communication 2017).

Another obstacle that the trail alignment should avoid is Colorado Springs Utilities' (CSU) South Slope Watershed Area. In response to the erosion from heavy use of the Pikes Peak Highway, CSU was one of the original contributors to RtP's conception in the 1999 Pikes Peak Multi-Use Plan ("South Slope"). Public access to the South Slope Trails is also restricted, a policy intended to protect the Rocky Mountain Bighorn Sheep Habitat, managed by **Colorado Parks and Wildlife (CPW)** ("Ring the Peak Trail"; TOSC Request for Proposal). CPW administers Colorado's state park system and wildlife areas, and owns

a portion of land where the trail may be located. CPW is also collaborating with TOSC, FOTP, and CSU to monitor the welfare of the sheep and analyze alternative routes that would minimize impacts to the population.

Bighorn sheep are not the only wildlife of concern, the **United States Forest Service (USFS)** has designated a significant area of the potential trail to Game Management Unit 5B for big game habitat (TOSC Request for Proposal). Approximately 50% of the proposed trail alignment crosses USFS lands, which is under the jurisdiction of the Pikes Peak Ranger District (Mike Rigney, personal communication, 2017). As a federal agency under the Department of Agriculture, the USFS administers the National Forests and grasslands. Its multi-use mandate includes managing public lands for recreation, sustained yields, and preservation ("What We Believe"). Since the foundation of RtP was realized from pre-existing USFS trails, the federal agency has been very supportive of the project. However, Brent Botts, a retired Pikes Peak District Ranger of the Forest Service acknowledges that unless the bighorn sheep population reaches a healthy level, there are limited options for the final trail development (Brent Botts, personal communication 2017).

The other federal land agency that administers a few isolated parcels of land along the proposed trail corridor is the **Bureau of Land Management (BLM)**, which is under the governance of the Department of Interior. Managing nearly 40% of the public lands in the U.S., its objective is to "sustain the health, diversity, and productivity of America's public lands" ("Our Mission").

The biggest remaining challenge is negotiating with the private landowners whose property the trail could potentially pass through. There are approximately 10-15 parcels of land on RtP that belong to individual property owners, and acquiring conservation easements necessitates building strong relationships between the property owner and RtP advocates.

Results

The six trail development case studies each feature key components that are critical to success. These elements include leadership, public engagement, funding, and conflicting interests.

Appalachian Trail (AT)

Leadership

Witnessing how industrial development in cities during the 1900s compromised the health and landscape of rural communities in Stratton, Vermont, Benton MacKaye envisioned a project that would preserve the natural scenery and protect its residents (Mittelfehldt 2013, 14). His proposal was published in the October 1921 issue of *Journal of the American Institute of Architects*, under the title “An Appalachian Trail: A Project in Regional Planning” (Dalbey 2002, 163). The article failed to mention explicit plans on accomplishing trail development; however, MacKaye acknowledged the power of combining centralized and decentralized power. By involving both government power and private citizens in public resource management, MacKaye believed the environmental protection and economic growth of the nation would be achieved (Mittelfehldt 2013, 15-17). Having held positions in the USFS and possessing connections with influential private groups, MacKaye’s large-scale vision for social well-being earned him the title as the “conceptual father” (Ibid., 23).

However, it was Myron Avery who actually established the trail’s existence, thereby earning the title of “physical father” (Ibid., 43). Avery and his colleagues formed the Potomac Appalachian Trail Club (PATC), which specialized in AT trail advocacy in the South (Ibid.). Serving as President of the PATC for thirteen years, he later became chairman of the Appalachian Trail Conference (ATC)¹ from 1931-1954. His approach to trail development was to first build the trail and then extensively promote it to the public (Ibid.). With this philosophy in mind, Avery set out to recruit influential organizations that were likely to publicize a pre-existing trail. By recruiting interest from other prominent organizations, Avery was able to obtain sponsorship for the establishment of several AT clubs dedicated to specific regions along the trail corridor (Ibid., 44).

Over the years, other AT project leaders have risen to prominence and played significant roles in trail development. Bob Proudman, currently Director of Conservation Operations for the ATC, has been responsible for coordinating land acquisition programs and leading trail-design workshops with volunteers since the 1970s (Mittelfehldt 2013, 123). Starting as a member of the Appalachian Mountain Club’s New Hampshire trail crew in 1965, he became the first Supervisor of Trails in 1972, overseeing the club-wide operations (“A Life of Dedication”). The guidance of Proudman and similar trail leaders has instilled vital knowledge and skills in future generations that have allowed for the continuation of the trail building process. The fact that the trail could be entirely managed by volunteers without external resources was an instrumental factor in its designation as the 1968 National Scenic Trail, rendering it part of the National Trails System² (Mittelfehldt 2013, 123). With this official legitimization of the trail, the number of thru-hikers, as well as general users, significantly escalated (see **Appendix III**).

Public Engagement

In accordance with the National Trails System Act, the Secretary of the Interior organized an Appalachian National Scenic Trail Advisory Council (AT Council) that the **National Park Service (NPS)**³ consulted with before making decisions regarding land acquisition (Ibid., 91). The group included representatives from the USFS, state governments, ATC and its corresponding clubs, as well as owners of private properties that the trail could potentially traverse (Ibid., 92). The establishment of the AT Council mitigated fear over stronger federal involvement, since the heightened presence of government power could jeopardize the positive relations the volunteers had developed with the private landowners.

Volunteers of the ATC were responsible for scouting new routes, as well as mediating and negotiating land transactions. Approaching the landowners as a member of

¹ The Appalachian Trail Conference (ATC) is a non-profit volunteer-based organization that oversaw the individual AT clubs in the development and management of the trail (Mittelfehldt 2013, 35). The organization changed its name to the AT Conservancy in 2005 to focus more on land conservation and community development (Ibid.,187).

² National Trails System is a network of trails created by the National Trails System Act of 1968, which established three different types of trails: National Scenic Trails, National Recreation Trails, and Connecting and Side Trails. The AT and Pacific Crest Trail were the first two National Scenic Trails (The National Trails System Act, 16 U.S.C. § 1241 (1968)).

³ NPS is a federal agency that preserves the ecological and historical qualities of National Parks, National Monuments, as well as conservation and historical properties, including the AT (Mittelfehldt 2013, 86).

the community avoided potential distrust that could arise during land negotiations between private property owners and government officials due to differences in perceived status (Mittelfehldt 2013, 133)

One instance of a citizen volunteer overseeing the process of land acquisition includes the notable individual, Elizabeth Levers. A former experienced AT volunteer and state AT coordinator of New York, Levers committed her time to the negotiations with landowners. (Ibid., 132) Collaborating with local actors, Levers would identify property suitable for relocations and negotiate private property jointly with NPS representatives (Ibid.). Since she gave the impression of a resident and possessed considerable knowledge of the homeowners' situations, the homeowners granted her access to their properties more willingly.

In addition to the volunteers' ability to convey their concern for the homeowners' best interests, they were essential to the trail's construction. For instance, over 4,500 volunteers contributed 185,000 hours of physical labor annually (Proudman et al. 2000). Even the nation's top executive leaders supported the cause during the 1998 Earth Day, in which President Bill Clinton and Vice President Al Gore assisted AT volunteers in Harpers Ferry to build a rock wall (Mittelfehldt 2013, 182).

Once the trail alignments were determined, the ATC undertook trail promotion by sponsoring training workshops and publishing user-friendly manuals to educate volunteers on technical trail building. Citizen volunteers like Proudman and Bill Birchard authored the ATC's *Appalachian Trail Design, Construction and Maintenance* (Proudman et al. 2000).

Conflicting Interests

Before the AT's National Scenic Trails designation that led to the federal recognition of the project, AT advocates relied on oral handshake agreements⁴ during the early construction of the footpath from Georgia to

Maine (Mittelfehldt 2013, 124). This form of "voluntary federalism" established a decentralized organization structure, enabling private citizens and local AT-affiliated clubs to fulfill the trail building objectives (Ibid.)

However, in an era where real estate is at a premium due to competition between development of industrial and recreational zones, gaining the government's support was necessary to facilitate wilderness protection (Mittelfehldt 2013, 92). After the AT's National Scenic Trails designation in 1968, protective measures for the trail's expansion were not immediately taken; it wasn't until the amendment in 1978 that expanded the NPS' leadership and land acquisition roles. This amendment is notable for granting the NPS legalized condemnation authority.⁵ Despite the AT primarily crossing private property, only 3% of the 2,200 mile trail was acquired through condemnation authority, since that approach instilled an unfavorable impression of the AT (Mittelfehldt 2013, 123; Laurie Potteiger, personal communication 2017). When selecting the route of trail corridor, a more flexible approach was implemented to adapt to the landowners' preferences. The center-line survey⁶ displayed the locations and contacts of various property owners within a given segment. When potential sellers were unwilling to cooperate, the proposed trail corridor could be shifted to an adjacent land parcel that belonged to willing sellers.

Most of the private parcels were embedded into the National Park System, known as inholdings (Mittelfehldt 2013, 124). Acquiring these inholdings proved to be one of the biggest challenges, ones which were most commonly overcome by fee simple land acquisition.⁷ In order to evoke a more positive image, the ATC partners presented several acquisition options to the property owners, such as conservation easements that include right-of-way easements and scenic easements, land exchanges, and tax-deductible donations (Ibid., 129).⁸

A problem associated with easements was the hidden costs in managing and enforcing compliance with the

⁴ Handshake agreements generally describe verbal arrangements with private landowners to gain access to private property for trail use (Mittelfehldt 2013).

⁵ Condemnation authority permits the government to exercise eminent domain by forcibly taking private property from uncooperative landowners (Ibid.).

⁶ The first mapping of the AT was through the center-line survey, which located the center of the existing trail to see adjacent land parcels of smaller segments.

⁷ Fee simple acquisition involves a government agency purchasing the full deed to a property and transferring all rights associated with the parcel, which is the most complete ownership possible (Ibid.).

easement. In the case of the Blue Ridge Parkway, the landowner had violated the scenic easement by constructing buildings and cutting trees (Ibid., 129). The costs associated with litigation and scenic damage would have surpassed the property's fee-simple price. Despite the potential risks of easements, they were still crucial to the land acquisition process. Landowners were more likely to accept these legal agreements, since easements could be tailored to an individual property, and the contracts used were penned with intentionally vague language to accommodate evolving conditions (Ibid., 129-130).

In 1982, shrinking federal budgets for land acquisition catalyzed the private

Figure 1: AT at McAfee's Private Property



The views from McAfee Knob are so impressive that the Appalachian Trail was relocated from North Mountain to Catawba Mountain in Virginia. This effort required years of negotiation with private property owners along the route, and is still an ongoing process. Source: Tree Tiemeyer

Figure 2: McAfee's Knob



McAfee's Knob is considered to be the most photographed site along the AT. The view provides a panorama of the Catawba Valley, with North Mountain to the west, Tinker Cliffs to the north and the Roanoke Valley to the east. Source: Shutterbug's Adventures

sector's involvement with the creation of the Trust for Appalachian Trail Lands, a land trust program nested within the ATC. At this time, private entities engaged more actively in collaboration with local conservation organizations (Mittelfehldt 2013, 165). Instead of relying on tenuous federal budgets and the inefficiency of government, private entities that consist of the ATC's land trust program and area-specific local land trusts, such as the Upper Valley Land Trust in Vermont and New Hampshire, provided more flexibility in negotiating with landowners (Ibid., 168). If a landowner was unwilling to accept NPS' offer of appraised fair market value of property, the agency could turn to land trust to negotiate with the landowner and pay the difference. Once the trust acquired that property, it would be transferred to the NPS and protected under federal ownership.

Currently, the AT is 99% within federal public lands, but is still pursuing a completely public trail corridor (Laurie Potteiger, personal communication 2017). Approximately 38-40% of land is under USFS jurisdiction, 35-40% under NPS, and the remaining sections belong to different states and local entities (Ibid.). The Trust for Appalachian Trail Lands dedicates approximately

⁸ Conservation easements are a perpetual, a legally-binding agreement between the private landowner and trail organization that protects the land's associated values by restricting development, regardless of ownership changes (Mittelfehldt 2013, 128; Hill 2013). Right-of-way easements permit hikers to cross the trail corridor through a property and scenic easements protect the aesthetic and environmental qualities of a broader area (Mittelfehldt 2013, 129).

12% of its budget to land acquisition and has pursued multiple types of property holdings, including fee simple acquisitions, conservation easements, and ingress egress⁹ easements (Ibid.).

Funding

The 1978 amendment to the National Trails System Act established a more proactive land acquisition framework for trails that achieved National Scenic Trail status. In order to fulfill the National Trails System Act's objectives, the 1978 amendment allotted the necessary funds to purchase property for the trail corridor's relocation near civilization or lands threatened by private development (Mittelfehldt 2013, 124). While Congress appropriated approximately \$90 million to acquire the trail corridor in 1978, the timeline for funding was limited to a three-year disbursement period (Ibid., 123). During the allotted time, the NPS had to transform 825 miles of private ownership into protected federal land (Ibid., 124). By the end of the 20th century, Congress authorized another \$15.8 million to acquire the remaining land. The Land and Water Conservation Fund (LWCF) also served as a financial resource to supplement the AT's trail corridor acquisition (Ibid.).¹⁰

Pacific Crest Trail (PCT)

Leadership

Several people have been credited with the origins of the PCT, but Clinton C. Clarke is considered as the "Father of the PCT" (Larabee 2016, 13). At the time of the PCT's conception, Clarke was serving as chairman of the Executive Committee of the Mountain League of Los Angeles (Schaffer et al. 1982). He envisioned the trail to be a continuous wilderness trail across the U.S, "traversing the best scenic areas and maintaining an absolute wilderness character," from Canada to Mexico (Schaffer et al. 1982, 2).

The PCT's formation was made more feasible through the linkage of the following existing trails: the John Muir Trail and the Tahoe-Yosemite Trail in California; the Skyline Trail in Oregon; and the Cascade Crest Trail in Washington.

Initiating the PCT's development, Clarke established the Pacific Crest Trail System Conference (PCTSC)¹¹ that would include representatives from California, Washington and Oregon. In his 25 years as President of the PCTSC, he relentlessly sent letters and maps to the USFS and NPS to receive the support of either federal agency for the trail. Among all his undertakings, it was Clarke's YMCA PCT Relay idea that cemented the PCT's existence (Larabee 2016, 13).

Under the guidance of Warren Rogers, the YMCA Secretary, as well as PCTSC Executive Secretary from 1932-1937, the Relays were carried out during the summer months of 1935-38 (Schaffer et al. 1982, 2). Roger's continued dedication to the PCT focused primarily on personally publicizing the project instead of seeking advertisers to fund his promotion efforts. As a result, he sustained overwhelming financial burdens and the accumulation of significant debt (Larabee 2016, 53).

Public Engagement

One of the most iconic events that successfully promoted the PCT and contributed significantly to its ultimate 1968 National Scenic Trail designation was the YMCA PCT Relay (Mann 2011). Forty teams of YMCA backpacking youths started from different positions and passed down one logbook¹² from one team to the next to complete a continuous Canada to Mexico trek (Ibid.) The relays mapped 2,300 miles of the proposed trail, proving that the route was indeed "passable, continuous, and existing," and that its completion would be all the more achievable (Larabee 2016, 35).

⁹ Ingress egress easements ensure the right of entry and exit (Carlen Emanuel, personal communication 2017).

¹⁰ LWCF is a national land trust established in 1965 to fund the protection of various parks, forests, wildlife refuges, public lands and other community spaces, without expending any tax dollars (Mittelfehldt 2013, 90). The program relies on earnings from offshore oil and gas leasing and has maintained bipartisan support in Congress (Wargo 2017).

¹¹ The PCTSC linked the local PCT advocacy clubs from regions that the PCT traversed. This federation later became the PCT Conference in 1977, and is currently known as the PCT Association (PCTA). The change reflects the structure of the new group as an individual membership organization, rather than a federation of outdoor clubs ("Pacific Crest Trail History").

¹² A leather-bound journal carried during the YMCA Relays, the logbook recruited boy scouts to track and evaluate the PCT route on the logbook. The 40 teams hailed from 28 YMCA's and each team was designated a starting location from which each team would carry the logbook for 50 miles, then pass it onto the next team (Larabee 2016, 35).

In 1965, the USFS held a series of meetings concerning the PCT route involving the USFS, NPS, California State Division of Parks and Beaches, and other government entities with jurisdiction over the proposed trail areas (Schaffer et al. 1982, 2). These meetings produced drafted maps of the trail alignment. After the PCT's 1968 National Scenic Trail designation, Congress' National Trails System Act created a Citizens Advisory Council, which used the draft from the 1965 USFS meetings to finalize the PCT route. The Council would also establish standards for the physical trail, route markers, and trail policies (Ibid.). The USFS later applied the citizens' decisions and adopted the route in the Federal Register on January 30, 1973 (Ibid., 3). Having public input enabled a trail that appealed to a wider audience based on scenery, cross country routes, and steepness.

Clarke's 1935 *Pacific Crest Trail Guidebook* briefly provided an overview of a rough outline of the PCT. Since 1973, PCT guidebooks saturated the market, with Thomas Winnett and Jeff Schaffer initiating the PCT guidebook series. The most notable works were the 1973 *Pacific Crest Trail - Volume I: California* and *Pacific Crest*

Figure 3: PCT Volunteers



The Dark Meadow Trail on the Pacific Crest Trail is a popular loop that has suffered drainage issues. The Back Country Horsemen of Washington and the Pacific Crest Trail Association volunteers resolve the problem by constructing a turnpike to elevate the trail tread out of a wet area. Source: Deb Wesselius

Trail - Volume 2: Oregon and Washington. A later edition of the latter was recognized with the National Outdoor Book Award in 2008 (Larabee 2016, 35). After the release of these initial guidebooks, *National Geographic* published another bestseller in 1975, titled *The Pacific Crest Trail* (Larabee 2016, 37). As the PCT Association (PCTA)¹¹ encountered financial struggles later on, the organization still managed to produce the *Communicator*, a magazine promoting the PCT between 1995-2001 (Larabee 2016, 143). Maintaining this publication played a crucial role in generating continued interest in the PCT, enabling subsequent monetary support.

After the finalization of the preliminary trail, Eric Ryback captured the attention of the recreation community as the first person to thru-hike the PCT on October 16, 1970 at the age of 18 (Larabee 2016, 67). Ryback immediately received a congratulatory telegram from Edward P. Cliff, Chief of the USFS, and was featured on the cover of the nationally distributed *San Diego Union*. A year later, he published a book that recounted his journey, *The High Adventure of Eric Ryback*, which became a bestseller with more than 300,000 copies sold. Controversy ensued in 1972 over the fact that he did not walk the entire trail as claimed, but had accepted rides for some portions of the route (Larabee 2016, 69). The lawsuit that culminated from the dispute further promoted the recognition of the trail. Despite the controversy, it is still widely accepted that the 130-pound, 18-year old hiked most of a 2,000 mile trail without a guidebook or detailed map. The Kelty backpack that he used, decorated with U.S., Canada and Mexico flags, became symbolic of the trail and inspired other stewards' involvement in the PCT (Schaffer 1982, 4; Larabee 2016, 69).

To mark the trail's official completion in 1993, the "Golden Spike" ceremony was held in the Angeles National Forest in southern California (Larabee 2016, 38). After the ceremony, the PCT experienced a substantial increase trail completions (**see Appendix III**).

These programs and trail leaders from the PCTA inspired more people to join the PCT community. In 1995, the PCTA was an all-volunteer operation, often requiring donations from the volunteers themselves to sustain the group's activities (Ibid., 143). When the organization was

on the verge of dissolving, PCTA President Alan Young asked each board member to contribute \$1000. Unable to afford the amount, Lee Terlesen offered his journalism skills instead, by taking over the PCTA's monthly publication, the *Communicator* (Larabee 2016).

Funding

The LWCF has served as the primary organization that appropriated funds for the PCTA to finance the trail's operations. PCTA also collaborated with land trusts at all scales; at the national level, this includes the Pacific Forest Trust and The Nature Conservancy, and at the local scale is the Southern Oregon Conservancy. Several land trusts have committed to land acquisition and conservation easements on a specific portion of the trail. Private fundraising that contributed towards federal land acquisition include the M.J. Murdock Charitable Trust and the Doris Duke Charitable Foundation (Ian Nelson, personal communication 2017).

Conflicting Interests

The PCT traverses predominantly on USFS-managed land, which constitutes 69% of the trail (Beth Boyst, personal communication 2017). Additionally, the trail is composed of 12% BLM, 19% NPS, as well as state and private land (Ibid.). When the PCTA partnered with the USFS, the non-profit organization didn't have official regional representatives to negotiate with the USFS in terms of projects and funding. It relied on volunteers to individually meet with each of the forest districts (Larabee 2016, 123). Despite the PCTA declaring the trail as completed in 1993, approximately 10% of the land is not under federal protection (Ian Nelson, personal communication 2017).

In terms of attaining right-of-ways across private property, the PCTA has held its own easements, as well as collaborated with the aforementioned land trusts and federal agencies. The effectiveness of the partnership between private and public entities is evident in the case of the BLM-managed Cascade Siskiyou Monument. In

response to the protection of a one-mile segment of the PCT route that passed through this monument, the PCTA collaborated with the Pacific Forest Trust and BLM (Ian Nelson, personal communication 2017; "More Pacific Crest Trail Conserved" 2017). The trail was embedded in the 300-acre Montcrest Working Forest owned by the Parsons family, which the Pacific Forest Trust bought and held onto until the BLM became financially capable of purchasing it in 2017. Transferring the property to the BLM enabled this portion of the PCT to become a permanent, protected feature of the Monument (Ibid.).

Colorado Trail (CT)

Leadership

In 1948, the Roundup Riders of the Rockies (RRR), a group of men with diverse occupations traveled through the Rocky Mountains on horseback (Lucas 2004). They described the beauty of the experience to Bill Lucas, expressing their desire to make the area more accessible to the public. Twenty-five years later, Lucas, the USFS Forester of the Rocky Mountain Region, met with the Colorado Mountain Club (CMC),¹³ where he learned of a similar interest in the "Rocky Mountain Trail" to mitigate overuse on wilderness areas (Ibid.). Attributing these two groups as inspiration for the project that became officially known as the Colorado Trail in 1974, Lucas began undertaking the design and funding of the trail. The process was initially expedited by the CT's designation as a Bi-Centennial trail in 1976 to honor the nation's 200th anniversary (Faison 2017).

Since the proposal for the CT utilized mostly existing trail that connected the major tourist centers from Denver to Durango, only 61 miles of new trail was required (Quillen, 1984). This information, along with ample funding from the Gates Foundation, professional support from the USFS, and trail oversight from the Colorado Mountain Trails Foundation (CMTF),¹⁴ the trail's completion seemed imminent. However, conflict among the CMTF's board members and the USFS' shrinking budget hindered progress, and interest in completing the

¹³ CMC is a non-profit organization dedicated to recreation, conservation and education. One of its functions is to arrange for volunteers to maintain USFS land (Quillen 1984).

¹⁴ CMTF is a non-profit trail advocacy group responsible for the planning, development and management of the CT. It served as the predecessor of the Colorado Trail Foundation (CTF) that was established in 1987 (Ibid.; Colorado Trail Foundation 2016).

project dwindled. It was Gudy Gaskill, chairperson of the CMC's Huts and Trails Committee, who was able to rectify the situation. For this effort, she is aptly named by recreationists as the "Mother of the Colorado Trail" (Ibid.)

Gaskill made the trail a priority for the CMC, organizing volunteer trips to the trail from 1984-1987. One year, she sent 32 trail crews to connect the remaining sections, ensuring weekly visits to each group and acquiring food from wholesale companies for them ("Gudy Gaskill"). Due to her tireless effort, she was able to witness the "golden spike" ceremonies on September 4, 1987, commemorating the completion of the CT. Once the trail was completed, its popularity was evident based on the sharp increase in trail completions (see **Appendix III**). The Colorado Trail Foundation (CTF)¹⁴ was also established the same year, appointing Gaskill as the first President (Ibid.).

Both Lucas and Gaskill's dedication and influential connections provided significant monetary and promotional assets to facilitate the formation of the CMTF (Lucas 2004).

Public Engagement

USFS engineers first marked the 11 USFS districts, linking early trails to existing mining and logging roads. Inquiries were sent to each district to permit construction of the trail (Colorado Trail Foundation 2017). Volunteers included incarcerated individuals from the nearby Buena Vista Correctional Facility who were grateful to be outdoors in return for performing some initial trail clearing with chainsaws (Quillen 1984). As for the actual trail-shaping work, the CMC arranged for volunteers to work on National Forests (Ibid.). Conflicting estimates exist for the trail building costs; the cost using USFS crews in the 1970's varied from \$8,000 to \$25,000 per mile depending on the source (Along the Colorado Trail 1992; Colorado Trail Foundation 2017). Ultimately, the volunteers achieved the same objectives at a rate of \$500 per mile (Fielder 1992). The trail continues to rely on volunteers, with over 800 volunteers offering their labor in 2008, saving the CTF over \$400,000 in labor costs (Colorado Trail Foundation 2008).

Notable volunteers have undertaken educational initiatives by publishing guides that assist trail crews. Ray Adolphson's pamphlet, "A Guide for Mountain Trail

Development," and Bill Rufsynder's booklet, "Guide to Mountain Hut Development" have been distributed not only to volunteers of the CT, but also to other states and countries (Lucas 2004).

Students from educational institutions led by professors have also participated in the volunteer effort. For instance, Dr. Hugh Ferehau of Western State University performed research with 20 volunteer students on trails from Taylor Reservoir through the La Garita Wilderness. He subsequently organized and developed the studies into a proposed guide for public use. In addition, some 15 students participated in a monitoring program on winter trails in the Taylor River and Creede areas (Ibid.).

During the early stages of development, several print and media sources have promoted the inception of the trail. Merrill Hastings of the *Colorado Magazine*, an acquaintance of Lucas, was responsible for featuring the proposal for the CT in David Sumner's article, "The Colorado Trail Takes Shape" (Sumner 1974). Al Flannagan of Channel 9 TV accepted the CTF's request to air an appeal for volunteers to work on the CT (Lucas 2004). This broadcast inspired volunteers to participate beyond just the CT cause, but in trail building across the nation (Ibid.). In addition to outside sources, the CTF published its own promotional material with the publication of guidebooks and handbooks. The guidebook, *The Colorado Trail* is currently in its ninth edition (Ibid.).

Gaskill's strenuous effort convinced prominent figures to support the CT cause. Governor Richard Lamm and his wife, Dottie Lamm, have actively participated in the trail crew, hosted fundraisers, and mediated support between the state and USFS. Project Mercury astronaut Scott Carpenter has also highlighted trail development efforts by volunteering to help build sections of the trail (Brown 1994, 271).

Gaskill's dedication also led to her being a recipient several honorary awards. She has been recognized with the GOCO service award; commended by President Ronald Reagan with the Take Pride in America Campaign Award, and honored by President Bush through the Points of Light Program ("Gudy Gaskill"). Her numerous appearances in the media made her one of the most memorable and remarkable women in Colorado, leading

to her induction into Colorado Women's Hall of Fame in 2002 (Colorado Trail Foundation 2016).

Some of Gaskill's trail planning efforts include leading volunteer crews who contributed a registration fee of \$25 in the mid-1980's to work as trail builders for a week. During these trips, accommodations such as food and camp facilities were included in the cost (Marston 1986).

Funding

The CTF has also been honored with generous contributions from private donations (Colorado Trail Foundation 2017). In honor of the CT's status as a Bi-Centennial project, the CTF received pledges of \$122,000 and \$5,000 from the Colorado Centennial-Bicentennial Commission (Lucas 2004). The prominent Gates Foundation has also contributed donations of \$100,000 (Quillen 1984).

There have also been three decades of paid, week-long supported treks throughout the building process, a kind of "backcountry glamping" in which Colorado Trail crews bring the campers' gear to the campsite and cook gourmet meals (Colorado Trail Foundation 2016). The considerable trip fees supplement the cost of sustaining the CT's operations (Ibid.).

Conflicting Interests

Development of the CT required crossing multiple jurisdictions, including Denver Water, Colorado Division of Wildlife, Pueblo Water, private property, and several USFS Districts (Bill Manning, personal communication 2017). Despite the CMTF and USFS' cooperative agreement in 1976 to jointly establish communication strategies, financial resources, and time commitments, the CMTF members coordinated individual arrangements with each management entity (Lucas 2004; Bill Manning, personal communication 2017). They would visit each ranger district separately to select prioritized projects and establish a budget in order to create a more coherent line of communication.

The advocacy group primarily depended on the USFS for negotiating and holding easements. None of the easements were purchased; the CTF relied on charitable easement donations. An issue that arises from purchasing

one easement is the potential for increased prices of future easement transactions (Bill Manning, personal communication 2017).

Portions of the CT that traverse through protected areas include Waterton Canyon and Hermosa Inventoried Roadless Area. Waterton Canyon serves as the CT's Denver terminus and is located 6.5 miles above the Strontia Springs Reservoir, which stores up to 80% of Denver's drinking water (TAP Staff 2017). Due to the development restrictions in the area, the CT utilized a pre-existing gravel service road leading from the Reservoir to the mouth of Waterton Canyon (Bill Manning, personal communication 2017). This portion also overlaps with the Waterton Canyon Trail administered by Denver Water.

At the time, the newly instated National Environmental Policy Act (NEPA) did not yet pertain to trails (Ibid.). Thus, the potential for adverse impacts to bighorn sheep were not considered at the time this portion was connected to the CT. While the trail alignment is not located near any critical areas for bighorn sheep, they have been frequently spotted in the area (Shannon Schaller, personal communication 2017). In order to protect the bighorn sheep population, the road is closed off to dogs and all motorized use except for administrative operations by Denver Water vehicles to access the Strontia Springs Dam. In addition to these measures, wildlife ambassadors

Figure 4: Colorado Trail at Waterton Canyon



A group of bighorn sheep examining a bike on the Colorado Trail's Waterton Canyon gravel road. Source: Rick Pawela

from CPW have been educating the visitors on wildlife etiquette to mitigate the loss of habitat from human disturbance (“New wildlife ambassadors” 2017).

The Hermosa Wilderness Designation in 2008 rendered a portion of the Hermosa Inventoried Roadless Area to be included in the National Wilderness Preservation System.¹⁵ The legislation threatened the trail’s permitted uses on approximately 21 miles of the trail, notably in activities like mountain biking. The CTF worked closely with the USFS to appeal to both the recreationists’ and preservationists’ interests. Recognizing the overlapping designations between the National Conservation Area and National Protection Area, the CTF recommended a larger preservation area under a specific type of protection tailored to the ecological and user values. This would permit mountain bike travel on the CT, but limit the nearby wilderness area to footpath and equestrian only (Colorado Trail Foundation 2008).

Manitou Incline (Incline)

Leadership

Once a former railroad line above Manitou Springs, the Incline’s deteriorating conditions prevented it from being a profitable attraction (“Timeline: Incline history winds through a century”). After the train closed, elite athletes like Matt Carpenter, an established runner, played an integral role in the transformation of rail to trail (Ibid.). Since founding the Incline Club in 1977, Carpenter and the Club’s members used the Incline for training sessions (Ibid.). Despite signage prohibiting trespassing in 1999, runners continued to use the route; however in 2000, the Incline Club discontinued their use of the Incline out of deference (Swab 2015). However, the Incline’s popularity spread, and in 2004, a group of runners began negotiations with the Cog Railway, USFS and local officials to legalize the trail (Ibid.).

Public Engagement

Through social media promotions and the formation of several Incline clubs, the defunct railroad alignment captured national attention. The first publication to include the Incline was the 2006 guidebook, “Best Loop Hikes: Colorado”(Rappold 2012). Later publications, such as *Sports*

Figure 5: Manitou Incline “Incliners”



Brothers Fred and Ed Baxter install new steps along the Manitou Incline in 2005, before the trail was legalized. These “Incliners” have organized clandestine workdays to repair the former railway since the early 2000s. Source: Christina Murdock

Illustrated and *The New York Times*, featured the Incline as the ultimate training ground for Olympic athletes like speed skater Apollo Ohno (Swab 2015, 79).

On January 14, 2010, the Manitou Incline Task Force convened to discuss the possibility of legalizing the Incline for recreational use. The Task Force was comprised of representatives from the alignment’s three owners as well as staff members from the cities of Colorado Springs and Manitou Springs, and other stakeholders. A year later, the group’s objectives were published in the *Manitou Incline Site Development and Management Plan*, which outlined the process to open and develop the railroad. As part of the Plan, the Incline Friends group was formed to oversee public outreach, advocacy and education programs (Ibid., 80). It has assisted with volunteer projects and identified funding for improvements.

Before the trail was legally opened to the public, the railway’s restoration efforts were attributed to its dedicated users. “Incliners” like Fred Baxter hiked up the trail equipped with expensive tools (Boster 2017).

¹⁵ In accordance to the Wilderness Act of 1964, a site that is designated as a Wilderness Area to protect its natural qualities becomes part of the National Wilderness Preservation System (The Wilderness Act, 16 U.S.C. § 1131 (1964)).

These self-appointed volunteers were responsible for repairs to the trail's upper stretch, which was subjected to significant damage. When the trail was officially legalized, Timberland Construction assessed the damage and identified that, despite the substantial amount of detriment inflicted to the trail, the Incliners had mitigated much of its degradation (Ibid.).

Saturday workday sessions were organized by the Incline Friends group, REI, FOTP and TOSC. In eight hours, 50 volunteers cleared the waste and debris in the heavily used areas of the Barr Trail,¹⁶ undertook efforts to discourage hillside use by erecting a split-rail fence, and posted signage (Rosenberry 2012).

Funding

In December of 2009, a \$70,500 grant from GOCO and \$25,000 from Lyda Hill Foundation were awarded to the City of Colorado Springs to initiate a management plan for the Incline ("Timeline: Incline history winds through a century"). The repair and maintenance efforts totaling \$2 million, were funded by GOCO, CPW's State Trails Grant and Federal Emergency Management Administration (FEMA) (Swab 2015, 82).

Conflicting Interests

The Incline passes through property owned by the Manitou and Pikes Peak Cog Railway (Cog Railway), the USFS, and CSU (Swab 2015, 79). Transferring land to public ownership was achieved through a series of property exchanges. In 2008, Colorado Springs City Councilman and Incline user Scott Hente facilitated one such property swap. The Cog Railway, which owns the bottom portion of the Incline, arranged an easement with CSU to use its parking lot on the upper end of Ruxton Avenue in exchange for an

easement on the Incline ("Timeline: Incline history winds through a century").

In 2016, Colorado Springs traded The Broadmoor over 180-acres of Strawberry Fields and a half-acre of parking space near the Cog Railway after a public access agreement between The Broadmoor and El Paso County expired in 2012 for The Broadmoor-owned section of the Barr Trail (Zubeck 2016). In return, the Broadmoor gave 155 acres of Ruxton Canyon, which includes segments of the Incline and the Barr Trail (Paul 2016). Meanwhile, there is still an existing agreement between Colorado Springs and The Broadmoor on this portion of the Incline that offers access to the public. However, this arrangement would enable the private sections of the Barr Trail and the Incline to become public property ("Barr Trail & Manitou Incline").

10th Mountain Division Huts Trail

Leadership

While hiking and skiing in the backcountry in the early 1980s, Frederic A. Benedict conceived the idea to construct a system of trails connecting huts between Aspen to Vail (Demas 2015). Having written a university thesis on "A Trail System for Southwestern Wisconsin," trail planning had always a subject of interest to him (Benedict 2018). He felt the two selected destinations were logical because Vail was considered to be the "offspring" of Aspen. Benedict, along with several associates, established

Figure 6: 10th Mountain Huts and Trails



Two backcountry skiers approach the Fowler-Hillard Hut, a backcountry hut owned and operated by the 10th Mountain Division Hut Association. Source: 10th Mountain Division Hut Association.

¹⁶ Barr Trail is the most commonly used path to reach the summit of Pikes Peak. It also serves as route to descend from the summit of the Incline.

the 10th Mountain Trail Association (TMTA),¹⁷ launching the hut concept into reality (Ibid.). Today, the TMTA is known as the 10th Mountain Division Hut Association (10MD) (Ben Dodge, personal communication 2017).

While the USFS initially feared disinterest in using the hut system, Robert McNamara, one of the TMTA members, was able to convince the agency otherwise. In 1980, the USFS agreed to lease two of its hut sites (Benedict 1982). Throughout the process, Benedict donated not only his time, but also personal assets, from his truck to his money (Benedict 2018). His sacrifice and dedication contributed to the completion of two of the huts in 1982, which presently amounts to 12 huts owned by 10MD¹⁷ (Ibid.).

Public Engagement

During the initial period of the trail and hut building venture, minimal effort was undertaken by the TMTA to publicize the system (Ben Dodge, personal communication 2017). The USFS was primarily responsible for recruiting volunteers from the community (Ibid.).

Besides the TMTA members, GOCO, USFS, and other local groups have joined the volunteer effort. They designed the routes, built huts, and connected trails. One of the primary facilitators of the hut business was Elizabeth Holecamp Boyles, who volunteered for Benedict as a planner. She donated time on weekends to work on the trail and hiked the Appalachian Mountain Club huts on her vacation for inspiration.

Currently, the 10MD's volunteer program provides a more desirable incentive than most trail systems. For each day's work, the volunteer receives a free hut night. The labor entails processing wood, trail work, re-vegetation, and refurbishing huts ("Volunteer Work Dates & Information").

Funding

Contributions have mainly been sourced from private benefactors, such as the TMTA Board Members who have made personal donations (Benedict 2018). The Robert McNamara family and Dr. Ben Eiseman raised

money for the first two huts. Construction of subsequent individual huts, like the 10th Mountain Division Hut, was funded by the following TMTA veterans: Bill Boddington, Colonel Pete Peterson, Bill Bowerman and Maury Kuper. The Gates Foundation also provided a \$100,000 grant. Funding to supply water to the huts was granted by the Coors Foundation (Ibid.).

As a way to encourage larger donations, the 10MD offers name-recognition for gifts larger than \$5,000, which can come in the form of any asset, including cash, stock, real property, and in-kind gifts ("Other Gift Opportunities"). Each type of gift is designated to a specific need, which accommodates the donors' personal interests.

Conflicting Interests

The 350 miles of trail passes through both USFS managed land and private property (Ben Dodge, personal communication 2017). The TMTA collaborated with the USFS personnel for route planning and reconnaissance of pre-existing USFS trails (Benedict 2018). The trail alignments were determined by the TMTA through skiing and hiking of existing routes (Ibid.). Each time a TMTA hut or privately built hut joins the system, additional trail segments are cleared to connect the existing USFS trail to the trailhead (Ben Dodge, personal communication 2017). The effort transferred to the trail construction process was relatively minor, such as cutting dead trees, pruning branches, and removing vegetation from the area (Ibid.).

The TMTA has secured its own easements through unconventional approaches (Ibid.). These unique strategies were implemented in the realignment of the trail extending from Buckeye Gulch Trailhead to Sangree's Hut. When TMTA purchased this hut and 140 acres of surrounding private land in 2004, they planned on relocating a section of the trail onto an adjacent parcel of private land. TMTA traded a 30' yurt for a permanent easement across one of the nearby properties, while a woodstove, solar panels, and solar batteries were traded for a temporary, 10-year easement on another land parcel (Ben Dodge, personal communication 2017).

¹⁷ 10th Mountain Trail Association (TMTA) was the former name of the non-profit organization dedicated to the development of the 10th Mountain huts system. It was later changed to 10th Mountain Division Huts Association (10MD) in response to an issue involving the trail use and liability with the TMTA's operating plan (Ben Dodge, personal communication 2017). 10MD manages a system of 34 huts, 12 of which it owns outright (Ibid.).

Tahoe Rim Trail (TRT)

Leadership

In 1977, USFS Recreation Officer Glen Hampton was newly transferred to the Lake Tahoe Basin, which gave him the opportunity to explore the trails and scenery in the area (“Happy Trails Glenn!”). Hampton recognized that over 50% of the route connecting the surrounding peaks of Lake Tahoe was already on pre-existing trail. As a result, he became inspired to propose a loop trail overseeing the breathtaking views of the highest and largest alpine lake in North America (Foldstadt 1984).

The undertaking of the TRT officially began in 1980, when Hampton was enrolled in a mandatory eight-week graduate course in Outdoor Recreation Management for USFS employees (“Happy Trails Glenn!”). Singlehandedly tasked with route planning and funding procurement of the proposed trail system, Hampton persisted in carrying out the initial endeavors. Support from Bill Morgan, the head of the Lake Tahoe Basin Management Unit (LTBMU) galvanized Hampton to achieve approval from the USFS. Due to the shrinking federal budget for natural preservation in the 1980s, Hampton devoted himself to researching foundations and non-profit agencies that would financially contribute to the Tahoe Rim Trail Fund (TRTF) (Ibid.).¹⁸ Even after Hampton moved to the East Coast following his retirement from the USFS, he returned to the TRT to deliver the keynote address when the trail was completed in 2001. Thereafter, Hampton continued to correspond with the Tahoe Rim Trail Association (TRTA),¹⁸ providing insight into the trail’s history and progress (Ibid.).

Public Engagement

Development of the TRT can be attributed to an entirely volunteer-based effort. From the trail’s design to its ultimate construction, the earliest volunteers consisted of the Boy Scouts from Nevada and California

Figure 7: Tahoe Rim Trail



Hikers oversee the Lake Tahoe Basin’s scenic views that the Tahoe Rim Trail encircles.
Source: Erin Saver

camping and working under the supervision of USFS personnel (Foldstadt 1984). Over the years, the TRTA has organized volunteer and maintenance workdays that sent over 10,000 volunteers contributing over 200,000 hours (“Happy Trails Glenn!”). These volunteers have served as trail builders and maintainers, guides, ambassadors, office assistants, and board members (Hauserman 2008). The type of physical assistance needed depends on the season. Once the snow begins to melt in spring, the volunteer crews assess the trail conditions to inform the trail users (Hoffman 2017). The sides of the trail require brush and vegetation removal, or “brushing,” and clearance of deadfall, or trees that fell over winter. During the summer months, volunteers begin reconstruction and rehabilitation projects, such as moving the trail off roads and onto single-track paths (Ibid.)

Early volunteer recruitment efforts in the 1980s displayed posters in outdoor recreation companies, such as REI (Hoffman 2017). Volunteers have facilitated the TRT’s promotion by planning outreach events and mobilizing other volunteers. Current outreach programs the TRTA sponsors include the Annual Outdoor Leadership and Guide Training, which prepare TRT enthusiasts in proper outdoor etiquette to potentially become future guides. The Youth Backcountry Camps provide teens with wilderness experiences during its four-day journey along the TRT backcountry.

Printed guidebooks consist of Tim Hauserman’s

¹⁸ Founded by Hampton in 1982, the TRTF was an organization dedicated to completing the loop around the lake. The TRTF later changed the name to the TRT Association (TRTA) (Chris Binder, personal communication 2017).

Figure 8: Tahoe Rim Youth Backcountry



Teens participate in Tahoe Rim Trail Association's Youth Backcountry Camps over the summer. Source: Tahoe Rim Trail Association

bestseller, *The Tahoe Rim Trail - The Official Guide for Hikers, Mountain Bikers and Equestrians*, which is currently in its third edition. Another publication written primarily for volunteers is *The Tahoe Rim Trail: A Guide to Construction*, authored by Frank A. Magary, a Landscape Architect of the USFS, and members of the TRTA. This pocket-sized paperback compiles an overview of the trail building basics (Magary 1988).

In response to increasing popularity of the trail, the TRTA's application to designate 96 miles of the TRT as National Recreation Trail¹⁹ was approved in 2003. Since its designation, trail completions have sharply increased (see Appendix III). Regarding general usage, trail counters indicate that over 400,000 people used the trail in 2016 (Chris Binder, personal communication 2017).

Funding

The Alpine Winter Foundation provided the initial capital to develop and coordinate a volunteer organization that would expedite the inception of the trail. Establishing this foundation facilitated future donations from private entities. The Whole Foods Market in Reno has selected the TRTA for one of its "5% days", when 5% of its sales would be donated to the TRTA ("Whole Foods Market Reno 5% Giving Day, April 19th" 2018).

One of the TRTA's fundraising methods includes selling annual or monthly gift memberships, a one-time donation, or a tribute donation. By implementing a graduated fee structure, the TRTA offers more flexibility to the donors ("Happy Trails Glenn!"). Additionally, the participation fee from TRTA's outreach programs provides a source of revenue to sustain the trail's operation ("Youth Backcountry Camps").

Conflicting Interests

The 165-mile trail traverses California and Nevada, six counties, one state park, and three national forests, with the majority of the trail under USFS jurisdiction ("Pacific Southwest Region Viewing Area: Tahoe Rim Trail"). 49 miles of the TRT also overlaps with the PCT, which involves cooperation between TRTA and PCTA to accomplish the missions of both trails ("The Tahoe Rim Trail, Nevada and California").

With respect to challenges along the proposed route, the TRT was generally able to avoid private property by issuing trail reroutes. However, in some cases, informal handshake agreements to gain right-of-ways were employed for 20-foot sections that occupied an insignificant portion of private acreage (Chris Binder, personal communication 2017).

During the course of its development, the TRTA tried to minimize trail construction in the three wilderness areas. In the case of Mt. Rose Wilderness, the TRTA built a 2.5-mile trail along the outskirts of the wilderness area, avoiding close proximity to the Lake Tahoe Basin. Source water protections tend to be highly restrictive due to the potential for contamination and impact on native species. Having access to a trail in one of the more visited wilderness areas enabled humans to limit interactions with the protected areas by concentrating them on the trail.

As one of the more recent trail construction endeavors, the TRT underwent extensive NEPA processes, in which each section built was subjected to an individual analysis. Regarding protected wildlife, such as the yellow-legged frog, the USFS would survey areas in advance

¹⁹ A National Recreation Trail is incorporated into the national trail system. However, instead of its designation by an act of Congress, the trail is designated by the Secretary of Interior or the Secretary of Agriculture that recognizes its local and regional significance ("About the NRT Program")

to ensure that the proposed trail was a certain distance away from potential or actual habitat, and reroute when necessary (Ibid.).

Relevance

The actions undertaken by the trail case studies were summarized based on the common themes identified for each component. These generalizations structure the guidelines for each of the aforementioned elements.

Leadership

The most effective leaders often begin as trail users, volunteers or employees affiliated with conservation organizations. Unsatisfied by the available recreational opportunities, they conceive a project encompassing preservationist, conservationist and recreationist objectives. In order to oversee such substantial projects, these long-term leaders have been involved in the field long enough to become familiar with the political and physical terrain. These leaders possess the necessary qualities to create and maintain connections with prominent figures to secure the approval, funding and workforce for the trail's development. Their dedication to the cause compels them to sacrifice time, money and labor to see the trail come to fruition.

Public Engagement

While paid professionals tend to provide the technical expertise and volunteers typically offer labor, several case studies illustrate periods when the trail development process was solely driven by volunteers. Despite the fact that volunteers come from diverse backgrounds and possess a wide variety of skills from their professional careers, they are linked by their unwavering interest in the trail's realization. Their contributions in the form of time and labor have built the trails' credibility to ultimately receive financial and political support from private entities and federal agencies.

Volunteers have played an instrumental role in raising public awareness. For a nascent trail, gaining public exposure facilitates the trail development process. Trail promotion strategies rely on the formation of non-profit advocacy groups to inform the public through education and outreach efforts, assemble volunteers for trail

projects, and secure funding. A common approach the trail advocacy organizations employ to engage citizens with the trail is training volunteers in construction, maintenance and restoration techniques. These sessions help volunteers recognize and appreciate the trail corridor's cultural and social values, as well as encourage their further involvement with the project.

Funding

Non-profit trail advocacy groups depend on outside sources of capital to sustain costs that go toward development, construction, and maintenance of the trail's operations. Some indirect costs that the monetary contributions finance include reimbursing staff members, purchasing volunteer food and equipment, and sponsoring public engagement programs, signage, and print literature. Funds are generally obtained from national-scale land trust grants, foundations, federal agencies, organizational fundraisers, and private donations. Older trails, like the AT and PCT received more federal backing, while more recent projects, such as the TRT and Incline, relied on private sources.

Conflicting Interests

Trail proposals inevitably cross multiple land jurisdictions, which necessitates the need for cooperation among federal, state, and local stakeholders. Since the federal agencies were divided into multiple districts along the proposed trail, they often acted individually. In the absence of a cohesive line of communication, members of the non-profit trail advocacy groups often approached each district separately to organize plans for the trail.

Gaining right-of-ways through private property is another challenge that requires public-private collaboration. The non-profit organizations often had limited financial means, prompting their reliance on more financially viable conservation easements. For trail corridors that crossed an inconsequential portion of the land over which owners denied restricted authority, handshake agreements were employed. If funds are sufficient, property could be purchased in fee simple, which is the most complete ownership possible. Efficacy was an important factor in land acquisition, and private entities, such as the trail advocacy group and third-party

land trusts, often acted much faster than federal agencies.

Lastly, the dual-purpose of trails resulted in conflicting objectives between their recreational and conservation use. Trail construction was generally avoided in areas containing protected natural resources and wildlife, especially once NEPA was formally implemented. However, the extent a species or characteristic should be preserved in place of recreation is subject to controversy. This dilemma will influence the course of action taken toward natural features that serve as preliminary constraints along RtP.

Current Status of Ring the Peak

Substantial progress has been made in the technical aspects of trail development on the southwest side of RtP, facilitating a projected completion within the next five years. The current status of the project has been organized into the same four elements as the Results section.

Leadership

Since RtP's conception in the 1999 PPMUP, there have been notable advocates who persistently dedicated their personal resources to the project. The earliest advocates for RtP were Mary Burger, President of FOTP; Josh Osterhoudt, President of Medicine Wheel Trail Advocates; and Jim Strub, a member of the North Slope Watershed Committee and Pikes Peak Highway Advisory Commission (Strub 2015). They realized that in order to effectively undertake the trail development process, such as promoting the trail and reviewing meeting agendas, a non-profit organization was necessary. Burger offered to send a request to the FOTP Advisory Board for the expansion of FOTP's charter to include RtP (Ibid.). After receiving their approval, Burger and Strub scouted routes and coordinated their identification efforts with USFS and CSU (Ibid.).

Currently, the push to close RtP's southwest gap can be attributed to the efforts of Susan Davies, Executive Director of TOSC. Having over 30 years of experience in television specializing in environmental reporting, Davies's communication skills, among others, qualify her to bring this segment into fruition (Collier 2016). She maintains contact with prominent organizations, such as the Regional Business Alliance, Sierra Club, and Audubon Society, representatives of which used to be a part of

TOSC's Board of Directors (Ibid.). Ever since TOSC concentrated its efforts on RtP, Davies' enthusiasm and dedication to the trail's realization resulted in substantial exposure from media sources. Her frequent updates on the final connection's progress and benefits have been featured in the *Colorado Springs Gazette* and *Colorado Springs Independent*. Further promotional efforts to introduce the project to a more expansive audience were facilitated by Davies' appearances on news stations, such as Bob Falcone's Studio 809's podcast and FOX21 Morning News ("Outdoors with Hiking Bob"). Regarding her media presence, FOX21's TV anchor Craig Coffey proclaimed, "When I think outdoors, I think Susan Davies" (McDonald 2017).

Public Engagement

The majority of RtP's progress has been regarded as a volunteer effort ("Volunteers Enhance Recreational Opportunities and Restore Resources"). Primarily recruited by FOTP, which organizes weekend group workdays on the trail, volunteers have been responsible for trail planning, signage, fundraising, maintenance, and reviewing the USFS initiatives. Burger led much of the early trail building efforts by arranging volunteers to connect existing USFS paths and constructing new trail sections. Carol Beckman, former President of FOTP, was responsible for scouting several trails along the route through Raspberry Mountain (Carol Beckman, personal communication 2017). In 2003, Beckman and Strub undertook the signage task. Strub designed the RtP logo,

Figure 9: RtP Logo



which became so popular that external donations paid for the signed trail posts, decals and other memorabilia.

Regarding the unfinished 8-mile section, NES Inc. has formed a Project Team consisting of representatives from TOSC, FOTP and the City of Colorado Springs Parks, Recreation and Cultural Services (COPR) to develop a Master Plan that oversees the physical and promotional aspects of RtP (TOSC Request for Proposal). In order to address the community engagement gap, NES Inc. has partnered with Bachman PR to accomplish objectives that include “[building] enthusiasm, [providing] a forum for community input, and [building] relationships.” Current undertakings include updating the RtP project website and other social media, distributing E-newsletters and emails, and initiating professional correspondence with private property owners (Ibid.).

The Project Team has undertaken several events to promote RtP’s southwest gap. On November 18, 2017, the Team hosted the Outdoor Recreation Forum in conjunction with the Pikes Peak Outdoor Recreation Alliance (PPORA)²⁰ at Cripple Creek’s Heritage Center (Healy 2017). The event focused on the vision, issues, and opportunities for RtP, as well as the broader Pikes Peak Region. Driving the discussion were strategies to address the southwest gap, namely concerning opposition from the cities of Victor and Cripple Creek. As the first in a series of public meetings, the symposium used the recreationists and affected communities’ collective sentiment to inform its decisions regarding the proposed trail alignment (Ibid.).

The second public meeting on February 13 convened at the same venue and provided another opportunity for public input on trail alignment recommendations (“Ring the Peak News”; Chris Lieber, personal communication 2018). The outcome of these meetings include suggesting necessary components to appeal to visitors as an international attraction as well as a local, wilderness experience; underscoring the economic benefit of the project by connecting RtP trails to communities that could serve as access portals; and developing additional infrastructure after the trail’s completion, such as shuttles and yurts (Ibid.).

Another major event that generated public interest was the RtP Discovery Tour, a series of guided hikes during the fall of 2017 to inform the participants on the various modes of transportation for trail navigation. Mike Rigney, the Complete the Ring Project Manager of TOSC, along with Carol and Jim Beckman, and Bob Falcone, lent their expertise to lead the hiking, biking, and equestrian riding through various sections of RtP (“Ring the Peak Discovery Tour Recap”). The publicity from social

Figure 10: RtP Tour



In the fall of 2017, Susan Davies led one of a series of Ring the Peak Discovery hikes covered by FOX21 Morning News. This event provided the public an opportunity to explore existing segments and contribute ideas for further development. Source: Trails and Open Space Coalition.

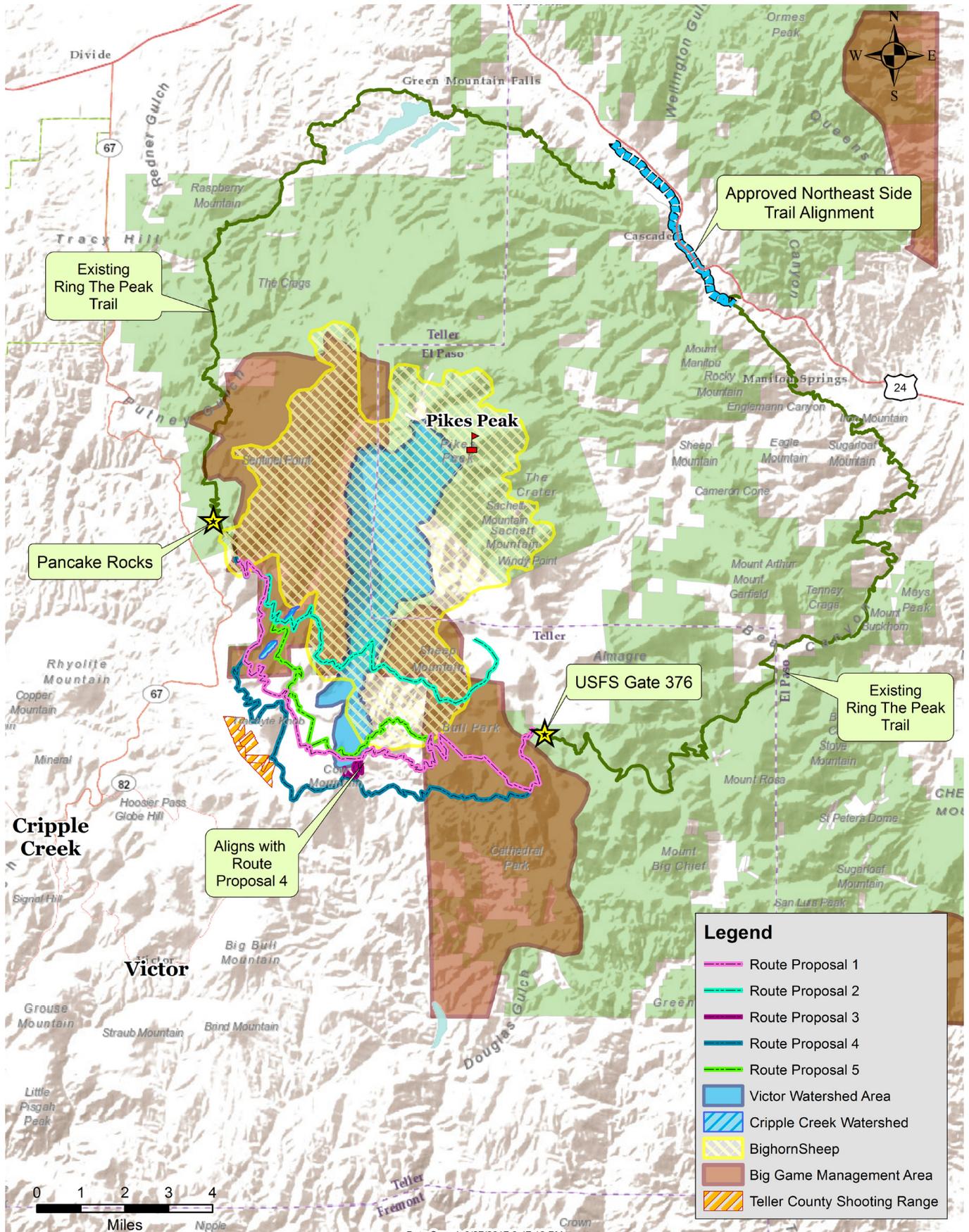
media and FOX21 Morning News led to the event’s high participation rates and informed recreationists who were previously unaware of the trail’s existence (Ibid.).

As a strategy to build positive relations with stakeholders along the trail corridor, the Project Team organized informal discussions, or “coffee chats,” to provide a listening forum that addresses individual property owners’ concerns (TOSC Request for Proposal). These sessions are led by experienced negotiators: N.E.S. consultants Tim Seibert and Chris Lieber, who are well-regarded for prioritizing private property owners’ rights (Ibid.).

External sources of publicity have included numerous local media outlets featuring news articles on RtP’s

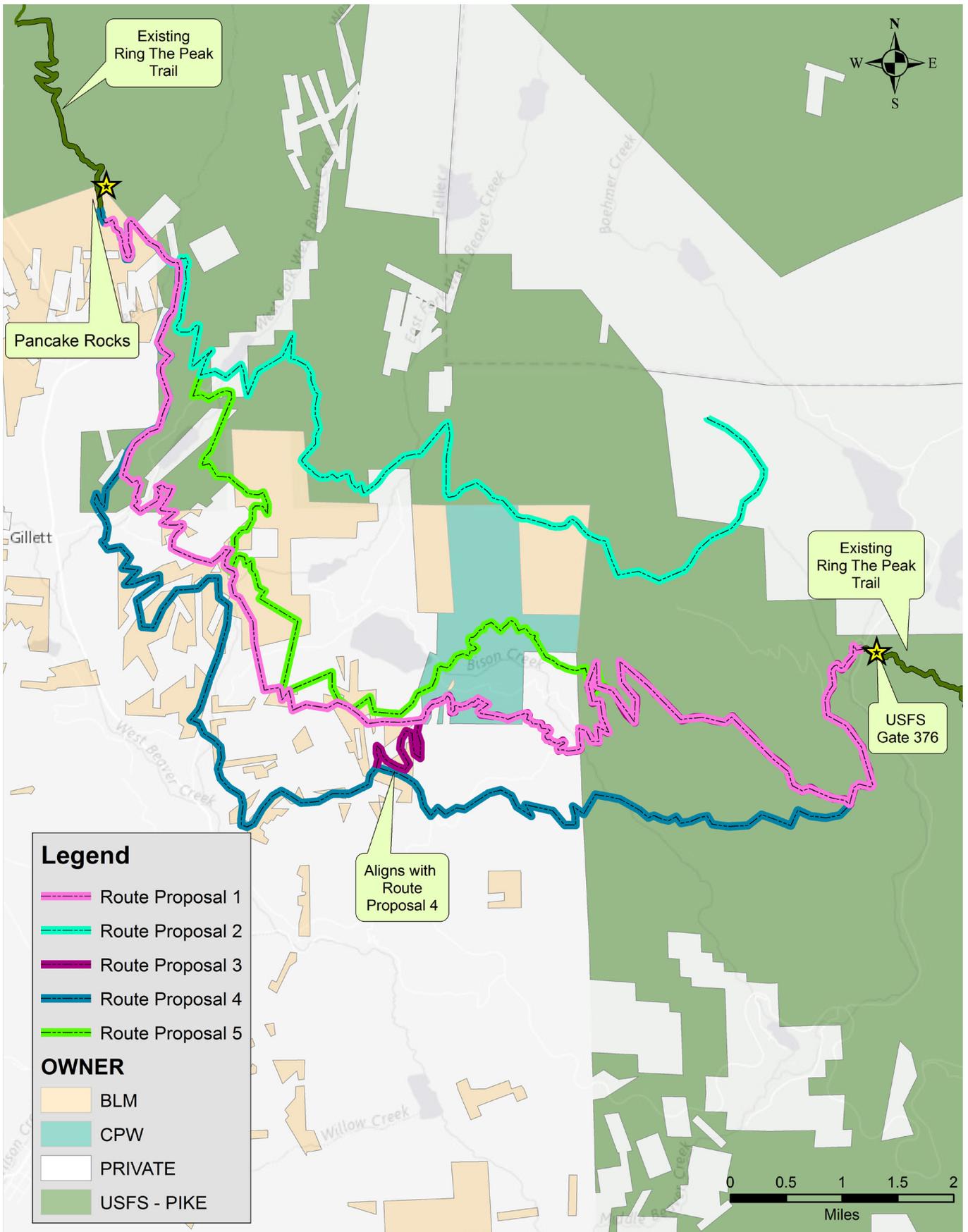
²⁰ Pikes Peak Outdoor Recreation Alliance is a collaborative of businesses and individuals who recognize and advocate for the southern Front Range’s natural and recreation assets, both as an economic drivers and for community health and well-being.

Figure 11: Ring the Peak Trail Proposed Alignments and Preliminary Constraints



There were originally five proposed Ring the Peak trail alignments on the southwest side of Pikes Peak. Each route acknowledges the different obstacles encountered to connect the trail from Pancake Rocks to USFS Gate 376. On the northwest side, the Ute Pass Regional Trail Alignment has already been approved.

Figure 12: Ring the Peak Trail Proposed Alignments and Jurisdictions



Depending on the chosen alignment, ten to fifteen parcels of private property are present along the proposed trail alignments. Arrangements have been made with BLM, USFS, and CPW managed areas for the proposed trail.

updates and its potential to positively impact the Pikes Peak Region. The most prominent ones are the *Colorado Springs Gazette*, *Colorado Springs Independent*, KOAA, and FOX21 News. Outdoor retailers, such as Mountain Chalet, have shown support for the trail by displaying RtP content on their website (Mountain Chalet: “Ring the Peak”). FOTP President, Steve Bremner, produced two documentaries that depict the benefits and challenges of completing RtP through the perspectives of various stakeholders.

Notable individuals who advocate for the trail’s completion include the Governor of Colorado, John Hickenlooper. His visit to the trail cemented RtP’s designation as one of the “16 in 2016” priority projects under the Colorado Beautiful Initiative (Boster 2016).

Funding

With regards to RtP’s southwest side, financial limitations have delayed progress in the trail’s planning process. The only source of funding dedicated to this segment has been GOCO’s new Connect Initiative trail planning grant program, which provided the project with \$100,000 to hire a consulting team (Stanley 2016). The funding would fulfill N.E.S.’s objectives to develop and undertake the Master Plan in preparation of RtP’s future construction phase (TOSC Request for Proposal). With reductions in the Pikes Peak Ranger District’s operating budget, the USFS contributions are minimal (Susan Daives, personal communication 2017.). Since the missing segment is still in its planning stages, the actual costs of land acquisition, trail construction and maintenance have yet to be determined (Ibid.).

A \$680,000 contribution from CDOT is directed to the design phase of the Ute Pass Regional Trail segment, linking to RtP on the northeast side (“Ute Pass Regional Trail Awarded \$680,000 Grant”). This segment is part of a larger trail system that will provide a continuous route from Manitou Springs to Cripple Creek and Victor (“Ute Pass Regional Trail”). A one-mile portion of the Ute Pass Regional Trail also received \$150,000 from LWCF for its design and construction (“Ute Pass Regional Trail Awarded \$680,000 Grant”).

Conflicting Interests

The initial RtP trail alignments encountered several challenges between Pancake Rocks and USFS Gate 376 (TOSC Request for Proposal). Regarding jurisdiction, the proposed path crosses approximately 10-15 private land parcels. N.E.S. is in the process of identifying and negotiating land and easement acquisitions with the property owners (Ibid.). Palmer Land Trust (PLT), which focuses on acquiring land to protect public spaces and parks in the Front Range, is also available to respond to land valuation and conservation easement questions (TOSC Request for Proposal; “About Palmer Land Trust”)

Other restricted areas the proposed alignments encroach upon are the watersheds in the City of Cripple Creek and City of Victor. The Cripple Creek municipal watershed contains two reservoirs that supply the city with drinking water and are also leased to the private Timberline Fishing Club (Volpe 2016). Similar to Cripple Creek’s arrangement, Victor’s Bison reservoir is leased to the private Gold Camp Fishing Club (Benzel 2015). Other sensitive areas include the Game Management Unit 5B, which is inhabited by animals such as elk and white tailed deer; the Rocky Mountain Bighorn Sheep Habitat, which serves as the sheep’s breeding ground; and the Teller County Shooting Club Range, an area closed for recreational target shooting (TOSC Request for Proposal). USFS and CPW Biologists have recommended minimizing human activity in the area to encourage growth of big game populations. The CPW has jurisdictional authority to make suggestions that inform the USFS of possible impacts on wildlife from trail construction and use. However, the CPW cannot enforce these recommendations on the final trail alignment (Shannon Schaller, personal communication 2017).

Originally, the N.E.S. consulting team had planned on selecting one trail alignment to connect the southwest side. However, based on input from the public meetings, they have realized that in order to accomplish the requests of the stakeholders and appeal to a broader range of users, a combination of corridors would be necessary (Chris Lieber, personal communication 2017). Thus, N.E.S. proposed a network of trail alignments along three broad corridors (Mike Rigney, personal communication 2017). These broad corridors consist of the Year-Round Route,

Seasonal Route, and Community Route, each designated for a particular use (Chris Lieber, personal communication 2017).

Out of these suggestions, the most readily accomplished alignment is the Year-Round Route, which follows along the Gold Camp Road and Highway 67. As the name suggests, the trail is intended to be open to the public year-round, and serves as a short-term solution to the final connection. The alignment's reliance on gravel service roads and trails adjacent to highways can degrade the user experience. For a more wilderness experience, the Seasonal Route provides a higher elevation path that is suitable for mountain biking. Due to the backcountry nature of the trail and its proximity to bighorn sheep and other environmental challenges, its access would be weather-dependent. The Community Route fulfills the economic development objectives of the cities of Victor and Cripple Creek by extending to both cities. This route would avoid more sensitive areas to permit motorized vehicle use. Given the resources, the latter two routes would take a significantly longer time to realize because they encounter more instances of private property and sensitive areas, and require more new trail to be built (Ibid.).

Proposal for Ring the Peak

A proposal for future actions necessary to complete RtP was formulated based off of the trail development case studies, discussions with federal land managers, and current information on the southwest gap. While some of these methods may not be applicable due to the obsolete nature of their approaches, several relevant strategies were identified to frame recommendations according to RtP's current situation.

Leaders

RtP's current status of 80% completion required the guidance and commitment of dedicated leaders. Like Gaskill who has been involved in several trail projects prior to the CT, Davies has led several projects as part of TOSC's mission to conserve natural areas in the Pikes Peak region. In order to facilitate RtP's future success, it is recommended that Davies or other experienced RtP advocates who possess similar admirable qualities continue to demon-

strate their long-term commitment to the project, just as Gaskill's indomitable qualities enabled her to rectify the CT's stagnant trail development.

Considering that Gaskill's connections and devotion attracted support of the trail from eminent figures, perhaps Davies could convince Olympic athletes who just returned from the 2018 Winter Olympics, or Mayor John Suthers of Colorado Springs to join RtP's volunteer committee.

With TOSC's involvement in so many projects, it is crucial that Davies maintains focus on RtP, provides managerial direction, and continues to train and guide future trail stewards after the segment's completion (Collier 2016). Expanding upon TOSC's collaboration with several Friends Groups, including FOTP and Incline Friends, the creation of an umbrella organization similar to the AT Conference would be an effective way to champion the cause.

This organizational structure would allow for a centralized body, potentially called the RtP Conference, to oversee autonomous trail clubs that focus on the development and management of individual sections of RtP. These individual membership organizations could be the existing Friends Groups, or new RtP clubs. Broadening the influential connections associated with each group would foster the expansion of the trail advocate network, cultivation of positive relationships with its area of the community, and procurement of a more diversified financial and political support. The result would curtail the level of personal sacrifice that other trail leaders, such as the PCT's Rogers and 10MD's Benedict, have endured.

Public Engagement

Recruiting more volunteers is a recommended course of action to not only sustain the physical operations of the trail, but also reinforce the strength of the community's relationship with the trail. In adherence to the wide range of skill sets possessed by volunteers of the AT and PCT, the Project Team should encourage people with backgrounds and interests not just limited to the physical aspects of trail development; concurrently, skills like communication and journalism would facilitate private land negotiations and RtP-specific publications. In the case of land acquisition,

Lieber may find it advantageous to enlist private citizens who possess knowledge of the private property owners' community and interests. Drawing from the success of New York State's AT coordinator, Levers, using someone familiar with the residents of the community and the local political terrain would gain more leverage in the negotiation process.

Incentives to achieve higher volunteer participation during the physical construction of RtP may include offering accommodations, such as food and transportation, in exchange for labor. Tenuous plans have called for a yurt system along RtP, which should be modeled after the 10MD. If this were to come to fruition, RtP volunteers should receive a free night at one of the yurts for each day worked.

Veteran members of FOTP and TOSC familiar with RtP's portals and the trail building process, such as Bremner, Beckman, Davies, and Rigney, should hold trail development workshops, as Proudman had previously done for the ATC. These programs would train volunteers in construction and maintenance, as well as promote the vision of RtP. Other outdoor education programs could feature extended camping sessions on the trail's existing sections, such as the TRTA-inspired youth backcountry trips and guided hikes. The participants would enjoy accommodations and professional expertise in backcountry ethics and future trail stewardship, while the cost of the trip would support RtP advocate groups' operations.

Additionally, hosting an event for every mile of connected trail would also generate interest in RtP. Gathering the recreational community at the finished portion of the trail so they could witness its progress would be an effective way to introduce the public to the significance of the project.

All the preceding trail case studies have published guidebooks that introduce the history, route descriptions, and hiking insights before the trail's formalized completion. Since 80% of RtP is open to use, FOTP or other non-profit advocacy groups should consider producing a handbook for RtP, and continually update the editions to record the trail's progress. To further expand the online presence of the trail, comprehensive coverage of the loop should be added to major hiking directories such as AllTrails, Hiking

Project, and 14ers.com. Even though E-newsletters are in existence on TOSC's website, a monthly or quarterly online or print magazine containing the trail's most notable accomplishments and upcoming events would present a more visually coherent brand.

Funding

Being so early in the planning stage, the Project Team is in the process of identifying options of long term financial support for the trail's creation. The detailed budget proposal would include allocating money towards employees, trail building, maintenance, and managerial personnel. Hiring full-time staff who are continually exposed to RtP's daily operations would train them to handle the trail logistics. For land acquisition, the established cost would depend on the real estate location, and whether the fee simple property or easement will be purchased, exchanged or donated. On average, the cost of land acquisition for every mile of trail is \$48,300 (Flink et al. 2001). After adjusting for inflation, this equals roughly \$68,000 2018 dollars. To minimize labor costs, every trail case study has utilized volunteer labor for the majority of trail construction, save paid professional trail builders for the portions that require technical expertise. Construction expenses also takes into account equipment, signage, and material to surface the trail, in which native soil is recommended as the most cost-effective way **(see Appendix II)**.

With the shrinking federal budgets for land protection, the Project Team would also need to rely on other sources of funding. Potential sources of private financing for these trail purposes include the Gates Foundation, Lynda Hill Foundation, Doris Duke Charitable Foundation, and Coors Foundation, which the CT, PCT, and 10MD have employed. As for federal programs, despite the LWCF already contributing to the northeast side of RtP, the Project Team should consider applying for additional funds from the LWCF for RtP's southwest development and construction needs. CPW's Trails Grant program is another option that accepts applications on an annual basis.

Internal sources of funding could include paid camping trips and a graduated membership structure. As demonstrated by the TRTA, TOSC or FOTP could consider partnering with local businesses to ensure a certain percentage of their sales on a day go toward fundraising for

RtP. Mountain Chalet, REI, Whole Foods, and Mountain Mama Natural Foods are some possible options. Additional revenue streams could also include monies from sales of RtP's guidebooks or subscriptions to its magazine.

Conflicting Interests

The trail case studies have initially sought development of the fundamental components of the trail alignments, such as utilizing existing roads or holding temporary conservation easements. Once the outline of the trail was established, future land acquisition opportunities would allow for relocation of specific trail sections to improve the users' recreational experience. Thus, the Year-Round Route would serve its rudimentary function that could later be developed upon. As for the Seasonal Route, enforcement of its seasonal closure would be difficult and requires collaboration with USFS personnel.

That being said, substantial projects like the AT and PCT were aided by the environmental movement during the 1960s and 1970s which strengthened federal involvement in environmental affairs (Mittelfehldt 2013, 185). This period saw the enactment of several pieces of key environmental legislation, such as the Wilderness Act, NEPA, and the National Trails System Act. Since these laws were implemented differently at the time, their statutes were easier to bypass in recreational projects like trail construction. As the age of New Right conservatism swept the nation in the 1980s and 1990s, the natural landscape suffered from the downsizing of federal spending on environmental protections as well as the growing property rights movement in response to restrictions on individual and corporate rights to land (Ibid., 186).

Thus, the modern political climate relies more on the private, non-profit sector to achieve land conservation objectives (Ibid.). More recent proposed cuts to the LWCF threaten the existence of RtP and other public land projects. Increased oversight of trail development requires trail advocacy groups like FOTP and TOSC to obtain legal approval of the Trail Master Plan before any trail construction is permitted to proceed. Developing this comprehensive plan to establish the physical, promotional and management aspects of the trail is an extensive

process that protracts the time of its conception to realization.

Regarding land acquisition options to present before the property owner, the historic context to some of these case studies render elements of their approaches impertinent. For instance, informal handshake agreements that were commonly used in the past are no longer an option in the modern political era. In order to bring legitimacy to the recreational industry in the face of financial limitations, RtP would more likely have to depend on fee simple donations, purchasing or exchanging easements with private landowners. The Project Team has expressed interest in fundraising to obtain fee simple ownership if necessary (Susan Davies, personal communication 2017).

Since easements are the primary means of acquiring property, the Project Team must decide which entity would hold the easements. While TOSC may be too occupied with several other projects to take on a land trust charter within its organization, FOTP, whose trails of interest are all situated on Pikes Peak, or the proposed RtP Conference would be a better choice to take on this responsibility. Forming a land trust program within its organization to gain more control and efficiency over the land acquisition process was an effective strategy employed by the ATC in the formation of the Trust for Appalachian Trail Lands. However, FOTP would have to be responsible for all the fundraising opportunities, which may hinder its other roles in trail development.

Alternatively, an approach modeled after the case of the Montcrest Working Forest situated on the PCT would distribute the financial burden across multiple parties. By keeping the FOTP or TOSC's existing charters, the trail advocate group would collaborate with a third party land trust and USFS to acquire and hold RtP's easements. The best candidate for this task would be Palmer Land Trust, since the organization has initiated a separate Protect the Ring Campaign in 2012 to create a contiguous ring of permanently protected land around Pikes Peak ("Donate Now to Protect the Peak").

PLT has the ability to purchase properties at or above market value, potentially more expediently than the USFS. After PLT obtains the land or easement, the rights could

be transferred to the USFS once it is capable of buying the parcel or easement at market price. While federal agencies' operations tend to be more time-consuming, this process would render the property to be perpetually protected under public ownership. At the same time, the USFS would be able to achieve its objectives, which include providing opportunities for recreation and improving access upon public lands ("What We Believe").

Conclusion

While the trail development case studies provide great insight into the complex landscape of the trail building process, some outdated strategies may not necessarily apply to the current process of RtP's trail development efforts. There is a clear shift in the level of federal financial and administrative support during trail development in the 20th century as compared to contemporary projects. Presently, more rigid environmental oversight and diminishing federal and state funds complicate RtP's realization. This political landscape, coupled with the physical impediments along the proposed trail alignments, inevitably prolongs the loop's completion. The formation of a Ring the Peak Conference, updating the trail's progress through a comprehensive online communication plan, and other aforementioned strategies will serve to combat these challenges.

Despite the trail development process occurring during an unfavorable political era, the benefits associated with RtP are undeniably significant. A completed RtP would provide recreational and economic development opportunities, as well as serve to evenly distribute traffic and mitigate degradation of Pikes Peak. Furthermore, with the Project Team's active dedication, RtP's status as a "16 in 2016" trail, GOCO's funding of NES, and RtP's proximity to completion - public and financial support are likely to ensue. "Trails are a common thread, and we expect to complete the trail within the next five years" (Susan Davies, personal communication 2017).

Appendix I: Tabular Summary of Case Studies

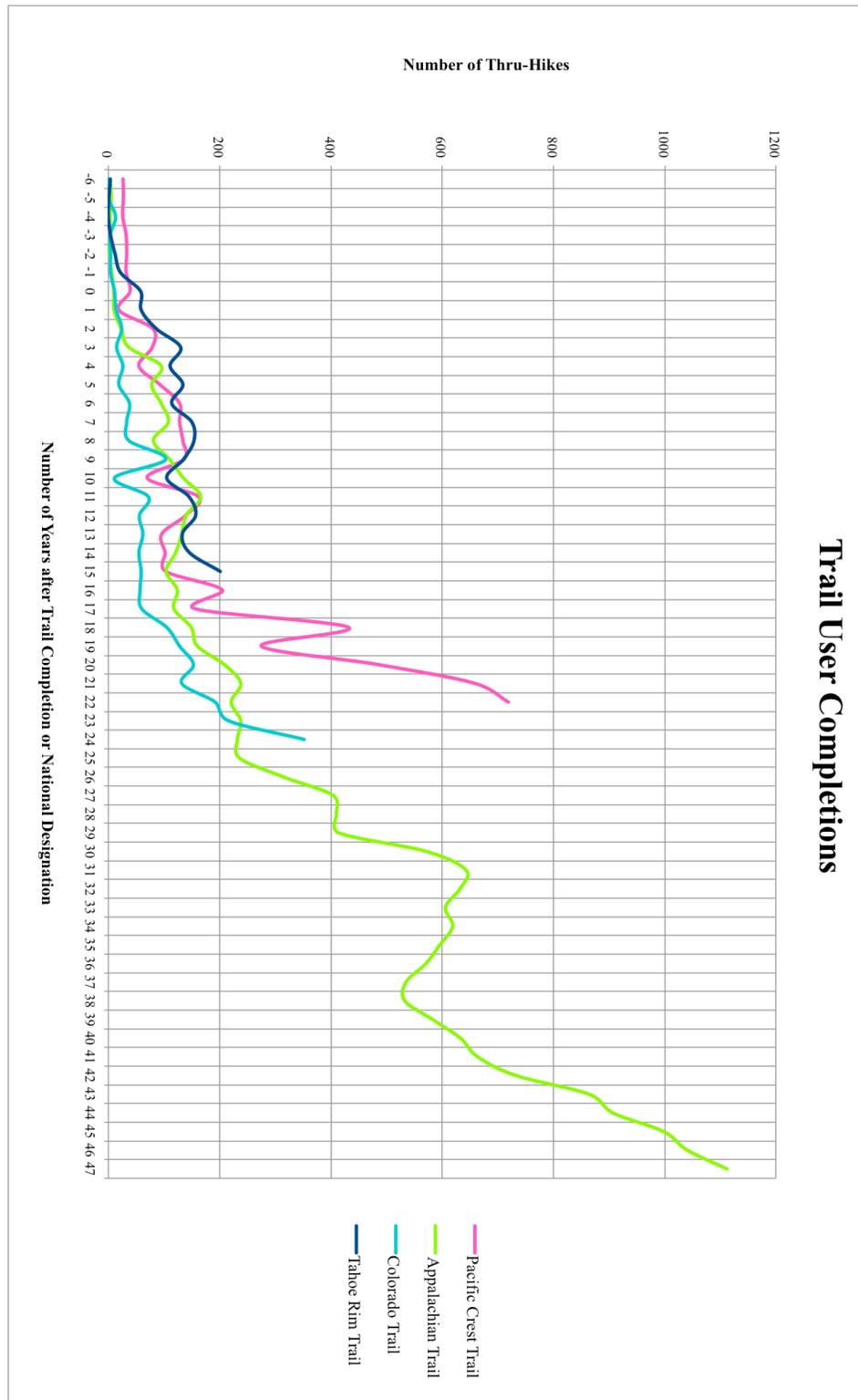
Component	Ring the Peak	Tahoe Rim Trail	Colorado Trail	Pacific Crest Trail	Appalachian Trail	Mantou Incline	10 th Mountain Division Huts Trail
General Type of Use	Hiking Equestrian Biking	Hiking Equestrian Biking	Hiking Equestrian Biking Snowshoeing Cross-country skiing	Hiking Equestrian	Hiking	Hiking	Hiking Biking Cross-country skiing Snowshoeing Snowboarding
Length	63 mi.	165 mi.	486 mi.	2,650 mi.	2,190 mi.	0.88 mi.	350 mi.
Lowest Point	6,400 ft	6,240 ft	5,577 ft	140 ft	124 ft	6,500 ft	9,700 ft
Highest Point	11,300 ft	10,388 ft	13,271 ft	13,153 ft	6643 ft	8,590 ft	11,370 ft
Non-Profit Management Entity	Friends of the Peak	Tahoe Rim Trail Association	The Colorado Trail Foundation	Pacific Crest Trail Association	Appalachian Trail Conservancy	Incline Friends	10 th Mountain Division Huts Association
Date operational	Incomplete, but several segments in use.	1985: Section hiking 2001: Completed	1987: Completed	1968: Designated as National Scenic Trail 1993: Completed	1968: Designated National Scenic Trail under National Trail System Act 2014: Officially acquired all the land	1997: Illegal usage 2013: Repaired and legally opened	1982: 1 st hut built
Administrative Authority	City of Colorado Springs Parks	Lake Tahoe Basin Management Unit (LTBMU) of USFS	USFS	USFS	NPS	City of Colorado Springs & Mantou Springs	USFS
Agencies & Groups Involved	<ul style="list-style-type: none"> Colorado Parks & Wildlife City of Manitou El Paso County Colorado Springs Utilities BLM, USFS 	<ul style="list-style-type: none"> LTBMU/USFS BLM NPS California State Parks Lake Tahoe-Nevada State Park 	<ul style="list-style-type: none"> USFS 	<ul style="list-style-type: none"> USFS BLM NPS California State Parks 	<ul style="list-style-type: none"> NPS USFS ATC 31 Trail clubs and partnerships 	<ul style="list-style-type: none"> City of Colorado Springs The Manitou Pikes Peak Railway Company USFS 	<ul style="list-style-type: none"> 10th Mountain Division Huts Association USFS

Appendix II: Trail Material Longevity and Costs

Surface Material	Cost per mile	Longevity (years)
Soil cement	\$60k-100k	5-7
Granular stone	\$80k-120k	7-10
Asphalt	\$200k-300k	7-15
Concrete	\$300k-500k	20+
Boardwalk	\$1.5m-2m	7-15
Native Soil	\$50k-70k	Varies
Wood chips	\$65k-85k	1-3

Appendix III: Trail User Completion Rates

Since there is no feasible nor accurate method of obtaining an estimate of the general visitor use on the trails, the thru-hike completions are displayed instead for four of the trails from the case studies. In order to identify the impact of completion or federal recognition on the trail, the years the thru-hikes took place have been normalized to the number of years before and after such characterization.



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