

TRAIL ASSESSMENT REPORT

Trail Name(s): Blue Trail and Yellow Trail

Property: Bowdoinham Town Property

Land Manager: Town of Bowdoinham (Jason Lamoreau, Wendy Rose, William Oh, Maureen Booth present for assessment)

Assessed By: Enock Glidden

Assessment Date: 6/6/2023

Executive Summary

Town of Bowdoinham (TB) requested an assessment of a waterfront town property also known as Cathance Meadows to understand opportunities for making the trail more accessible as the property is developed for access to the waterfront. The trail was assessed from the parking lot along the Blue Trail to the beginning of the Yellow Trail. An alternative future trail was discussed to give access to an already existing bench area along the waterfront. Through the course of hiking the trail and conversation, key areas for improvement were identified. The parking area will need at least one concrete or paved accessible parking space. The kiosk at the beginning of the Blue Trail needs to be lowered with all pertinent trail information located at the bottom of the information area. All non-critical information can be placed at the top. The trail surface will need to be graded and firmed. The best surface material for wheelchair users has been found to be a mixture of 3/8" aggregate and finer material to aid in firm compaction. The surface must not have a cross slope greater than 2% and a running slope no greater than 5%. The minimum tread width should be 36" or greater. A width of 5 feet is better to allow people to walk side by side or pass each other when they meet on the trail. A picnic table is located on the right side of the blue trail across from the beginning of the Yellow Trail. In order to make the picnic table useful to everyone, a firm and stable surface needs to be applied surrounding and under the table. The grass needs to be mowed to allow for a better view. As discussed, the future side trail to the shoreline will be built to ADA standards. When implemented, the proposed solutions will allow more citizens and visitors of Bowdoinham to enjoy the town waterfront.

Current Trail Description

The TB website currently describes the trail as follows ([see link](#)):

Cathance Meadows is the perfect place for a quick picnic. Just a short walk away from Maily Waterfront, this central public land can be accessed by a well marked trail. There are two easily found picnic tables and a beautiful view. Only .6 miles from the Waterfront, parking is plentiful, and this dog and kid friendly trail is perfect for exploring by foot in the warmer months, or by snowshoes in the winter. Be sure to visit all of our town's public lands for the true Bowdoinham experience!

Assessment Report

The following assessment focuses on physical barriers whose elimination and minimization will make the trail more accessible for hikers with physical or mobility disabilities, specifically wheelchair users.

Trail Information

- Length of trail assessed: **0.27 mi**
- Surface types: **Mud/Grass/Rocks**
- Tread width – typical: **10 ft**
- Tread width – minimum: **3 ft on Yellow Trail Section**
- Running slope – typical: **0%**
- Running slope – maximum: **5%**
- Side slope – typical: **0%**
- Side slope – maximum: **<2%**

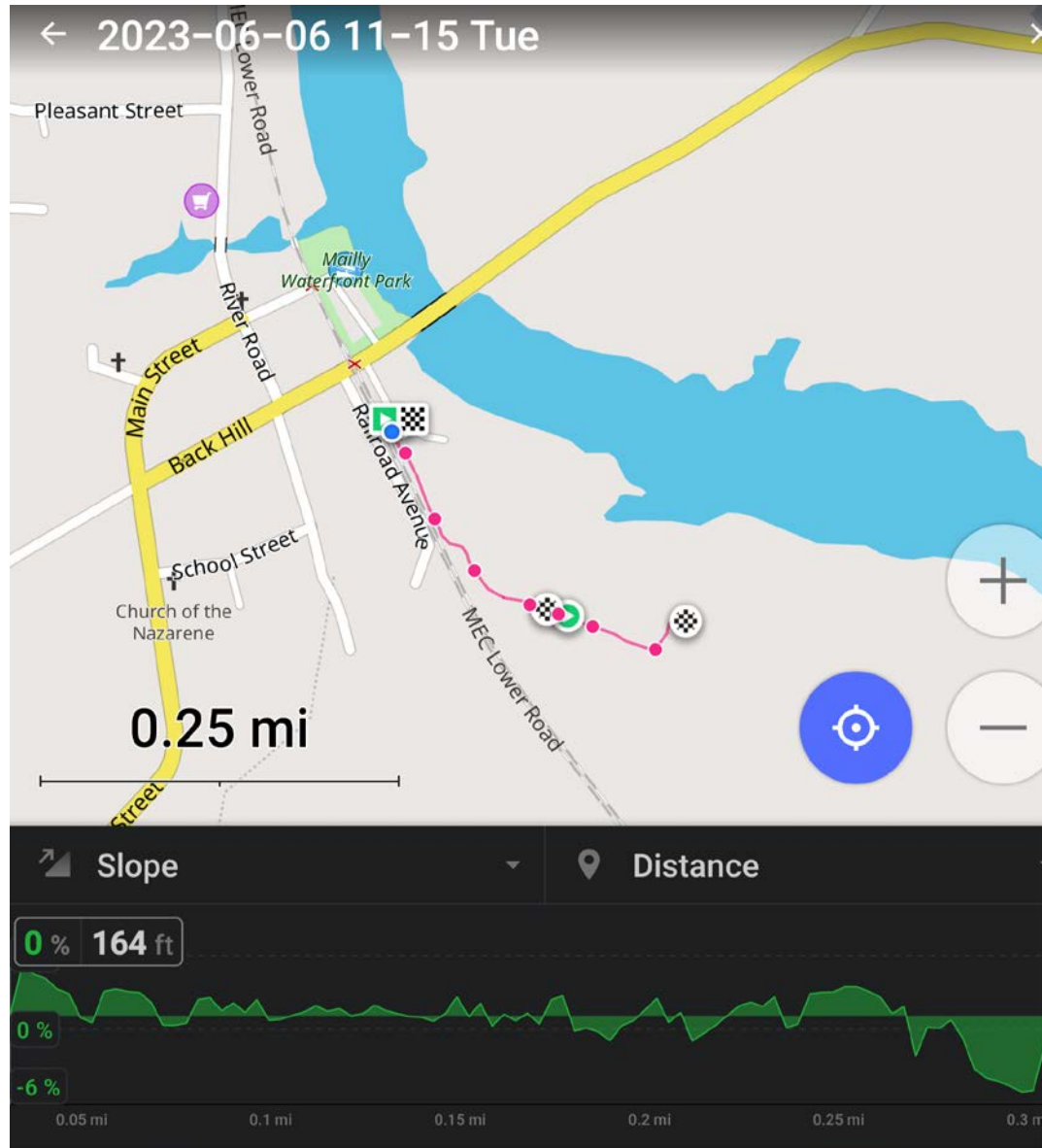
Trailhead Infrastructure

- Parking – large car parking area, no bike parking (*See Figure 11*)
- Public Transportation stop – none available
- Bathroom – none available
- Drinking water – none available
- Lighting/Illumination – none available
- Portable Map – none available
- Kiosk – located at the start of the trail with a roughly 2' x 3' sign that is positioned roughly 4' off the ground (*See Figure 2*)
- Seating/Rest spot – none
- Cell Service – typically available



Maps of Assessed Trails

Map 1: GPS track showing assessed trail with slope readings



Map 2: Link to interactive map showing assessed trail, photo points.

<https://tinyurl.com/2p94keyc>





Figure 1



Figure 2



Figure 3



Figure 4



Figure 5



Figure 6





Figure 7



Figure 8



Figure 9



Figure 10



Figure 2



Physical Barriers Observed

Getting to/from trailhead: Car parking is too soft. Bike parking not observed. *See Figure 11.*

Gates: None present. (Congratulations!)

Trailhead: Signage is placed too high. No benches. No lighting. *See Figure 2.* (This will be addressed with the new parking lot.)

Trail Surface: There are multiple areas of soft grass, mud, and ruts from motorized traffic. The section where the culvert is located has 5% grade hills on each side. *See Figures 1 and 3-10.*

Rest Spots: No benches were observed, other than the picnic benches in the grass. *See Recommendations.*

Line of Sight to Views: The tall grass in the fields makes it difficult to see the views of the surrounding forest or anything that might be in the fields. The picnic table currently sits in the tall grass and would be difficult to access or see anything from.

Obstacles: We look for gaps in the trail treadway, particularly any disruptions greater than 2.5". None were found. There may be other obstacles in the fields and where the new trail will be built. These areas were not assessed due to lack of access.

Information Barriers Observed

Trailhead signage: Too high to read from a seated position. Lacking information about individual trail conditions, distances, what to expect. *See Figure 2.* (This will be addressed with the new parking lot.)

Wayfinding signage: No mileage markers observed.

Website information: Very little information that will help folks determine if this is a good fit for what they are looking for. See recommendations for the type of information that would be helpful.



Recommendations

Making Cathance Meadows more accessible to more people is a relatively straightforward and inexpensive project. After improvements this will be an amazing spot to enjoy the Cathance River. The following suggestions for removing and minimizing barriers physical and communications barriers represent opportunities for making this trail more accessible to a wider group of users.

- The trail currently is soft and muddy. The goal is to have a 36" wide, cleared, firm, and stable treadway with minimal cross slope (<2%). There are plans for a side trail that will be built to accessible standards from the beginning of construction. The side trail will lead to an already existing bench along the shore of the river. The side trail would also mitigate the need to traverse the culvert crossing. We discussed making a loop trail from the new side trail to access the picnic area that is past the culvert crossing. *See Figures 1 and 3-10.*
- In order to **lessen the grade at the culvert crossing which is currently 5%**, the usual approach would be to add material to raise the surface level UNLESS the culvert has collapsed OR cannot handle the additional weight of material. IF either of those conditions exist, boardwalk ramping/bridging can be used in this section. Community Geographic's rule of thumb is that the average running slope should not exceed 5%. Please consult both Maine Department of Environmental Protection guidelines and the Architectural Barriers Act (ABA) guidelines in the reference section. *See Figure 8.*
- Other infrastructure enhancements to consider:
 - **Establishing resting sites** (benches) where locations are appropriate, both along the trail and at the trailhead parking lot.
 - In most cases, resting spots are flat locations to the side of the main trail with a bench and a space next to the bench for a wheelchair to pull out of the treadway.
 - The bench seat should be 17"-19" off of the ground. Providing a bench with at least one armrest and back support that runs the full length of the bench is helpful to people who need the support or have difficulty standing up from a seated position. Armrests placed on both ends of a bench could prevent a person using a mobility device from having the option to transfer from the device onto the bench. One option is to provide a bench with a backrest and one armrest placed in the middle of the bench. Another option is to place a single armrest on the end of the bench farthest from the clear ground space.
 - A bench placed at the trailhead provides a waiting spot and place for individuals to gather themselves, their stuff, and their group members. *See Figure 2.*
 - Placing an accessible picnic table where the picnic table is currently next to the blue trail would make a good destination for people to spend time, A new surface will need to be established to keep grass from growing and to make the surface around the picnic table more stable and firmer. [See Picnic Table Requirements](#)



- **Building and placing a trailhead kiosk at the parking area** so people feel welcomed and know that they are in the right place, to confirm that public access is allowed and to note any trail use restrictions, and to provide a context and detailed information of the trail that lies ahead. *See Figure 2.*
 - The kiosk should be easily viewable from the parking lot so that people can learn about and assess the feasibility of the trail before committing.
 - The kiosk should include a map of the trail and detailed information about the trail (surface, tread, running and side slope, facilities, potential barriers, whether dogs are allowed off leash, etc.) so that potential users can assess whether or not the trail is suitable for them.
 - Unlike the current trailhead kiosk, the new one needs to be lowered for easier reading from a seated position.
- As part of all trail assessments, we suggest that groups take the time to review all of their trail communications—on site, in print, online—in order to **improve the level of detail used to describe all trails and facilities**. Providing ample details and context allows all trail users to decide for themselves whether the trail is suitable for them.
 - Some important pieces of trail accessibility information to include (that benefit all users regardless of ability) are:
 - Length of the trail and/or trail segments
 - Surface type(s)
 - Typical and minimum tread width
 - Typical and maximum running slope
 - Typical and maximum cross slope
 - Presence and location of obstacles or barriers that disrupt the trail treadway, such as a gap/steep dip in the surface or something that protrudes above grade 2.5+ inches
 - Any rules related to dogs on the trails.
 - How to get more information or basic information in various languages.
 - Any trail amenities: benches, restroom, picnic areas, drinking water
 - How to access the trailhead by car, bicycle and public transit.
 - On-trail wayfinding for distance and directions that uses appropriate colors and shapes to support those with visual impairments.



Trail Descriptions Dos and Don'ts

- When describing trails there are certain things that should not be said due to ambiguity in the meaning of terms. When describing a specific site or area, use the term “accessible” only if all facilities, constructed features, and connecting routes are in full compliance with the applicable accessibility guidelines. Accessible refers only to specific facilities, constructed features, or routes that have been constructed or altered in compliance with all of the requirements of the applicable accessibility guidelines. Don't use the terms “ADA,” “partially,” “barrier-free,” or “handicapped.”
- Review Chapter 5 in the *Trails for All People* report for excellent information and best practices for signage (see Helpful Resources below)

It is important to understand that, if implemented, all of the above suggestions will help to broaden access to this trail, but they will not make this trail “Universally Accessible,” “ADA Accessible,” “handicap accessible,” “barrier free,” or fully compliant with applicable, legal accessibility guidelines.

Helpful Resources:

Open to All: A Disability Inclusion Guide for Land Trusts

<https://landtrustalliance.org/resources/learn/explore/open-to-all-a-disability-inclusion-guide-for-land-trusts>

Trails for All People: Guidance for Accessibility and Inclusive Design

<https://landtrustalliance.org/resources/learn/explore/trails-for-all-people-guidance-for-accessibility-and-inclusive-design>

Guide to Architectural Barriers Act (ABA) Accessibility Standards for “Outdoor Developed Areas”

<https://www.access-board.gov/aba/guides/chapter-10-outdoor/>

USDA Forest Service Accessibility Resources

<https://www.fs.usda.gov/managing-land/national-forests-grasslands/accessibility/resources>

American Trails Resource Library

<https://www.americantrails.org/resource-library>

