



Salmonier River Valley Trails

Master Plan

Final Report

July 2024

Town of Mount Carmel
Mitchell's Brook-St. Catherine's



Acknowledgments

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Town of Mount Carmel - Mitchell's Brook - St. Catherine's Council and Staff

Elaine Nash, Mayor

Kevin McDonald, Deputy Mayor

Brenda Young, Councillor

Douglas Dean, Councillor

Ian Goudie, Councillor

F. David Power, Councillor

Roy Lewis, Councillor

Nina Goudie, Town Clerk

Robyn Hickey, Administrative Assistant

Recreation Trails Committee

Nina Goudie, Chair

Anne Pratt, Vice-Chair

Robyn Hickey, Secretary

Dave Butland, Member

Dylan Goudie, Member

Ian Goudie, Council Representative

Elaine Nash, Council Representative

Nature Conservancy of Canada

Piers Evans, NL Program Director

Jennifer Sullivan, NL Stewardship Coordinator

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1. Introduction

There is no shortage of evidence that makes the case for investing in trail development. Trails are public spaces where communities gather, socialize and relax. When trails are designed and implemented carefully, they become an extension of the community itself, highlighting values such as health and well-being, and creating a distinct sense of place and community pride. Trails can also bring tourism and economic benefits, especially here in Newfoundland and Labrador where data tells us both resident (in-province) and non-resident (out-of-province) travelers list hiking, walking, and experiencing diverse and natural landscapes among their favourite activities.

Through the combined efforts of the Town of Mount Carmel - Mitchell's Brook - St. Catherine's, the Recreation Trails Committee, and the Nature Conservancy of Canada (NCC), a 158-acre property of the Salmonier Nature Reserve has been identified for the development of a community trail network. The property is located within easy access from the Salmonier Line in the Town of Mount Carmel- Mitchell's Brook - St. Catherine's. The recommendations proposed through this Plan will guide the development, maintenance and promotion of this new trail network to ensure it is developed in a manner that is efficient, economical, and sensitive to the natural setting. The importance of the latter cannot be overstated: the Salmonier Nature Reserve is a special part of the province and home to many treasured landscapes, habitats, and ecosystems.

The Town's Municipal Plan articulates the aspirations and needs of the residents, and the Plan provides a framework for land use and development policies. The development of a trail network on this property helps meet the Community Objectives that are outlined in the Plan, particularly:

- *To preserve scenic views of the shoreline, ponds and hills, recognizing their value to residents and visitors for recreation and tourism and to preserve the rural character of the Town.*
- *To foster an attractive community particularly for growing families by promoting greenbelts, passive parks and walking/hiking trails and landscaping options in the Development Regulations.*

1.1 Guiding Principles

Adopted by the Town, these guiding principles are the characteristics, beliefs, and values that inform and guide their activities. Unlike specific goals, these principles are present in all that the Recreation Trails Committee does, and they are applied to all recommendations.

1.1.1 Protect

We will protect the land, its ecosystems, character, biodiversity and natural beauty. We recognize and respect the uniqueness and fragility of our natural environment.

1.1.2 Promote

We will promote use of our trails for recreation, to improve and enhance physical and mental health and to encourage a deeper understanding of an avid respect for the land and its natural inhabitants; we will provide opportunities for learning and discovery.

1.1.3 Welcome

We will create trails that are accessible to diverse users, open to residents and guests, structured to enhance participation with, and enjoyment of, our natural areas.

1.1.4 Connect

We will communicate openly encouraging the involvement and inclusion of the people of the Town of Mount Carmel - Mitchell's Brook - St. Catherine's and all other connected and interested groups and individuals.



Photo: Mills & Wright

1.2 Goals and Objectives

Goals and objectives are a set of strategic statements that summarize the focus and desired outcomes for the project. They represent the fundamental things that must be kept top-of-mind moving forward and become the foundation upon which recommendations are measured or prioritized. The following goals and objectives have been informed by feedback from the community.

1.2.1 Provide opportunities for people to explore and connect with the land.

- Create an inclusive trail route that welcomes and accommodates people of many abilities.
- Include spaces for people to stop, rest, and enjoy the scenery.
- Provide access to features on the site such as the Salmonier River, waterfalls, fishing areas, scenic viewpoints and serene forests.
- Develop a portion of the trail as a sensory path that invites people to further immerse themselves in the nature around them.

1.2.2 Protect the diverse ecosystems, natural character, and beauty of the property.

- Work with the Nature Conservancy of Canada to protect and manage the land.
- Adopt low-impact trail development and maintenance methods.
- Educate visitors about the natural environment and history of the area.

1.2.3 Create a destination within the community that attracts residents and visitors.

- Ensure that proposed trail elements meet the standards and guidelines outlined by the Province's Destination Trails Market Readiness Guidelines.
- Identify nearby destinations and connection points that the trail network may extend towards in the future.

1.3 Program Areas

The Town understands that the development of a trail on the NCC Land will provide more to the community than simply a place to walk. They recognize that there are many factors to consider and have identified Program Areas within the recommendations of this report. The consulting team was tasked with applying the lens of each of these Program Areas to ensure that the recommendations are well-rounded and exceed the needs and expectations of those that visit the trail.

1.3.1 Nature Conservation

The land is owned by the NCC; a charitable organization that protects the natural areas that sustain Canada's plants and wildlife. The proposed trail will take a low-impact approach to ensure that the natural character of the site is preserved, and habitats are protected.



Photo: Birding with Buckley

1.3.2 Heritage

There is a rich history in the area including the logging industry, Irish culture, salmon fishing, the route of D'Iberville and more; stories can be interpreted on site, using signage and other design methods.



Photo: The Rooms

1.3.3 Mental Health and Physical Well-being

There is evidence that walking in nature benefits our mental health. The trail will provide opportunities for visitors to stop, relax, and connect with nature.



Photo: Josh Willink

1.3.4 Fitness and Active Living

The trail will provide a recreational opportunity for people to exercise year-round, on foot in the summer months, and on snowshoe or skis in the winter.



Photo: Humphrey Muleba

1.3.5. Inclusion

It is important that all types of people feel welcome at the trail. Steps will be taken to ensure that the trail is accessible for people with diverse physical and mental abilities.



Photo: Sunshine Coast

1.3.6 Education

The site is home to many habitats and species that can be identified and further explained through the use of interpretive signage.

1.3.7 Youth Engagement

The nearby school provides an opportunity to connect children with nature and their local natural heritage.

1.3.8 Wayfinding and Interpretation

Wayfinding signage is an important tool that will be used to help visitors navigate the site, and to feel comfortable while using the trail. Interpretation signage will share local knowledge, history, and information about the environment.

1.3.9 Amenities

Amenities such as seating are important additions to the trail network to improve visitors' level of comfort. Rest areas will be incorporated throughout the trail network.

1.3.10 Tourism

The site is located on the Irish Loop, and there are many local destinations nearby. Once the trail is developed, it will be important to form connections that help to promote the trail as a destination for residents and visitors alike. The trail will meet the Province's Destination Trails Market Readiness Guidelines.



Photo: Wheelchair Wandering



Photo: Kaichieh Chan



Photo: Pannier Graphics



Photo: Wishbone Site Furnishings



Photo: Fulfilling Travel

1.4 Planning Process

This Plan was developed over a series of phases that are outlined below.

1.4.1 Background Research

To start, background research was conducted to understand the context and inform the project. Documents were reviewed relating to regulatory information, historic events, the natural environment and more. Mapping was also compiled to allow for desktop analysis prior to the public engagement session.

1.4.2 Public Engagement to Inform Design

A public engagement session was held to inform residents of the project, answer their questions, and collect their feedback about ideas for the trail.

1.4.3 Field Observations

A site visit was completed to explore the property and better understand the conditions on the ground. Opportunities and constraints were observed that would inform the next phase, the development of the proposed trail route and recommendations.

1.4.4 Development of Recommendations and Implementation Strategy

Strongly informed by the findings of the previous phases, this design-focused phase included specific recommendations of what the trail could become and how it should be developed.

1.4.5 Submission of Final Report and Public Presentation

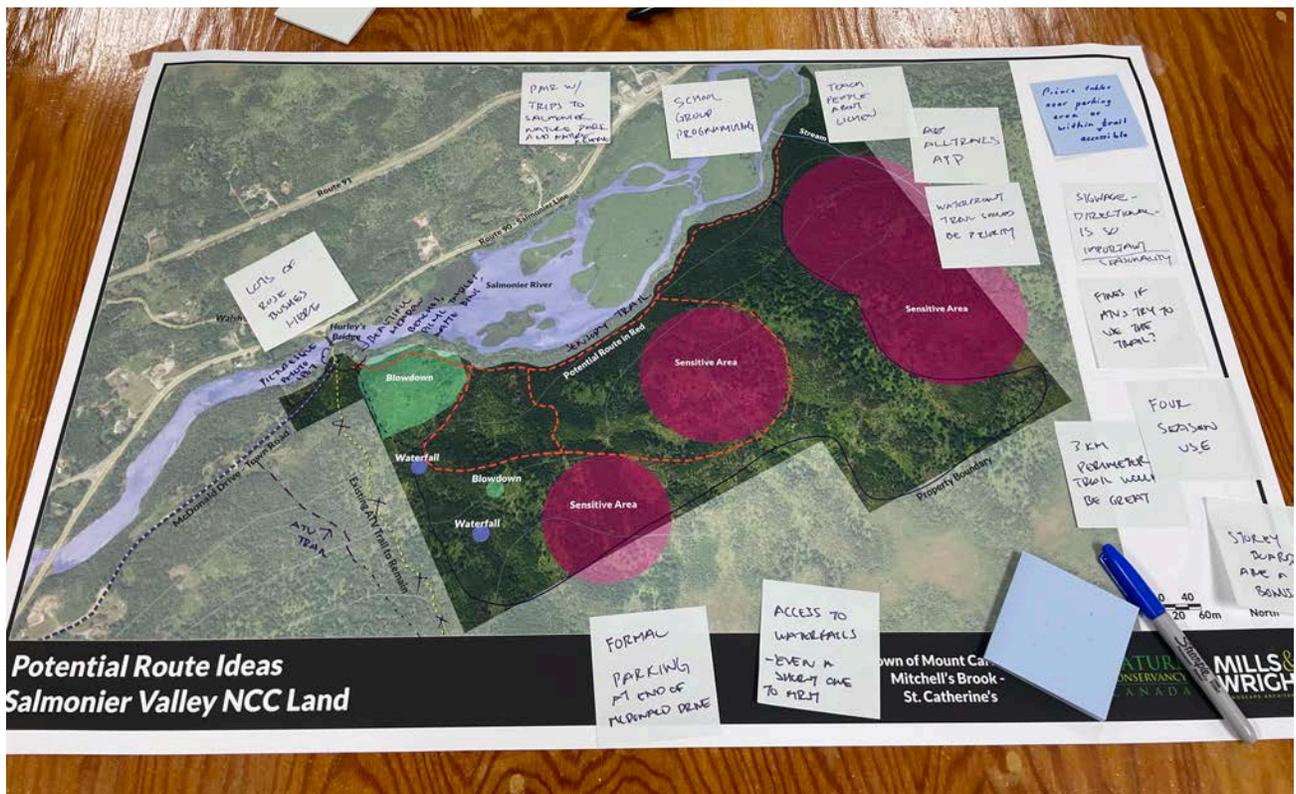
The final stage of the project is to submit the report to the Town to ensure that it meets their vision for the trail network. Once approved by Council, the report will be presented to the public to keep them informed and get them excited and invested as the Town moves forward with development.

Throughout the project, the consultant provided monthly progress reports to the Town, and meetings were held as required to discuss project milestones and deliverables. Minutes are available by request.

This work addresses sections 3.2 and 3.3 of the RFP.

2. Public Engagement

Engagement is a critical step in the planning process, as information gathered is used to inform decision-making and shape the direction of the project. The first public engagement session was held in January 2024. Twenty-nine people attended in person and 4 people attended via Zoom. Following a short presentation about the project and initial design ideas, participants were invited to ask questions about the project and provide feedback about trail route locations and amenities. Participants were then asked to record their feedback on printed maps using markers and sticky notes.



Participants were encouraged to record their ideas on sticky notes and the map. Photo: Mills & Wright

2.1 Key Themes

Below is a summary of the key themes that emerged from the first public engagement session. All feedback from the session is included in Appendix A.

2.1.1 Trail Routes

Participants agreed that an accessible trail section along the river with a looping nature trail reaching further into the property would be a good route for the trail network. Participants also noted that four-season use and trail maintenance will be important.

2.1.2 Amenities

Benches are desired along the accessible route to provide rest areas for trail users. It was noted that a picnic area and waste bin at the trailhead would be a benefit.

2.1.3 Interpretation and Signage

There is a rich natural and cultural history in the area that can be presented through the use of interpretation signage. Directional signage will be important to help visitors navigate the site.

2.1.4 Landscape Features

There are many existing features on the property that participants hope will be included along the trail route. These features include: the meadow near Hurley's Bridge, fishing spots along the river, and the lower waterfall.

2.1.5 Marketing and Connections

Once the trails are developed, it will be important to work with local and regional community and tourism groups to promote the trail as a destination.

This work addresses section 3.3 of the RFP.

3. Field Observations

Visiting the site in-person is important to understand the existing conditions. In May 2024, Mills & Wright staff conducted a site visit with NCC staff and two members of the Recreation Trails Committee. The information gathered during the site visit was analyzed to inform the Recommendations in the next section.

3.1 Field Work Findings

While searching the site for potential trail routes, the following opportunities and challenges were noted.

3.1.1 Opportunities

- There are many great views of the Salmonier River Valley from different locations throughout the property.
- The property includes many diverse landscapes such as forests, wetlands, and moose meadows. A trail through these landscapes will provide visitors with great visual interest, and a mix of shaded and open areas.
- Many noteworthy natural features exist including streams, waterfalls, and old growth birch trees. These features can be great destinations and interpretation points.
- Gentle grades along the Salmonier River lend themselves to the creation of an inclusive and accessible trail.
- There are several old footpaths that are partially clear of trees that can be utilized for future trail development.
- The grades reaching towards the higher site elevations are not too steep, and can accommodate a rustic nature trail.



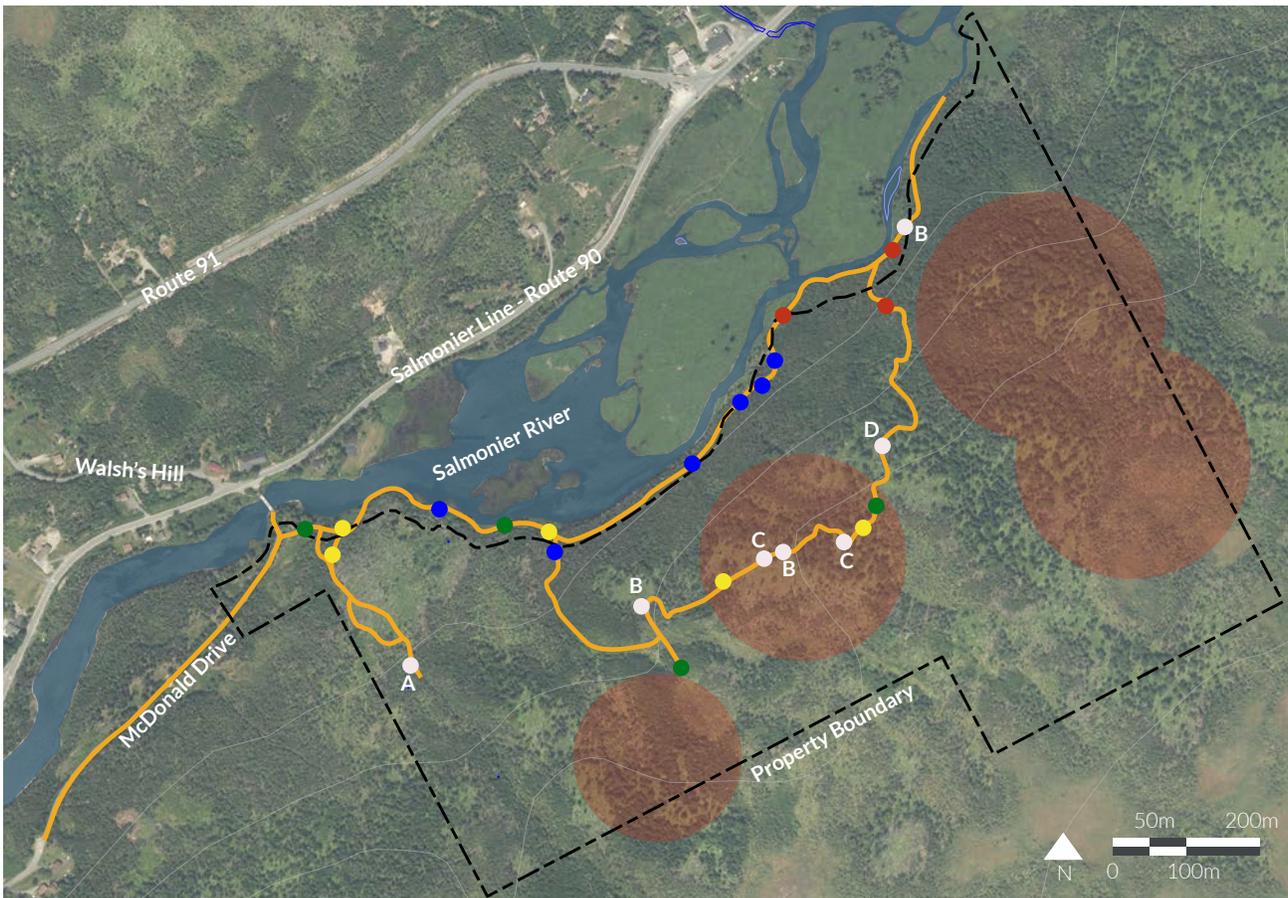
Photos: Mills & Wright

3.1.2 Challenges

- Multiple stream crossings will be required.
- There are a few areas of dense blowdowns that will require strategic clearing to allow the construction of a trail route through the area.
- Some wet areas will likely require boardwalk infrastructure.

3.1.3 Findings Map

The opportunities and challenges from the previous page have been categorized and located on the map below and will inform the Recommendation made in the next section.



Map Legend

- | | |
|----------------------------------|-----------------------------------|
| Route Walked on Site | Point of Interest |
| Edge of Blowdown Area | A - Waterfall |
| Stream Crossing Required | B - Viewpoint |
| Wet Area | C - Old Growth Birch Stand |
| Steep Grade Area | D - Ferns |
| NCC - Designated Sensitive Areas | |

This work addresses section 3.1 of the RFP.

4. Trail Design Guidelines

This section provides a high-level overview of trail design guidelines and best practices that should be incorporated into the development of these trails. Section 5 will explore the site-specific recommendations, but this section outlines the highest standard that can be achieved.

4.1 Accessibility and Inclusion

4.1.1 Accessibility and Inclusion in Trail Development

Within the field of trail development, there is an ongoing movement to create trails that provide an inclusive outdoor experience for all. Although many people are capable of navigating rugged trails found in Newfoundland and Labrador, approximately 27% of the Canadian population (2022 Canadian Survey on Disability) identified as having a disability that limits daily activities. To best meet the needs of all visitors to the Salmonier River Valley Trails, the intent is to provide at least one route on the NCC Land that is inclusive. Not only will an inclusive trail serve those with disabilities, but it will also provide a safe walking route for seniors. This is beneficial as the Town and Province's populations are aging. The 2021 Census found that 55% of Mount Carmel - Mitchell's Brook - St. Catherine's residents are over 60 years of age.

There are several resource guides that can be referenced when designing an inclusive trail; a summary of best practices and design principles has been included below. The guides that were referenced for the creation of this list include:

- *Trans Canada Trail - All Persons Trails - Guidelines for Planning and Designing All Persons Trails*
- *Rick Hansen Foundation - Rick Hansen Accessibility Guidebook*
- *Parks Canada Design Guidelines for Accessible Outdoor Recreation Facilities*

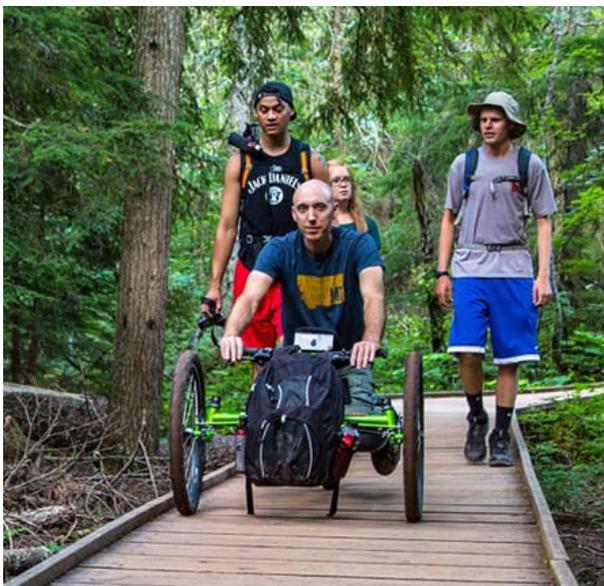
It is recognized that the Town may be limited in meeting every guideline in this section until the necessary funds are raised. However, it is recommended that wherever possible, the ultimate goal remains to meet the highest standard for the inclusive trail.

4.1.2 Inclusive Trail Width and Material

- Consider a loop trail that connects a variety of features and viewpoints, as well as the total distance and location of any necessary turn-around points.
- A firm and stable surface such as asphalt, concrete, compact crushed aggregate, or boardwalk is important. Minimize cracks, holes, bumps, and roots.
- If using boardwalk, ensure that the approach to the boardwalk has an even surface and no steps or gaps. Provide edge protection along boardwalks and near any lookouts. If there are any gaps, ensure that they are less than 13mm wide and that they run perpendicular to the direction of movement. Also consider using a non-slip texture as a finishing touch.
- Minimal longitudinal grade under 5% is recommended. If steeper sections are required, add flat rest areas as required. A 2 degree cross-slope is recommended to provide adequate drainage while still remaining accessible.
- If possible, provide ramps for any slopes over 5%. The maximum slope for a ramp should be between 6.25% - 8.3%. Provide handrails on each side of the ramp and ensure that there are regular level landings. Consider adding two grab rails, one at adult height and one at a child's height. Curved ramps and landings are not recommended. Detailed dimensions and design specifications for ramps and handrails can be found in Section 10 of the *Rick Hansen Accessibility Guidebook* and the *Parks Canada Design Guidelines for Accessible Outdoor Recreation Facilities*.
- Allow a clear path of travel without any obstructions. The width will vary per trail but a minimum width of 1.2m is recommended. If it is not possible to provide a consistent width allowing two wheelchairs to pass one another, provide passing points at regular intervals and at decision points.
- Ensure that any access gates are easy to open and move, and that they allow enough clearance for electric wheelchairs (which tend to be the widest style of mobility aid).

4.1.3 Amenities

- Keep benches and signage out of the clear path of travel. Benches should be set back a minimum of 600mm (2') from the trail. If any must be located close to the trail, ensure that they are detectable by white canes.
- Provide a variety of seating styles, for example, with and without armrests and backrests. This caters to a variety of needs. Provide a minimum 850mm by 1200mm clear space next to benches to allow a wheelchair, stroller, or service animal to rest next to the bench. Placing benches at 90 degrees to one another will also help persons with hearing impairments communicate better. Try to contrast the colour of the bench from its surroundings.
- Seating or rest areas should be provided every 100m.
- If providing a picnic area, use accessible picnic tables, and ensure the path to these tables is also accessible.
- If possible provide shade at benches, lookouts, and picnic areas.



Example of a boardwalk with edge protection. Photo: New Mobility Magazine



Example of clear space beside a bench that can be used by wheelchairs, strollers, and service animals. Photo: Mass Audubon

4.1.4 Signage and Navigation

- Include both text, braille, and simple graphic images/icons.
- Use high colour contrast, minimum font size 18 and use sans serif font (it is easier to read).
- Use non-reflective surfaces.
- Keep text clear and consistent and use plain language. Do not underline or use italics.
- Make signage content available to users before they visit a trail, for example on a website or in paper format at a visitor centre. Consider adding the trail to accessibility apps like AccessNow.
- If using QR codes, ensure that they are large and visible. Keep in mind that QR codes are not accessible to all trail users and they should be supplementary to information on the sign.
- Ensure signs are made of durable material that will not fade for at least 10 years and that are graffiti-resistant.
- Ensure that signs are placed off the main path of travel, free of obstructions such as tree branches, and consider the height at which they are mounted to allow everyone to view them easily.
- Consider installing a rope guide as a navigation tool.
- Use colour, edge protection, or distinct surface materials along the edges of the trail to help visitors follow the path.



Example of a rope guide as a navigational tool. Photo: Mass Audubon

- At the trailhead, include a map with the following information:
 - Trail routes and distances.
 - Location of rest stops and picnic areas.
 - Information resources available (audio tours, printed maps, etc.).
 - Emergency information.
 - Points of interest.
 - Grade and cross slope of trail sections.
 - Trail surface changes (boardwalk, granular, natural).
 - Consider tactile maps for visitors who are blind or have low vision.
- Consider creating an audio tour for the trail. Audio tours can bring a trail to life, especially for those that are blind or have low vision.
- If creating an audio tour, consider the following:
 - Create a tour between 30 minutes to 1 hour in length.
 - Restrict the content to 3 minutes at each stop.
 - Offer tours in different languages.
 - Offer tours for various age groups, for example, children and adults.



Example of a trailhead sign that is legible from child and wheelchair height. Photo: Mass Audubon

4.1.5 Tactile Elements and Sensory Gardens

- Tactile elements can be used along the trail as an inclusive feature that can be used by everyone. For example, sculptures of common native species can be touched and learned from.
- Sensory gardens engage a user's hearing, touch, taste and smell to create an immersive experience. If using a garden, ensure that the height of the garden can be accessed by all.

4.1.6 Neuro-Inclusive Design

- Some people who are neurodiverse may prefer trails with specific characteristics that reduce stimulation and increase ease of use. In some cases, it is beneficial to provide a trail, separate from the main route that can include these characteristics.
- Providing a loop trail can be a great way to create a predictable and safe trail.
- To reduce stimuli, use nature-inspired colours for site amenities, to reduce contrast with the environment, and try to avoid very bright colours.
- Use natural features such as logs and boulders for seating.
- Create quiet sitting areas away from the main trail so trail users can decompress in nature.
- Consider creating different zones that encourage specific activities, for example, a play zone, a design zone, and a quiet zone.

4.1.7 Other Recommendations

- Meeting accessibility guidelines and ensuring that a trail is inclusive can be two different things. Accessibility advocates often recommend exceeding standards to ensure that the trail is meaningfully and practically accessible. Those with lived experience are essential to identifying potential barriers.
- Before opening the trail to the public, invite trail testers with lived experience to use the trail for any last-minute and site-specific feedback.
- Currently, there are no universally adopted regulations that apply to the development of outdoor trails on federal, provincial, municipal, or private property in Newfoundland and Labrador. As such, it is recommended that the Town and the NCC base their inclusive trail design on these guidelines and those in the reference guides listed in this section. Over time, the province may develop their own accessibility regulations for outdoor trails, or adopt a version of the Accessible Canada Act (which will include a Trails section). If those regulations come to be, they should be met during any future trail development.

This work addresses sections 3.4, 3.5, and 3.10 of the RFP.

5. Recommendations

5.1 The Trail Network

5.1.1 Route Map

The trail map on the next page illustrates the proposed trail routes and amenities within the network. This route will also be provided to the Town in GIS format.

We designed the proposed network to provide several route options for visitors, to cater to differing preferences. There are short, easy routes and longer, more difficult routes. Emphasis has also been placed on offering inclusive route options that will accommodate people of many ages and abilities. The proposed routes pass through a variety of landscapes, which provides visual interest and education opportunities about the ecology of the Salmonier River Valley.

The map is simply a summary of the proposed network; the following sub-sections introduce each type of trail route in more detail, including the recommended construction methods and more information about the different amenities within the network.

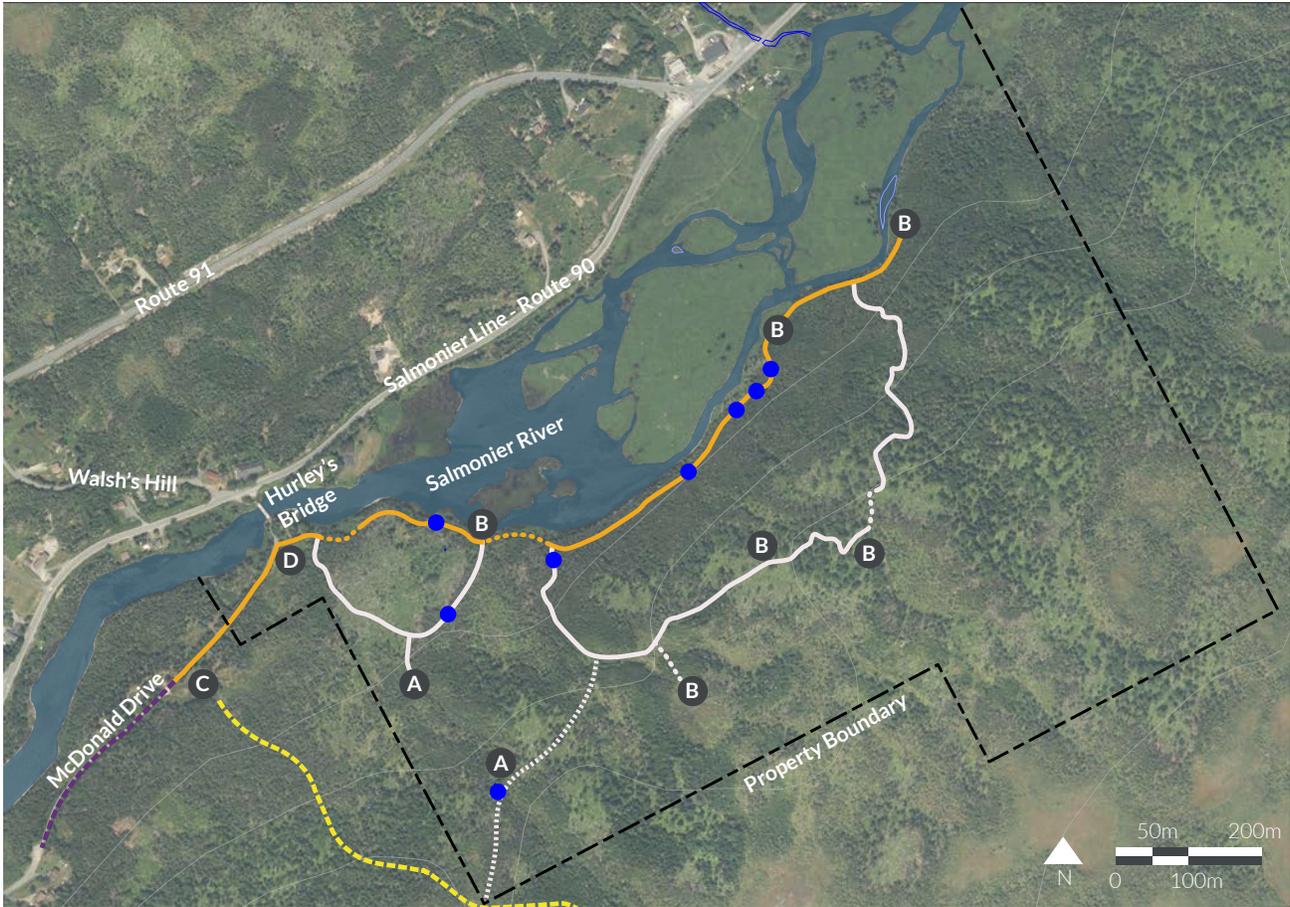
Hurley's Bridge

Near the intersection of Walsh's Hill and Salmonier Line - Route 90, Hurley's Bridge is an icon within the community, at almost 100 years old. Residents and visitors enjoy the scenic views at the bridge and many people use it as a backdrop for wedding and other special event photos. The proposed trailhead for this trail network is located next to Hurley's Bridge. Although it would provide a great connection from the trailhead to Salmonier Line, this connection cannot be utilized as the bridge has been decommissioned due to its poor condition.

If the bridge were to be repaired, it would be a great benefit for trail users. It would also benefit local ATV users, as they could cross the bridge and access an existing ATV trails that travels into the countryside. Repairing the bridge would also help protect a valuable piece of cultural heritage within the community.



Photo: Mills & Wright



Trail Types

- Inclusive Route (Section 5.1.2)
- - - Dashed line represents boardwalk
- Nature Route (Section 5.1.3)
- - - Dashed line represents boardwalk
- - - McDonald Drive Upgrades
- Future Nature Route to ECT Connection
Only to be built after East Coast Trail
- - - Future East Coast Trail Route
- Required Stream Crossings

Amenities

- A Waterfall Lookout (Section 5.2.3)
- B Lookout (Section 5.2.2)
- C Parking (Section 5.2.1)
- D Main Access Gate (Section 5.2.1)

5.1.2 Inclusive Route

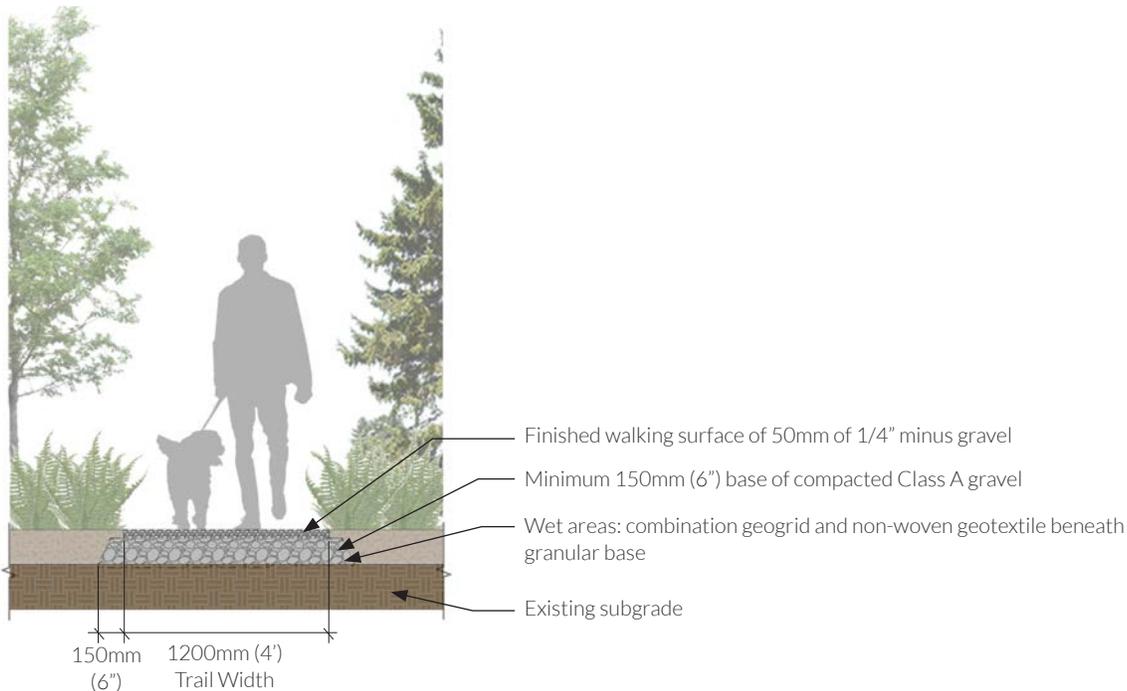
The route runs along the shores of the Salmonier River, connecting the parking area to the terminal viewpoint. This route has been designed to accommodate people of many ages and abilities and will be the backbone of the network, with all other routes branching off of it.

- Total Length: 1.3km (one-way), 2.6km (out-and-back)
- Difficulty Level: easy
- Surface Material: compact granular with sections of boardwalk

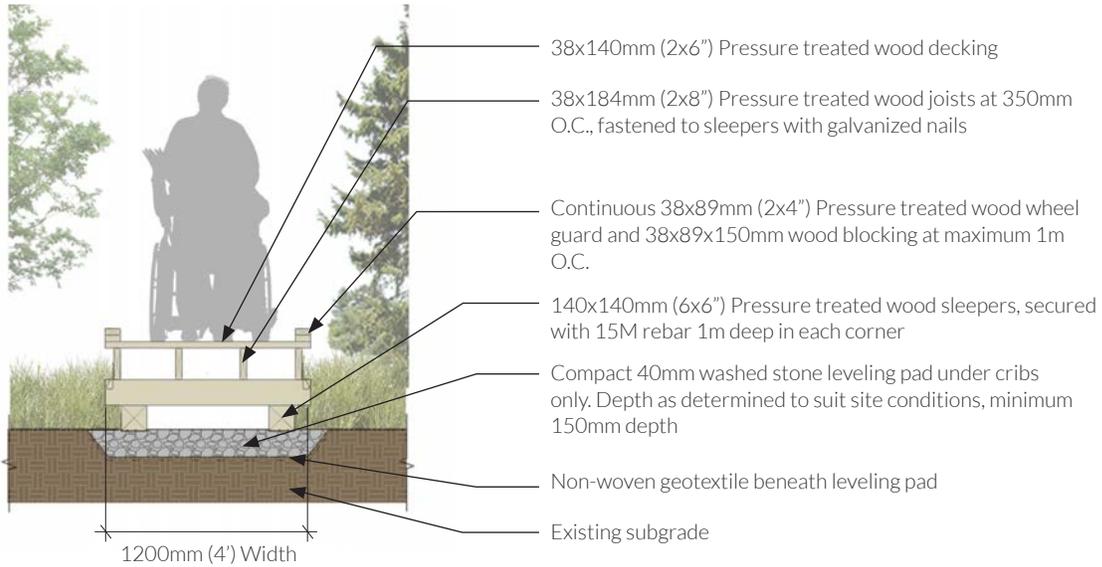
5.1.2.1 Recommended Construction Methods

This route has been designed to meet the accessibility and inclusion guidelines outlined in Section 4.1. The trail surface consists of a granular trail with boardwalk to cross wet areas. The locations of boardwalk have been estimated on the map on the previous page and may need to be altered in the field based on existing site conditions. To help reduce overall construction costs, boardwalks will only exist where necessary. The graphics below and on the next page highlight the critical dimensions and materials that should be utilized during construction of the granular trail and boardwalk.

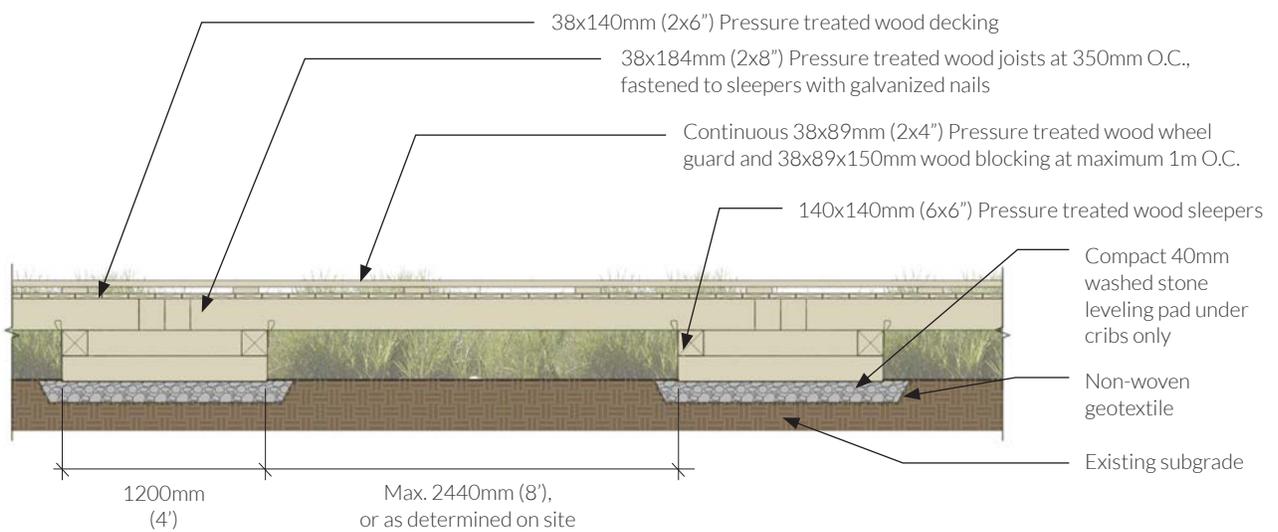
At popular fishing areas, offshoots should be developed that connect the Inclusive Route to the water's edge. Local fisher people should be consulted to determine the ideal locations for these connection points.



Granular Trail - Front Section



Boardwalk - Front Section

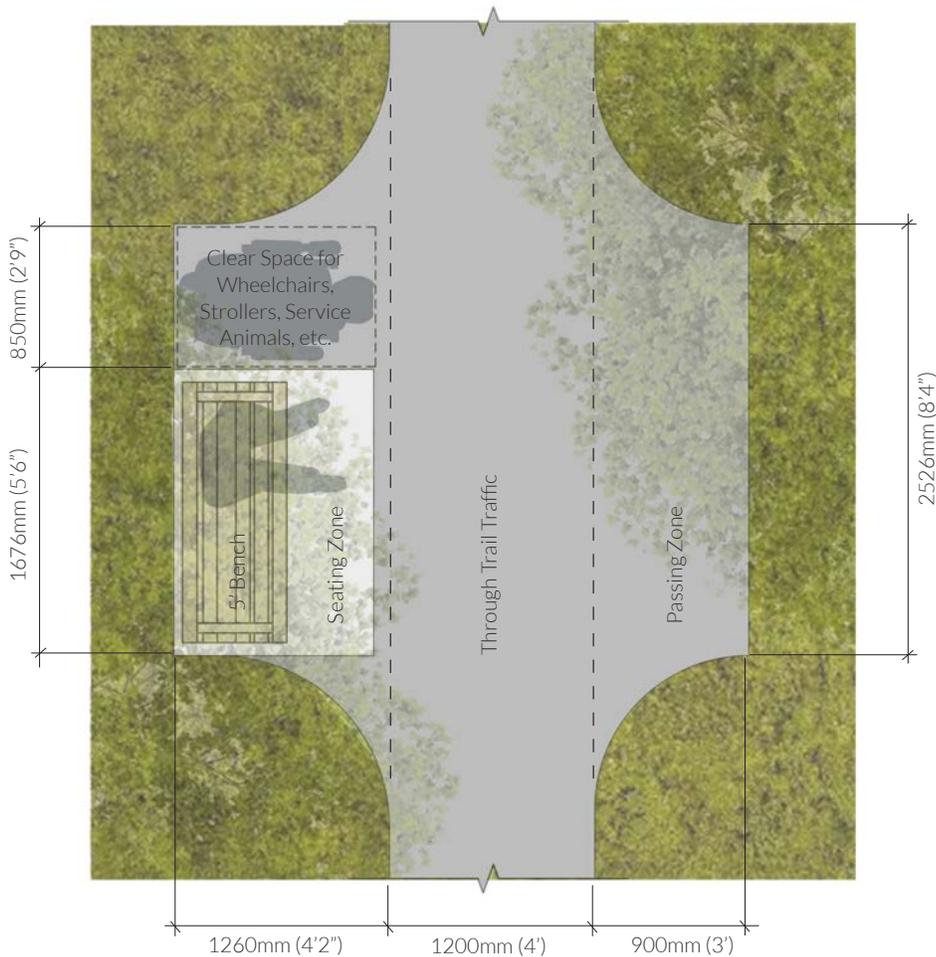


Boardwalk - Side Elevation

5.1.2.2 Seating and Passing Zones

The proposed width of the Inclusive Route is 1.2m (4'), which does not accommodate two way traffic for all users. To accommodate users that require passing space (such as strollers, wheelchairs, etc.), passing zones should be provided every 100m, resulting in about 12 passing zones.

It is important to provide intermittent seating opportunities to accommodate users that need to rest along the trail. Seating should be provided every 100m, so it is proposed that seating be incorporated into the passing zones. The graphic below illustrates the proposed seating and passing zones, shown in plan view.



Note that although we recommend developing a seating and passing zone every 100m, the exact location of these amenities can vary depending on site conditions. For example, if there is an area with steeper side slopes or wet conditions, the location can be adjusted slightly up or down the trail route to better suit site conditions.

The type of bench used within the seating zones can vary depending on the Town’s preferences and budget. Wood benches can be designed and assembled by volunteers, however, those types of benches will require more maintenance and eventual replacement.

Our recommendation is to select a high quality bench that is made from materials that will stand up to our weather conditions. The up-front cost will be higher, but these benches will require less maintenance in the long run. To meet accessibility guidelines, the bench that is selected should include a backrest and two armrests. The benches should be installed on a level surface, and should be mounted to the surface or direct buried to protect from theft and vandalism.



An example of an aluminum frame bench with recycled plastic lumber slats, which can incorporate colour if desired. The pad beneath the bench is called a Perma-pad and it is an unintrusive way to mount the bench without pouring a concrete pad. Photo: Wishbone Site Furnishings



An example of a simple aluminum frame bench with recycled plastic lumber slats. Photo: Wishbone Site Furnishings



An example of a wooden bench created using logs from the site. Photo: Access Trails

5.1.2.3 Neuro-Inclusive Elements

Along the Inclusive Route, elements of Neuro-Inclusive trail design can be incorporated. Small, secluded seating areas can be located off the main path in natural clearings that allow for quiet reflection. One of these seating areas should be located near a stream, as many people find the sound of running water to be calming and comforting.

Sensory spots can also be incorporated into the Inclusive Route. These stops invite visitors to learn more about the natural elements that make up the Salmonier Nature Reserve. They can be located near running water, near fragrant plants, or near trees with interesting bark and mosses. Simple signage or markers can be used to prompt visitors to get in touch with their surroundings using their different senses.



An example of a secluded bench near running water
Photo: North and South Rivers Watershed Association



An example of signage that can explain the sensory stations.
Photo: Ring of Gullion

5.1.2.4 Outdoor Classroom

The NCC offers youth programming, and the development of this trail presents the opportunity to bring youth groups and school classes to the site. An Outdoor Classroom would be a valuable asset as it would give children a place to rest and relax as a group along the route. Additional programming can be planned for this area that would function better in a seated setting than while walking along the trail. This feature should be constructed in a natural open area that does not require extensive clearing. The area should have a sure, dry footing, and stumps or boulders can be placed in a circular setting to form the classroom seats.



*An example of an outdoor classrooms that use boulders as seating.
Photo: Autism Nature Trail*



*An example of an outdoor classrooms that use logs as seating.
Photo: Revelstoke Review*

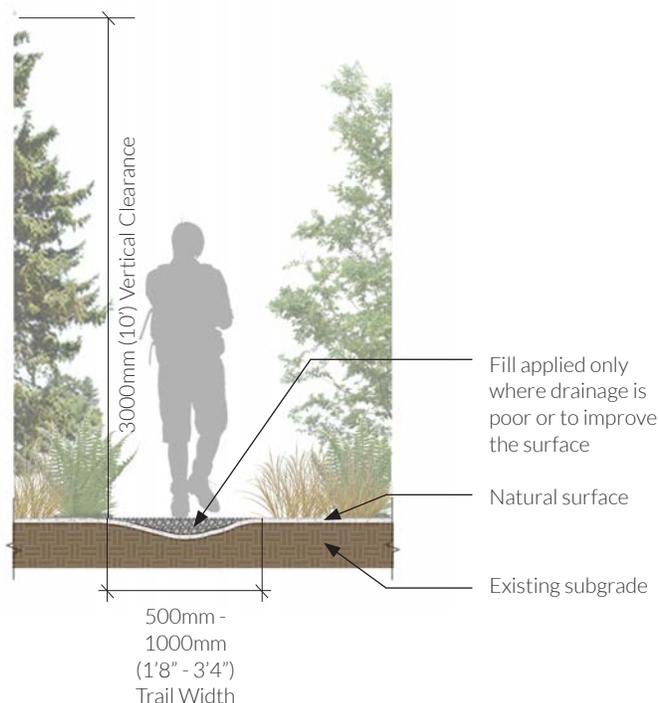
5.1.3 Nature Route

The Nature Route caters to those looking for a bit more of a challenge, presenting the opportunity to explore more of the Salmonier Nature Reserve on a rugged trail. The route branches off of the Inclusive Trail and follows some gentle upward slopes toward different points of interest.

- Total Length: 1.1km branch off of the Inclusive Route
- Future Nature Route to East Coast Trail (ECT) Connection: 400m branch off of Nature Route (note that this should only be constructed after the East Coast Trail is in place)
- Difficulty Level: Moderate
- Surface Material: Natural material, free of major roots and other tripping hazards

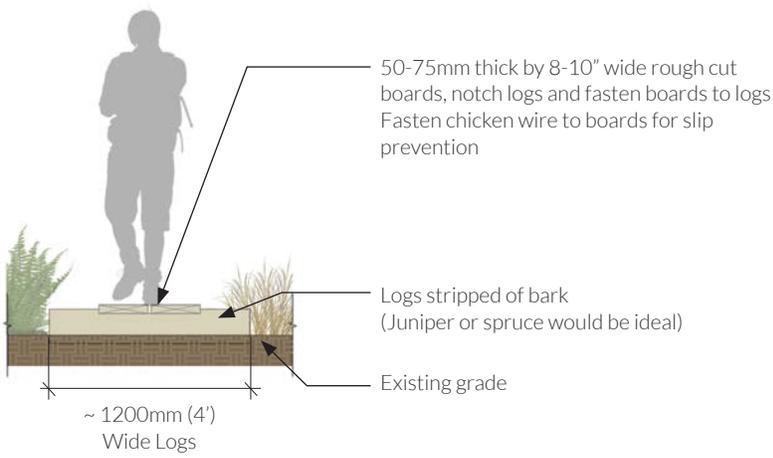
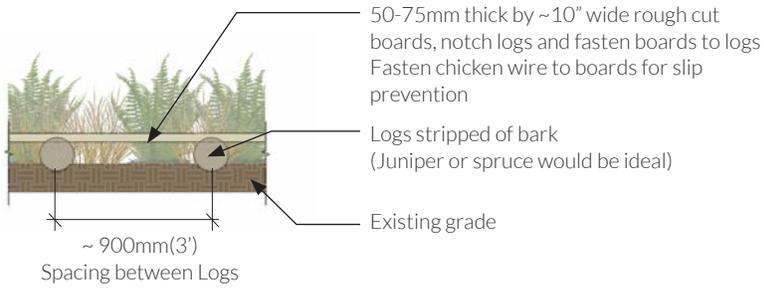
5.1.3.1 Recommended Construction Methods

This route has been designed to follow existing grades and to require little intervention to create the path of the trail. The intent is for the trail to be similar to the East Coast Trail conditions. The locations of boardwalk have been estimated on the Route Map (5.1.1) and may need to be altered in the field based on existing site conditions. To help reduce overall costs, boardwalks will only exist where necessary. The graphics below and on the next page highlight the critical dimensions and materials that should be utilized during construction.



*An example of a nature trail.
Photo: East Coast Trail Association*

Nature Route Trail - Section



Nature Route Boardwalk - Section



*An example of a boardwalk on a nature trail.
Photo: Beth's Beach House*

5.2 Amenities

5.2.1 Trailhead and Parking

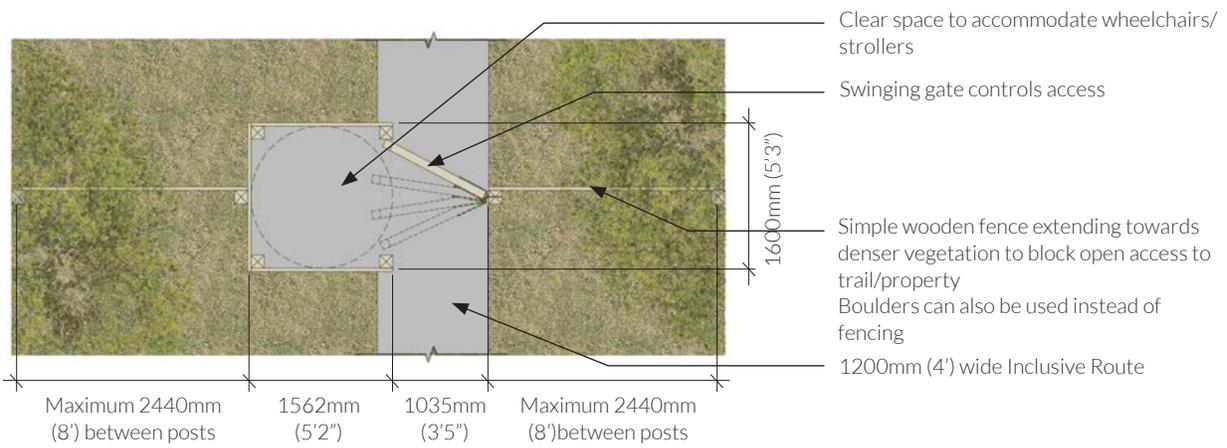
A parking area will be required to accommodate visitors who are using the trail network. The NCC property begins near Hurley's Bridge; the meadow in this area has a pleasant setting and is often used for photos and viewing the bridge and river. Developing a parking area in this location could disturb the natural setting and is not recommended.

There is a clearing on McDonald Drive about halfway between the end of the pavement and Hurley's Bridge. We feel that this would be a great location for a parking area, as it is already used informally for parking by ATVers. When researching the property ownership in this area, it was discovered that the East Coast Trail Association (ECT) have plans to build a trail through the Avalon Wilderness Reserve that will exit into this clearing. The development of a granular parking area in this area would support all of these user groups. We recommend that the Town delve further into land ownership of this area, as it is unclear at this time whether it is private or public land. Once land ownership is confirmed, if there is an opportunity to develop a parking area, the Town should work with the NCC, ECT, and local ATVers to design a layout that will accommodate all the required uses.

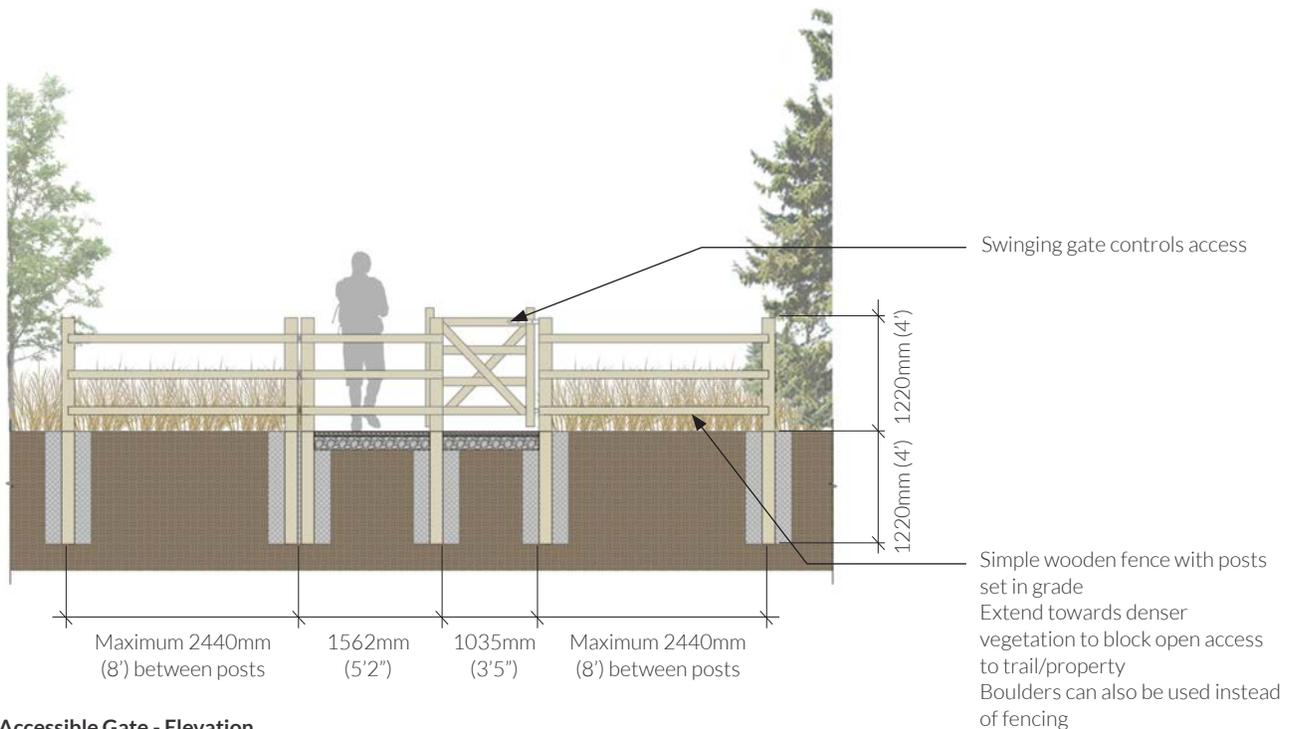


If the development of this parking area is successful, the portion of McDonald Drive from the end of the pavement to the new parking area should be upgraded by trimming back overgrown vegetation and filling potholes. The portion of McDonald Drive between the new parking area and Hurley's Bridge should be developed as part of the Inclusive Route. The official trailhead for the Salmonier Nature Reserve trails should be located at the entrance to the meadow near Hurley's Bridge.

The trailhead should include signage as outlined in Section 4.1.1.3. Bicycles, ATVs, and snowmobiles will be prohibited within the trail network, and therefore an access gate should also be included at the trailhead. The graphics below illustrate a suggested design for an access gate that will limit, but still allow access for those using wheelchairs, strollers, and the like.



Accessible Gate - Plan View



Accessible Gate - Elevation

5.2.2 Lookouts and Interpretation Points

Lookouts have been proposed along the Inclusive Route and Nature Route that provide stunning views to the Salmonier River and to interesting natural features within the Nature Reserve.

The lookouts themselves can be small and simple. Along the Inclusive Route, they should include a bench and a clear space next to the bench, similar to the graphic in Section 5.1.2.2. Interpretive signage should also be included. See Section 5.3.7 for more information on interpretive signage. Beyond that, any vegetation such as stray tree branches that obscure the view should be cut back. Along the Nature Route, formal benches do not need to be provided, but if there are any large boulders or felled logs nearby that can be used for people to rest, those would be a great addition.

The Town should work with community members and the NCC to determine the content for the interpretive signage. Some suggestions include the rare arboreal lichen and other interesting natural features within the Salmonier Nature Reserve, the logging history, and salmon fishing.



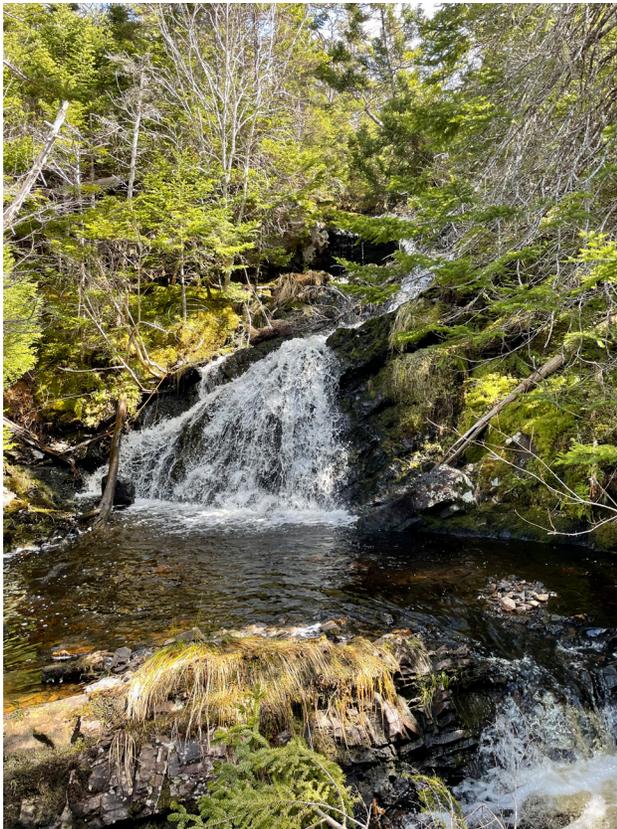
*A view of the Salmonier River from one of the proposed lookouts.
Photo: Mills & Wright*

5.2.3 Waterfall Lookouts

The lower waterfall will become accessible by the Nature Route. A small lookout should be developed at the waterfall that offers seating for visitors to enjoy the sights and sounds of the waterfall.

5.2.4 Fishing Points

Access to the Salmonier River from the Inclusive Route will be provided to allow fisher people to maintain fishing activities in the area.



*A small seating area should be located at the lower waterfall.
Photo: Mills & Wright*



*An example of one of the old growth birch trees.
Photo: Mills & Wright*

5.3 Signage and Wayfinding

A wayfinding system is a series of strategically placed signs designed to be visually appealing, legible, consistent, and most importantly, to facilitate movement in a clear and intuitive manner. A successful wayfinding system provides a positive first impression and allows visitors to orient themselves, draw a mental map, and confidently and easily navigate to where they want to go. There are typically several key types of signs on a trail network that work together to help users orient and guide themselves.

5.3.1 Trail Names

For the purposes of this report, the trails have been named based on the type of trail that they are (Inclusive Route and Nature Route). However, once the trails are constructed, there are different approaches for renaming the trails if the Town wishes. The trails can be named after natural features and species in the area. Below are some examples on how the trail names can change for each route.

- The Inclusive Route runs alongside the Salmonier River, and can incorporate that feature into the name, such as the Riverside Route.
- The Nature Route runs up the hillside on a more rugged path, so that name could change to the Hillside Route.
- The lower Nature Route leads to the lower Waterfall and could therefore be Waterfall Way.

The example trail names are included within the sample signage family on the next page.

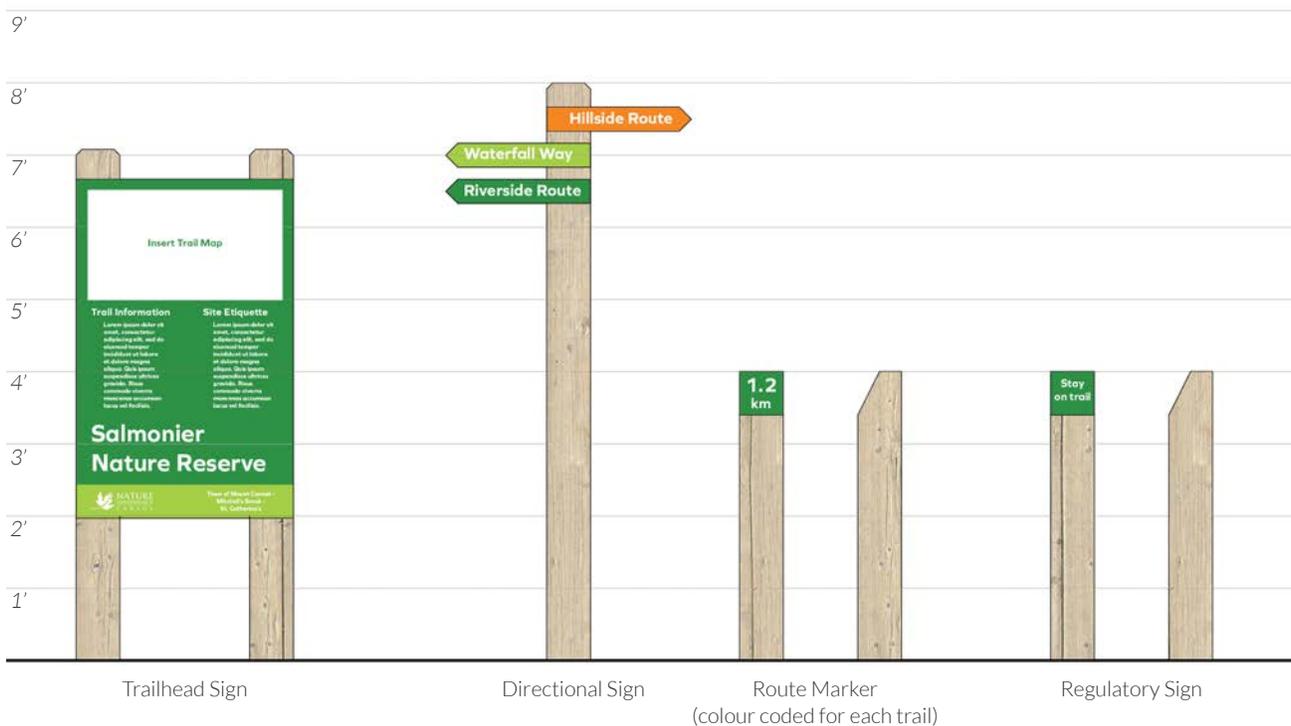
5.3.2 Signage Family Design

Signage throughout the trail network should maintain a consistent look and message, and should follow the NCC's signage standards and branding guidelines. For the purpose of this report, the NCC's brand colours have been used for the proposed signage family, but these can be changed as necessary.

Accessible design must be incorporated when selecting graphics and text for signs; see Section 4.1.1.3 for more information. The graphic on the next page illustrates a sample signage family, which includes the types of signs that are proposed for the trail network. Information such as sign materials, dimensions, construction details, content suggestions, and exact placement have been provided at a high level as a part of this report, but should be designed in further detail as part of the detailed design phase mentioned in Section 6.1.3.

5.3.2.1 Signage Materials

The signage has been designed to reflect a natural aesthetic. Each sign uses 8x8” pressure treated wooden posts that are direct buried in the ground for support. Wood posts are cost-effective and can be replaced easily. For the trailhead sign route markers, and directional signs, the sign material should be aluminum with printed vinyl graphics.



Sample Signage Family

**Note that a sample of an interpretive sign has not been included in the sample signage family, as the design may vary greatly due to the selected content.*

5.3.3 Trailhead Signage

Trailhead signage provides trail users with information that they need to know before starting their hike. Trailhead signage should include the information outlined in Section 4.1.1.3. The trailhead sign should also outline any site etiquette and safety guidelines for visitors, as well as any prohibited uses (such as bicycles, ATVs, snowmobiles). The NCC should be consulted to ensure that the content they require is included.

5.3.4 Directional Signs

These signs should be placed at intersections along the trail. They indicate the direction of travel and the name of the trail in each direction.

5.3.5 Route Markers

These signs are meant to alert visitors that they are on a designated trail route and reassure them that they are on the right path. They should be small and colour coded to match the trail. These markers should be placed every 100m along the trail.

5.3.6 Regulatory Signage

Regulatory signs should be placed near any hazards or sensitive areas, and can be included on the trailhead signage. Any rules or guidelines should be phrased using positive language that encourages cooperation in the protection of the landscape and its visitors. Language that admonishes visitors against certain behaviors should be avoided.

5.3.7 Interpretive Signage

Interpretive signage is used to inform visitors about the surrounding area. They can focus on everything from local wildlife to history and they come in many different shapes and sizes. Interpretive planning is a recognized profession and these professionals can assist in developing themes, content, and delivery methods for the interpretive signage.

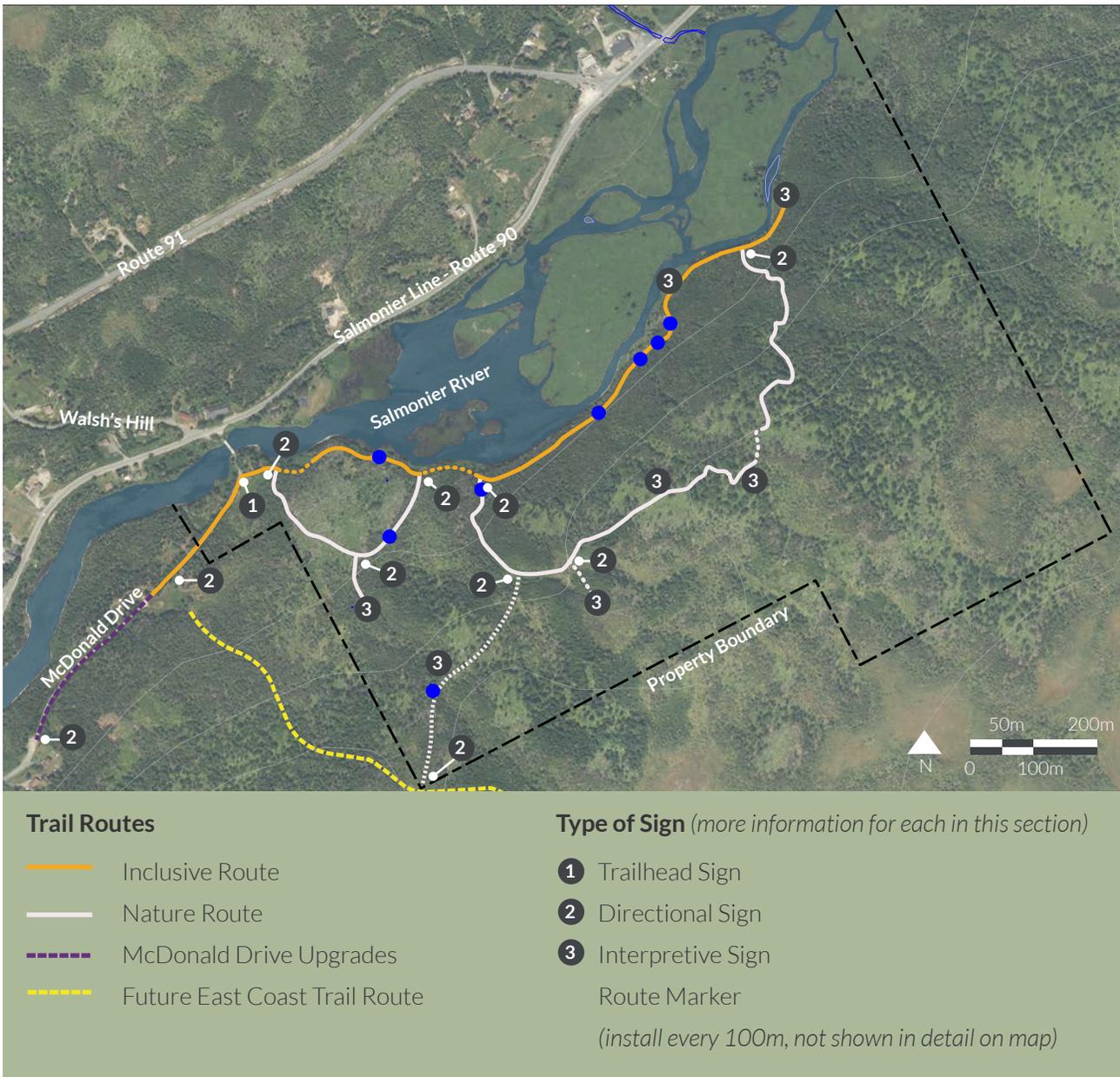
These signs can be quite creative in design but should not be overloaded with text. Maximum 80-100 words is a general rule of thumb. The signs could use the branding colours but don't need to if an overall interpretive theme is maintained. QR codes can be added to the interpretive signage to encourage visitors who wish to learn more to engage with further high-quality interpretive content on the website or to provide translation in other languages. Interpretation should be developed by an interpretive planner and graphic designer, and in consultation with the NCC.

5.3.8 Route 90 Signage

In order to advertise the trail and to help guide visitors the site, the Town should consider erecting a Fingerboard Sign on the Trans-Canada Highway and an Off-Site Premises Sign on Route 90, near the entrance to McDonald Drive. See Section 5.6.2 for more information about this process.

5.3.9 Signage Layout Map

The map below illustrates roughly where each type of sign should be located within the trail network.



This work addresses sections 3.4, 3.5, 3.7, 3.9, 3.10, and 3.12 of the RFP.

5.4 Maintenance

5.4.1 The Importance of Maintenance

To ensure the sustained success of the trails, it is critical that they are managed and maintained in a safe, accessible, and visually appealing condition. Although the land is owned by the NCC, the intent is that the Town will be responsible for maintaining the trails.

The Town should consider implementing an ongoing trail maintenance program once the trails are developed. Ongoing maintenance is recommended as a preventative measure. It ensures the trail system is kept in its best condition and that small issues are identified and corrected prior to becoming bigger problems which may result in substantial repairs or closing sections of the trail network. A list of general tasks has been provided as a starting point however this may be expanded upon once the trail is developed.

As an excellent example, the East Coast Trail Association organizes a Volunteer Maintenance Committee that assists in maintaining the trails. They take on tasks such as inspecting the trails, hand-trimming, clearing litter, and maintaining simple infrastructure such as clearing drainage bars. From early spring to late fall the Committee organizes multiple one-day outings where volunteers are encouraged to help with trail maintenance. The outings are supervised by an experienced volunteer, and instruction for maintenance standards are given to any newcomers. The Recreation Trails Committee has members that are familiar with trail construction and maintenance techniques, so there is an opportunity for these members to be involved as maintenance outing supervisors and facilitators.

Maintenance issues can be noted in a variety of ways. Volunteers can be assigned to walk the trail in regular intervals, and they can report back with any record of maintenance issues. Alternatively, at the trailhead sign, there can be an email or phone number provided where trail users can direct any concerns about trail maintenance.



*An East Coast Trail Volunteer Maintenance Outing
Photo: East Coast Trail Association*

5.4.2 Proposed Maintenance Plan

Item	Maintenance Task	Frequency
Drainage	Inspect known low points, wet spots, and drainage infrastructure (such as culverts)	Pre-season, then monthly
	Remove debris build up and blockages in culverts	Pre-season
	Repair major damage such as ponding or washouts	As needed, inspect after rain events
Vegetation	Remove branches that obstruct trail clearance	Pre-season, then as needed
	Remove deadwood that poses a hazard	Pre-season, then as needed
Trail Surface	Inspect trail surface for failures such as cracking, settlement, root intrusions, and other hazards and repair as needed	Pre-season, then as needed
	Repair broken wooden boards or railings	Pre-season, then as needed
Signage	Ensure all signage is visible and free of obstructions	Pre-season, then as needed
	Replace deteriorated or damaged signs	Pre-season, then as needed
Trash	Perform a trail-wide cleanup to collect accumulated winter debris	Pre-season
	Empty waste receptacle	Bi-weekly
Amenities	Inspect benches for broken, damaged, or deteriorated boards and replace as needed	Pre-season, then monthly
	Clean and restock the public washroom	Weekly
	Inspect boardwalks and bridges for broken boards and repair as needed	Pre-season, then as needed
	Replace amenities that have been stolen or severely damaged	As needed

This work addresses sections 3.7 and 3.12 of the RFP.

5.5 Future Connections

5.5.1 Local Connections

5.5.1.1 Nature-Based Attractions

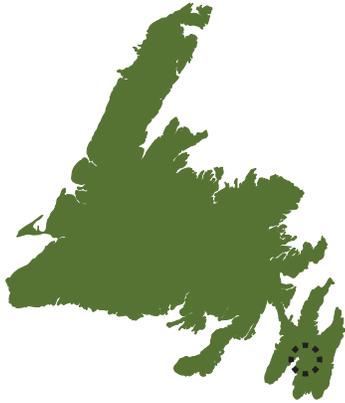
The study site is located on the Salmonier Line, in the Town of Mount Carmel - Mitchell's Brook - St. Catherine's. Along the Salmonier Line, there are several existing destinations that fall within the category of nature-based attractions. Nature-based attractions are destinations that include geographical or ecological features that have a specific appeal to the tourism market. Newfoundland and Labrador has many nature-based attractions, and they are one of the biggest tourism draws across the province. The Province's *Tourism Marketing Strategy* includes a focus on the Natural Environment, and the priority target market is a broad leisure market that seeks nature viewing, cultural experiences, hiking, birding, and whale watching during their visits.

The map on the next page highlights the existing nature-based attractions that are within a short distance of the study site. Beyond these noted attractions, there are trails developed in other nearby communities (St. Mary's, Colinet, St. Joseph's) that offer additional recreation opportunities for locals and visitors. Trail development within the Salmonier Nature Reserve will add to this list of attractions in a positive way, offering another unique nature-based attraction.

5.5.1.2 Amenities

Development of the trails will help to create a local attraction, but it is also important to think about other amenities that visitors will want to avail of when visiting the area. Accommodations in the area (listed at the time of this report) include Salmonier Country Manor, Sanctuary on the Salmonier, The Wilds Resort, Tree of Life Retreat Centre, and several Airbnb and short term rentals. Brown Rabbit Cabins, although located in Tors Cove, does offer day trips to the Salmonier Nature Park.

Food options in the area (listed at the time of this report) include Roxy's Diner, Celtic Knot Pub and Restaurant and the Wilds Resort.



Legend

- A** NCC Land in Salmonier Nature Reserve (land in study)
- B** Salmonier Nature Park
- C** Avalon Wilderness Reserve
- D** The Wilds Resort
- E** Cataracts Provincial Park
- F** Rocky River Fishway
- G** Hawke Hill Ecological Reserve
- H** St. Catherine's Academy
- I** Echo Pond Environmental Education Centre
- J** Burry Heights
- K** Salmonier River Scheduled Salmon River
- L** St. Joseph's Village Green



5.5.1.3 Collaboration Amongst Local Tourism Stakeholders

The Province's *Tourism Product Development Plan* aims to guide and support the development of visitor-focused experiences. It encourages a collaborative approach among tourism stakeholders and partners to attract more visitors, encourage them to stay longer and experience more. The plan notes "collaborating to compete" as one of four areas of focus that will enable private and public investment in tourism development.

Tourism stakeholders are encouraged to collaborate on the creation of high quality itineraries and packages that link the appeal of attractions and experiences, such as trail experiences and cultural sites. We recommend that the Town work with operators of the listed nearby attractions and groups to create a sample itinerary that illustrates to potential visitors how they could enjoy spending a day or two in the area. Not only will this appeal to tourists, but due to the proximity to St. John's, city folk may also be enticed to make the day trip.

5.5.2 Regional Connections

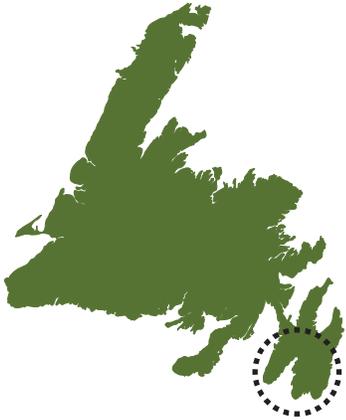
Salmonier Line and the land in study are located along the Irish Loop and Cape Shore Scenic Drives. These are two of the Province's seven designated Scenic Drives on the Avalon Peninsula. The map on the next page highlights the location of nature-based attractions along these two drives. There are also accommodations, food options, and cultural experiences in these areas that can be paired with the nature-based attractions.

As mentioned in Section 5.5.1, opportunities exist to collaborate with regional tourism stakeholders to promote the entire area. Like the sample itinerary for the Salmonier Line area mentioned above, similar itineraries could also be created that group attractions and amenities from the Irish Loop and Cape Shore together to give visitors an idea of what they can experience in a day or weekend trip.

We recommended that the Town connect with the following organizations focused on regional tourism development in the area:

- Legendary Coasts of Newfoundland and Labrador (Destination Management Organization)
- Earhart Cultural Heritage Organization
- Hospitality Newfoundland and Labrador
- Salmonier Nature Park
- East Coast Trail Association
- The Irish Loop
- The Wilds Resort
- The Town of Holyrood

This work addresses section 3.14 of the RFP.



Legend

- A** NCC Land in Salmonier Nature Reserve (land in study)
- B** Salmonier Nature Park
- C** Avalon Wilderness Reserve
- D** Cataracts Provincial Park
- E** Cape St. Mary's Bird Sanctuary
- F** St. Vincent's Beach
- G** Cape Race National Historic Site
- H** Butter Pot Provincial Park
- I** Hawke Hill Ecological Reserve
- J** La Manche Provincial Park
- K** Colony of Avalon
- L** Chance Cove Provincial Park
- M** Edge of Avalon Interpretation Centre
- N** Castle Hill National Historic Site
- O** Cape Pine National Historic Site
- Irish Loop Scenic Drive
- Cape Shore Scenic Drive



5.6 Destination Trails

5.6.1 Market Readiness Guidelines

Destination trails are set in such locations to reflect the province's most distinguishing and memorable viewsapes, natural features, culture, and heritage. As new and improved trails are created, it is important to strive to exceed traveler expectations and to cluster nearby experiences to enhance the overall appeal of the destination trail.

According to 2016 Provincial Exit Strategy data, hiking and pleasure walking in and around communities are the top two outdoor experiences travelers participate in while vacationing in Newfoundland and Labrador. In response to this, the Province created the *Destination Trails - Market Readiness Guidelines* to assist municipalities and community groups in the planning and development of their destination trails to ensure they met visitor expectations. The guidelines focus on everything from marketing the trail to the visitors' arrival and experience on the trail. A summary of that report and the recommendations are included below.

5.6.1.1 Management

- Trails should be owned, monitored and maintained by a recognized entity.
- Operators should have a long-term plan for maintenance of the trail.
- All regulatory processes and compliances are required to be in place (see Section 5.6.2).
- Operators should have a marketing plan that includes marketing materials such as a website, social media presence, rack cards, and brochures.

5.6.1.2 Planning and Booking

- Operators should offer clear and comprehensive information and planning tools to visitors.
- Responsive website and online content should be well-designed and focused on the needs of visitors.
- There is a demonstrated commitment to promoting other attractions and services in the region.
- The following information should be available: trail description, directions to trailhead, information about trail conditions and safety, accessibility levels, maps, suggested itineraries and links to food experiences, accommodations, attractions, and other services nearby. Consider adding this information to trail apps, such as AllTrails.
- Business listings for destination trails should be accurate and up-to-date in the Newfoundland and Labrador Tourism Operator Portal (NLTOP).

5.6.1.3 Sense of Arrival

- Travelers should be met with clear, concise directional signage approaching and at the trailhead. Information that should be included on the trailhead sign is noted in Section 4.2.1.3.

5.6.1.4 Experience on the Trail

- Strive for quality experiences that interpret and celebrate the rich stories of the area.
- Offer visitor-focused experiences that are informative, and actively engage with other events, services, and attractions.
- Provide adequate informational and directional signage along the trail for a safe and positive experience, including informative trailhead signage, trail markers and distance markers.
- Ensure trails are in good condition with a hard, stable surface and ideally dry and free of debris.
- Provide adequate, convenient, site-based parking.
- Provide clean washrooms.
- Use ecologically sensitive trail construction and maintenance.
- Ensure washrooms, handrails, bridges, steps, etc. are kept in good repair.

5.6.1.5 Departure

- Encourage repeat visits, traveler feedback (on sites such as TripAdvisor), and sharing of stories, photos, and videos through social media channels with: #ExploreNL



Destination Trails exist across the Province. Photo: Marine Atlantic

5.6.2 Trail Development Checklist for Project Sponsors

The Department of Tourism, Culture, Industry and Innovation developed the checklist below in consultation with other departments to inform trail stakeholders of regulations and requirements related to trail development. Details have been added that apply to this Trail Master Plan, however, it is worth noting that some information did differ between Provincial Government webpages.

Guideline	Description of Information Gathered and Next Steps	Contact Information
<p>Crown Lands</p> <p>Under the Lands Act, all trails that use Crown land require a License to Occupy (LTO). This includes trails within a municipality.</p>	<p>Since the Nature Conservancy of Canada owns the land, a License to Occupy for the trail routes is not required from Crown Lands.</p> <p>If the property for the parking area is Crown Land, then a License to Occupy will be required for that area.</p>	<p>Not applicable</p>
<p>Provincial Archaeology Office</p> <p>Under the Historic Resources Act, any plans for new trails or upgrades to existing trails that haven't had prior approval from the Provincial Archaeology Office should be referred to that office for review.</p> <p>As part of the LTO application, trails will also be reviewed by the Provincial Archaeology Office.</p>	<p>Since the Town will not be applying for a License to Occupy, the plan for this trail will not be forwarded to the Provincial Archaeology Office through that process.</p> <p>Therefore, it is recommended that the Town reach out to the Provincial Archaeology Office to inform them of the project and forward any information that the Office requests.</p>	<p>A general inquiry person is not identified; see all staff listing and contact information here: https://www.gov.nl.ca/tcar/contact/arts-and-culture-branch/#pao</p>

Guideline	Description of Information Gathered and Next Steps	Contact Information
<p>Signage Policy</p> <p>Note: this only applies to Provincially-owned roads (like Salmonier Line).</p> <p>Fingerboard Signs</p> <p>These signs are permitted through the Department of Transportation and Works and can provide direction to trailheads. These signs are issued through an annual fee permit system and include the manufacturing, installation, and maintenance.</p> <p>The main purpose of fingerboard signs is to provide direction to the location of the listed service/facility. The signs are of standard design listing the name, distance and directional arrow, in standardized white letters on solid, blue coloured background.</p> <p>Off-Site Premises Signs</p> <p>These signs are promotional signs specific to the attraction/business, and are permitted along provincial highways. They are issued through a permit system by Service NL.</p>	<p>Fingerboard Signs</p> <p>An application form must be submitted, along with the establishment name to be placed on the fingerboard and colour logo (if required). A fee of \$143.75 will be charged per year.</p> <p><i>Application Form: https://www.gov.nl.ca/dgsnl/files/licenses-highway-fingerbd-appl-highwaysigns.pdf</i></p> <p>Off-Site Premises Signs</p> <p>An application form must be submitted, along with two copies of a sketch of the proposed sign and two copies of the location plan (if required).</p> <p>The initial development permit is valid for one year from the date of issue and can be renewed for a three year period providing the sign complies with all the conditions of the original permit. There is no fee to apply.</p> <p><i>Application Form: https://www.gov.nl.ca/dgsnl/files/licenses-highway-off-site-new-appl-erect-signs.pdf</i></p>	<p>Fingerboard Signs: <i>https://www.gov.nl.ca/dgsnl/licences/highway/fingerbd/</i></p> <p>Off-Site Premises Signs: <i>https://www.gov.nl.ca/dgsnl/department/inspections-contact/</i> (709) 637-2204</p>

Guideline	Description of Information Gathered and Next Steps	Contact Information
<p>Liability</p> <p>The organization or committee is liable for issues related to any trails constructed or enhanced. It is recommended that trail owners / managers assess trails and their responsibility to the public before promoting their trail(s).</p> <p>The Town and Trail Committee should be aware of several sources of legal obligations and potential liability. Insurance is the Town’s (or NCC’s) last line of defense in a situation where a person has been hurt or killed on a trail. Liability insurance, or commercial general liability (CGL) insurance is what provides protection against a loss (injury, property damage, etc.) for the Town and land owners in case of a legal claim. This insurance is intended to cover the legal costs associated with dealing with the claim and any benefits that must be paid to the claimant if they’re successful.</p>	<p>In Newfoundland, the <i>Pedestrian Trails Liability Protection Act</i> provides assurances to private land owners that, if they agree to permit their property to be used as part of a designated hiking trail, they will have liability protection should an injury occur. It states:</p> <p>A person using a trail voluntarily assumes all risk, as against the Crown, that may be encountered on the trail when using the trail, whether the person is on the trail or not.</p> <p>An owner or occupier of land that forms a part of a trail, including the Crown, together with his or her agents, employees and servants, does not owe a duty of care to a person who is using the trail or that person’s property whether that person is on the trail or not.</p> <p>The owner or occupier of land that forms a part of a trail owes a duty of care to persons using the trail not to create a danger with the deliberate intent of doing harm or damage to the person or the person’s property.</p> <p>It is recommended that the Town consult qualified legal counsel early in the planning process, as this area of the law is complex.</p>	<p>Not applicable</p>

Guideline	Description of Information Gathered and Next Steps	Contact Information
<p>Trail Standards</p> <p>Trail construction standards have not been adopted by the province, but existing provincial standards should be adhered to .</p> <p>It is recommended that groups engage professional trail designers, builders, and project managers. The technical skills obtained by trail workers will contribute to a quality trail product and maintenance (a well-designed and built trail will require less maintenance).</p>	<p>The Town has followed this guideline thus far, by hiring professionals who have experience in trail design. Best practices for trail design and maintenance have been included within the recommendations of this Plan, and should be followed during the Detailed Design Phase as well.</p> <p>When it comes time for construction, the Town should aim to hire a contractor that is experienced in trail construction, or that are able to follow detailed working drawings to ensure that the trail is built to the intended standard.</p>	<p>Not applicable</p>
<p>Water Permit</p> <p>Department of Environment and Climate Change (Provincial)</p> <p>Under the Water Resources Act, a permit is required when construction is within 15 metres of a body of water (including wetland). A permit will also be required for any work within a Protected Water Supply Area.</p> <p>Department of Fisheries and Oceans (Federal)</p>	<p>Department of Environment and Climate Change (Provincial)</p> <p>Find the list of application forms, requirements, and fee schedules here: https://www.gov.nl.ca/ecc/waterres/permits-licenses/appforms/</p> <p>Here is the link to the general application form: https://www.gov.nl.ca/ecc/files/s48_main_application-1.pdf</p> <p>Department of Fisheries and Oceans</p> <p>Review the submission and approval process here: https://www.dfo-mpo.gc.ca/pnw-ppe/reviews-revues/request-review-demande-d-examen-001-eng.html</p>	<p>Call 709-729-1646 for assistance with the Department of Environment and Climate Change form.</p> <p>Call 709-772-4140 or email dfo.fppnl-ppptnel.mpo@dfo.mpo.gc.ca for assistance with the Department of Climate Change and Environment Form.</p>

Guideline	Description of Information Gathered and Next Steps	Contact Information
<p>Environmental Assessment</p> <p>Under the Environmental Protection Act, trails longer than 10 kilometres have to be registered. Registration may also be required for trails near sensitive ecological areas or, as per Section 28 of the Regulations, for trails that will occur within 200 metres of a scheduled salmon river.</p>	<p>While the trail will not exceed 10km in total length, the trail will be located within 200m of a scheduled salmon river and will therefore require an environmental assessment.</p> <p>There is a fee of \$400+HST for registration. See the full Guide to the Process here: https://www.gov.nl.ca/ecc/files/GUIDE-TO-THE-PROCESS_Jan-2024.pdf</p> <p>Step One: Registration and Review Submit the registration document along with the appropriate fee. See Appendices 1 and 2 in the document for the Registration Format.</p> <p>Step Two: Minister's Decision One of the following decisions will be made within 45 days:</p> <ul style="list-style-type: none"> • The undertaking may be released. • An Environmental Preview Report may be required. • An Environmental Impact Statement may be required. • The undertaking may not proceed. <p>Next steps depend on which decision is made, and further information is available in the Guide to the Process document mentioned above.</p>	<p>https://www.gov.nl.ca/ecc/departments/contact/assessment/</p> <p>EAProjectComments@gov.nl.ca</p>

This work addresses section 3.6 and 3.11 of the RFP.

6. Implementation

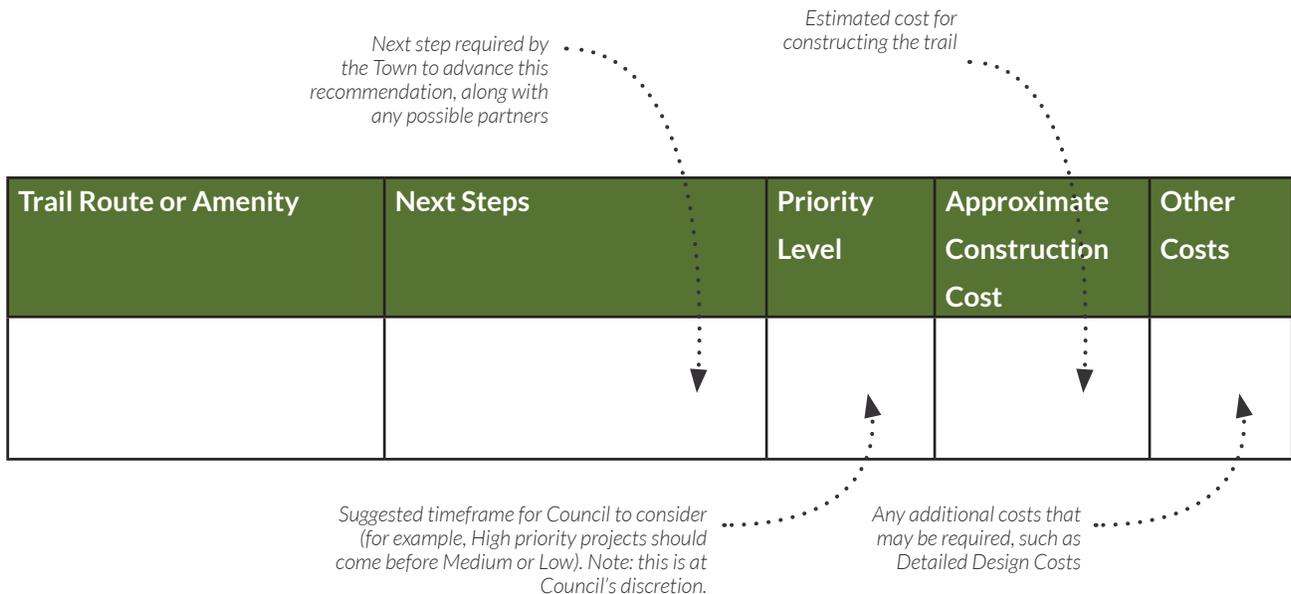
The recommendations presented in this report identify strategies and tasks that will help the Town and Recreation Trails Committee achieve its trail development goals over time. It should be noted that this Plan represents a long-term vision for trail development on the NCC Land. This Plan is only a first step, and the changes outlined herein will not happen overnight. Implementation will require an organized effort, dedicated champions, strategic partnerships, and further investment before the recommendations presented become a reality. This section of the report is dedicated to identifying the next steps required to begin that process.

6.1 Identifying Priorities

6.1.1 Implementation Chart

An Implementation Chart has been created that includes all recommended trail routes and amenities. The table summarizes the next steps, priority level, and approximate costs. It is recommended that the Town use this table to set priorities and plan for future budgets to oversee the development of the trail network. Although the routes are assigned a priority level, the Town can develop the trails in any order that they wish. Sometimes changing Councils and available funding may influence the priority levels, and it is recommended that the Town jump on opportunities to develop trails if they arise.

Below is a description of how to read the table:



Trail Route or Amenity	Next Steps	Phase	Approximate Construction Cost	Other Costs
Inclusive Route (includes development of trail route, signage construction, trailhead area, lookouts and interpretation points)	Begin Detailed Design process (see Section 6.1.3).	Phase 1a	\$245,000	Approximate Fee for Detailed Design Drawings and Contract Administration: \$27,450
Parking Area	Determine land ownership and work with the East Coast Trail Association and ATV users to develop a design that suits each group's needs.	Phase 1b Should be developed at the same time as the Inclusive Route if possible, but may take a bit longer to realize than Phase 1a, due to determining land ownership.	\$35,000	Approximate Fee for Detailed Design Drawings and Contract Administration: \$5,000
Nature Routes (includes development of trail route, lookouts and interpretation points, and signage construction)	Begin Detailed Design process (see Section 6.1.3).	Phase 2 There are two Nature Routes (one towards the Waterfall and one up the hillside). These trails can be built at the same time if funding is available, otherwise the Waterfall Route should be built first.	\$80,000	Approximate Fee for Detailed Design Drawings and Contract Administration: \$7,500

Chart continues on next page.

Future Nature Route to East Coast Trail Connection	Do not construct this trail until the future East Coast Trail route is in place. Once it is, follow steps noted above for the Nature Route.	Phase 3 This trail should not be constructed until the East Coast Trail is in place	\$15,000	Approximate Fee for Detailed Design Drawings and Contract Administration: \$3,000
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Notes on Approximate Construction Costs

- Conceptual construction cost estimates have been prepared for each route (based on 2024 numbers).
- A cost/km rate was developed based on past trail development experience. The rates were informed by the level of development required for each type of trail, considering the amount of clearing required, the ground surface material, and whether infrastructure was required. A refined cost estimate should be completed during detailed design when components are more clearly defined.
- Savings may be realized if portions of the work are completed using the Town’s own forces, community groups, or other partners.
- Graphic and content design for the wayfinding signage is not included in the costing. A cost for those services can be determined at a later date in coordination with the NCC and their signage requirements.
- HST is not included in the costing.

6.1.2 Roles and Responsibilities

As the Town and Recreation Trails Committee move forward with realizing recommendations from this Plan, they will be responsible for the following tasks:

6.1.2.1 Recreation Trails Committee

- Review the Implementation Chart and set priorities for project implementation;
- Work with the Town to allocate budget each year to advance the initiatives of this plan;
- Become the champion for implementing the recommendations of this plan;
- Liaise with levels of government as needed;
- Apply for funding or undertake fundraising initiatives;
- Promote the importance of the initiatives of this plan to residents;
- Engage residents and community groups on a regular basis to provide updates, prioritize projects, and to create project support. The success of this plan will only be possible with the participation and involvement of these community members.

6.1.2.2 Town of Mount Carmel - Mitchell's Brook - St. Catherine's

- Assist the Recreation Trails Committee as necessary for any applications that will require sign-off from the Town.
- Promote the trails within the community.
- Assist the Recreation Trails Committee in finding members and champions.
- Support all fundraising efforts.
- Clearly demonstrate the Town's commitment to the project.

6.1.2.3 Nature Conservancy of Canada

- Work with the Recreation Trails Committee to ensure that the recommendations of this plan are implemented.
- Work with the Town to create a lease agreement between the Town and NCC that will define roles and responsibilities of each party around trail development, maintenance, and liability.
- Work on-site with the Recreation Trails Committee to ensure that sensitive areas within the Salmonier Nature Reserve are avoided during trail development.

6.1.3 How to Develop the Trails (Next Steps)

Once Council approves the direction of this Plan, the following steps should be followed to ensure that each trail can be developed successfully in the future. While each step may not apply to every individual trail, it is important to understand the overall process of trail development.

6.1.3.1 Detailed Design

Some of the trail routes in the Recommendations section are conceptual in nature, and in order to implement these routes, they need to be designed in detail to understand where exactly the trail tread and associated infrastructure will be located and how it will be constructed.

- The Town will likely require the services of a land surveyor and landscape architect, and potentially a structural engineer to assemble all of the information required for the detailed construction drawings.
- The necessary consultants will field truth the proposed routes, meaning they will walk and inspect each route in person and determine how the on site conditions can accommodate the different trail types.
- The detailed construction drawings will include information that a contractor can use to build the trails, including but not limited to:
 - trail tread information (width, material, base material);
 - amenity details (benches, etc.);
 - grading and stormwater management;
 - and any signage details.
- Drawings of this nature facilitate a fair, competitive, and comparable bid process and reduces risk for the Town.

There are members of the community who have experience breaking rugged trail routes. During the public engagement, they expressed interest in helping to clear the trail routes. This presents a potential opportunity for the Town to use these volunteers to help with that portion of the work. If the Town chooses to take that approach for the Nature Route, a landscape architect or trail planner can be engaged to flag the exact trail route as the first step of trail development.

6.1.3.2 Final Cost Estimate

With the detailed design, construction drawings, and quantity takeoffs complete, the consulting team will be able to prepare a final cost estimate to give the Town an idea of the true construction cost for the development of each individual trail.

6.1.3.3 Fundraising

Once the Town has an idea of the expected costs of construction, they can begin to budget for future trail development, and seek funding through grants and funding agencies. More information on available funding can be found later in this section.

6.1.3.4 Tendering and Procurement

If the Town wishes to have the trails built by a private contractor and not their own forces, they should follow the public tendering process.

6.1.3.5 Construction

Once a contractor is selected, construction can begin. The Town should ensure that construction progresses as per the detailed drawings. There is value in hiring the design consulting team as contract administrators, so that they can oversee the work to ensure that it follows the detailed drawings. After a final inspection to ensure that any deficiencies are corrected, the trail can be opened to the public. The Town should keep residents informed with updates on trail construction and celebrate with a grand opening as trails are opened to the public.

This work addresses section 3.13 of the RFP.

6.2 Potential Funding Opportunities and Collaborators

As the Town moves toward implementing the recommendations outlined in this Plan, it will become clear that partners are needed. The Town has finite resources to implement the recommendations and project partners represent an opportunity to leverage additional resources. Further, several recommendations described in this plan would benefit not only the Town, but other government agencies and NGOs as well.

Capital costs are a significant factor that affect implementation. While the Town has been the party responsible for initiating this study, they may not necessarily be responsible for covering all project costs. This is where funding agencies and grant programs at both the Provincial and Federal level can make a difference.

This section outlines available grants and funding programs that can be used to assist the development of the trail. Please note that the most up to date information has been provided. However, these funding programs change from year to year, and more research may need to be completed for the 2024/2025 fiscal year. A few of the listed funds are currently closed, but they have been included on the list for information purposes, as the webpage is typically updated once they reopen or if they are re-branded or rolled into another funding program.

6.2.1 Federal Government

6.2.1.1 Investing in Canada Infrastructure Program (Community, Culture, and Recreation Infrastructure Stream)

- The program provides long-term, stable funding delivered by Infrastructure Canada to help communities reduce air and water pollution, provide clean water, increase resilience to climate change and create a clean-growth economy; build strong, dynamic and inclusive communities; and ensure Canadian families have access to modern, reliable services that improve their quality of life.
- The Community, Culture, and Recreation Infrastructure Stream invests in projects that support upgrades to recreational facilities, like arenas and both indoor and outdoor recreational spaces.
- https://www.infrastructure.gc.ca/plan/icp-pic-INFC-eng.html#s_1

6.2.1.2 Canada Community Building Fund

- This fund is a permanent source of funding provided up front, twice-a-year, to provinces and territories, who in turn flow this funding to their municipalities to support local infrastructure priorities. Municipalities can pool, bank and borrow against this funding, providing significant financial flexibility. Communities select how best to direct the funds with the flexibility to make strategic investments across 19 different project categories; which include recreation and tourism.
- <https://www.infrastructure.gc.ca/alt-format/pdf/ccbf-fdcc/ccbf-fdcc-nl-eng.pdf>

6.2.1.3 Active Transportation Fund

- The fund seeks to improve community connections; make travel by active transportation easier, more convenient and enjoyable, and enhance user safety and security and also encourage people to choose active transportation over personal vehicles (including supporting walking and cycling to access transit).
- <https://www.infrastructure.gc.ca/trans/index-eng.html>

6.2.1.4 Rural Transit Solutions Fund

- The fund seeks to help Canadians living in rural and remote areas get around their communities more easily for their day-to-day activities, and connect with other communities nearby.
- <https://www.infrastructure.gc.ca/rural-trans-rural/index-eng.html>
- The Planning and Design Projects Stream is meant to support communities' projects to plan and design new or expanded transit solutions for their communities.

6.2.2 Provincial Government

6.2.2.1 Active NL Fund

- This fund supports active healthy living. Funding is available for initiatives, infrastructure, and equipment that increases participation in physical activity for individuals of all ages. Funding is available to develop or upgrade active healthy living infrastructure, including development of existing or new walking, hiking, cross country ski, and shared use trails that increase physical activity and active transportation opportunities.
- <https://www.gov.nl.ca/tcar/funding-programs/active-nl/>

6.2.2.2 Municipal Capital Works

- The Regional Development Program provides support by way of non-repayable contributions to organizations for the development and implementation of economic initiatives with respect to regional and sectoral development, diversification, innovation, and key emerging sectors. Projects submitted for consideration must clearly link non-commercial activities to economic diversification and/or business development. The four key themes of projects intended for funding are: infrastructure; capacity building; marketing; and, research.
- <https://www.gov.nl.ca/iet/funding/regional-development-fund/>

6.2.2.3 Regional Development Fund

- The Multi-Year Capital Works funding is a commitment of three-year blocks of funding which supports improved planning in communities which have the capacity to make multi-year commitments. Typical projects eligible for Multi-Year Capital Works funding are water and/or sewer, paving and/or road construction, municipal buildings and recreation facilities.
- <https://www.gov.nl.ca/ti/mi/funding-programs/#:~:text=Municipal%20Capital%20Works%20funding%20is,municipal%20infrastructure%20throughout%20the%20province.>

6.2.2.4 Tourism Market Readiness Subsidy Program

- This program is designed to assist tourism stakeholders in enhancing the quality and market readiness of their tourism services, businesses and products. Market Readiness is the creation and delivery of memorable, value added, high quality products and experiences that meet and exceed the expectations of visitors.
- <https://www.gov.nl.ca/tcar/funding-programs/tourism-market-readiness-subsidy-program/>

6.2.2.5 Capacity Grant Program

- The Capacity Grant Program helps to enhance the inclusion of persons with disabilities in the province through the prevention and removal of barriers. Applications are considered in numerous categories, including: Increase Accessibility in the Built Environment.
- <https://www.gov.nl.ca/cssd/grants/capacity-grant-program/>

6.2.2.6 Inclusion Grants Funding

- The Inclusion Grants Funding Program provides grants of up to \$25,000 to eligible community-based and non-profit organizations to help them create more accessible and inclusive facilities and events. Initiatives under the Inclusion Grants Funding Program have included renovation projects, such as installation of ramps, automatic doors or visual alarms or disability-related accommodations for events and meetings, such as sign language interpretation or captioning.
- <https://www.gov.nl.ca/cssd/grants/igf/>

6.2.3 NGOs and Other Organizations

6.2.3.1 TD Friends of the Environment Foundation Grant

- TD Friends of the Environment Foundation (TD FEF) is a national charity that funds environmental projects across Canada. The Foundation supports a wide range of environmental initiatives, with a primary focus on environmental education and green space programs.
- <https://www.td.com/ca/en/about-td/ready-commitment/funding/fef-grant>

6.2.3.2 Canada Post Community Foundation Grant

- Their mission is to make a positive impact in the lives of Canadian children. Grants are available for projects that support three areas: community, education, and health.
- <https://www.canadapost-postescanada.ca/cpc/en/our-company/community-foundation/community-foundation-application.page>

6.2.3.3 Conservation Corps of Newfoundland and Labrador Green Team

- The Green Team Program offers youth meaningful employment and skill development opportunities in a supportive team setting. Green Teams focus on local environmental and cultural projects developed in collaboration with communities, organizations, and other partners. The Green Team Program aims to support community based organizations and municipalities with local conservation activities, meeting self determined needs and serving communities across the province.
- <https://www.ccnl.ca/programs/green-team>

This work addresses section 3.8 of the RFP.

7. Conclusion

The development of the Salmonier River Valley Trails represents a significant opportunity to enhance the natural, cultural, and recreational assets of the Town of Mount Carmel - Mitchell's Brook - St. Catherine's. Guided by principles of protection, inclusion, and connection, the Plan aims to create an inclusive trail network that highlights the area's diverse ecosystems and rich heritage. The trail network will cater to a wide range of users, offering various routes that include accessible paths and more rugged nature trails.

Public engagement has been a cornerstone of the planning process, ensuring that community feedback is incorporated into the design. Key themes from public consultations, such as the importance of accessibility, the inclusion of amenities, and the protection of natural assets have been integral to shaping the final recommendations.

Field observations and expert analysis have identified both opportunities and challenges in developing the trails, emphasizing the need for careful planning and sustainable practices. The proposed trail design includes specific guidelines to ensure accessibility and inclusion, providing a safe and enjoyable experience for all visitors.

The implementation of the trail network will require strategic planning, collaboration with partners, and funding. The next steps involve detailed design, further cost estimation, and fundraising efforts to bring the project to fruition. By fostering partnerships with local tourism stakeholders and other community groups, the Salmonier River Valley Trails can become a valued asset for both residents and visitors, promoting health, well-being, and economic benefits for the community.

Appendix A

Public Engagement Findings

Below is a record of the comments from the public engagement session noted in Section 2. A recording of the Zoom video was also provided to the Town.

Trail Routes

- Provide an accessible granular surfaced trail along the river with lots of rest stops and access to the river.
- Incorporate the end of McDonald Drive into the accessible trail (restrict vehicle access further back on the road) to protect the serenity of the meadow by Hurley's Bridge.
- Provide looping natural trails (similar to the East Coast Trail) that branch off of the riverside trail and into the property.
- Allow four season use of the trails by pedestrians.
- The trails are only meant to be used by pedestrians; explore ways to limit access to the trail by ATVs, bikes, and snowmobiles (such as different styles of gates and fencing).
- Maintenance of the trail after it's developed is very important.

Amenities

- Include lots of benches and rest areas along the accessible trail.
- Create a picnic area at the meadow near Hurley's Bridge.
- Explore the possibility of installing solar lights along the accessible trail.
- Create a rest area near one of the waterfalls.
- Install a waste bin at the trailhead.
- Install a bathroom at the trailhead.

Interpretation and Signage

- Use interpretive signs to educate visitors about the rare flora and fauna on the site.
- Directional signage is important if there are to be multiple routes.
- Use interpretive signs to tell some stories about the history of the area (logging, D'Iberville, Pratt family, etc.)

Existing Features

- People love the meadow near Hurley's Bridge, there were a lot of comments about the beauty of that area in its current state.
- Many people currently use the river for fishing, so continue to allow access to the river.
- There are beaver dams in the river that are a neat feature that could be viewed from a lookout.
- The windfalls are serious and would need to be addressed to allow any kind of trail along the river.
- The lower waterfall can be heard from the meadow on a calm day.

Marketing and Connections

- Load these trails on the AllTrails app once they are developed.
- Encourage people to pair their visit to the Salmonier Nature Park and Avalon Wilderness Reserve with a trip to this trail.
- Connect with the Irish Loop planning group to make a bigger regional impact.
- Connect with the nearby school to run educational programming with the NCC.

Mills & Wright Landscape Architecture
hello@millsandwright.ca
709-770-5035

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