



The New Hampshire All Persons Trail Guidebook

What We Learned: The Manchester Cedar Swamp All Persons Trail

The Manchester Cedar Swamp All Persons Trail

From 2019 to 2022, The Nature Conservancy in New Hampshire worked with a number of partners to design and construct the Manchester Cedar Swamp All Persons Trail.

Our staff learned a great deal through the experience. This report is intended to assist and inspire others in the conservation community and beyond to build similar trails and continue to break down the barriers to the outdoors experienced by too many.

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Manchester Cedar Swamp Preserve

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nature.org/manchester

The Nature Conservancy in New Hampshire

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By the Numbers

640 Size in acres of the Manchester Cedar Swamp Preserve

~115,600

Population of Manchester

13.2% 65 years old or older;
84% white; 6% black; 10% Hispanic/Latino; 10.4% with a disability under age 65; 6,000+ veterans; 20.8% speak a language other than English at home

2001

Year the preserve was first protected (It was expanded in 2015)

450+ Age of some black gum trees at the preserve

\$175,000

Total budget to create the All Persons Trail at Ossipee Pine Barrens Preserve

3 Number of years to complete the Manchester Cedar Swamp All Persons Trail

6 Width in feet of the All Persons Trail, which exceeds US Forest Service standards

Seven

Interpretive points of interest with signs

Six Resting benches

250 Length in feet of boardwalk

1.2 Length of the All Persons Trail in miles

\$664,000 Total budget to create the All Persons Trail at Manchester Cedar Swamp Preserve



“

TNC recognizes that we need more nature advocates, so getting people outdoors and connected to us and our work is a necessity for the environment to remain something our kids and communities care about and will speak out for.

”

JOANNE GLODE
TNC's Southern
New Hampshire
Stewardship Ecologist



The Why

New Hampshire's natural beauty and public outdoor spaces are fundamental to our identity, well-being and economy. However, **physical, cultural and social obstacles prevent many communities of people from accessing natural areas and the benefits nature provides.**

There are many factors contributing to that unfortunate reality.

- A lack of accommodations for common disabilities such as hearing or sight impairment excludes a large number of people from fully enjoying time outdoors. Approximately 26 percent of adults in the United States have some type of disability.
- According to The Trust for Public Land's annual ParkScore analysis, "In the 100 most populated cities in the U.S., neighborhoods where most residents identify as Black, Hispanic and Latinx, American Indian/Alaska Native or Asian American and Pacific Islander, have access to an average of 44 percent less park acreage than predominantly white neighborhoods, and similar park space inequities exist in low-income neighborhoods across cities, highlighting the urgent need to center equity in park investment and planning."
- Getting to natural areas and trails can be challenging with limited public transportation, reducing access for many people.
- Spaces can feel unwelcoming when underrepresented groups are not intentionally invited into those spaces or when efforts to develop public spaces neglect effective community engagement to design them to meet local needs.

The results of limited access to outdoor recreation have consequences for individuals, their communities and all of us.

- "On average, today's kids spend up to 44 hours per week in front of a screen, and less than 10 minutes a day playing outdoors."
- "Several studies have confirmed that separation from nature is detrimental to human development, health and wellbeing, and that regular contact with nature is required for good mental health."

Furthermore, as climate change takes hold, public spaces will be essential to support community health, and especially for vulnerable populations such as children and the elderly. The trees and plants of parks and trails cool the air—and they also capture and slow stormwater, providing natural flood control.



In a 2020 report, data scientists at The Trust for Public Land revealed that neighborhoods with a park nearby are up to 6 degrees cooler than those that don't have a park within a half-mile.





The Who

With those factors guiding our work, **The Nature Conservancy** set out to do something different in New Hampshire.

The Nature Conservancy (TNC) is a global environmental nonprofit working to create a world where people and nature can thrive. Our mission is to conserve the lands and waters on which all life depends. Founded in the United States through grassroots action in 1951, TNC has grown to become one of the most effective and wide-reaching environmental organizations in the world.

Together with partners, local landowners and the support of members like you, we have helped to protect more than 300,000 acres and 680 miles of rivers and streams in New Hampshire since our work here began in 1961.



Among those protected lands is the 2,700-acre **Ossipee Pine Barrens Preserve** in Ossipee, Freedom and Madison. The TNC New Hampshire stewardship team spent years restoring natural cycles of fire and renewal to this iconic landscape. As native plants and trees began to thrive and the sounds of wildlife inspired their imagination, the team felt compelled to find new ways to help more people experience the ecosystem. In 2018, we developed

a three-quarter-mile-long trail at the preserve intentionally designed to welcome those using wheelchairs or pushing strollers. The trail meanders through pitch pine-scrub oak woodlands and ends at an overlook of the West Branch River, complete with a view of Mount Whittier and the Ossipee Mountains.

When we unveiled this trail, the community response was overwhelming. Visitor numbers at this somewhat remote preserve increased fourfold, and we continue to receive messages of gratitude from the disability community and others. While the idea of accessible trails is not new, the available options in New Hampshire are limited. Those factors led us to consider how we might leverage the lands we steward to further increase access to the wild and wonderful landscapes of our state for everyone. That demand and our organizational commitment to diversity, equity and inclusion launched us on a journey that ultimately resulted in the creation of a best-in-class accessible trail at our **Manchester Cedar Swamp Preserve**. That process has offered many lessons, incited new relationships and given us the opportunity to bring conservation to new audiences.

“

It's a place where you're the same—not special. You can get out there just like everyone else. It takes the 'dis' out of 'disability'.

”

MARK RACE

Supervisor, New Hampshire Spinal Cord Injury Association, speaking about the accessible trail at Ossipee Pine Barrens Preserve

“

A critical part of our mission is connecting people to nature in meaningful ways.

”

MARK ZANKEL

State Director, The Nature Conservancy in New Hampshire



The Where

The 640-acre **Manchester Cedar Swamp Preserve** has long been recognized as ecologically significant because of the concentration of rare species and unique forested swamps on the property. The preserve is the largest natural area in Manchester, the most populous city in New Hampshire. The preserve is located near dense residential development, including single family homes and rental housing and a large independent living facility. Those factors made this preserve an ideal location to increase access to nature for the diverse residents of Manchester.



The What

The **Manchester Cedar Swamp All Persons Trail** is a 1.2-mile undulating and twisting path over moderate topography that explores the many interesting habitats of the preserve. The trail mostly passes through a dry oak woodland studded with large glacial boulders and pockets of vernal pools. The trail features a lookout platform at a tranquil spot overlooking a dense stand of giant rhododendron in a forested swamp of rare trees. The trail ends at a small loop with a 250-foot-long boardwalk that crosses into a swamp of rare Atlantic white cedars. Interpretive information, resting areas and welcoming signage were developed for numerous audiences, and is provided along the entire trail length.





In Appreciation

We are especially grateful to our board of trustees and fellow staff in New Hampshire, whose time and talent were critical to the successful creation of the All Persons Trail.

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Melissa Leszek
Jeff Lougee
Chelsea Carney
Jim O'Brien
Anna Ormiston
Rachel Rouillard
Peter Steckler
Sheila Vargas Torres
Mark Zankel

The How

Our team was committed to creating a gold-standard accessible trail that would raise awareness of issues of accessibility and provide examples of more inclusive trail features.



Construction of the Manchester Cedar Swamp All Persons Trail was made possible by the trust of the community members who contributed their time and expertise to the project; the many local partners who guided and supported the effort; the vendors who brought their talents and passion; and the generous funders who believed in this idea.

We would like to particularly thank the following foundations, businesses and partners:

AARP
 Anna B. Stearns Charitable Foundation
 Appalachian Mountain Club
 Cowasuck Band of the Pennacook-Abenaki People
 Disability Rights Center - New Hampshire
 Fields Pond Foundation
 Madelaine G. von Weber Trust
 NAACP of Greater Manchester
 NH Council on Developmental Disabilities
 NH Parks and Recreation, Rec. Trails Program
 Norwin S. and Elizabeth N. Bean Foundation
 Opportunity Networks
 RiverWoods Manchester
 Samuel P. Hunt Foundation
 Southern New Hampshire University
 St. Paul's United Methodist Church
 The VF Foundation
 You Have Our Trust Fund

And to the many individual donors and volunteers that have supported this project.

“

I attended the opening of TNC's first accessible trail at the Ossipee Barrens Preserve. It was incredibly heartwarming to see people in wheelchairs and with other physical challenges cut the ribbon and enjoy getting out in the woods-in several cases for the first time. I know the accessible trail at the Manchester Cedar Swamp will provide many more people access to this special place.

”

LAURIE GABRIEL

Former Board Chair, TNC New Hampshire





Key Considerations

Our experiences in planning, designing and constructing two accessible trails in New Hampshire have led us to several key considerations for success.

Setting Up for Success

Consider location as it relates to the audience the trail will serve and feasibility of construction. Choosing a site close to a population center can connect the project to diverse audiences. A flat area with well-drained soils will require minimal site work and less budget to comply with the guidance for outdoor accessibility. The balance between people, place and budget is an important conversation.

Create a cross-functional team to ensure project progress, communication and fundraising are aligned. Build in considerable staff time across all functions to develop plans, promote integrated implementation and leverage the project for team morale, ongoing fundraising and communications opportunities.

Be aware of relevant internal processes such as contract requirements, sourcing guidelines and standard operating procedures. These foundational aspects of project management can require significant time and slow progress if not properly addressed.

Collaborate with partners. Find organizations or partners with overlapping goals and with diverse and relevant perspectives. Ask for help and reciprocate requests for help.

Bring your organizational values to the process. When considering contractors, for example, we deliberately included firms led by and that employ minority populations, including people with disabilities.

Explore what expert information already exists. A listing of the resources that we used can be found in the Appendix.

Expect the budget to change as community partnerships evolve. Build in flexibility to manage shifts in planning and timeline as feedback is integrated.

Consider how visitors will experience the trail as a whole. Think about the specific needs of diverse trail users in all aspects of the project, including public transportation and parking, amenities such as restrooms and rest areas, and wayfinding and interpretive signage.

People process information in different ways, so communicate messaging through multi-modal and multi-sensory techniques. **Look for opportunities to raise diverse voices and connect with diverse users through messaging and storytelling.**

Spread the word. How will you ensure you reach target audiences to keep them informed and to encourage visitation? They might not have internet access, read traditional media or interact with the same sources of information that you typically use.

Look for ways to intentionally foster ongoing interest and support, such as inviting community groups, donors and existing volunteers to assist in trail maintenance.



Community Engagement and Outreach

We invested deeply in community engagement to ensure what we built is needed, relevant and accessible.



What We Learned: Internal Considerations

Ensuring clarity and agreement on the why

Before embarking on any project, especially a community-centric project, it is critical to specifically outline purpose. The positive reception of the trail at our Ossipee Pine Barrens Preserve brought to light the clear need for more accessible trails in New Hampshire. That demand led us to our Manchester Cedar Swamp Preserve because of its ecological significance and proximity to a population center. The trail at Ossipee follows federal guidelines for accessible trails, yet we saw an opportunity to work in a new way at Manchester Cedar Swamp—to genuinely engage with the communities we hope to serve.

Prioritizing internal collaboration, communication and flexibility

We created a cross-departmental team including a representative from fundraising, stewardship, marketing, community engagement and government relations. Each member of the team was responsible for reporting back to their respective departments. We also invited our staff and board to listening sessions and discussed the trail project during regular staff meetings.

What We Learned: Deliberate and Meaningful Outreach

While we had an initial budget and trail plan, we wanted community engagement to influence design and other aspects of the project.

Developing goals

Just like the overall project has goals, so, too, must community engagement. We set out to:

- build and maintain relationships with new audiences to increase awareness of the accessible trail,
- gather input from communities we seek to serve, and
- build communal buy-in and begin new relationships within the community.

OPPOSITE PAGE © Mark Zankel/TNC THIS PAGE © Kelsea Batchelder/TNC

OUR TEAM:

SHEILA VARGAS TORRES

Government and Community Relations Manager



Authentic community engagement requires skilled and dedicated capacity. As the engagement lead for the All Persons Trail Team, Sheila Vargas works to build community relationships, conservation awareness and connect people to nature. She also represents TNC in the New Hampshire statehouse and helps develop and maintain relationships with lawmakers, state agencies and partners to advance TNC's state-based public policy and conservation goals. Sheila has a decade of experience in issue advocacy, state policy and political campaigns in New Hampshire and Texas. Sheila was born in Aibonito, Puerto Rico, and grew up in the Granite State.

CONNECT WITH Sheila at sheila.vargas@tnc.org.



A community is a group of people who share commonalities—which can include where they live, similar characteristics or beliefs, or shared interests or goals.



Making intentional progress

The first step toward a more inclusive experience at Manchester Cedar Swamp Preserve was to listen to the diverse voices that make up the vibrant fabric of our community. There is no singular approach to community engagement—every situation requires a unique approach. Communities are complex, dynamic and constantly impacted by the societies around them. Guided by a commitment to transparency, authenticity and accountability we planned and implemented multi-modal strategies designed to intentionally connect with communities on their terms.

- We reached out to community groups who already had a connection to TNC or an individual on our team. We also conducted “cold” outreach—emailing and calling people and groups whom we wanted to get to know.
- We carefully prepared for those conversations so that we could offer context about our organization and the project.
- Those conversations often required acknowledgement that some groups have been excluded and omitted from conservation broadly, and from TNC’s work in New Hampshire specifically.

To promote honest feedback from a wide range of community members, we asked leaders from local organizations to co-sponsor the listening sessions with us. That meant:

- co-creating the run-of-show for the sessions;
- co-branding promotional materials and registration, and sharing in the responsibility to invite participants;
- offering organizations an opportunity to take over our social media pages to connect with our followers; and
- ensuring representation in the form of panelists or moderators for the events.

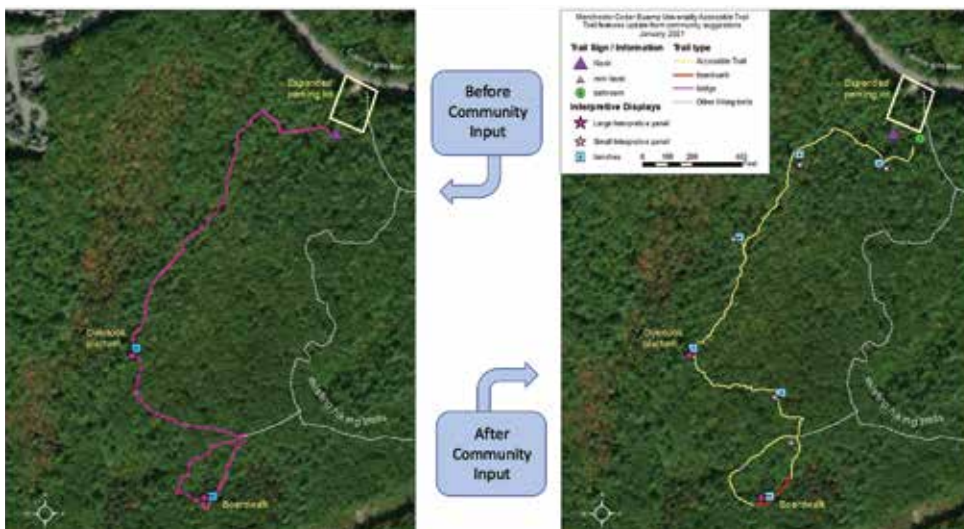
Important Step Understanding Identity



While we might hope our work is appealing to everyone, defining priority audiences is essential to developing plans. Making decisions that prioritize the needs of specific audiences requires an understanding of identity. Individuals identify within many different groups throughout their lives based on identity markers such as gender, age, race, ethnicity, religion, sexual orientation, native language, physical and cognitive disabilities and much more. Seeing the whole person, all the different ways people identify, is an important step to ensuring project plans are comprehensive and

stand to reach the most people. For the Manchester trail project, we:

- reviewed most recent demographic data available and prioritized factors related to people who live near the preserve to ensure the trail would be beneficial to the largest number of people possible.
- intentionally reached out to established groups representing diverse constituencies and asked for their input and advice, as well as identifying others in the community we should consult.
- asked local education leaders about the languages spoken by families.



To inform developing and refining our trail plan, we held seven listening sessions focused on barriers to nature. We presented the initial plan to various community groups (active seniors, individuals with disabilities, people of color, and the LGBTQ+ community) through partner-led conversations. These virtual sessions gave us an appreciation and understanding of the barriers many face to access nature. We also held two broader Community Coffee Updates. These events, aside from one, were virtual because of the COVID-19 pandemic. We found that limitation actually provided some benefits: Virtual events can ensure easier access and a lower barrier of participation for individuals who have mobility impairments, and it was easier to provide closed captioning for individuals with hearing impairments..

We were committed to transparency throughout this process. We posted recordings of all of our conversations and other supplemental materials along the way at nature.org/manchester. We also took deliberate steps to double back with community groups to share design changes based on their feedback.

Measuring success

There are nuances to understanding the success of community outreach. This work requires coupling quantitative and qualitative metrics to paint a comprehensive picture. Some of our methods included:

- Documenting the number of relationships built (a “relationship” in this context constitutes engaging with an individual or an organization a minimum of three times), and having a strategy on how to authentically maintain relationships.
- Capturing the number of individuals who registered for and then participated in events, an assessment of energy and engagement during the conversation, and then the number of participants who express interest in continuing to engage or take action.

Community Engagement Guiding Principles



- Ask, don't tell, when seeking advice.
- Build relationships that support partner leadership.
- Invest our time in learning, listening and asking questions.
- Don't be a silo; debrief with partners after co-led events.
- Discuss often and actively the next steps and expectations of your partnership together.
- Continuously ask, “Who else should we speak to?” and, “How can we improve?”

When possible, a mix of opportunities—in-person, virtual and passive such as surveys— provide a variety of ways for people to participate.

Fundraising

Create a strong plan and build in flexibility.



What We Learned: Building a Fundraising Plan

Don't wait until breaking ground to begin fundraising. We began broaching the project idea with supporters far in advance and asked them for their advice—which ultimately informed the fundraising plan and individual donor strategy.

To create a plan to fundraise for the All Persons Trail, we began by breaking down the total project cost into gift levels, including a few leadership gifts. We identified public and private grant opportunities we were aware of, corporate sponsorships we intended to explore, and individual donor prospects. We also assigned a main point of contact responsible for cultivating and eventually asking a particular funding source for support. Our fundraising plan was revisited weekly and sometimes daily to reflect secured, pending and planned solicitations.

We did not want the trail to be a platform for power and privilege, so we did not offer naming rights or opportunities to sponsor specific trail elements such as benches. We did not want names or logos to draw attention away from nature and the purpose of the trail.



OUR TEAM: KATE COLE

Associate Director of Philanthropy



Kate Cole served as the point person for fundraising on the All Persons Trail Team. She builds and manages relationships with donors and potential supporters for the trail and our work across the state. Kate listens to understand their philanthropic goals and interests, and works to connect them with projects where they can have a strategic impact on protecting the environment, preserving and restoring habitat, connecting people and nature, and addressing climate challenges in their communities and beyond. She joined TNC in New Hampshire in 2016.

CONNECT WITH Kate at kate.cole@tnc.org



Ongoing, intentional dialogue with the entire project team is essential for fundraising success. As our project timeline and budgets changed, we had to communicate transparently with donors. This helped supporters feel “in the know” and sometimes inspired additional gifts to cover unanticipated costs that emerged through the community engagement process. This also helped us share people-centric stories that showed donors tangible results.



Important Step

Consider a Variety of Funding Sources

- Explore public funding opportunities through national and state agencies such as the National Park Service, the Department of Transportation, the Environmental Protection Agency and local government grant programs.
- Consider large national foundations, regional or local outdoor retailers, and community foundations.
- Think about the new and different audiences that might benefit from an accessible trail. Unexpected doors may open through community engagement conversations and asking people if they know others who might be interested in the project.
- Consider every project partner as a potential funder—sometimes just making the ask is all it takes.
- Talk to local businesses and associations—they are sometimes looking to support projects through grants and gifts-in-kind, including donating trail materials, equipment or time.
- Is there a trail neighbor that might be thrilled to have this kind of asset built nearby? What about a global corporation with a local footprint near your project? They may be interested in investing in community projects where their subsidiaries touch down.



“

The VF Foundation is proud to partner with The Nature Conservancy to ensure that everyone, regardless of abilities or background, can enjoy The Manchester Cedar Swamp Preserve’s unique ecosystem. We hope the inclusive design of the All Persons Trail will inspire more community-centered projects across the country that are welcoming to all, while fostering active lifestyles and deepening our connection with nature.

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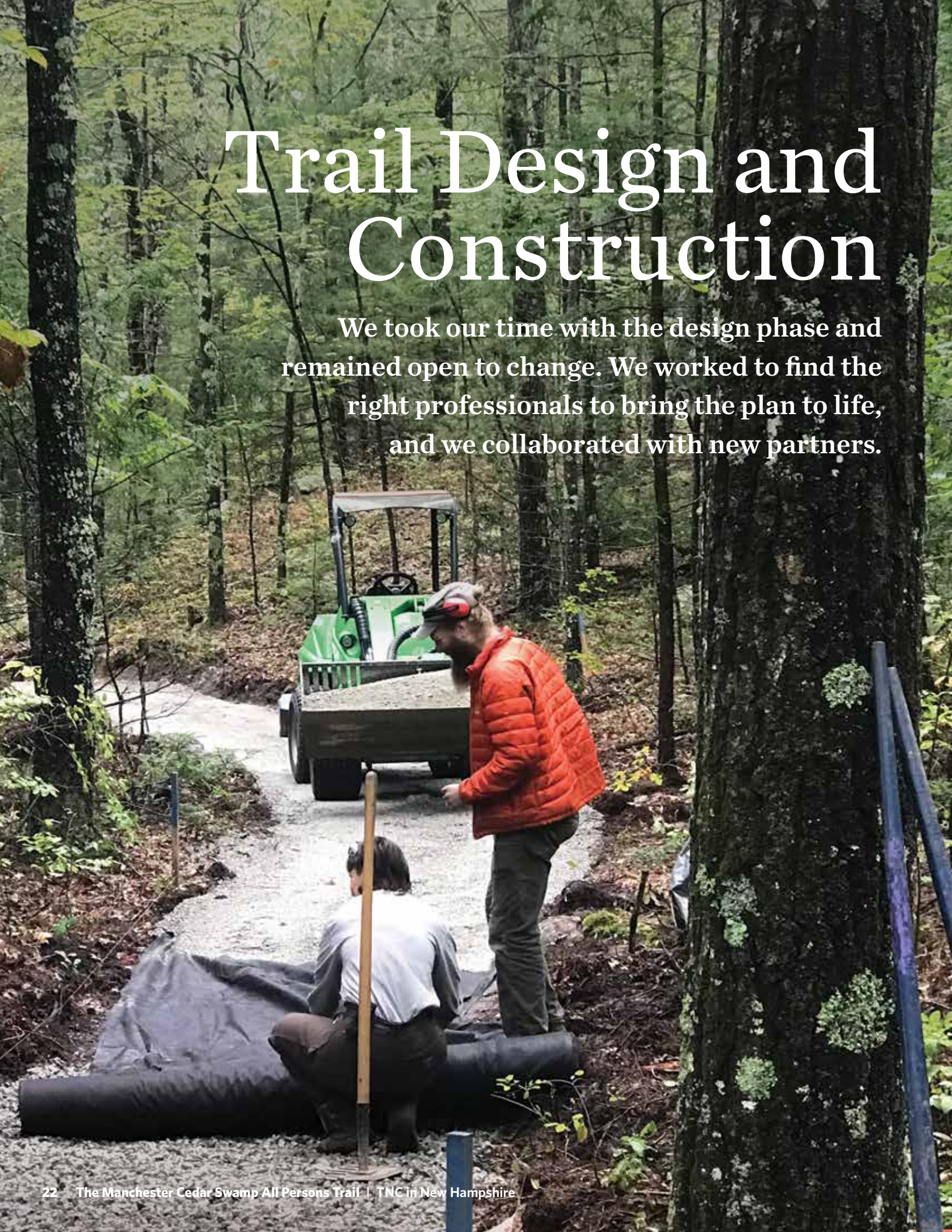
Gloria Schoch

Executive Director, VF Foundation



Trail Design and Construction

We took our time with the design phase and remained open to change. We worked to find the right professionals to bring the plan to life, and we collaborated with new partners.



What We Learned: Trail Design

Building our understanding

We started with the federal Accessibility Guidebook for Outdoor Recreation and Trails to understand the features of a trail that provides accessibility to many with disabilities. We evaluated the existing trails at the Manchester Cedar Swamp Preserve and determined that they were too rocky and too steep, leading us to plan for an entirely new trail. We kept the guidelines in mind when scoping out a potential route with gentle slopes and space for a wide path that would allow visitors to experience a meaningful nature walk.

KEY RESOURCE: Accessibility Guidebook for Outdoor Recreation and Trails www.fs.usda.gov/sites/default/files/Accessibility-Guide-Book.pdf

Finding a firm to design and build the trail

We requested design-build bids from professional trail building firms with experience in accessible trail construction. These professionals were able to determine how we could “connect the dots” of key features and create a trail that would comply with slope and grade requirements. They each provided a bid of their proposed trail design.

Challenges We Faced: Trail Building Firm Selection



The number of qualified firms for this specialized work is limited, which affected the competitive bid process and the availability of crews to do the work. There are multiple construction techniques and approaches—contractors may be experts or prefer certain approaches; this variable makes comparing bids a challenge. To generate interest and obtain clear bids from the small pool of busy contractors in high demand, we invested time to understand the guidelines and information they would need so that we could present them with an organized project plan. We got to know the potential firm and reviewed relevant samples of their work. Those combined efforts led us to a firm that became a meaningful collaborator who was equally invested in the success of the project.

OUR TRAIL BUILDING FIRM

PETER JENSEN & ASSOCIATES, LLC

trailbuilders.com
peter@trailbuilders.com





Know your limitations, and bring in expert help. We hired a local wetland scientist to complete a wetland delineation along the trail corridor and to prepare the permit application. Don't be afraid to ask for professional services from partners who see the benefit the project will provide to their community.



Creating a trail plan

The purpose of a trail plan is to fine-tune the trail layout to meet the accessibility guidance for slopes and grades, minimize trail maintenance, minimize impacts to the environment and provide a positive trail experience for the user. The plan includes a detailed work log, descriptions of the construction process, a budget, and design drawings for trail structures. With the plan in hand, the route staked out on the ground, and a highly qualified trail building firm chosen, we began permitting and community outreach.

Sharing the plan, refining the plan

We presented our trail concept to community groups and partners for feedback and suggestions. (See more on this in the Community Engagement and Outreach section of this report). Our team incorporated ideas we heard into the final trail plan, and we worked with the trail builder to modify budgets and timelines.

Important Step Building Relationships With Partners



Fostering relationships with key partners helps with the design and permitting process.

- We worked with the New Hampshire Natural Heritage Bureau to minimize harm to the environment and to outline exciting ways to share the natural aspects of the preserve with visitors.
- We consulted with the City of Manchester Planning Department to determine what City ordinances we needed to follow and the permits we'd need for the structures and parking area, and with the New Hampshire Department of Environmental Services to determine the type of wetland permit needed to construct a new boardwalk.
- We presented our trail plan to the City Aldermen and the Manchester Transit Authority to gain support for City services, such as a bus stop and snow plowing.
- We worked with the City of Manchester Department of Public Works survey and engineering staff to design a parking area at the trailhead that would meet ADA compliance and accommodate City and school buses.

What We Learned: Construction



Understanding and working with the site

Construction requires a deep understanding of the guidelines for accessible trails overlaid with site conditions. The Manchester trail is not flat, but instead undulates within the accepted grades of 1 to 9 percent, with the steeper stretches being short in duration, and terminated by small downslope or flat rest areas. This helps prevent erosion of the trail by minimizing the run and quantity of water flowing over any one stretch of trail. The rolling and gentle topography is more authentic to the natural feel of a walk in the woods and reduces the likelihood of any washing out of the trail substrate material from rain events.

We confronted rocky soils and shallow bedrock, which slowed construction. A mini-excavator and mini-loader were used to maneuver rocks and deposit gravel to build up the trail base. That work set the pace of construction; crews followed to move other materials to build the trail and structures. However, using those pieces of heavy equipment affected our plan and budget. The trail plan called for two bridges to cross sensitive wetland areas. We ultimately constructed those bridges beyond intended standards to safely support the weight of the equipment.



A thorough understanding of site conditions will allow for informed decisions.

What can you design around to reduce costs or to manage the timeline?

Or where are deeper investments warranted to provide conditions that make construction more efficient, to support trail sustainability and reduce future maintenance costs, or to improve aesthetics and maintain natural, cultural or historical values?

Choosing a project manager who understands site conditions, is familiar with different construction options, and knows how to weigh cost differences between bids is a key to success. An effective project manager is available to everyone involved and proactively checks in with contractors and crews.

OUR TEAM:

JOANNE GLODE

Project Manager



Joanne Glode, TNC's Southern New Hampshire Stewardship Ecologist, served as the primary project manager for the All Persons Trail. Joanne has worked with TNC since 2003. Today, she manages 15 nature preserves in the state. Her work includes salt marsh restoration and climate adaptation activities, volunteer engagement, invasive species management and trail maintenance.

CONNECT WITH Joanne at jglode@tnc.org

“

This great project had a great team behind it – built on a shared passion to the goal and a commitment to learn.

”

JOANNE GLODE

Project Manager, Manchester Cedar Swamp All Persons Trail

Important Step

Thinking About What Happens After Construction

- Include the development of a maintenance plan into the agreement with the trail builder to give you a sense of long-term needs and costs.
- Before the trail builder leaves, have them train staff or volunteers on appropriate maintenance techniques. Document specific supplies, materials and tools to have on-hand and how to monitor for signs of wear.
- Budget for annual maintenance and unexpected costs, such as wood rot or damage caused by falling trees.
- Consider having the trail builder return after one year to touch up any areas that may have settled.

Developing timelines

Thinking through the order of what happens and when is directly related to staying on schedule and on budget. For example, we contracted with a land clearing/paving company to rough-in the parking lot, which served as a staging site throughout the process. We waited until the trail was complete to pave the lot so the final surface would not be damaged by gravel deliveries and heavy equipment use.

Integrating environmental values and sustainability

We set out to thoughtfully manage the environmental impact of construction. We factored our capacity and resources for upkeep into our decisions, opting for materials that might cost more to begin with but will last longer and provide greater safety and durability.

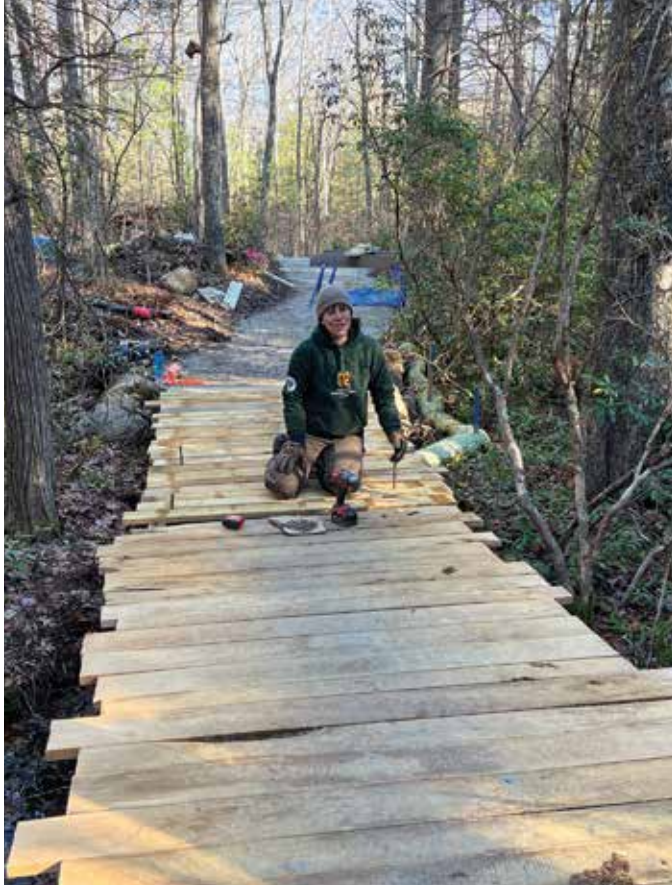
- We used natural materials from the site as much as possible to make the trail fit the landscape. For example, rocks moved to create the trail corridor were used for cribbing, slope stabilization, bridge abutments, interpretive panel mounts and benches.
- We worked with local quarries, which reduced the carbon impact of transporting materials and minimized costs associated with shipping.
- To minimize long-term maintenance needs, we chose a trail substrate mix made up of the ideal stone, texture and grain size for long-term sustainability and stability.
- Wooden structures were built with black locust, a tree with naturally rot resistant wood. This choice also helped us avoid using treated wood in sensitive environments (except for the structural framing as required by building codes).

Challenges We Faced: Preserve Access During Construction



The Manchester Cedar Swamp Preserve is a popular natural area, so we had to carefully consider if and how people could access the preserve during trail construction or if closure at times was necessary to keep visitors safe and the project on schedule.

- Consider available channels to communicate ongoing closures (signage, website updates, social media, outreach to local media, etc.) and staff capacity to manage that process. Transparency and accuracy are essential.
- Use signage and fencing to keep visitors away from active construction areas.





Infrastructure, Interpretation and Communications

The trail itself is just the beginning of the journey. It's important to consider the whole visitor experience. What did our community partners share as barriers to access that we could address, or needs that we could fulfill? What could we do to make their time on the trail more engaging? What messages did we want to convey to visitors? What do we hope they take away from their experience? How will they take in that information? Are there opportunities for multiple forms of delivery to provide more equitable access to information, messaging and an enhanced experience? Are there additional features or infrastructure we could add to the trail to create a fuller experience for more people?

What We Learned: Infrastructure

Integrating community input into infrastructure decisions

During our seven community-led conversations, we heard about the common barriers to accessing natural spaces that individuals from the Black, LGBTQ+, disability and senior communities face and received recommendations to help shape our efforts in making the preserve more accessible.

Across these communities, we noted key issues affecting usage of natural spaces:

1. Public transportation to trails is minimal.
2. If there are bathrooms at all, they are often gendered, not family-friendly or inaccessible.
3. Trail signage and maps are often not accessible or inclusive in language and visuals.
4. Individuals who are unable to walk/hike all the way to the end of a trail or a vista feel like it may not be worth the trip.
5. Interpretive information is often not accessible to non-English speakers or individuals with visual impairments.
6. Visitors unfamiliar with a place can feel unwelcome.

A universally accessible trail has the potential to draw new and more diverse users with a wide range of familiarity and comfort level with being in the woods/in nature. Using the above list as a guide, we sought to develop an inclusive visitor experience.

Infrastructure: Transportation

We recognized that the user experience would begin with the decision to visit the preserve.

- Following accessibility guidelines, we designed a parking area that's easy to enter and exit and includes an adequate number of accessible spaces ideally located and safely graded to accommodate visitors using wheeled mobility devices.
- Not everyone has access to personal transportation. In fact, this was the number one barrier to accessing nature brought up in our community listening. An existing City of Manchester bus route went past the trailhead, so we worked with Manchester Transit Authority to add a bus stop. We also modified the design of the parking area so that it can support a city bus pulling in and out. We continue to work with Manchester Transit Authority to explore how we might communicate about the existence of the preserve and use public transportation to access the trailhead, including developing signage/posters for city bus stops.

OUR TEAM: MEGAN LATOUR

*Marketing and
Communications Manager*



Megan Latour led the development, writing and design of the All Persons Trail interpretive experience including signage, maps and online content. She manages digital, social and print communications for TNC in New Hampshire, sharing the stories of TNC's work in creative ways to inspire action. She has been with the organization since 2002.

CONNECT WITH

Megan at mlatour@tnc.org.



If a user feels unsure they have sufficient rest options, they may feel deterred from visiting. At each bench, we include the distance to the next bench so visitors can be reassured they can continue down the trail and a rest area will await them. Include as many rest areas as your budget allows and/or seems sensible.



Infrastructure: Bathrooms

Availability of bathroom facilities was a barrier raised by many community members, which led us to prioritize the installation of a portable, non-gendered, accessible toilet in the parking area. We will assess usage, maintenance factors and budget to inform future decisions about bathroom facilities.

Infrastructure: Benches

Our original trail plan included three benches placed along the trail. From our community conversations, however, we learned that a lack of rest areas can be a barrier for those who need to stop and sit more frequently to travel the whole trail. We were able to integrate this feedback because our teams were working closely together. By installing more benches—six, in this case—we gave visitors more opportunities to pull off the main trail, sit and relax before continuing onward. These benches are also located near interpretive points of interest, allowing folks the opportunity to dive deeper into that particular space.



Important Step

Integrate Community Needs and Review into Signage



To ensure that we were staying true to our goals of crafting language and visuals that reflected the communities we wanted to serve, we:

- Used larger fonts and colors that provide contrast for viewers with visual impairments.
- Hired a local, Latina-owned translation service to translate key sections of the panels into Spanish. We wanted to ensure that the Spanish messaging was accurately translated and regionally appropriate.
- Requested review by partner organizations. Representatives from the Disability Rights Center – New Hampshire and Opportunity Networks

reviewed working drafts and provided valuable feedback. Incorporating their feedback not only created a stronger, more inclusive product, but it also fostered relationships by providing opportunities to collaborate and raise community voices.

- Hired a young Black photographer to capture diverse, inclusive imagery for promotion and trail usage so that visitors can feel welcomed to and reflected in the experience. For models, we recruited individuals with whom we had already worked, who were already aware of our intentions with the photos and wanted to help increase representation of their community.

What We Learned: The Interpretive Experience

For many people, this will be their first visit to the preserve. We set out to offer information to help visitors connect with their surroundings and to tell a broader story to raise more voices. We developed topics and themes into narratives and used approachable language, made content available in many formats and always kept the needs of our audiences at the forefront.

The interpretive experience: Trailhead kiosk

The trailhead is the perfect place to welcome visitors and set their expectations. Taking community feedback to heart, we knew we wanted to create a kiosk that was physically accessible—placed in a location at a level that visitors could easily approach—and present information in a clear, concise manner using welcoming and inclusive language and imagery.

We developed a kiosk design that offers:

- orientation to the place: a short description of the preserve and why it's special.
- how to enjoy the preserve responsibly, including what is allowed and what is prohibited, using language that feels positive rather than overly negative. We want to influence positive behavior.
- an explanation on why hunting is allowed at the preserve and how it is safe to visit during hunting season.
- a trail map that clearly identifies the various trails and their length, as well as key habitats and features.
- information on commonly spotted species.
- who The Nature Conservancy is, our contact information and website/social media channels.
- current trail conditions.
- welcoming messaging and imagery centered around common courtesy, respect, and how to participate in creating a fun, safe visit for everyone.
- information on how to access the audio tour in both English and Spanish.





Signs encourage visitors to have a multi-sensory experience, such as encouraging climbing on certain rocks, instructions to touch specific trees, and demonstrating how to grind acorns with rocks in the traditional Abenaki way.

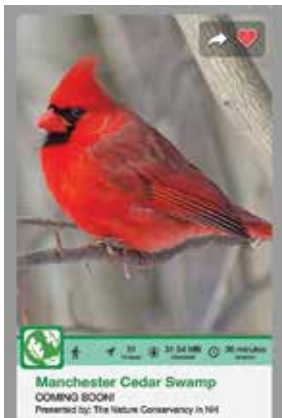
The Interpretive Experience: Trail signage

As visitors make their way down the trail, they pass rare plants and habitats and experience the smells, sounds and sights of nature. Our first step was to understand where to locate interpretive points of interest. We wanted to provide interpretive paneling along the trail that was visually appealing, that satisfied curiosity, and that was accessible to visitors of all ages and abilities. To develop a cohesive, engaging look, we worked with a local artist who is known for nature-based illustration. The panels share information about the rare habitats at the preserve; how to identify common birds, animals, plants and trees (including their traditional Abenaki names); and opportunities to interact further with the landscape. The panels are as much works of art as they are storytelling elements, taking visitors on a colorful journey down the trail. They are mounted on pedestals that are sited so that those using wheeled devices, such as wheelchairs and strollers, can easily approach and view the material.



The Interpretive Experience: Audio tour

As we considered the visitor’s journey, we recognized that not everyone has equal ability to access written information or communicate in English. How could we make our stories more accessible to those with visual impairments? With Spanish being the most frequently spoken language in Greater Manchester after English, how could we provide a richer experience for Spanish-speaking visitors?



Our research led us to produce an app-based, GPS-triggered audio tour. We worked with a professional company to produce short, podcast-style audio tracks that play automatically when approaching a point of interest, allowing visitors to experience the sights, sounds, wildlife, plants and history of

Manchester Cedar Swamp Preserve. The tour is available in English and Spanish, and information on how to use it

is available in both languages on the trailhead kiosk. The tour is also available on our website.



The information included in the audio tour overlaps and supplements what is included on the interpretive panels. This was intentional so that the same information and stories could be served up in multiple ways. To appeal to children and adults alike, the content was created to be easily understood by individuals as young as 8 years old. The tour contains an introduction and 10 interpretive stops along the trail. We chose expressive and engaging narrators for the audio tour, which includes vivid descriptions of the plants and animals at each interpretive point, as well as animal sounds (like frogs and birds) to help listeners visualize their surroundings. In the future, we can add audio stops and even offer the tour in additional languages.

Important Step

Listening to Indigenous Peoples



We intentionally set out to raise Indigenous voices and shed light on their past and present relationship with the area. When opportunities arise or we are invited to collaborate, TNC works in partnership with Indigenous Peoples and local communities to support their visions, learn from their stewardship experiences, and amplify their leadership in conserving lands, waters and ways of life.

Indigenous leaders from the Cowasuk Band of the Pennacook-Abenaki people guided us on a learning journey to better understand their connections to this region. They walked the proposed

trail with us and shared their wisdom and stories. Together, we chose topics and themes for seven locations along the trail. In addition to information about the plants, animals, birds and habitats visitors would encounter, the interpretive points include a “wisdom curl”—a sharing of Indigenous knowledge within each theme. The first interpretive point, which introduces the wisdom curl concept to visitors, also serves as a land acknowledgement to honor the Indigenous Peoples who stewarded these lands for generations and are still connected today.

What We Learned: Communications



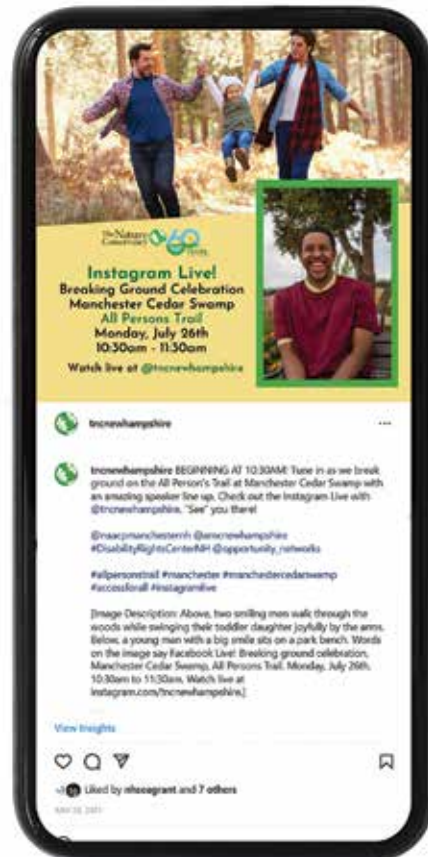
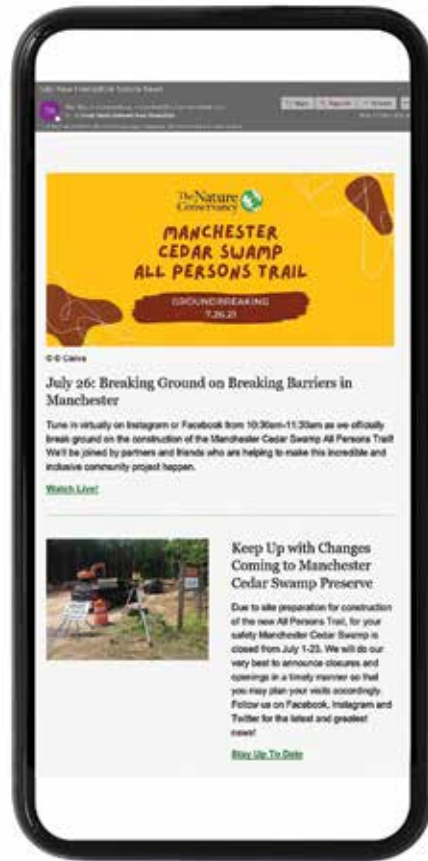
Communicating with Nature Conservancy members, followers, partners and community members throughout the project was critical. We provided project status reports and updates on how community members were influencing the plan and implementation. Our efforts included:

- regularly updating the preserve’s webpage.
- posting time-sensitive information (like trail closures and reopenings) on Facebook, Instagram and Twitter. We created specific “trail update” graphics so that followers would immediately recognize them as posts pertaining to this project, and we posted a general update every 10 days.
- including updates in Nature News, TNC’s monthly e-newsletter and in our print publications.
- sending personal emails and holding group update sessions to strengthen and grow relationships with key partners.
- livestreaming the groundbreaking ceremony and ribbon-cutting celebration on our Facebook and Instagram pages.

We’ll continue to use these channels and methods to encourage visitation and identify creative ways to reach potential visitors, partners and supporters.



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A photograph of a forest path in autumn. The sun is shining from the upper left, creating a bright starburst effect. The path is made of dirt and is surrounded by trees with some autumn-colored leaves. The text is overlaid on the image.

In Conclusion: Looking Back and Looking Ahead

Breaking down barriers is a vital step in ensuring that the outdoors is truly accessible for all. We set out to build an outdoor space that offers a tangible opportunity for more people not only to experience the power of nature but also to feel included and actively welcome. We hope the completion of the universally accessible trail at Manchester Cedar Swamp serves as an inflection point in how colleagues and partners think about outdoor recreation access, sparking new conversations and encouraging actions to make nature a place where everyone feels safe, respected and inspired.

Continuing to Learn

We recognize that our work doesn't end when the trail is complete and the ribbon is cut. We are committed to continuing to communicate and engage with the community as we look to deepen the relationships we've built, support those who visit Manchester Cedar Swamp Preserve and maintain the All Persons Trail. Looking ahead, we will:

- conduct consistent and proactive maintenance at the All Persons Trail with volunteers.
- monitor trail use through efforts such as installing a trail counter. This will also help us understand further maintenance and signage needs. For example, at our Ossipee Preserve, usage data led us to install barriers to prevent snowmobiles from entering walking trails.
- pilot a program in summer 2022 with Manchester Transit Authority called "Transit to Trails." Bus service will be available one Saturday a month from the heart of Manchester to a variety of trailheads and outdoor recreational spaces.
- encourage local groups to lead nature walks on our preserves to support their efforts to increase access to the outdoors for diverse communities.



“

The Manchester Cedar Swamp Preserve provides a unique opportunity for families and children to engage in stewardship and develop an organic admiration for the natural environment; one that is often missing within marginalized populations.

It demonstrates the endless possibilities urban communities can achieve given the chance to engage and enjoy within their relationship with the outdoors.

”

Pedro Altagracia

Concord, NH

RESOURCE LIST

Accessibility Guidebook for Outdoor Recreation and Trails:

<https://www.fs.usda.gov/sites/default/files/Accessibility-Guide-Book.pdf>

Coloring for Colorblindness: <https://davidmathlogic.com/colorblind>

Indigenous New Hampshire Collaborative Collective: <https://indigenousnh.com/>

Manchester Cedar Swamp Preserve: www.nature.org/manchester

Transit to Trails: <https://mtabus.org/>

The Nature Conservancy in New Hampshire: www.nature.org/newhampshire

Facebook: www.facebook.com/TNCNH

Instagram: www.instagram.com/tncnewhampshire

Twitter: www.twitter.com/Nature_NH

Wayside Exhibits: A Guide to Developing Outdoor Interpretive Exhibits National Park Service

<https://www.nps.gov/subjects/hfc/upload/Wayside-Guide-First-Edition.pdf>

PROJECT VENDORS

Sherry Crawley

Sherry V. Crawley Communications
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Marketing and communications professional.
Provided guidebook editing services.

FastSigns of Manchester

New Hampshire
www.fastsigns.com

New Hampshire-based custom sign company.
Printed the kiosk panels.

Jon Ferland

Ferland Design and Illustration
<http://jonferland.com>

Freelance graphic designer located in Maine.
Developed the kiosk panels at the trailhead.

Jada Fitch

Jada Fitch Illustration
<http://www.jadafitch.com/>

Freelance illustrator located in Maine. Developed the interpretive panels found along the All Persons Trail.

Peter Jensen

Peter Jensen & Associates, LLC
www.trailbuilders.com

Designer and builder of pedestrian trails based in Vermont.
Designed and built the Manchester Cedar Swamp All Persons Trail, including custom benches.

Jerry Monkman

EcoPhotography
<https://ecophotography.com/>

New Hampshire-based photographer. Captured images for the All Persons Trail project.

Robert Nua Toy-Giles

Instagram: @toygile:
<https://www.instagram.com/toygile/>

New Hampshire-based photographer. Captured images for the All Persons Trail project.

OTB Trailworks, LLC

(Off The Beaten Path)
<https://www.obptrailworks.com>

Trail design, construction and training firm based in Maine. Lead construction of the Ossipee Pine Barrens All Persons Trail.

SB Signs

<https://www.sbsignsmaine.com/>

Full-service sign fabricator and installer based in Maine. Fabricated the interpretive panels, frames and posts.

Sherwin Dodge

<https://www.sherwindodgeprinters.com/>

New Hampshire-based printer. Provided printing and mailing services.

Timber and Stone, LLC

www.timberandstonellc.com

Trail design and construction firm based in Vermont. Designed the Ossipee Pine Barrens All Persons Trail and assisted in its construction.

TravelStorys

<https://www.travelstorys.com/>

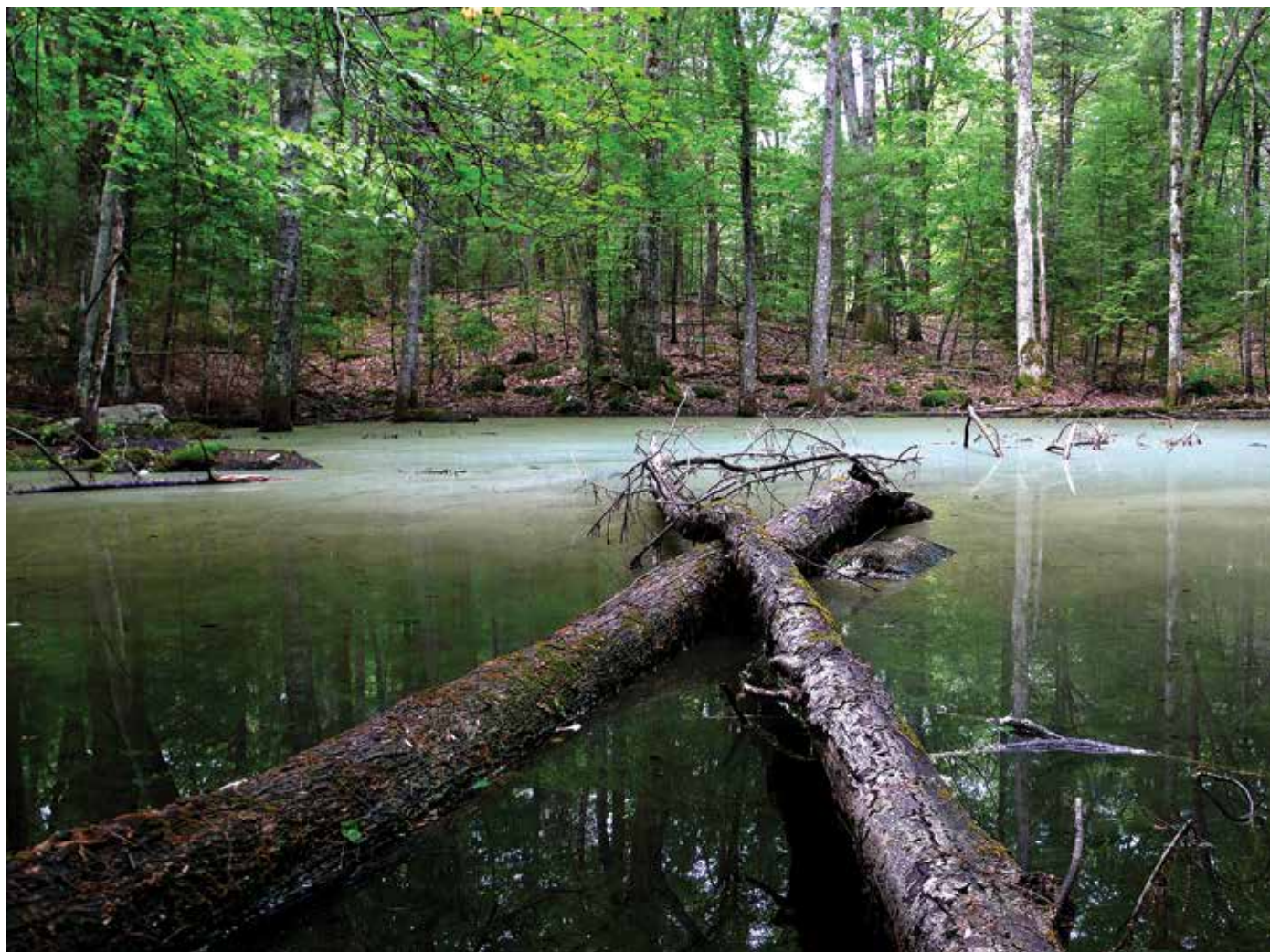
Wyoming-based, woman-owned company that develops app-based, GPS-triggered content. Developed the audio tour.

Lisa Vásquez

Palabras Consulting

<https://palabrasconsulting.wixsite.com/palabrasconsultingco>

Woman-owned company based in New Hampshire providing culturally appropriate Spanish translation services. Developed Spanish content for kiosk panels and consulted on Spanish narrator for audio tour.






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