Master Plan

SUPERIOR HIKING TRAIL

Prepared for

Prepared by

ARDC Planning
A Division of ARDC

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Photo Credit: John Steitz Photography

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Contents

Introduction and Regional Significance

The Superior Hiking Trail (SHT or Trail) is a renowned 300+ mile long-distance footpath located along the northern shore of Lake Superior in Minnesota, USA. Stretching from the Wisconsin border south of Duluth to the Canadian border, it offers hikers a diverse and immersive experience in the natural beauty of the Arrowhead region. Nestled along the scenic North Shore of Lake Superior, the SHT stands out as a premier destination for nature enthusiasts seeking an unparalleled wilderness experience. The Trail showcases a rich variety of landscapes, including rocky ridges, boreal forests, cascading waterfalls, and pristine inland lakes. It is known for its challenging and moderate terrains, providing a well-rounded outdoor adventure. Along the way, hikers may encounter an abundance of wildlife, from eagles soaring overhead to deer grazing in the meadows, enhancing the overall sense of adventure. One of the defining features of the Trail is its proximity to Lake Superior, the largest of the Great Lakes. Hikers are treated to views of the expansive lake, adding to their hiking experience.

Maintained by a dedicated nonprofit organization, the Superior Trail Association (SHTA), it encourages visitors to adhere to 'Leave No Trace' principles and respect the environment. This commitment, combined with well-maintained paths and clear markers, accommodates hikers of all skill levels. With numerous access points and carefully planned segments, the Trail allows adventurers to customize their journey, whether it's a day hike, a weekend getaway, or an ambitious thru hike. Rustic campsites, scenic overlooks, and the warm hospitality of nearby communities enhance the overall experience, making the SHT an immersive and unforgettable outdoor adventure. Accessible by over 50 trailheads, the Trail is a year-round destination, though conditions may vary by season. The Superior Hiking Trail offers a remarkable journey through the ecological diversity of Minnesota's North Shore and is one of the country's most breathtaking natural landscapes.

Photo Credit: John Steitz Photography

Beyond its ecological importance, the Trail is culturally significant, passing through lands with a rich indigenous heritage. It is a hub for tourism, supporting local economies and providing recreational and educational opportunities. The SHT is part of the North Country National Scenic Trail (NCNST) and provides a critical connection in the 5,000-mile route from Vermont to North Dakota. The Trail fosters a sense of community and pride among residents and visitors, making it a cherished symbol of the region's commitment to connecting people to public land.

The Trail is a focal point for regional tourism, drawing visitors from across the nation and around the world. Its network of trailheads, campsites, and points of interest supports a vibrant outdoor recreation economy, creating jobs and sustaining local businesses. Multiple world-class trail races held on the Trail including the Grand Traverse, the Superior Trail Races, and Wild Duluth. Major outfitters and programmers such as Outward Bound, Wilderness Inquiry, Girl and Boy scouts use the Trail regularly.

Photo credit: D2 Photographic

The Trail promotes physical and mental well-being by providing a venue for physical activity, mental rejuvenation, and spiritual connection to nature. It fosters a sense of community among hikers, volunteers, and supporters, and contributes to a shared identity and pride among the residents of the North Shore region. Its enduring legacy as a model of sustainable land use and a beacon of natural beauty underscores its vital role in the collective identity of the communities it serves.

Given the Trail's contributions to the region, it is imperative to safeguard and celebrate the Superior Hiking Trail for generations to come, ensuring that it remains a beacon of inspiration, conservation, and adventure for all.

Surrounding Parks & Trails

Winton
Ely
Insula Lake State Forest
Grand Portage State Forest
Grand Portage National Monument
Grand Portage Reservation
Bear Island State Forest
Lake Isabella State Forest
Pat Bayle State Forest
Judge C R Magney State Park
Babbitt
Kadunce River State Scenic Wayside
Grand Marais
Cascade River State Park
Lutsen
Mountain Iron
Biwabik
Aurora
Kinney
Buhl
Gilbert
Hoyt Lakes
Temperance River State Park
Eveleth
Hibbing
Iron Junction
Finland
George Crosby Manitou State Park
Tettgouche State Park
Silver Bay
Beaver Bay
Cloquet Valley State Forest
Split Rock Lighthouse State Park
Meadowlands
Gooseberry Falls State Park
Lake Superior
Two Harbors
Red Cliff Reservation
Apostle Islands National Lakeshore
Brookston
Hermantown
Brule River State Forest
Chequamegon National Forest
Fond du Lac Reservation
Cloquet
Duluth
Fond du Lac State Forest
Esko
Proctor
Carlton
Jay Cooke State Park
Amnicon Falls State Park
Reservation

Legend

— Superior Hiking Trail
— State Park Trails
— Snowmobile Trails
— ATV Trails
◆ Cities
— State Highways
— County Roads
State Parks & Waysides
County
Reservation

0 10 20 40 60 80 Miles

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Parks and Trails within 30 Miles of the Superior Hiking Trail System (Appendix A)

Site Information

The Superior Hiking Trail itself is split into six segments, which are referred to in this document as A through F. Each segment is roughly 50 miles long, more segment specific information is available starting on page 6. Here are some key details about the site:

Location: Situated in the northeastern part of Minnesota, running primarily parallel to Lake Superior. It traverses a variety of landscapes including various urban settings, eight state parks, one national forest, and other public and private lands.

Terrain: Offers a diverse range of terrains, including rocky ridges, forested areas, rushing rivers, steep climbs, and descents. Hikers can experience a mix of challenging and moderate sections, providing a well-rounded outdoor experience.

Natural Features: Showcases a wealth of natural attractions, including numerous waterfalls, inland lakes, and panoramic views of Lake Superior. It also offers opportunities for wildlife observation and birdwatching.

Trailheads: Over 50 trailheads along its length. These trailheads provide entry and exit points for hikers, as well as parking facilities and informational kiosks.

Campsites: A network of 94 designated campsites for overnight stays. These sites are equipped with amenities such as designated fire rings, benches, tent pads, and latrines.

Scenic Overlooks: There are designated viewpoints and overlooks that offer views of Lake Superior, waterfalls, and other natural landmarks. These serve as perfect spots for rest and contemplation.

Seasonal Considerations: Open year-round, but seasonal conditions can vary. Winter hiking may require additional equipment due to snow and ice. The best times for using the Trail are typically late spring to early fall when conditions are more temperate.

Regulations and Guidelines: Managed and maintained by the Superior Hiking Trail Association, comprised of paid staff and 400+ volunteers, and hikers are encouraged to follow Leave No Trace principles, respecting the natural environment, and minimizing their impact.

Permits and Fees: No permits or fees are charged to access or camp along the Superior Hiking Trail. User groups of eight or more are asked to fill out a Trail User Notification Form with the SHTA. Accessing the Trail within a State Park will require a State Parks Pass to park your vehicle. Large groups must also check in with land managers and acquire the proper permits.

Safety Considerations: Trail users are encouraged to be prepared for changing weather conditions, carry essential supplies, leave their trip plan with someone, and be aware of potential hazards. Cell phone reception can be limited in some areas, so it's important to plan accordingly.

Please note that the information provided here is based on knowledge available up until February 2024, and there may have been updates or changes since then. Always check the Superior Hiking Trail Association's website for the most current information when planning a visit to the Superior Hiking Trail.

The Superior Hiking Trail satisfies the following criteria to be classified as regionally significant by the Greater Minnesota Regional Parks and Trails Commission. This classification focuses on "providing high quality non-motorized recreational trail experiences that are readily available from an already populated or rapidly growing regional center or tourist destination."

Criteria 1: Provides a High-Quality Outdoor Recreation Experience

Established in 1986 by the Superior Hiking Trail Association, the Trail meanders through the landscapes of the Arrowhead Region, offering users a diverse and challenging outdoor experience. In addition, the Trail winds its way through eight state parks, and four state forests offering glimpses into other potential places to visit. With its northern terminus at the Canadian border and its southern end just south of Jay Cooke State Park, the SHT takes adventurers through seven areas of biological significance including but not limited to a mosaic of boreal forests, flowing rivers, and iconic points that provide breathtaking vistas of the largest freshwater lake in North America.

The SHT has become a haven for outdoor enthusiasts seeking solitude and a deep connection with nature. Whether hiking in the lush greenery of summer or the snowy serenity of winter, the SHT promises a memorable adventure, fostering a sense of appreciation for the untamed beauty of Minnesota's wilderness. As a beloved gem in the Midwest's and National trail system, the Trail stands as a testament to the preservation efforts of its stewards and the enduring allure of the great outdoors.

Criteria 2: Provides a Natural and Scenic

Photo credit: John Steitz Photography

Setting Offering a Compelling Sense of Place

What sets the SHT apart is its unique blend of natural beauty and accessibility. The Trail is divided into numerous sections, each varying in length and difficulty, catering to both novice and experienced trail users. Hikers can explore the Trail's enchanting wilderness, encountering cascading waterfalls, ancient rock formations, and a rich diversity of flora and fauna. Along the way, well-maintained campsites and trailheads make it possible for hikers to plan day trips or embark on a thru-hike, immersing themselves in the tranquility of the North Woods while facing the challenges presented by its undulating terrain.

The SHT holds cultural importance, acting as a pathway through the Ceded Territory of the Lake Superior Chippewa, lands inhabited by indigenous communities. The Trail offers opportunities for reflection and learning about the rich cultural heritage of the Anishinaabe people, whose connection to this land predates recorded history.

Photo Credit: SHTA

Criteria 3: Well-located to Serve a Regional Need and/or Tourism Destination

The SHT is well located to serve both regional needs and as a tourism destination. Many of the Trailheads are accessible on, or a short drive off, the North Shore All-American Scenic Drive. The Trail travels through several towns and cities along the North Shore including Proctor, Duluth, Two Harbors, Beaver Bay, Silver Bay, Lutsen, and Grand Marais. The SHT runs parallel to other regionally significant recreational facilities in state parks and trails including the North Country National Scenic Trail (NCNST), Gitchi Gami State Trail, and the Duluth Traverse. The Trail is in proximity and offers direct access to the primary recreational attractions such as Lutsen and Spirit Mountains along the North Shore. Gooseberry Falls, Tettegouche, and Split Rock Lighthouse State Parks are among the top five most visited of the 67 state parks in Minnesota.

Photo Credit: Annie Nelson

Criteria 4: Fills a Gap in Recreational Opportunity Within the Region

One of the striking features of the SHT is the variety of trail experiences it offers users. The length, terrain variations, diverse sites, and multiple access points are an unmatched asset to the region. These features fill recreational opportunities within the region and provide a unique 'choose your own adventure' trail experience. While the region is home to paved multi-use walking trails including the Munger and the Gitchi-Gami State Trails, the SHT is complementary to these by offering a non-motorized, natural surface footpath limited to foot travel or snowshoe only, except in a few locations where the alignment is shared with other trails. Thereby, the SHT fills a gap with a traditional hiking footpath.

While there are some other "long trails" – such as the Border Route Hiking Trail and Kekekabic Trail –the Superior Hiking Trail uniquely is located near population centers, connects communities, and provides more access to other area goods and services.

Photo credit: D2 Photographic

Segment A – Southern Terminus to Martin Rd Trailhead

The first segment of the Superior Hiking Trail, comprised of roughly 48 miles of trail from the Minnesota/Wisconsin border through Duluth to the Martin Road Trailhead, offers a unique hiking experience through 14 sections. Starting at the border, hikers are immersed in the lush landscapes' characteristic of the northern wilderness. The Trail meanders through dense forests, traversing a variety of terrain that includes rocky outcrops, rolling hills, and a unique urban experience.

As the SHT progresses towards Duluth, hikers are treated to stunning views of Lake Superior and the surrounding valleys. The City of Duluth itself provides a unique combination of urban and natural environments including the Duluth Lakewalk. This portion is a multi-modal path accessible. The Trail navigating through parks and green spaces, offering a taste of wilderness within a city setting. The Martin Road Trailhead marks the conclusion of this segment.

Superior Hiking Trail System Overview
Segments A through C

Legend

Segment
— Segment A
— Segment B
— Segment C

State Parks and Forests
State Forest
State Park
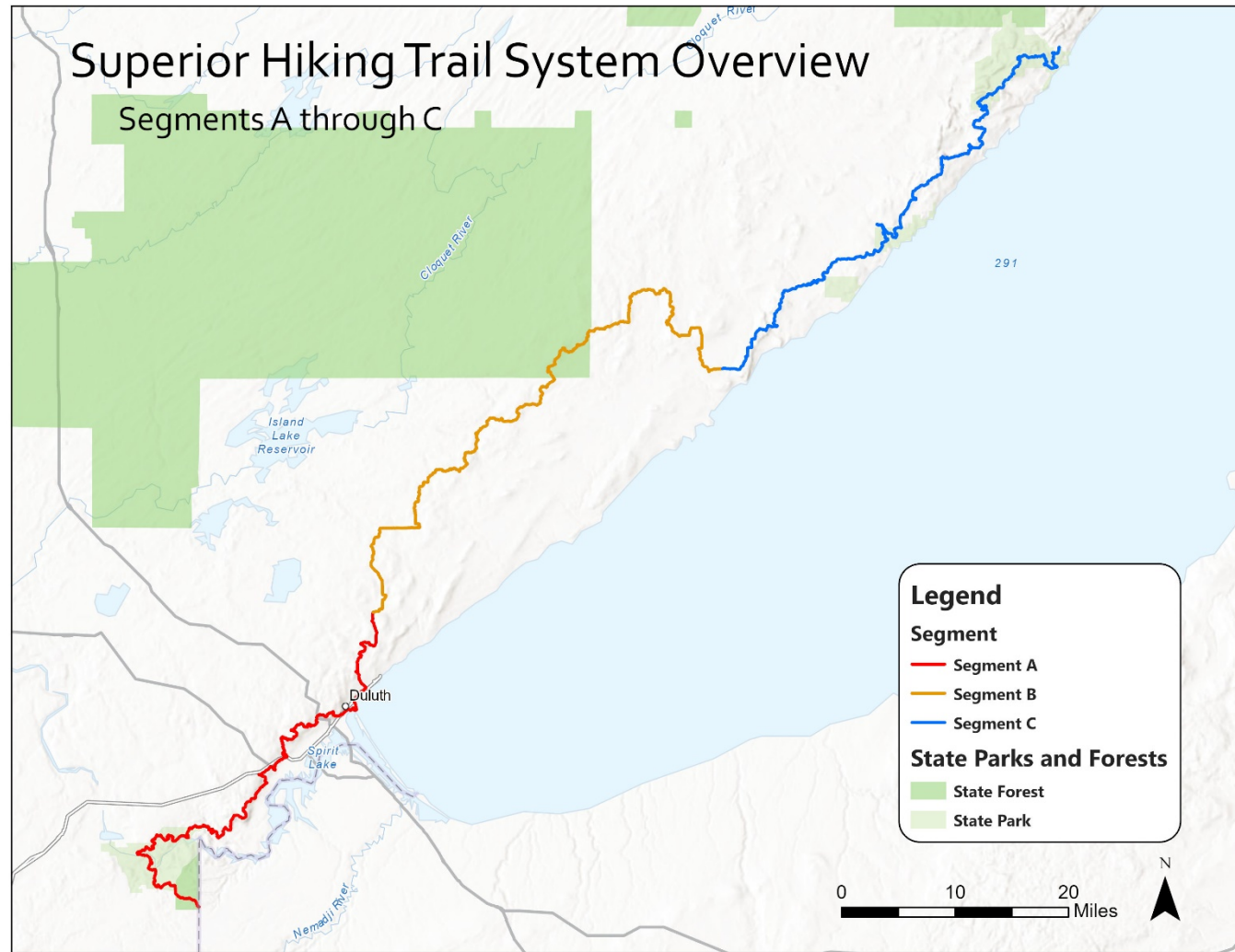
Segment B – Martin Rd Trailhead to Lake County Rd 301

The second segment of the SHT starts at the Martin Road Trailhead, located in the northern outskirts of Duluth, and spans approximately 53 miles to the Lake County Road 301 Trailhead north of Two Harbors. This stretch of the Trail offers hikers a diverse and captivating experience through the rugged beauty of Minnesota's North Shore. The SHT winds through dense woodlands, where hikers encounter a mix of terrains, from challenging ascents to gentle descents, and the Trail occasionally opens to wide vistas that showcase the lake. As the path leads towards Two Harbors, hikers may find themselves immersed in serene, forested areas, crossing bubbling streams, and traversing rocky ridges. After the Eastern Fox Farm Road Trailhead, hikers walk briefly through the Cloquet Valley State Forest. The segment culminates at Lake County Road 301 Trailhead, whereupon Segment C starts.

Segment C – Lake County Rd 301 to Minnesota Highway 1 Trailhead

The third segment of the Superior Hiking Trail unfolds through 51 miles of pristine northeastern Minnesotan landscape, starting at the Lake County Road 301 Trailhead. This stretch of the Trail is characterized by a blend of Boreal Forests, rolling terrain, and the captivating influence of Lake Superior. Hikers embark on a journey that may lead them through rocky outcrops, providing challenging inclines rewarded by panoramic views of the lake and surrounding wilderness.

Notably, this segment takes adventurers through the iconic Gooseberry Falls and Split Rock Lighthouse State Parks, adding cultural and natural landmarks to the journey. These parks offer a chance to explore cascading waterfalls, historic sites, and the rugged beauty of the North Shore.

The SHT's well-maintained paths strike a balance between natural ruggedness and accessibility, catering to a wide range of hiking experiences. Depending on the season, the landscape may be adorned with wildflowers, and encounters with wildlife contribute to the overall allure of the Trail. The endpoint of this segment signifies a noteworthy milestone along the Superior Hiking Trail, providing hikers with a sense of accomplishment and potential rest in Silver Bay.

Segment D – Highway 1 Trailhead to Temperance River Wayside Trailhead

The fourth segment of the Superior Hiking Trail spans roughly 49 miles from Silver Bay to Caribou Falls State Wayside. This segment is a testament to the SHT's commitment to showcasing the differing landscapes and geological wonders that define this iconic trail. The journey commences north of Silver Bay at Highway 1.

As the Trail goes northward, it traverses through Tettegouche State Park, a natural gem that adds a layer of richness to the hiking experience. Overlook points offer sweeping views of the expansive horizon, creating moments of awe and appreciation for the surrounding natural beauty.

One of these views can be offered by the scenic Sawmill Dome, a section of escarpment that looks out over the lush Northern Minnesota landscape. Continuing northward, the SHT leads through the landscape of George Crosby Manitou State Park, where users have access to the Manitou Cascades, a multi-tiered falls on the Manitou River.
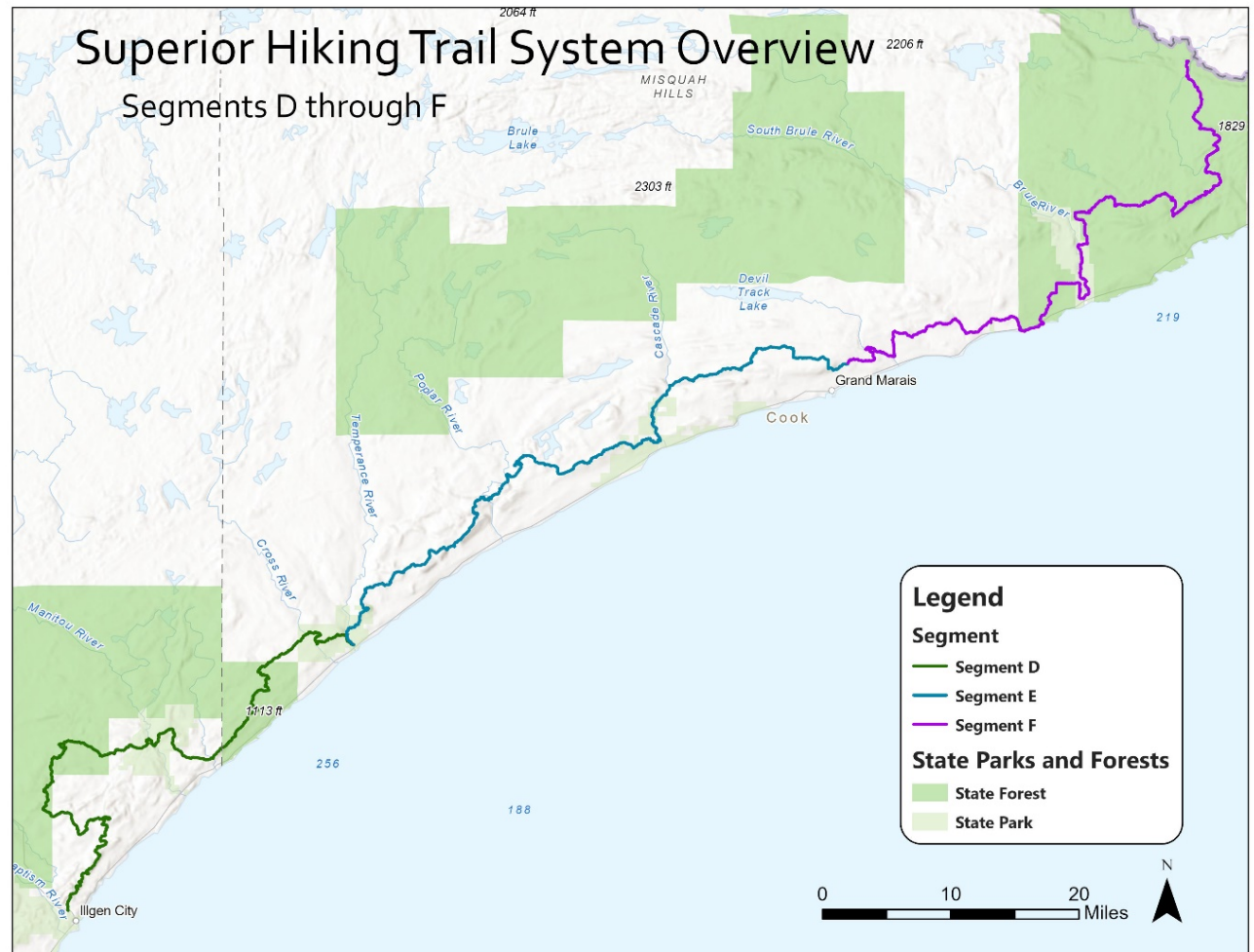
Segment E – Temperance River Wayside Trailhead to Pincushion Mountain Trailhead

The fifth segment is an extraordinary adventure that weaves its way roughly 48 miles from Caribou Fall Trailhead to Cascade River State Park, and ending in Grand Marais. Along this trail, hikers encounter some of the most iconic features of Minnesota's North Shore. Carlton Peak invites adventurers to conquer its heights, providing gorgeous views of the surrounding wilderness that are nothing short of breathtaking. The ascent to Carlton Peak offers a thrilling challenge and a sense of accomplishment as hikers stand atop this prominent summit.

Continuing the journey, the Trail unfolds the scenic loops of Oberg Mountain, where the rugged terrain is complemented by overlooks that showcase the vivid colors of the changing seasons. Hikers navigate through this enchanting environment and dramatic landscapes that define the Oberg Mountain loops. Glimpses of Eagle Mountain, the highest point in Minnesota, grace the horizon, offering a majestic backdrop to the Trail.

The SHT winds towards Grand Marais, the attraction of Eagle Mountain persists, leaving an indelible mark on the journey. The spectacular views of this towering peak serve as a constant reminder of the vast and untamed beauty that characterizes the North Shore. Arriving in Grand Marais, hikers not only complete a memorable leg of the SHT but also carry with them the enduring impressions of Carlton Peak, Oberg Mountain loops, and the majestic presence of Eagle Mountain.

Segment F – Pincushion Mountain Trailhead to Northern Terminus

The concluding leg of the Superior Hiking Trail commences in Grand Marais, guiding hikers through a captivating expedition towards the 270 Degree Overlook and the Northern Terminus just over 50 miles away. Departing from Grand Marais, hikers may find themselves immersed in lush forests, crossing babbling streams, and encountering pockets of vibrant wildflowers that add a colorful touch to the SHT.

Maintaining its proximity to Lake Superior, the Trail intermittently reveals views of its rugged coastline. Waypoints along this segment include the Kadunce River Wayside and Judge C.R. Magney State Park. The Kadunce River Wayside, with its pristine river and scenic beauty, offers a serene pause along the Trail. Judge C.R. Magney State Park adds a touch of wilderness exploration, presenting hikers with unique geological formations like the mysterious Devil's Kettle waterfall.

Going northward elevated vantage points provide sweeping views of the vast lake, contributing to the SHT's awe-inspiring allure. The final stretch towards the 270 Degree Overlook and the Northern Terminus holds particular significance, symbolizing the culmination of an unforgettable journey along the Superior Hiking Trail. The 270 Degree Overlook offers an all-encompassing spectacle, inviting reflection on the landscapes traversed, while the Northern Terminus marks the Trail's endpoint, inviting a sense of accomplishment amid the wilderness.

Vision Statement

The Superior Hiking Trail holds immense regional significance as a 300-mile footpath along Lake Superior's northern edge in Minnesota. It showcases the diverse natural beauty of the North Shore region, offering access to boreal forests, waterfalls, rocky ridges, and inland lakes. Beyond its ecological importance, the Trail is culturally significant, passing through lands with a rich indigenous heritage. It is a hub for tourism, supporting local economies and providing recreational and educational opportunities. The SHT fosters a sense of community and pride among residents and visitors, making it a cherished symbol of the region's natural and cultural heritage.

Vision for the Master Plan

-Integrating sustainable trail infrastructure.

-Ensuring protected trail access across public and private lands.

-Providing safety and access for a diverse user base of the hiking trail.

-Achieving Regional Designation by the Greater Minnesota Regional Parks and Trails Commission

Trends

Demographics

The Northeast Region, as defined within the Northeast Region Profile of Minnesota's Network of Parks and Trails, consists of nine counties: Aitkin, Carlton, Cook, Crow Wing, Itasca, Koochiching, Lake, Pine, and St. Louis. The SHT trail's runs through the counties of Carlton, St. Louis, Lake and Cook, known as the North Shore of Minnesota within the Arrowhead Region. The region is long inhabited by the Anishinaabe people and the Trail traverses through the 1854 Ceded Territory of the Lake Superior Chippewa and is book-ended by two sovereign Ojibwe nations, Fond du Lac (Nagaajiwanaang) to the south, and Grand Portage (Gichi Onigaming) to the north. In addition, the SHT runs the entire length of the City of Duluth, the largest city in the region, with a population of 86,697 per the 2020 census.

According to the 2020 Census, the Northeast region as population density of the population density of the Northeast region (20.2 persons per square mile) is less than that of the state overall (66.6 persons per square mile). The Minnesota's Network of Parks and Trails predicted that between 2005 and 2035 the projected change for statewide population growth is 24.2%, the Northeast region is predicted growth average of 12.7%. Cook County also saw the biggest population increase in the region from 2010 to 2017, although it was the smallest county in terms of total population.

Table of Population Trends for Superior Hiking Trail Counties based on 2020 Census				
	Cook County	**Lake County**	**St. Louis County**	**Carlton County**
Population (2020 Census)	5,600	10,910	200,231	36,207
Largest population age base	65-74 years, 18.6% (1,038)	55-64 years, 17.5% (1,894)	55-64 years, 14.8% (29,661)	55-64 years, 14.7% (5,313)
Median Household Annual Income (in 2022 dollars), 2018-2022	$71,937	$73,860	$66,491	$74,660
Population per square mile	3.9	5.2	32.0	42.0

The most apparent statewide and regional trend is the increasing population group of people 65 years and older. This group is expected to increase by about 20,000 people in the next 10 years and make up nearly 30 percent of the population in the Northeast region. The Outdoor Foundation's 2022 report on Outdoor Participation Trends found the number of outdoor participants 55 years and older increased more than 14% since 2019, and senior participants ages 65 and older were in the fastest-growing age category. The assets and facility inventories, and infrastructure assessments throughout this Master Plan will help identify problem areas on the SHT that might be an impediment to users. The identified trail and facility improvements have the potential to ease mobility or other functional barriers that might prevent someone from using SHT. While we acknowledge maintaining the rugged nature of the Trail, planning for safety and access for a diverse hiker base will include consideration for the increasing aging population.

The SHT draws in users from all over the nation and SHTA membership base extends to several other states. According to the SHTA's 2022 Membership Survey, residents from Wisconsin (7.3%), Iowa (2%), and Illinois (1.7%) make up the second largest membership base after Minnesota (81.3%). And the remaining 7% of members reside outside of the Midwest in states such as California, Colorado, Florida Texas, and Virginia.

SHTA fosters a community of over 450 volunteers from all over the Midwest. Volunteers donate their time to be trail and campsite adopters, help with trail renewal projects and Duluth area trail maintenance, participate in special projects, provide media and photos of the SHT, and table at community events. According to Do Good Institute, in 2023 one volunteer hour is valued at $31.80. The 8,000 SHTA volunteer hours in 2023 add up to a contribution of an estimated $254,400 (in kind) in their time to the care of the Trail.

Recreational Trends

In 2017, The Minnesota Department of Natural Resources (DNR) conducted an Outdoor Recreation Household Survey to better understand and respond to Minnesotans' needs and preferences for outdoor recreation. This survey found 70% of respondents reported that outdoor activities are very important to them and nearly two thirds of Minnesotans reported recreating, on average, more than twice per week in 2017. According to a study done by the Outdoor Industry Association, outdoor recreation is a growing sector of the United States economy. The number of people engaging in outdoor recreation has increased 26% since 2020. In addition, the outdoor recreation base has become more diverse including increases in participation among Black, Hispanic, and LGBTQIA+ people. As outdoor recreation grows, the SHT adds to the long list of outdoor recreational opportunities that can be found in Northeast Minnesota.

The Northeast region serves as an important nature-based tourist destination for people across the state, nation, and beyond. Along with the SHT, Northeast Minnesota is home to several other natural and recreational gems including include a national park, a national monument, two national forests, 22 state parks, and 8 state trails.

Photo Credit: Jonathan Hubin

Public Health Values

Northeast Minnesota is, as is the rest of the nation, experiencing increased levels of obesity and other health issues related to a lack of exercise. A key component to encouraging people to be more active is to eliminate barriers to non-motorized movements. Studies show there are a multitude of health benefits from spending time in nature including physiological health, improved cognitive development, psychological well-being, and positive social impacts. The 2017 Minnesota Outdoor Activities Survey found that top motivations for spending time outdoors were to feel healthier (69%), rest mentally (65%) and be physically fit (64%).

Physical activity and being in outdoor spaces are associated with health benefits that contribute to an economic value base. A study printed in the journal of *The Physician and Sports Medicine* noted that physically active adults have approximately 30 percent lower health care costs than physically inactive adults. Better physical and mental well-being can have a positive effect on people's engagement and productivity at work and within their community. Maintaining and improving outdoor facilities such as the SHT will serve as encouragement for people to be active and build positive relationships with themselves and their communities.

Photo Credit: Kent Keeler

Economic Development/Tourism

The Outdoor Recreation Roundtable (2023) estimates that the outdoor recreation industry generates an estimated $563.7 billion in consumer spending nationally. Looking at Minnesota's outdoor recreation statistics, Explore Minnesota noted that the Northeast region contributes to the state's generation of $16.6 billion in leisure and hospitality sales and employing nearly 275,000 workers in Minnesota's leisure and hospitality businesses. The communities along the Northshore, specifically those in Lake and Cook Counties, are particularly dependent on recreation tourism in their economies. In Cook County 23% and in Lake County 13% of employed people work in the tourism sector, respectively.

The membership survey done in 2022, which yielded 433 responses, showed that the Superior Hiking Trail is a regional destination. Responses came from 211 cities from 19 states: Minnesota, North and South Dakota, Wisconsin, Iowa, Indiana, Pennsylvania, Virginia, Texas, California, Tennessee, Illinois, Arizona, Massachusetts, Ohio, Missouri, Florida, Colorado, and Michigan. Members of the Trail are a huge proponent as to why the SHT exists and the vastly different areas of the United States where members are present shows the regional significance the Trail brings to the northeast region of the state.

The Trail offers a wide range of economic opportunities for the region and local municipalities that it runs through. The biggest economic center for the Northeast region is Duluth, MN (as stated on page 12), as well as other economic centers of Two Harbors, Beaver Bay, Silver Bay, Grand Marais, Lutsen, Hovland, and many State Parks and other trail networks. Aside from traditional hiking opportunities the Trail also allows visitors and users other elements including foraging, snowshoeing (winter), photography, trail running, hunting, and bird watching. There are designated campgrounds along the Trail, as well as other staying amenities along the north shore.

The user survey conducted by SHTA in summer 2023 (which yielded 346 responses) generated evidence that the economic benefits the SHT provides to the Northeast Region of Minnesota are substantial and is an important recreational asset that adds to quality of life for local residents of the region. Approximately 74% of users are not local residents and stay more than one day in the area when they visit. Among these visitors, the 260 responses to the survey question, "Where are you staying?" yielded the following: 27% answering private residence, followed by 17% (hotel/motel), 16% (on the trail in a designated campsite), 14% (State Park campground), 10% (rented cabin/Air BnB), 10% (Resort or Private Campground/RV Park), roughly 6% (Other). This breakdown shows that many trail users rely on outside overnight amenities that are not necessarily associated with the SHT and is evidence of the different ways in which SHT users inject money into the NE regional economy. With respect to local permanent and seasonal residents, many use the SHT multiple times over the hiking season, which is an indication of additional value. While these residents do not bring "new money to the region," they do patronize SHT-related businesses and circulate additional dollars through the economy.

Given this promising preliminary evidence, the SHTA is working with researchers at the University of Minnesota to design and conduct an economic impact analysis (EIA) of the SHT's economic impact on the region. Documenting the economic impact of the SHT is complex because the research team needs to differentiate local users from non-local users, determine distances non-local users travel to use the SHT, estimate average duration of stay and expenditures for lodging, food, and other essentials, and account for other expenditures on ancillary activities. The team also needs to

differentiate between visitors to the region principally to hike the SHT from visitors to the region for other purposes like fishing in Lake Superior or the Boundary Waters but who also use the SHT. In addition, the researcher team needs to assemble detailed information on events on the SHT like the annual spring and fall trail ultramarathons. These events, which attract hundreds of runners and friends and supporters each year, add additional benefits to the region. Researchers have indicated, based on user and membership survey results, that the SHT's economic impact is substantial, but because of these complexities noted, more data are needed to produce valid estimates. SHTA staff and University researchers are optimistic that follow-up surveys in 2024 can produce the information needed to complete an EIS in the future.

Superior Hiking Trail 100 Mile Race Start - Photo Credit: Tone Coughlin

Development of Master Plan

Data Gathering & Stakeholder Coordination
- Data collection of past trail plans, construction projects, photos, GIS files
- Kick-Off Meeting and Public Input Feedback
- Data Collection efforts of user count, user intercept survey, and asset inventory
- Discussion of informtion about the Trail and the GMRPTC requirements

Document Data Collection and Review
- Review collected data and comments from public engagement
- Discussed desired trail system improvements
- Regional Significancce Statement Drafted

Analyze Results and Develop Reccomendations
- Review the draft plan
- Discussion on the physical sustainability and ecological impacts of projects
- Project implementation, and future management of the system
- Community input was gathered from social media and SHTA newsletter

Master Plan Draft Review
- Input considered and incorporated into the plan form the Steering Committee
- Approve the sections required by the GMRPTC minimum standards

Finalize Master Plan
- Final adjustments made and sent to Steering Committee for review
- Final meeting with SHT Board for review
- Send to Board for adoption

The Master Plan Process

In 2022, the Master Plan was identified as a need to serve as a comprehensive roadmap outlining the vision, goals, and strategies for the development and preservation of the Superior Hiking Trail for the next 10 years. It will serve as a guiding document for trail management, sustainability initiatives, and future enhancements. The Master Plan will ensure that the SHT remains a pristine and accessible wilderness experience while accommodating the increasing interest in outdoor activities.

March 2023: Project Kick-Off

Worked with the SHTA to identify stakeholders and form a project steering committee, and technical sub-committees. gathered any available data including past trail plans, construction projects, photos, and GIS files relevant to the project. Three additional forms of data were identified and gathered throughout the planning project: trail user counts, user intercept survey, and an asset inventory of amenities/structures along the entire trail. The SHTA led a Member User Survey process in the fall of 2022

June 13, 2023: Steering Committee Kickoff meeting (Virtual)

This meeting focused on review of the project scope, how the steering committee will engage in the master plan development process, and vision for the plan. The steering committee was

asked to provide input on the public engagement process including a review of Social Pinpoint.

October 25, 2023: Steering Committee Data Review and Public Input review (Virtual)

The steering committee met and reviewed preliminary data collected and comments received from public engagement efforts. The committee discussed desired trail system improvements including trail expansion, maintenance, policy changes, trail system programming, communication improvements, technology, mapping, and any other ideas identified by the group to include in the master plan.

February-April 2024: Review of Master Plan Draft

The steering committee, sub-committees, SHTA Board of Directors, and land managers were asked to review the draft plan. SHTA presented a draft to the US Forest Service and the Minnesota Department of Natural Resources. There was discussion on the physical sustainability and ecological impacts of projects, project implementation, and future management of the system. Public input was garnered through social media and SHTA's monthly newsletter Trail Mix.

May-June 2024: Adoption of Master Plan

Input on the draft was considered and incorporated into the plan. A final draft was presented to the steering committee and SHTA Board for approval in June.

Goals for Public Engagement

Identify key locations for trail assets and infrastructure needs.

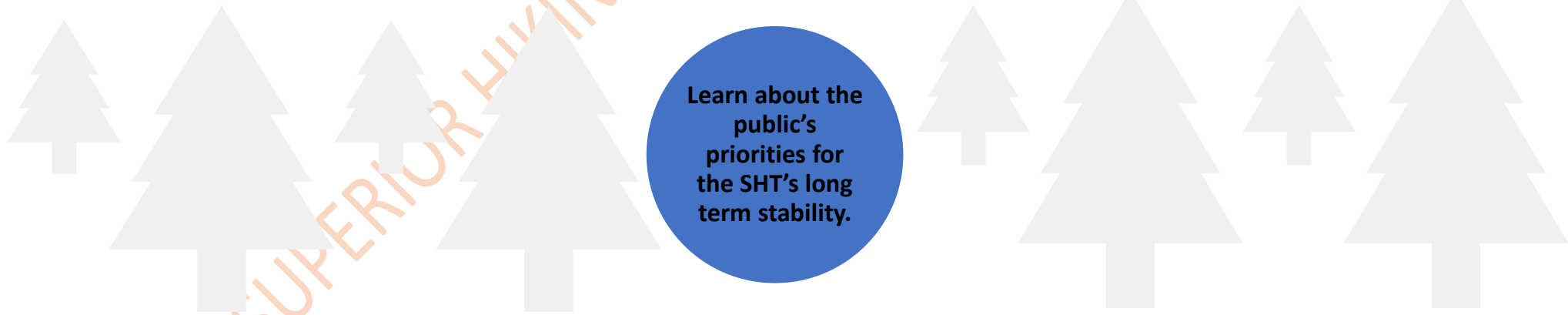Learn what the public enjoys about the SHT and what they would like changed.

Identify areas on the Trail in need of improvements or conservation efforts.

Learn about the public's priorities for the SHT's long term stability.

Data Collection and Public Engagement

Asset Inventory

The SHT underwent a comprehensive Asset Inventory collection initiative, driven by dedicated volunteers giving 230 hours of time and utilizing ArcGIS Survey 123 collection application. The project, initiated on May 19, 2023, aimed to assess and document the condition and dimensions of critical trail. 85% of the Trail assets were inventoried such as bridges, staircases, drainage systems, campsites, etc. Recommendations on the Asset Inventory are in the Master Plan Recommendations on page 46.

The gathered data offers a detailed snapshot of the SHT's infrastructure, including a combined length of 32,067 feet (6.07 miles) of boardwalks and puncheons, showcasing the scale of trail features. The 1,658 signs inventoried contribute to a comprehensive understanding of the Trail's wayfinding and informational resources. This Asset Inventory provides valuable insights into the current state of SHT infrastructure and will form a foundation for strategic planning and investments. For charts relating to this inventory including asset type, counts, and percentages see Appendix B.

Before / Timber steps on the Superior Hiking Trail

After / C-Steps on the Superior Hiking Trail

Before & after of old Boardwalk being replaced with longer lasting and safer material.

User Counts Data and Methodology

The user counts data were analyzed by the research team, including Dr. Greg Lindsey, University of Minnesota; Mackenzie Hogfeldt; SHTA, and Clayton Beck and Carson Polomis; ARDC. The goal was to count and estimate the total trail traffic on each section of the trail during the hiking season, provide the SHTA an estimate of the number of different user visits to the trail. These numbers were then used to prepare the estimates of the economic impact of the Trail in the region.

The research team, working in collaboration with park and recreation staff from Duluth, identified 6 segments of the trail, each of which included anywhere from 6 to 14 sections. The SHTA's long-term objective is to monitor each of the 50 different sections on the Trail. During the summer of 2023, the research partners completed monitoring on 23 different (i.e., 46%) of all sections. Additional sections will be monitored in 2024 and future years. The research partners used nine infrared sensors manufactured by either TRAFx or Eco counter to count trail traffic (i.e., hikers passing by the sensor). Three "permanent" counters were deployed throughout the summer hiking season (i.e., from June 9th through November 9th), while six were rotated from section to section for periods ranging from 29 to 31 days during the hiking season. Each counter was placed at least .25 miles in on either the main trail or spur trail leading to the main trail – if the main trail was too far away. The sensor was pointed across the trail, and the counters were positioned on a stationary object high enough to avoid counting animals, but low enough to still be able to count children.

Although the monitoring program was designed to count trail traffic on each section every day the counter was deployed, some counters malfunctioned, and counts were not obtained. In addition, dates of deployment of counters were adjusted because of weather or other commitments and responsibilities of staff and volunteers.

When counts were not obtained researchers used standard statistical procedures to impute estimates so that complete daily records could be used. For example, the counter for Segment A wasn't installed until August, so data for that segment only exists for August, September, and October. Similarly, the original plan was to install permanent counters on several heavily used sections (e.g., Gooseberry State Park and Split Rock River wayside trailheads). In addition, due to malfunctions, dates for only limited periods were obtained. Complete daily records were obtained for the three permanent counters on the Oberg, Bean & Bear Lakes, and Reeves Rd sections.

The City of Duluth also helped provide count data on a couple segments in the city. One segment from a permanent counter set up on the Duluth Lakewalk, in the section: Enger Park to Rose Garden. This counter yielded a total number of 232,031 users over the 176-day period, with high volumes of people in June and July. The Lakewalk is a multi-modal form of transportation, accommodating both those walking/hiking, and those biking – giving a potential reason as to why this number is so high. This is just another aspect of how the Superior Hiking Trail adds to the regional attractiveness of both the City of Duluth, and the Arrowhead Region as a whole.

The principle behind the use of both permanent counters and short-duration counters was to obtain data about variation in daily patterns of use at the permanent monitoring sites that could be used to extrapolate the short duration counts to the complete hiking season. The research team initially downloaded the counts in hourly intervals, which were then summed to daily counts. For each of the permanent sites, the average daily trail traffic during the hiking season was then calculated. The team then followed a method used in the *2019 Minnesota State Trail Visitor Study* called the "day-of-year factoring method" was used to extrapolate the short duration counts on each segment to average daily trail traffic (as cited in MnDNR/DOT, 2019).

After the daily average trail traffic was estimated for all counted sections, the research team then explored two alternative procedures for estimating volumes on trail sections where trail traffic was not monitored. One alternative involved use of professional judgment to "match" categorical trail traffic volumes from sections that were monitored to sections that were not monitored. For example, this procedure involved the SHTA and other trail experts matching some sections to "low traffic" averages, some to "high traffic' averages, etc. The second alternative involved putting the median traffic volume for all segments that were not monitored (i.e., an average of 31 hikers per day). The estimates reported here were based on the second alternative method involving putting in the median traffic volumes for all segments that were not monitored using the 31 hikers per day.

The total trail traffic – from counters and aggregation – was 708,647. However, this number must be adjusted to estimate

the total number of user visits to the trail. This adjustment is necessary because many hikers take out and back trips, far fewer than complete entire sections in a visit. This fact means that the same individuals get counted twice. To adjust for this, following procedures used by Minnesota DNR to estimate visits to Minnesota bike trails, the research team assumes 85% of trail users make out and back trips while 15% are through hikers on the section where they were counted. Using this assumption, the team estimates that users of the Trail make more than 400,000 visits to the trail annually. The users are not all unique individuals. The SHTA knows from Trail and membership surveys that many individuals make many visits each year. Thus, the total number of different people who use the Trail is much smaller than the estimate of total user visits.

Total Trail Traffic
708,647

85% Out and Back Hikers
15% Section / Thru Hikers

301,175
Out and Back Hikers
106,297
Section / Thru-Hikers

Estimated User Visits
407,472
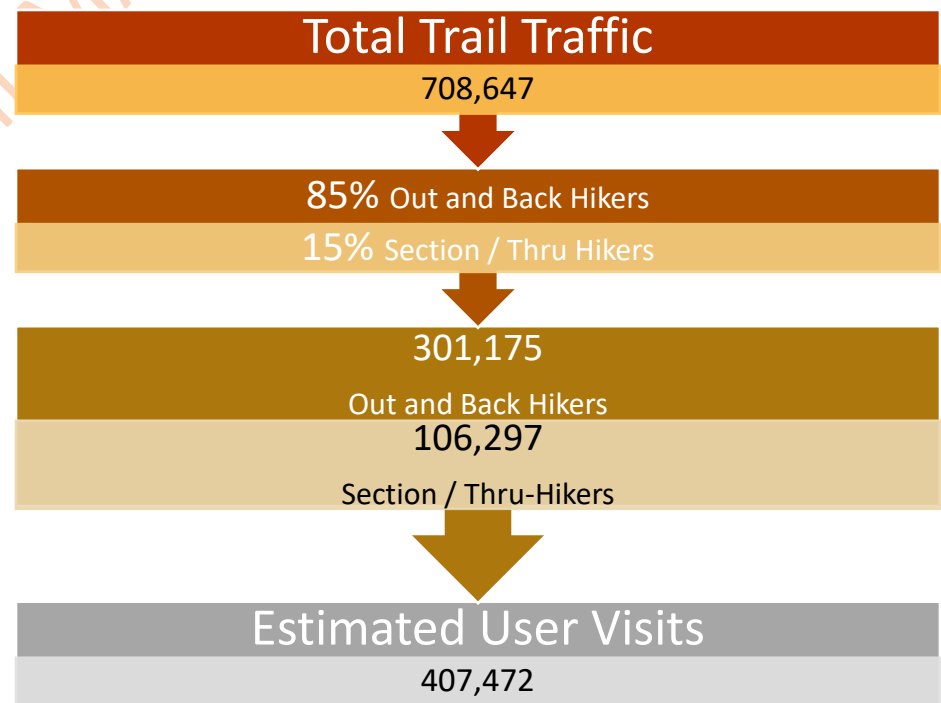
Intercept Survey

The Intercept Surveys conducted at various strategic locations along the Trail's corridor have played a pivotal role in gathering valuable public input to inform the master planning process. Utilizing SHTA's robust volunteer base, an intercept survey was administered on the Superior Hiking Trail between July 22, 2023, and October 21, 2023.

The locations selected for these surveys - Beck's Road, Highland/Keen Creek, Martin Road, 301/Forest Road, Split Rock Wayside, Penn Boulevard, Highway 1, Lake County Road 6, Temperance River Road, Pike Lake Road, Kadunce, and CR Magney - were strategically chosen to ensure a comprehensive understanding of user perspectives and needs.

The surveys captured the insights and opinions of trail users, hikers, and visitors frequenting these key trailheads. By utilizing volunteers in the survey process, the Superior Hiking Trail team fostered community engagement and collaboration in the data collection effort.

The information gathered through the Intercept Surveys is a crucial foundation for the master planning process, offering an understanding

Graphic of cards handed out for public input of the SHT Master Plan.

of user preferences, trail experiences, and areas of improvement. The diverse array of locations ensures that the perspectives of a broad spectrum of trail users are considered, contributing to the development of a more inclusive and responsive trail management strategy.

Intercept Survey Results

1. What is your primary activity on the Trail today? (5 No Responses)

- Day Hike 76.3%
- Backpacking (overnight or longer) 14.5%
- Other 1.4%
- Trail Running 4.3%
- Thru Hike 0.6%
- Climbing 1.4%

77.4%
14.7%
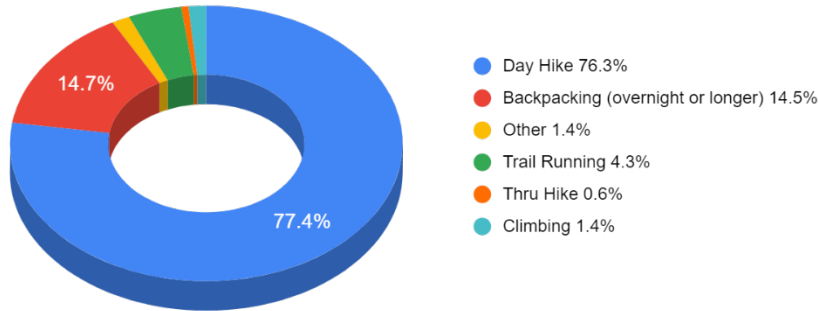
2. How far do you intend to travel on the Trail today? (5 No Responses)

- More than 3, up to 6 miles
- More than 6, up to 10 miles
- More than 10 miles
- Up to 3 miles

31.7%
12.3%
7.9%
48.1%
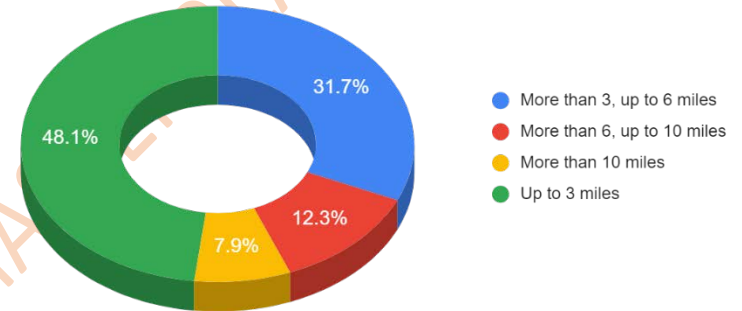
3. How long are you in the area? (2 No Responses)

- 3-4 days
- 1 day
- 2 days (1 overnight)
- A week (5-7 days)
- Longer
- I live in the area

29.1%
13.4%
18.6%
8.7%
25.9%
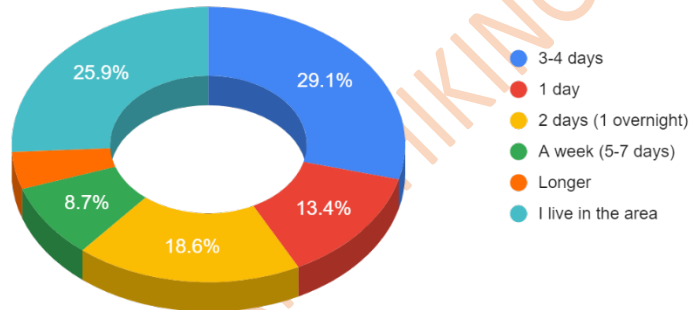
4. If more than one day, where are you staying? (92 No Responses)
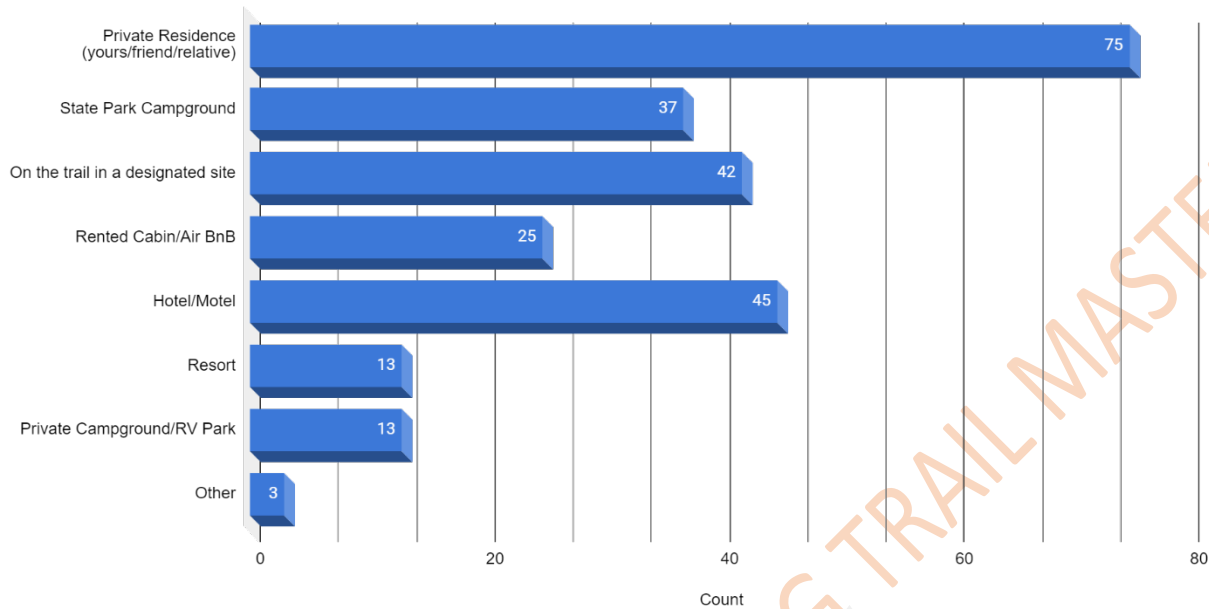
This provides insights into the diverse accommodation choices of the surveyed participants. The most common response is staying at a private residence, with 75 participants choosing this option. Other accommodation choices include staying at a state park (37), on the Trail in a designated site (42), in a rented cabin/Airbnb (25), in a hotel/motel (45), at a resort (13), in a private campground/RV park (13), and 3 participants chose "Other."

5. Are you familiar with the Superior Hiking Trail Association?
   (3 No Responses)

- Yes
- No

47.7%   52.3%
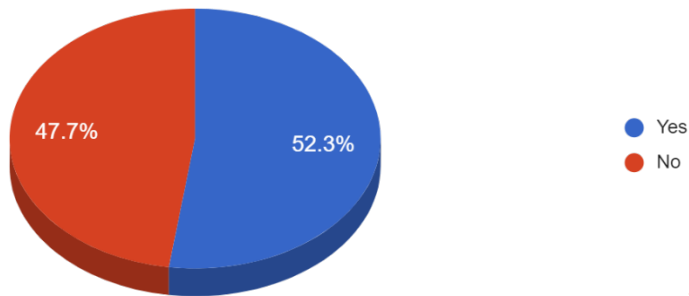
If so, are you a member?

18.0%

- No
- Yes

82.0%
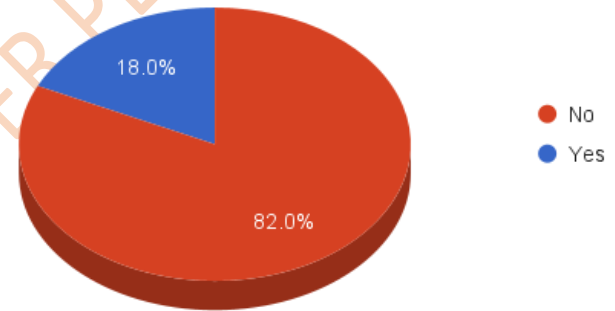
This provides insights into the level of awareness and membership affiliation among the surveyed participants. Overall, slightly more than half of the participants (52.3%) are familiar with the Superior Hiking Trail Association. Among those familiar, 18% are members, while the majority (82%) are not members. On the other hand, 47.7% of participants are not familiar with the Superior Hiking Trail Association.

6. What resources did you use for your hike today? (74 No Responses)
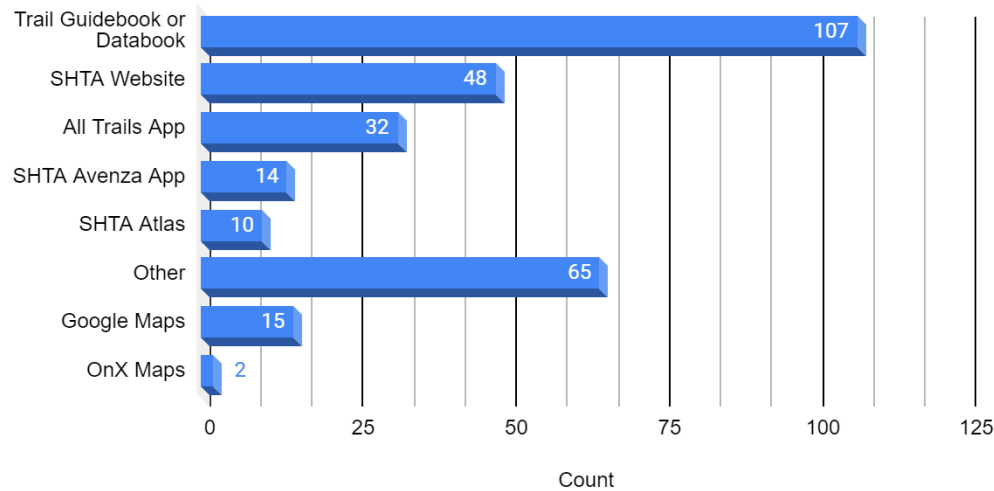
Most participants (107) used a Trail Guidebook or Databook for their hike. Other commonly used resources include the SHTA website (48), All Trails App (32), SHTA Avenza app (14), SHTA atlas (10), and Google Maps (15). A few participants used OnX Maps (2). Additionally, 65 participants mentioned using other resources, which included hiking with friends or family, printed maps from hotels or stores, online forums, and other app services.

7. Generally speaking, how often do you utilize the Superior Hiking Trail? (18 No Responses)

- This is my first time on the Trail
- A few times per year
- A few times per month
- A few times per week
- Once a year
- Other
- Daily

24.1%
46.3%
17.4%
8.5%

8. Have you experienced any barriers getting on the Trail?

- Signage/Wayfinding
- Parking/Wayside
- Trail Maintenance

40.6%
43.8%
15.6%
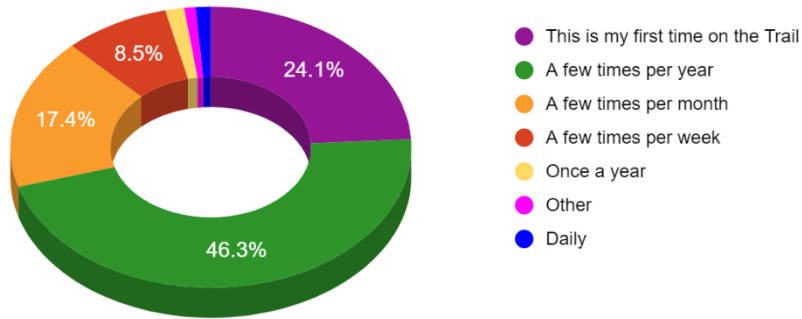
This provides insights into the diverse patters of Trail utilization among the surveyed participants. The most common response is that participants use the Superior Hiking Trail a few times per year (43.9%). A significant portion (22.8%) mentioned that this is their first time on the Trail, while others have varying frequencies, including a few times per month (16.5%), a few times per week (8.1%), and once a year (1.4%). Some participants indicated daily usage (1.2%), and a small percentage (0.9%) chose "Other."
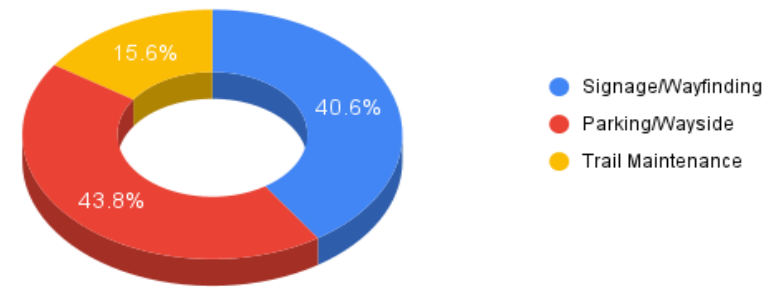
This provides insights into the challenges faced by a subset of participants when accessing the Superior Hiking Trail. Many respondents did not provide a response or reported no barriers. However, 32 respondents did indicate experiencing barriers. The most common barriers reported were related to parking/wayside (43.8%) and signage/wayfinding (40.6%), while a smaller percentage mentioned trail maintenance issues (15.6%). For a breakdown of responses, please refer to appendix C for more details.

9. Is there anything else you'd like to share with us today?

- ● Additional Campground
- ● Overgrown
- ● Shuttle
- ● Wayside Upgrade
- ● Mapping/Information
- ● Trail Maintenance
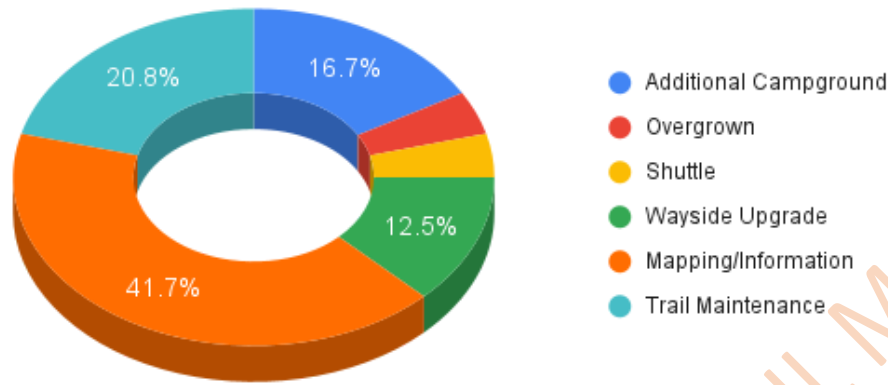
This provides a glimpse into specific areas of interest or concern raised by the participants in their open-ended responses. There was a total of 261 responses. While most respondents did not provide additional comments, 24 participants shared valuable insights. The most common themes in their comments were related to mapping information (41.7%), trail maintenance (20.8%), additional campgrounds (16.7%), wayside upgrades (12.5%), shuttle services (4.2%), and concerns about overgrown trees, shrubs, or grasses (4.2%). (Appendix C)

10. How do you identify? (Race/Gender)

Race/Ethnicity Identification (128 No Responses)

Gender (57 No Responses)

- Female
- Male
- Non-Binary
- Other
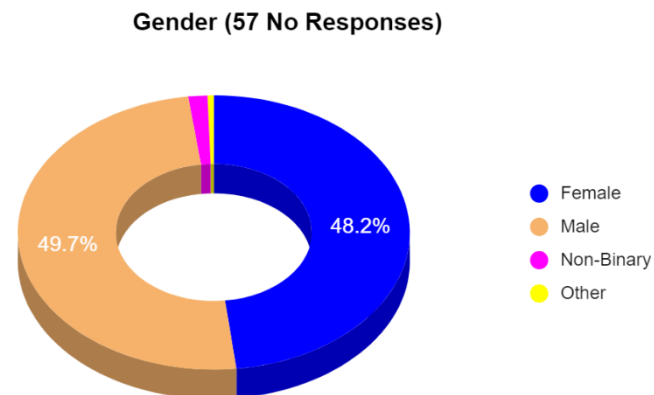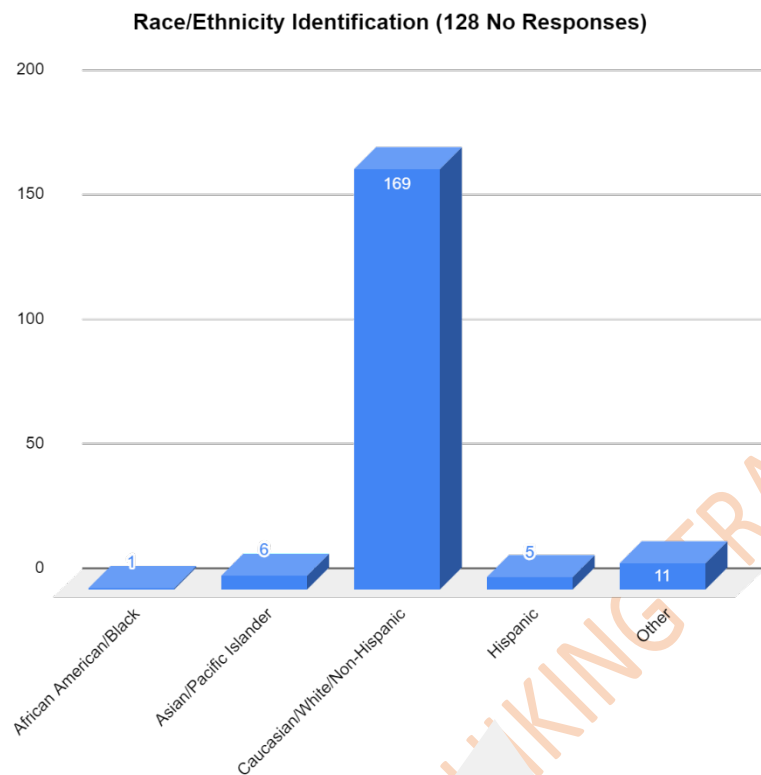
There was a total of 300 respondents. Some responses only garnered race or gender answers so the numbers vary. The question was posed as optional to users but would be beneficial data to the SHTA. Many respondents identified as either female (48.2%) or male (49.7%). A small percentage identified as non-binary (1.8%), and a smaller percentage selected "Other" (0.3%) to describe their gender identity. As for race, 169 respondents chose Caucasian/White/Non-Hispanic, 6 chose Asian/Pacific Islander, 5 chose Hispanic, one individual chose African American, 11 chose "other", 128 individuals chose not to provide an answer.

11. What is your average annual household income?

- $0-$24,999
- $25,000-$49,999
- $50,000-$74,999
- $75,000-$99,999
- $100,000-$149,999
- $150,000+
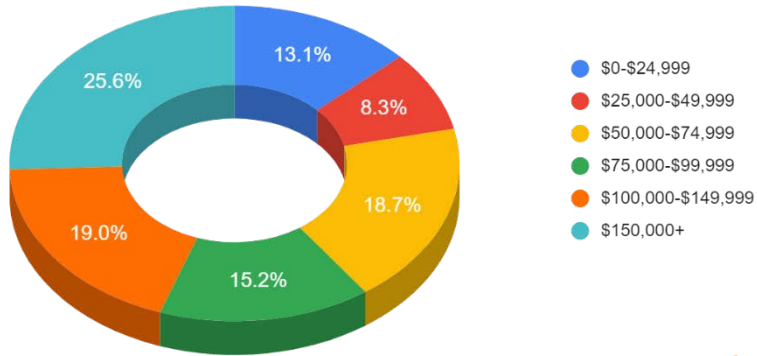
The question was posed as optional to users but would be beneficial data to the SHTA. These percentages represent the distribution of income categories among the surveyed Trail users. The breaks down of annual household income is based on 289 responses out of 346.

13.1% of respondents reported an annual household income in the range of $0-24,999, 8.3% reported $25,000-49,999, 18.7% reported $50,000-74,999, 15.2% reported $75,000-99,999, 19% reported $100,000-149,999, and 25.6% of respondents reported $150,000 or more.

Social PinPoint Online Community Engagement Tool:

Social PinPoint is a public engagement website designed to gather feedback from SHT users. Social Pinpoint provided an interactive and user-friendly interface that allowed participants, from the ease of their home, to participate in the master planning process. The website was launched on June 16, 2023, and comment period closed on December 1, 2023. The interactive public engagement map component helped provide valuable information by identifying key issues and ideas along the SHT's corridor using "pins." Each pin represents a different category which could be selected and dropped on the area of the Trail that the individual had a concern or idea about. These included new ideas, scenic spots, potential improvements, or other relevant information.

Overall, there were 120 contributions ranging across six categories:

- **Opportunities and Ideas**
- **Trail Maintenance**
- **Resource Protection**
- **Traffic and Trailhead**
- **Safety and Usage**
- **Signage and Wayfinding**

After submissions, the data was reorganized and analyzed into the six categories, the verbiage was shortened, and "themes" were given to build picture of what was most needed. These are discussed in greater detail below. The full theme table and top three comments based on average vote from each category can be found in Appendix D.

The Social PinPoint platform included an open-ended response segment called "Envision the Future of the Superior Hiking Trail" where users shared their vision for the Trail. These ranged from new regulations to campsites to trail access. 28 contributions were made, and with every contribution people could reply or like the vision.

Hiker word bubble depicting most used words from Social Pinpoint engagement tool.

This map depicts where key issues and ideas along the SHT corridor were identified by using "pins." Each pin represents a different category which could be selected and dropped on the area of the Trail These included new ideas, scenic spots, potential improvements, or other relevant information. The categories were as follows:

 Safety/User Conflict

 Signage / Wayfinding

 Trail Maintenance

 Resource Protection

 Traffic / Trailhead

 Opportunity / Ideas

Social PinPoint Identified Opportunities and Ideas:

This graph outlines diverse themes from user comments on a public social pinpoint map, reflecting valuable insights and suggestions for enhancing the SHT experience. The number of comments pertaining to each theme is in parenthesis. The themes include discussions around potential spur trails (12), rerouting sections of the Trail (8), creating additional campsites (5), constructing new bridges (3), and improving overall trail resources (2). Users have also expressed interest in enhancing the Trail termini with more substantial markers, as indicated by two separate entries, along with two miscellaneous ideas grouped under "Other."

The feedback from the social pinpoint map reveals specific opportunities and ideas pinpointed by the public. Noteworthy suggestions include a high-scoring proposal for the Split Rock River Bridge, indicating strong user support for this improvement. Another opportunity highlighted is a request for reconstruction of a bridge at the Temperance River to facilitate access to the upper falls.

Users called attention to signage improvements at the South Terminus, with a focus on providing hikers more wayfinding/signage into Wisconsin on the North Country National Scenic Trail (NCNST), and the desire for more substantial terminus markers, both of which scored 3.

All comments collected provide valuable considerations for future developments, emphasizing user engagement and collaboration in enhancing the SHT.

Opportunities and Ideas Themes
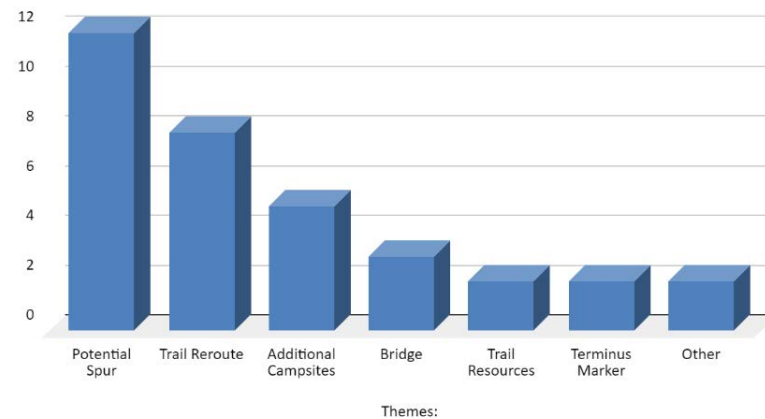
What we heard:

"It would be really great to see the Split Rock River bridge installed again in a way that it is also protected from future floods."

"Signage at South Terminus to continue into WI on NCT; More substantial terminus markers?"

"Move the trail through the public lands west of Vermillion, to reduce the amount of trail on the road."

Social PinPoint Identified Trail Maintenance:

The graph shows key themes related to trail maintenance, offering insights derived from user comments and evaluations on a public platform. The predominant themes include addressing bridge-related issues (7), conducting trail repairs (5), addressing erosion concerns (3), implementing mowing practices (2), removing protruding rebar pieces (2), and managing boardwalks (1). Additional themes encompass trail creation (1), addressing specific questions (1), ensuring proper toilet facilities (1), and miscellaneous suggestions under the category "Other" (2).

User comments in the table highlight specific maintenance needs and concerns. The removal of protruding rebar pieces, which are currently or formerly supported wood elements crossing or adjacent to the Trail, garnered an average score of 2. Another user comment addresses an unfortunate situation where a bridge is out indefinitely at High Falls, also receiving a score of 2. A third comment emphasizes the Trail's worn condition, citing difficulties with walking on the wooden planks due to water damage and erosion, scoring an average of 1.

These comments collectively shed light on crucial areas requiring maintenance attention along the Trail, offering valuable insights for prioritizing, and strategizing future trail maintenance initiatives.

Trail Maintenance Themes
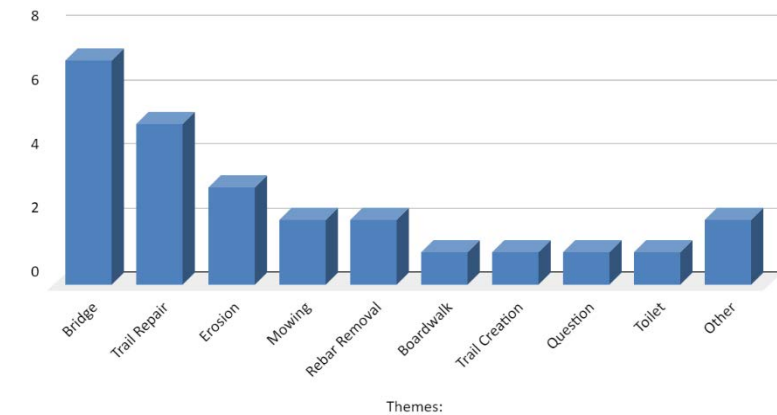
What we heard:

"Removal of all protruding rebar pieces that currently/formerly support(ed) wood elements crossing and/or adjacent the trail."

"State trail to Grand Marais/Pin Cushion Mtn Trailhead is overgrown - needs to be mowed."

"Another unfortunate "bridge is out indefinitely" situation at High Falls."

Social PinPoint Identified Resource Protection:

The themes identified in this table focus on various aspects of trail management and improvement. User's suggestions included the desire for waysides (2), addressing erosion issues (2), proposing potential trail reroutes (1), and emphasizing tree maintenance (1). Notably, the comment about Lindskog Road emphasizes the necessity for a pit toilet due to high usage, indicating a need for improved waste management infrastructure. Another concern is the erosion on a short, steep slope that requires protection, underscoring the importance of implementing measures to preserve the Trail and surrounding environment. The mention of a very eroded stairway further emphasizes the need for maintenance and erosion control at specific points along the Trail.

The user suggests a boardwalk through an arctic fen off the snowmobile trail, indicating a potential trail reroute to enhance the overall trail experience. The comment on tree maintenance highlights the need to address overgrown cedar trees that may be encroaching on the SHT.

Popularity of the trailhead and the potential installation of an outhouse raises a vital consideration for accommodating the needs of the increasing number of trail users. This user feedback provides valuable input for trail managers and conservationists to prioritize and plan improvements, ensuring the sustainability and enjoyment of the Trail for all users.
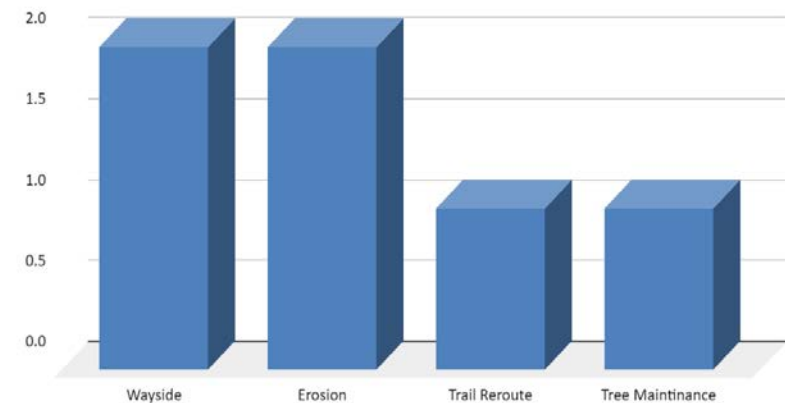
Resource Protection Themes

What we heard:

"Short steep slope needs erosion protection"

"Tree plantings could use some maintenance (e.g. cedar trees that are outgrowing their cages)."

Social PinPoint Identified Traffic and Trailhead:

The table on Traffic and Trailheads highlights key themes derived from user feedback, offering insights into areas that need attention and improvement. Themes identified include the need for additional parking (5), the importance of better signage (3), suggestions for restroom facilities (1), considerations for potential new trailheads (1).

User comments elaborate on specific challenges and opportunities related to traffic and trailhead management. The comment about parking at an unofficial trailhead near Lake Agnes underscores the demand for more parking spaces, receiving an average score of 3. Another user expresses a desire for restroom facilities at a particular trailhead, emphasizing the importance of amenities to enhance the overall trail experience, with an average score of 2. Additionally, a comment addressing the need for a larger parking lot at a trailhead that caters to both hikers and mountain bikers reflects the growing popularity of the SHT and the increasing demand for adequate infrastructure, scoring an average of 1.

These user insights provide valuable considerations for trail managers, helping prioritize enhancements such as additional parking, improved signage, and facilities like restrooms to accommodate the diverse needs of trail users. The feedback emphasizes the importance of proactive planning to ensure a positive and sustainable experience for the growing number of individuals enjoying the Trail.

Traffic and Trailhead Themes
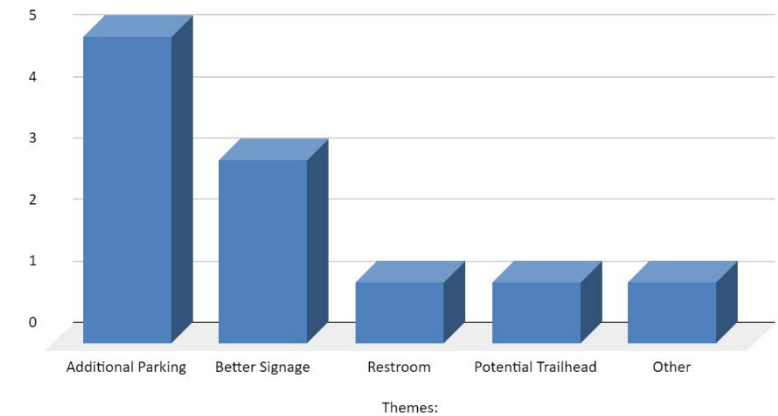
What we heard:

"This [off road near Cathedral of the Pines] is an unofficial trail head that a lot of people use, especially to head into Lake Agnes. It would be nice if there was actual parking area instead of the many cars just gathering along the road."

"Consider additional paint/signage/safety options for this busy road crossing."

"This small trailhead has been seeing significantly more use over the years, such that it would be worth considering whether its capacity could be increased a bit."

Social Pinpoint Identified Safety and Usage:

The themes highlighted in this table revolve around safety and usage concerns along the SHT. Notable themes include issues with staircases (4), sanitation concerns (2), the need for bridges (2), and addressing road crossings (1).

A safety concern is expressed in the comment about a wobbly handrail on the upper section of a staircase with a drainpipe, emphasizing potential hazards and receiving an average score of 4. Another comment suggests the construction of a bridge at a specific location, indicating the recognized need for infrastructure improvements with an average score of 2.

Additionally, a safety concern is raised about an encampment of homeless people in a general area, recognizing the potential impact on hikers' sense of security. This comment received an average score of 2.

These user insights underscore the importance of maintaining and enhancing safety along the Trail, addressing infrastructure issues, and fostering a secure and enjoyable experience for all trail users. The feedback provides valuable information for trail management and maintenance teams to prioritize improvements in these specific areas.

Safety and Usage Themes
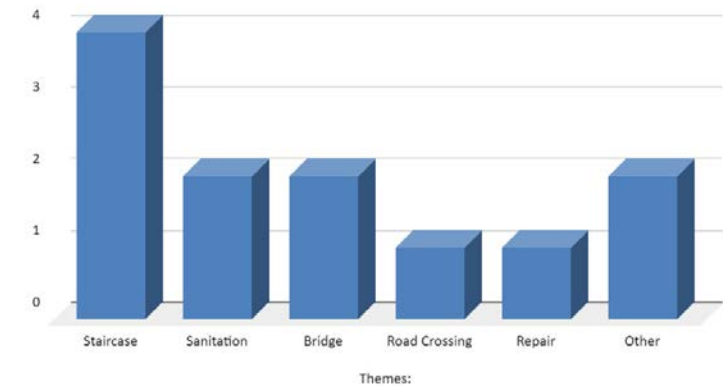
What we heard:

"Last I was at the drainpipe in June 2023 the handrail on the upper section was quite wobbly, almost safer not to grab it at all."

"By overlook very steep rocky section, not safe on wet days – staircase?"

"Sanitation needs to be addressed at this location."

Social PinPoint Identified Signage and Wayfinding:

In this examination of Signage and Wayfinding themes, the table highlights the significance of Clearer Signage (5) as a primary concern among users. Additional themes include the suggestion for an Additional Trail on the map (1) and the proposal to Redo Signage (1).

User comments delve into specific instances where signage improvements are warranted. The mention of a potential kiosk receives an average score of 3, proposing a solution that could effectively reach individuals who may not be aware they are on the Superior Hiking Trail or North Country National Scenic Trail. Another comment discusses the challenges faced on the detour loop off Tom Lake Road, indicating that signs are not always visible or clear, with an average score of 2. Lastly, a user notes the difficulty in wayfinding at a location where several trails intersect, suggesting an average score of 1.

These insights from trail users shed light on critical areas for improvement, emphasizing the need for clearer signage, more comprehensive trail mapping, and strategic adjustments to enhance wayfinding. This information serves as valuable input for trail management teams, aiding in the refinement of signage systems to ensure a more navigable and enjoyable experience for all trail enthusiasts.

Signage and Wayfinding Themes
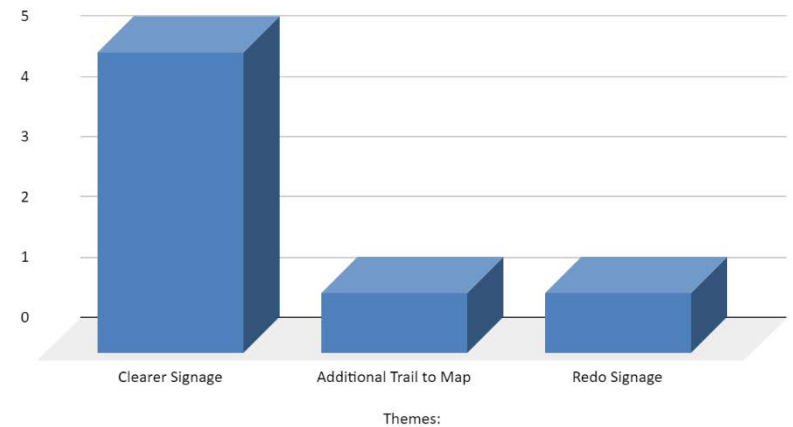
What we heard:

"Could a SHT kiosk be added near here? It would reach a ton of people who don't realize they're on the Superior Hiking Trail / NCT."

"Signs on the detour loop off Tom Lake Road are not always visible or clear."

"Few blue blazes along east side of Split Rock loop – difficult to follow in winter."

Master Plan Recommendations

The following recommendations for the SHT Master Plan are developed based on a cultivation of the public engagement results, the asset inventory, and feedback from the steering committee, land managers and the public.

Development and Trail Management

Efforts along the Superior Hiking Trail will prioritize maintaining the rugged natural land as well as implementing infrastructure improvements to ensure access and safety along the Trail. Over 40 miles of the SHT runs across land parcels vulnerable where access to the land could be restricted or denied due to changes in property ownership. Vulnerable land parcels also include areas of the Trail that could be impacted by public and private development projects. Working towards trail development and protection, and trail expansions and reroutes in collaboration with land managers, state, city and county entities, and private property owners will further protect the longevity of the Trail.

Mitigation of highly trafficked trailheads, increased parking needs and other levels of amenities, such as vault toilets, would be addressed in collaboration with the respective land manager. Exploring cost-share options with other user groups to create multi-use trailheads reduce cost and maintenance.

Key Recommendations:

- Seek partnership with ownership entities to provide better parking and bathroom facilities at trailheads as identified.
- Continue to monitor vulnerable parcels and secure them if/when possible, to ensure the long-term protection of the Trail alignment.
- Use Asset Inventory and trail count data to prioritize bridge and other infrastructure improvements. Prioritize compromised assets in high traffic areas.
- Formalize SHTA's practice and protocol on what water-crossings warrant a bridge, versus stepping stones.

Wayfinding and Signage

Improvements to wayfinding and signage ranked high on the public input responses. Wayfinding is the use of signage, color, and other design elements to help occupants navigate a space. Wayfinding improvements should maintain a balance of clear communication without disrupting the rugged beauty of the SHT. The Trail utilizes signage and color blazing for wayfinding. Maps are available for purchase or apps can be used in conjunction with available landmarks and signage. Trail backpacking or camping is the second most popular activity. Public input responses called for the ability to access real time availability information on campsites along the Trail, and while the technology does not exist for this yet, this could be something that evolved with mapping technology improvements. Signage is also an asset for trail management on the SHT by keeping trail users on the predetermined path, encouragement of proper trail etiquette, identification of historical or ecological significant area, and location of trail amenities.

Photo Credit: John Steitz Photography

Key Recommendations:

- Improve uniformity in trailheads signage. Include description of the Trail, promotion of the SHTA, reminders of proper trail etiquette, and "know before you go." Reminders such as longer emergency response times or limited cell service
- Utilize QR codes to scan a symbol linked to non-essential trail information.
- Utilize location-based signage data from Asset Inventory and Social Pinpoint to prioritize signage improvements.

Photo Credit: D2 Photographic

The Great Northern Route

The Great Northern Route represents the originally envisioned alignment of the SHT when it was being planned through the City of Duluth. Unfortunately at that time it had proven difficult with existing land owners and permissions to find an alignment to stay continuously up on Duluth's ridgeline, so the SHT's alignment was brought down into the urban core by a series of road walks and City-owned paved pathways. The Great Northern Route spans a strategic 4.2 miles and stands as a crucial element within the broader SHT master plan, as we try to provide the highest scenic value along the Trail's corridor. This proposed alternative route seeks to redefine the user's journey by allowing the user to remain on Duluth's ridgeline, deviating from the current conventional urban experience on Duluth's Lakewalk, a paved multi-use pathway along the shoreline. Commencing at the Twin Ponds Parking Lot trailhead, the route charts an upland ridgeline course to run parallel and at times seamlessly integrate with the Duluth Traverse Mountain Biking Trail, incorporating segments like Antenna Farm, Central School, Hill Topper, Westchester, and Chester Bowl Rim.

To formalize its role, the Great Northern Route necessitates official designation and collaboration with the City of Duluth. The inclusion of clear signage ensures that SHT users can easily navigate the urban terrain, making the reroute inviting and accessible. Beyond the recreational aspect, this trail alignment presents a unique opportunity for SHT users to choose between the working port and downtown route or a quieter, more scenic path upland on the city's hillside.

It's important to note that the Great Northern Reroute, unlike the original urban center route, doesn't provide direct access to supplies such as grocery stores, restaurants or hotels. However, the strategic placement within Duluth's urban expanse not only offers a distinctive hiking experience but also serves as a conduit connecting hikers to the amenities available in the city. While the Trail may not be a direct supply route, its integration with the existing urban infrastructure ensures that hikers can easily access provisions during their trail adventure. In essence, the Great Northern Reroute contributes as a thoughtful and multifaceted addition to the Superior Hiking Trail network, blending seamlessly with the city's landscape and offering diverse options to trail enthusiasts.

Key Recommendations:

- Work with City of Duluth to formally establish the 'Great Northern route' segment as an alternative route of the SHT main trail.
- Coordinate with current land mangers of this segment for coordination and support.
- Add signage designation the SHT portion of the trail.
- Obtain funding to build separated sections of the Trail.

Great Northern Route
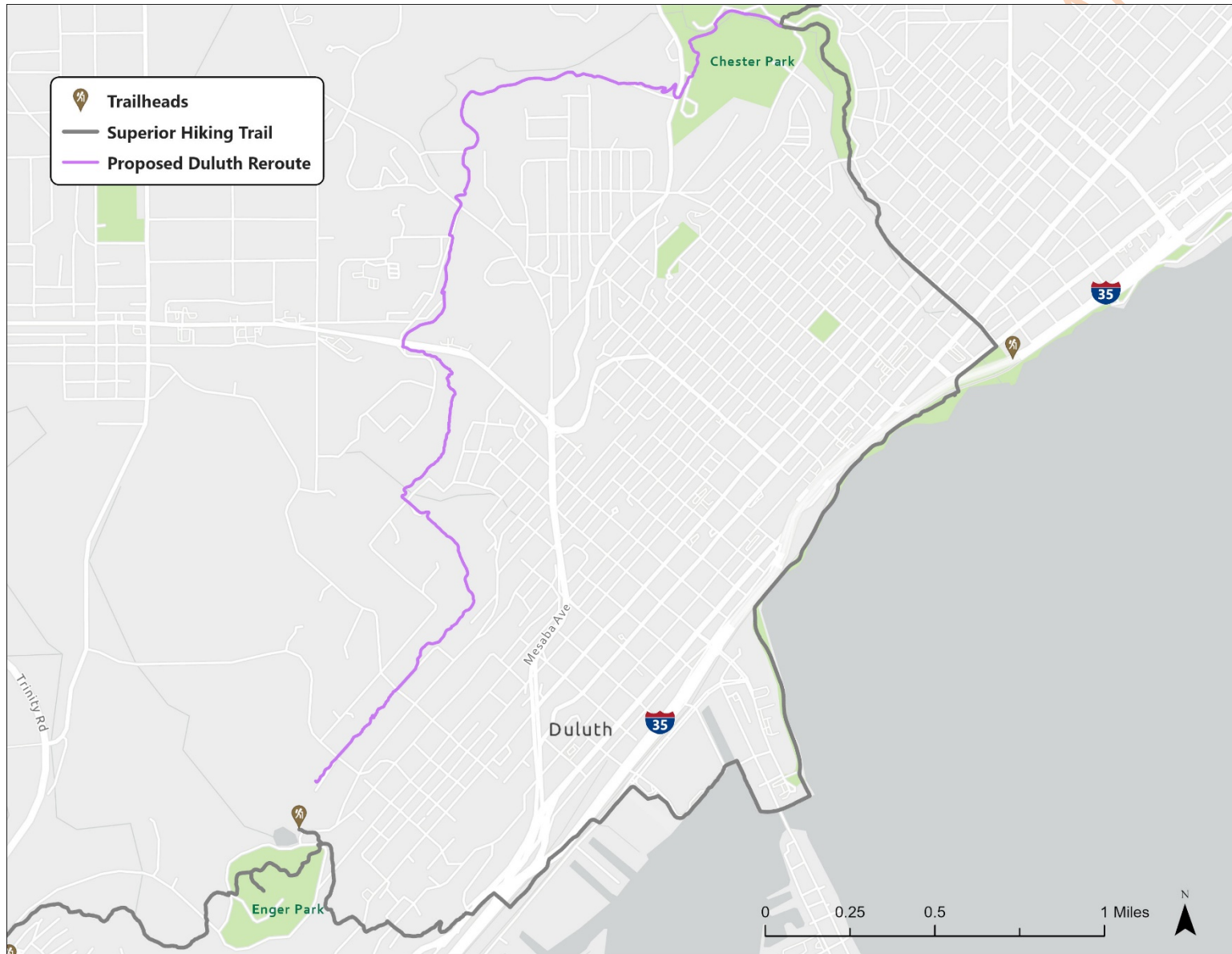
Forest Hill and Park Hill

The proposed Forest Hill Cemetery reroute marks a significant advancement in the ongoing efforts to enhance the Superior Hiking Trail experience in Duluth. This reroute aims to eliminate the road walks along Carlisle Ave and Vermillion Rd. The reroute is situated just after departing from Hartley Park in Duluth, holds great promise for trail enthusiasts. Instead of adhering to the conventional road path, he proposed trail would navigate through Forest Hill and Park Hill properties, circumnavigating the north side of the Forest Hill Cemetery and introducing hikers to a more immersive and picturesque journey, along with increasing safety.

The acquisition of these properties by the City of Duluth represents the City's dedication to securing the future of this reroute. By integrating Forest Hill and Park Hill properties into the Trail network, the City not only prioritizes the preservation of natural landscapes but also aligns with the broader vision of offering trail users an enriching and scenic experience. This reroute not only optimizes the Trail's alignment but also contributes to the overall appeal of the SHT, highlighting the collaborative efforts between trail enthusiasts and local authorities to continually enhance the hiking experience in the Duluth area.
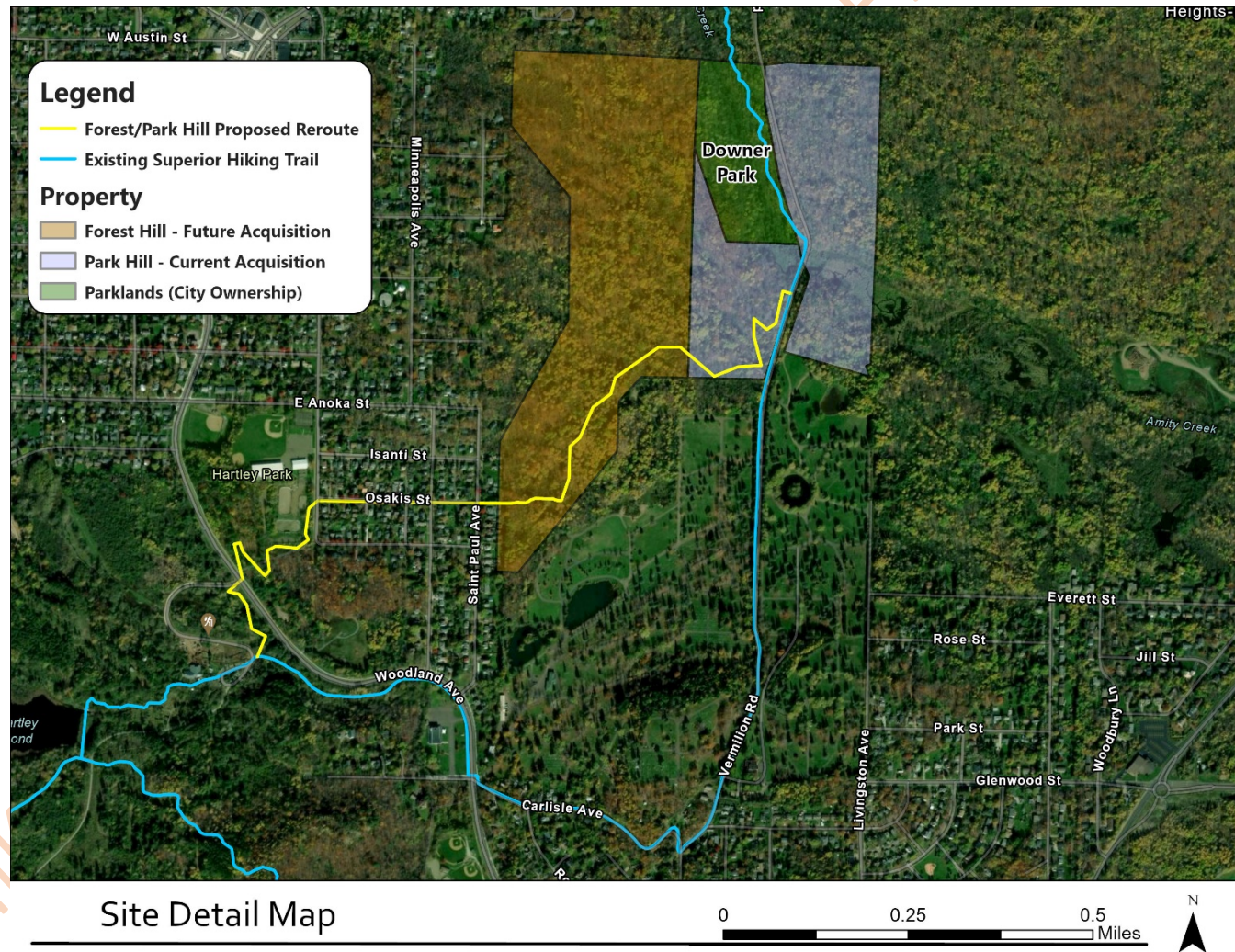
Site Detail Map

Hovland Gap Reroute

Nestled in the northern most section of the SHT, this 1 mile reroute, the Hovland Gap emerges as a pivotal consideration within the Superior Hiking Trail's ongoing evolution. This proposed reroute, strategically positioned to enhance safety and aesthetic appreciation, unfolds a unique opportunity for hikers to immerse themselves in the tranquil beauty nestled between the Brule River and the Flute Reed River. This departure from the conventional county road, where vehicular traffic poses a potential hazard, introduces a path that harmoniously meanders alongside the rivers, providing a serene and immersive experience for trail enthusiasts.

The envisioned reroute presents a distinctive challenge, as it navigates through both private and public land ownership. The proposed path winds through territories belonging to the Minnesota DNR, the State of Minnesota, and a privately owned parcel. Negotiating the complexities of these ownership structures becomes imperative to ensure the seamless implementation of the Hovland Gap reroute.

Continuing efforts of collaboration involving stakeholders from both public and private domains are essential to address legal, logistical, and environmental considerations, fostering a sustainable solution that respects the integrity of each property. In addition, when looking at construction it should be kept in mind that the proposed reroute winds its way between the Flute Reed and Brule Rivers. This indicates that some sort of water infrastructure could be necessary.

In navigating these challenges, the Hovland Gap reroute not only underscores the commitment to trail safety and scenic beauty but also exemplifies the necessity of effective collaboration among diverse entities. While this reroute does not completely eliminate a road walk, reducing it from 1.6 miles to 1 mile, is a major progress.

Key Recommendations:

- Seek collaboration with property owners to close the 'Hovland gap' as defined by the map to provide a more scenic experience on the northern section of the Trail.
- Secure long term alignment easements on land parcels not secured.
- Work with contractor to design and build route.

Hovland Gap Reroute shown alongside current SHT alignment with parcel data

Legend

— Existing Superior Hiking Trail

🅿 SHTA Trailheads

Tax Parcel

Ownership

▢ Private

▢ Public

— Hovland Gap

Site Detail Map

0   0.38   0.75 Miles
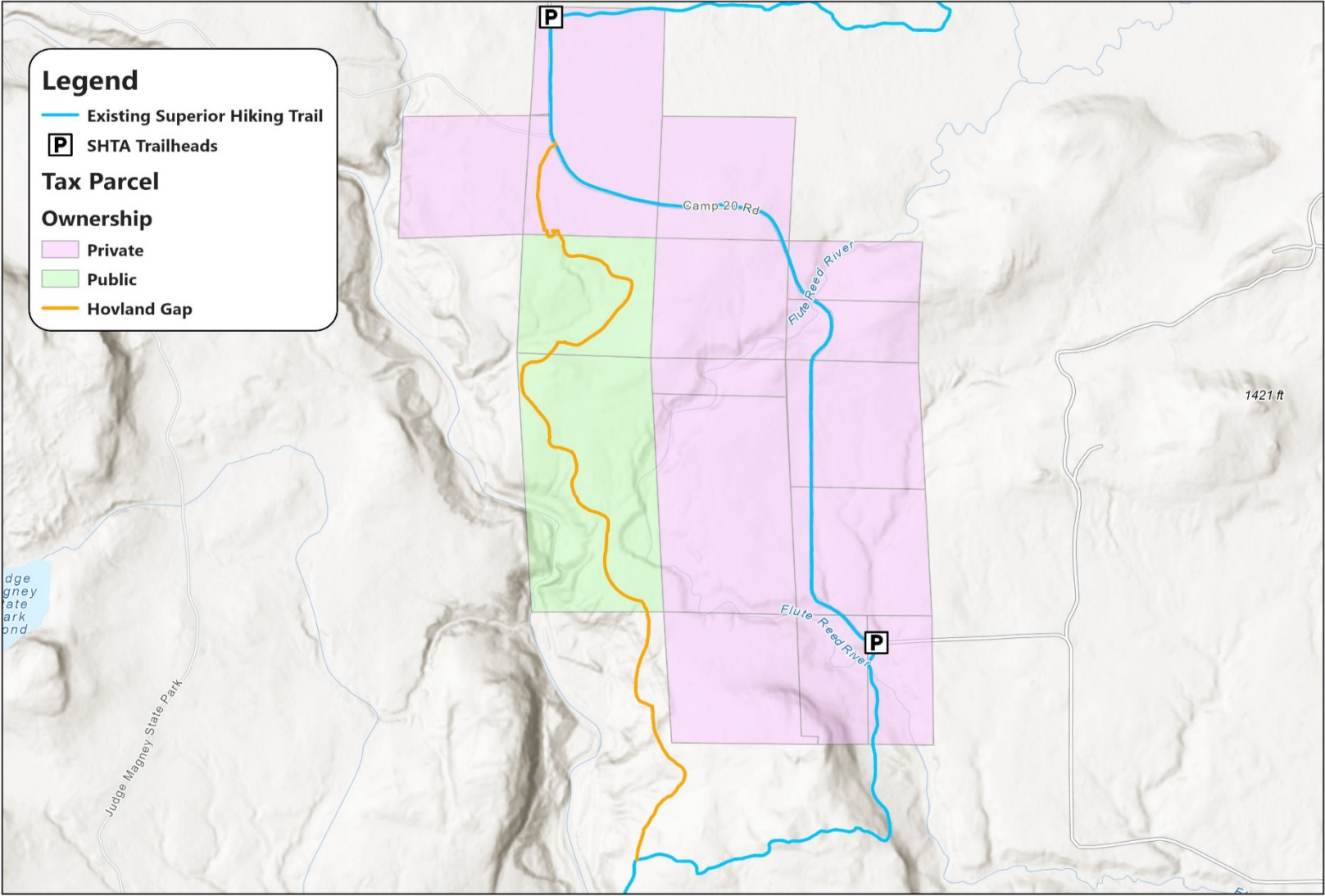
Asset Recommendations: Breakdown by Segment

The assets were each listed by condition:

- Poor: 1-3 year lifespan
- Fair: 3-5 year lifespan
- Good: 10+ year lifespan

This data may require further analysis by contracted trail builders to ensure condition accuracy and consideration of safety standards. It is noted that some assets listed as "fair" may be "poor." For this analysis, only the assets that were listed as "poor" were extracted and then further divided into segments to provide more precise information. It should be noted that there is a cost share with the DNR or Forest Service with bridge assets within respective land manager boundaries. For the itemized tables by segment, see Appendix Items B.

The cost breakdown listed below by segment was ascertained from the 85% data collection. Overall, to replace all 4,876 assets that were collected would cost approximately $12,941,823. The estimated cost of maintenance on all "poor" assets comes to $545,088. With these numbers, the approximated costs and number of assets for the remaining 15% of trail could be found. The estimated total remaining number of assets is 860, costing roughly $2,283,860 for all qualities of assets. Breaking this down by using percentages derived from the 85% of collected assets estimates that there are 86 poor assets remaining at an estimated cost of $91,354. It should be noted that these numbers were estimated, and the actual remaining number of assets could differ.

Segment A

Segment A needs the most repair both from the amount of assets collected, and the total economic cost. The largest cost comes from 445 steps that need to be replaced. Of these, 414 are wooden timbers, which are recommended to be replaced with C-Steps on a roughly 1:1.5 scaling totaling over $121,000. In addition, there was 76.5 feet of wooden water bar that needs to be replaced coming to roughly $192. It was found that the greatest concentration of poor assets was on the Kingsbury Creek and Highland Sections, an approximately 8.4 mile stretch. In all, the total estimated cost for Segment A is $132,719.52.

Segment B

Segment B has 142 feet of puncheon's that need to be reworked. At $100 per foot, this comes to $14,200 in replacement costs. In addition, 28 feet of boardwalk need to be replaced totaling $5,040. The Lake County Demonstration Forest section was found to be

the most in need, with half of the poor assets being on this section including all 28 feet of boardwalk and 55 feet of puncheon. The section's estimated total is $19,240.

Segment C

Segment C is in need of new stairs. Of the 278 total steps, 263 were timber which would be replaced by C-Steps. The total for steps is $80,189. There's 47 feet of bridge that needs additional analysis. At $727 per foot, this comes to $34,169. In addition, this section is in need of 60 feet of new puncheon, a new latrine, and a fixed-up tent pad totaling $8,270 for those three sets of assets. There are two primary sections in high need with Segment C: Lake County Road 301 which is primarily in need of new stairs, and the Split Rock River Loop starting at the Split Rock River Wayside which needs drainage features and stairs. Combined, these sections are composed of 71% of the segment's poor assets. In all, the total estimated cost is $123,841.

Segment D

Segment D's two most pressing assets are 660 feet of new puncheon ($66,000) and 61 feet of new bridge ($44,347). This section needs new stairs as 50 lumber steps need replacement. The section in the most need is Cook County Road 1, as 50% of the poor assets fall on this section. This includes 303 feet of puncheon ($30,300), and three drainage dips ($167). The total estimated cost for this segment is $123,924.4.

Segment E

Segment E needs 171 feet of new puncheon and 43 feet of new boardwalk coming to $17,100 and $7,740 respectively. This segment needs approximately 57 new stairs, projected to cost roughly $11,115. The two areas to look at the most are the Lutsen Mountain and Caribou Trail sections comprising 59% of poor assets. This includes 171 feet of puncheon ($17,100) and an 8x8 tent pad (~$850). In total, the estimated cost for this segment is $38,075.

Segment F

Segment F's biggest need is new stairs. 289 steps coming to $56,355 is followed by 352 feet of puncheon that needs replacing. This would cost approximately $35,200. The first three sections of Segment F are what need the most looked at with 86% of poor assets. 334 of the 352 feet of poor puncheon is in this first half of the Segment, as well as numerous poorly rated steps and retaining walls. The total cost for this segment is $107,288.

Resource Sustainability

The SHT holds much of its distinguishing characteristics in the beauty and health of the land it runs through. Climate change is the biggest challenge to management and resiliency of the SHT's natural resources. Minnesota is experiencing wetter, warmer, and stormier climate creating a 'new normal' for the environment. Data collected from the Minnesota Climate & Health Program paints a picture of the 'new normal' to include more extreme rain events coupled with extended periods of drought. In turn, this contributes to increased fire risks, soil erosion, strain the resources of native species, increased viability of invasive species, and expand the geographic range and types of ticks and mosquitoes.

In Northeast Minnesota, there has been an increase of invasive species including Emerald Ash Borer and Wild Parsnip. Another nuisance, that is native, is the Spruce Budworm. Increased labor and volunteer time is needed to manage these on the SHT. In addition, increased and more intense wildfires in the Midwest, Western US, and Northern Canada

Photo Credit: John Steitz Photography

produce periods of time when the air quality is dangerous for both trail users and physical trail maintenance efforts.

Improvements along the SHT will prioritize maintaining the integrity of natural land as well as minimizing user impacts throughout its system. Extended shoulder seasons (Spring and Fall) contribute to the increased trail use and reduces the Trail's time to heal from use. Built infrastructure improvements can mitigate damage from increased trail use, and adverse weather conditions.
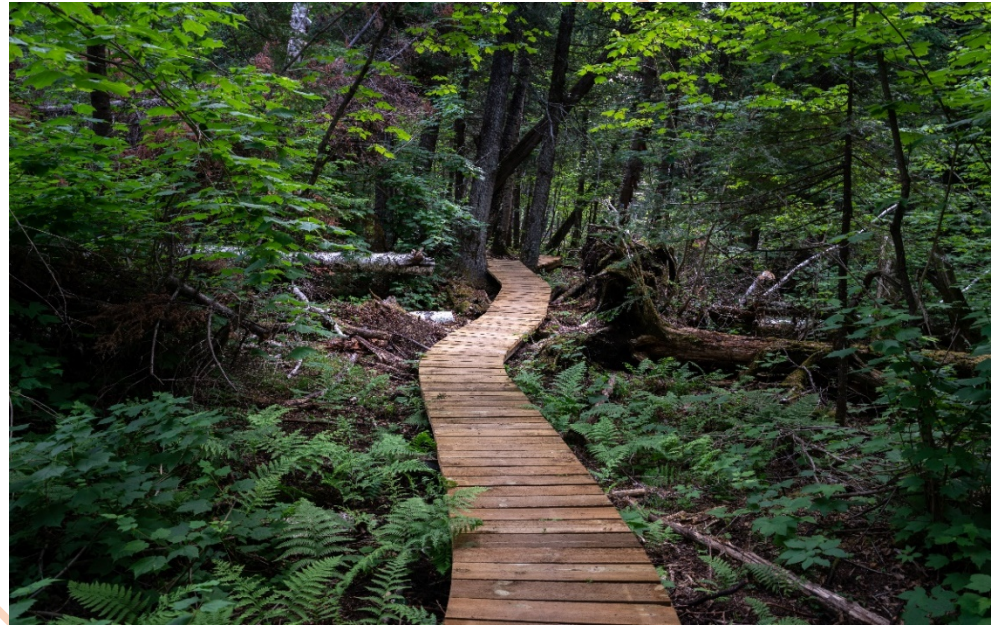
Key Recommendations:

- Monitor outside development projects along the Trail corridor that may impact the alignment and/or scenic nature of the Trail and participate in public input opportunities.
- Work with conservation organizations and land managers to work towards a "green corridor" not just a trail corridor.
- Seek to improve 'Leave No Trace' information along the SHT and at campsites to promote sustainable stewardship of the land.
- Continue to provide training resources for volunteers with up-to-date guidance and direction on best practices for trail maintenance with a goal of catching minor problems before they become acute.
- Work to mitigate ecological impacts of SHT by identifying areas on the Trail susceptible to deterioration and apply appropriate action(s).

Operational Sustainability

Day-to-day maintenance is anticipated to remain the responsibility of the SHTA and volunteers. There is an annual budget allocation for contract work requiring skillful labor or special projects, general maintenance grants, and supporting volunteer completed work. Over 80 percent of SHTA's annual budget is devoted to ongoing maintenance. A rough estimate of maintenance activities overall is $2,470 annually per mile, which would accumulate to around $740,815 per year for a 300+ mile trail system (Appendix B). There would be additional case by case costs for the reroutes for staff time planning, procurement of contractors, initial blazing, and cost of materials.

Trail maintenance includes brushing, pruning, clearing, tread maintenance, water mitigation, inspecting and reporting the Trail's condition, and basic structure replacement. More details on the specifications of the SHT maintenance can be found in the SHTA Trail Maintenance Manual (2021)

To also aid in maintenance and operations of the Superior Hiking Trail system, this plan has identified policies for trail system use. Policy suggestions are listed in the *Implementation Checklist* on pages 59-61 and emphasize mitigating identified activities that lead to misuse of the Trail and/or overextends its capacity.

There are understandably challenges to enforcement of policies on rugged, geographically challenging trails such as SHT. Utilizing communication strategies to inform and educate trail users on SHT's policies and proper trail etiquette is an option to avoid potential issues on it. Create strategies, training, and outreach programs to direct and educate users on proper trail etiquette and 'Leave No Trace' practices. Managing large trail groups is a priority to maintain both the infrastructure and natural health of the Trail.

Photo Credit: Michael Loscheider

Key Recommendations:

- Use asset inventory to identify replacement priorities and develop associated maintenance budget and fundraising plan.
- Maintaining relationships with land managers and private landowners that the SHT aligns with.
- Seek to improve the current tracking and registration system for large groups on the Trail.
- Work proactively with known entities who use the Trail for group events on an annual basis.
- Consider different permitting guidelines for for-profit entities and nonprofit entities.
- Work to assure that funding from state and federal grants and membership donations meet annual maintenance needs.

Marketing and Communications

Outreach efforts for the SHT will aim to maintain the current momentum of trail users, increase sponsorship of the Trail, and diversify trail user demographics. The most important outreach goal is increasing community knowledge and exposure of membership options to the SHTA. As stewards of the Trail, supporting the SHTA and its robust volunteer base is essential to the longevity of the SHT. Along with increasing new memberships, engagement with current members could be improved to ensure membership renewals and generational support of the Trail. Establishing new collaborations with community organizations and groups can broaden the SHT's user base.

Sharing the stories of the cultural landscape of the Trail has been identified as a missing component of SHTA's communications materials. Interpreting such a large geographic area poses a challenge. The Trail falls within the ceded territories of the Lake Superior Ojibwe and using the Trail to educate users on land use and history, SHTA should partner with area Bands, current land managers, and historical organizations to pursue a separate, comprehensive interpretive planning process.

Increasing diversity among Trail users, SHTA members, and volunteers is another priority for this plan. As mentioned above, incorporating the historical and indigenous stories of the land can engage more trail users and provide a cultural connection to the land. Tailoring Trail information to specific groups, such as Age Friendly Minnesota can also help retain existing users and provide resources for those new to the Trail.

Communication strategies include refinement and development of policies that support the SHT's vision and long-term sustainability. Prioritize establishing clear policies on identified activities that lead to misuse of the Trail and overextends its capacity. Education and promotion of proper trail etiquette and 'Leave No Trace' practice are connected as a key piece in the SHTA's operational and natural resource sustainability plan for SHT.

2023 Hike 50 Challenge patch. Hikers can earn a yearly patch for hiking any 50 miles of the Trail.

Programming Plan

As noted in the public input survey, more than half of the surveyed Trail users were not aware of the SHTA and 80% of those respondents were not members. Trail users unaware of the SHTA are missing an imperative connection to their experience. The existence of the Trail is reliant on SHTA and its outreach efforts in attracting volunteers, securing donations and building the next generation of SHT stewards. Currently, the SHTA offers a variety of programs, visitor events, volunteering experiences, and is present in the North Shore communities. The additional programming recommended by this plan is intended to increase awareness of the SHT, the SHTA, and broaden its trail user base.

Increase partnering with regional organizations and advocacy groups to host demographic specific group hike- As noted by recreational trends, the outdoor recreation base has become more diverse, and this is ideal time to bring this diversity to the SHT. Group hikes of this nature bring like-minded people together for an empowering experience of the Trail. Partnering with regional organizations and advocacy groups can help share the planning and coordination to host a hike that is tailored to the group's needs and preferences.

Pursue improvements on communication with potential and current members- Mentioned above, there is a significant gap of trail users that are unaware of the SHTA, not active members/donors, or both. Increased messaging of the SHTA on the Trail could increase memberships and general understanding of the Trail's value. Communications with current members on their membership renewal structure and/or membership referral incentives can increase new members and reduce lapses in memberships.

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Key Recommendations:

- Pursue improvements on communication with current members i.e., membership renewals, incentives to refer friend of family for memberships.
- Increase partnerships with area nonprofits, affinity groups, and advocacy groups to host demographic specific group volunteer events and guided hikes.
- Develop a QR code directing trail users to the SHTA website and adding the code to trailhead signage.
- Identify trail project sponsorship program to memorialize people associated with the SHT.

</div>

Data Collection

Research and user metrics are instrumental in understanding user behavior, both quantitatively and qualitatively, within the context of park and trail utilization. An established comprehensive program to track participation and visits, utilizing quantitative metrics to analyze user patterns and trends, will aid in future decisions for development and programming. This includes the completion of all remaining segments of the asset inventory, ensuring a thorough overview of park and trail facilities for informed decision-making.

It's recommended that routine trail count efforts be conducted annually or biannually to monitor trail usage, maintaining an up-to-date database for timely analysis. Qualitative research initiatives, such as membership and intercept surveys conducted every three years can gauge user satisfaction and help the SHTA stay abreast of evolving needs. Implementation of these collection efforts will aid in facilitating continuous improvements to park and trail amenities.

Collaborative efforts and strategic partnerships contribute to staying at the forefront of industry trends and best practices. An updated

economic impact reports every five years can be used to showcase positive outcomes, monitor improvements, and better position for grant funding opportunities. This comprehensive approach ensures a continuous loop of information that informs decision-making processes and enhances the overall user experience.

Help Map the Future of the Trail

Key Recommendations:

- Complete and maintain Trail Asset Inventory.
- Establish a system – through updated surveying and continuous trail counts – to regularly research the economic impact of the Superior Hiking Trail along the North Shore.
- Develop a maintenance plan for all the data collected through the Master Planning process (intercept surveys, trail counts).

Development and Implementation

Development Plan Overview

The improved Superior Hiking Trail upgrades will enhance the popular amenity into a further rugged footpath trail giving users the option to stay in a more remote settings along the length of the trail. The proposed master plan looks at sections of the trail that are currently following some city interactions and road walking paths and trying to maintain their goal of being a rustic trail for visitors and experience users alike to be one with nature and not having to deal with traffic flows or intercity commuting.

The improved Superior Hiking Trail will make traversing sections of the Trail or thru hiking a more scenic experience through the entire 300+ miles of the Trail. Improved trailheads with site information about the sections are in the

Development Plan Overview Upload

Please reference pages 43, 44, and 46 for proposed trail section modifications.

Acquisition Plan Overview

The Superior Hiking Trail Association doesn't currently own any of the parcels that the Superior Hiking Trail aligns with along the North Shore. Relationships with land managers and private landowners are of high importance with the association. Meetings with local governments/agencies are always taking place, especially when projected reroutes are in the process. Current talks with the land managers have been positive in working to get these sections realigned.

Acquisition plan items/images

Please reference pages 43, 44, and 46 for proposed trail section acquisition steps.

Development feature

Land Acquisition

There are multiple sections on the Trail identified for acquisition. There are three potential reroutes/routes identified on the in the master plan recommendations section. The Superior Hiking Trail Association is actively promoting and meeting with governing officials and land managers for easements to run the trail through the respective properties.

Construction

The Trail would need to be constructed either mechanically or by hand by contractor hiring. With construction, there are also aspects of the trail that would need to be accommodating to the users with steps being implemented, drainage features, embankments, signage, etc. to maintain the safety and usability of the new sections.

Implementation Plan

Development of the Superior Hiking Trail's features has been divided into two phases. The first phase is land acquisition and the other phase being development. Phase I will be working with land managers, cities, and municipalities to educate and gain support in the designed reroutes at their respective locations. Communication, travel and meetings will be the biggest priority during this time to layout how it will be implemented and funded.

Phase II items include working with either volunteers or contractors on the construction of the trails. Construction of the trails includes logging, cutting trails, construction of accessible features for users, signage and wayfinding, and trailhead improvements. Some of the items listed above can be broken down by the asset inventory below.

Hovland and Forest Hill/Park Hill

The Hovland and Forest Hill/Park Hill Reroutes would be taking away a road walk and replacing it with a wooded trail. To go about this, the route will need to be finalized, and walked again for reconnaissance. This is to get another lay of the land and determine if any applicable assets will be utilized. This could include stairs for steep elevation, bridges or stepping stones for rivers/streams, or potentially boardwalks or puncheons for spots that need to be elevated. After the land survey, a cost estimate will need to be created to give financial parameters. After that the route will need to be cleared, packed down, and finalized.

It should be noted that Hovland goes through both state and private land, so working with property owners for easements is essential to trail development

Great Northern Route

The Great Northern Route consists of talks with the City of Duluth and the Cyclists of Gitchee Gumee Shores (COGGS) to coincide with the Duluth Traverse Trail. This proposed section is currently in discussion with the city and the respective organization on collaboration. No new construction would be needed for this route except for signage and wayfinding. This section is referenced above and explains more information on what would be completed as part.

Summarize Acquisition and development costs to date

(coming soon)

Investments to Date from Various Sources

Parks and Trails Legacy Funding

Acquisition $0

Development $0

Total $0

Non-Parks and Trails Legacy Funding

Arts & Cultural Heritage Legacy $0

Clean Water Legacy Funding $0

Outdoor Heritage Legacy Funding $0

Total $0

Local and Other Funding Sources

Acquisition and Cost projections

Cost projects for the Superior Hiking Trail Master Plan have been detailed both by priorities and recommendations breakdown. Based on the recent bids, new trail construction ranged from about $10-15/LF of trail for machine built trail. Only one contractor gave a separate price for hand built trail, which was $52/LF. Cost estimates have been developed by using recent bids for other sections of Trail.

Cost estimate support information upload

Refer to the Asset replacement tables in Appendix (x). The other information can be found in the section above given by contractor estimates.

Acquisition and development phasing plan

Phasing plays an important part in creating a quality trail system. This importance originates from both working with a terrain that can produce unanticipated challenges, collaborating with parcel owners and land managers, and operating under funding constraints. The timeline for development of the Trail pivots on the organizational and financial capacities of the SHTA and land managers. Support and funding for the SHT and its respective land managers is needed to maintain its health and foster a sense of responsibility from trail users.

Phasing plan support information upload

Cost projections for implementation plan

Acquisition (coming soon)

Development (coming soon)

Projected total (coming soon)

Repair and replacement

Segment A

Asset Type	Amount of Feet/Steps	Cost Per Feet/Step	Total Cost
Bridge	4 feet	727/ft	2,908
Culvert	8.16 feet	107.44/5ft	175.34
Wooden waterbar	62.83 fet	11.64/5ft	146.27
Puncheon	78 feet	100	7,800
Retaining Wall	16.5 feet	89.54/1.5ft	984.94
Timbers -> C-Steps (1:1.5)	414 steps	195/step	121,095
Stone Stairs	38 feet	107.44/15ft	272.18
Turnpike	19 feet	161.16/20ft	153.1
		TOTAL	**133,534.29**

Segment B:

Asset Type	Amount of Feet/Steps	Cost Per Unit/Feet/Steps	Total Cost
Boardwalk	28 feet	180	5,040
Puncheon	142 feet	100	14,200
		TOTAL	**19,240**

Segment C:

Asset Type	Amount of Feet/Steps	Cost Per Unit/Feet/Steps	Total Cost
Boardwalk	12 feet	180	2,160
Bridge	47 feet	727	34,169
Water Bar	6 feet	11.64/5ft	13.97
Check Dam (Wooden)	6 feet	23.28/5ft	27.94
Check Dam (Stone)	4 feet	53.72/5ft	42.98
Ditch	50 feet	9.32/100ft	4.66
Culvert	35 feet	107.44/5ft	752.08
Latrine	1	1270	1,270
Puncheon	60 feet	100	6,000
Stepping Stones	70 feet	60.44/20ft	211.54
Stone Stairs	87 feet	107.44/15ft	623.15
Timbers -> C-Steps (1:1.5)	263 steps	195	76,927.5
Tent Pads	1, 10x12	1,000	1,000
		TOTAL	**123,157.82**

Segment D:

Asset Type	Amount of Feet/Steps	Cost Per Feet/Steps	Total Cost
Boardwalk	12 feet	180	2,160
Bridge	61 feet	727	44,347
Drainage Dip	70 feet	23.82/10ft	1,667.4
Puncheon	660 feet	100	66,000
Timbers -> C-Steps (1:1.5)	50 steps	195	14,625
		TOTAL	**128,799.4**

Segment E:

Asset Type	Amount of Feet/Steps	Cost Per Feet/Steps	Total Cost
Boardwalk	100 feet	180	18,000
Drainage Dip	12 feet	23.82/10ft	28.58

Latrine	1	1270	1,270
Puncheon	171 feet	100/ft	17,100
Timbers -> C-Steps (1:1.5)	38 steps	195	11,115
Tent Pads	1, 8x8	850	850
		TOTAL	**48,363.58**

Segment F:

Asset Type	Amount of Feet/Steps	Cost Per Feet/Steps	Total Cost
Bridge	19 feet	727	13,813
Latrine	1	1270	1,270
Puncheon	352 feet	100	35,200
Retaining Wall	81 feet	89.54/1.5 feet	5,321.16
Timbers -> C-Steps (1:1.5)	289 stairs	195	84,532.5
Tent Pad	1, 8x4	650	650
		TOTAL	**140,786.66**

Total Poor Assets Replacement Cost: $593,883.75

To aid in implementation, a checklist has been developed for congregation of all recommended goals and actions. This Implementation Checklist is on pages 54-58.

Implementation Checklist

Goal Statement	Timeline
Development and Trail Management (D)	
D.1 Monitor vulnerable parcels and secure them if/when possible, to ensure the long-term protection of the Trail alignment.	Ongoing
D.2 Monitor outside development projects along the Trail corridor that may impact the alignment and/or scenic nature of the Trail and provide input as appropriate.	Ongoing
D.3 Work with land managers to better manage viewsheds and other scenic elements along the corridor.	Ongoing
D.4 Secure permanent easements on land parcels not yet secured.	Mid Term 3-5 years
D.5 Work with conservation organizations and land mangers to create long-term protection of a green corridor along the trail corridor	Long-term 5-10 years
D.6 Partner with the City of Duluth to formally establish the 'Great Northern route' segment as an alternative route of the SHT main trail.	Short term 1-2 years
D.7 Formalize SHTA's practice and protocol on when water-crossings warrant a bridge versus stepping stones or other crossing methods.	Short term 1-2 years
D.8 Collaborate with DNR and USFS and other landowners/managers to better promote the SHTA at trailheads throughout the Trail.	Mid term 3-5 years
D.9 Establish a QR code or similar signage directing users to the SHTA site where they learn about the volunteer driven management practices of the SHTA and provide opportunity to donate funds for support.	Short term 1-2 years
D.10 Continue to seek partnership with ownership entities to provide better parking and bathroom facilities at trailheads as identified.	Mid term 3-5 years
D.11 Consider establishing a larger sign/monument at the northern terminus.	Mid term 3-5 years
D.12 Research technology trends on campsite availability management and other platforms for users to search and post campsite availability.	Mid term 3-5 years
D.13 Utilize location-based signage data from Asset Inventory and Social Pinpoint to prioritize signage improvements.	Mid term 3-5 years
D.14 Partner with NCTA to identify ways to sustainably manage additional platforms (i.e. FarOut)	Mid term 3-5 years
D.15 Procure consultant(s) and contractor(s) to initiate and implement reroutes (Great Northern, Hovland Gap, and Forest Hill and Park Hill). Timelines specific to each reroute and funding allocations.	Mid term and Long term 3-10 years

D.16 Seek collaboration with property owners to close the 'Hovland Gap' as defined by the map to provide a more scenic experience on the northern section of the Trail.	Long term 5-10 years
D.17 Use Asset Inventory and trail count data to prioritize bridge and other infrastructure improvements. Compromised or failing infrastructure in high traffic areas should be prioritized.	Short term 1-2 years
D.18 Improve and redesign campsites to provide more space and discourage uncontrolled expansion along the Trail.	Mid term 3-5 years
D.19 Educate and encourage proper food storage on the Trail at campsites.	Mid term 3-5 years
D.20 Explore alternative options for waste management. An example used on other networks are composting toilets.	Mid term and Long term 3-10 years
Natural Resource Sustainability (N)	
N.1 Continue to provide training resources for volunteers with up-to-date guidance and direction on best practices for trail maintenance with a goal of catching minor problems before they become acute.	Ongoing
N.2 Seek to improve 'Leave No Trace' information along the SHT and at campsites to promote sustainable stewardship of the land.	Short term 1-2 years
N.3 Plan and install signage to educate recreationists of proper trail use, which will mitigate impact and preserve the integrity of SHT.	Mid term 3-5 years
N.4 Work to mitigate ecological impacts of SHT by identifying areas on the Trail susceptible to deterioration from flooding, soil erosion, high foot traffic, and other conditions.	Mid term 3-5 years-Ongoing
N.5 Continue to work with area stewardship networks and seek out other similar groups for collaboration.	Ongoing
N.6 Work to collaborate with DNR and other land managing agencies to work on Erosion Control of the Trail. Including native seed plantings, erosion control fabrics, etc.	Long term 5-10 years
Operations Sustainability (O)	
O.1 Continue to inform and encourage users to follow city, county, state or private landowner ordinances and policies impacting the SHT. Including but not limited to; public fire bans, off-leash dog, and dispersed camping.	Ongoing
O.2 Assure funding from state and federal grants and membership donations align the annual maintenance needs of the Trail.	Mid term 3-5 years
O.3 Improve current tracking and registration system for large groups using the Trail.	Short term 1-2 years
O.4 Build a support network of partners (i.e. county and city governments, businesses, and non-profits, in addition to other interested agencies) that can aid in trail system communications and outreach through their networks.	Short to Mid term

	1-5 years
O.5 Better define event permitting requirements and requests for a large group events and for-profit vs non-profit organizations.	Short term 1-2 years
O.6 Seek annual donations from trail events and large groups to offset the cost of trail maintenance.	Short term 1-2 years
O.7 Work proactively with entities known to use the SHT for group events provide education on mitigating the impacts of large groups.	Mid term 3-5 years
Programming and Marketing (P)	
P.1 Pursue a comprehensive cultural interpretive panning process to tell the stories of the land of the SHT and its people. Seeking collaboration with local Ojibwe bands, land managers and historic organizations.	Mid term 3-5 years
P.2 Identify opportunities for promotion of the Trail with events that tie-into recreation and work with event organizers to promote the Trail system.	Ongoing
P.3 Participate in local events that are non-traditional to recreation but promote new connections to the community.	Ongoing
P.4 Develop a QR code directing trail users to the SHTA website and adding the code to trailhead signage.	Short term 1-2 years
P.5 Collaborate with other associations and trail use groups to increase efficiencies in programming, trainings, continuing education and outreach.	Ongoing
P.6 Host membership events or other large scale SHTA events. Consider additional events in junction with promoting Trail improvements and reroutes.	Ongoing and Mid term 3-5 years
P.7 Pursue improvements on communication with current members i.e., membership renewals, incentives to refer friend of family for membership	Mid term 3-5 years
P.8 Work towards an inclusive outreach plan to broaden the Trail's user base and promote recreation opportunities to underserved populations.	Mid term 3-5 years
P.9 Increase partnership with non-profits, affinity groups, and advocacy groups to host demographic specific group volunteer events and guided hikes.	Ongoing
P.10 Increase developing a trail project sponsorship program to memorialize people associated with the SHT.	Mid term 3-5 years
Research and User Metrics (R)	
R.1 Complete and maintain asset inventory.	Short term and Ongoing 1-2 years
R.2 Conduct membership and intercept surveys every three years.	Mid to Long term

	3-10 years
R.3 Establish a system – through surveying or other forms of analysis – to research the economic impact of the Superior Hiking Trail along the North Shore.	Long term 5-10 years

Potential Funding Sources

One of the major barriers for trail system projects and development is funding. Most trails are built using a combination of federal, state, and local sources. Opportunities available to expand and improve the SHT include, but are not limited to, the following:

Greater Minnesota Regional Parks and Trails Commission (GMRPTC) Legacy Amendment Funds: In 2008, Minnesota voters passed the Clean Water, Land and Legacy Amendment (Legacy Amendment) to the Minnesota Constitution, which increased the state sales tax to partially provide funding for parks and trails development in Minnesota. Established in 2013, the Greater Minnesota Regional Parks and Trails Commission (GMRPTC) took over allocation duties of Legacy Amendment parks and trails funds. Looking to fund regionally significant trails outside of the seven-county metropolitan area, the GMRPTC ranks projects with high, medium, or low merit based on standards set forth in their strategic plan, and then grants regional designation and determines funding recommendations based on these rankings. Find more information at www.gmrptcommission.org.

Iron Range Resources and Rehabilitation Board (IRRRB): Among providing other development opportunities, IRRRB's Culture and Tourism Grant Program supports non-profits by supporting strong arts, culture, heritage, and recreational activities in the IRRRB service area, in which Lake County is located. For more information, visit www.mn.gov/irrrb.

Minnesota's Lake Superior Coastal Program: This program funds projects within the Lake Superior coastal zone. These are federal funds that are distributed by the Minnesota Department of Natural Resources. The grants must be matched (50%) by non-federal funds. For more information, visit www.dnr.state.mn.us/waters/lakesuperior/index.html.

Recreational Trails Program (RTP): Enacted in July 2012 under the Moving Ahead for Progress in the 21st Century Act (MAP-21), the Recreational Trail Program (RTP), as a part of Federal surface transportation funding, provides financial assistance for the development and maintenance of recreational trails and trail-related projects solely located within Minnesota. The grant coordinator works for the Minnesota Department of Natural Resources, and funding is available for acquisition, construction, and management of recreational trail facilities. Find more information at www.dnr.state.mn.us/grants/recreation/trails_federal.html.

Regional Trail Grant Program: Established in Minnesota Statutes 85.019, the Regional Trail Grant Program issues state funds from $5,000 to $250,000 to promote development of regionally significant trails outside the seven-county metropolitan area. Administered by the Minnesota Department of Natural Resources, grants are reimbursement-based up to 75 percent of eligible project costs, and recipients must provide a nonstate cash match of at least 25 percent. Other state funds or grants, such as Parks and Trails Legacy Grants, cannot match these grants. Find more information at https://www.dnr.state.mn.us/grants/recreation/trails_regional.html.

Legislative-Citizen Commission on Minnesota Resources (LCCMR): The function of the LCCMR is to make funding recommendations to the legislature for special environment and natural resource projects, primarily from the Environment and Natural Resources Trust Fund (ENRTF). Trail funding may be requested under the "Land Acquisition for Habitat and Recreation" category of this fund. https://www.lccmr.mn.gov/

The National Park Service – Rivers, Trails, and Conservation Assistance program (NPS-RTCA): Supports locally-led conservation and outdoor recreation projects across the United States. NPS-RTCA assists communities and public land managers in developing or restoring parks, conservation areas, rivers, and wildlife

habitats, as well as creating outdoor recreation opportunities and programs that engage future generations in the outdoors. https://www.nps.gov/orgs/rtca/index.htm

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Appendix A: Regional Parks, Forest, and Trails around the Superior Hiking Trail

County / State						
Carlton, MN	St. Louis, MN		Lake, MN	Cook, MN	Wisconsin	
Moose Lake State Park	Fond du Lac Park	Enger Park	Gooseberry Falls State Park	Temperance River State Park	Billings Park	Apostle Islands National Lakeshore
Fond du Lac State Forest	Chambers Grove/ Nagaajiwanaang	Duluth Heights Park	Split Rock Lighthouse State Park	Cascade River State Park	Heritage Park	Chequamegon National Forest
Jay Cooke State Park	Blackmer Park	Chester Bowl Park	Tettegouche State Park	Pat Bayle State Forest	Pattison State Park	
Nemadji State Forest	Klang Park	Grant Park	George Crosby Manitou State Park	Kadunce River State Scenic Wayside	Amnicon Falls State Park	
	Terry Egerdahl Memorial Field	Portland Square	Insula Lake State Forest	Judge C R Magney State Park	Anne Gene County Park	
	Irving Park	Leif Erickson Park	Lake Isabella State Forest	Grand Portage State Park	Saint Croix National Scenic Riverway	
	Keene Creek Recreation Area	Duluth Lakewalk	Bear Island State Forest	Grand Portage National Monument	Lucius Woods	
	Merritt Park	Congdon Park		Grand Portage State Forest	Lake Minnesuing County Park	
	Lincoln Park	Como Park			Brule River State Forest	
	Lester Park	Hartley Park				
	Kitchi Gammi/Brighton BeachPark	Washington Square				
	Cloquet Valley State Forest	Portman Park				
	Park Point	Quarry Park				

Regional Trails around the Superior Hiking Trail

Multi-Use Trails	State Park Trail Systems	Snowmobile/ATV Trails	Mountain Biking Trails	Footpath Trails
Gichi-Gami State Trail	Gooseberry Falls State Park Trails	Taconite State Trail	Split Rock Wilds	Border Route Trail
C.J. Ramstad/North Shore State Trail	Split Rock Lighthouse State Park Trails	Sturgeon River Trail	Pincushion Singletrack Trails	North Country National Scenic Trail
Duluth Traverse	Tettegouche State Park Trails	Soudan Underground Mine State Park	Britton Singletrack Trails	Kekekabic Trail
Sugarloaf Cove Nature Center Trails	Cascade River State Park Trails	Northwoods ATV Trail	Duluth Singletrack Trails	
Lutsen Mountains Recreation Area	George H. Crosby Manitou State Park Trails	Cook County Trail System	Jackpot	
Sonju Trail	Temperance River State Park Trails	Gunflint Trail System		
Donald D. Ferguson Demonstration Forest	Jay Cooke State Park Trails	Lake County Trail System		
		St. Louis County Trail System		
		East Alger Grade OHM Singletrack Trailhead		

The table above is not a complete list of all trails in the region. Many offers different uses per season.

Appendix B: Asset Inventory

Asset Type	Count	Percentage
Parking Lot	45	0.92%
Gate	9	0.18%
Sign	1,809	37.10%
Drainage Feature	274	5.62%
Boardwalk	374	7.67%
Puncheon	535	10.97%
Stepping Stones	74	1.52%
Turnpike	3	0.06%
Retaining wall	41	0.84%
Switchback	18	0.37%
Bridge	283	5.80%
Steps or Stairs	552	11.32%
Fence or Rail	34	0.70%
Bench	122	2.50%
Tent pad	275	5.64%
Latrine	83	1.70%
Bear Pole	1	0.02%
Fire Ring	91	1.87%
Picnic table	5	0.10%
Trail Register	20	0.41%
Erosion	138	2.83%
Muddy or Wet	81	1.66%
Other	7	0.14%

Segment A

Asset Type	Amount of Feet/Steps	Cost Per Feet/Step	Total Cost
Bridge	4 feet	727/ft	2,908
Culvert	8.16 feet	107.44/5ft	175.34
Wooden waterbar	62.83 fet	11.64/5ft	146.27
Puncheon	78 feet	100	7,800
Retaining Wall	16.5 feet	89.54/1.5ft	984.94
Timbers -> C-Steps (1:1.5)	414 steps	195/step	121,095
Stone Stairs	38 feet	107.44/15ft	272.18
Turnpike	19 feet	161.16/20ft	153.1
		TOTAL	**133,534.29**

Segment B:

Asset Type	Amount of Feet/Steps	Cost Per Unit/Feet/Steps	Total Cost
Boardwalk	28 feet	180	5,040
Puncheon	142 feet	100	14,200
		TOTAL	**19,240**

Segment C:

Asset Type	Amount of Feet/Steps	Cost Per Unit/Feet/Steps	Total Cost
Boardwalk	12 feet	180	2,160
Bridge	47 feet	727	34,169
Water Bar	6 feet	11.64/5ft	13.97
Check Dam (Wooden)	6 feet	23.28/5ft	27.94
Check Dam (Stone)	4 feet	53.72/5ft	42.98
Ditch	50 feet	9.32/100ft	4.66
Culvert	35 feet	107.44/5ft	752.08
Latrine	1	1270	1,270
Puncheon	60 feet	100	6,000

Stepping Stones	70 feet	60.44/20ft	211.54
Stone Stairs	87 feet	107.44/15ft	623.15
Timbers -> C-Steps (1:1.5)	263 steps	195	76,927.5
Tent Pads	1, 10x12	1,000	1,000
		TOTAL	**123,157.82**

Segment D:

Asset Type	Amount of Feet/Steps	Cost Per Feet/Steps	Total Cost
Boardwalk	12 feet	180	2,160
Bridge	61 feet	727	44,347
Drainage Dip	70 feet	23.82/10ft	1,667.4
Puncheon	660 feet	100	66,000
Timbers -> C-Steps (1:1.5)	50 steps	195	14,625
		TOTAL	**128,799.4**

Segment E:

Asset Type	Amount of Feet/Steps	Cost Per Feet/Steps	Total Cost
Boardwalk	100 feet	180	18,000
Drainage Dip	12 feet	23.82/10ft	28.58
Latrine	1	1270	1,270
Puncheon	171 feet	100/ft	17,100
Timbers -> C-Steps (1:1.5)	38 steps	195	11,115
Tent Pads	1, 8x8	850	850
		TOTAL	**48,363.58**

Segment F:

Asset Type	Amount of Feet/Steps	Cost Per Feet/Steps	Total Cost
Bridge	19 feet	727	13,813

Latrine	1	1270	1,270
Puncheon	352 feet	100	35,200
Retaining Wall	81 feet	89.54/1.5 feet	5,321.16
Timbers -> C-Steps (1:1.5)	289 stairs	195	84,532.5
Tent Pad	1, 8x4	650	650
		TOTAL	**140,786.66**

Appendix C: User Intercept Survey Results

8. Have you experienced any barriers getting on the Trail? (please explain)	Barrier Category		
Limited Signage	Signage/Wayfinding	Bathroom on trailhead would be nice	Parking/Wayside
maps (physical ones) sometimes in short supply in my area	Signage/Wayfinding	not enough parking at some trails	Parking/Wayside
Limited freely available trail maps and camping info.	Signage/Wayfinding	trouble finding trailhead on google maps	Signage/Wayfinding
Parking	Parking/Wayside	bridge at split rock lighthouse	Trail Maintenance
Parking	Parking/Wayside	unsure where trail started	Signage/Wayfinding
The bridge that is out at Split Rock River	Trail Maintenance	not enough parking spots	Parking/Wayside
Bridge out for 8 years, please fix.	Trail Maintenance	limited signage	Signage/Wayfinding
not really, but overnight parking sometimes is a problem	Parking/Wayside	trail hidden, passed the entry trail	Signage/Wayfinding
Outside of Two Harbors, finding parking lots via back roads or outdated info in the book	Parking/Wayside	parking can be full	Parking/Wayside
Crowded trailheads	Parking/Wayside	sometimes unclear trailhead locations	Signage/Wayfinding
Transportation difficult because we don't want to hike in a loop	Parking/Wayside	planning and parking	Parking/Wayside
None - More signs would be helpful	Signage/Wayfinding	parking	Parking/Wayside
Yes! When is the bridge going to be replaced	Trail Maintenance	parking challenges at access points	Parking/Wayside
add a "you are here" sign	Signage/Wayfinding	damage at Tettegouche	Trail Maintenance
sometimes unclear trailhead location	Signage/Wayfinding	Some areas we've gotten lost due to lack of phone service	Signage/Wayfinding
parking	Parking/Wayside	confusing signage in Duluth area. trails difficult to follow when multiple trails converge	Signage/Wayfinding

9. Is there anything else you'd like to share with us today? (please explain)	Additional Comments
It would be nice to have more campground at the Bean and Bear Lake.	Additional Campground
Much of the trail is overgrown and when wet can be difficult to navigate.	Overgrown
a cheap shuttle/bus between trailheads would be awesome!!!	Shuttle
Garbage/Recycling cans at the parking areas would be nice.	Wayside Upgrade
Please put together a map/app with all the information. Parking (overnight or not), miles to parking spots, miles to sites, more site info, better blazing	Mapping/Information
A few more boardwalks over muddy places	Trail Maintenance
More info on the campsites, their availability before actual hike would be great, so campers won't get disappointed reaching their campsite	Mapping/Information
Please fix the bridge at Split Rock! Please repair high falls bridge at Tettegouche	Trail Maintenance
Hand sanitizer, trash, and bathrooms are always nice on long trails	Wayside Upgrade
Toilet at trailhead would be nice	Wayside Upgrade
High Bridge - rebuild?!?	Trail Maintenance
No map at bridge trail divergence	Mapping/Information
some trees hanging low over trails	Trail Maintenance
challenges finding campsites beaver bay	Mapping/Information
more campsites	Additional Campground
better signs for trail to cave	Mapping/Information
distance marks to peak	Mapping/Information

Appendix D: Social PinPoint Map Table Results:

Opportunities and Ideas		Trail Maintenance		Resource Protection	
Themes:		Themes:		Themes:	
Potential Spur	12	Bridge	7	Wayside	2
Trail Reroute	8	Trail Repair	5	Erosion	2
Additional Campsites	5	Erosion	3	Trail Reroute	1
Bridge	3	Mowing	2	Tree Maintenance	1
Trail Resources	2	Rebar Removal	2		
Terminus Marker	2	Boardwalk	1		
Other	2	Trail Creation	1		
		Question	1		
		Toilet	1		
		Other	2		
Comment:	Average Score	Comment:	Average Score	Comment:	Average Score
Split Rock River Bridge	5	Removal of all protruding rebar pieces that currently/formerly support(ed) wood elements crossing and/or adjacent the trail.	2	Tree plantings could use some maintenance (e.g. cedar trees that are outgrowing their cages)	
Potential Temperance River Bridge? Help people get to the upper falls	3	Another unfortunate "bridge is out indefinitely" situation at High Falls.	2	Off snowmobile trail - boardwalk through arctic fen	
Signage at South Terminus to continue into WI on NCT; More substantial terminus markers?	3	This section of the trail is extremely worn. The wooden planks are difficult to walk on. It looks like there has been a lot of water damage and erosion.	1	Short steep slope needs erosion protection	

Traffic and Trailhead		Safety and Usage		Signage and Wayfinding	
Themes:		**Themes:**		**Themes:**	
Additional Parking	5	Staircase	4	Clearer Signage	5
Better Signage	3	Sanitation	2	Additional Trail to Map	1
Restroom	1	Bridge	2	Redo Signage	1
Potential Trailhead	1	Road Crossing	1		
Other	1	Repair	1		
		Other	2		
Comment:	Average Score	**Comment:**	Average Score	**Comment:**	Average Score
Parking at unofficial trailhead near Lake Agnes.	3	Drainpipe June 2023 the handrail on the upper section was quite wobbly, almost safer not to grab at all.	4	Kiosk? Would reach people who don't realize they're on SHT/NCT.	3
Would love to see a restroom at this trailhead.	2	Build Bridge here.	2	Signs on the detour loop off Tom Lake Road are not always visible or clear.	2
This trailhead parking lot needs to be much larger as it serves large numbers of hikers and also mtn. bikers every day, including winter.	1	Somewhere in this general area is an encampment of homeless people. I just walked through, but some hikers might feel unsafe.	2	There are lots of trails intersecting here, sometimes the wayfinding can be difficult.	1