

TRAILS MASTER PLAN

Final Report - October 2021





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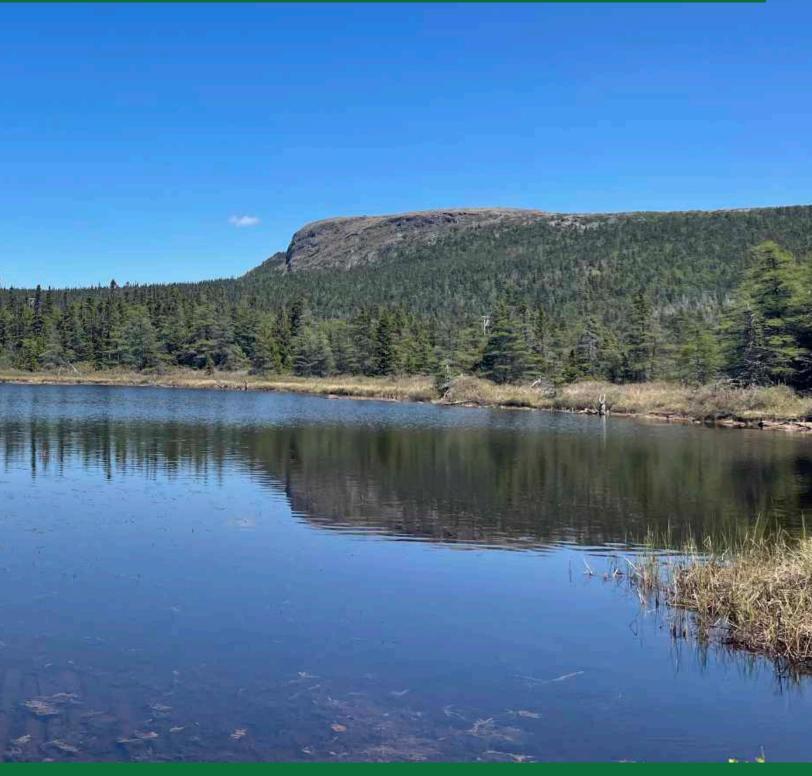
Stakeholder Groups

Town of Holyrood Recreation Committee Avalon Mountain Biking Association Local Hiking and Mountain Biking Enthusiasts

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Section One: Introduction



1.1 Introduction

The Town of Holyrood is home to roughly 2,500 people, and it is actively being promoted as a great place to live and invest. With an increasing population and new businesses setting up shop, the strategy is obviously working. There are numerous business opportunities and residential developments that are helping drive growth in the community.

The Town recognizes the importance of recreation in supporting this community growth. Outdoor and indoor recreation amenities, events, and programs play a key role in attracting individuals and businesses to the town and reinforce the maxim that Holyrood is a "great place to live, learn, work, play, and invest".

While the Town is focused on upgrading a number of recreation facilities, the goal of this Trails Master Plan is to thoroughly study, understand and build upon the existing trail network to improve connectivity to local destinations, close gaps in the trail system, increase safety and accessibility for all trail users, support economic development, and enhance the quality of life for residents.

1.2 The Process

Below is a brief overview of the project phases that were completed.

Project Initiation and Background Review

- » Initial site visits and literature review to get a snapshot of the current trail system and an understanding of the regulatory and social environments.
- » Review of municipal studies and policy documents to extract pertinent information that would impact future trail development to ensure recommendations of this plan align with past goals and objectives.

Public Engagement

» Use of an online survey and stakeholder meetings to collect feedback from the public.

Trail Assessment

» Field work including inventory and assessment of all existing trails and a number of potential future trails.

Trail Development Recommendations

- » Outline specific strategies, action plans, and priorities that will allow the Town to achieve its trail development goals over time.
- » Highlight potential project partners and funding sources.

1.3 Guiding Principles

This Master Plan will serve as a guiding document for the development of an interconnected trail network for the Town of Holyrood. The trail network is envisioned to be a safe, equitable, user-friendly attraction that ensures residents of Holyrood experience meaningful recreation and transportation opportunities that promote a healthy, active lifestyle. The following four principles are intended to guide the development of the master plan.

#1. Provide a framework for future investment in the town's trail network.

- » Identify the need for and benefits of investing in trail development.
- » Create a guiding municipal document that continues to encourage the prioritization of high-quality trail development.
- » Develop actionable plans, recommendations, and cost estimates to guide future trail development.
- » Identify priority projects ranging from high to medium to low priority.

#2. Improve connectivity and access to local destinations.

- » Identify gaps in the existing trail system and develop plans to close those gaps.
- » Increase multi-modal transportation options by expanding the existing trail network in areas currently underserved.
- » Identify and connect key destinations within the community.
- » Provide connections to neighbouring communities.

#3. Ensure that the trail network is inclusive of different people and activities.

- » Offer trails with varying lengths, levels of difficulty, and surface materials to cater to different preferences and abilities.
- » Improve the health and well-being of residents by providing meaningful recreational opportunities.
- » Consider different user groups in the design of the trails including pedestrians, cyclists, and motorized recreational vehicle users. It is worth noting that although different uses have been assessed, the focus of this project is hiking and walking trails.
- » Include amenities such as signage, trailheads, seating, and lighting to make the trails comfortable for all users.

#4. Showcase Holyrood's stunning natural landscape.

- » Create a trail system that allows trail users the opportunity to access Holyrood's unique landscapes and views.
- » Provide formal walking routes that encourage users to stick to the trail, therefore protecting the surrounding natural environment.

1.4 Benefits of Trails

Trails are a vital part of any community. These are the public spaces where residents and visitors gather, socialize, and recreate. When designed and implemented thoughtfully, trails become an extension of the community itself, highlighting community values such as personal and economic health and well-being, and creating a distinct sense of place and civic pride. Trails encourage and enable a healthy and active lifestyle in residents by providing opportunities to increase physical activity and an enjoyable way to get around. They encourage alternative methods of transportation, such as walking, jogging, and cycling, which contribute to improvements in physical and mental health. The many environmental benefits of trails include carbon reduction, stormwater retention, air and water pollution reduction, and increased environmental awareness and stewardship.

Social

- » Trails provide users with the opportunity to connect with other trail users in their community, fostering social interactions and relationships.
- » Due to their low cost and low barrier to entry, trails are socially equitable and accessible to all residents of a community.
- » Trails can tie together several parts of a community, encouraging residents to explore and increasing awareness of a community's amenities, services, and attractions.
- » Trails can showcase a community's natural and cultural character and history.
- » Trails adjacent to residential areas often become sources of pride for a community. Trail stewardship encourages resident ownership and can provide a sense of place attachment.
- » Trails can help to increase the overall appeal, quality of life, and identity of a community.

Health & Well-Being

- » Trails promote a healthy and active lifestyle by providing access to recreational opportunities such as walking, jogging, or cycling. Active living has been shown to significantly reduce mental and physical health issues such as obesity, stress, and depression, while positively increasing feelings of well-being, satisfaction, and morale.
- » Trails allow users to exercise at their own pace and comfort level.
- » Trails increase exposure to nature, which has been shown to provide a number of physical and mental health benefits.

Environmental

- » Trails that connect with parks, open spaces, and environmentally sensitive areas increase exposure to nature and promote environmental awareness and stewardship.
- » As part of a larger green space network, trail corridors can provide valuable ecosystem services such as carbon capture, heat island mitigation, rainwater infiltration, and increasing habitat and biodiversity.
- » Trails can reduce greenhouse gas emissions by encouraging alternative modes of transportation such as walking and cycling.

Economic

- » Residential properties with convenient access to trails and open spaces have been shown to be more desirable in the housing market which can lead to increased property values.
- » Higher property values can lead to increased tax revenues for a municipality.
- » Trails can help to improve the overall appeal of a community to visitors which can lead to increased tourism. When connected to cultural or natural community assets, trails themselves can become a tourism attraction and lead to increased tourism-based economic activity.
- » By encouraging active living, trails can lead to indirect savings on healthcare services.
- » Studies have shown that trail users are likely to spend money adjacent to trails if the option is there. Businesses that set up adjacent to trails or provide access to trail connections can experience increased economic activity.
- » Trails provide meaningful recreational opportunities which may lead to decreased instances of vandalism, loitering, or other illicit activity.
- » There is evidence that trails will play an important role in helping revive the tourism industry post-pandemic.

1.5 Planning Context

To gain an understanding of the existing municipal and regulatory environment and to ensure the Trails Master Plan remains aligned with previous goals and objectives related to trail development, several municipal policy documents and studies were reviewed.

Conception Bay Centre Regional Recreation and Leisure Services Master Plan

Town of Holyrood, Harbour Main - Chapel's Cove - Lakeview, Avondale, Conception Harbour, and Colliers (Tract Consulting, 2014)

Below are recommendations from the plan that relate to trails.

- The NL T'Railway corridor runs from Holyrood through to Avondale. It presents a unique opportunity both for tourism and for local uses. Both winter and spring/summer/fall use need to be considered along with the mix of non-motorized and motorized uses. Local users will also need easy loops back to their point of origin.
- » Regional and community trails need to be considered. Trails need to be expanded or improved to accommodate separate motorized and non-motorized uses, and to have better links, loops, rest areas and viewpoints, as well as full season capacity.
- » Informational signage is needed along trails and throughout the region to identify programs and amenities, and to direct people to the sites. Interpretation signage along trails should also be developed.
- » An overall "Trails Master Plan" should be created for the Region. This should include regional trails, subregional trails, and key local trails that are significant in terms of local (and some regional use). It should also identify trails to major viewpoints. In addition, the plan should address:
 - » The need for a Trails Map and Guide to direct residents and visitors to trails, as well as to provide key features of some trails. This could also have references to trail opportunities within Butter Pot Provincial Park, but not include them on the map if the scale is distorted.
 - » The need to link trails where possible and to consider the creation of loops on longer trails to allow users to return easily to start points.
 - » Trail development needs to address and separate non-motorized (walk, cycle, run, cross-country ski), and motorized uses (ATV and snowmobile).
 - » Trails need directional signage to trail heads, and major trail heads should have informational and interpretive signage.
- » The Newfoundland T'Railway provides a "soft green spine" through much of the study area. As we have seen recently in neighbouring Conception Bay South, the use of motorized vehicles and increased pedestrian use due to densification of lands adjacent to the T'Railway are creating issues of user safety. To address safety issues with shared use of motorized vehicles, the T'Railway in the study area from the boundary of the Town of Conception Bay South, at Indian Pond, to North Arm in Holyrood should be converted to pedestrian/bicycle only. This plan suggests a four-meter wide granular surface with appropriate landscaping, rest areas, lookouts and community connections.

Municipal Plan 2014-2024

Below are excerpts from the Municipal Plan that relate to trails.

2.7 Environment

» To foster a community/family environment by promoting greenbelts, passive parks and walking/hiking trails.

3.1 General Land Use Policies

- » Environmental Preservation and Enhancement: Council will encourage partnerships and initiatives aimed at changing environmental attitudes, awareness and promoting projects which will enhance the built environment. Examples will include the following: development of walking trails along shoreline and the T'Railway Provincial Linear Park and other areas of the Town.
- » Open Space/Recreation: Section 37 of the Act requires that not more than 10% of the subdivision or land to be developed shall be dedicated to the Town as public open space. This land would be suitable for walking trails, tot lots, green belts etc. Council may accept from the developer in lieu of such area of land, payment of a sum of money equal to the market value of the land which would otherwise be required to be dedicated. Council shall ensure the preservation of scenic viewpoints and ensure long-term stewardship. Public access to natural areas and open spaces shall be maintained. It is the intent of this Plan to designate open space areas within the Town for active, outdoor community recreation and passive, outdoor recreational needs. Council shall maintain and wherever, improve the integrity of natural recreational systems such as walking and hiking trails.

3.2.3 Town Centre

- » Any development of land within this designation shall be in accordance with the Council's intent of maximizing pedestrian mobility. This shall be done through an emphasis on consolidated development and provision of standard walkways, development of other walking trails within the overall Town Centre, adjoining residential areas, and recreation lands.
- » The Council shall encourage the grouping of public uses within the Town Centre. The ability to arrange these uses within reasonable walking distance from each other and the development of above standard walkways and walking trails shall increase pedestrian use within this area and make the area a place where residents have a feeling of connectivity with all the uses within the Town Centre.

3.2.7 Open Space/Recreation

» Trail Development: The development of passive recreation facilities such as walking or nature trails, and associated interpretation programs may be permitted provided they will not have an adverse impact on the natural environment and residential properties.

3.2.8 Open Space/Conservation

- » The intent of the Open Space/Conservation designation areas is to protect certain lands within the Town which by reason of their intrinsic character, are sensitive, vulnerable, or ecologically significant, or have natural or recreation values. They include wetlands, watercourses, bodies of water, shoreline frontages, steep cliffs, as well as, open natural spaces such as woodlands, green belts, buffers, natural trails, areas of scenic attraction for public enjoyment, etc. In most cases, these areas are located where municipal services cannot be feasibly extended. The T'Railway Provincial Park shall be designated as Open Space/Conservation.
- » Passive recreational uses such as walking trails may be permitted, provided that they will have no adverse effect on the site. Uses that are complimentary to a recreational open space or conservation use may also be permitted at Council's discretion. Such use may include animal grazing, or other forms of agriculture.

Section Two: Trail Inventory & Assessment



2.1 Trail Inventory & Assessment

The objective of the trail inventory and assessment is to form a snapshot of the trail network and its current condition, to confirm mapping accuracy and location of existing trails, as well as to identify places of significance, character-defining elements, and opportunities and challenges for future development.

During the public engagement phase, the design team was made aware of many locations within the town that held potential for trail development. Some of these areas had existing footpaths or wood cutting paths, and some were untouched wilderness. These locations were visited and analyzed to determine their potential, and priority level for development.

When visiting these locations, the design team focused on the following existing conditions:

- » **Vegetation** including variety, density, and ground cover.
- » **Topography** including any low spots or challenging slopes.
- » **Natural features** including lakes, streams, meadows, and rock formations.
- » Built features such as bridges or noteworthy structures.
- » Infrastructure including roads and power lines.
- » Signs of existing wildlife.
- » **Views** of water bodies and other picturesque landscapes.
- » Intersections of **transport systems** including roads and other trails.
- » **Access points** such as entry points or secondary access points.

In many cases, the design team followed the potential trails until they became inaccessible due to wet conditions or dense vegetation. Feedback from the public engagement sessions and aerial photography was used to assess parts of the trail network that were not easily accessible due to time and accessibility restraints.

2.2 Public Engagement

2.2.1 Engagement Activities

Engagement is critical to create a shared understanding of the project goals as well as to inform decision-making during the master planning process. Several methods were used to collect stakeholder input.

Meetings were conducted with the following stakeholders to discuss improvements and additions to Holyrood's trail network.

- » Town Council
- » Town's Recreation Committee
- » Local Mountain Biking Enthusiasts
- » Local Hiking Enthusiasts

On May 5th, there were two open house sessions that were open to members of the public. There were 12 attendees in total that provided their feedback and suggestions for the trail system.

From April 16th - May 17th there was an online survey for residents and visitors to provide input on the current and future state of the trails. There was a total of 349 respondents. Forty percent of the respondents were Holyrood residents, and the remainder were residents from surrounding communities that visit Holyrood for their trail resources. It is useful to know that Holyrood is already a hiking/walking destination, as improvements to the trail network will likely attract more visitors.

Appendix A: Engagement Summary provides all of the results and findings from the public engagement activities.





2.2.2 Key Themes from Engagement

Excitement and Enthusiasm

It was clear from the survey responses that a majority of people are excited and enthusiastic about the development of Holyrood's trail system. Many respondents were excited about how these improved facilities will enhance not only their own quality of life, but Holyrood's attraction as a destination for hiking on the Avalon. The Town should keep residents engaged in trail development in order to build a sense of ownership around the trails.

Accessibility and Inclusion

Throughout the stakeholder meetings, open house, and survey responses, the importance of accessibility and inclusion were discussed. It was made clear that the final trail system needs to consider offerings that are accessible and suitable for a number of different users.

A successful trail system offers a number of different trail options that cater to different users' abilities and preferences. Trails should have differing lengths, views, levels of difficulty, and infrastructure to allow users to choose the trail that works best for them. Having a diverse trail system will be an asset for the residents of Holyrood and surrounding communities, and people may travel to use a type of trail that they don't have access to in their own community.

This theme of trail diversity also encompasses the discussions that occurred around mountain biking and ATV trail infrastructure. Local mountain biking enthusiasts and the Avalon Mountain Biking Association have made it clear that Holyrood has great potential to become a mountain biking destination.

When it comes to ATVs and other motorized recreational vehicles, there is a lot of contention in the community about whether they should be allowed on community walking / hiking trails. The survey seemed almost split down the middle in favour and against ATV use on trails.

Connectivity

The theme of connectivity came up in all of the stakeholder meetings and at the open house. There were also a number of survey responses that were pleased with the proposed future trails, and how those types of trail development would improve connectivity in the town. There were a number of comments about the roads becoming busier, meaning that more people were taking to the trails for safer walking conditions.

Section Three: Trail Development Recommendations



3.1 Trail Development Recommendations

This section of the report is broken up into three sub-sections: Design Standards and Best Practices, Recommendations for Existing Trails, and Future Trail Development.

3.2 Design Standards and Best Practices

» This section will provide an overview of standards and guidelines that are used in trail development. These are meant to provide a benchmark for trail development, and are meant to be a resource for the Town as they move into trail development.

3.3 Recommendations for Existing Trails

» This section will examine the existing condition of each trail, review feedback from the public engagement phase, and provide recommendations for enhancement of each trail.

3.4 Future Trail Development

» This section will present the overall vision for the Holyrood trail network, providing recommendations for future trail development, along with priority levels for those new trails.

3.2 Design Standards and Best Practices

In all industries, there are Standards and Guidelines that can be used to set a benchmark that ensures projects meet the expectations of users. Trail development is no different. This section provides an outline of different guidelines and standards that can be used as resources to ensure that the Holyrood trail network becomes an attractive, safe, and successful network for all users.

3.2.1 Trail Classification System

The Trail Classifications (based on Parks Canada and other resources) on the following pages can be used by the Town to help with asset management, resource conservation, and visitor experience management. They are a guide for the trail developer and stewards to ensure that the trail is built and maintained in a way that will meet the requirements and expectations of different user groups. Different levels of technical construction and service vary depending on the trail classification, and are detailed in the charts on the following pages. When developing trails, different enhancements can occur in phases, and not every item in these charts needs to be achieved, but they present an idea of the highest standard of trail development.

As each individual trail is slated for development, a chart similar to those on the following pages should be created, and details for that trail should be included in each applicable section. This document then becomes a record of the planned level of development and maintenance for that trail.









Examples of Type 1 Trails (Prein & Newhof, City of Mount Pearl)



Examples of Type 2 Trails (Bitstop, Alltrails)



Examples of Type 3 Trails (East Coast Trail Association, The Boston Globe)

| Туре | 1 Trail Classification | | | | |
|----------------------|---|--|--|--|--|
| rail Type Definition | Definition | Paved or hard packed surfaced double track trail, all weather use, with no obstacles in surface Use compacted crushed rock, asphalt or chip-seal coat surface Provide interpretive and directional signs, benches, and viewing areas where appropriate Machine- or hand-built and maintained | | | |
| Trail Typ | Targeted Users | » Suitable for all visitors including those with no trail experience » Family-friendly, suitable for all visitors looking for an easy trail experience | | | |
| | Trail Rating (see Section 3.2.2) | » Easy or Moderate | | | |
| | Distance | » Typical distance of trail does not exceed 10km | | | |
| | Trail Profile | » Flat to gently rolling» Typical elevation gain of 0 - 100 metres | | | |
| 10 | Trail Surface » Paved or surfaced » Hard packed and stable » Typical average width of 1.5 - 3.0 metres | | | | |
| Technical Details | Signage (general signage and information provided) | » Trailhead information » Interpretive panels » Route markers » Trail orientation maps » Maximum information provided | | | |
| ř | Obstacles or Stairs | » Few or no obstacles» No stairs or minimal use of stairs | | | |
| | Facilities and Amenities | » Parking lot » Washroom » Bridges » Benches » Maximum user facilities | | | |
| _ a | Inspection | » Frequently or upon user comment | | | |
| Level of Service | Deadfall Clearing | » As required | | | |
| Le | Infrastructure | » Major (bridges, boardwalks, viewing platforms) | | | |
| | Risk Mitigation | Maximum effort made to reduce risk | | | |
| User Safety | Risk Identification | » Highly detailed explanation of risk - typically provided at trailhead, on maps, and at areas of risk along the trail | | | |
| Use | Risk Inspection » Weekly/monthly or upon user comment » Can occur at the same time as service inspections | | | | |

| Туре | 2 Trail Classification | | | | |
|-----------------------|--|---|--|--|--|
| Definition | Definition | » Natural surfaced packed single track trail or double track trail » Use rock for surfacing, or native material from site. May be a paved surface » Provide interpretive and directional signs, benches, viewing areas where appropriate » Machine- or hand-built and maintained | | | |
| Trail Type Definition | Targeted Users | » Suitable for most visitors with some basic trail experience who are generally prepared » Suitable for most visitors who are generally active and have some basic trail experience | | | |
| | Trail Rating (see Section 3.2.2) | » Easy, Moderate, or Difficult | | | |
| | Distance | » Typical distance of trail does not exceed 20km | | | |
| | Trail Profile | » Gently rolling with short steep sections» Typical elevation gain of 0 - 1,000 metres | | | |
| ils | Trail Surface | » Surfaced or natural» Firm and stable» Typical average width of 1.0 - 1.5 metres | | | |
| Technical Details | Signage (general signage and information provided) | » Basic trailhead information » Route markers » Trail orientation maps » Moderate information provided | | | |
| Тес | Obstacles or Stairs | » Infrequent obstacles» Stairs may be present | | | |
| | Facilities and Amenities | » Parking lot » Outhouse/pit toilets » Bridges » Benches » Moderate visitor facilities | | | |
| of e | Inspection | » Seasonal or upon user comment | | | |
| Level of Service | Deadfall Clearing | » As required/seasonal | | | |
| Le | Infrastructure | » Moderate (bridges, boardwalks, viewing platforms) | | | |
| | Risk Mitigation | » Moderate effort made to reduce risk | | | |
| User Safety | Risk Identification | » Moderate detailed explanation of risk – only significant risks identified » Information typically provided at trailhead and at areas along the trail | | | |
| ח | Risk Inspection | » Seasonal or upon user comment» Can occur at the same time as service inspections | | | |

| Туре | 3 Trail Classification | | | |
|-----------------------|--|---|--|--|
| Trail Type Definition | Definition | » Natural surface single track trail » Trail tread may be constructed or established by clearing a corridor and marking the route » Whenever possible use natural native material from site » Provide minimal signage » Hand-built and maintained | | |
| rail Typ | Targeted Users | » Suitable for visitors who have trail experience and are prepared » Suitable for visitors who have trail experience and are active | | |
| F | Trail Rating (see Section 3.2.2) | » Moderate or Difficult | | |
| | Distance (km/m) | » May exceed 20km | | |
| | Trail Profile | » Rolling with steep sections that continue for long periods » Typical elevation gain of 0 - 1,000+ metres | | |
| Details | Trail Surface | » Natural » May be loose in areas » Typical average width of 0.25 - 1.0 metres | | |
| Technical Details | Signage (general signage and information provided) | » Basic trailhead information » Minimal route markers » Minimal information provided | | |
| | Obstacles or Stairs | » Obstacles common » Stairs may be present | | |
| | Facilities and Amenities | » Bridges or other water crossings including fording» Minimal visitor facilities | | |
| of Se | Inspection | » Annually or upon user comment | | |
| Level of Service | Deadfall Clearing | » Annually | | |
| Le | Infrastructure | » Low (bridges, boardwalks) | | |
| _ | Risk Mitigation | » Low effort made to reduce risk | | |
| User Safety | Risk Identification | » Low detailed explanation of risk – only site-specific or unusual risks » Information typically provided at trailhead | | |
| Use | Risk Inspection | » Annually or upon user comment» Can occur at the same time as service inspections | | |

3.2.2 Trail Rating System

The Trail Ratings are a simplified version of the classifications, meant for public consumption. The rating system of Easy, Moderate, and Difficult is used by Parks Canada and other trail networks across the country. It is recognized and understood by trail users, and the Holyrood trail network should adopt this rating system as well. The tables on the following pages outline the information that should be communicated to trail users about the difficulty level of each trail. This information can be posted on trailhead signage and on an online trail map. The information can also be included when marketing the trails.

| Eas | Easy Trail Rating | | | | |
|------------------------|--|---|--|--|--|
| rail Rating Definition | Definition | Suitable for all users including those with no trail experience. Visitor may be prepared for trail or may not be prepared Hard packed surface with no obstacles and minimal stairs Estimated time to complete the trail is no longer than two hours Little or no elevation gain or loss | | | |
| Trail Rati | Symbol | » Green circle | | | |
| | Distance (return) | » 0 - 5 km | | | |
| Rating Details | Trail Profile | » Flat to gently rolling» Typical elevation gain of 0 - 100 metres | | | |
| | Trail Surface (material type and average width) | » Paved or surfaced» Hard packed» Typical average width of 1.0 - 3.0 metres | | | |
| | Signage (general signage and information provided) | » Trailhead information » Interpretive panels » Route markers » Trail orientation maps » Maximum information provided | | | |
| Rat | Obstacles or Stairs | » Few or no obstacles » Minimal use of stairs | | | |
| | Facilities and Amenities | » Parking lot » Washroom » Bridges » Benches » Maximum visitor facilities | | | |
| | Recommended Experience | » Little or no experience required | | | |

| Мо | derate Trail Rating | | | |
|------------------------|--|---|--|--|
| rail Rating Definition | Definition | Suitable for most users who have some basic trail experience and are generally prepared Mostly stable surface with infrequent obstacles, stairs may be present Estimated time to complete the trail is no longer than five hours May experience moderate elevation gain with some short steep sections | | |
| Trail Rati | Symbol | » Blue Square | | |
| g Details | Distance (return) | » 0 - 15 km | | |
| | Trail Profile | Gently rolling with short steep sections Typical elevation gain of 100 - 500 metres | | |
| | Trail Surface (material type and average width) | » Surfaced or natural surface » Firm and stable » Typical average width of 0.5 - 1.5 metres | | |
| | Signage (general signage and information provided) | » Basic trailhead information » Route markers » Trail orientation maps » Moderate information provided | | |
| Rating | Obstacles or Stairs | » Infrequent obstacles» Stairs may be present | | |
| | Facilities and Amenities | » Parking lot » Outhouse/pit toilet » Bridges » Benches » Moderate visitor facilities | | |
| | Recommended Experience | » Some experience recommended | | |

| Dif | Difficult Trail Rating | | | |
|-------------------------|--|---|--|--|
| Trail Rating Definition | Definition | » Suitable for users who have trail experience and are prepared » Variety of surface types including non-established surface » Estimated time to complete the trail may exceed five hours » May experience major elevation gain with long steep sections | | |
| | Symbol | » Black Diamond | | |
| ils | Distance (return) | » 0 - 15+ km | | |
| | Trail Profile | » Rolling with many steep sections that may continue for long periods » Typical elevation gain of 500+ metres | | |
| | Trail Surface (material type and average width) | » Natural surface » May be loose or may not exist » Typical average width of 0.25 - 1.0 metres | | |
| Rating Details | Signage (general signage and information provided) | » Basic trailhead information » Minimal route markers » Minimal information provided | | |
| Rā | Obstacles or Stairs | » Obstacles common» Stairs common | | |
| | Facilities and Amenities | » Bridges or other water crossings including fording» Minimal visitor facilities | | |
| | Recommended Experience | » Experience recommended | | |

3.2.3 Trail Diversity and Variety

One of the guiding principles of this project is to ensure that the trail network is inclusive of different people and uses. During the public engagement phase, participants were asked about their favourite types of trails to use. The majority indicated that they prefer trails that are *somewhat rustic in character and rated a moderate difficulty level*. This is useful information when it comes to prioritizing trail development, and projecting user numbers. However, it would not be prudent to focus all of the attention on these types of trails. Typically, a successful trail system is one that offers a variety of options that cater to different users' abilities and preferences. If there are trails that offer different lengths, views, difficulty levels, and accessibility infrastructure, users then have a choice to select a trail that works best for them.





Accommodating many different types of trails within the network will allow users to choose the types of trails that fit their preferences (Pinterest).

Trailheads refer to access and entry points for trails. This is the first impression trail users receive upon entering the trail system and represents an opportunity to create a gateway or sense of arrival. Trailheads set the tone for the rest of the trail system, so it is important that they receive appropriate attention and careful design consideration. Trailheads can include rest areas, parking areas, small plaza spaces, mapping, signage, landscaping, bike racks, public art, lighting, or any other number of design elements. The addition of Indigenous land acknowledgment of traditional territory on the sign can also be considered.



Trailhead signage (Parks Canada)



Trailhead signage (The Great Trail)



Trailhead with removable barriers (City of Mount Pearl)



Trailhead signage (The Great Trail)



Trailhead signage (Lake Tahoe Water Trail)



Trailhead signage, shelter, and seating (Ekistics Design Studio)

It is important that all trail users have equal opportunity to enjoy the trails, at their own pace and skill level, and that they feel safe and comfortable when doing so.

Standards and Guidelines

Ontario's Accessibility Standard outlines standards to ensure that recreational trails are accessible, and the Town should consider following this standard:

- » meet minimum clear width (1 m) and height (2.1 m) specifications;
- » have a firm and stable surface (does not necessarily have to be paved);
- » meet restrictions on the size of surface openings (must not allow passage of an object that has a diameter of more than 20 mm), and orient elongated openings perpendicular to the direction of travel;
- » meet specifications on edge protection (50 mm) when located beside water or a drop-off, except where a protective barrier already exists;
- » provide minimum clear width at its opening (0.85 m to 1 m), regardless of entrance design (e.g., gate, bollard, etc.);
- » meet requirements for tonal contrast and font type to be used for the signage, and
- » ensure online platforms (such as digital trail maps) are as accessible as possible.

Consultation

Before developing a new trail or redeveloping an existing trail for pedestrian use, the Town should consult with accessibility groups including Inclusion NL and Service NL. Local senior advocacy groups and residents should also be included in the consultation. The intent of consultation on the specific elements listed below is to give people with disabilities the opportunity to provide input as part of the planning and development of accessible trails. Consultation can also prevent trail developers from assuming what accessibility features the people accessing the trail will need.

- » slope of the trails;
- » need for, and location of, ramps on the trail; and
- » need for, location and design of rest areas, passing areas, viewing areas, amenities, and any other relevant accessibility feature.



Boardwalk with side barrier to improve accessibility (Parks Canada)



Level, well-graded granular trails can meet accessibility guidelines, trails do not necessarily have to be paved (City of Mount Pearl)

3.2.6 Signage

A wayfinding system is much more than simply a series of signs placed strategically throughout a community. It should be visually appealing, legible, consistent, and most importantly, facilitate movement through the community 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 of a place, and easily navigate to where they want to go. It gives users the confidence to wander and truly experience all that a community has to offer.

The Town of Holyrood has recently been involved in the *Northeast Avalon Regional Wayfinding Program*. This program will address signage and wayfinding throughout the community, and the trail signage system should be professionally designed to complement this program.

When it comes to wayfinding on the trail network, there are different types of signs that can work together to help users orient and guide themselves on the trails.

The trail signage system should be professionally designed to ensure alignment with the Northeast

Trailhead Signage

Trailhead signage is located at trail access points, and provides trail users with all of the information that they need to know before starting their hike. The trailhead signage should include:

- » length of trail and a time estimate to hike it;
- » trail rating (easy, moderate, or difficult);
- » notes on any risks or hazards; and
- » a trail map showing location of noteworthy features or stopping points.

Route Markers

Route markers are used to remind walkers which trails they are on, and instill confidence that they are heading in the right direction. It is important to place markers at decision points, to inform hikers of the trail route, or direct them towards other intersecting trails. On trails that are rated Difficult, route markers might be simple icons mounted to trees (similar to the East Coast Trail). On Easy trails though, they can be more descriptive, potentially marking a km/distance, or providing a time estimate to the next destination.

Trail Orientation Maps

Trail orientation maps give hikers a visual idea of where they are on the trail system, and how close they are to other trails or destinations. These maps are useful at the trailhead, but can also be helpful at destinations or rest stops, so trail users can check their progress before continuing on the trail.

Regulatory Signage

Regulatory signage is used to communicate important rules or risks to trails users.



Directional signage and trail orientation map (Avid Trails)



Freestanding route marker (Fitzpatrick Woolmer)



Tree or pole mounted route marker (The Great Trail)



Interpretive signage can be installed in many different sizes and designs, depending on the content and context (Drumminhands Design)



Signage in the Town of Holyrood will soon follow the Northeast Avalon Wayfinding Program, and trail signs should be complementary of this system (Fathom Studios)

Interpretive Signage

Interpretive signage is used to tell stories 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.

Accessibility Considerations

Providing clear signage can help users decide how best to enjoy the trail experience according to their needs and abilities. The trailhead should have signage containing information about the physical characteristics of the trail, including:

- » length of trail;
- » type of surface of which the trail is constructed;
- » average and minimum trail width;
- » average and maximum running slope and cross slope; and
- » location of amenities, where provided.

Successful trails must provide amenities that accommodate comfort and convenience for a variety of trail users. Items such as benches, bike racks, and waste receptacles may seem somewhat inconsequential, however they serve important functions and, when considered holistically across the trail network, create a positive experience for trail users.

Site Furniture

Site furniture includes items such as benches / seating, waste bins, bollards, and planters that stand in the landscape and help create comfortable, functional, and enjoyable spaces. When choosing site furniture, styles should be chosen that complement one another to help create continuity throughout the public spaces.

Benches are necessary on trails to provide spaces for users to sit and rest. Different trails should provide more benches than others, depending on the trail rating. For example, Easy trails (like the T'Railway) should provide benches frequently, with a minimum of 1 bench every 0.5km. Waste receptacles should be provided at the same locations. On a Moderate trail though, benches will be provided less frequently, with potentially only a few located on the entire trail, at key lookouts or rest areas.

The design of the benches and waste receptacles should maintain a consistent look and feel across the trail network. Simple wooden designs may be used for cost savings, as long as they are maintained properly.

It is also a good idea to include pet waste bag dispensers throughout the trail network, especially along Easy trails like the Boardwalk and T'Railway. This will help cut down on pet waste along the trails, which is an issue that occurs across many different trail networks.







Benches, waste bins, and picnic tables should be placed strategically throughout the trail network. More amenities should be located along Easy and Moderate trails compared to Difficult trails, and amenities should be complementary to one another (Trans Canada Trail, Dreamstime, Visit Alsace)

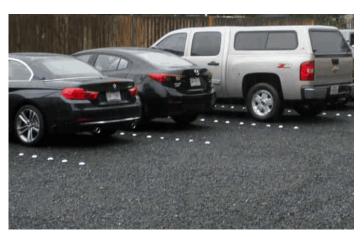
Parking

Parking lots should be strategically located throughout the trail network so that trail users have many opportunities to access the trails. Most trailheads should have a small parking area, if the space is available. Larger parking lots may be provided at popular trails and destinations such as the Boardwalk, the Holy Cross Swim Park, and the Salmonier Line Recreation Park.

Granular parking areas are acceptable, and will likely help reduce construction costs. If granular parking areas are used, some means of delineating parking spaces can be explored, such as precast curbs, or pavers/markers inset in the granular.



Precast concrete curbs used to delineate parking spaces in a granular parking area (Pinterest)



Pavers set in granular to delineate parking spaces (Truegrid Pavers)

Infrastructure

Depending on the type of trail, different infrastructure may be installed to address obstacles on the trail. On an Easy trail, wide bridges, railings, and ramps may be used to address grade changes or water crossings. On a Difficult trail though, less robust infrastructure may be used, such as log bridges or wooden steps.



Stairs built out of timber and filled with granular (Newfoundsander)



A robust bridge may be required for well-used trails (Interior Trails)

To ensure the sustained success of the trail network, it is critical that trails are managed and maintained in a safe, accessible, and visually appealing condition. Currently, the Town does not have a scheduled maintenance program for its trails and repairs are generally completed on an as-needed basis. The Town should consider implementing an ongoing trail maintenance program.

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 by Town staff. Staff may also decide to focus maintenance efforts along high priority sections of trail that are more frequently used.





Knowledgeable trail construction crews should be used for critical construction and maintenance activities (Appalachian Mountain Club, Pacific Northwest Trail Association)





Community clean-up days and maintenance outings are organized on the East Coast Trail, and a similar format could be adopted in Holyrood (CBC, Rotary Club of St. John's)

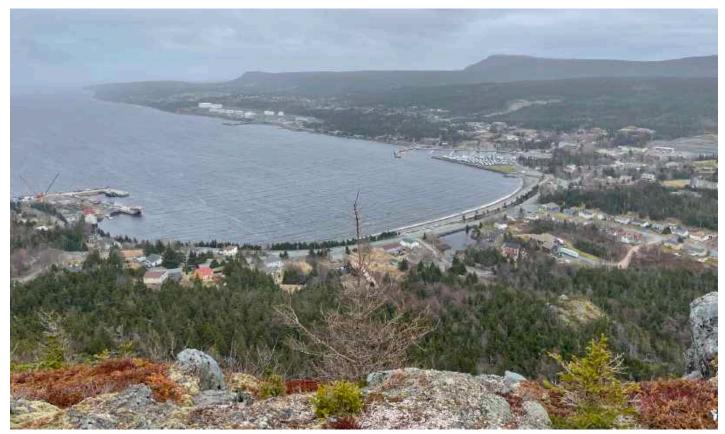
| Item | Maintenance Task | Frequency | | |
|--------------------|--|--|--|---|
| | | Type 1 Trails | Type 2 Trails | Type 3 Trails |
| Drainage | Inspect known low points, wet spots, and drainage infrastructure (such as culverts) | Pre-season, then monthly | Pre-season | Pre-season |
| | Remove debris build up and blockages in culverts | Pre-season | Pre-season | Pre-season |
| | Repair major damage such as ponding or washouts | As needed, inspect after rain events | As needed, inspect after rain events | As needed, inspect after major rain events |
| Vegetation | Remove branches that obstruct trail clearance | Pre-season, then as needed | Pre-season, then as needed | Pre-season |
| | Remove deadwood that poses a hazard | Pre-season, then as needed | Pre-season, then as needed | Pre-season |
| Turf Management | Mow grass along trail edges to a height of 50 to 75mm (where applicable, such as at trailheads or along Easy trails) | As needed | Likely not applicable | Likely not applicable |
| 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 | Pre-season, then as needed | Pre-season |
| | Repair broken wooden boards or steps | Pre-season, then as needed | Pre-season, then as needed | Pre-season |
| Signage | Ensure all signage is visible and free of obstructions | Pre-season, then as needed | Pre-season, then as needed | Pre-season |
| | Replace deteriorated or damaged signs | Pre-season, then as needed | Pre-season, then as needed | Pre-season |
| Trash | Perform a trail-wide cleanup to collect accumulated winter debris | Pre-season | Pre-season | Pre-season |
| | Empty waste receptacles | Bi-weekly | Bi-weekly | Bi-weekly (at trailheads) |
| Lighting | Perform visual inspection of all trail lighting and replace failed lamps | Pre-season, if applicable | Likely not applicable | Likely not applicable |
| Amenities | Inspect benches for broken, damaged, or deteriorated boards and replace as needed | Pre-season, then monthly | Pre-season, then as needed | Pre-season |
| | Paint benches, waste receptacles, and other trail amenities, if applicable | Pre-season | Pre-season | Pre-season |
| | Restock dog waste bag dispensers | Monthly | Monthly | Likely not applicable |
| | Inspect handrails, stairs, and ramps and repair as needed | Pre-season, then as needed | Pre-season | Pre-season |
| | Replace amenities that have been stolen or severely damaged | As needed | As needed | As needed |

3.3 Recommendations for Existing Trails

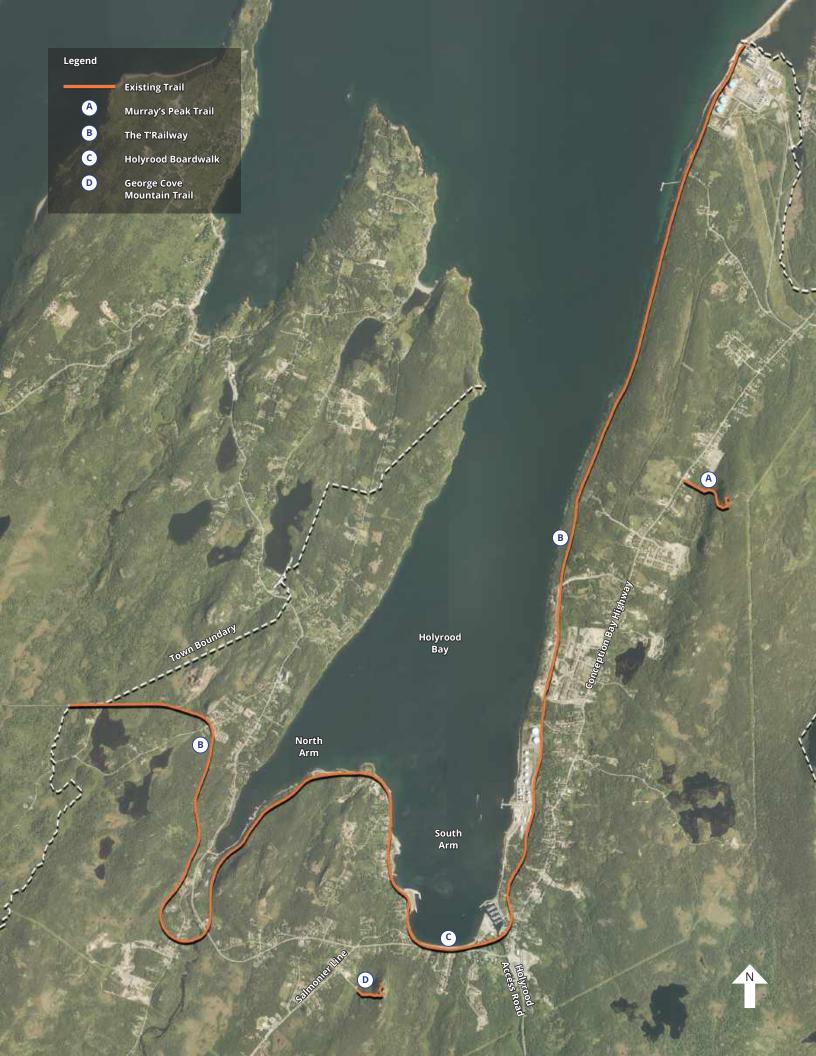
The Town of Holyrood has many established trails, including the scenic Holyrood Boardwalk, the T'Railway, George Cove Mountain Trail, and Murray's Peak Trail. These and other popular trails will form the foundation of a successful trail network.

- A Murray's Peak Trail See Section 3.3.1
- B The T'Railway See Section 3.3.2
- C Holyrood Boardwalk See Section 3.3.3
- © George Cove Mountain Trail See Section 3.3.4

This section will examine the existing condition of each trail, review related feedback from the public engagement phase, and provide recommendations for enhancement of each trail.



The view from the top of George Cove Mountain



3.3.1 Murray's Peak Trail

Murray's Peak Trail is an existing trail that leads trail users from Conception Bay Highway to the top of Murray's Peak. The survey asked respondents to rank the condition of the trail, as well as provide suggestions for improvement. Below are the results from those questions.

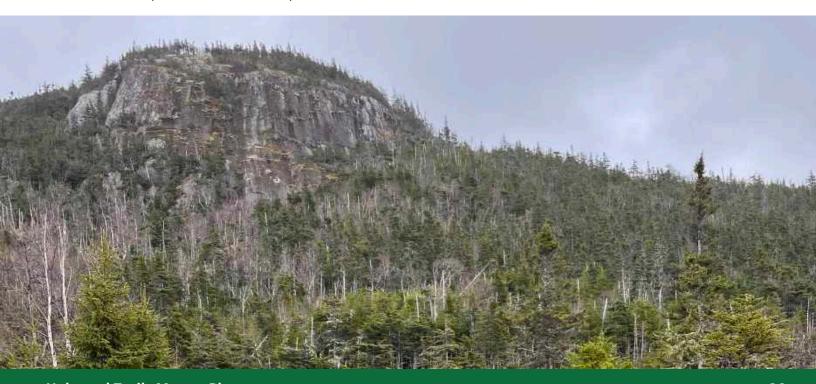
If you have visited Murray's Peak Trail, how would you rate its general condition?

| ANSWER CHOICES | RESPONSES | |
|--|-----------|-----|
| Poor condition | 7.58% | 25 |
| Moderate condition | 34.85% | 115 |
| Good condition | 12.12% | 40 |
| I have not visited Murray's Peak Trail | 45.45% | 150 |
| TOTAL | | 330 |

Do you have any improvements to recommend for Murray's Peak Trail?

- » Add Stairs (9 responses)
- » Add Railings (9 responses)
- » Fix Washouts / Grooming (8 responses)
- » No Change Required (7 responses)
- » Add Mountain Biking Trails (6 responses)
- » Add a Loop / Extend Trail (6 responses)

- » Add Signage (4 responses)
- » Add Switchbacks (2 responses)
- » Add Ropes (2 responses)
- » Add Benches / Rest Areas (2 responses)
- » Upgrade Trailhead (1 response)



The chart below provides a snapshot of Murray's Peak Trail in its current form, along with recommendations to improve the user experience and bring the trail in line with industry standards.

| Murray's Peak Trail | Existing Trail Condition | Recommendations | | |
|----------------------------|---|---|--|--|
| Targeted Users | Experienced hikers | Cater to most visitors who are generally active and prepared, with some trail experience | | |
| Trail Rating | N/A | Market with a Difficult rating | | |
| Trail Classification | N/A | Designate as Type 2 Classification | | |
| Distance | ~ 1.3km (return) | No change | | |
| Trail Profile | Elevation gain of ~ 200m | No change | | |
| Trail Surface | » Large boulders and tree stumps are tripping hazards » Uneven natural surface » Washouts | » Remove large boulders/groom trail » Fix washouts with proper drainage infrastructure | | |
| Signage | One information sign at trailhead Includes distance, elevation gain, and rough estimate of time to hike the trail Recommends the use of sturdy hiking shoes | » Update the signage to indicate the difficulty level of the trail » Add directional signage if additional trails are developed in this area | | |
| Obstacles or Stairs | » No existing stairs, but terrain is very steep » Obstacles include large boulders, tree stumps | » If the Town wishes to develop the trail similarly to George Cove Mountain Trail, they can add stairs, but it would be a costly development » This trail can remain without stairs, but should be marketed as a Difficult trail | | |
| Facilities or Amenities | » Parking lot» Waste receptacle at parking lot» Viewing deck/lookout at the top | » Add benches and rest stops on the trail so that hikers can rest during/ after steep parts of the trail | | |
| Safety | » Caution sign at the lookout» Some identification of risk on the trailhead sign | » Update trailhead signage to more clearly identify that the trail has long steep sections that might not be ideal for all users | | |
| Accessibility | » This trail is not accessible due to steep slopes and uneven surfaces | » This trail, even with upgrades, will not be accessible due to the natural steep slopes | | |

George Cove Mountain Trail is a well-developed existing trail that leads trail users from Salmonier Line to the cross on top of George Cove Mountain. The survey asked respondents to rank the condition of the trail, as well as provide suggestions for improvement. Below are the results from those questions.

If you have visited George Cove Mountain Trail, how would you rate its general condition?

| ANSWER CHOICES | RESPONSES | |
|---|-----------|-----|
| Poor condition | 0.30% | 1 |
| Moderate condition | 13.47% | 45 |
| Good condition | 55.69% | 186 |
| I have not visited George Cove Mountain Trail | 30.54% | 102 |
| TOTAL | | 334 |

Do you have any improvements to recommend for George Cove Mountain Trail?

- » Fix Washouts (8 responses)
- » Improve Connectivity (5 responses)
- » Add Benches / Rest Areas (4 responses)
- » Create Loop on Back Side (4 responses)
- » Add Signage (4 responses)
- » Add Mountain Biking Trails (4 responses)

- » Add Rails at Top (3 responses)
- » No Change Required (2 responses)
- » Add Picnic Tables at Top (2 responses)
- » Add Trash Cans (2 responses)
- » Add Rock Climbing Anchors (1 response)
- » Add Water Fountain (1 response)



The chart below provides a snapshot of George Cove Mountain Trail in its current form, along with recommendations to improve the user experience and bring the trail in line with industry standards.

| George Cove Mountain Trail | Existing Trail Condition | Recommendations | | |
|-------------------------------|---|--|--|--|
| Targeted Users | Most visitors who are generally active, including those with no trail experience | No change | | |
| Trail Rating | N/A | Market with a Moderate rating | | |
| Trail Classification | N/A | Designate as Type 2 Classification | | |
| Distance | ~ 1km (return) | No change | | |
| Trail Profile | Elevation gain of ~ 100m | No change | | |
| Trail Surface | » Wooden steps with granular surface | » No change | | |
| Signage | » Welcome sign at Salmonier Line | » Install trailhead signage indicating distance, elevation gain, and estimate of time to hike the trail » Add interpretive signage at the lookout | | |
| Obstacles or Stairs | » Trail is mostly stairs, with some sections of leveled granular | » No change | | |
| Facilities or Amenities | » Parking lot » Waste receptacle at parking lot » Viewing area at the top » Multiple rest stops with benches | Add benches at the top for people to rest while enjoying the view Consider adding a formal lookout area at the top that includes seating, interpretive signage, and viewing platforms | | |
| Safety | » Viewing area at the top has one railing near the cross | » Update trailhead signage to more clearly identify that the trail has many stairs that might not be ideal for all users » Consider more railings as lookout is further developed | | |
| Accessibility | » This trail is not accessible due to the existing stairs required to get to the top of the mountain | » This trail, even with upgrades, will not be accessible due to the stairs required to get to the top of the mountain | | |

3.3.3 Holyrood Boardwalk

The Holyrood Boardwalk is a portion of the T'Railway that runs along the waterfront near Conception Bay Highway. The boardwalk is well-developed and is a popular destination for locals and visitors. The survey asked respondents to rank the condition of the trail, as well as provide suggestions for improvement. Below are the results from those questions.

If you have visited the Holyrood Boardwalk, how would you rate its general condition?

| ANSWER CHOICES | RESPONSES | |
|---|-----------|-----|
| Poor condition | 1.19% | 4 |
| Moderate condition | 29.46% | 99 |
| Good condition | 62.20% | 209 |
| I have not visited the Holyrood Boardwalk | 7.14% | 24 |
| TOTAL | | 336 |

Do you have any improvements to recommend for the Holyrood Boardwalk?

- » Replace Broken Boards (20 responses)
- » Extend Boardwalk (10 responses)
- » Widen Boardwalk (9 responses)
- » No ATVs (7 responses)
- » No Motorbikes (6 responses)
- » Trash Cans (5 responses)
- » Add Lighting (5 responses)
- » Separate ATVs and Walkers (4 responses)
- » Slow Down ATVs (3 responses)
- » Add Picnic Tables (1 response)
- » Repair Mural (1 response)
- » Add Signage (1 response)
- » Better Accessibility (1 response)
- » Add More Parking (1 response)



The chart below provides a snapshot of the Holyrood Boardwalk in its current form, along with recommendations to improve the user experience. Separate from this project, the Holyrood Boardwalk is being revitalized in multiple phases. Those improvements are captured in this chart under Recommendations.

| Holyrood Boardwalk | Existing Trail Condition | Recommendations | | |
|----------------------------|--|--|--|--|
| Targeted Users | All visitors including those with no trail experience | No change | | |
| Trail Rating | N/A | Market with an Easy Rating | | |
| Trail Classification | N/A | Designate as Type 1 Classification | | |
| Distance | ~ 800m (one way) | No change | | |
| Trail Profile | Elevation gain of ~ 0m | No change | | |
| Trail Surface | » Wooden boardwalk | » Wooden boardwalk to be replaced by asphalt walkway, with sections of boardwalk at lookouts and nodes » Widened trail | | |
| Signage | » Interpretive signage | Install trailhead signage indicating distance, elevation gain, and estimate of time to walk from one end of the boardwalk to the other Trail orientation kiosk to advertise the Town's other trails | | |
| Obstacles or Stairs | » None, with the exception of the occasional broken board | » Trail surface upgrades should remove these obstacles | | |
| Facilities or Amenities | » Parking lot » Waste receptacles » Benches » Picnic tables » Beach access and fire pits | » Revitalization of boardwalk includes new lookout and lounging spaces » Revitalization of nearby festival grounds will include public washroom building | | |
| Safety | Conflict between motorized recreational vehicles and pedestrians | » See Section 3.3.5 | | |
| Accessibility | » This trail is accessible due to its flat terrain and boardwalk surface | » This trail will become more accessible with a widened asphalt surface | | |

3.3.4 The T'Railway

The T'Railway is a Provincial Park that runs from St. John's to Port aux Basque. It used to be a railway line and has since become a recreational trail. The state of the T'railway varies from community to community. The survey asked respondents to rank the condition of the T'Railway in Holyrood, as well as provide suggestions for improvement. Below are the results from those questions.

If you have visited the Holyrood T'Railway, how would you rate its general condition?

| ANSWER CHOICES | RESPONSES | |
|--|-----------|-----|
| Poor condition | 21.62% | 72 |
| Moderate condition | 51.35% | 171 |
| Good condition | 21.62% | 72 |
| I have not visited the T'Railway in Holyrood | 5.41% | 18 |
| TOTAL | | 333 |

Do you have any improvements to recommend for the Holyrood T'railway?

- » Grooming / Grading of Trail (114 responses)
- » Widen Trail / Brush Cutting (18 responses)
- » Allow ATVs (16 responses)
- » No ATVs (13 responses)
- » Better Enforcement (4 responses)
- » Add Rest Stops / Benches (4 responses)
- » Separate ATVs and Walkers (4 responses)
- » Add Signage (3 responses)
- » Improve Connectivity (2 responses)
- » Add Trash Cans (2 responses)
- » Less Stairs (1 response)
- » Add Lights (1 response)
- » Add More Parking (1 response)



The chart below provides a snapshot of the Holyrood T'Railway in its current form, along with recommendations to improve the user experience and bring the trail in line with industry standards.

| Holyrood T'Railway | Existing Trail | Recommendations | | |
|----------------------------|--|---|--|--|
| Targeted Users | All visitors who are generally active, including those with no trail experience | No change | | |
| Trail Rating | N/A | Market with an Easy Rating | | |
| Trail Classification | N/A | Designate as Type 1 Classification | | |
| Distance | ~ 17 km (one way) from Conception Bay South to Harbour Main - Chapel's Cove - Lakeview | No change | | |
| Trail Profile | Unknown, but subtle due to past railway route | No change | | |
| Trail Surface | » Granular surface» In poor condition with potholes and overgrown vegetation | » See Section 3.3.5 | | |
| Signage | » Occasional regulatory signage» Occasional "The Great Trail" markers | » Install orientation signage at each intersection/entry point to indicate distance, elevation change, and estimate of time to get to the next intersection » Add interpretive signage at lookouts and rest stations | | |
| Obstacles or Stairs | » None, with the exception of potholes | » Trail surface upgrades should remove these obstacles | | |
| Facilities or Amenities | » Some small parking areas » Occasional benches (but limited) » Occasional waste receptacles (but limited) | Add benches and waste receptacles along the trail, at minimum every 0.5km | | |
| Safety | Conflicts between users (pedestrians and motorized recreational vehicles) | » See Section 3.3.5 | | |
| Accessibility | » This trail is accessible in sections due to its flat grade » Potholes, trail surface issues, and standing water in certain areas provide accessibility barriers » Safety concerns between conflicting uses | This trail, with upgrades, can become fully accessible, and a great destination for trail users of all ages and abilities | | |

3.3.5 Challenges Facing the T'Railway

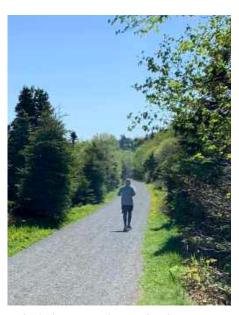
Throughout the public engagement process, it became clear that there is currently contention around motorized recreational vehicle use (ATVs, motorbikes, snowmobiles, etc.) on the T'Railway. Some neighbouring communities like Conception Bay South have chosen to ban motorized recreational vehicle (MRV) use on their portion of the T'Railway. This means that more and more motorized recreational vehicle owners are traveling to Holyrood to avail of the T'Railway.

At the same time, many pedestrians use the T'Railway due to its subtle grade, coastal views, and proximity to residential neighbourhoods. On one hand, it is great to see many different users out on the T'Railway, but on the other hand, these conflicting uses have created safety issues.

Separate from this project, the Town is completing a study of MRV use on the T'Railway. The outcome of the study will be to examine options for the Town to manage the T'Railway. That study also involves public engagement on the topic. Depending on the outcome of that study, the situations on the following page should be considered.







There are currently safety concerns on the T'Railway due to conflicting uses between motorized recreational vehicle users, cyclists, and pedestrians (Crossing Newfoundland by ATV, Newfoundland T'Railway, City of Mount Pearl).

Situation 1:

The Holyrood T'Railway remains a MRV-friendly portion of the T'Railway.

- » The Town can conduct a study focused solely on MRV use in the town. It can examine MRV movement, addressing conflict points between vehicles, MRVs, and pedestrians, as well as outline a vision for a MRV trail network throughout the town.
- » In any locations where MRVs and pedestrians are meant to share the same route, the trail should be wide enough to allow the MRVs to pass pedestrians without conflict. The trail is not currently wide enough to allow for this safe passing.
- » If MRVs are meant to share trails with pedestrians, the surface trail will likely require more regular maintenance to ensure it is safe and accessible for all users. The current condition of the trail (potholes, standing water, overgrown vegetation) is a good example of what happens when a shared trail is not well-maintained.
- » Regulatory signage will be paramount in highlighting acceptable uses on the trail, as well as alerting users to be aware of other uses while on the trail.

Situation 2:

The Holyrood T'Railway becomes a pedestrian-only portion of the T'Railway.

- » Funding opportunities would be available through The Great Trail, which only fund parts of the Great Trail with pedestrian and non-motorized vehicle uses.
- » The trail could remain at its current width, and would require surface upgrades. Less maintenance would likely be required without MRVs using the trail.
- » Barriers might be required at popular trail entrances to restrict access for MRVs.
- » Regulatory signage would be required to inform users of acceptable uses on the trail.

Situation 3:

Parts of the Holyrood T'Railway remain MRV-friendly, while other parts become pedestrian-only.

» The Town can conduct a study focused on MRV traffic and routes, to develop detour options around pedestrian-only parts of the trail. Trailheads and parking areas will likely have to be considered as a part of this study.

3.4 Future Trail Development

Throughout the Trail Inventory and Assessment phase, the design team visited a number of trails that had been highlighted by the Town and the public as potential trail routes. These potential routes were assessed based on a number of factors, and those that were found to have potential have been included in the proposed Holyrood Trail Network.

This section will examine six zones in detail to highlight how proposed trail routes within them can interact with the existing trail and road network.

A Few Disclaimers

- » The routes of these proposed trails are currently conceptual in nature. The full route of the trail was visited where possible, however, time and physical site constraints did not allow for scouting out all of the proposed trails as a part of this project. As each trail is developed, the exact route will have to be determined as part of the detailed design phase. More details can be found in Section Four: Implementation.
- » The proposed trail network has been checked against the NL Public Land Inquiry database and the Town's Zoning Map. We are aware that the Town's Zoning Map is currently being updated, so some routes may need to be adjusted once those changes come into effect. When it comes to land ownership, many of the routes are shown on Crown Land, however, land ownership will have to be confirmed before any development begins.
- » More details about land ownership and the detailed design phase can be found under Section Four: Implementation.

3.4.1 The Holyrood Trail Network

The following page outlines the proposed Holyrood Trail Network. This map illustrates the extent of the entire trail system. Six Trail Zones have been highlighted, and those zones are explored in further detail on the following pages.



3.4.2 Trail Zone 1

This zone includes the lands near the border with Conception Bay South, and includes a portion of the T'Railway, as well as the Murray's Peak Trail. This zone has the potential to expand upon the Murray's Peak Trail, and provide connections to the T'Railway and Butter Pot Hill. During the public engagement phase, it was also noted that this area would be ideal for mountain biking trail development. The chart below outlines the proposed trail routes in more detail. The routes are marked as Trail Route A-D and relate to the map on the following page.

| Trail Route | Opportunities | Challenges | Distance | Targeted Trail Surface and Infrastructure | Targeted Trail Rating and Classification (See Sections 3.2.1 and 3.2.2) | Priority Level |
|----------------|---|--|----------|--|--|-------------------|
| 1A | » Connect T'Railway to Conception Bay Highway, and on to Murray's Peak. » Land is zoned Residential, so future housing developments can use this trail to connect to the T'Railway. » Portions of the route consist of existing footpaths that can be upgraded. | Steep grades near connection to the T'Railway. Requires trailblazing for portions of route. Potential conflicts with ATV users on the wood cutting path near Duff's Road. | ~2.1km | Natural surface, and potentially stairs | Moderate, Type 2 | Low |
| 18 | » Portions of the route consist of existing footpaths that can be upgraded. » Would extend the distance of the Murray's Peak Trail, by adding an adjacent optional loop. » This area has been highlighted as an opportune location for mountain biking trails. | » Potential conflicts with ATV users. » This entire route was not visited during the inventory phase, so the level of effort required for development is unknown. | ~2km | Natural surface | Moderate, Type 3 | Low |
| 10 | Connect to Butter Pot Hill, creating a desirable "peak to peak" route. Opportunity to connect Butter Pot Provincial Park to the Town of Holyrood via trail. | » Requires trailblazing.» Portion of trail extends outside Town boundary. | ~2.7km | Natural surface | Moderate or Difficult, Type 3 | Medium |
| 1D | » Create a loop option for Murray's Peak Trail. » Upgrade informal trails currently being used by rock climbers. | » Steep grades will require switchbacks or stairs. » Requires trailblazing for portions of route. | ~1.3km | Natural surface, and potentially stairs | Moderate, Type 2 | High |

Parking Areas:

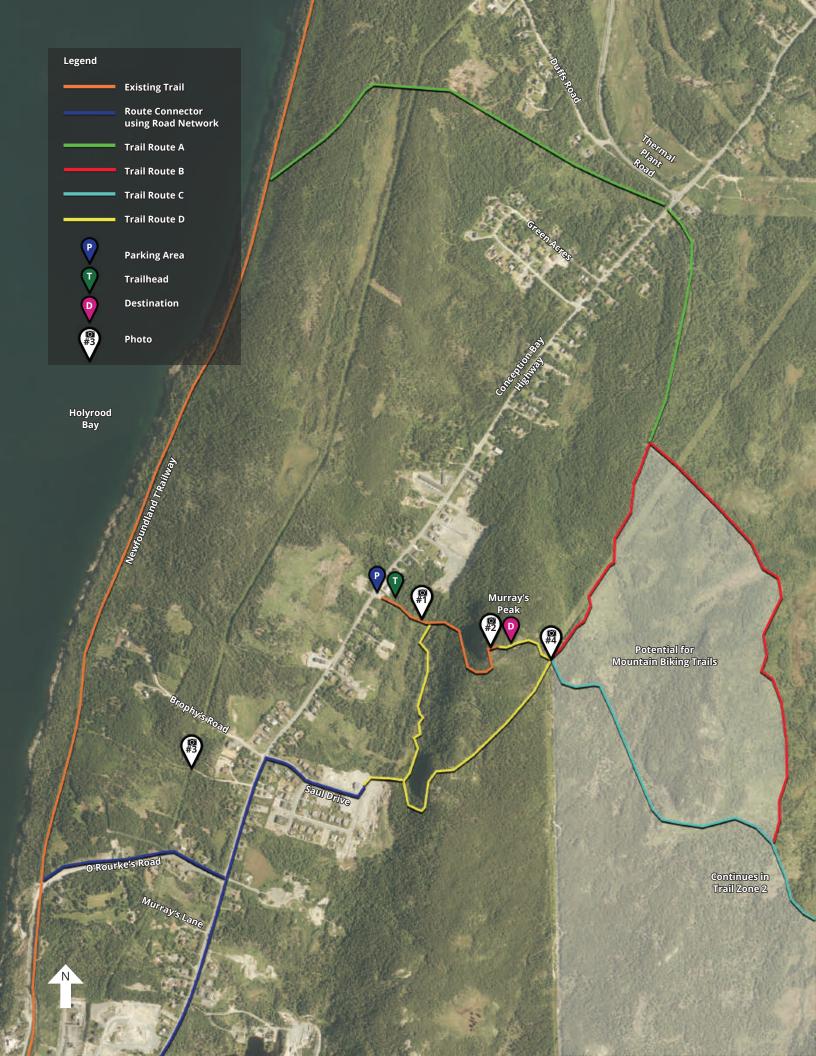
» Maintain parking area at Murray's Peak Trail.

Destinations:

» Murray's Peak Lookout

Trailheads:

» Maintain trailhead at Murray's Peak Trail.





View of Murray's Peak from the start of the trail.



View over Holyrood Bay from the Murray's Peak Lookout.



Footpath on old pole line running parallel to the T'Railway, connecting side roads like Brophy's Road, O'Rourkes Road and Murray's Lane.



Existing rough trail close to the Murray's Peak Trail, along the pole line. This trail connects to Conception Bay Highway near Duff's Road.

This zone includes the lands near the border with Butter Pot Provincial Park, and includes a portion of T'Railway. This zone has the potential to create a hub at Butter Pot Pond, with connections to other existing ponds, the T'Railway, Holy Cross Swim Park, and Butter Pot Provincial Park. The chart below outlines the proposed trail routes in more detail. The routes are marked as Trail Route A-C and relate to the map on the following page.

| Trail Route | Opportunities | Challenges | Distance | Targeted Trail Surface and Infrastructure | Targeted Trail Rating and Classification (See Sections 3.2.1 and 3.2.2) | Priority Level |
|----------------|--|---|-----------------|--|--|---|
| 2A | » Provide a number of trail connections to water features like Fenelons Pond and Fenelons Gullies. » Connect Butter Pot Pond to Holyrood Access Road and Holy Cross Swim Park via trail. | » Many wet areas that may require boardwalks. » Limited existing footpaths in this area means that trailblazing is required. | ~7.1km total | Natural surface, with boardwalk for wet areas | Easy or Moderate, Type 2 | Medium |
| 2B | » Provide a loop walk around Butter Pot Pond. » Highlight views of Butter Pot Hill. » Provide connection to Butter Pot Hill and Butter Pot Provincial Park. Upgrade existing footpath if possible. | » Land ownership around Butter Pot Pond must be confirmed and respected. | ~3.7km total | Granular surface with boardwalk around Butter Pot Pond, natural surface leading up to Butter Pot Hill | Route around Butter Pot Pond - Easy, Type 1 Route to Butter Pot Hill - Moderate or Difficult, Type 2 | Route around Butter Pot Pond - High Route to Butter Pot Hill - Medium |
| 2C | Connect to Butter Pot Hill, creating a desirable "peak to peak" route. Opportunity to connect Butter Pot Provincial Park to the Town of Holyrood via trail. | » Requires trailblazing. » Portion of route extends outside Town boundary. | ~2.7km | Natural surface | Moderate or Difficult, Type 3 | Medium |

Parking Areas:

- » Maintain parking area at Holy Cross Swim Park.
- » Create parking area on Butter Pot Road.

Trailheads:

- » Create a trailhead for Trail Route A (Fenelons Pond) near Holy Cross Swim Park and on Butter Pot Road.
- » Create a trailhead for Trail Route B (Butter Pot Pond) on Butter Pot Road.

Destinations:

» Butter Pot Hill, Fenelons Pond, Fenelons Gullies, Holy Cross Swim Park, and Oceans Technology Business Park





Footpath at the start of Butter Pot Pond. The footpath eventually connects to the pole line near Butter Pot Hill.



Footpath at the start of Butter Pot Pond. The footpath eventually connects to the pole line near Butter Pot Hill.



Existing park area at the end of Butter Pot Road can be upgraded as a trailhead with more amenities, parking, and signage.

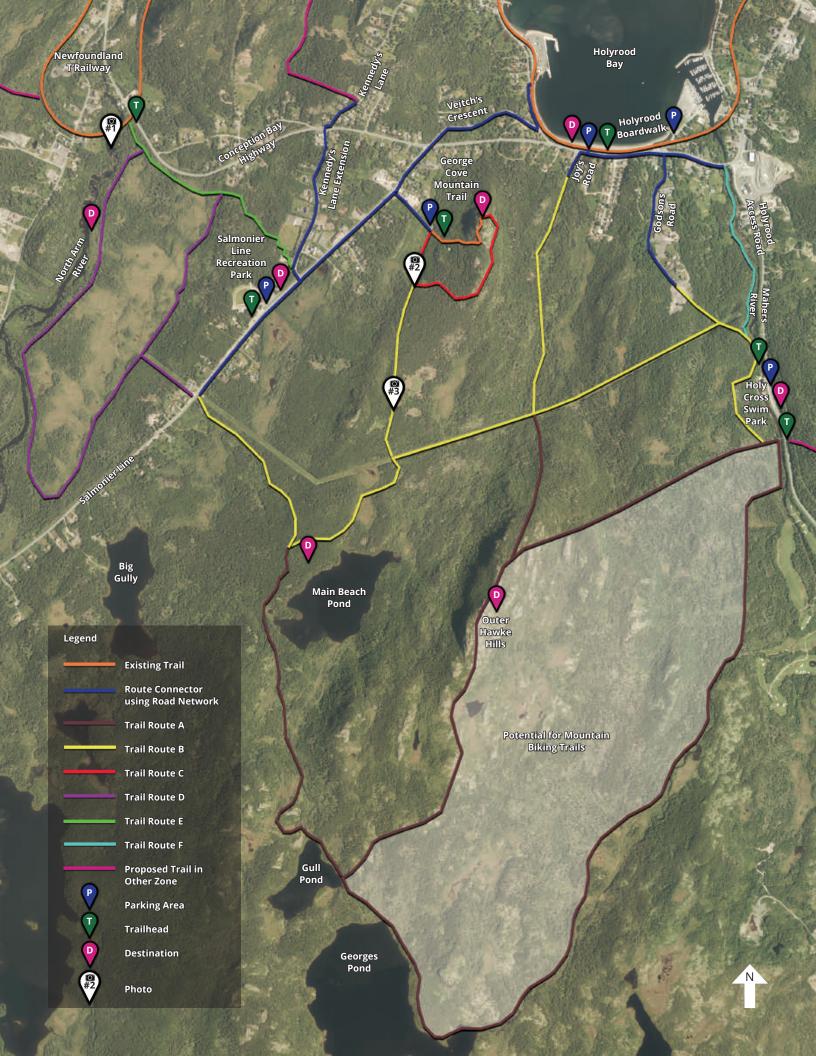


The existing parking area at Holy Cross Swim Park can be upgraded to become a parking area and trailhead with amenities and signage.

3.4.4 Trail Zone 3

This zone includes the lands from the Outer Hawke Hills to the Holyrood Boardwalk to the North Arm River and Mahers River. This zone has a lot of potential to create better connections between different destinations in the town, both natural and cultural. The chart below outlines the proposed trail routes in more detail. The routes are marked as Trail Route A-F and relate to the map on the following page.

| Trail Route | Opportunities | Challenges | Distance | Targeted Trail Surface and Infrastructure | Targeted Trail Rating and Classification (See Sections 3.2.1 and 3.2.2) | Priority Level |
|----------------|--|--|-----------------|---|--|-------------------|
| 3A | » Provide access to remote and diverse landscapes around the Outer Hawke Hills. » This area has been highlighted as an opportune location for mountain biking trails. » Some footpaths exist that can be upgraded. | » Many wet areas that may require boardwalks. » Some portions of the route will require trailblazing. | ~10km total | Natural surface, with boardwalk for wet areas | Difficult, Type 2 or 3 | Medium |
| 3B | Provide trail connections from the Boardwalk to the Holy Cross Swim Park, to allow pedestrians a safer connection than walking on the side of the road. Some footpaths exist that can be upgraded. | » Potential conflict with ATV users on the pole line. » Land ownership must be confirmed and respected. | ~5.7km total | Natural or granular surface, with boardwalk for wet areas | Easy or Moderate, Type 2 | High |
| 3C | » Provide a loop option for the George Cove Mountain Trail. » Upgrade an existing footpath. | » Land ownership must be confirmed and respected. | ~1km | Natural surface and stairs where necessary | Moderate, Type 2 | High |
| 3D | Provide a loop walking trail along the North Arm River and adjacent wetlands. | » Land ownership must be confirmed and respected. » Many wet areas that may require boardwalks. » Requires trailblazing. | ~3.4km | Granular surface, with boardwalk for wet areas | Easy, Type 1 | Medium |
| 3E | Connect the Salmonier Line Recreation Park to the T'Railway. Upgrade an existing footpath. | » Land ownership must be confirmed and respected. » Many wet areas that may require boardwalks. | ~0.9km | Granular surface, with boardwalk for wet areas, potentially stairs | Easy, Type 1 | Medium |
| 3F | Provide a connection between Conception Bay Highway and Holy Cross Swim Park, along the Mahers River. | » Land ownership must be reviewed to see if this route is possible. » Some grading challenges. » Requires trailblazing. | ~0.6km | Granular surface, potentially boardwalk or stairs | Easy, Type 1 | Medium |



Parking Areas:

- » Maintain parking area at Salmonier Line Recreation Park.
- » Maintain parking area at George Cove Mountain Trail.
- » Maintain parking area at Holyrood Boardwalk.
- » Further develop parking area near end of Byrnes Road.
- » Maintain parking area at Holy Cross Swim Park.

Trailheads:

- » Create a trailhead for Trail Routes A (Outer Hawke Hills) and B (Boardwalk connectors) at the Holy Cross Swim Park.
- » Create a trailhead at George Cove Mountain Trail.
- » Create a trailhead at the Salmonier Line Recreation Park.
- » Create a trailhead at the intersection of the T'Railway and Trail Route E.
- » Create an orientation point at the Boardwalk, to advertise and provide directions to the trails within the town.

Destinations:

» Outer Hawke Hills, Main Beach Pond, North Arm River, Salmonier Line Recreation Park, George Cove Mountain, Holyrood Boardwalk, Holy Cross Swim Park, and Mahers River

Sights within Trail Zone 3



View of North Arm River from the T'Railway trestle.



View of Holyrood Bay from the footpath leading from the George Cove Mountain parking area.



View of Outer Hawke Hills from the footpath leading from the George Cove Mountain parking area.

3.4.5 Trail Zone 4

This zone includes the lands bordering Harbour Main - Chapel's Cove - Lakeview and the lands separating North Arm from South Arm in Holyrood Bay. There is potential for a destination hike at Blow Me Down Bight as well further connections to the T'Railway from parts of the community. The chart below outlines the proposed trail routes in more detail. The routes are marked as Trail Route A-C and relate to the map on the following page.

| Trail Route | Opportunities | Challenges | Distance | Targeted Trail Surface and Infrastructure | Targeted Trail Rating and Classification (See Sections 3.2.1 and 3.2.2) | Priority Level |
|----------------|--|---|----------|---|--|-------------------|
| 4A | » Create a loop walk connected to the T'Railway that provides access to Harbour Main Pond. » Provides walking/hiking options in an area of town that currently does not have many. | » Potential conflicts with ATV users. » The topography and ground conditions are unknown, so the level of effort for trail development must be confirmed. » Land ownership must be confirmed and respected. » Requires trailblazing. | ~2.6km | Natural surface, with boardwalk for wet areas | Moderate Type 2 | Low |
| 4B | Utilize land zoned Open Space Conservation that can connect Salmonier Line to Northside Road, using road connectors and a new trail. | » Land ownership must be confirmed and respected. » The topography and ground conditions are unknown, so the level of effort for trail development must be confirmed. » Requires trailblazing. | ~1.4km | Natural or granular surface, potentially stairs | Easy, Type 2 | Medium |
| 4C | » Potential to partner with Harbour Main - Chapel's Cove - Lakeview. » Preserve access to the coast and create a destination at Blow Me Down Bight. | » Land ownership must be confirmed and respected. » Disconnected from the rest of the trail network. » Existing footpath does not offer many ocean views. | ~1.4km | Natural surface | Moderate, Type 2 | Medium |

Parking Areas:

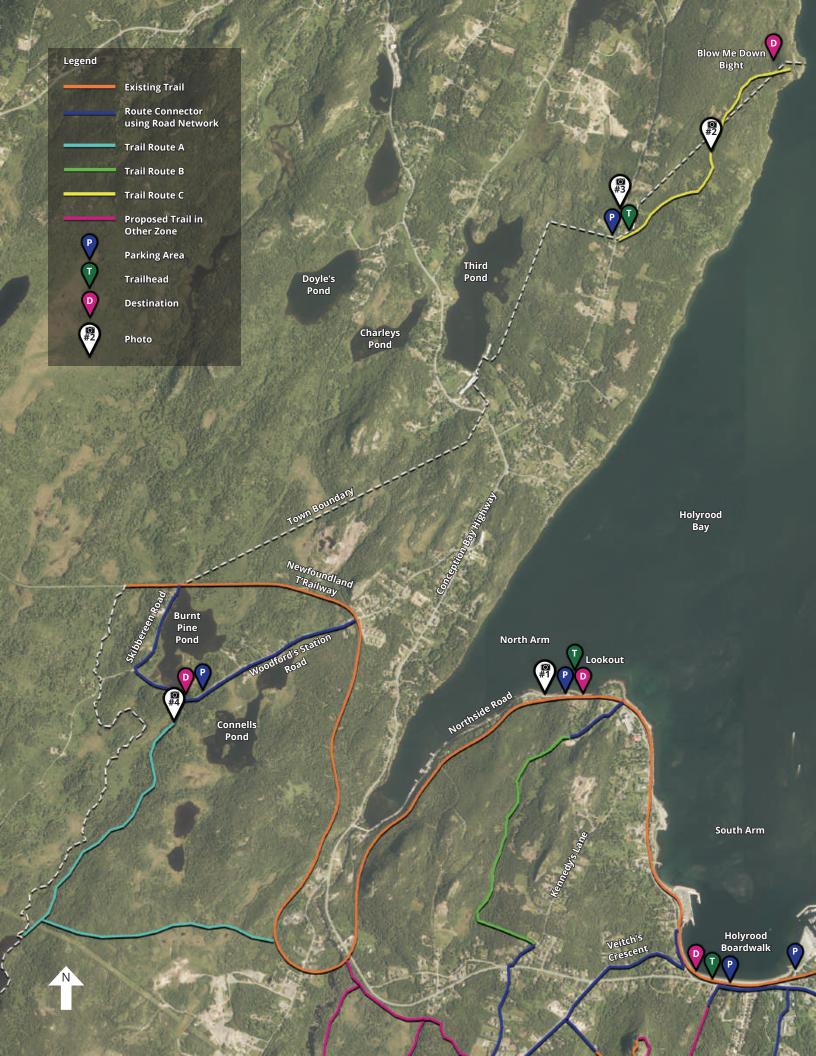
- » Create parking area on Woodford's Station Road (depending on land ownership).
- » Maintain parking area near Holyrood Bay Lookout on Northside Road.
- » Maintain parking area at Holyrood Boardwalk.
- » Create parking area at start of Trail Route C.

Trailheads:

- » Create trailhead at start of Trail Route C.
- » Create trailhead at Holyrood Bay Lookout on Northside Road.
- » Create an orientation point at the Boardwalk, to advertise and provide directions to other trails.

Destinations:

» Burnt Pine Pond, Holyrood Bay Lookout, Blow Me Down Bight, Holyrood Boardwalk





View of existing lookout on Northside Road that can become a small parking area and trailhead.



Existing footpath leading towards Blow Me Down Bight.



Existing gateway sign near access point to Blow Me Down Bight that can accommodate a future parking area and trailhead.



Potential access point for Trail Route A.

This zone includes lands south of the Trans Canada Highway. A portion of this zone is part of the province's Hawke Hill Ecological Reserve, which protects a number of arctic-alpine plants, and the most easterly alpine barrens in North America. This could become a destination hike not only for locals, but for outside tourists as well.

Necessary engagement with the Department of Environment, Climate Change and Municipalities would need to take place before any trail development is proposed.

| Trail Route | Opportunities | Challenges | Distance | Targeted Trail Surface and Infrastructure | Targeted Trail Rating and Classification (See Sections 3.2.1 and 3.2.2) | Priority Level |
|----------------|---|--|----------|---|--|-------------------|
| 5A | Would provide interpretation and education opportunities for visitors. Potential for partnership with the Provincial Department of Environment, Climate Change and Municipalities. Upgrade existing footpath. | Existing access road from Trans Canada Highway is not well marked or developed and can only be accessed from eastbound lanes. A portion of the shown route extends outside the Town's boundary. Any development would need to tread lightly due to the fragile landscape. | ~5.5km | Natural surface, with boardwalk over sensitive areas | Easy or Moderate, Type 2 | Low |

Parking Areas:

» Upgrade the access road and create a parking area at the existing communication tower.

Trailheads:

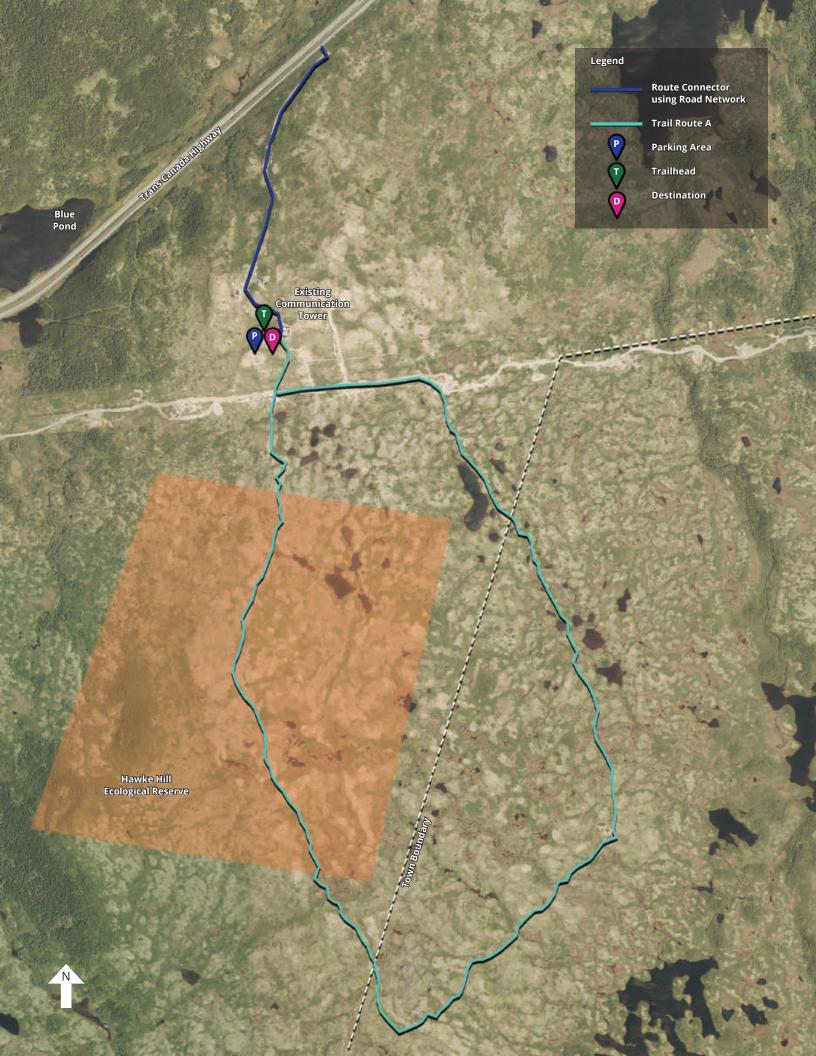
» Create trailhead at the existing communication tower.

Destinations:

» Hawke Hill Ecological Reserve



Hawke Hill Ecological Reserve (Government of NL).



This zone includes lands south of the Trans Canada Highway near the Salmonier Line exit, and focuses on an existing footpath near Peak Pond.

| Trail Route | Opportunities | Challenges | Distance | Targeted Trail Surface and Infrastructure | Targeted Trail Rating and Classification (See Sections 3.2.1 and 3.2.2) | Priority Level |
|----------------|--|--|----------|--|--|-------------------|
| 6A | » Provides walking/hiking options in a part of the town that doesn't currently have many. » Is easily accessible off of the Trans Canada Highway. » Upgrade existing footpath. | Carpoolers currently park in the area, so amount of parking could be a concern. Land ownership must be confirmed and respected. Disconnected from the rest of the trail network. Noise pollution near the start of the trail due to proximity of TCH. | ~2.1km | Natural surface, with boardwalk for wet areas | Moderate or Difficult, Type 3 | Low |

Parking Areas:

» Upgrade the existing carpool parking lot to accommodate additional parking for the trailhead.

Trailheads:

» Create trailhead at the existing carpool parking lot.

Destinations:

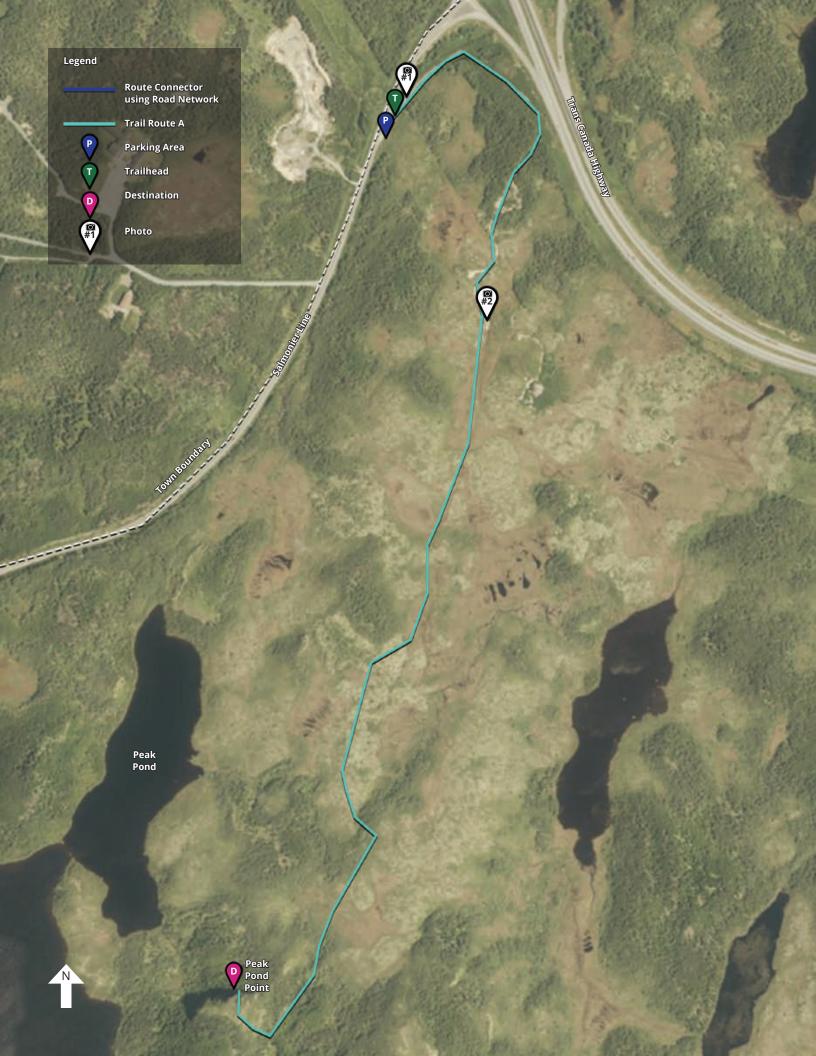
» Peak Pond Point



Existing carpool parking area that can be upgraded into a trailhead (Google Earth).



View on the existing Peak Point Pond footpath.



3.4.8 Route Connectors using the Road Network

The maps on the previous pages outline proposed new trails, and also include suggestions of routes that can be completed or connected using the existing road network. These routes represent existing roads that can be used to connect to main destinations or other trails within the Town. Although these routes follow existing roads, there are some proposed upgrades to the road network to make the roads more comfortable for pedestrians.

Sidewalks

While sidewalks provide a great separation between walkers and drivers, they can be costly, and may not be feasible within the Town's annual budget. It was noted that the roundabout at Holyrood Access Road and Conception Bay Highway does include sidewalks, but the sidewalks end at the extent of the roundabout. As development continues within the town, the installation of sidewalks along busy thoroughfares such as the Holyrood Access Road, Conception Bay Highway, and Salmonier Line is a good standard to aim for.

Expanded Shoulders

In the near future, if sidewalks are not feasible, expanded asphalt shoulders can be considered to create safer walking zones for pedestrians. The walking zone can be separated by a painted line, rumble strips, or even entirely painted to make drivers aware that they are not to enter that space. Painting the walkways, while requiring maintenance, would also be a way to incorporate public art, and even wayfinding into the streetscape.

Crosswalks

Crosswalks with proper signage can be installed in locations where trail users need to cross the road in order to access another trail route.

Signage

Signage should be used to direct trail users towards other routes. The signs can be standalone, or can be incorporated into the street signs, similar to Conception Bay South and their T'Railway Access signs.



Painted asphalt shoulders can create safe walking zones for pedestrians, and bring more public art into the community (Asphalt Art



Crosswalks can also be painted (Asphalt Art Guide)



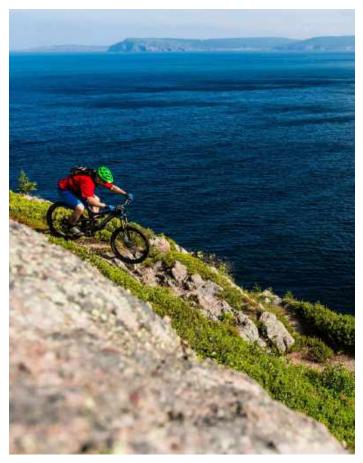
Signage (such as street sign adaptation) can be used to guide trails users to nearby routes (Google Maps)

3.4.9 Mountain Biking Potential

During the public engagement phase of this project, it was clear that Holyrood has a lot of potential to become a mountain biking destination on the Avalon. The Town includes large swaths of undeveloped natural landscapes, which can become a destination not only for trails but for mountain bikers. Although the scope of this Plan was to focus on hiking and walking trails, Section 3 does include suggestions for areas that could be prime mountain biking trail zones.

Mountain biking could also become an economic driver for the Town. Mountain biking tourism is becoming more and more popular in North America, and even in Atlantic Canada. There is an organization called Mountain Bike Atlantic that was established as a collaborative effort to promote the Atlantic region as a global destination for mountain biking. It is supported by an Advisory Committee of local experts from New Brunswick, Prince Edward Island, Nova Scotia, and Newfoundland and Labrador, and they engage with trail communities to collaborate on enhancing mountain biking products and experiences that help promote and sustain visitation, and improve the visitor experience for residents and tourists alike.

If the Town is interested in pursuing the development of mountain biking trails, they should approach the Avalon Mountain Biking Association, who were involved during the public engagement process.





Holyrood has a lot of potential to become a mountain biking destination on the Avalon (Red Bull, MTB Mag)

Section Four: Implementation



4.1 Implementation

The Holyrood Trails Master Plan is a comprehensive plan that will take an organized effort, dedicated champions, and multiple years to fully realize. This Trails Master Plan outlines a vision for the trail network in conceptual form. Moving forward, each trail will have to be implemented using a clear planning process. The success of the trail network depends on a clear vision (which this plan presents) and proper implementation. Good trail planning also requires experience and expertise in many different areas. Trail operators (in this case, the Town) should ensure that the planning and design team has practical expertise in:

- » Community, Indigenous, and stakeholder engagement and communications
- » Inventory and assessment of environmental, cultural, and historic resources
- » Federal, provincial and local legislation, regulations and permitting processes (e.g. planner)
- » Engineering (e.g. civil, transportation)
- » Geographic Information Systems (GIS) based spatial analysis and mapping
- » Tourism market research
- » Trail planning (e.g. trail planner, recreation planner)
- » Technical trail routing and design (e.g. trail design specialist, Landscape Architect)
- » Trail construction (e.g. trail construction inspector/supervisor)

If done properly, the creation of a clearly defined vision and executable plan will become the foundation on which every future design, construction, maintenance and management decision will be based. As trails become developed in coming years, the Town can follow the same process to develop a pattern and a system to maintain development.

This section of the report provides tips for implementing aspects of the plan.

4.1.1 Detailed Design Process

Trail planning typically follows a standard process with critical phases, and although the timing can vary, the graphic below provides a rough estimate for project implementation.

| Phase 1 | Phase 2 | Phase 3 | Phase 4 | Phase 5 |
|---------------------|-----------------------------|---|------------------------|--------------|
| Defining the Trail | Analysis, | Trail Concept | Detailed Trail | Tendering & |
| Experience & Vision | Constraints & Opportunities | Planning & Order of Magnitude Costing | Design & Permitting | Construction |

4.1.2 Phase 1: Defining the Trail Experience and Vision

1. Identify the Area of Interest

» Identify the general area of interest for the trail development. This has been done in concept in Section 3 of this plan.

2. Determine Trail User Objectives

- » Develop a clear understanding of what user objectives the trail will meet.
- » Will the focus be to provide enthusiasts with a connection to nature, a physical challenge, fitness, a social experience, skill improvement, or some other objective or combination of objectives?

3. Determine the Trail Classification

» Depending on the previous step, a trail classification (as per Section 3.2.1) can be assigned.

4. Determine the Desired Maintenance and Risk Management Frequency

5. Determine the Design Features, Amenities and Challenge Features

6. Determine the Trail Significance and Theming

» Determine whether the trail is meant to motivate tourists to travel to the area from near or far or whether it is intended to predominantly serve the recreational interests of locals.

7. Meet with the Public Land Manager

» Arrange a meeting with the Crown Lands Division of the Department of Fisheries, Forestry and Agriculture to discuss the plans for the trail. The Crown Lands Officer will help explain the application process. This can be a lengthy process depending on the jurisdictions that may be involved, so this meeting should occur early in the planning process to help avoid delays.

4.1.3 Phase 2: Analysis, Constraints and Opportunities

1. Review and Summarize Relevant Provincial and Local Land Management Policies

» The meeting with the Crown Lands Division from the previous step should provide insight about relevant policies and plans that will need to be considered as a part of the trail planning.

2. Review Existing Land Uses and Land Ownership

» This has been done at a conceptual level for this plan, however, resources such as exact locations of adjacent property boundaries to the trail routes were not available. During the detailed design phase, the Town will need to confirm any conflicts with property boundaries, and may need to adjust the trail route to address the conflict.

3. Conduct a Site Inventory and Analysis

- » As a part of this plan, general routes were highlighted, but they were not analyzed in detail. For each trail, the entire proposed trail route should be visited and analyzed.
- » Local knowledge should be leveraged during this phase. It is clear from the public engagement that there are many residents who are very interested and invested in trail development in the town. In fact, many have taken it upon themselves to flag and mark informal trails for others to use. These residents should be included in the routing process if possible.
- » Data collected in the field should be compared to the general analysis presented in this report, and any necessary changes to the proposed trails can be made to address these opportunities or constraints.

4.1.4 Phase 3: Trail Concept Planning and Order of Magnitude Costing

1. Draft Trail Concept Plan

- » This plan provides conceptual routes for each trail, but as trails are slated for development, more detailed mapping needs to be produced for each trail.
- » The draft trail plan should include information such as:
 - » Any route options including pros and cons, and the preferred option;
 - » Trail classification (can vary for different sections of trail if necessary);
 - » Notes on whether any existing footpaths are to be upgraded, or whether it is new construction;
 - » Type and general location of any technical trail features and infrastructure (bridges, stairs, drainage systems, boardwalks, etc.);
 - » Type and general location of amenities (washrooms, seating, etc.);
 - » Type and general location of lookouts or destinations;
 - » Signage plan;
 - » Notes on any measures that need to be taken to manage risk or impacts to environmental resources;
 - » General statistics (distance, trail rating, targeted users, etc.).

2. Public Engagement

- » Before moving into detailed design, release the draft trail concept plan for public review and comment.
- » Revise the draft trail concept plan as necessary.

3. Order of Magnitude Costing

» Ir required, prepare Class D order of magnitude capital and operational cost estimates for the trail. The accepted accuracy of a Class D cost estimate is +/- 30%.

4. Public Lands Application and Referrals

» Phase 2 included a meeting with Crown Lands Division to review the necessary submissions for a Crown Land application, and this phase includes the submission of those necessary applications.

1. Detailed Trail Layout and Flagging

- » The draft trail concept plan identified the general corridor and route for the trail, and this phase includes the detailed locating of these elements.
- » Determine and flag the trail corridor with flagging tape ties at eye level.
- » Locate trail features, amenities and other infrastructure using flagging tape or marking paint.
- » Undertake a detailed GPS-based inventory of the trail tread, amenities, and infrastructure locations that will inform detailed cost estimates and tender package preparation.
- » If topography varies significantly, consider engaging a qualified surveyor to provide a topographic survey for use as a base plan for details design.

2. Prepare Construction Drawings

- » Prepare construction drawings that provide detailed information about the following:
 - » Trail tread/surface material
 - » Trail amenities (washrooms, seating, etc.)
 - » Technical trail features and infrastructure (bridges, retaining walls, drainage structures, stairs, boardwalks, lookouts, etc.)
 - » Signage

3. Final Detailed Cost Estimate

» A detailed cost estimate can be completed using the detailed construction drawings and quantities.

4.1.6 Phase 5: Tendering and Construction

1. Tendering and Procurement (if construction is by a contractor)

- » Prepare bid package and quantities document.
- » Establish a Bid Review and Selection Team.
- » Advertise the opportunity.
- » Set up and host a pre-bid site meeting.
- » Receive bids and evaluate.
- » Award the project to the successful proponent and provide them with a project management plan for the construction phase.

2. Construct Trail

» Proceed with trail construction following the construction drawings and project management plan.

3. Construction Administration and Inspection

» Regularly review construction progress.

5. Final Acceptance and Opening

» Complete a final inspection. If work is acceptable, open the trail to the public.

4.2 Estimate of Consulting and Design Fees

Professional cost estimates have been prepared for the four high priority trails. The estimates are based on the following scope of work, as noted in Section 4.1.

- » Conduct a Site Inventory and Analysis
- » Prepare Topographic Survey
- » Draft a Trail Concept Plan
- » Public Engagement
- » Prepare Order of Magnitude Costing
- » Organize and Submit Public Lands Application and Referrals
- » Prepare Detailed Trail Layout and Pin-Flagging
- » Prepare Construction Drawings
- » Prepare Final Detailed Construction Cost Estimate
- » Organize Tendering and Procurement
- » Oversee Construction Administration and Inspections

| Trail Route | Estimated Consulting and Design Fees |
|-------------------------------------|--------------------------------------|
| 1D | \$31,500 |
| Murray's Peak Loop Expansion | |
| See Section 3.4.2 | |
| 2B | \$31,500 |
| Butter Pot Pond Loop | |
| See Section 3.4.3 | |
| 3B | \$37,000 |
| Outer Hawke Hills Connectors | |
| See Section 3.4.4 | |
| 3C | \$29,500 |
| George Cove Mountain Loop Expansion | |
| See Section 3.4.4 | |

Fee estimates are considered preliminary meaning they are based on an initial functional program and broad concept approach only.

- » Costing is based on experience on similar projects and professional judgment only. Costing should be used for general guidance only and cannot be guaranteed as to accuracy.
- » Costing does not include HST.
- » Costing represents design and consulting fees and does not include supply or construction of trail elements.
- » Costs are provided for the year 2021 and should be escalated at a rate of 2-3% each year to account for inflation and market conditions.
- » Savings may be realized if the above projects are combined or phased in groups of work together.

4.3 Post-Trail Construction

As the Town develops the trails outlined in this plan, some additional projects can take place post-trail construction to help improve the overall trail network.

4.3.1 Marketing

The online survey found that over 40% of the respondents were non-residents of Holyrood that travel to the town to avail of different hiking trails. It is encouraging to see that the town is already a destination, and future trail development will hopefully boost these numbers even more. Signage will be important to help visitors navigate to the different trails. See Section 3.2.6 for more details. Beyond signage though, the Town can focus on improving their website to include an updated trail map and trail details. The trail map should present the overall trail network along with important info such as trail ratings. The trail map can live online, and therefore can be easily updated as more trails are added to the network. It is important that the online map is as accessible as possible, ensuring that visitors with a disability can easily access and understand the map.

Signage and online maps will help visitors find the trails once they reach the town, but attention can also be given to marketing the trails. The Town should consider adding all of their trails to popular hiking apps like AllTrails and Wikiloc as they are developed. Trails can also be advertised on the province's tourism website, and through other partners, such as the Avalon Mountain Biking Association, as those types of trails become available.

4.3.2 Technology

Technology can be leveraged in many ways when it comes to the trail network. Trial users are starting to rely on technology more and more to discover trail options and help improve their experience while on the trail. This section outlines a number of different ways that technology can be used to improve user experience.

QR Codes

QR Codes allow a smartphone to read an image and provide information such as a link to online content, a website or video. QR Codes can also be used in more creative ways, such as the QR Fitness Trails of Hamilton, Ontario (https://www.hamilton.ca/parks-recreation/outdoor-fitness/qr-fitness-trail). Instead of typical trail exercises such as walking or jogging, this trail system offers an array of digital exercise stations. By scanning the QR code on signs around the trail, users get instructional videos on exercises they can do while on the trail. Each trail features multiple QR signs that take the participant through a full workout, from warm up to cool down, with beginner, intermediate and advanced options. QR Fitness Trails provide free alternative fitness opportunities, guided routines by certified trainers, a family-friendly exercise experience, three skill level options, and enjoyable outdoor recreation.

Gaming

Research has suggested that time on mobile devices is increasing, particularly among youth, as access to videogames, streaming, and watching television has become easier. This phenomenon is often referred to as "screen time." Too much screen time has been attributed to a decrease in physical activity in children. However, some app developers have recognized an opportunity to leverage screen time through providing a fun, interactive, and educational component that, in turn, encourages an active lifestyle. Agents of Discovery (https://agentsofdiscovery.com/make/#MakeDemo) is a platform that strives to empower educators to turn the whole world into an engaging, active, and safe learning environment. Using the Mission Maker app, users can create real world challenges that can be downloaded and played by other users on mobile smartphone devices. Missions are free to play and, once downloaded, do not require WiFi or a data connection. Missions can also be tied to reward systems and badge collection, providing an additional incentive. The Town may consider developing several challenges and promoting them along the trail network as pilot projects. The app has the added benefit of providing user metrics which the Town can use to prioritize trail development and maintenance tasks.

Augmented Reality

Augmented reality is a technology that uses smartphones to create a computer-generated image of people or objects over a user's real-world view. This technology has been incorporated in a wide range of applications and presents an opportunity to increase trail user engagement. In fact, augmented reality trails have been developed around the world. These trails allow a user to take a picture of a sign or image, then receive an explanation of something about the trail (its history, nature, etc.) explained by a digital figure who appears to be on the trail in front of them. This is an excellent, interactive way to provide interpretive content without the need for a user to stop and read a traditional storyboard.

Audio Tours

An audio tour or audio guide provides a recorded spoken commentary, through a mobile device, to a visitor attraction. Like an augmented reality trail, but without the real-world visualization, users download an app or file that provides information, context, or interpretive information on a trail. Some of the more elaborate tours may include original music and interviews. Audio tours are typically self-guided and undertaken at the user's own pace and comfort level. The Bannerman Quartet and Inside Outside Battery tours in St. John's are excellent examples of locally developed audio tours.

Geocaching

Sometimes referred to as a "real world treasure hunt," geocaching is the activity of looking for hidden objects using GPS technology and map coordinates. Physical objects hidden anywhere, including along trails, are tagged with coordinates that lead users to secret locations containing these hidden items. Once found, the geocacher completes a logbook and puts the object back in place for the next hunter to find. Geocaching has become a worldwide phenomenon in recent years and represents an opportunity to engage users along the trail network, provide recreational activities, and promote active lifestyle.

4.4 Partnerships and Funding Opportunities

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 of this master plan and project partners represent an opportunity to leverage additional resources. Further, several projects described in this plan would benefit not only the Town, but other government agencies and NGOs as well.

There is also a need to consider the realities of land ownership and long-term maintenance. In some cases, the trails proposed will require land that the Town does not currently own, or may require assistance with trail maintenance. Partnerships in these cases are imperative to the project's success.

Capital costs are another significant factor that affect implementation. While the Town of Holyrood 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.

Clearly, it is in everyone's interest to develop the trails in Holyrood, and that responsibility should be shared among stakeholders. The following section outlines proposed roles of important stakeholders and potential project partners.













4.4.1 Town of Holyrood

- » Review the Trails Master Plan and set priorities for project implementation.
- » Work with Council to allocate budget each year to advance the initiatives of this plan.
- » Become the champion for implementing the recommendations of this plan; consider making this part of the Recreation Committee's mandate.
- » Liaise with other levels of government as needed.
- » Work with the landowners and government to secure land agreements for priority projects that require property not currently owned by the Town.
- » Apply for funding or undertake fundraising initiatives, consider striking a sub-committee to lead this.
- » Promote the importance of the initiatives of this plan to the residents of Holyrood.
- » Engage residents on a regular basis to provide updates, prioritize projects, and to create project support. Throughout the planning process, it was evident that a strong sense of pride and passion for the community exists among residents of Holyrood. The success of this plan will only be possible with the participation and involvement of these community members.

4.4.2 Non-Governmental Organizations (NGOs)

Many of the priority projects identified by this plan would benefit local organizations as well as the Town. These stakeholders may have interest in assisting the Town with aspects of the implementation of these projects. The Town should consider reaching out to these stakeholders to discuss opportunities to work together:

The Great Trail

The Great Trail (aka Trans Canada Trail) grants funding to trail groups to plan routes, acquire land permissions, install signage, hire engineering firms, enhance and maintain paths, and construct trailheads. One point worth noting is that this funding only applies for portions of the T'Railway Provincial Park that are designated for pedestrians and non-motorized vehicles.

Grand Concourse Authority

The Grand Concourse Authority (GCA) is dedicated to the continued development and expansion of their walkway network. The Town of Holyrood recently became a member community of the GCA. The GCA is committed to the enhancement and protection of the walkway network through regular maintenance and upgrading, environmental initiatives, open space and park development, promotion and public education. They seek to improve the quality of life of residents in our region by encouraging an active and healthy lifestyle within a natural setting. The Town should meet with the GCA to discuss this Trails Master Plan and determine opportunities for partnership as a new member community.

Avalon Mountain Bike Association

The Avalon Mountain Bike Association (AMBA) is a not-for-profit community organization engaged in promoting the sport of mountain biking on the Avalon Peninsula of Newfoundland and Labrador primarily through the development, maintenance and preservation of shared-use trails. They are also committed to promoting socially and environmentally responsible mountain biking and trail use, and to making mountain biking fun and accessible for riders of all levels and ages.

The AMBA was involved in the public engagement phase of this project, and it was clear that they believe Holyrood has a lot of potential to become a mountain biking destination on the Avalon. Although the scope of this Plan was to focus on hiking and walking trails, Section 3 does include suggestions for areas that could be prime mountain biking destinations. Now that the Plan is complete, the Town should meet with the AMBA to determine the next step to begin the development of mountain biking trails within the Town of Holyrood.

InclusionNL

InclusionNL provides support to government, businesses and organizations to make spaces, events, and resources inclusive. InclusionNL can be engaged during the detail design phase to confirm that amenities on the trail network (signage, seating, etc.), and resources like trail signs and digital maps are inclusive for all users.

The Department of Tourism, Culture, Arts and Recreation (TCAR)

TCAR is the lead for the economic, culture, and innovation agenda of the Provincial Government. Their goal is to create a vibrant, diverse and sustainable economy, with productive, prosperous and culturally-rich communities and regions, making Newfoundland and Labrador a business and tourism "destination of choice". Some of the initiatives outlined in this plan may overlap with the TCAR's vision for the province. This department should also be contacted regarding the recommendations to connect Holyrood's trail network to Butter Pot Provincial Park.

The Community Healthy Living Fund is a program that supports "The Way Forward: A Vision for Sustainability and Growth in Newfoundland and Labrador" and provides a funding opportunity to communities and organization's for projects, programs and initiatives that demonstrate direct measurable results towards the targets outlined in "The Way Forward", specifically to increase physical activity.

The Department of Municipal Affairs and Environment (MAE)

MAE assists municipalities in meeting their infrastructure needs and help provide the financial and administrative tools to support development of community capacity, regional cooperation, and sound governance. The Town must work closely with MAE for any work that will occur in or around a body of water as permits are required.

The Multi Year Capital Works funding is the Government of Newfoundland and Labrador's commitment to provincial investment to larger scale municipal infrastructure. The Multi-Year Capital Works Program allows larger municipalities to avail of three-year blocks of funding which supports improved planning in larger communities which have the capacity to make multi-year commitments.

Service NL

Service NL provides accessible, responsive services in the areas of public health and safety, environmental protection, occupational health and safety, consumer protection, and in the preservation of vital events and commercial transactions. The Town and must work with Service NL for aspects of project implementation that involve highway signage or accessibility.

The Department of Fisheries, Forestry, and Agriculture: Crown Lands Division

This division is responsible for all Crown Lands Applications. The Town can apply for trail development on Crown Land. As outlined in the process for detailed trail design, it is important that the Town meet with the Crown Lands Division to understand the necessary applications and processes for acquiring Crown Land.

The Department of Environment and Climate Change

This department manages the Provinces' Wilderness and Ecological Reserves, and would therefore be the contact regarding the recommendation to upgrade the hiking trails in Hawke Hill Ecological Reserve.

The Atlantic Canada Opportunities Agency (ACOA)

ACOA works to create opportunities for economic growth in Atlantic Canada by working with diverse communities to develop and diversify local economies and by championing the strengths of Atlantic Canada. Traditionally, ACOA has supported many initiatives in the province that promote tourism and economic growth and development.

The Innovative Communities Fund invests in strategic projects that build the economies of Atlantic Canada's communities. ICF focuses on investments that lead to long-term employment and economic capacity building in rural communities. Urban initiatives that stimulate the competitiveness and vitality of rural communities may be considered on a selective basis.

Infrastructure Canada

Infrastructure Canada provides long-term support to help Canadians benefit from world-class, modern public infrastructure and makes investments, builds partnerships, develops policies, delivers programs, and fosters knowledge about public infrastructure in Canada. They provide funding for projects that increase the potential for innovation & economic, improve the environment and support stronger, safer communities.

The federal Gas Tax 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.

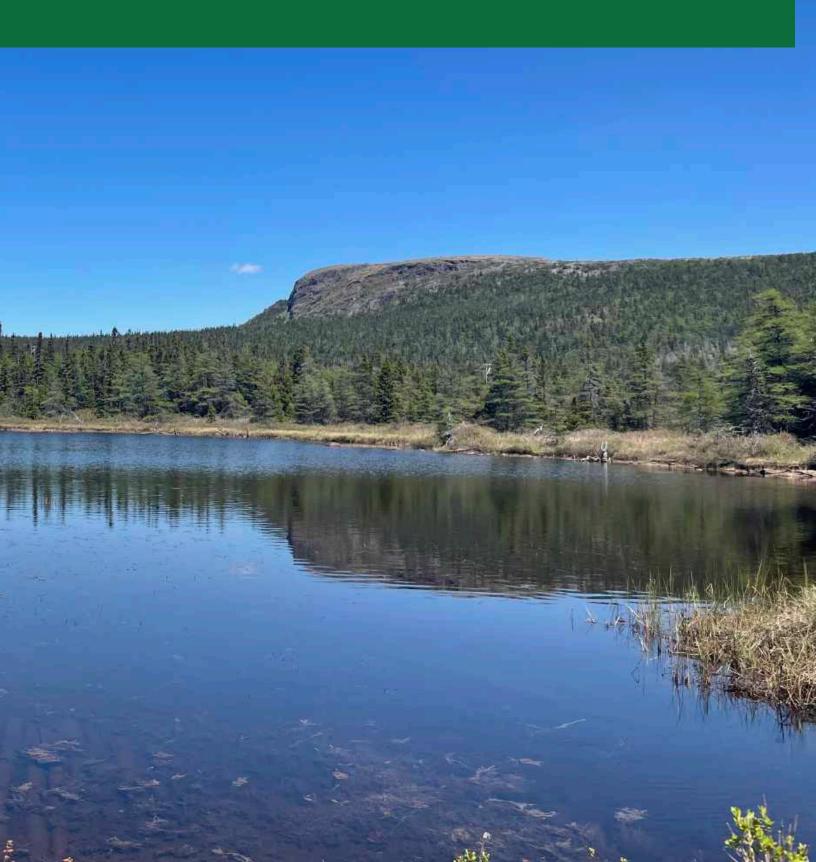
The Small Communities Fund provides contribution funding for infrastructure projects in small communities with populations of 100,000 or less that contribute to economic growth, a clean environment and stronger communities. Projects will allow people and goods to move more freely, increase the potential for innovation and economic development, and help to improve the environment and support stronger, safer communities.

4.5 Other Resources

There are many documents available publicly that can assist the Town in developing their trail network. Some resources that the Town can reference beyond this report include:

- » Exceptional Trails: A guide to the planning, classification, design, construction and management of trail experiences on Public Lands (Government of Alberta, 2018)
- » Guidelines for a Quality Trail Experience (International Mountain Biking Association, 2017)
- » Minnesota Department of Natural Resources: Trail Planning, Design, and Development Guidelines (2017)
- » Trail Development Guidelines for Alberta's Public Land (Government of Alberta, 2019)
- » Parks Canada National Best Management Practices, Trail Maintenance and Modification (Parks Canada, 2016)

Appendix A: Engagement Summary



Engagement Activities

Stakeholder Meetings

- » Town Council
- » Town's Recreation Committee
- » Local Mountain Biking Enthusiasts
- » Local Hiking Enthusiasts

Public Open House

- » May 5th (2 sessions)
- » 12 attendees

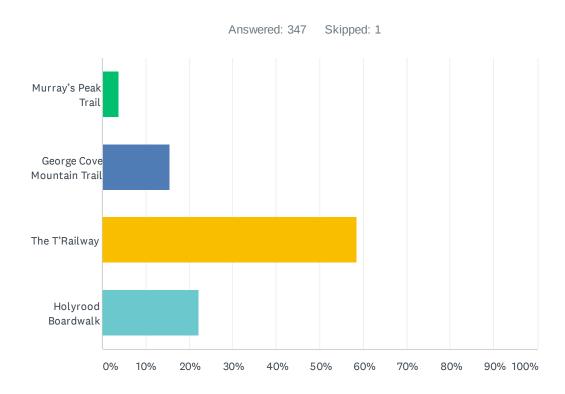
Online Survey

- » Open from April 16th May 17th
- » 349 Respondents
- » 82% Completion Rate
- » Typical Time Spent: 5 minutes



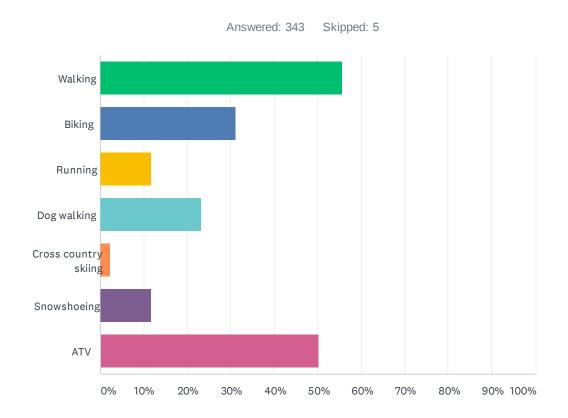


Which trail do you visit most frequently?



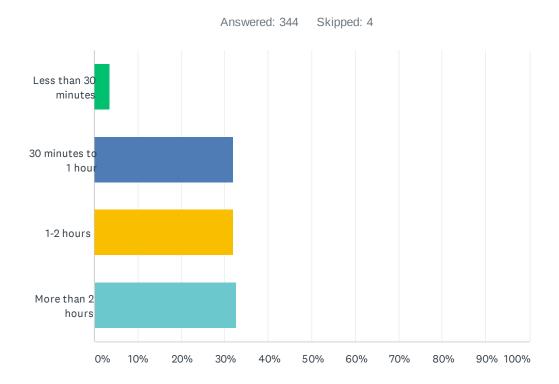
| ANSWER CHOICES | RESPONSES | |
|----------------------------|-----------|-----|
| Murray's Peak Trail | 3.75% | 13 |
| George Cove Mountain Trail | 15.56% | 54 |
| The T'Railway | 58.50% | 203 |
| Holyrood Boardwalk | 22.19% | 77 |
| TOTAL | | 347 |

How do you currently use the trails? Select all that apply.



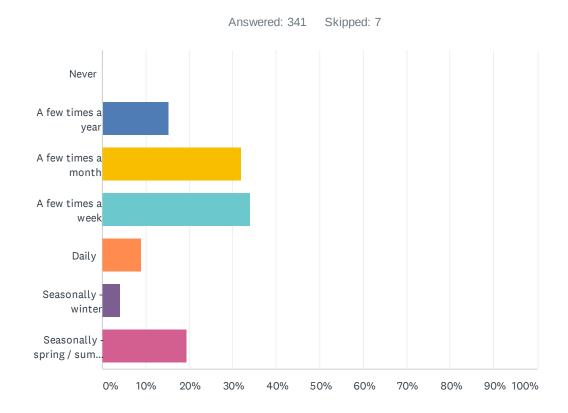
| ANSWER CHOICES | RESPONSES | |
|------------------------|-----------|-----|
| Walking | 55.69% | 191 |
| Biking | 31.20% | 107 |
| Running | 11.66% | 40 |
| Dog walking | 23.32% | 80 |
| Cross country skiing | 2.33% | 8 |
| Snowshoeing | 11.66% | 40 |
| ATV | 50.15% | 172 |
| Total Respondents: 343 | | |

How much time do you typically spend on the trails each visit?



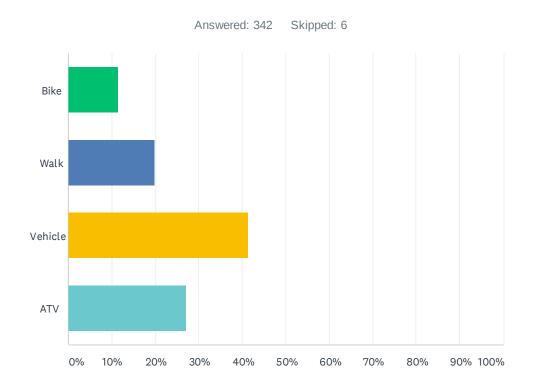
| ANSWER CHOICES | RESPONSES | |
|----------------------|-----------|-----|
| Less than 30 minutes | 3.49% | 12 |
| 30 minutes to 1 hour | 31.98% | 110 |
| 1-2 hours | 31.98% | 110 |
| More than 2 hours | 32.56% | 112 |
| TOTAL | | 344 |

How often do you use the trail system now? Select all that apply.



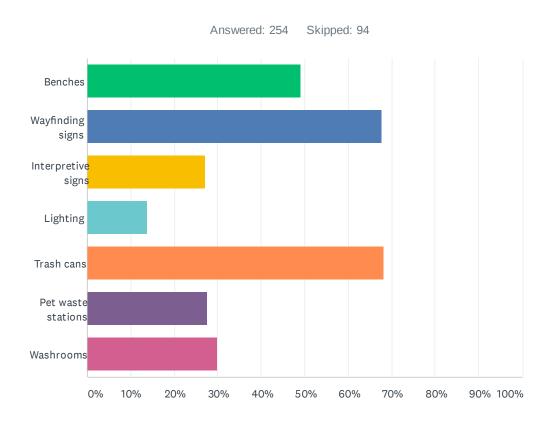
| ANSWER CHOICES | RESPONSES | |
|-------------------------------------|-----------|-----|
| Never | 0.00% | 0 |
| A few times a year | 15.25% | 52 |
| A few times a month | 31.96% | 109 |
| A few times a week | 34.02% | 116 |
| Daily | 9.09% | 31 |
| Seasonally - winter | 4.11% | 14 |
| Seasonally - spring / summer / fall | 19.35% | 66 |
| Total Respondents: 341 | | |

How do you typically get to a trailhead?



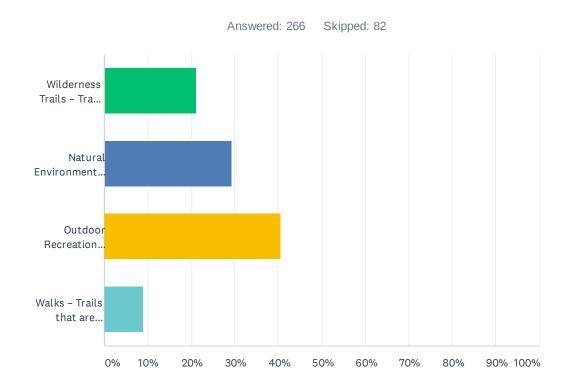
| ANSWER CHOICES | RESPONSES | |
|----------------|-----------|-----|
| Bike | 11.40% | 39 |
| Walk | 19.88% | 68 |
| Vehicle | 41.52% | L42 |
| ATV | 27.19% | 93 |
| TOTAL | 3 | 342 |

What amenities are most important to you for the trail system? Select your top 3.



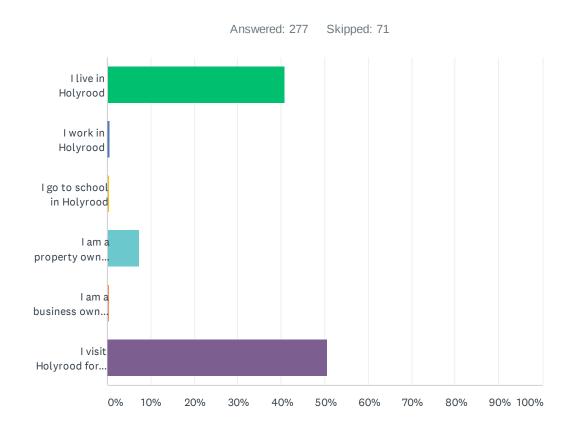
| ANSWER CHOICES | RESPONSES | |
|------------------------|-----------|-----|
| Benches | 49.21% | 125 |
| Wayfinding signs | 67.72% | 172 |
| Interpretive signs | 27.17% | 69 |
| Lighting | 13.78% | 35 |
| Trash cans | 68.11% | 173 |
| Pet waste stations | 27.56% | 70 |
| Washrooms | 29.92% | 76 |
| Total Respondents: 254 | | |

Please select the type of trail that you enjoy using the most.



| ANSWER CHOICES | RESPON | ISES |
|--|--------|------|
| Wilderness Trails – Trails that are natural in character and are rated a high difficulty level. These trails are very unobtrusive, and their width is usually for persons walking single file. Their surfaces are typically composed of native or native-appearing materials and can include long ascents and descents. Local examples include the Murray's Peak Trail and portions of the East Coast Trail. | 21.05% | 56 |
| Natural Environment Trails - Trails that are somewhat rustic in character and are rated a medium difficulty level. These trails are typically unobtrusive, and their width is typically for one or two persons. Their surfaces are primarily composed of native or natural-appearing materials, and they can include short ascents and descents. A local example is the Goat Shore Trail located in Harbour Main – Chapel's Cove – Lakeview. | 29.32% | 78 |
| Outdoor Recreation Trails - Trails that are rural in character and are rated a medium difficulty level. These trails are typically obvious, and their width is typically for two or three persons. Their surfaces are primarily of natural or natural appearing materials and are relatively flat. A local example is the T'Railway. | 40.60% | 108 |
| Walks – Trails that are refined and somewhat urban in character. These trails are rated an easy difficulty level. These trails are very obvious and their width typically accommodates two to four persons. Their surfaces are built using native, natural, and synthetic materials, and are relatively flat. A local example is the Holyrood Boardwalk. | 9.02% | 24 |
| TOTAL | | 266 |

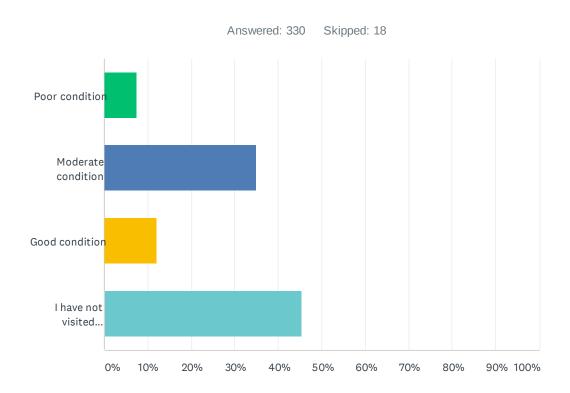
What is your connection to Holyrood? Select all that apply.



| ANSWER CHOICES | RESPONSES | |
|--|-----------|-----|
| I live in Holyrood | 40.79% | 113 |
| I work in Holyrood | 0.72% | 2 |
| I go to school in Holyrood | 0.36% | 1 |
| I am a property owner in Holyrood | 7.22% | 20 |
| I am a business owner in Holyrood | 0.36% | 1 |
| I visit Holyrood for recreation or leisure | 50.54% | 140 |
| TOTAL | | 277 |



If you have visited Murray's Peak Trail, how would you rate its general condition?

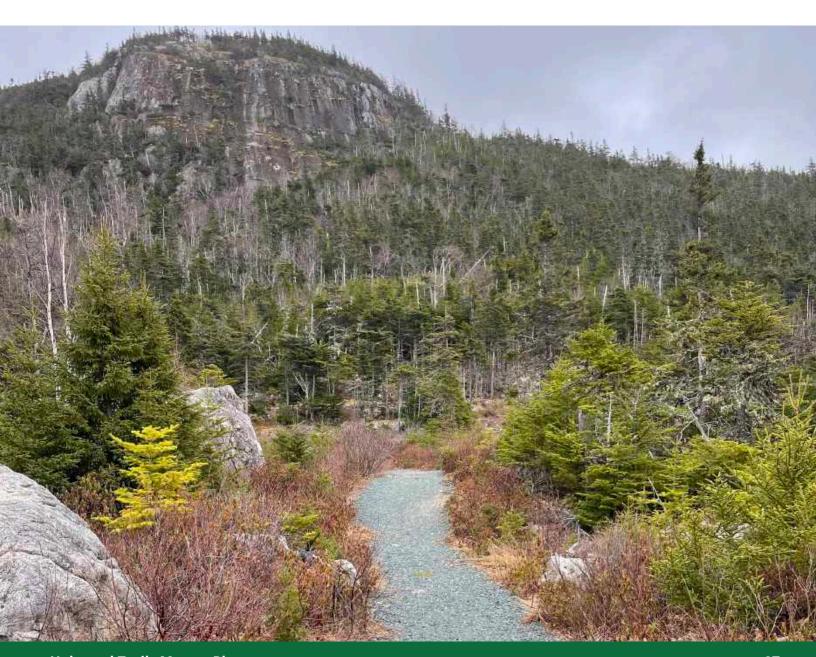


| ANSWER CHOICES | RESPONSES | |
|--|-----------|-----|
| Poor condition | 7.58% | 25 |
| Moderate condition | 34.85% | 115 |
| Good condition | 12.12% | 40 |
| I have not visited Murray's Peak Trail | 45.45% | 150 |
| TOTAL | | 330 |

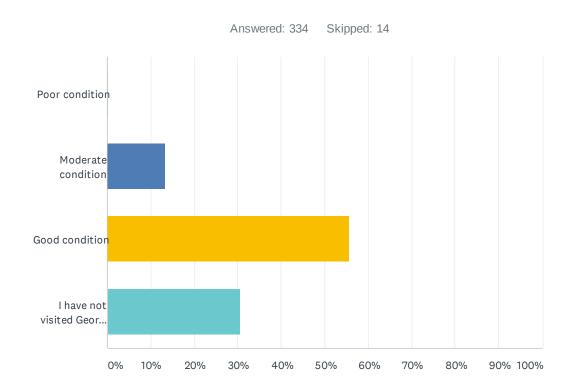
Do you have any improvements to recommend for Murray's Peak Trail?

- » Add Stairs (9 responses)
- » Add Railings (9 responses)
- » Fix Washouts / Grooming (8 responses)
- » No Change Required (7 responses)
- » Add Mountain Biking Trails (6 responses)
- » Add a Loop / Extend Trail (6 responses)

- » Add Signage (4 responses)
- » Add Switchbacks (2 responses)
- » Add Ropes (2 responses)
- » Add Benches / Rest Areas (2 responses)
- » Upgrade Trailhead (1 response)



If you have visited George Cove Mountain Trail, how would you rate its general condition?

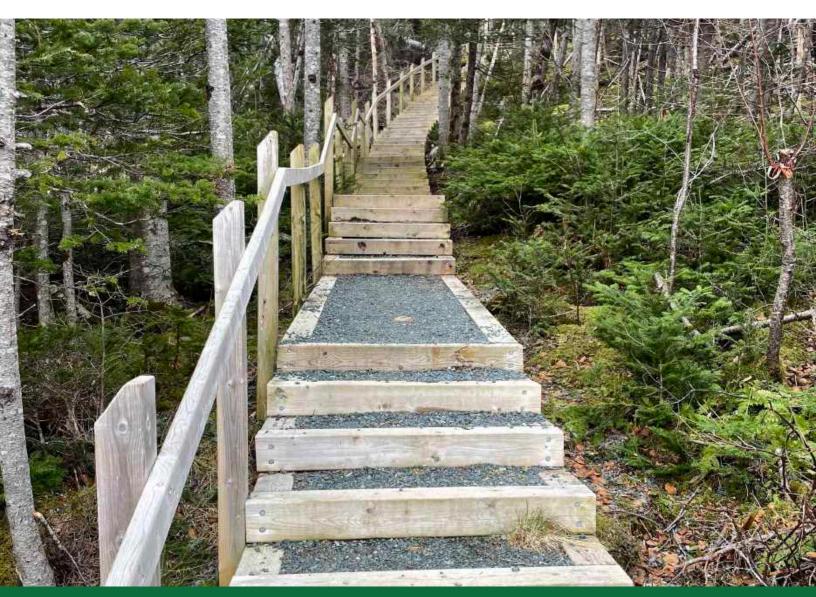


| ANSWER CHOICES | RESPONSES | |
|---|-----------|-----|
| Poor condition | 0.30% | 1 |
| Moderate condition | 13.47% | 45 |
| Good condition | 55.69% | 186 |
| I have not visited George Cove Mountain Trail | 30.54% | 102 |
| TOTAL | | 334 |

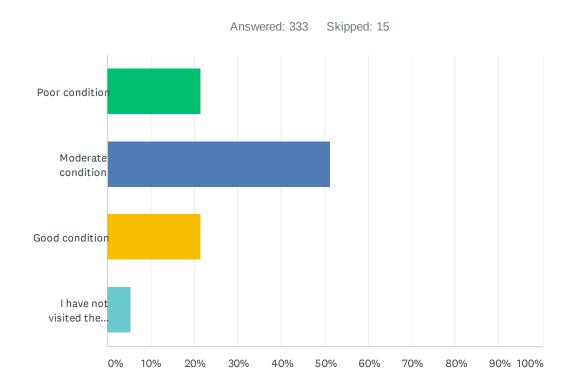
Do you have any improvements to recommend for George Cove Mountain Trail?

- » Fix Washouts (8 responses)
- » Improve Connectivity (5 responses)
- » Add Benches / Rest Areas (4 responses)
- » Create Loop on Back Side (4 responses)
- » Add Signage (4 responses)
- » Add Mountain Biking Trails (4 responses)

- » Add Rails at Top (3 responses)
- » No Change Required (2 responses)
- » Add Picnic Tables at Top (2 responses)
- » Add Trash Cans (2 responses)
- » Add Rock Climbing Anchors (1 response)
- » Add Water Fountain (1 response)



If you have visited the T'Railway in Holyrood, how would you rate its general condition?

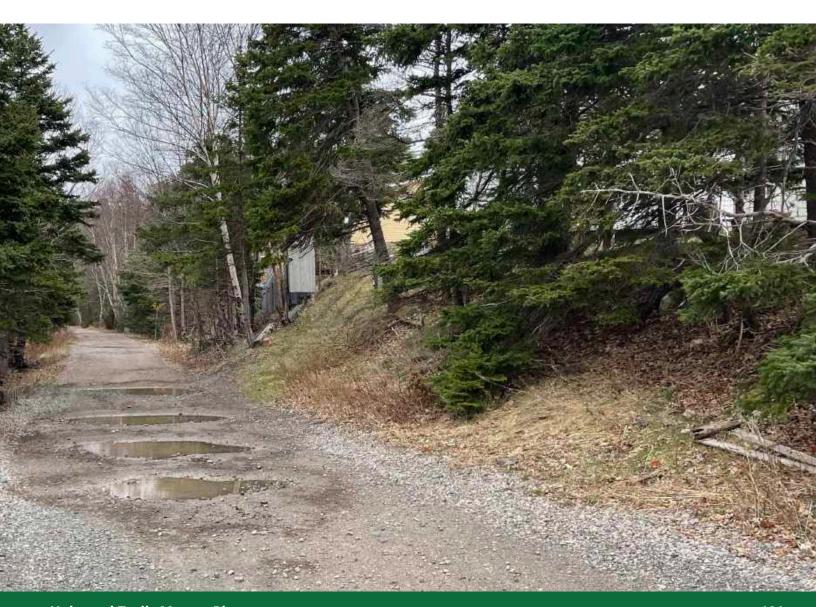


| ANSWER CHOICES | RESPONSES | |
|--|-----------|-----|
| Poor condition | 21.62% | 72 |
| Moderate condition | 51.35% | 171 |
| Good condition | 21.62% | 72 |
| I have not visited the T'Railway in Holyrood | 5.41% | 18 |
| TOTAL | | 333 |

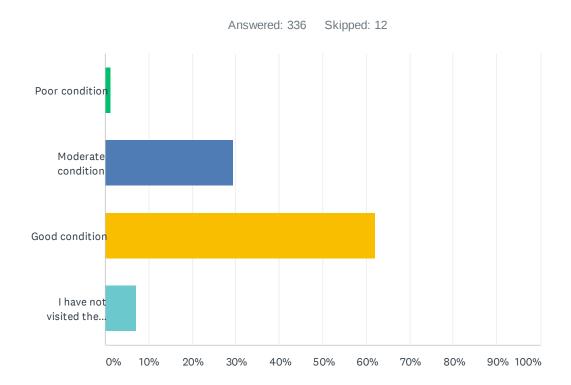
Do you have any improvements to recommend for the T'Railway in Holyrood?

- » Grooming / Grading of Trail (114 responses)
- » Widen Trail / Brush Cutting (18 responses)
- » Allow ATVs (16 responses)
- » No ATVs (13 responses)
- » Better Enforcement (4 responses)
- » Add Rest Stops / Benches (4 responses)
- » Separate ATVs and Walkers (4 responses)

- » Add Signage (3 responses)
- » Improve Connectivity (2 responses)
- » Add Trash Cans (2 responses)
- » Less Stairs (1 response)
- » Add Lights (1 response)
- » Add More Parking (1 response)



If you have visited the Holyrood Boardwalk, how would you rate its general condition?



| ANSWER CHOICES | RESPONSES | |
|---|-----------|-----|
| Poor condition | 1.19% | 4 |
| Moderate condition | 29.46% | 99 |
| Good condition | 62.20% | 209 |
| I have not visited the Holyrood Boardwalk | 7.14% | 24 |
| TOTAL | | 336 |

Do you have any improvements to recommend for the Holyrood Boardwalk?

- » Replace Broken Boards (20 responses)
- » Extend Boardwalk (10 responses)
- » Widen Boardwalk (9 responses)
- » No ATVs (7 responses)
- » No Motorbikes (6 responses)
- » Trash Cans (5 responses)
- » Add Lighting (5 responses)
- » Separate ATVs and Walkers (4 responses)

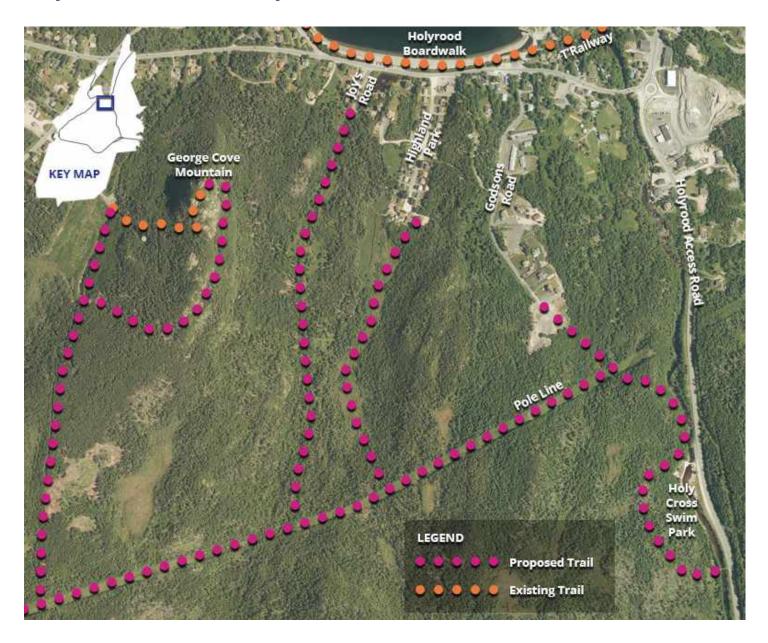
- » Slow Down ATVs (3 responses)
- » Add Picnic Tables (1 response)
- » Add Seating (1 response)
- » Repair Mural (1 response)
- » Add Signage (1 response)
- » Add Food Options (1 response)
- » Better Accessibility (1 response)
- » Add More Parking (1 response)



Summary of Survey Results - Potential Future Trails

The survey suggested potential routes for future trails, and asked respondents to provide comment on those trails. For each trail, a list of opportunities and challenges has been generated that encompasses the feedback from the survey and other engagement activities. There are four locations that need to be investigated further that were not analyzed at the time of this submission: North Arm River, Mahers River, Healey's Pond, and O'Rourke's Road to Seal Cove.

Holyrood Boardwalk to Holy Cross Swim Park



Strengths and Opportunities

- » This trail system would provide a lot of interconnectivity between some of Holyrood's top attractions.
- » There are many existing footpaths in this area, making development easier than blazing new trails.
- » A loop at George Cove Mountain would satisfy feedback about that trail being too short.
- » A trail could be added along the Mahers river.
- » This system would provide a safer route for walkers to get from the Boardwalk to the Swim Park.
- » George Cove Mountain could be better connected to the Boardwalk via Veitch's Crescent.

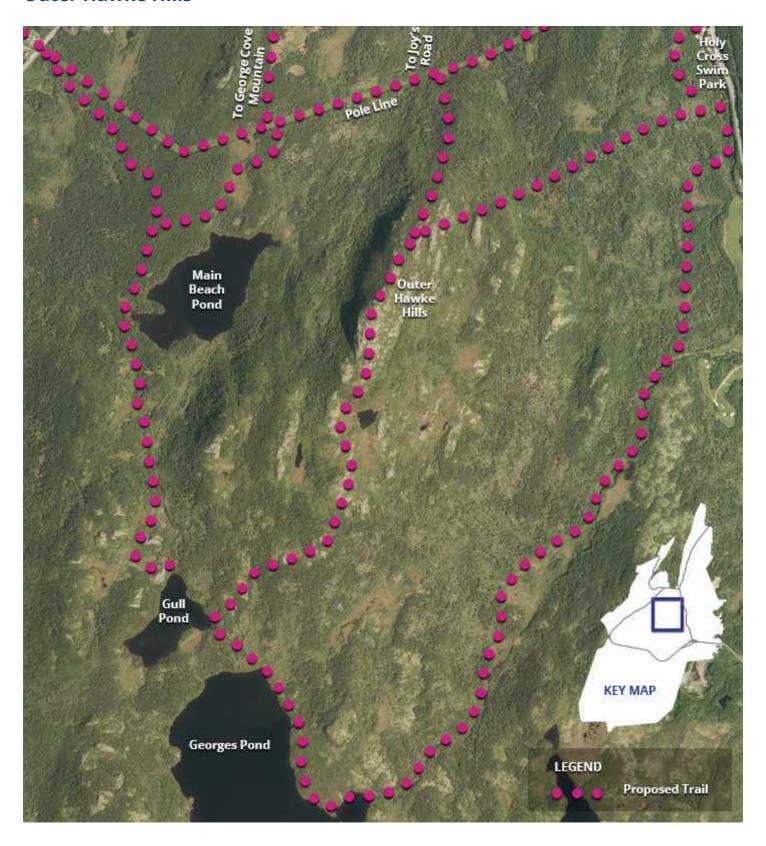
Weaknesses and Challenges

- » The uphill grade to the pole line may be an issue. It is steep and overgrown.
- » Pole line is used by ATVs, so user conflicts in this area could arise.
- » Land ownership would have to be confirmed.



Priority Level: High

Outer Hawke Hills



Strengths and Opportunities

- » There are many existing footpaths to the north of the Outer Hawke Hills, making development easier than blazing new trails.
- » This trail system would provide views and access to a number of ponds.
- » This system, as shown, would create a few different loops/routes. Loop trails are popular as they give users the opportunity to choose a length that works for them.
- » Local mountain biking enthusiasts have noted this area as one with lots of potential for mountain biking trails.
- » There are a variety of views in this area: mountains/hills, ponds, and woods.

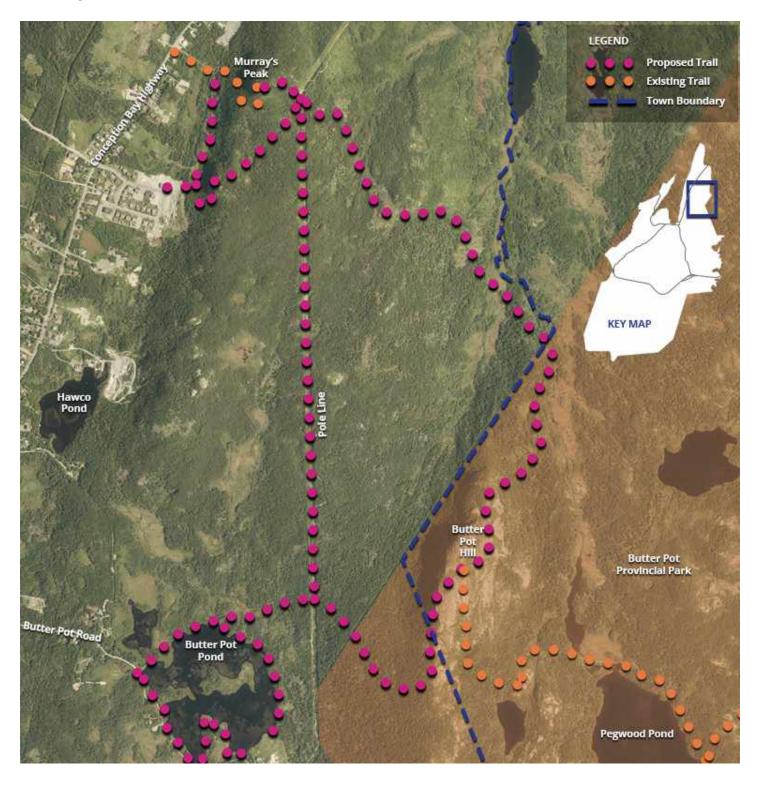
Weaknesses and Challenges

- » Existing footpaths are challenging and not suitable for all users.
- » Some of these proposed trails would mean blazing completely new trails, which requires more effort and resources. Blazing new trails can also damage the landscape if not done properly.
- » Land ownership would have to be confirmed.
- » There are some wet areas that would have to be addressed.



Priority Level: High

Murray's Peak to Butter Pot Pond



- » With such a popular trail in Butter Pot Hill, this trail would really enhance that space and open up potential for further development and interconnections to other mountain ranges.
- » A trail from Butter Pot Pond to Butter Pot Hill existed in the past and could be reinstated.
- » Rock climbing trails near Murray's Peak could be enhanced and marketed as a climbing destination.
- » This trail system would make it possible to hike from "peak to peak".
- » Could explore collaboration with provincial government for funding to connect to Butter Pot Park.
- » Loop trails are popular, and a trail around Butter Pot Pond could become a popular destination close to town.
- » Local mountain biking enthusiasts have noted this area as one of the top potential areas for mountain biking trails.
- » There are a variety of views in this area: ocean, mountains/hills, ponds, and woods.

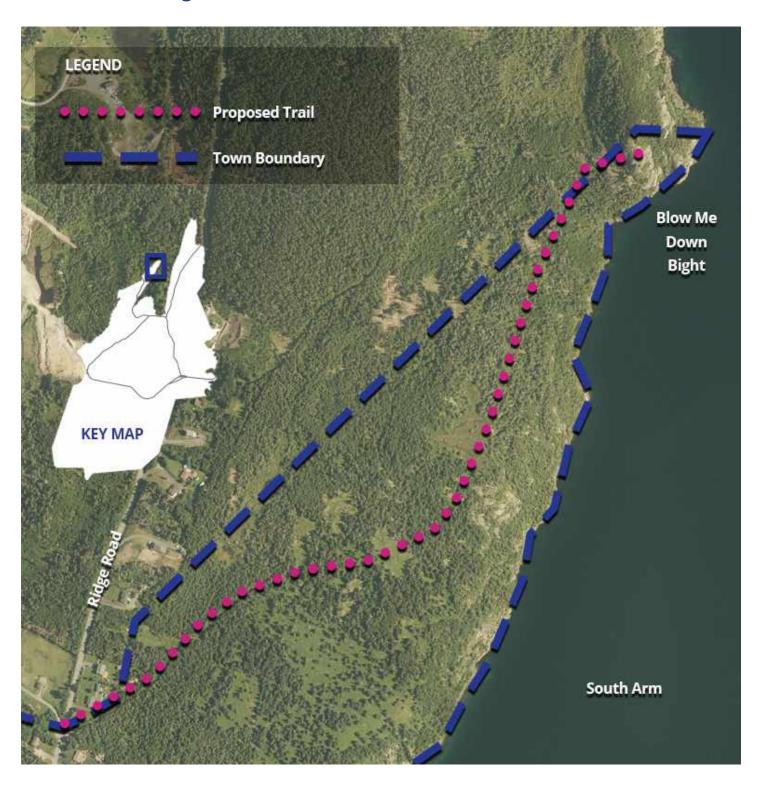
Weaknesses and Challenges

- » Pole line is used by ATVs, so user conflicts in this area could arise.
- » Land ownership would have to be confirmed.
- » A few of these proposed trails might become long and strenuous, which might not be appealing for all users.



Priority Level: High

Blow Me Down Bight



- » Preserving access to the coast and coastal viewpoints is important.
- » Great ocean views out at the point, and possibly along the way.
- » This trail would be one of the first developed on this side of the bay.
- » Could coordinate with Harbour Main-Chapel's Cove-Lakeview to continue the trail.

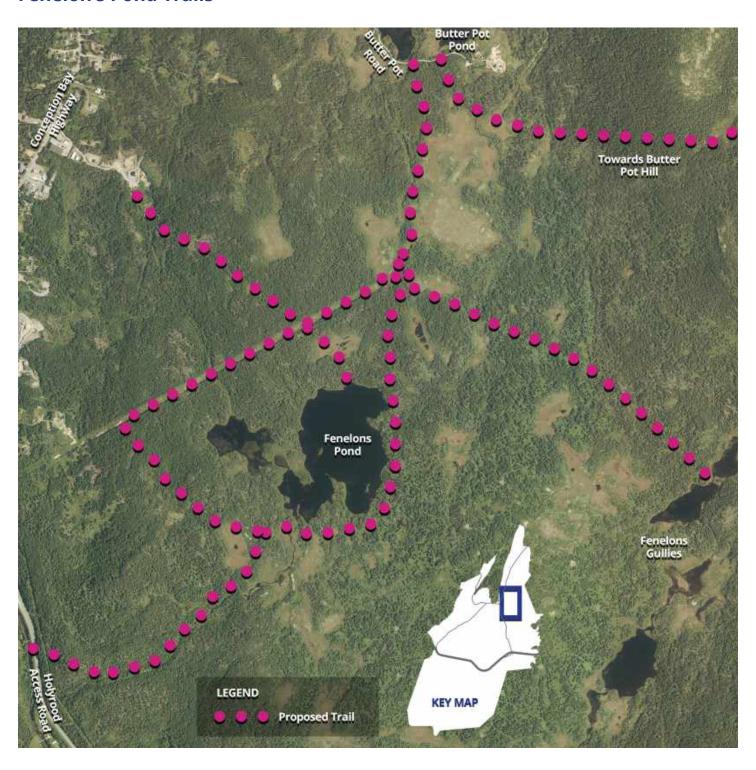
Weaknesses and Challenges

- » Land ownership would need to be confirmed.
- » Parts of an existing footpath are very overgrown.
- » Disconnected from most of the other existing and potential future trails.
- » Route as shown might be too far from the coastline to get a good ocean view.



Priority Level: Medium

Fenelon's Pond Trails



- » This trail system would create a connection from Butter Pot Pond over to the Holyrood Access Road.
- » This trail system would provide views and access to a number of ponds.
- » Local mountain bikers remarked that this area holds good potential for mountain biking trails.

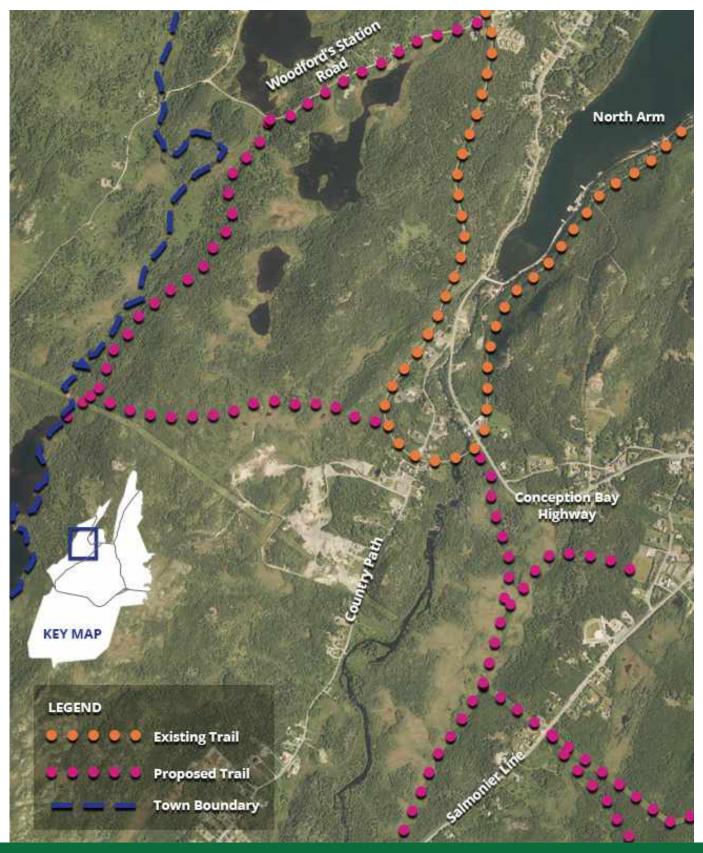
Weaknesses and Challenges

- » No ocean view in this area.
- » There are a lot of wet areas between Butter Pot Road and the Holyrood Access Road that would have to be addressed.
- » Land ownership would need to be confirmed.



Priority Level: Medium

Skibbereen



- » This trail system would provide more connections to the T'Railway.
- » This trail system would provide views and access to ponds and the North Arm River.
- » This trail system would connect to the Town's Recreation Park on Salmonier Line, which has a number of recreation facilities.
- » This system could connect further to Avondale.

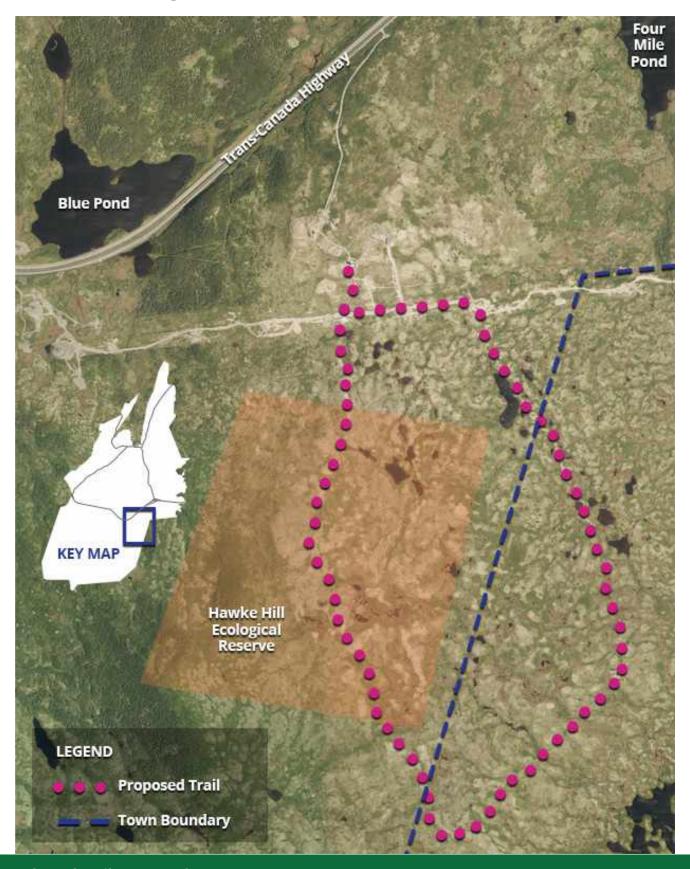
Weaknesses and Challenges

- » This is a popular ATV area, so user conflicts could arise.
- » Land ownership would have to be confirmed.
- » No ocean views in this area.



Priority Level: Medium

Hawke Hill Ecological Reserve



- » This trail would provide access to the Hawke Hill Ecological Reserve, which protects a number of arctic-alpine plants, and the most easterly alpine barrens in North America. Necessary engagement with the Department of Environment, Climate Change and Municipalities would take place before any trail development is proposed.
- » There would be lots of opportunities for interpretation and outdoor education.
- » Could explore collaboration with the provincial government for funding.

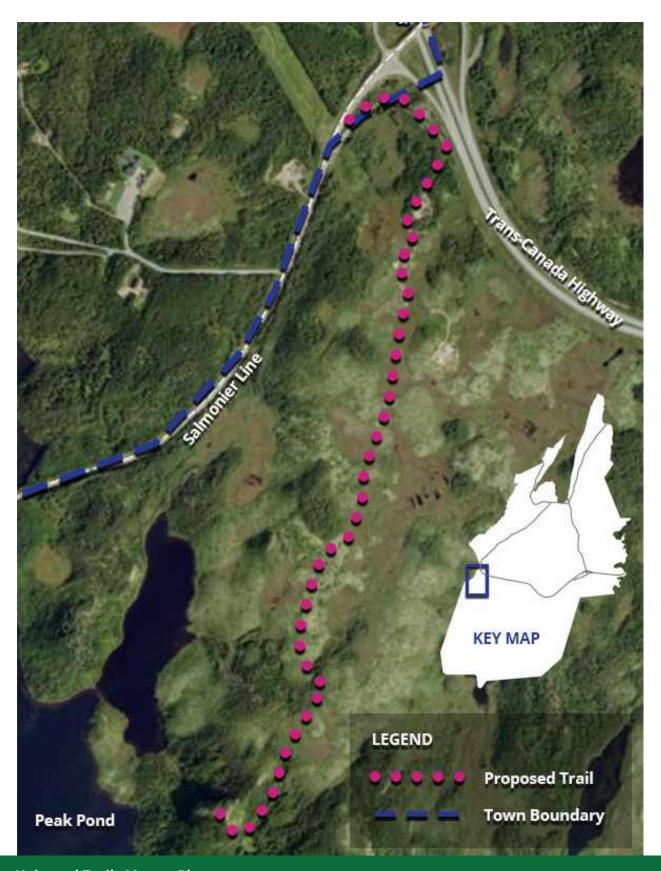
Weaknesses and Challenges

- » Could be potential for damage to the reserve if users don't follow signage or stay on the trail.
- » ATV use should not be allowed due to the fragile state of the landscape.
- » This location is exposed and remote.
- » There is currently not great access (gravel road turnoff from the Trans Canada Highway).
- » Some residents might feel that this is outside of the town limits, and therefore might not develop the same sense of ownership as the other trails.



Priority Level: Low

Peak Pond Point



- » Great views in this area of the many ponds near Salmonier Line.
- » An existing footpath could be enhanced, which is favoured over blazing new trails.
- » Easy access off of the Trans Canada Highway.

Weaknesses and Challenges

- » There are many wet areas that would have to be addressed.
- » Land ownership would have to be confirmed.
- » Remote and not too close to town amenities.
- » Route as shown is not a loop.
- » The existing parking area is used heavily by carpoolers.



Priority Level: Low

Key Themes

Excitement and Enthusiasm

It is clear from the survey responses that a majority of people are excited and enthusiastic about the development of Holyrood's trail system. Many respondents were excited about how these improved facilities will enhance not only their own quality of life, but Holyrood's attraction as a destination for hiking on the Avalon. The Town should keep residents engaged as this project develops, in order to build a sense of ownership around the trails.

Accessibility and Inclusion

Throughout the stakeholder meetings, open house, and survey responses, the importance of accessibility and inclusion were discussed. It was made clear that the final trail system needs to consider offerings that are accessible and suitable for a number of different users.

A successful trail system offers a number of different trail options that cater to different users' abilities and preferences. Trails should have differing lengths, views, difficulties, and infrastructure to allow users to choose the trail that works best for them. Having a diverse trail system will be an asset for the residents of Holyrood and surrounding communities, and people may travel to use a type of trail that they don't have access to in their own community.

This theme of trail diversity also encompasses the discussions that occurred around mountain biking and ATV trail infrastructure. Local mountain biking enthusiasts and the Avalon Mountain Biking Association have made it clear that Holyrood has great potential to become a mountain biking destination. Potential locations for mountain biking routes will be explored as a part of the next phase.

When it comes to ATVs and other motorized recreational vehicles, there is a lot of contention in the community about whether they should be allowed on community walking / hiking trails. The survey seemed almost split down the middle in favour and against ATV use on trails. The relationship between these uses, and how they can best be accommodated within the future trail system, will be explored as a part of the next phase.

Connectivity

The theme of connectivity came up in all of the stakeholder meetings and at the open house. There were also a number of survey responses that were pleased with the proposed future trails, and how those types of trail development would improve connectivity in the town. There were a number of comments about the roads becoming busier, meaning that more people were taking to the trails for safer walking conditions. The final proposed trail system will look at ways to close gaps in the trail system, while also connecting key destinations to encourage exploration and economic development throughout the town.

Raw Survey Data

All raw survey data has been included as an attachment for the Town's records.