Outdoor Spaces for Everyone: Improving Access to Backcountry Hiking Trails for People with Physical Disabilities in the Sea to Sky Corridor

by

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Bachelor of Environment, Simon Fraser University, 2022

Thesis/Major Project Submitted in Partial Fulfillment of the
Requirements for the Degree of
Master of Community Planning

in the
Department of Community Planning, Faculty of Social Sciences

Vancouver Island University

April 2025

Approval

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Degree:	**Master of Community Planning**
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Date Defended: April 29, 2025

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Ethics Statement

The author, whose name appears on the title page of this work, has obtained, for the research described in this work, either:

a) human research ethics approval from the Vancouver Island University Research Ethics Board; or

b) Advance approval of the animal care protocol from the Vancouver Island University Animal Care Committee; or

c) Has conducted this research as a co-investigator, collaborator, or research assistant in a research project approved in advance of the author's involvement.

A copy of the application has been filed with the Research Ethics Board at Vancouver Island University and inquiries may be directed to that authority.

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Nanaimo, British Columbia

Abstract

People with physical disabilities (PwPD) face accessibility challenges on backcountry hiking trails in the Sea to Sky (S2S) corridor. Through an analysis of existing infrastructure, current collaboration efforts, and existing supporting documents, the research identifies key barriers such as inconsistent accessibility information, fragmented jurisdictional management, and limited access to adaptive equipment and transportation. Planning practices should work towards improving inclusion through consistent trail information systems, strengthened partnerships between parks and adaptive sports organizations, and sustainable funding to support long-term accessibility improvements. A shift in perspectives and behaviours from other users is necessary to reduce the stigma of PwPD in backcountry hiking spaces and the dismissive perspectives of adaptive and mobility-assisted equipment. Balancing accessibility with environmental and experiential considerations will ensure that PwPD needs are met without diminishing the value and essence of backcountry hiking spaces. By addressing these gaps through planning and collaboration, this research provides strategies to enhance access while preserving the integrity of natural spaces, ensuring that PwPD can navigate and enjoy backcountry environments with greater independence and confidence.

Keywords: Accessible recreation; backcountry hiking trails; physical disability inclusion; trail planning; adaptive outdoor recreation; collaboration, outdoor equity; environmental preservation

Acknowledgements

First, I would like to thank the individuals who participated in this research. I am grateful for the time, insights, and personal stories they shared. Their commitment to improving accessibility in outdoor spaces and backcountry trails is inspiring and uplifting.

To my research supervisor, Lindsay Chase, thank you for your guidance, encouragement, and support throughout this journey. I am also thankful for my thesis group, whose thoughtful feedback made the process more collaborative and fulfilling. Another thank you to the faculty members in the VIU MCP program, as your expertise and passion helped shape this work and my growth as a student and future planner.

Finally, a special note of appreciation to my family, friends, partner, and all the mentors that I had along the way for their constant support and encouragement to pursue what I am interested in and passionate about.

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List of Acronyms

ABCA	Accessible British Columbia Act
ACA	Accessible Canda Act
BC	British Columbia
BCMOS	British Columbia Mobility Opportunities Society
CBPR	Community-Based Participatory Research
EDI	Equity, Diversity, and Inclusion
EEE	Education, Engagement, Enhancement
GBA+	Gender-Based Analysis+
LNT	Leave No Trace
LPP	Licence Plate Program
PwPD	People with Physical Disabilities
S2S	Sea to Sky
SLRD	Squamish-Lillooet Regional District
RSTBC	Recreation Sites and Trails British Columbia
UD	Universal Design
VUMS	(Joffre Lakes Park) Visitor Use Management Strategy

Glossary

Accessibility	In the context of recreational spaces and trails, accessibility is defined as the aim and focus on accommodating people with physical disabilities (PwPD) and ensuring that there is equitable participation in outdoor activities for everyone (Lukoseviciute and Nelson, 2024). This can include addressing physical, social, informational factors, and recognizing that barriers extend beyond infrastructures. The absence of a universally accepted definition of accessibility leads to inconsistencies in implementation, collaboration, and progress in improving access (Ankre and Wall-Reinius, 2024).
Backcountry hiking trails	While the definition of a backcountry trail can be subjective based on varying factors, they can often be defined as remote, natural-surfaced paths that traverse forested, subalpine, and alpine regions, often requiring significant planning and preparation to access. These trails are typically single-track with minimal infrastructure, limited facilities, no direct vehicle access, and are at least one kilometre away from developed areas (BC Parks, n.d.; Neumann and Mason, 2023).
Front-country hiking trails	These trails are typically located within one kilometre of developed areas and have smoother surfaces, gentler gradients, and wider widths. Front-country trails often have clear signage indicating trail conditions are intended to be easily reachable and provide an introductory outdoor experience (BC Parks, n.d.; Demrow et al., 2007).

Chapter 1. Introduction

1.1. Purpose, Objectives, and Questions

The primary aim of this research is to identify and understand the barriers within outdoor recreational spaces for people with physical disabilities (PwPD), mainly focusing on backcountry hiking trails in the Sea to Sky (S2S) region. The goal is to explore opportunities supported by planning strategies to foster greater participation for PwPD. A "backcountry" trail is defined by BC Parks as an area more than 1km away from any highway or park road. However, what constitutes a backcountry trail can be subjective based on varying factors, including terrain conditions, management requirements, and available amenities and infrastructure. Backcountry trails are often remote, unpaved paths that go through forested, subalpine, and alpine regions, requiring sufficient trip planning, preparation, and skills to access (BC Parks, n.d.; Neumann & Mason, 2023). This research focuses on the accessibility landscape of backcountry hiking trails in the S2S corridor, which is a region known for its rich natural beauty but also characterized by its steep and difficult terrains. The study will look into the lived experiences of PwPD, examining the range of physical, social, and systemic barriers that impact their ability to hike in backcountry terrains. Through identifying effective planning strategies, this study aims to strengthen the opportunities where PwPD can continue to find meaningful experiences in backcountry hiking spaces and enhance their sense of belonging and connection to the outdoors.

The main research question is:

How can planning strategies inform and improve access to backcountry hiking trails in the Sea to Sky corridor for people with physical disabilities?

The research question is guided by four supportive questions:

1. What are the current barriers to access and enhancement of access on backcountry trails in the Sea to Sky corridor for people with physical disabilities (ie: financial, social, policy, political, and legal barriers)?

2. How do existing parks planning initiatives address accessibility issues on backcountry trails? What policies or regulations are necessary to promote accessibility in backcountry hiking trails and spaces? What are the best practices and successful strategies from other regions or similar contexts for improving accessibility on backcountry trails?

3. What are current Equity, Diversity, and Inclusion (EDI) strategies and implementation efforts in promoting accessibility in outdoor recreational spaces, particularly on backcountry hiking trails, amongst different levels of government and non-governmental organizations within the Sea to Sky region?

4. What are the perspectives and needs of PwPD regarding backcountry trail accessibility? How can different levels of governments, parks planners, and other stakeholders collaborate to implement effective accessibility enhancements on backcountry trails for people with physical disabilities?

1.2. Significance and Personal Reflection

Outdoor recreation and access to nature are essential to human well-being, providing physical, mental, and social benefits (Jakubec et al., 2016; Loeffler & White, 2022). Despite these advantages, many individuals, particularly PwPD, face barriers to participating in outdoor activities (Aguilar-Carrasco et al., 2023; Garrod and Fennell, 2023; Piskin & Akdeniz, 2023). This issue is especially prominent in backcountry hiking trails, where the natural environment, terrain, and infrastructure often create more challenges for PwPD (Lovelock, 2010; Lukoseviciute & Nelson, 2024). By examining current planning strategies and the accessibility of backcountry hiking trails in the S2S area, this research seeks to promote inclusivity and increase opportunities for participation for PwPD.

While BC, and particularly the S2S region, has vast trail networks and incredible hiking terrains, I didn't grow up exploring these spaces despite being born in Vancouver, BC. My parents were once connected to the outdoor environments in Hong Kong, but once they moved to BC right before I was born, they found themselves distanced from these spaces. As an immigrant family, we were pressured to establish ourselves in a new country. Financial constraints, cultural adjustments, transportation limitations, and the need to prioritize work and education over leisure meant that outdoor recreation was not a part of our routine. The concept of leisure was often overshadowed by the challenges of adaptation and securing a stable life (Pang et al., 2013). It wasn't until later in life that I was introduced to various outdoor recreational activities and sports, with hiking being the first one. I vividly remember the awe I felt upon seeing the view at the top of Stawamus Chief, and from that moment, I longed to spend more time in outdoor spaces. Soon, I became increasingly interested in adventuring into the backcountry, gradually acquiring more gear, working in the outdoor industry, and developing additional skills. However, as many of us know, outdoor sports, despite being so prevalent in BC, come with high costs. Backcountry hiking and camping, in particular, require substantial investments in equipment and gear, as do many other outdoor recreational activities and sports. Eventually, through organizations that aimed to create safer learning spaces for BIPOC (Black, Indigenous, and People of Colour) women-identifying and/or gender individuals, and the mentors that I had around me, I had the opportunity to explore other outdoor recreational sports, including paddling, climbing, and snowboarding. Through these experiences, I gained the knowledge, resources, and skills necessary to feel confident and comfortable in outdoor environments. I also received subsidies to take courses and further develop my abilities, while also having the chance to mentor others in return. This experience highlights the importance of providing knowledge and training that is tailored to specific groups. When content is relevant and accessible, it creates safer, more empowering, and more inclusive learning spaces (Derakhshan et al., 2024; Garrod & Fennell, 2023; Lovelock, 2010).

Access to outdoor spaces is intertwined with education, safety, and a supportive environment (Derakhshan et al., 2024; Scholl-Grissemann et al., 2022). Exploring backcountry terrains without proper guidance can be intimidating and dangerous for anyone. Education about backcountry safety, trail etiquette, and environmental

conservation, including principles like "Leave No Trace (LNT)," is necessary to reduce environmentally harming behaviours and promote responsible outdoor practices (Blye & Halpenny, 2020; Neumann & Mason, 2023; Scholl-Grissemann et al., 2022). For PwPD, the lack of accessible infrastructure, education, and resources to navigate these spaces safely has been a major obstacle to access (Lovelock, 2010; Groulx et al., 2021). This education gap can amplify hesitation to access the outdoors, particularly when the complexities of backcountry environments can seem overwhelming without proper resources (Piskin & Akdeniz, 2023).

The additional cost of outdoor education and adaptive equipment can be a significant barrier, making it inaccessible for many people, particularly those from lower-income backgrounds (Carrión, et al., 2022; Lovelock, 2010). There is a noticeable discrepancy in the availability of resources for PwPD compared to those without (Garrod & Fennell, 2023). While there are various initiatives and programs aimed at increasing outdoor access for marginalized groups, PwPD continue to find themselves excluded from access due to the layers of barriers they face (Aytur et al., 2015; Freudenberg & Arlinghaus, 2009). There is also a misconception that PwPD cannot engage in certain outdoor activities because if they do, there is greater risk for them (Loeffler & White, 2022). This misconception is perpetuated by the public and the outdoor industry, leading to exclusionary practices and a lack of proper resources (Burns et al., 2013; Freudenberg & Arlinghaus, 2009). This research reveals the persistent barriers that PwPD face despite the growing inclusivity in other outdoor recreation areas. It is important to note that while I do not have a physical disability, I live with chronic health issues and neurological disabilities, which often result in being pitied or treated as less capable. While I admit that I will not fully understand what life is like for PwPD, my personal experience has given me insight into how individuals with chronic health issues or disabilities are perceived and treated by others. I believe that with greater opportunities and more representation in the outdoors, we can help people see beyond disabilities and recognize the inherent ability of all individuals to connect with and enjoy nature and outdoor recreational spaces. By increasing the exposure and visibility of diverse groups in outdoor spaces, we can foster a sense of familiarity and inclusion, making the outdoors more accessible and welcoming to everyone (Garrod & Fennell, 2023). For many, it is not the disability that defines them, but rather their ability to engage with the world in ways that enable participation and

enjoyment (Lukoseviciute & Nelson, 2024). This study seeks to challenge the stereotype that PwPD cannot participate in backcountry hiking and to highlight the need for more inclusive policies and planning strategies that allow everyone to enjoy nature, regardless of their abilities (Piskin & Akdeniz, 2023; Yau et al., 2004).

Figure 1.1. Location Map of the Sea to Sky Corridor

Sea to Sky Corridor Location Map from Blais-Stevens et al. (2012)

The Sea to Sky (S2S) corridor spans from Horseshoe Bay to Pemberton. It is known for its breathtaking landscapes and challenging front-country and backcountry trails. The region's diverse terrain, ranging from rugged mountains to dense forests, can be challenging to navigate (Blais-Stevens et al., 2012; Harshaw et al., 2006). For PwPD, these natural features can be a greater barrier to access (Aguilar-Carrasco et al., 2023; Groulx et al., 2021). Currently, backcountry trails in BC are managed by different agencies. Recreation Sites and Trails BC (RSTBC) oversees public recreation on Crown land outside BC Parks, BC Parks looks after established provincial parks, and access roads and trails may be within some municipal boundaries. This complex system of land management, combined with the challenges of backcountry terrain and limited adaptive infrastructure, makes it difficult to provide consistent and reliable access for PwPD. This

study will examine barriers and limitations in the S2S area in infrastructure, trail design, information availability, and the role of adaptive technologies in overcoming these barriers. This research will analyze these factors and propose planning strategies to make backcountry hiking trails more accessible for PwPD (Derakhshan et al., 2024; Garrod & Fennell, 2023).

1.3. Overview of the Study

This research examines the barriers to accessing backcountry hiking trails for people with PwPD in the S2S region, exploring how planning strategies can improve access and foster greater participation. Chapter 2 provides a comprehensive literature review, discussing the benefits of inclusion, the distinctions between backcountry and front-country hiking trails, and the specific challenges of backcountry environments. It examines the role of planning in enhancing accessibility through Universal Design (UD), collaboration, accessibility standards, regulatory compliance, and equity planning, as well as understanding the connection between planning and trail management, especially regarding user safety, environmental protection, and related policies. This chapter also addresses the challenges of physical barriers, social attitudes, insufficient infrastructure, and overcrowding. Chapter 3 outlines the methodology used in this study, providing details on participant recruitment, interview structures, and the process of the research data analysis, while also reflecting on the study's limitations. Chapter 4 presents the findings from the data analysis of the interviews, highlighting the perspectives of PwPD, the positive impacts of improving accessibility, and identifying best practices for collaboration and engagement. It also connects these findings to current Equity, Diversity, and Inclusion (EDI) efforts and regulations while discussing the challenges of overcrowding, limited prioritization of accessibility, and organizational constraints. Chapter 5 combines what exists in the literature and these research findings, emphasizing the unique terrain and demographics of the S2S region, identifying local regulatory opportunities, and proposing context-specific methods for improving accessibility planning. The chapter also outlines potential partnerships and programs to address these challenges. Finally, Chapter 6 concludes the research by analyzing the findings and literature to offer recommendations for creating more effective planning strategies, while also suggesting areas for further

research to support the continued evolution of accessible outdoor recreation in backcountry terrains.

Through an equity planning lens, this study examines how the S2S region’s backcountry hiking trails are currently planned and regulated and how existing practices can be transformed to serve PwPD better. By applying the equity planning framework, the study focuses on improving access through planning strategies and also advocating for systemic changes that address access's physical and social dimensions. This approach aligns with equity planning's goal of dismantling the structural inequities that limit participation in public spaces, and making the planning process more inclusive, just, and reflective of the needs of marginalized communities (Ankre and Wall-Reinius, 2024; Arroyo, 2023; Derakhshan et al., 2024).

Chapter 2. Literature Review

2.1. Introduction

Inclusive and accessible backcountry hiking trails provide many benefits, from improving personal well-being to environmental stewardship (Aguilar-Carrasco et al., 2023). For PwPD, the opportunity to access backcountry spaces challenges societal assumptions and stereotypes of PwPD (Freudenberg & Arlinghaus, 2009; Goodwin et al., 2009). However, despite growing efforts toward inclusion, PwPD continues to face barriers in accessing these spaces. Physical barriers such as uneven terrain, lack of adaptive equipment, and limited transportation options, along with social and psychological barriers related to discrimination, remain as persistent challenges (Loeffler & White, 2022; Neumann & Mason, 2023).

These barriers are not limited to backcountry terrains, as accessibility challenges are often present even in front-country or urban parks, where infrastructure exists but planning practices still fall short (Beck et al., 2024; Blye & Halpenny, 2020). There is a disconnect between academic equity research and the actual equitable practices in parks planning, with many organizations failing to prioritize or operationalize social equity in meaningful ways (Beck et al., 2024; Reece, 2018). Despite growing recognition of social and environmental justice in planning, park and recreation systems often lack tailored, comprehensive frameworks to address the needs of historically marginalized communities, including PwPD (Beck et al., 2024; Garrod & Fennell, 2023).

The purpose of this literature review is to examine the role of planning strategies in increasing access to backcountry hiking trails for PwPD. Focusing on the integration of UD principles, sustainable trail features, adaptive technologies and the connection of parks management to planning (Ankre & Wall-Reinius, 2024; Scholl-Grissemann et al., 2022). Furthermore, it highlights the importance of community engagement and ongoing maintenance in the planning process and management of accessible backcountry trails (Blye & Halpenny, 2020; Lovelock, 2010).

2.2. Background on Accessible Outdoor Recreation

Ensuring accessibility in outdoor recreation, particularly in backcountry hiking trails, requires a comprehensive approach that considers physical, social, and systemic factors (Aguilar-Carrasco et al., 2023; Arni & Khairil, 2013). Access to nature offers significant benefits for PwPD, including improved mental well-being, physical health, and social inclusion (Jakubec et al., 2016; Loeffler & White, 2022). However, despite these advantages, outdoor recreation remains largely inaccessible for many PwPD due to barriers in trail design, infrastructure, and societal attitudes (Aguilar-Carrasco et al., 2023; Lloyd et al., 2021). While front-country trails often incorporate some accessibility features, backcountry trails have additional challenges due to complex terrains, environmental regulations, and the need for adaptive equipment (Ankre & Wall-Reinius, 2024; Lovelock, 2010). Addressing these barriers requires a combination of management and planning strategies, technological advancements, and inclusive policies that prioritize equitable access for PwPD (Neumann & Mason, 2023). By integrating UD principles, comprehensive trail information, and localized support systems, outdoor spaces, particularly in backcountry hiking terrains, can foster more meaningful participation and engagement for PwPD (Aguilar-Carrasco et al., 2023; BC Parks, 2023; Derakhshan et al., 2024)

2.2.1. Benefits of Inclusion and Accessible Outdoor Recreation

The inclusion of PwPD in outdoor recreation activities offers significant benefits, as outdoor experiences can enhance mental well-being, provide opportunities for stress relief, increase physical activities, a sense of achievement, and connection to the natural environment (Jakubec et al., 2016; Loeffler & White, 2022). Outdoor recreation, such as hiking, can help improve muscular strength and increase overall fitness levels (Freudenberg & Arlinghaus, 2009; Olsen et al., 2023). In addition to physical benefits, spending time in nature can promote relaxation and psychological resilience (Jakubec et al., 2016; James et al., 2018). Inclusive outdoor recreational spaces provide opportunities for social connection and community integration, as it helps dismantle stigma and stereotypes about PwPD in the outdoors (Burns et al., 2013; Goodwin et al., 2009; Yau et al., 2004).

By incorporating diverse perspectives and recognizing shared human experiences in outdoor spaces, PwPD and other user groups can foster a sense of belonging and mutual understanding amongst each other (Goodwin et al., 2009; Freudenberg & Arlinghaus, 2009; Lloyd et al., 2021). Availability of adaptive outdoor programs can also encourage PwPD to safety and comfortably explore natural spaces and learn about environmental systems, sustainability, and conservation practices (Jakubec et al. 2016). These spaces can continue to challenge societal assumptions about PwPD, and showcase the value of interdependence and community in building inclusive environments (Goodwin et al. 2009; Yau et al, 2004).

2.2.2. Front-Country vs. Backcountry Trails

Front-country trails, typically situated in areas with better infrastructure and easier access, have long been the focus of accessible trail development. These trails often serve as the testing ground for innovations in accessible design, offering key lessons in implementing UD standards (Neumann & Mason, 2023). Accessible front-country trails provide a foundation for promoting inclusivity and increasing participation in outdoor activities. For example, path surface materials, width, slope, and signage improvements have made it possible for PwPD to access many front-country locations (Miller et al., 2012). The BC Parks' *Universal Design Guide for Front-Country Parks* (2020) shares the importance of creating accessible routes that connect key park features and facilities, which includes paths with maximum slope scales, unobstructed routes, ramps, and elevators, ensuring that areas like campgrounds, picnic sites, and visitor centres are accessible for people of all abilities. The guide aligns with UD principles by creating outdoor spaces that are meant to be usable by everyone. It emphasizes accessible amenities like clear signage, well-lit restrooms, and the adaptation of natural terrain features to suit diverse needs (BC Parks, 2020). While front-country trails benefit from existing infrastructure, their design also emphasizes the importance of a tailored approach, considering users' diverse needs (Demrow et al., 2007; McKercher et al., 2003).

In contrast, backcountry trails present more complex challenges for accessibility. These remote and rugged terrains often feature obstacles, such as steep inclines, uneven

surfaces, and natural features like tree roots and rocks, making it difficult for PwPD to access them (Neumann & Mason, 2023). Backcountry trails are typically located at least 1-kilometre away from any highway or park road, and are inaccessible directly by vehicle. They have limited facilities and lack basic amenities such as garbage cans and showers (BC Parks, n.d.). While technological advancements, such as adaptive equipment like TrailRiders and other off-road wheelchairs, can help overcome some of these barriers, the terrains itself still remain as a major challenge. Integrating adaptive technologies and applying UD principles to backcountry trail design can contribute to more equitable access in the backcountry, however, these innovations must be balanced with the environmental goals, ensuring that the addition of infrastructure does not harm the natural landscape spaces (Neumann & Mason, 2023). For example, in efforts to address accessibility on rugged terrain, the Appalachian Trail Conservancy and the National Park Service emphasize the need to incorporate UD early in the planning process, including guidelines for trail width, surface materials, and slope adjustments to facilitate accessibility while preserving the natural character of the trail. However, achieving full accessibility across the entire Appalachian Trail presents challenges due to several steep and uneven sections (Demrow et al. 2007). Similarly, within the S2S corridor in Squamish, efforts to improve accessibility have focused on selected front-country trails, such as the Sea to Sky Gondola's Panorama Trail, which provides a relatively accessible route with stunning alpine views. However, backcountry areas, including sections of Garibaldi Provincial Park, remain largely inaccessible due to steep inclines, rocky terrain, and limited infrastructure (Blais-Stevens et al., 2012; Harshaw et al., 2006).

2.2.3. Understanding Accessibility in Backcountry Hiking Trails

Accessibility in backcountry hiking trails encompasses physical, social, and systemic dimensions, influencing who can engage with these outdoor spaces and how they experience them (Aguilar-Carrasco et al., 2023; Arni & Khairil, 2013). Unlike front-country trails, which often feature well-defined paths, established amenities and infrastructure, backcountry trails present inherent challenges due to rugged terrain, environmental protections, and limited infrastructure (Ankre & Wall-Reinius, 2024; Lovelock, 2010; Neumann & Mason, 2023). Defining accessibility in these contexts requires an understanding and balance of feasible modifications, such as trail design and

adaptive technologies, and broader systemic factors, including policy, funding, and user engagement (Derakhshan et al., 2024; Freudenberg & Arlinghaus, 2009; Garrod and Fennell, 2023).

PwPD may navigate a complex relationship between autonomy and interdependence in backcountry hiking spaces with the use of adaptive devices, such as the TrailRider or GRIT Chair. While adaptive technology enables access to backcountry trails, it also introduces tensions around dependence, control, and social perceptions (Goodwin et al., 2009; Loeffler and White, 2022). Internalized perceptions and attitudes of people without disabilities can also impact accessibility, as dismissive and overprotective attitudes toward PwPD in backcountry spaces can limit the implementation of necessary accommodations (Garrod & Fennell, 2023). PwPD have reported that sometimes in outdoor spaces, they get pitied or receive backhanded compliments rather than simply being acknowledged as a fellow hiker (Freudenberg & Arlinghaus, 2009; Loeffler & White, 2022). Restrictive policies are influenced by the prevalent cultural perception that backcountry environments are inherently risky for PwPD (Loeffler & White, 2022; Scholl-Grissemann et al., 2022). To counteract this, staff training, awareness campaigns, and inclusive decision-making processes can help create an environment where PwPD feel welcomed and valued in backcountry hiking spaces (Garrod & Fennell, 2023).

Legal standards and mandates are crucial in shaping accessibility efforts in backcountry hiking trails. The laws enacted in Canada and BC, including *the Accessible Canada Act* (ACA), *Accessible BC Act* (ABCA) and the *United Nations Convention on the Rights of Persons with Disabilities* (UNCRPD), aim to create inclusive and accessible environments for PwPD to fully participate in. While they do not exclusively mention backcountry hiking trails or outdoor recreation, they address principles that could apply to those spaces. (Government of British Columbia, 2021; Government of Canada, 2019; United Nations, 2006). However, the interpretation of these laws in an outdoor setting remains a point of debate, as efforts to increase accessibility may sometimes conflict with conservation goals and the principle of minimal human impact (Lovelock, 2010). The balance between accessibility and environmental preservation requires thoughtful planning and collaborative management efforts to ensure equitable access while maintaining environmental integrity (Altinay et al., 2016; Lovelock, 2010).

The process of creating accessibility in backcountry hiking trails for PwPD requires direct engagement and collaboration with PwPD to understand and adequately address their needs and experiences (Aytur et al., 2015; Guo, 2015). Many PwPD express a strong desire for self-sufficient outdoor experiences, yet barriers such as inadequate signage, limited adaptive equipment availability, and a lack of consistent accessibility information persist (Ankre & Wall-Reinius, 2024; Derakhshan et al., 2024). Additionally, the absence of developed amenities such as restrooms, benches, or accessible transportation can further complicate participation (Derakhshan, 2024; Lovelock, 2010). Participatory planning practices, such as collaborative design, user engagement, and inclusive decision-making**,** can help capture the lived experiences of PwPD and inform planning decisions and strategies (Ankre & Wall-Reinius, 2024; Groulx et al., 2021). Integrating adequate perspectives of PwPD into planning processes ensures that accessibility improvements align with actual needs rather than assumptions made by people without physical disabilities.

Accessibility among PwPD is not a one-size-fits-all concept, as it is shaped by intersecting factors such as age, gender, socio-economic status, and the type of disability (Lu et al., 2024; Scholl-Grissemann et al., 2022). For example, some older adults with physical disabilities may face different challenges in navigating backcountry terrain compared to younger individuals with physical disabilities. Similarly, economic disparities influence access to adaptive equipment and transportation to participate in backcountry hiking (Ankre & Wall-Reinius, 2024; Mehta & Mahato, 2021). Recognizing and incorporating the diverse needs of PwPD in the planning process will help accommodate a broader spectrum of physical disabilities and social circumstances when creating access to backcountry hiking terrains (Derakhshan et al., 2024; Goodwin et al., 2009).

Improving access to backcountry hiking terrains involves ensuring that navigational tools and systems are in place to guide users effectively through these challenging environments (Mosca, 2012). Providing clear signage, on-site maps, detailed information, and using navigational platforms like Trailforks, can help land managers and parks planners monitor usage and identify accessibility issues and reduce confusion on backcountry terrains for PwPD (Molnár, 2020; Derakhshan et al., 2024; Roger & Leung, 2023). However, planning effective trail signage and navigation systems

requires for consistency in how signage is designed and used across different trail systems (Piskin & Akdeniz, 2023). Inconsistent signage designs can lead to confusion, especially in more complex networks (Guo et al., 2015; Molnár, 2020). Additionally, limited cell service in backcountry areas impacts the use of navigation apps, especially for those relying on real-time data or who haven't pre-downloaded maps (Lukoseviciute & Nelson, 2024; Molnár, 2020; Scholl-Grissemann et al., 2022). Many platforms also require paid subscriptions for offline access, creating financial barriers (Rogers & Leung, 2023).

2.3. The Role of Planning in Creating Accessible Backcountry Hiking Trails

Planning for accessible backcountry hiking trails requires a comprehensive approach that integrates key elements of UD principles to ensure that outdoor spaces are accessible to all users (Groulx et al., 2021). These principles guide the design of trails that prioritize accessibility without compromising environmental integrity (Derakhshan et al., 2024). Features such as wider tread widths, appropriate surface materials, and adjustments to the grade of trails can ensure that trails are easier to navigate while maintaining the trail's natural qualities (Demrow et al., 2007; Lovelock, 2010). Incorporating accessibility needs early into the planning process is essential, as it ensures that accessibility considerations for trailheads, parking, and side trails are addressed during the design process (Demrow et al., 2007; Groulx et al., 2021).

Inclusive planning requires strong community involvement. Engaging a diverse range of stakeholders, including local communities, trail managers, volunteers, and PwPD, provides crucial insights that inform design, support trail maintenance, and support the enhancement of outdoor spaces (Lovelock, 2010; Neumann & Mason, 2023). When consulting PwPD, it's important to gather specific insights on features like resting areas, sensory elements, and accessibility preferences, which guide design and resource development choices. Planners must also address historical exclusion and socio-demographic factors, ensuring that all groups, PwPD, have equitable access to these spaces (Mehta & Mahato, 2021; Rigolon, 2016). Community-Based Participatory Research (CBPR) frameworks further strengthen this process by embedding collaborative

decision-making into trail planning, ensuring that accessibility strategies are both responsive and sustainable (Neumann and Mason, 2023).,

Education and communication are also key, with targeted outreach that promotes accessible trail options and provides clear, accurate information through digital and physical signage (Lovelock, 2010). While tools like geospatial mapping systems and mobile apps can enhance navigation for PwPD, it's important that these technologies are user-friendly and provide equitable access, ensuring that PwPD can fully use them for trip planning and navigating trails (Mosca, 2012; Molnár, 2020). However, planners must also be mindful of the potential environmental impacts of increased accessibility and use. Ongoing maintenance and consistent monitoring are essential to preserving the functionality of accessible features, and ensuring trails remain safe, welcoming, and compliant with accessibility standards over time (Evju et al., 2021; Demrow et al., 2007).

2.3.1. Universal Design

Universal Design (UD) principles are a valuable planning framework for creating outdoor recreation spaces that are inclusive, equitable, and accessible for all users, including PwPD (Derakhshan et al., 2024; Groulx et al., 2021). In the context of backcountry hiking trails, UD principles help planners anticipate diverse user needs, ensuring that accessibility is embedded within the broader goals of environmental protection, user experience, and equitable access (Derakhshan et al., 2024; Lukoseviciute & Nelson, 2024). A key strength of UD principles is that they remove barriers for PwPD while simultaneously creating more universally enjoyable spaces for all individuals (Derakhshan et al., 2024). This approach shifts accessibility away from a reactive accommodation to a foundational design value and avoids the marginalization of PwPD as "other visitors" (Groulx et al., 2021).

UD is grounded in equity-oriented practices as it requires ongoing engagement with diverse user groups, adaptive design strategies, and a commitment to monitoring and maintenance (Evju et al., 2021; Derakhshan et al., 2024; Moore et al., 2023). It emphasizes the integration of inclusive features, such as firm, stable trail surfaces, appropriate grading, and accessible trailheads, without compromising the environmental

integrity or aesthetics of natural spaces (Derakhshan et al., 2024; Lukoseviciute & Nelson, 2024). Incorporating accessibility considerations early in the planning process ensures more cost-effective trail development, aligning with long-term goals for sustainability and usability across seasons and user demographics (Derakhshan et al., 2024; Groulx et al., 2021). UD is often misunderstood or narrowly applied in similar planning areas such as public playgrounds, where it is frequently seen as basic accessibility rather than being recognized as a comprehensive planning tool (Moore et al., 2023). These inconsistencies point to the need for developing more clear definitions and research to refine UD as a planning model that accommodates diverse experiences, social inclusion, and participation rather than just physical access (Lukoseviciute & Nelson, 2024).

2.3.2. Collaboration and Engagement

Creating accessible backcountry hiking spaces for PwPD is a political and equity-driven process. Effective accessibility planning requires intentional engagement with the communities most impacted by exclusion, acknowledging that conventional approaches often are inadequate for addressing systemic barriers (Reece, 2018). Equity planning demands that planners work collaboratively with marginalized communities, in this context, PwPD, as co-creators of space and policy (Reece, 2018; Zapata & Bates, 2015). Community-Based Participatory Research (CBPR) is one approach that engages community members, user groups, land managers, parks employees, and other organizations directly in the research and planning process, ensuring that their perspectives are integrated into decision-making and collaboratively address accessibility issues (Neumann & Mason, 2023). CBPR fosters a sense of responsibility and enhances communication and cooperation efforts among different groups to support the creation of more inclusive parks and recreational spaces (Groulx et al., 2021; Neumann & Mason, 2023). CBPR aligns with equitable planning values and governance structures, where those most affected by planning outcomes, particularly historically marginalized groups, are directly involved in shaping them (Neumann & Mason, 2023; Reece, 2018; Zapata & Bates, 2015).

Another participatory planning approach, known as participatory “backcasting,” also ensures that the needs and perspectives of those directly impacted by accessibility

issues are integrated into the planning process of parks and recreational spaces (Groulx et al., 2021). Participatory backcasting involves including various community members and user groups to envision and define a desired future outcome, such as the creation of equitable and accessible backcountry hiking spaces. Then, collectively, everyone will work backwards to identify the steps and actions required to reach that future state. Even if the present conditions do not naturally lead to the desired outcome, through participatory backcasting, planners can effectively ensure that future parks and recreation areas meet the diverse needs of all communities by developing new policies, design elements, funding strategies, and more (Bibri, 2018; Groulx et al., 2021). This inclusive process supports the planning field's growing recognition of the importance of justice and long-term vision in the face of social and environmental inequalities (Gradinaru et al., 2023; Reece, 2018).

Collaboration and engagement efforts must go beyond consultation and seek to confront the systemic biases embedded in planning structures (Gradinaru et al., 2023; Williams et al., 2023). Planners can address inequitable processes and planning gaps through engagement that values community knowledge and rebalances power within decision-making processes (Sterman et al., 2019; Zapata & Bates, 2015). Embedding equity planning theory into practice, through collaborative engagement and attention to structural inequalities, creates opportunities to build recreation systems that are both inclusive and just (Zapata & Bates, 2015; Williams et al., 2023). Advancing accessibility in backcountry hiking trails requires a rethinking of how planners conceptualize participation, power, and public space. Equity planning is achieved through consultation, redistributing decision-making power, addressing institutional biases, and planning with PwPD. Integrating participatory models like CBPR and backcasting within this broader equity planning framework supports a more just, inclusive, and responsive recreation environment (Groulx et al., 2021; Neumann & Mason, 2023; Sterman et al., 2019; Williams et al., 2023).

2.3.3. Digital and Adaptive Technology

The integration of digital tools and adaptive technologies has enhanced trail navigation and customization for PwPD, offering new opportunities to increase accessibility in backcountry hiking environments. Digital mapping platforms such as

Trailforks utilize user-generated GPS data to provide real-time trail information, photos, and route conditions (Lukoseviciute & Nelson, 2024; Molnár, 2020; Scholl-Grissemann et al., 2022). However, the increased shift to using digital platforms requires careful management and planning strategies to reduce overcrowding and environmental degradation, particularly in environmentally sensitive areas (Piskin & Akdeniz, 2023). Equity-oriented planning must also address how digital tools can disproportionately affect marginalized communities that may lack access to reliable devices, service connectivity, or the digital literacy needed to navigate outdoor recreation apps (Beck et al., 2024; Neumann & Mason, 2023). Planners need to develop policies and infrastructure that ensure equitable access to both digital tools, non-digital tools, and the physical spaces they support.

Additionally, while digital navigation tools offer practical guidance, many lack semantic relationships in their route descriptions, failing to communicate the meaningful spatial, temporal, and sequential connections between locations and actions (Mosca, 2012). For example, a low-semantic description would give directions such as, “In 200 metres, go left, then turn right at the fork”. Whereas, a semantic description could suggest, “Follow the wide gravel path until you see a small wooden bridge where the path will split, stay on the left side of the path where the stack of rocks (cairns) mark the route of the meadows”. Inclusive digital design and user testing across a range of disabilities should be integrated into planning processes to ensure that digital tools genuinely enhance accessibility (Lovelock, 2010; Molnár, 2020; Scholl-Grissemann et al., 2022).

On the equipment side, adaptive technologies share a major role in enhancing outdoor recreational spaces for PwPD. An example of adaptive hiking equipment is the TrailRider, which is a human-propelled adaptive hiking device that enables PwPD to access backcountry hiking trails with human assistance (James et al., 2018; Loeffler & White, 2022). The TrailRider demonstrates the importance of interdependence, where PwPD and other trail users can view support as a mutual, collaborative relationship, as well as their experiences and interactions on backcountry hiking trails (Goodwin et al., 2009; Loeffler & White, 2022). This challenges normative ideas of independence and mobility, and planners need to recognize and accommodate interdependence as a valid and valuable aspect of inclusive design.

From an equity planning perspective, digital and adaptive tools provide technical support while also contributing to broader accessibility goals for PwPD. While existing studies do not explicitly address backcountry spaces, research on urban parks, front-country trails, and other outdoor spaces highlights the importance of aligning physical design and digital additions with the diverse needs and preferences of user groups (Mehta & Mahato, 2021; Molnár, 202; Scholl-Grissemann et al., 2022). Furthermore, the uneven distribution of access to green spaces based on socioeconomic status reinforces the need to integrate both physical and digital equity into planning, ensuring that efforts to promote inclusion do not perpetuate existing patterns of exclusion (Lu et al., 2024; Molnár, 202; Scholl-Grissemann et al., 2022).

2.3.4. Resource Allocation

Resource allocation in planning for accessible backcountry hiking trails involves financial investments, commitment, time, technical expertise, and meaningful collaboration. At the core of resource allocation is securing adequate funding that can support access to adaptive technology and equipment, employment, constructing accessible infrastructure, and building programs that facilitate engagement for people with PwPD, such as educational workshops (Beck et al., 2024; Freudenberg & Arlinghaus, 2009). Cross-departmental collaboration and diverse community engagement are crucial to achieving these goals (Neumann and Mason, 2023). For example, transportation departments can support access by improving trailhead connectivity through accessible shuttle services, parking, and wayfinding systems (James et al., 2018), while parks and recreation departments can lead programming and partnerships that bring adaptive equipment and inclusive activities to users on the ground (Neumann & Mason, 2023). Health and equity departments can contribute data and analysis to inform decision-making and prioritize investment opportunities (Zapata & Bates, 2015).

Equity-based planning is essential for ensuring that PwPD receives appropriate resource distribution. Integrating equity into resource planning involves data analysis to understand where disparities exist and how to direct investments toward environmental and social justice goals (Beck et al., 2024; Williams et al., 2023). Without consultation with PwPD, well-intentioned accessibility efforts often fail to meet the needs of the user groups

(Sterman et al., 2019). Applying this to backcountry trail planning, engaging PwPD in co-developing priorities for resource allocation ensures that investments reflect the values, preferences, and lived realities of diverse user groups.

2.3.5. Accessibility Standards and Regulatory Compliance in BC

Accessibility standards and regulatory compliance ensure that backcountry spaces are designed, planned, and managed with inclusivity and long-term equity in mind. For planners, these standards are foundational tools that help integrate UD principles and inclusion goals into feasible actions, guiding infrastructure development, trail maintenance, program delivery, and site management (Groulx et al., 2021; Prescott et al., 2o22). Regulatory compliance ensures that policies align with equity and inclusion principles, preventing accessibility from being treated as an afterthought in planning processes (Freudenberg & Arlinghaus, 2009). Historically, outdoor recreation planning has reinforced exclusion by overlooking the needs of people with physical disabilities (PwPD), resulting in inaccessible terrains and the absence of inclusive program design (Lloyd et al., 2021; Loeffler & White, 2022).

Evolving legal frameworks now support planners in reversing exclusive practices. At the federal level, the *Accessible Canada Act* (ACA) and the *United Nations Convention on the Rights of Persons with Disabilities* (UNCRPD) establish commitments to removing barriers and ensuring equal access for PwPD across public spaces. Although not tailored to outdoor recreation or backcountry trails, these frameworks signal a shift in planning toward rights-based, barrier-free approaches across sectors (Neumann & Mason, 2023; Zapata & Bates, 2015). The ACA and UNCRPD provide planners with legal and ethical justifications to advocate for more inclusive and adaptive strategies in outdoor recreational spaces, particularly backcountry hiking spaces (Government of Canada, 2019; United Nations, 2006).

At the provincial scale, the *Accessible British Columbia Act* (ABCA) reinforces these values by requiring public sector organizations to develop accessibility plans and establish advisory committees and feedback mechanisms (Government of British Columbia, 2021). While the ABCA does not explicitly address outdoor or backcountry

spaces, planners can interpret its mandates to influence recreation and land use planning processes (Groulx et al., 2021; Jakubec et el., 2016). Complementary planning and management documents, including the BC Parks' *Commitment to Inclusion* and the *Universal Design Guide for Front-country Parks*, offer additional resources that can be adapted to more remote trail systems (BC Parks, n.d.). Similarly, the *Gender-Based Analysis Plus* (GBA+) also provides a framework for equity planning that identifies overlapping forms of exclusion, including those experienced by PwPD (Government of Canada, 2017). Regionally, strategies like the Sea to Sky Corridor Recreation Trail Strategy (2007), *The Sea to Sky Master Plan* (2009), and the *Pemberton Valley Recreational Trails Master* (2020) promote integrated planning approaches that consider both accessibility and environmental sensitivity.

Planners are responsible for ensuring that accessibility standards are evolving components of a responsive planning system (Guo et al., 2015; Lukoseviciute & Nelson, 2024). This includes leading collaborative, cross-departmental and intersectoral efforts, such as coordinating with transportation, infrastructure, and parks departments within different levels of government to ensure accessible trailhead infrastructure, shuttle services, and parking, which all support access to backcountry hiking spaces. (Jakubec et al., 2016; Sterman et al., 2019; Zapata & Bates, 2015). Planners also play a key role in conducting accessibility audits, integrating feedback from PwPD into planning processes, and updating policies to reflect evolving community needs and technological innovations (Mehta & Mahato, 2021; Prescott et al., 2022)

2.3.6. Equity and Inclusion: The Right to Nature

Everyone deserves access to outdoor recreation and spaces, with the necessary resources to enjoy them. Equity and inclusion must be at the core of planning for accessible backcountry hiking trails (Beck et al., 2024). From an equity planning perspective, this means actively identifying and addressing disparities in how resources, infrastructure, and opportunities are distributed, with particular attention to the needs of PwPD (Beck et al., 2024; Reece, 2018; Zapata & Bates, 2015). The right to access nature is supported by international frameworks such as the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD), which explicitly asserts that PwPD has the

fundamental right to participate in a wide range of physical activities, including outdoor recreation (Derakhshan et al., 2024). Specifically, Article 30 of the UNCRPD emphasizes the importance of ensuring PwPD have equal opportunities to engage in cultural life, recreation, leisure, and sport, and that the physical environment, including natural spaces, should be accessible to them (United Nations, 2006).

National and provincial legislation, such as the *Accessible Canada Act* (Government of Canada, 2019) and the *Accessible BC Act* (Government of BC, 2021), further supports these principles by mandating the removal of barriers in public spaces, including recreational areas. While these acts do not specifically mention backcountry hiking trails, they provide a legal framework for planners and public institutions to promote greater inclusion in outdoor spaces. However, equity planning is more than legal compliance, it requires a systemic approach to addressing historical and structural barriers that limit access to outdoor spaces for PwPD (Beck et al., 2024; Reece, 2018; Rigolon, 2016). Equity-driven frameworks in public park agencies, when applied to backcountry spaces, help ensure that resources are allocated fairly and effectively to marginalized communities, creating opportunities for greater access and participation (Beck et al., 2024; Freudenberg & Arlinghaus, 2009).

In urban areas, urban parks or even many front-country parks, accessibility is often more established, yet marginalized communities still face systemic barriers, such as limited infrastructure, safety concerns, and poor urban planning practices (Rigolon, 2016; Wolch et al., 2014). In backcountry hiking spaces, these challenges are often amplified due to the lack of appropriate infrastructure and meaningful community engagement processes. The lack of accessible amenities in these spaces has also excluded PwPD from fully participating in outdoor recreation (Ankre & Wall-Reinius, 2024; Derakhshan et al., 2024). Funding limitations, short-term planning cycles, and competing priorities contribute to the barriers in these spaces (Neumann & Mason, 2023). These factors highlight the need for planners to adopt an equity-based, long-term approach to resource allocation and infrastructure development, ensuring marginalized populations are prioritized.

Rethinking equity planning in both urban and more remote and natural settings shifts the focus for planners to engage meaningfully with marginalized communities to define what equity means (Reece, 2018; Zapata & Bates, 2015). It is important to address social inequities through participatory planning processes that enable communities to define their needs and priorities (Groulx et al., 2021). In the context of creating accessibility for PwPD backcountry trails, planners must work with a broad range of stakeholders, including community members, government agencies, local organizations, and PwPD themselves. By fostering collaboration and community engagement, planners can ensure that the design and development of backcountry trails are informed by the real needs of PwPD (Reece, 2018; Zapata & Bates, 2015).

2.3.7. Theoretical Approach: Equity Planning

This research is guided by the principles of equity planning, which centres on the idea that spaces should be designed to address systemic inequalities and promote social justice (Reece, 2018; Taylor, et al., 2021). Equity planning upholds the commitment to participatory planning, ensuring that PwPD are represented in the planning process and given the tools and resources to participate fully (Fainstein, 2017). Equity planning calls for planners to engage with marginalized communities, advocate for redistributive justice, and integrate social justice into spatial design processes. It critiques conventional planning processes for often overlooking or underrepresenting the needs of disadvantaged groups, including PwPD in decision-making, resource allocation, and infrastructure development (Zapata & Bates, 2015; Carrión et al., 2022).

In the context of backcountry hiking trails in the S2S region, equity planning offers a critical lens to examine the barriers the PwPD faces. It suggests that these physical, social, or institutional barriers reflect broader, structural inequities embedded within the planning and management of these spaces (Carrión, et al., 2022). The historical design of backcountry hiking spaces often privileges people without disabilities and marginalized PwPD through inaccessible infrastructure and exclusionary assumptions (Ankre & Wall-Reinius, 2024; Derakhshan et al., 2024). Equity planning theory interprets these barriers as outcomes of underlying political, social, and economic systems that influence who

gains access to outdoor experiences and who remains excluded (Arroyo, 2023; Reece, 2018).

UD standards are integral to equity planning and theory, providing a practical framework for enhancing accessibility in outdoor recreation spaces and advocating for inclusive environments that are inherently inaccessible (Groulx et al., 2022; Lukoseviciute & Nelson, 2024). The core strength of UD is its ability to reduce barriers for PwPD while simultaneously creating more universally enjoyable spaces for all visitors (Derakhshan et al., 2024). UD provides planners with practical tools to reduce barriers and improve trail accessibility while avoiding segregated or labelling features as "special" infrastructure. UD emphasizes integrating accessibility as a fundamental principle in park planning, ensuring that inclusive design is embedded in the conceptualization of outdoor spaces (Groulx et al., 2021; Prescott et al., 2022).

Beyond standards and design, equity and accessibility need to be viewed as a core value in park planning to foster a more "just outdoor space", where equity in outdoor recreation goes beyond physical accommodation and uplifts broader concepts of accessibility including belonging, dignity, and empowerment (Carrión, et al., 2022; Moroni, 2020; Taylor, et al., 2021). Equity planning reframes the concept of accessibility, ensuring marginalized groups feel a sense of inclusion and empowerment in how these spaces are structured (Reece, 2018). When combined with UD, equity planning can support accessible backcountry hiking trail design as central to achieving environmental justice, health equity, and ensuring the right to nature for all.

2.4. Connection of Parks Management to Planning

2.4.1. The Role of Management within Planning

Planning and management are closely connected, as they both contribute to creating more accessible backcountry spaces. Planning sets the groundwork, such as for the design, engagement, and allocation of resources, defining what needs to be done and how to do it. Whereas, management ensures that these plans are effectively executed,

maintained, and adapted to meet the needs of users while protecting the environment over time (Arni and Khairil, 2013; Guo et al., 2015).

Effective trail management requires ongoing monitoring and adaptive planning practices to address the evolving physical and social challenges that trails encounter over time. This includes ensuring that physical infrastructure is regularly assessed and updated to meet current accessibility standards (Evju et al., 2021; Guo et al., 2015). Planning and management are responsible for assessing and maintaining the safety of these spaces (Blye and Halpenny, 2020; Neumann & Mason, 2023). In the context of backcountry hiking, where trails are often in areas that are remote and difficult to access, management practices need to anticipate for future pressures, such as increasing visitation, environmental degradation, and user conflicts, which can affect both the trail's accessibility and sustainability (Scholl-Grissemann et al., 2022). Management and planning strategies need to address these challenges through adaptive processes and approaches, which allow planners and land managers to adjust their actions in response to changing conditions and new information (Prescott et al., 2022; Guo et al., 2015).

A key element in both urban and backcountry settings is meaningful community engagement. Urban parks often focus on physical access while neglecting social inclusion, a challenge that also applies to backcountry trail planning (Sterman et al., 2019). This process involves planners engaging with PwPD, and other diverse stakeholders, such as local communities, disability advocacy groups, and environmental experts, to understand and balance the needs and challenges (Mehta & Mahato, 2021; Zapata & Bates, 2015). Through consultation and community engagement, planners can better understand the needs and accommodations that best support a diverse spectrum of PwPD. This can help identify what adaptive hiking equipment is needed or how to deliver and design resources to adequately and optimally support PwPD (Piskin & Akdeniz, 2023).

Balancing trail usage and addressing potential conflicts helps ensure that access, sustainability, and safety are prioritized for all users (Lu et al., 2024; Scholl-Grissemann et al., 2022). Another important aspect of trail management within planning is to ensure that users follow responsible and respectful practices when using the trails. Leave No

Trace (LNT) principles provide a set of guidelines aimed at minimizing human impact on natural environments by promoting responsible outdoor behaviours such as staying on designated trails, properly disposing of waste, respecting wildlife, and leaving natural areas undisturbed (Blye and Halpenny, 2020; Coulson et al., 2021; Evju et al., 2021). From a planning perspective, ensuring the effectiveness of these principles requires the implementation of clear regulations and the integration of adaptable and tailored communication strategies to support sustainable practices across diverse user groups. Planning for backcountry hiking trails should incorporate these strategies to manage risks, reduce environmental impact, and enhance safety (Lu et al., 2024; Mehta & Mahato, 2021).

Management is also an ongoing feedback mechanism for planning, ensuring that plans are continuously refined and updated based on current performances. For example, visitor feedback is a critical component in assessing the effectiveness of LNT education and trail accessibility features. Regularly gathering data on trail conditions, user satisfaction, and environmental impacts allows trail managers and planners to adapt their strategies and identify areas for improvement (Blye & Halpenny, 2020; Coulson et al., 2021). For example, if many PwPD have noted that a certain trail segment is too difficult or inaccessible even with modifications or resources, feedback from trail management can guide planning adjustments, such as adding rest areas, improving signage, or creating new access points (Neumann & Mason, 2023).

2.4.2. Visitation Management and Safety Considerations

Trail planning and management must navigate the needs of diverse user groups, including PwPD by anticipating usage patterns and designing systems that support equitable and sustainable access (Demrow et al., 2007). A key planning consideration is ensuring user safety while addressing the growing number of trail visitors. Managing visitor flow is crucial in preventing overcrowding, as that can cause environmental degradation and impede the safety of other users (Lovelock, 2010). Visitor management strategies, such as implementing staggered entry times, reservation systems, or designated trail use periods, can be embedded in planning frameworks to preserve environmental integrity while enhancing accessibility for PwPD (Miller et al., 2023).

Incorporating digital tools during the planning phase can further support accessibility. Real-time signage, interactive trail maps, and mobile apps can be integrated into trail systems to provide up-to-date information on trail conditions, hazards, and closures, helping PwPD prepare and navigate safely (Lukoseviciute & Nelson, 2024; Scholl-Grissemann et al., 2022). These technologies can also direct users to less congested routes, easing the strain on high-traffic areas and improving overall trail flow. Effective planning also involves designing inclusive and multi-modal communication strategies. For example, while many trails already feature tailored signage for different groups, such as for hikers or cyclists, additional guidance specifically developed for PwPD can help reduce user conflicts and ensure that diverse needs are considered. These planning interventions can inform and empower PwPD by fostering confidence and comfort in navigating backcountry trails (Molnár, 2020).

However, the effectiveness and success of these strategies will depend on user engagement. Some visitors may respond well to educational signage and digital messaging, while others may continue to ignore them. Planners must consider a variety of communication methods including, visual, auditory, digital, and other modes of communication, to effectively reach different users and promote sustainable behaviours Neumann & Mason, 2023). This broader, more inclusive communication strategy can help address common issues such as user conflict, overuse, and environmental degradation (Scholl-Grissemann et al., 2022).

2.4.3. Environmental Protection

Poorly maintained trails can discourage PwPD from safely engaging in backcountry hiking spaces. However, poorly maintained trails could also lead to inappropriate use of the trails by other users, such as hiking off-trail or camping on environmentally sensitive terrains (Coulson et al., 2021; Guo et al., 2015). In contrast, better-maintained trails, such as clear signage and trails, can encourage users to stay on designated paths, reducing environmental harm and enhancing safety. In addition to on-site clarity, providing educational messages and resources about trail conditions and environmental impacts, such as LNT principles and guidelines, can further mitigate disrespectful behaviours (Blye & Halpenny, 2020; Coulson et al., 2021).

Incorporating educational messages and communication tools into the trail planning process also plays a crucial role. Signage and outreach materials that communicate trail conditions, environmental sensitivities, and proper trail etiquette, such as LNT principles, can support responsible behaviour (Blye & Halpenny, 2020; Coulson et al., 2021; Evju et al., 2021). These tools should be tailored to S2S region and be accessible to diverse users, including PwPD, during early planning stages.

LNT principles provide a foundational framework for responsible outdoor recreation by promoting practices that minimize environmental impact. Its seven principles cover a wide range of outdoor behaviours, with best practices informed by research and field expertise (Blye & Halpenny, 2020; Coulson et al., 2021; Evju et al., 2021; Leave No Trace Center for Outdoor Ethics, 1999). These principles are relevant in planning and management efforts, where environmental protection must be balanced with accessibility. Strategies such as sustainable trail design, durable infrastructure, and clear, inclusive educational initiatives support this balance. (Leave No Trace Center for Outdoor Ethics, 1999). For example, clear signage and trail markers can remind users to stay on designated paths, dispose of waste properly, and respect wildlife (Blye & Halpenny, 2020). These features can help reduce the environmental impact and harm but also enhance safety and navigation for PwPD and others. However, incorporating infrastructure improvements, such as ramps or boardwalks, must be done with care. If not properly designed, these modifications can lead to erosion, habitat disruption, or broader environmental degradation (Guo et al., 2015).

Table 2.1. The Seven Principles of Leave No Trace

Principles	The Basics
Plan Ahead & Prepare	• Know the regulations and special concerns for the area you'll visit. • Prepare for extreme weather, hazards, and emergencies. • Schedule your trip to avoid times of high use. • Visit in small groups. Split larger parties into smaller groups. • Repackage food to minimize waste. • Use a map and compass to eliminate the use of rock cairns, flagging, or marking paint.
Travel & Camp on Durable Surface	• Durable surfaces include established trails, campsites, rock, gravel, and dry grasses or snow. • Protect riparian areas by camping at least 200 feet from lakes and streams. • Good campsites are found, not made. Altering a site is not necessary. *In popular areas* • Concentrate use on existing trails and campsites. • Walk single file in the middle of the trail, even when wet or muddy. • Keep campsites small. Focus activity in areas where vegetation is absent. *In undisturbed areas* • Disperse use to prevent the creation of campsites and trails. • Avoid places where impacts are just beginning.
Dispose of Waste Properly	• Pack it in, pack it out. Inspect your campsite and rest areas for trash or spilled food. Pack out all trash, leftover food, and litter. Burning trash is never recommended. • Deposit solid human waste in catholes dug 6-8 inches deep at least 200 feet from water, camp, and trails. Cover and disguise the cathole when finished. • Bury toilet paper deep in a cathole or pack the toilet paper out along with hygiene products. • To wash yourself or your dishes, carry water 200 feet away from streams or lakes and use small amounts of biodegradable soap. Scatter strained dishwater.
Leave What You Find	• Preserve the past: observe cultural or historic structures and artifacts, but do not touch them. • Leave rocks, plants, and other natural objects as you find them. • Avoid introducing or transporting non-native species. • Do not build structures, furniture, or dig trenches.
Minimize Campfire Impacts	• Campfires can cause lasting impacts on the environment. Use a lightweight stove for cooking and enjoy a candle lantern for light. • Use established fire rings, pans, or mound fires where fires are permitted. • Keep fires small. Use only sticks from the ground that can be broken by hand. • Burn all wood and coals to ash, put out campfires completely, then scatter cool ashes.
Respect Wildlife	• Observe wildlife from a distance. Do not follow or approach them. • Never feed animals. Feeding wildlife damages their health, alters natural behaviours, and exposes them to predators and other dangers. • Control pets at all times, or leave them at home. • Avoid wildlife during sensitive times: mating, nesting, raising young, or winter.
Be Considerate of Others	• Respect others and protect the quality of their experience. • Be courteous. Yield to other users on the trail. • Greet riders and ask which side of the trail to move to when encountering pack stock. • Take breaks and camp away from trails and others. • Let nature's sounds prevail. Avoid loud voices and noises.

Adapted from Leave No Trace Center for Outdoor Ethics (1999)

2.4.4. Policy and Legislation

Planning and management of outdoor recreation spaces and trails are guided by several mandates, regulatory frameworks, and standards that ensure inclusivity and accessibility. At the federal level, the ACA (Government of Canada, 2019) reduces barriers in spaces under federal responsibility. The ACA emphasizes planning as a key component in eliminating barriers by developing accessibility plans that prioritize inclusive policies, programs, practices, and services. The ACA led to the establishment of *Accessibility Standards Canada* (ASC), which has developed a draft of accessibility standards for both built and natural outdoor spaces. This standard on outdoor spaces is assembled by the Technical Committee on Outdoor Spaces comprised of different groups, including PwPD (Government of Canada & Accessibility Standards Canada, 2019). Similarly, at the provincial level, the ABCA has also been developed to provide a framework for identifying and removing barriers to access, and different organizations under provincial jurisdiction must create an accessibility plan that aligns the principles of inclusion, adaptability, collaboration, self-determination, and universal design (Government of British Colombia, 2021).

Regionally, the *Sea to Sky Trail Master Plan* (2009) outlines a multi-use, non-motorized trail that runs through the Squamish-Lillooet Regional District (SLRD). The plan identifies several accessible opportunities, including PwPD. While the document sets out clear goals and projects for the region, there remains greater potential for regional governments to expand their involvement in promoting accessibility on trails. This could involve leveraging regional planning strategies to improve backcountry access for PwPD, especially in areas where trail systems intersect with or lead into more remote terrain, even if the backcountry areas themselves lie outside of direct regional or municipal jurisdiction. By collaborating across municipal boundaries and with agencies such as BC Parks, regional governments have a unique opportunity to create more cohesive and comprehensive accessibility plans (Ankre & Wall-Reinius, 2024; Beck et al., 2024; Demrow et al., 2007).

However, cross-jurisdictional collaboration in the region has been limited, especially in relation to backcountry hiking accessibility. One notable exception is the *Pemberton Valley Recreational Trails Master Plan* (2020), which was developed collaboratively by the SLRD, Lil'wat Nation, Village of Pemberton, Pemberton Valley Trails Association, and Recreation Sites and Trails BC (RSTBC), along with input from trail users. While this plan is a step forward, it still lacks an explicit focus on backcountry accessibility for PwPD and is focused on trails within the Village of Pemberton. In contrast, the Capital Regional District (CRD) has taken a more proactive approach. Though this is also not specific to backcountry trails, it's document, *User-Friendly Trail Guide* (2006), as well as broader regional trail plans which may serve as valuable model for the S2S region. These examples highlight how regional governments can play a leadership role in developing inclusive trail networks that extend beyond individual municipal boundaries.

At a provincial level, in collaboration with RSTBC, the S2S Corridor Recreation Trail Strategy provides clarity and long-term goals for trail management for government, Indigenous communities, recreational organizations, planners, and land managers. It helps coordinate efforts across jurisdictions and user groups to support sustainable, accessible, and well-maintained trail systems throughout the S2S region. The document also highlights the importance of respecting the cultural values and practices of the local Indigenous communities, Squamish Nation, Líl̓wat Nation, N'Quatqua Nation, and the Tsleil-Waututh Nation (Cascade Environmental Resource Group LTD et al., 2008). While this document is outdated and does not address accessibility in backcountry spaces of PwPD as well, it details management and planning goals and objectives specific to the S2S area.

Additionally, BC Parks' *Commitment to Inclusion* and BC's GBA+ used by RSTBC do not exclusively mention backcountry trails, these documents are crucial to setting up the base for accessibility planning in outdoor spaces. BC Parks' *Commitment to Inclusion* is connected to planning as it directly informs the development and management of parks and recreational spaces. The guiding principles, including UD standards, inclusive policies, and continuous improvement, are a major part of the planning process. When planning for new or improved parks, BC Parks ensures that accessibility for all individuals is prioritized (BC Parks, 2023). The collaboration with community partners and the

engagement of diverse park visitors help ensure that planning decisions reflect the needs and preferences of a wide range of users (BC Parks, 2023; Derakhshan et al., 2024). The GBA+ is a tool used to evaluate how various groups of people are affected by existing policies, programs, and initiatives. Its purpose is to ensure that these programs, policies, and initiatives are responsive, inclusive, and adaptable to the needs of everyone in BC. The GBA+ is part of the planning because it provides a framework for evaluating how different groups, including those with varying abilities, genders, ages, and other diverse characteristics, are impacted by policies, programs, and initiatives. GBA+ helps ensure that planning decisions are inclusive and responsive to the unique needs of all community members (Government of British Columbia, N.A).

2.4.5. Case Study: Learning from Joffre Lakes Provincial Park

The *Joffre Lakes [Provincial] Park Visitor Use Management Strategy* (VUMS) provides a detailed example of how these principles can be effectively applied to a high-use park environment. As visitation to Joffre Lakes Provincial Park increased, the VUMS was developed to manage the growing pressures on the park's natural environment and cultural values. The strategy emphasizes balancing visitor experience with sustainability by focusing on user safety, environmental protection, and cultural respect. For visitor safety, the strategy includes monitoring the trail network, managing traffic at the popular trailhead, and implementing strategies to prevent the overuse of key areas. The trail system at Joffre Lakes has become popular for visitors seeking access to the park's stunning views and three lakes, creating a need for focused management of visitor flow. The introduction of the trail pass programs is one of the key strategies used to manage the number of visitors at any given time. This system helps prevent overcrowding, reduce wear and tear on the trail, and ensure visitors have a safer, more enjoyable experience. For environmental protection, the VUMS outlines strategies to minimize the environmental footprint of park visitors which includes maintaining and improving trail infrastructure, especially in sensitive areas, and using sustainable building materials that limit long-term environmental damage. For example, boardwalks and other modifications designed to enhance accessibility and protect wetland areas are carefully planned to prevent erosion and habitat degradation. This careful attention to the design and materials used in trail modifications ensures that Joffre Lakes Park can meet the growing demand for

accessibility while protecting its unique ecosystems (BC Parks, Líl̓wat Nation, & N’Quatqua, 2021). Cultural considerations are another central focus of the Joffre Lakes Park management strategy. The park is within the unceded territories of the Líl̓wat Nation and N'Quatqua, and it holds significant cultural value to these communities. The strategy emphasizes respecting Indigenous cultural practices and ensuring that park management aligns with the values and interests of the Líl̓wat Nation and N'Quatqua Nation. This includes preserving traditional land uses, such as hunting and fishing, and recognizing the park's role as a "banquet place" for gathering resources. Collaborative decision-making processes between BC Parks, Líl̓wat Nation, and N'Quatqua ensure that Indigenous perspectives are adequately woven into park management plans (BC Parks, Líl̓wat Nation, & N’Quatqua, 2021).

The Joffre Lakes Park VUMS provides a relevant case study for this research, as it demonstrates how accessibility, environmental sustainability, and cultural considerations can be integrated into trail planning management. While primarily focused on managing high visitor volumes and protecting cultural values, the strategy's approach to trail modifications for environmental protection, such as the implementation of boardwalks and infrastructure improvements, highlights opportunities to enhance accessibility in backcountry settings as well (BC Parks, Líl̓wat Nation, and N’Quatqua, 2021; Lovelock, 2010). These efforts align with the broader discussion in this study, which examines how planning strategies can improve access to nature for PwPD while respecting the environmental and cultural contexts of the S2S region (BC Parks, Líl̓wat Nation, & N’Quatqua, 2021; Groulx et al., 2021).

The VUMS reflects a collaborative planning process that involved consultation and co-management with the Líl̓wat Nation and N’Quatqua. This collaboration ensures that their Indigenous perspectives, rights, and responsibilities are upheld while creating shared solutions for land stewardship and visitor experience (Goodwin et al., 2009; Molnár, 2020; Zapata & Bates, 2015). The engagement process also serves as a model for how future backcountry trail plans in the S2S region, and elsewhere, can incorporate meaningful partnerships with the local Indigenous communities and diverse stakeholders, including the disability community. For other backcountry trail systems in the S2S corridor, this model could inform how to develop more accessible and culturally sensitive trail

experiences, especially by emphasizing intergovernmental collaboration, user engagement, and trail infrastructure that supports both conservation and inclusion goals (Jakubec et al., 2016; Lovelock, 2010).

2.5. Challenges to Accessible Backcountry Trails

Despite the growing emphasis on inclusion, PwPD continues to face persistent barriers to fully participating in outdoor recreation. In backcountry hiking spaces, challenges such as physically demanding terrains, lack of adaptive equipment, and limited transportation options continue to hinder outdoor access (Neumann and Mason, 2023). The absence of resting areas, accessible facilities, and accessible parking further limits opportunities for PwPD to participate in these outdoor spaces. Without proper rest areas, PwPD may experience fatigue or discomfort on long hikes (Ankre & Wall-Reinius, 2024; Lovelock, 2010; Prescott et al., 2022). Inadequate accessible parking and facilities can create a barrier before the hiking experience even begins, as PwPD may struggle to reach trailheads and cannot prepare by using accessible washrooms (Ankre & Wall-Reinius, 2024; Derakhshan et al., 2024).

Many PwPD experience discrimination or exclusion from outdoor spaces due to societal attitudes and internalized perceptions about what they can achieve (Loeffler & White, 2022; Neumann & Mason, 2023). Overprotective attitudes and the stigma that PwPD experience greater risk in outdoor spaces further marginalize and restrict their participation in outdoor activities (Burns et al., 2013). Additionally, the limited availability of detailed, up-to-date information on trail accessibility, including terrain difficulty and potential obstacles, adds another layer of complexity for PwPD in determining whether these spaces are suitable for them (Aguilar-Carrasco et al., 2023; Groulx et al., 2022; Yau et al., 2004).

The challenges in backcountry accessibility mirror systemic issues already observed in urban park spaces. Planning frameworks often overlook the needs of vulnerable groups, particularly PwPD, and instead prioritize more “visible” demographics (Gradinaru et al., 2023; Mehta & Mahato, 2021). Planning documents may reference equity goals but fail to embed them meaningfully in decision-making processes, as local

governments frequently focus on minimal compliance with accessibility standards. (Gradinaru et al., 2023; Sterman et al., 2019).

Equity concerns are often reduced to questions of physical access or proximity, neglecting the social, cultural, and functional dimensions of access (Rigolon, 2016; Mehta & Mahato, 2021). Increasing the supply of green or recreational spaces, whether in cities or backcountry areas, is not enough. Equitable access requires participatory, inclusive planning processes that consider the lived realities and intersectional needs of diverse populations (Lu et al., 2024). Community engagement and meaningful participation mechanisms are key to addressing inequitable access, yet backcountry planning often operates in a similarly top-down manner, excluding PwPD from shaping the spaces they have the rights to access. This gap in engagement is particularly evident in the lack of funding and long-term planning for accessible outdoor spaces, as PwPD are often seen as an afterthought rather than as central to planning decisions (Neumann & Mason, 2023; Rigolon, 2016).

As the desire to explore backcountry spaces in the S2S corridor increases, these challenges emphasize the need for more inclusive planning strategies to ensure equitable access to backcountry hiking trails for PwPD (Harshaw et al., 2006). Backcountry hiking trail planning must engage directly with the insights and priorities of PwPD. This shift requires planners and decision-makers to treat accessibility as a foundational aspect of accessibility planning and trail planning.

2.5.1. Natural Physical Barriers

Backcountry trails are characterized by their remote locations and rugged terrains, featuring steeper inclines and fewer built amenities. In the S2S corridor, backcountry trails and even many front-country trails have steeper slopes, technical terrains, and significant elevation changes (Blais-Stevens et al., 2012; Harshaw et al., 2006). In addition to the challenging terrain, physical obstacles on backcountry trails include extreme weather conditions, a lack of shade, and limited water sources, which require hikers to be especially prepared as there is no reliable source to depend on (Martin, 2017; Rogers & Leung, 2023). While adaptive equipment has made some backcountry trails more

accessible, the physically demanding aspects of backcountry landscapes still create significant barriers to participation (Lovelock, 2010; Yau et al., 2004). For example, the TrailRider is a human-powered adaptive device that is designed to assist in navigating difficult terrains for PwPD. However, the TrailRider may not be suitable for all backcountry environments, particularly those with extreme inclines, rocky paths, or dense vegetation, as the device's size can make it difficult to maneuver on narrow or constrained designated trails (Goodwin et al., 2009; James et al., 2018).

2.5.2. Insufficient Accessible Infrastructures and Resources

The absence of essential infrastructure, such as accessible washrooms, water refill stations, on-trail resting areas, designated parking, and on-site support services like staff and information centres, adds another layer of challenges in backcountry environments (Neumann & Mason, 2023). These amenities are important because they directly impact the comfort, safety, and overall experience of PwPD in outdoor spaces (Aytur et al., 2015; Piskin & Akdeniz, 2023). Accessible rest areas allow for necessary breaks to prevent exhaustion and alleviate discomfort, making longer hikes more manageable and enjoyable for PwPD (Ankre & Wall-Reinius, 2024; Lovelock, 2010; Prescott et al., 2022). Accessible parking spaces ensure that PwPD can reach trailheads more easily, eliminating the frustration and physical strain of navigating barriers before even starting their journey (Derakhshan et al., 2024; Piskin & Akdeniz, 2023).

Beyond physical infrastructure, another barrier is the lack of proximity to accessible backcountry spaces, with many remote areas requiring long travel times and the absence of reliable public transportation options (Ankre & Wall-Reinius, 2024; Neumann & Mason, 2023). This makes access to these areas more difficult, particularly for PwPD who may have limited mobility or financial resources. The lack of coordinated transportation and the remote nature of many backcountry spaces create exclusionary experiences, further limiting access for PwPD (Yau et al., 2004; Zapata & Bates, 2015).

Limited availability of detailed and up-to-date information about the accessibility of backcountry trails, such as terrain difficulty, slope gradients, or the presence of obstacles, contributes to the challenges for PwPD to determine whether these spaces are suitable

for them (Aguilar-Carrasco et al., 2023; Groulx et al., 2022; Yau et al., 2004). The lack of accessible and relevant information about backcountry trails for PwPD can hinder their ability to plan for trips in backcountry areas. Inadequate information limits overall participation for PwPD and can create safety risks for those attempting to navigate these spaces without sufficient resources or preparation (Yau et al., 2004). From a planning perspective, the growing use of digital platforms without coordinated standards or integration into trail management frameworks raises concerns about the alignment between digital data, trail signage, and on-the-ground conditions (Rogers & Leung, 2023; Sterman et al., 2019). Without a unified system, it is difficult to ensure that trail information is consistent and accessible for PwPD, creating further barriers to access. These issues are made more challenging by unreliable cellular service in backcountry hiking areas and the cost of specialized apps or adaptive technologies (Beck et al., 2024; Neumann & Mason, 2023).

Furthermore, insufficient funding, programming, and long-term planning options further impact access to backcountry areas for PwPD (Ankre & Wall-Reinius, 2024). In BC, the contrast between the funding allocated for tourism promotion and compared to the funding available for parks maintenance, management, and planning. For example, Destination BC receives approximately $50 million annually to promote tourism, whereas BC Parks and RSTBC operate with a combined budget of less than $7 million to manage the infrastructure, resources, and other parks maintenance needs that outdoor tourism depends on (Neumann & Mason, 2023). The lack of stable, long-term funding creates uncertainty and limits the ability to develop and maintain accessible facilities and resources (Ankre & Wall-Reinius, 2024; Derakhshan et al., 2024). The rapid growth and increase in outdoor-based tourism in the S2S area have led to higher traffic and greater vulnerability in these spaces. However, the lack of prioritization of accessible planning in park management has limited the availability of essential infrastructure and resources for PwPD, which can also impact the long-term sustainability of outdoor tourism and access for all users (Arni & Khairil, 2013; Harshaw et al., 2006).

2.5.3. Social and Attitudinal Barriers

Beyond physical barriers, psychological and social factors significantly limit access to backcountry trails for PwPD. Many PwPD have encountered negative stereotypes where they are continually framed as incapable of hiking in the backcountry or that it is “too risky” for them to be in those spaces. This perception perpetuates psycho-emotional disablism, where PwPD are discouraged from participating in activities that involve risk, even though individuals without physical disabilities are equally likely to encounter similar risks (Burns et al., 2013). These perceptions dismiss the potential for empowerment and instead contribute to social exclusion, where PwPD feel unwelcome and discouraged from participating in backcountry activities. This exclusion is rooted in a lack of representation and support in these spaces, further amplifying the feelings of isolation and limiting opportunities for PwPD to engage fully in outdoor experiences (Freudenberg & Arlinghaus, 2009; Yau et al., 2004).

Attitudinal and social barriers in backcountry environments are deeply connected to broader patterns seen in urban park planning. In urban settings, park design and programming frequently reflect the preferences of dominant user groups, overlooking the lived experiences and cultural practices of marginalized communities, including PwPD (Mehta & Mahato, 2021; Lu et al., 2024). This creates environments where PwPD may feel out of place, unsupported, or even unsafe, despite formal accessibility features. Similarly, backcountry hiking trails are often dominated by individuals without physical disabilities, with a focus on endurance, self-reliance, and physical challenge (Goodwin et al., 2009; Taylor et al., 2021). This framing creates an implicit barrier for those who do not align with the 'traditional' image of someone engaging in backcountry activities (Hassen, 2025; Lloyd et al., 2021). These assumptions shape both physical design and social perceptions, resulting in environments that lack inclusive representation and fail to foster a sense of belonging (Goodwin et al., 2009; Mehta & Mahato, 2021). To reduce these barriers, promoting the value of interdependence is essential, highlighting the collaborative nature of outdoor experiences where assistance is viewed as an empowering and reciprocal part of participation (Derakhshan et al., 2024; Goodwin et al., 2009).

Attitudes that prioritize conservation over accessibility often hinder efforts to make backcountry trails more inclusive. Despite legal obligations and growing public support for

the inclusion of PwPD in outdoor recreation, accessibility improvements in backcountry spaces are frequently met with resistance (Lovelock, 2010). Ensuring that backcountry trails and natural areas are accessible requires input from various fields, balancing UD standards with conservation needs, challenging discriminatory attitudes towards PwPD, and involving PwPD directly in shaping accessibility guidelines (Groulx et al., 2022). Much like in urban park systems, this disconnect is often reinforced by planning frameworks that do not meaningfully engage with PwPD or recognize their knowledge and priorities. Programs and initiatives, whether urban or backcountry contexts, are often developed without co-creation, leading to interventions that fall short of addressing social exclusion (Sterman et al., 2019; Groulx et al., 2022). In both settings, planners must move beyond compliance-based approaches and instead centre accessibility and equity principles that affirm interdependence and inclusive representation in outdoor spaces (Derakhshan et al., 2024; Goodwin et al., 2009). Despite this, there is still the concern that planners and land managers continue to default to exclusionary practices, often driven by concerns over backcountry overcrowding or overdevelopment (Arni & Khairil, 2013; Neumann & Mason, 2023). These decisions are shaped by persistent assumptions about what backcountry recreation should look like, leading to insufficient accessibility standards and missed opportunities for inclusive design (Martin, 2017).

2.5.4. Policy and Regulatory Challenges and Government Limitations

Inadequate and poorly enforced policies and regulations impact the ability of PwPD to access and experience backcountry hiking trails. While knowledge about accessibility in parks and trails is not new, it is often under-prioritized in planning and management processes, particularly in backcountry terrains (Ankre & Wall-Reinius, 2024). As a result, existing regulatory frameworks and policies fail to adequately address the diverse and evolving needs of PwPD. Policy discussions often generalize these needs, limiting the development of tailored, effective accessibility solutions (Ankre & Wall-Reinius, 2024; Groulx et al., 2022). In addition, inconsistencies among policies, such as exemptions for using adaptive devices, can create confusion and setbacks in the practical use of these spaces (Ankre & Wall-Reinius, 2024; Neumann & Mason, 2023).

The challenge of accommodating PwPD in backcountry areas is also shaped by the perceived tensions between environmental conservation goals, cost constraints, and the mandate to ensure equal access (Lovelock, 2010). This issue is evident in the S2S region, where high visitation rates and sensitive ecosystems create competing demands for resources. In these popular recreational areas, the focus tends to be on managing visitation and protecting the environment (Harshaw, 2024). While these priorities are important for the long-term sustainability of backcountry trails, they can also make it harder for the enforcement of accessibility regulations and the allocation of sufficient funding for new infrastructure. This can create competing demands that further limits the ability to accommodate PwPD in backcountry spaces (Burns et al., 2013; Groulx et al., 2022). Despite legal obligations to provide equitable access to public spaces, these constraints often limit the effectiveness of accessibility initiatives in remote outdoor settings.

Although frameworks and policy reforms in many jurisdictions, including the ACA, ABCA, BC's GBA+, and the BC Parks *Commitment to Inclusion*, are increasingly promoting equity and inclusion, the implementation of accessibility in backcountry settings remains challenging as there are no clear guidelines specific to backcountry spaces (Derakhshan et al., 2024). This gap is further amplified by insufficient coordination between various levels of government and a lack of collaboration between stakeholders, user groups, disability organizations, PwPD, and other relevant groups, leading to inconsistent policies and uneven access to outdoor recreational spaces for PwPD (Ankre & Wall-Reinius, 2024).

From an equity planning perspective, outdoor space management reflects systemic inequalities, as planning decisions are shaped by political, economic, and social forces that often marginalize vulnerable groups (Carrión et al., 2022). Policy and regulatory frameworks frequently fail to account for these dynamics, leading to inconsistent implementation of accessibility standards, particularly in backcountry environments (Lovelock, 2010; Reece, 2018). In both urban and outdoor spaces, inclusive outdoor experiences have been shown to improve mental well-being and quality of life for PwPD, highlighting the critical role of collaborative and engaged design and policy-making in ensuring equitable access to natural spaces, including backcountry trails (Browning et al., 2022; Jakubec et al., 2016). For PwPD, access to backcountry trails is hindered by

physical barriers, fragmented coordination among stakeholders, inconsistent policy enforcement, and the lack of clear accessibility frameworks (Ankre & Wall-Reinius, 2024; Derakhshan et al., 2024; Groulx et al., 2022). To address these challenges in policies and regulatory processes, equity planning must prioritize collaboration and engagement with PwPD, and other user groups; otherwise, outdated policies may continue to perpetuate exclusion (Ankre & Wall-Reinius, 2024; Beck et al., 2024; Reece, 2018).

The effectiveness of current policies and regulations in addressing the accessibility needs of PwPD on backcountry hiking trails is limited by gaps in enforcement and the lack of clear standards and guidelines (Groulx et al., 2022; Derakhshan et al., 2024). These gaps are further influenced by insufficient coordination among stakeholders, inconsistent policy implementation, and a lack of clear, enforceable guidelines specific to backcountry spaces (Ankre & Wall-Reinius, 2024). PwPD continues to face exclusion in outdoor recreation, particularly in backcountry areas where environmental conservation priorities often overshadow the need for inclusive access (Lovelock, 2010; Groulx et al., 2022). In addition to addressing these challenges with stronger policy enforcement and clearer guidelines, there is a need for a more participatory, equity-focused approach to planning that ensures that PwPD are involved in the entire decision-making process (Fainstein, 2017; Carrión et al., 2022). Equity planning highlights the importance of prioritizing the needs and voices of historically excluded groups and aligns with the need for a regulatory environment that is both inclusive and responsive to the diverse needs of PwPD (Carrión et al., 2022; Taylor et al., 2021). By embedding equity principles into policy design and implementation, outdoor recreation can become more accessible, equitable, and inclusive for all.

2.5.5. Impacts of Social Media and Digital Technology

As digital technology becomes increasingly integrated into outdoor recreation, it presents both as opportunities and challenges for planning accessible and sustainable backcountry trail systems. Tools such as GPS devices, navigation apps like Trailforks, and social media platforms can support trip planning, enhance user safety, and inform decision-making by providing detailed trail data and user-generated content (Martin, 2017; Rogers & Leung, 2023). For planners and land managers, these technologies offer

valuable insights into trail use patterns, problem areas, and user needs, helping to shape more responsive and informed management strategies.

However, the growing reliance on digital tools can complicate efforts to design inclusive and user-friendly backcountry environments. Information overload from apps and social media can lead to confusion, decision fatigue, and difficulty accessing essential details like trail difficulty, safety guidelines, or environmental conditions (Derakhshan et al., 2024; Rogers & Leung, 2023). For PwPD, the complexity and cost of these platforms, especially those that require paid subscriptions for offline access, can be an additional barrier to participation (Martin, 2017; Rogers & Leung, 2023). These financial burdens, combined with fears of technological failure, such as dead batteries or app glitches, can impact confidence and safety (Neumann & Mason, 2023).

From a planning perspective, the growing use of digital platforms without coordinated standards or integration into trail management frameworks raises concerns (Rogers & Leung, 2023; Sterman et al., 2019). Without a unified system, it becomes difficult to ensure that trail signage, digital data, and on-the-ground conditions are aligned in a way that supports equitable access and consistent user experiences. Technology-facilitated access has contributed to overcrowding, environmental degradation, and conflict between different user groups, particularly when social media promotes popular trails as "easy" hikes or "hidden gems". (Neumann & Mason, 2023; Burns et al., 2013). Social media often lacks critical information about trail difficulty, safety precautions, and responsible behaviour, including the LNT principles (Evju et al., 2021; Rogers & Leung, 2023; Neumann & Mason, 2023; Martin, 2017). This highlights the need for planners to incorporate digital literacy, adaptive access strategies, and sustainability education into trail planning and communication efforts (Groulx et al, 2021; Lovelock, 2010; Molnár, 2020).

While digital tools can enhance accessibility and engagement, planners must critically assess how these platforms shape user experiences, influence behaviour, and interact with broader trail system goals. Integrating technology with thoughtful, participatory planning and community engagement can help ensure that digital

innovations support accessible, inclusive, and environmentally responsible backcountry hiking (Evju et al., 2021; Roger & Leung, 2023; Zapata & Bates, 2015).

2.6. Conclusion

Enhancing access to backcountry hiking trails for people with PwPD requires an equity-driven approach that integrates planning theory, policy development, and inclusive infrastructure design. The barriers that PwPD face are complex, encompassing physical, social, and informational challenges, often rooted in outdated attitudes and insufficient resources (Groulx et al., 2022; Neumann & Mason, 2023). From a planning theory perspective, it is crucial to apply an inclusive and participatory framework that acknowledges and addresses these barriers. While innovations in adaptive equipment and technologies, such as the TrailRider and GPS devices, have made improvements to increasing access to backcountry areas, these advancements also present new challenges, including overcrowding and concerns about environmental sustainability (Martin, 2017; Neumann & Mason, 2023). Additionally, there is an urgent need for stronger enforcement of accessibility standards and meaningful, user-centred engagement with the disability community, framed through a lens of social justice and equity, to ensure that outdoor spaces are truly inclusive and welcoming for all (Derakhshan et al., 2024).

Equity-focused planning strategies, including UD principles and inclusive planning theory, must prioritize the ongoing maintenance of accessible infrastructure and foster collaboration among planners, land managers, parks and trails employees, PwPD, disability advocates, and local communities (Groulx et al., 2022; Harshaw, 2005). As backcountry trails and outdoor recreational spaces in the S2S area continue to grow in popularity, applying equity-based planning approaches is essential to balance accessibility with the protection of natural and cultural resources that draw visitors in (Harshaw, 2005). Furthermore, addressing educational gaps around trail etiquette, such as LNT principles and environmental sustainability, is important for fostering responsible, respectful use of these spaces and ensuring they remain accessible to all, now and in the future (Blye & Halpenny, 2020; Coulson et al., 2021; Neumann & Mason, 2023).

Chapter 3. Methodology

3.1. Introduction

This chapter addresses the research design and methodology used to examine accessibility challenges and opportunities for PwPD on backcountry hiking trails in the S2S region. A qualitative approach was selected to gather insights from individuals and organizations involved in trail planning, management, and advocacy. Primary data was collected through semi-structured interviews with key stakeholders, while a literature review of relevant planning and management strategies and processes provided additional context. Thematic analysis was applied to the interview data to identify patterns, challenges, and potential solutions. By integrating these methods, this research seeks to comprehensively understand the barriers to accessibility in backcountry settings and inform strategies for more inclusive trail planning.

3.2. Research Design and Methods

Primary qualitative data from the study is collected through semi-structured interviews conducted from July 2024 to February 2025 to gain insights directly from those involved with the trails in the S2S region to understand the gaps and opportunities for creating greater access to backcountry hiking trails for PwPD. Interview participants consist of municipal planners, provincial park managers and staff members, managers and staff of private outdoor recreational facilities, managers and volunteers of organizations working with PwPD, and athletes and individuals who identify with having a physical disability. A literature review examines local and global policies and strategies that seek to understand and overcome accessibility barriers towards outdoor recreation, particularly related to hiking trails for PwPD. Provincial documents, including the BC Parks *Commitment to Inclusion*, Recreation Sites and Trails BC *Provincial Trail and Sea to Sky Corridor Recreation Trail Strategy*, and BC Parks' *Universal Design Guide to Front-Country Parks,* were reviewed to assist in recommending potential strategies. The interview data is interpreted using a thematic analysis method to understand the study subjects' knowledge, experiences, and perspectives.

3.3. Population and Recruitment

Participants in this study were recruited mainly through two methods, all potential participants received a recruitment letter through email. Most potential participants were contacted through publicly available emails on organizational websites and directory pages. Others were recruited through a snowball sampling method where an interview participant recommended other individuals whom they felt would be a good fit for the research. A range of potential candidates were contacted, including municipal or regional planners or staff members; municipal or regional parks staff members; managers, staff members, or volunteers of organizations with PwPD; athletes and individuals that identify with having a physical disability; private park managers; and private firm planners. The participants were selected because of their knowledge and/or experience in parks planning, the accessibility landscape of parks, and challenges and barriers to creating accessible backcountry hiking trails. Before reaching out to potential participants and conducting the interviews, the Ethical Approval Application was obtained from the Vancouver Island University Research and Ethics Board (REB) in June 2024.

3.4. Data Collection and Analysis

3.4.1. Semi-Structured Interviews

This research relies on semi-structured interviews with five main questions (Appendix A) to gather primary qualitative data, aiming to explore the experiences and challenges with accessing backcountry hiking trails for PwPD. The focus is on understanding the barriers to access, enhancing collaboration and community participation, perspectives and the needs of PwPD, and opportunities for existing park initiatives, policies, and regulations to support backcountry hiking trails for PwPD in the S2S region. Collecting primary data was essential for this study due to the lack of existing information on accessibility for PwPD within backcountry settings in the S2S region. While strategies from the other areas may offer some insights, there is significant value in grounding this research in local experiences. The S2S's unique terrains and conditions present challenges that may not be easily comparable to other areas. The regional context of the S2S area is essential for uncovering specific barriers and opportunities that could

otherwise go unnoticed. This local context allows for developing more relevant, tailored recommendations for the area.

Ten semi-structured in-depth interviews were conducted; nine were individual interviews, and one was a group interview. The interviews were conducted with municipal planners, provincial park managers and staff members, managers and staff of private outdoor recreational facilities, managers and volunteers of organizations working with PwPD, and athletes and individuals who identify with having a physical disability. The semi-structured interviews ensured that the participants were asked the same questions but provided flexibility for participants to elaborate outside of the interview questions. All interviews were conducted on Zoom or Microsoft Teams and recorded and transcribed directly through each of the service providers' built-in features. Upon completion of the interviews, all participants were provided with a copy of their transcript for review. They were allowed to clarify, redact, or expand upon any statements or information. Following the creation of the transcripts, all audio recordings were deleted. Participant information was handled strictly, and any identifying details, including names, were anonymized to ensure privacy. Each individual was assigned a letter (e.g., Participant A, Participant B) rather than a title or identifying descriptor to protect participant anonymity. These letter designations are used consistently throughout the paper when referring to participants.

3.4.2. Data Analysis

A thematic approach was used to analyze the data from the semi-structured interviews. All interview transcripts were reviewed multiple times to ensure a comprehensive understanding of the data, allowing for a thorough familiarity with the content. The initial themes were developed based on the interview questions, with relevant segments of the interviews categorized into the most appropriate themes using Microsoft Excel. However, as the analysis progressed, these themes were revisited and revised to capture the data better and reflect the participants' perspectives more accurately. Given the diverse backgrounds of the participants, a range of perspectives and interpretations emerged in response to different questions. This diversity was essential for gaining a deeper understanding of the varied viewpoints. Still, there were several questions where

the participants showed a clear agreement, indicating shared understandings or experiences. The themes developed are as follows:

1. Understanding what backcountry hiking trails entails
2. Best practices for collaboration and engagement
3. Current effective parks and trail planning practices
4. Policies, legislation, and regulatory processes
5. Core issues that impact accessibility planning on backcountry hiking trails for PwPD
6. Recommendations and new ideas

3.5. Research Limitations

This study is subject to limitations; some were known before the research was conducted, and some were revealed throughout the research. The sample size consists of only ten interviews (nine individuals, one group), predominantly with provincial parks and trails staff, which may not fully capture varying perspectives on outdoor recreation accessibility. Additionally, the research lacked the inclusion of Indigenous viewpoints, leaving a significant gap in the representation of these perspectives. The study also lacked sufficient engagement with private outdoor recreational facilities, limiting insights into their role in promoting accessibility. Some participants were from outside the S2S region, which sometimes resulted in data that was not fully localized. Lastly, there was insufficient input from individuals with physical disabilities and disability advocacy groups, which may have hindered a more comprehensive understanding of their specific needs and experiences. These limitations must be considered when interpreting the results of this research.

Chapter 4. Findings

4.1. Introduction

This chapter presents the key findings from interviews and discussions with participants regarding accessibility in backcountry hiking for PwPD in the S2S corridor. The findings explore barriers to access, best practices for collaboration and engagement, current park and trail planning strategies, and areas for improvement. Participants provided valuable insights into the challenges PwPD face, ranging from physical and infrastructural limitations to systemic and attitudinal barriers that influence outdoor recreation access. Additionally, the study examines ongoing efforts to improve accessibility, the role of technology and digital tools, and the importance of participatory planning approaches that include PwPD in decision-making processes. This chapter concludes with new ideas and opportunities that can inform future planning strategies to create more inclusive and equitable backcountry experiences for all users.

4.2. Understanding What Backcountry Hiking Trails Entails

BC Parks' definition of backcountry trail was used during the interview to ensure that participants' understanding of backcountry trails aligns with the project's perspective. BC Parks' definition of backcountry trails is as follows:

> "'Backcountry' means an area more than 1km away from any highway or park road. Backcountry areas are not accessible by vehicle and have few facilities. Basic amenities like garbage cans and showers are not available (BC Parks, n.d)"

Some participants, particularly those working in provincial parks and trails staff management, shared additional perspectives on what constitutes a backcountry trail. They noted that "true backcountry trails" are those located more than one kilometre from the highway, with trails closer to the highway being classified as front-country or mid-country trails. Additionally, participants pointed out that trails located farther from the highway present more challenges in improving accessibility through built environments. While

some UD standards and guidelines can be applied to backcountry trails, many may not be suitable. Participants emphasized the remoteness of these trails and their location outside of municipal boundaries. However, provincial parks and trails staff and municipal planners mentioned that trailheads or access points are often located within or near municipal boundaries, where visitors can park before heading into more remote areas.

Several participants also discussed whether an accessible hiking trail should accommodate wheels. Since there is adaptive hiking equipment that includes wheels, some participants suggested that accessible trails should be designed to allow for wheels. The inclusion of wheels could potentially open up the trails to mountain biking and other users. Conversely, some participants continued to associate hiking with walking and felt that backcountry hiking might be too challenging for certain PwPD. They proposed considering alternative modes of access to the backcountry beyond walking. Several participants acknowledged that if a hiking trail allows for wheels, especially those supporting motorized equipment, it may be classified as a multi-use trail. They observed the overlap between mountain biking and adaptive mountain biking trails, as well as potential use by ATVs, dirt bikes, horseback riding, and other users.

4.2.1. Perspectives of PwPD

Many participants emphasized that physical disabilities are not limited to the inability to walk or the use of a wheelchair, as physical disabilities cover a wide spectrum. There are several factors and opportunities that can help provide comfort and optimal conditions for PwPD exploring the backcountry. Regarding the trails themselves, there was a shared consensus among provincial parks and trails staff, PwPD, and municipal planners that trails should not be completely paved. There is also a mutual understanding that not all trails and access points to backcountry areas can or should be made fully accessible. However, there should still be opportunities for PwPD to access and hike in the backcountry.

> "We can't pave everything, and we can't make every mountaintop accessible. When we adapt the built environment to make it more accessible for any humans, we have to be mindful of diminishing the place or the reason that the place is great to begin with. I think there is a rich culture in the disability community of loving, embracing, and

> thriving on challenges, overcoming barriers, and being creative to overcome those barriers. I've heard from lots of people in the disability community that they don't want gondolas, paved roads, or special treatments to get to special places. Everyone wants something different but they don't want to diminish the place to make it accessible." - Participant C

> "A really important aspect of retaining those challenging terrain and that extreme terrain, but making sure that there's still an opportunity for folks to access, maybe not every single site, but a site reflective of what is out there." - Participant F

Participants discussed several adaptive equipment options for hiking, including the TrailRider, ORC chair, and GRIT chair. They noted that, whether PwPD are walking or using adaptive equipment, opportunities exist to reduce the size of steps during trail building or maintenance. Many participants mentioned the need for outhouses, pit toilets, or other washroom facilities. Depending on the hike, participants stated that the washrooms do not necessarily need to be on the trail but having one at the trailhead would be helpful. The absence of a washroom at the trailhead or along the trail would discourage many PwPD from using the trail, even if it was considered accessible.

Additionally, participants criticized the size of existing bathrooms, suggesting that washrooms should align better with UD standards. Some participants proposed having running water in washrooms, or a water bottle filling station accessible to all. Better signage and education along the trails or at the trailhead were also mentioned as helpful for PwPD in understanding the suitability of a trail for their abilities. Participants indicated that clear signs with information on difficulty levels, terrain conditions, elevation changes, and potential hazards would help all hikers make more informed decisions.

4.2.2. Positive Impact of Improving Accessibility

Participants mentioned that applying UD standards to washroom facilities can benefit other users, such as parents with children, older adults, and those with temporary injuries. They also noted that applying UD standards can help PwPD feel included. In addition to facilities, participants highlighted that developing more accessible trails benefits

everyone. It was noted that individuals without physical disabilities, especially those from the aging population, often face similar barriers on the trails.

A participant from the private outdoor recreational industry emphasized the importance of making the entire facility fully accessible. When the facility is entirely accessible, it provides PwPD with better mobility and a greater sense of freedom.

> I think it's also underappreciated on the fundamental human psychology of going to a place, filling your water bottle by yourself, seeing signage and countertops, and door openers that are thoughtfully located. It means somebody has seen you." - Participant J

They noted that even if a PwPD is not currently hiking in the backcountry, being surrounded by nature and witnessing others enter that backcountry makes it an aspirational experience. Being in this space can provide better connections and education, which could encourage PwPD to eventually gain their own hiking experience in the backcountry.

4.3. Best Practices for Collaboration and Engagement

4.3.1. Adaptive Sports and Outdoor Recreational Organizations

Participants listed several organizations that provide opportunities for PwPD to participate in outdoor recreational activities, such as adaptive hiking in the backcountry, within the S2S corridor area. Power to Be, based on Vancouver Island, BC, also offers adaptive programs in the Lower Mainland and S2S areas. Provincial parks and trails staff mentioned that, in addition to offering opportunities for PwPD to engage in outdoor activities, they have compiled a list of organizations across the province that provide TrailRiders. The British Columbia Mobility Opportunities Society (BCMOS), based in the Lower Mainland, stores its TrailRiders and other adaptive equipment at Pacific Spirit Regional Park, and has organized several hiking trips in the S2S corridor area.

> "One of the things every Parks Board like about the TrailRider is it doesn't have any emissions. It's not motorized, it doesn't allow for disruptive things through the forest. We are a program that is based on

people working together and the TrailRider leaves no emissions behind"
- Participant D

An athlete who is a PwPD mentioned that there are adaptive programs around Whistler and Squamish, but was not familiar with their names, as their disability does not require assistance from adaptive hiking programs. Reflecting on their experience volunteering with a local adaptive sports groups, shared that they have seen many people travelling from different areas, even from outside the country, to visit adaptive trails. They suggested that if adaptive hiking trails or programs were well-designed and widely known, PwPD individuals would be interested in participating.

4.3.2. Existing Partnerships

Many participants mentioned that most trail maintenance work is done by volunteers and user groups, both locally and provincially. Sometimes, the volunteers and/or user groups receive funding from the province or other organizations, but this is not always the case. A PwPD participant who works for an adaptive sports organization shared that they regularly collaborate with regional park employees, as their base, where they store adaptive hiking and cycling equipment, is located at the regional park. They also contact local or regional parks and trail staff during hikes, such as those at the Lynn Canyon Suspension Bridge. Since TrailRiders can be used to cross the bridge, local or regional park staff can temporarily block off the entrance to prevent overcrowding.

A provincial parks and trails staff member mentioned that collaborating with and supporting partner organizations is part of their EDI strategy. One of their focuses is creating an adaptive equipment program for various outdoor recreational activities. While the program is still in development, they are working toward partnering with other organizations to provide information on where to find adaptive equipment, ways to support these organizations through funding, and potentially collaborating with volunteer groups that currently handle most trail maintenance, especially on trails that accommodate adaptive equipment. They also have an internal EDI Advisory Council for staff to share their perspectives and an external Inclusion Steering Committee that aims to create more accessible spaces by involving groups with diverse perspectives. Several participants

discussed working with user groups, including PwPD, to provide lived experience to inform the planning, construction, and maintenance processes.

> "They are supporting us in making outdoor spaces more accessible. By working with these partner organizations, we can support more accessible outdoor recreation experiences for folks." - Participant G

Nationally, there is the Parks Collective through the Parks Council, which offers staff members the opportunity to learn about issues related to creating more accessible recreational spaces. Staff can attend conferences and connect with others in the field. Provincially, BC Parks collaborates with several organizations, including the Canucks Autism Network, Power to Be, BCMOS, the BC Parks Foundation, and Indigenous communities. They also work closely with Recreation Sites and Trails BC (RSTBC), which collaborates with organizations such as PwPD, Indigenous communities, and municipalities. A provincial parks and trails staff spoke about their collaboration and friendship with an athlete who is a PwPD. Together, they worked on developing a Type 2 (Appendix B) mountain biking trail around the Smoke Bluffs area in Squamish and S2S Trail from Squamish to D'arcy. Municipalities along the S2S corridor work closely with the Indigenous communities on whose lands they are on, including the Sḵwx̱wú7mesh Úxwumixw ("The People of the Squamish Villages," Squamish Nation) and Ļi̓lwat7úl (Ucwalmícw, "The people of the Land", Lí̓lwat Nation; Sḵwx̱wú7mesh Ļi̓lwat7úl Cultural Centre, n.a.). These Indigenous communities advocate for Indigenous rights and reconciliation through recreation. Municipalities also work with the regional district, Squamish-Lillooet Regional District (SLRD), and trails organizations, including The Trails Association and The Off-Road Cycling Association.

In addition to direct collaboration, BC Parks operates a license plate program (LPP), where all funds raised from the "Beautiful BC Discover BC Parks" license plates are reinvested into the park system. With extra funding, some of the money has been used to purchase adaptive equipment through partner organizations, such as TrailRiders, adaptive mountain bikes, and adaptive kayaks. BC Parks has also been working with partners to co-create social media posts.

> "We have been collaborating with partners to put up social media posts. That helps amplify voices and create a sense of importance surrounding

> accessibility. It is important for people to see themselves reflected. For example, if someone may be dealing with a new disability, and is now in need of a wheelchair. They are facing a lot of challenges and maybe also barriers within themselves by thinking that they are maybe not able to enjoy the outdoors anymore. But through social media, for example, they can then see that there are people who use adaptive equipment to go out and still enjoy the outdoors." - Participant G

The area where a private outdoor recreational facility is located spans multiple communities and jurisdictions. Their facility, which includes parking lots, a gondola, and an extensive trail network, intersects with the SLRD, two provincial parks, the Squamish Nation, səlilwətaɬ ("People of the Inlet," Tsleil-Waututh Nation (Tsleil-Waututh Nation, n.a.), and xʷməθkʷəy̓əm (Place where the məθkʷəy̓ (flowering plant) grow, the Musqueam Indian Band) (Musqueam Indian Band, n.a.), along with their tenure granted by The Ministry of Forests, Lands, Natural Resource Operations and Rural Development (FLNRO). Other organizations this private outdoor recreational facility works with include the Rick Hansen Foundation and Power to Be. They have created the Sea to Sky Funds, which has supported the BC Parks Foundation through ticket sales.

> "That money goes into park management and accessibility, it is about accessible parking, accessible trails, [and] accessible bathrooms in the park. On the management side, we funded the first new Park Ranger in this region in decades, so that there's someone on site to help people understand the sensibility of going into the backcountry." - Participant J

This participant emphasized that the Sea to Sky Funds highlight the collaboration between different groups in managing and planning outdoor recreational spaces. They noted that the combined efforts and resources have expanded opportunities for creating accessibility in parks management and planning.

4.3.3. Current Best Practices for Engagement

Many participants agreed that consulting and engaging different groups and organizations early on is one of the best practices, particularly for PwPD and groups that support PwPD. Provincial parks and trails staff members emphasized the importance of engaging these groups throughout the process.

> "The best practice is to engage directly with people with lived experience and folks who support those groups. Engaging them throughout the process, from planning to designing the facilities to testing the facilities, and improving the facilities." - Participant I

Working with these groups and organizations can help support and expand the capacity for projects, such as the adaptive equipment that BC Parks is working on. Participants recognized that working with well-resourced organizations that have the capacity to support is beneficial. However, they acknowledged that these groups often do not face the same barriers and challenges, which is why it is important to engage both well-resourced and under-resourced groups.

> "These sports groups often have the energy and resources behind them, so ensuring they focus some of that effort on accessibility for other groups can make a big difference. It's almost like a 'social license'" - Participant F

Participants emphasized that inclusive public engagement is essential, noting the need to seek demographic data when collecting surveys to identify whose voices are missing and which groups are most frequently heard from. They also discussed the need to find alternative methods and spaces to engage different groups, ensuring their perspectives are considered and implemented. Connecting with groups supporting PwPD will allow other perspectives to be heard, considered, and addressed. BC Parks has a dedicated department, Education, Engagement, and Enhancement (EEE), which focuses on building partnerships and collaboration with organizations supporting PwPD. As part of the EEE department, BC Parks recently began developing a new initiative, the adaptive recreational program, aiming to work directly with PwPD to identify methods for making outdoor recreational sports more accessible. Another provincial parks and trails staff member highlighted the importance of attending engagement and consultation meetings without preconceived thoughts or personal biases. It was noted that collaborative approaches may not meet all individual or group needs precisely but aim for a collective outcome that incorporates elements from everyone's needs and desires.

> The best practice is that you build a relationship with someone not based on what you know with these groups, not based on what they can do for you or you can do for them, but just what you can accomplish together. " - Participant B

> "My answer to that question is simply to invite people with disabilities to tell you about their experiences, barriers, and what they want. Be open to listening." - Participant C

A PwPD who also manages an adaptive sports organization confirmed the need to engage different user groups while utilizing existing resources to make trails more accessible. A provincial parks and trails staff member found that instead of leading the process themselves, the most effective approach is to facilitate and support these different groups and organizations. This participant recognized that many considerate users within outdoor spaces are often eager to make things more optimal for others, and supporting their proposals through momentary funds and written support is often faster than waiting for government action.

While it is ideal for user groups, particularly organizations supporting PwPD, to lead the entire process, another provincial parks and trails staff member acknowledged the need to align any ideas and methods with government policies and systems. However, for long-duration projects, the staff member trusts that the most optimal solution has been collaboratively developed.

> "It doesn't necessarily align perfectly, but it aligns with our policy of inclusion and sustainable development of recreation and respect for other people's values and all these other things that the government does. All the values that we determine are important." - Participant B

Consultation with local Indigenous communities is essential. A municipal planner mentioned that for the projects they have been working on, RSTBC will not sign off on the project proposals until they receive approval from the local Indigenous community where the municipal lands are on. At the private outdoor recreational facility, they also have a strong relationship and agreement with the Squamish Nation, fostering good partnerships and creating welcoming workspaces that can benefit their economy.

4.3.4. Improvement Opportunities

An athlete who is a PwPD expressed gratitude for their connection and friendship with provincial parks and trails staff members, noting that the staff seek feedback and advice from them on certain accessibility aspects of projects. They acknowledged that

there are many different disabilities, even within physical disabilities, and emphasized that more efforts and connections are needed. The athlete shared their experience of occasionally being asked questions but mentioned the insufficient research and work in accessibility planning for outdoor recreational spaces within the S2S corridor. While not every PwPD may feel the same, this athlete is happy to share their experience and thoughts if others reach out to them. They emphasized the importance of being respectful and considerate in conversations, recognizing that PwPD may have more lived experience and knowledge.

> "I think it's more like they'll have one of those interactions and then they'll feel as if they got bitten and think that the community is scary now. I like to use the term, "othering", you're just splitting the disabled people and the able-bodied people. I think of them in tandem; you'll have one interaction where you said something weird and you caught them off-guard. Now you are separated from that community and you don't feel like you can just walk up them and be like, "Hey, I'm redesigning this building, how should I do this or that? You've got 5 minutes?" That is showing respect and showing that I have knowledge which you might not have. That is a better way of approaching someone and saying, "What do you folks do…", which we get a lot." - Participant A

Another PwPD working at an adaptive sports organization agreed with the lack of consistent effort in improving accessibility in outdoor spaces, particularly backcountry hiking trails. They mentioned that provincial parks and trails staff members should closely examine common complaints and feedback to address those issues. They emphasized the importance of connecting with local accessibility organizations on these matters.

Another provincial parks and trails staff member recognized the opportunity to work more frequently with organizations and groups specializing in accessibility for PwPD, acknowledging limitations in their own knowledge and experience as someone without a physical disability. They also emphasized the need for a proper and responsive feedback mechanism to improve access to outdoor spaces, especially backcountry spaces, for PwPD.

While a provincial parks and trails staff member tries to connect with friends and organizations within the disability community, they admitted a lack of sufficient time due to their other workload and responsibilities. They believe having more people at the

provincial level dedicated to this work is essential, noting that it should be a higher priority with a larger, more dedicated team and additional resources for connecting with PwPD and doing accessibility work.

A few participants discussed the opportunity to update the BC Parks and RSTBC websites, suggesting that more resources and tools, such as maps, would be helpful if made directly available on the websites.

> "I sure would love to see a map and a page on BC Parks and Rec Site and Tail website that shows where the most kilometres of accessible trails are and or the best available resources to assist with backcountry accessibility. They just need to assemble it in a way where you could click through it and be confident that you can go." - Participant J

Aside from the BC Parks and RSTBC websites, a private outdoor recreational facility staff member saw an opportunity to work with the Industry Association of BC and Destination BC. They believe these organizations could help support the development of an accessibility heat map, which would show where the most accessible trails and bathrooms are. These areas could be ranked for accessibility and offer travel and tourism opportunities.

Lastly, there are opportunities to enhance education for parks and trails staff members, volunteers, and the public. Offering educational programs for trails and park staff, volunteers, and the general public could raise awareness, help park-goers better understand what it might be like to live with a disability, and provide valuable insights on how to assist others or educate the public on the topic.

4.4. Current Effective Parks and Trail Planning Practices

4.4.1. Planning Focus for Backcountry Trails

One aspect of planning accessible trails is ensuring that as many people as possible can use them. A PwPD working with an adaptive sports organization discussed how the benefits of being in nature are well-studied. Developing trails and opportunities that can be shared among younger children, seniors, and family members who are PwPD

is a level of accessibility that provides significant benefits and is worth investing more time in.

Provincial parks and trails staff members mentioned the importance of ensuring there are options for building accessible backcountry trails and communicating those options. Identifying features and labelling them on a map can help people make informed decisions and plan their trips.

> "Ideally, I think we need more of this built into the opportunities out there. It would help provide people with a 'choose-your-own-adventure' experience. And it's important to recognize that a physical disability doesn't always mean someone is in a wheelchair. We need to move away from that thinking, and instead focus on providing information that lets people make their own choices." - Participant F

Trail signage, placement of the signs, and trail markers are essential. A municipal planner spoke about the need to balance between having enough signage and too much. They mentioned that trailheads and junctions, where the trail may be divided into several paths, are ideal places to place maps and information on accessibility. A provincial parks and trails staff highlighted the importance of making sure the signage is easy to understand, consistent, and reliant on symbols rather than being too text-heavy. Additionally, the quality of trail markers can impact safety, so ensuring they are clear and placed at appropriate spots is crucial.

Several participants talked about the need for accessible washrooms at the trailhead. Providing accessible washrooms benefits more than just those with a physical disability, and this extends to features like benches, wider and flat parking spots, picnic tables, and regular trail maintenance. A provincial parks and trails staff member mentioned that when new backcountry trails are developed or upgraded, UD standards are typically applied to ensure accessibility for various types of disabilities. A municipal planner spoke about a recreation site being developed, which is an essential starting point for many backcountry trails in that municipality. They are considering providing more support services, such as access to water, food, and parking. Participants also noted the complexity of planning more accessible backcountry hiking trails. Even with wider terrains,

the slope of the trail may be difficult to modify. The option to access adaptive equipment more readily or at closer proximity is something that needs consideration.

Researching a hike before heading out is necessary. BC Parks and RSTBC can update their websites with more information to help PwPD and other users plan their trips. A provincial parks and trails staff member mentioned the importance of staying on top of emails and phone calls to answer questions not found on the website. This helps PwPD plan their trips and understand what to expect along the trail. At a private outdoor recreational facility, a participant mentioned that they are developing a user-ranking system for trail infrastructure in this space. They plan to work with different user groups, including PwPD, to test trails and provide feedback on the trails and their perceived difficulty.

> "My number one advice is whenever you're there trying to make something more accessible, get feedback from the end user most importantly." - Participant D

This participant emphasized the importance of involving the end users in the process of making outdoor spaces more accessible. They advised that the most valuable input comes directly from those who will be using the space, as their experiences and needs are key to ensuring the success of accessibility initiatives.

4.4.2. Planning Improvement Opportunities

Several participants suggested the need for geographically specific plans and park-specific recreation facility plans, such as those being developed for Mount Seymour in North Vancouver. This plan includes a section on BC Parks' Commitment to Inclusion. Additionally, a provincial parks and trails staff member mentioned that while there are currently outdated planning processes and management plans, having a more robust planning process could enhance the accessibility of parks in the S2S region. They also noted that this could help unify different jurisdictions to collectively build regional spaces.

4.4.3. Successful Examples

Within BC, the S2S area and beyond have several examples of accessible front-country, multi-use, mountain biking, and backcountry trails. In most of these examples, participants mentioned that there have often been projects that gain momentum because there is someone who is a staff member or a partner organization passionate about having the site developed to be accessible.

Within the S2S corridor, a multi-use trail at Alice Lake Park in Squamish, BC, is currently under construction. A provincial parks and trails staff provided information on how it is designed to accommodate adaptive mountain biking following the Kootenay Adaptive Mountain Biking Trail Standards. This trail also connects to other trails that are outside of the park boundaries as well. Around Squamish, another provincial parks and trails staff spoke about a multi-year project on a mobility-assisted mountain biking trail that their team has been working on that is 18 kilometres long, running from the top of a Forest Service Road (FSR) down to highway 99 and into Squamish. Then, connecting Mount Currie and Pemberton, a municipal planner shares a multi-use trail called the Friendship Trail. It is a relatively flat and paved trail, making it another accessible trail in the front-country for different users. They also mentioned that One Mile Lake has a trail, where a section has a boardwalk, making it another great front-country accessible trail.

Outside of public spaces and still within the S2S area, staff at the private outdoor recreational facility share about the different accessibility initiatives they have on their trails or access to trails. At their facility, the gondola can bring them into the subalpine, bringing them to the backcountry spaces more efficiently. However, similar to many other backcountry trails, the access is still on an old FSR, and while there is an access route that is relatively flat and levelled, moderate mobility is still needed. Otherwise, some level of assistance is required. They've installed a boardwalk through wetland areas towards Mount Habrich and placed a helipad. The private outdoor recreational facility staff did admit that this is a very costly experience that isn't accessible in that sense. The facility is also spending resources on making several changes to improve the durability and texture of the paths for other accessibility needs.

> "We're also going more deeply into durability, meaning for trails surfacing, stonework, and drainage. We're bringing a stonemason in the spring to work with the team to teach them how to do rudimentary stonework. We are now talking about granite walls, the idea behind that is that people with visual impairment on our main trails or inbound trails can do edging. Now with a cane, you can tap the edges of trails." - Participant J

While this feature isn't specific to supporting PwPD, the modifications made by the private outdoor recreational facility contribute to overall accessibility. This includes improving the durability and texture of the paths through upgraded surfacing, stonework, and better drainage. These developments are part of the facility's broader efforts to make their trails and outdoor spaces more navigable and supportive for a wider range of users.

A provincial parks and trails staff who works in the S2S region shared an example about a dedicated staff in the past named Andy Smith, who built a partnership with a nonprofit organization, and they've developed an accessible backcountry trail experience called Paradise Meadows at Strathcona Provincial Park on Vancouver Island. It is mainly a boardwalk, and on either side of the boardwalk, they have an 8-inch ramp, which is user-friendly for TrailRiders and many other types of adaptive hiking equipment.

Ancient Cedar Forest, near McBride, BC, is a project that Nowell Senior and his hiking club developed. He loved this space and wanted more people to have access to it. The area has an accessible walkway or a universal boardwalk.

> "Usually in any special project, even when you are working with the city, it takes a champion to want to see the change, and once people see the passion and it gains momentum, it gains steam. What I would hope is that in the backcountry or other parks would see what could be done either in the Ancient Forest or other areas and be like we could make things more accessible too without losing the spirit of that wilderness." – D

The participant noted that successful accessibility projects often require a passionate "champion" to push for change. As they mentioned, it takes a dedicated individual to inspire momentum and make others see the potential for accessible solutions, as seen in areas like the Ancient Forest.

4.5. Policies, Legislation, and Regulatory Processes

4.5.1. Current EDI Work

What EDI work is and what it involves varies among different participants. For those working or volunteering with adaptive outdoor sports organizations, their entire purpose revolves around EDI. An athlete who volunteers for one of these organizations reflect on how they learn what works for them and what doesn't, and they apply those insights to implement strategies for all types of disabilities.

> "It is a lot of information sharing again for us and for inclusion…so you're asking the adaptive…community what they do for accessibility and inclusion. It is like, we live it..." - Participant A

A private outdoor recreational facility's focus is to ensure that people feel considered and respected in that space. The staff at this facility spoke about how the Rick Hansen Foundation has ranked their facility. While they received a good ranking, they acknowledged that there is still much room for improvement in terms of accessibility within the facility. As part of their master plans for the next 10 years, they are planning to build a new office staff facility that will feature more accessible elements, ensuring that staff who may have disabilities feel more comfortable and are considered in their workplace.

The provincial government requires municipalities to have an accessibility committee. A municipal planner explained that this requirement has pushed all municipalities to engage more in accessibility work. Their municipality is currently working on a new Official Community Plan (OCP), with EDI being highly prioritized in the revision process. In addition to that, they are working on an active transportation plan, where they emphasized that many core trails will be designed to accommodate all ages and abilities.

BC Parks has now integrated EDI considerations into most of its work. Staff members had the opportunity to receive accessibility training through the Rick Hansen Foundation a few years ago. However, more recently, the training has been conducted internally. A provincial parks and trails staff member suggested inviting the Rick Hansen Foundation to conduct another round of EDI training. Another staff member highlighted that EDI focuses on newly built or upgraded trails within the BC Parks system. Currently,

there is no specific focus on accessible backcountry hiking trails, as the priority is to create greater access in front-country spaces first. These front-country trails are designed for PwPD, families, friends, and caregivers to use.

A provincial parks and trails staff member led a project to develop Universal Design (UD) standards for outdoor built environments and coordinated an audit team that conducted an accessibility audit at all of BC's front-country parks. While not directly related to PwPD, BC Parks has a "Camping Fee Exemptions Policy," allowing individuals, partners, or families to camp for free. However, the process is complex and tedious, and there are opportunities to streamline it to make it simpler and faster for people to access these services.

Additionally, BC Parks staff mentioned that their e-bike policy feels outdated, with inconsistencies and conflicts related to the use of adaptive equipment. A significant part of their EDI work involves adapting to these changes while ensuring that everyone can safely enjoy the outdoors. Recently, a new provincial parks and trails staff member was hired to work on a provincial adaptive recreation program, with plans to include guidelines for backcountry spaces. Since this initiative is still in its early stages, there are many opportunities and uncertainties regarding its focus.

As for RSTBC, one significant EDI focus within their *Provincial Trails Strategy* is their commitment to diverse users. They are actively working towards planning with different perspectives and abilities in mind. A provincial parks and trails staff member mentioned that this requires a shift away from the traditional concept of "two-leg hiking" towards incorporating various types of adaptive, mobility-assisted hiking. Additionally, a provincial parks and trails staff member works closely with the disability community on several existing and ongoing trail projects and proposals.

4.5.2. Current Regulations and Policies

Many policies and regulations have been developed without considering PwPD and accessibility. However, the province and the industry are now prioritizing changes to address this. The *Accessible BC Act* (ABA) is legislation enacted by the BC government to remove barriers and provide various opportunities for people with disabilities. A

provincial parks and trails staff member mentioned that this legislation has helped raise awareness for change and has led to policies that better align with the act. BC Parks has a policy document, the *Commitment to Inclusion*, which outlines their equity, diversity, and inclusion goals. This document serves as the central guiding framework for BC Parks to remove barriers and create a more welcoming and accessible space for everyone, particularly those who are underrepresented. One provincial parks and trails staff member described it as a massive vision for the park.

> "It's a huge vision that we're working towards. How do we make this happen? First of all, we have to figure out who's missing, right? Who is not able to access outdoor recreation and who doesn't feel safe being outdoors or in parks for various reasons." - Participant G

A provincial parks and trails staff member mentioned that the *Commitment to Inclusion* does not provide specific tactics or details on improving inclusion at parks or on enhancing access to backcountry trails. However, another provincial parks and trails staff member pointed out that it explicitly states a focus on front-country trails first. They explained that, inherently, front-country trails are more straightforward to develop accessible features and make changes to. BC Parks also has its own UD Standards document, which is based on the recognized UD standards. Additionally, a provincial parks and trails staff member mentioned that accessibility information can also be found on their website, including some of the audits that were conducted for front-country parks to assess accessibility. Some parks are in the S2S region, and they offer detailed information on the state of the space through an accessibility lens, helping to identify barriers, existing accessible washrooms, and providing context and information for PwPD. However, a provincial parks and trails staff member admitted that current policies and processes for writing management plans do not address incorporating accessibility. As a result, there is no clear and consistent guidance on how to do so. Furthermore, several park plans are outdated, as they were written to provide statutory decision-makers with guidance on allowable uses and identify the park's value. Some policies also lack consistency, which could lead to confusion.

> "We are doing our best to facilitate the use of backcountry facilities and remote facilities for disabled people, but it's difficult and extremely expensive." - Participant B

RSTBC works closely with BC Parks and has RSTBC staff on the Commitment to Inclusion Working Group. BC Parks' *Commitment to Inclusion* is also embedded into the work RSTBC does. While they borrow from BC Parks' *Front-country Design Principles* for building infrastructure, RSTBC still maintains its own UD Standards. Additionally, RSTBC has another provincial initiative called *Gender-Based Analysis Plus* (GBA+). A provincial parks and trails staff member indicated that efforts are underway to implement GBA+ perspectives in various aspects of their work, including the Provincial Trails Strategy. Internally, RSTBC has conducted a GBA+ assessment on their projects and strategies, which has helped them identify groups they had not previously considered engaging with.

RSTBC has a policy of prioritizing works and projects for groups underrepresented in outdoor spaces, including PwPD. While providing recreational spaces for PwPD requires time and planning, a provincial parks and trails staff member highlighted several projects intentionally designed to be more accessible. These include vehicle-accessible campsites with wheelchair-accessible tables and washrooms. Additionally, although there is typically an e-bike restriction in the alpine for several trails, RSTBC has a policy allowing PwPD to use e-bikes if they have a disability. The staff member explained that the e-bike restriction is in place to protect environmentally sensitive spaces and wildlife by reducing the number of users in the area, as allowing e-bikes for all could increase traffic too much.

There is also a policy to prevent aircraft from being used to travel to specific backcountry camping sites. However, similar to the e-bike policy, there are exemptions for PwPD, allowing them to fly into certain backcountry camping sites. Another provincial parks and trails staff member mentioned that RSTBC has fewer restrictions than BC Parks, as BC Parks must operate under the Parks Act. However, these restrictions and exemptions can be inconsistent, potentially leading to confusion for user groups.

4.5.3. Improvement Opportunities in Developing Better Policies, Regulations, and EDI Work to Support Backcountry Hiking Trails

Often, when there are many restrictions and exemptions, it can create confusion for users. A provincial parks and trails staff member mentioned that their provincial trails strategy needs to be a living document that addresses any confusion and provides

clarification as technology advances and certain elements change. There is always room for further development of educational standards and updates to trail markers and signs to improve accessibility and navigation for PwPD on backcountry hiking trails. Several participants have acknowledged the need to consult user groups, including PwPD, to identify their needs and the barriers they face on specific trails and spaces. A provincial parks and trails staff member and an athlete with a physical disability both recognize that each trail is unique. Site-specific planning is necessary, as changes that work for one trail may not be applicable to another. Both participants agree that collaboration in these planning processes is essential to making trails truly accessible.

> "You've probably heard the phrase 'Nothing about us without us,' and that's really important, making sure you're not just applying your own lens of lived experience and assuming, 'Well, this works for me, so it must work for everyone.'" - Participant F

The participant emphasized the importance of involving PwPD in the planning and decision-making processes, stressing that solutions should not be based on the assumptions of individuals without disabilities. Instead, the lived experiences of PwPD should guide accessibility improvements to ensure their needs are truly met. However, even if efforts are made to improve PwPD's access to backcountry hiking, a provincial parks and trails staff member admitted that the barriers to overcome in the backcountry are more "substantial and specific to individuals as well" (Participant B).

4.6. Core Issues

4.6.1. Issues with Making the Backcountry Too Accessible

Among all participants, there is a consensus that not everything should be paved, as improved access comes with increased risk. Backcountry areas have more environmentally sensitive terrains and wildlife, and balancing the creation of access with environmental protection is challenging. Several participants mentioned that even improving access road conditions, which typically only those with 4x4 vehicles can access, will impact and likely increase trail use. Leaving access roads as they are helps manage overuse and abuse of trails.

> "If we want to discourage people from going somewhere we let the road fall apart. That's our tool. That's the one usable tool to control the level of use when you have a massive amount of use and lots of pressure." - Participant B

Many hikes within the S2S have improved access, whether from the access road, regularly maintained trail, or other means. Most popular hikes, even in the backcountry, have been made easier to enter. The athlete with a physical disability mentioned that making backcountry trails more accessible makes them feel like they are no longer part of the backcountry.

> "It's brutal. I think it is just tough because even as a disabled person, making the backcountry more accessible is just stretching the city limits." - Participant A

They also mentioned that taking too many barriers away from access for everyone reduces the sense of risk people should have when entering backcountry terrains, and this has significantly impacted the number of Search and Rescue (SAR) calls each year. Many participants referred to Joffre Lake (Pipi7íyekw) Provincial Park as an example of an overused park. The trail can be accessed by a 2WD vehicle, which is approachable for several levels of ability. However, Joffre Lakes is also an example of good collaboration and management practices, with Líl̓wat Nation and N'Quatqua, on limiting the allowance of users to allow for traditional harvest, cultural celebrations, and protection of the natural space. Elfin Lakes, part of Garibaldi Provincial Park, is another example of the overuse of outdoor spaces that impacts the comfort of wildlife, such as bears. Participants critiqued the space as not being well cared for, and certain users were unaware of Leave No Trace principles and backcountry safety protocols.

> "Death by Instagram. You wanna ruin a place, you put it online." - Participant B

Watersprite Lake has also been a popular hike, and a provincial parks and trails staff member mentioned that one of the reasons for the desirability of this hike is due to social media exposure. A staff member in the private outdoor recreational industry acknowledges that when the backcountry is "too accessible," it allows access to users who may not necessarily have earned the knowledge, understanding, or experiences to

be in these spaces, which can generate harm to the space, to themselves, and even others.

> "It's a bit of a double-edged sword, which is something that needs to be carefully considered." - Participant F

Lastly, when backcountry trails are made too accessible, such as when they are widened and flattened, they become open to users other than hikers, including horseback riders, ATVs, dirt bikes, and mountain bikes, which can increase their negative environmental impact.

4.6.2. Barriers to Accessibility Planning for Backcountry Hiking Trails for PwPD

Improving accessibility in backcountry hiking trails comes with many barriers. Given the location and nature of backcountry terrain, participants shared concerns that changing the actual trail is difficult. Backcountry terrains tend to be steeper and often have natural obstacles such as rocks, uneven surfaces, roots, and narrow sections to navigate. A provincial parks and trails staff member mentioned that even regular maintenance is a challenge, as these trails experience a lot of wear and tear. Since there are also many different types of physical disabilities, there are various ways to make a trail accessible. What works for one disability might make things worse for another.

> "The social model of disability says that it's the built environment that creates the disability….When you get into backcountry experiences, it's a different thing. We can't cut a trail at under 5%, that's going to gain 1000 metres of elevation, you can do the math, that's going to be a 50-kilometre-long trail. There are limits to it and nobody would want to diminish the place and nobody would want to do it because it doesn't make sense." - Participant C

Another staff member from provincial parks and trails explained that trails suitable for PwPD who use adaptive equipment with wheels must meet specific standards to ensure accessibility. For instance, the trail should be 1 to 1.5 metres wide to accommodate wheelchairs or other mobility devices. The trail's maximum sustained slope, or grade, should be no more than 8% (Appendix C), meaning that for every 100 metres of horizontal distance, the trail can rise no more than 8 metres in elevation. This ensures that the trail

is not too steep for people using adaptive equipment. Additionally, the trail can have a slope of up to 12% (Appendix C) for short sections, but this steeper grade cannot extend for more than five metres at a time. This standard is crucial because steeper slopes can make it difficult, if not impossible, for PwPD or even individuals with mobility impairments to navigate the trail safely and comfortably.

When developing backcountry trails to be more accessible, it's essential to consider methods that minimize environmental impact. While trails provide valuable outdoor experiences, they can also disrupt ecosystems and sensitive areas. Participants shared instances where they have encountered trails near environmentally delicate zones. In addition to the trails themselves, provincial parks and trails staff emphasized the importance of considering archaeological factors. For example, while installing a washroom in a specific location might seem practical, it could be prohibited if the area holds archaeological significance. Balancing accessibility with preservation requires careful planning and collaboration among experts to ensure minimal environmental and cultural disruption.

A provincial parks and trails staff member mentioned that even front-country trail terrains, such as Shannon Falls, are steep but already overcrowded. While this was discussed previously, participants highlighted a barrier to creating access: greater access can lead to overcrowding issues, particularly when parking spots at certain parks around the S2S are limited. The quality of access roads is also a barrier, as many backcountry trails, particularly those managed by RSTBC, are connected to industrial logging roads and maintained by those working in the logging area. These roads tend to degrade over time, though they are sometimes repaired and improved. A provincial parks and trails staff noted that having an unmaintained road is not a good idea, even if the trails are accessible. The cost to maintain the road can range from $40,000 to $100,000, making it difficult to justify using their budget to maintain something that may deteriorate again.

Funding is a significant barrier impacting the process of making backcountry trails more accessible. Even if funding is available to build infrastructure, participants noted that it might not be enough to maintain it. Solutions outside of adaptive equipment could be even more expensive and typically cater to a limited number of users. For instance, the

athlete with a physical disability mentioned that a wheelchair-accessible trail requires high-quality gravel and needs to be a certain width, which would likely require machinery to construct. They noted that using machinery can cost $2,500 a day or more. A provincial parks and trails staff further explained the issue. Due to the complex and steep terrains in the S2S area, a wheelchair-accessible path can cost between $70,000 and $100,000 per kilometre. In contrast, the cost is lower in places like Okanagan, BC, due to flatter terrains.

One of the main barriers identified is organizational or staff capacity. While there are several opportunities and ideas, limited capacity within the organization, whether due to staff, time, funding, or other factors, makes it challenging to initiate and sustain specific projects.

> "There are way more projects than there are people, so it's just managing priorities and working with your team, s; sometimes does make your schedule full, but it is what it is. - Participant H"

Due to limited capacity and resources, improving access to front-country trails has remained a priority. Since work on front-country improvements is not yet complete, participants from provincial parks and trail organizations have not focused as much on creating better backcountry access.

With a wide variety of trails and disabilities to consider, determining which trails can be made more accessible remains a challenging decision. The best method for identifying which parks can be improved for accessibility, considering all other barriers and core issues, is still unclear

Working with PwPD and organizations that support PwPD is necessary. Many participants agree that this goes beyond consultation and that building and maintaining these relationships is essential. However, staff capacity has been identified as a barrier to sustaining these connections. There is also the capacity of PwPD or the organizations supporting them, as they also have limited time, programs to run, personal lives, and other commitments.

As previously mentioned, some participants who are PwPD find that organizations are hesitant to ask and consult, creating a significant barrier to understanding what the

disability community truly wants. They called out organizations for being reluctant to engage and slow to embrace change

While this may be more relevant to the private outdoor recreational facility, the management of backcountry trails is often multi-jurisdictional. Several groups, including municipalities, regional districts, RSTBC, BC Parks, local Indigenous communities, and private landowners, are involved. Participants noted that active facilitation of consultation between these groups, along with a shared strategy for accessibility, is often lacking.

As many backcountry hiking trails are located in more remote areas and are more challenging, a PwPD who works for an adaptive sports organization mentioned that when using a TrailRider, they do not use it frequently, so checking in on their comfort level during tight spaces, over rocks, and at river crossings is crucial. It is also important to check if they need to adjust their sitting position.

The S2S area currently lacks sufficient information on accessible backcountry hiking trails. While information on where to find adaptive opportunities, organizations, and services offering programs and rental options is somewhat cohesive, it is not readily available. Most PwPD typically rely on word of mouth or personal networks to obtain information about trails. Due to the wide spectrum of physical disabilities, a provincial parks and trails staff mentioned that it is challenging for their team to provide accurate and tailored information to users.

> "If you are anywhere on that spectrum and you want information specific to your abilities, your needs, and the barriers that you'll encounter, or the barriers that you can ignore on that trail, it's extremely difficult to provide useful targeted information for such a broad audience." - Participant C

Currently, accessible hiking trails, as well as hiking trails in general, do not have a consistent standard for difficulty ratings. While rating systems are helpful, they also bring liability concerns and need to be universally applicable. Several participants mentioned that rating trails is particularly challenging for those with physical disabilities, as disabilities vary greatly. For example, someone with limited or no mobility in their lower body will face different challenges compared to someone with limited or low mobility in their upper body.

Providing inaccurate information can lead to harm on the trails, and provincial parks and trails staff feel that they lack the confidence to implement a rating system for their own trails.

Cost and financial barriers also impact individuals' ability to access these spaces. A provincial parks and trails staff member mentioned that a survey by The Social Planning and Research Council of B.C (SPARC BC) revealed that many PwPDs have limited disposable income for purchasing gear and accessing paid programs. Although most adaptive sports programs and organizations for PwPD offer subsidized options, there are still participation and operational costs involved.

Additionally, there is no reliable public transit or accessible charter bus service for travelling around the S2S area, especially to backcountry trailheads. For those without private vehicles, this lack of transportation options becomes a significant barrier to accessing accessible hiking spots.

> "One of the frustrations is somebody will ask if you can just take the existing charter buses and walk up a couple of steps. I'm wheelchair-bound, so no I cannot. An accessible bus means that you have a lift and a way to tie down my chair." - Participant D

An adaptive sports organization staff mentioned their lack of capacity to bring people into backcountry trails due to the long commute, even for those who are local.

The lack of amenities also poses a significant challenge for PwPD. Even if washrooms are available at the trailhead, they are often not built to accessible standards. A PwPD who works for an adaptive sports organization shared that trailhead washrooms typically have doors that open outward and are cramped in space. For someone using a wheelchair, this makes transferring in and out difficult.

4.6.3. Lack of Prioritization in Accessibility Work

Considering all the barriers, there is still a lack of prioritization on accessibility work, particularly in backcountry hiking terrains. Many PwPD would be eager to provide feedback if a proposal were made to develop a provincial adaptive hiking program for the

backcountry. However, due to budget constraints and capacity issues, this idea may not have a significant impact on overall access. A PwPD who works for an adaptive sports organization mentioned that there are always alternative opportunities to improve access that can benefit more people, such as implementing wider trails, removing dead roots, or adding better signage.

> "Identify the changes you could make that benefit the most people. One of the things is everybody thinks that accessibility is for somebody with a disability, but once accessibility is put in place everybody benefits from it." - Participant D

The athlete, who is a PwPD, previously worked for a private outdoor recreational facility and identified several opportunities to improve accessibility throughout the facility. However, the private facility never followed through with the feedback. In another project, where they worked with the municipality and had a budget of approximately $1.5 million, they were told that $1500 was too expensive to make the space accessible. They were also hired to help improve accessibility features at a local educational facility, but after the consultation and planning stages, the project did not proceed. This illustrates that while there are several opportunities to improve accessibility, the work has not been prioritized.

A staff member working in the private recreational industry admitted that in adventure tourism, people often assume improving accessibility is too difficult and therefore don't make much effort to do so. While they are working towards increasing opportunities for PwPD at their facility, they have not focused on improving accessibility in backcountry terrains. Currently, there is a significant reliance on adaptive sports and disability organizations to provide access to backcountry hiking trails, as these organizations have the knowledge and tools to do so.

> "It is a Band-Aid solution, but also a brilliant solution for some of the more serious elevation, more complicated trails, things that you're likely never having a built environment for without degrading the experience." - Participant J

A provincial parks and trails staff member added that the lack of representation and awareness of PwPD's capacities prevents land managers and other provincial parks

and trails staff from putting in more effort to make backcountry spaces accessible to this community.

> "...In some of those backcountry environments, the terrain is going to be very challenging to make it "Accessible" to a standard, but that doesn't mean it can't be usable, or we can't improve the inclusivity of it, and it can still be used with adaptive equipment, so I don't think it's an all or nothing approach here…" - Participant K

While some backcountry terrains may be difficult to fully meet accessibility standards, it doesn't mean they can't be made more inclusive. The participant emphasized that improvements can be made to allow the use of adaptive equipment, suggesting that the approach to accessibility should be flexible rather than all-or-nothing.

4.6.4. Exhaustion Faced by PwPD

PwPD and adaptive sports organizations that are important to engage with may have limited time, capacity, and resources. Many PwPD, adaptive sports organizations, and other organizations supporting PwPD often volunteer their time and are not adequately compensated. A provincial parks and trails staff member noted that, as interest in accessibility grows, more people reach out to PwPD, adaptive sports organizations, and other relevant groups for information and to understand their lived experiences. However, the staff member questioned whether it is ethical and appropriate to receive this information for free. The athlete who is a PwPD shared several consulting experiences, some of which they were paid for and others where they volunteered their time. While they do not often expect compensation, they expressed frustration when projects they offered feedback on did not progress, when they provided input on accessibility features and received no follow-up, or when they were consulted only to fulfill a project's requirement without meaningful action.

> It's really gross, and it is impossible to catch because when you see it later when you read the paper, they're like, "Yeah, we consulted this person". What did they offer and what of that thing did you actually take? - Participant A

They understand that budget constraints are always a significant challenge. However, they clarified that whenever they provide advice or feedback, they offer several options that require little to no budget.

> I also said, "If you have no budget, you can start here, ...but they're like, "Well, we can't get what we need, so why would we start?" You're like "****, just do it." - Participant A

In outdoor spaces, PwPD often experience "othering" from those around them. They are frequently treated differently due to perceived differences. Since many people assume that PwPD are not always expected to be in outdoor settings, they may face emotional projections from others. A provincial parks and trails staff member noted that, although people are not intentionally being harmful, expressions of pity or excessive cheer towards someone with a disability attempting a hike can be condescending.

> "Where people are trying to say something positive and encouraging, but it's actually just kind of paternalistic and condescending." - Participant C

The participant emphasized how well-meaning comments or gestures, meant to be positive and encouraging, can sometimes come across as patronizing and overly sympathetic, creating feelings of discomfort, frustration, and demoralization.

4.6.5. Accepting Realities and Limitations to Planning

Participants identified many potential ideas and approaches for creating access for people with physical disabilities (PwPD) on backcountry trails. However, they noted that planning is limited by several factors, including the need to align with governmental priorities and available resources. It was emphasized that understanding the diverse needs and desires of user groups is crucial, as not all PwPD are interested in the same types of access or experiences. A participant mentioned that there have been no significant innovations in accessible trail building or new adaptive equipment for backcountry hiking. This suggests that there is a gap in the development of new practices or technologies to improve access for PwPD in backcountry environments.

4.7. New Ideas and Opportunities to Inform Planning Strategies

4.7.1. Recommendations for planning

Participants identified several opportunities, concerns, and ideas regarding planning for PwPD's access to backcountry hiking trails. Internally, more staff training could be beneficial for provincial government organizations and other outdoor tourism and recreational facilities. It is also important to make information more accessible, especially when PwPD are dealing with exemptions or seeking support for specific needs. Developing a better communication network, including representation of diverse users through websites, social media, newsletters, and other media, can help challenge stereotypes and misinformed beliefs about PwPD in outdoor spaces. This also helps PwPD see that they belong in these spaces.

Consulting with PwPD and other user groups in accessibility projects is essential. PwPD and those with lived experience have a unique perspective and can offer insights that those without disabilities may not fully grasp. Gathering their feedback is crucial when planning to provide access for PwPD and other user groups.

Adaptive sports and outdoor recreational organizations for PwPD often have extensive knowledge of local trails and their obstacles. Compiling and sharing this information could benefit both users and provincial parks and trails staff.

Many participants expressed opposition to the idea of paving trails for accessibility, citing the negative consequences and impacts. However, they emphasized that providing subsidies, funding, or information to support PwPD in obtaining education, resources, and tools would ensure a sustainable way for PwPD to explore and experience outdoor and backcountry spaces. Additionally, making adaptive equipment available or providing information on accessing such equipment through partnerships can further enhance the accessibility of backcountry spaces.

A provincial parks and trails staff discussed the existing parks management and planning processes around the Lower Mainland and Fraser Valley. These processes

include a priority list for facility improvements that has undergone phases of public engagement and consideration of stakeholders' interests. However, they acknowledged that the engagement surveys missed specific demographics and equity-deserving groups, leaving room for improvement.

Another provincial parks and trails staff member expressed the intention to build upon this idea and create park-specific accessibility plans. Using Mount Seymour as an example, they aimed to expand accessibility considerations within park-specific strategies.

> "Imagine we had a Mount Seymour accessibility plan. It will describe Mount Seymour Park, you'll read the management plan, and see where the recreation zones are. Down in the lower end, we will have an adaptive mountain bike trail. It will list some of the barriers to accessing this park, such as transportation barriers. It will highlight the public bus service, the park bus and some provide potential solutions there. In that plan, you could do some outreach with local stakeholders, park users, and advocates to identify key areas. Such as, what's the essence of Mount Seymour Park? What do people want to do when you go there? Do you want to get a mountain view, or do you want to spend time with your family? How do you connect with that park and that place? Maybe there's a lake to get to or something like that. Right in the accessibility plan, it will prioritize a few of those areas and assets, make sure they're parking, toilets, pathways, and a few key important park experiences will be listed and included in that. I would love to see that, but it doesn't exist." - Participant C

From this example, an ideal accessibility plan for Mount Seymour Park would outline the park's recreational zones, transportation barriers, and potential solutions, such as accessible bus services. It would incorporate input from local stakeholders, park users, and advocates to identify key areas and park experiences, like mountain views or family-friendly spaces. The plan would prioritize accessibility features, such as parking, toilets, and pathways, to ensure inclusivity. However, such a plan has not yet been developed.

4.7.2. Opportunities

While Participants discussed various trails around the S2S area, noting that most backcountry hiking trails are situated in steep and challenging terrain. Despite these challenges, several potential opportunities for creating greater access for PwPD were identified.

Elfin Lakes, already a popular and highly trafficked trail, was highlighted by participants as offering a significant opportunity for increased accessibility. This area has a vehicle-accessible road, and part of the trail allows e-bikes, meaning different adaptive equipment, including motorized options, is permitted. The trail is generally well-maintained, and its gradual elevation for most of the hike makes it a potential candidate for greater access.

Brandywine Meadows was also identified by participants as a promising opportunity. Provincial parks and trails have already worked on this trail, making specific choices to improve its accessibility. The trail is 1.5 metres wide, which could support adaptive equipment. While more maintenance is needed, this trail has the potential to provide access to high alpine areas.

Participants also discussed the Spearhead Mountain ranges, including the Singing Pass Trail within Garibaldi Park, which features wide, flat sections with relatively gradual elevation. Although some portions of the hike are more challenging, staff have identified areas that could be improved to enhance accessibility. Additionally, the trail heading to the Kees and Claire Memorial Hut could be modified to accommodate PwPD. This would be a large-scale project requiring substantial funding, collaboration, and partnerships, but there is significant potential if stakeholders come together to make it a reality.

4.8. Summary of Findings

The study explored the barriers, opportunities, and recommendations related to improving accessibility for people with PwPD on backcountry hiking trails in the S2S area. Several key themes emerged from the perspectives of participants, including staff from provincial parks, adaptive sports organizations, and PwPD.

One of the primary barriers identified was the steep and challenging terrain of most backcountry trails. The natural features of these trails, including rocks, uneven surfaces, and narrow paths, make them difficult for PwPD to navigate. Additionally, limited resources, such as staff capacity, funding, and time, often hinder the development of accessible infrastructure. Several participants highlighted that while accessibility

improvements are desirable, trail development is constrained by financial limitations, as well as competing priorities in governmental and organizational agendas. The lack of consistency in trail difficulty ratings and the absence of reliable information on accessible trails were also seen as significant obstacles. Another significant barrier is the "othering" of PwPD in outdoor spaces. Participants reported that PwPD are often treated as outsiders and face emotional projections, such as pity or condescension, when attempting to access outdoor spaces. This social barrier, along with inadequate or poorly designed facilities, such as non-accessible washrooms, limits PwPD's ability to fully participate in outdoor recreation.

Participants noted several backcountry trails with potential for greater accessibility. Elfin Lakes, with its vehicle-accessible road and gradual elevation, was seen as a prime candidate for adaptive equipment access. Brandywine Meadows, already partially developed for accessibility, offers opportunities for further enhancement, particularly given its width and potential for maintenance improvements. The Spearhead Mountain ranges, including the Singing Pass Trail, also hold promise, with staff identifying sections that could be made more accessible. Modifying the trail heading to the Kees and Claire Memorial Hut was also suggested as a potential step toward improving access to these areas.

The importance of engaging PwPD and adaptive sports organizations in the planning process was emphasized. These groups provide important and valuable insights based on lived experience and have already done considerable work to understand the obstacles on local trails. Participants stressed the need for ongoing collaboration with PwPD, adaptive sports organizations, and other stakeholders, as well as the need for better communication to address the unique needs of PwPD in outdoor spaces.

Finally, participants recommended a variety of strategies for improving accessibility, including more staff training on disability awareness, developing accessible information networks, and improving communication with diverse user groups. Several participants advocated for avoiding costly and environmentally damaging solutions, such as paving trails, in favour of low-budget options such as enhanced signage or updating websites for tailored and applicable information for PwPD. Ensuring access to adaptive

equipment and providing subsidies or funding to PwPD for necessary tools were also suggested as essential for promoting sustainable access to backcountry spaces.

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Chapter 5. Discussions

5.1. Introduction

The discussion chapter connects the research findings to existing literature, focusing on planning strategies and opportunities to improve accessibility on backcountry hiking trails for PwPD, specifically in S2S area. Through understanding the challenges and opportunities highlighted by participants in this research, the discussion will provide insights for developing planning strategies that optimize the balance of creating access and protecting the natural and cultural integrity of the backcountry experience. This chapter will explore existing mandates, policies, and regulations that influence planning strategies, the role of adaptive technologies, and the importance of collaborative approaches in ensuring that backcountry trails in the S2S region are accessible for PwPD. The discussion will continue to examine current EDI strategies and priorities within government organizations and how they are being incorporated in the S2S region. Lastly, the perspectives and needs of PwPD will be examined, focusing on how local governments, land managers, parks and trails employee, planners, and other stakeholders can collaborate to create more inclusive and accessible spaces for all users.

5.2. Understanding What Backcountry Hiking Trails Entails

5.2.1. Perspectives of PwPD

Outdoor spaces are often seen as “too risky” for PwPD, which reflects the societal assumptions about PwPD their physical limitations (Burns et al., 2013). In backcountry settings, where challenging terrain demands skill and experience, risk becomes both a physical barrier and a socially constructed obstacle. Overprotective attitudes and institutional risk management policies further marginalize PwPD by restricting their participation in outdoor activities (Burns et al., 2013; Garrod & Fennell, 2023).In the findings, participants have mentioned that as a PwPD or based on observations, PwPD frequently experience "othering" in outdoor spaces, as they are often treated as different or out of place. These internalized perceptions are amplified by emotional projections from

others, with some well-meaning individuals offering pity or encouragement in a way that feels condescending (Burns et al., 2013; Groulx et al., 2021; Reece, 2018). As one provincial parks and trails staff member noted, while not intended to harm, such reactions can unintentionally make PwPD feel excluded or diminished in their efforts to engage with nature.

Many participants in the study also emphasized that there is a spectrum of physical disabilities and this range requires a broader approach to creating inclusive backcountry spaces (Derakhshan et al., 2024; Goodwin et al., 2009). There was a consensus among provincial parks and trails staff, PwPD and municipal planners that not all backcountry trails should or can be made fully accessible, particularly when it comes to the challenge of preserving the natural integrity of these spaces (Derakhshan et al., 2024). However, there was also a shared understanding that opportunities should exist for PwPD to access and enjoy these environments, with a focus on improving comfort and optimal conditions where feasible. This perspective aligns with the principles outlined in the UNCRPD, as well as the ACA and the ABCA, all of which advocate for the right to access natural spaces. Despite this, as previously mentioned, none of these frameworks explicitly address the unique challenges of ensuring accessibility on backcountry trails, highlighting a gap in policies and regulations that needs further attention (Government of BC, 2021; Government of Canda, 2019; United Nations, 2006)

Participants discussed about adaptive equipment options for hiking, such as the TrailRider, ORC chair, and GRIT chair, which offer varying degrees of independence and mobility for PwPD in backcountry spaces. While much of the literature frequently highlights the TrailRider as a key adaptive tool, there is less emphasis on the ORC chair and GRIT chair (Goodwin et al., 2009; James et al., 2018). Participants also mentioned the ORC chair, GRIT chair, and other emerging adaptive equipment, suggesting that the impact of these devices presents potential opportunities for further research to explore their integration and effectiveness. For some, adaptive equipment is a necessity to access backcountry spaces, and there is also a need to consider practical elements when designing and maintaining trails.

Few participants suggested ideas for trail modification and changes, including reducing the size of steps in trail construction. However, more participants emphasized the need in providing accessible amenities, such as washrooms over the need for trail modifications. This point aligns with the literature's emphasis on UD standards, which aim to create inclusive spaces that is intended to benefit everyone of all abilities (Loeffler & White, 2022). Participants highlighted how applying UD standards benefits PwPD but also other users, such as the aging population or individuals with temporary injuries. While some participants noted that restrooms are not necessarily required along the trails themselves, they stressed the importance of having accessible washroom facilities at trailheads. Participants in this study highlighted the need for washrooms that align with UD standards, noting that current facilities were often too small. Without accessible washrooms or necessary facilities, many PwPD will be discouraged from using a trail, even if it were deemed accessible (Ankre & Wall-Reinius, 2024; Derakhshan et al., 2024; Neumann & Mason, 2023).

One participant, in particular, emphasized the importance of designing spaces where PwPD can experience a sense of independence, whether through independently filling a water bottle or navigating the backcountry with clear signage. Better signage and educational resources along trails or at trailheads can help provide clear information on the trail difficulty, terrain conditions, elevation changes, and potential hazards. This would allow PwPD and all hikers to make more informed decisions about which trails suit their abilities (Molnár, 2020; Neumann & Mason, 2023). This highlights the importance of integrating accessibility into both infrastructure and user experience, acknowledging that the availability of these resources is a key factor in promoting inclusion for PwPD.

5.2.2. Positive Impacts of Improving Accessibility

The positive impacts of inclusive outdoor recreation for PwPD are well-documented in the literature and are reflected in the findings of this study. These impacts range from mental, physical, and social aspects, all of which contribute to a more inclusive and cohesive society and outdoor environment (Freudenberg & Arlinghaus, 2009; Jakubec et al., 2016; Loeffler & White, 2022; Olsen et al., 2023). Spending time in outdoor spaces can enhance the quality of life for PwPD, fostering emotional well-being and a

sense of belonging (James et al., 2018). The participants in this study have also noted that simply being in nature or witnessing others participate in outdoor activities, like backcountry hiking, can serve as an aspirational experience. Reflections from participants in this study mentioned that even if they are not yet able to engage in backcountry hiking, being in accessible outdoor spaces and seeing others participate can spark motivation and desires. Creating accessible spaces supports long-term engagement with outdoor recreation (Jakubec et al., 2016). This sense of connection to nature, even if it is not immediately participatory, promotes a feeling of empowerment and possibilities (James et al., 2018; Lloyd et al., 2021).

The psychological benefits of accessible backcountry spaces can also foster long-term aspirations for engagement with the outdoors (James et al., 2018; Lloyd et al., 2021). These benefits extend beyond the individual to the community as a whole, fostering mental and emotional well-being, social cohesion, physical health, environmental education, and future participation. Inclusive backcountry hiking trails also provide opportunities for environmental education and promote a deeper connection to nature, which can inspire advocacy for conservation and sustainability (Jakubec et al. 2016; James et al., 2018). Participants highlighted that accessible spaces enable PwPD to engage more fully with natural environments, offering opportunities to learn about the environment and conservation. This connection fosters a deeper sense of belonging and inspires a commitment to protect these spaces. By experiencing nature firsthand, PwPD are more likely to develop a sense of environmental stewardship and become advocates for both the preservation of natural areas and the ongoing development of accessible outdoor spaces (Lovelock, 2010).

5.3. Best Practices for Collaboration and Engagement

The importance of collaboration, communication, and engagement to enhance accessibility is a recurring theme in both the findings and the literature. Many participants emphasized the value of consulting and engaging PwPD and related organizations throughout the planning, design, and maintenance of accessible spaces, mirroring the emphasis in existing research (Burns et al., 2013; Groulx et al., 2021). Engaging PwPD early in the planning process is necessary for ensuring that the facilities are tailored to

their lived experiences (Derakhshan et al., 2024). In the findings, participants also highlighted the work of organizations like Power to Be, BCMOS, and regional partnerships in the S2S region for their works in improving access to backcountry recreation. Collaborative efforts and diverse stakeholder engagement can ensure that planning strategies adequately reflect user groups, including PwPD, and the combined funding and resources could further the efforts in creating access to backcountry spaces (Lovelock, 2010; Freudenberg & Arlinghaus, 2009). However, participants noted that the lack of sufficient resources from government agencies and park staff to engage with organizations supporting PwPD, along with the disparity in funding for parks planning and management, impeded the process of creating accessible backcountry spaces. One participant suggested that, because the tourism division receives a significant amount of funding relative to parks and trails, there are opportunities to collaborate and promote the development of resources that ensure PwPD and other users can safely access these spaces.

The findings also highlighted the need to improve public awareness, staff education, and access to information. Participants emphasized that educational campaigns, particularly through digital platforms, are powerful tools for challenging stigma and fostering inclusive attitudes toward PwPD (Groulx et al., 2021; Loeffler & White, 2022). Participants suggested that government websites, including BC Parks and RSTBC, should be updated to provide more comprehensive and accurate information on accessibility features and trail conditions. Currently, most trail information is found on hiking blogs, map applications, and other external sources, which are often user-generated and may not always be accurate or adequately reflect trail conditions (Derakhshan et al., 2024; Rogers & Leung, 2023). Improving access to reliable and up-to-date information on official platforms can ensure PwPD have the necessary tools to plan their trips safely and confidently. Additionally, providing adequate education and representation for both staff and the public can help reduce psychological barriers to participation (Goodwin et al., 2009). Participants noted that social media is an effective platform for amplifying voices and normalizing the use of adaptive equipment. However, it is important to recognize that many participants cautioned against the overuse of social media, as these platforms often lack critical information on access, safety, and respectful practices. Social media posts, in particular, frequently omit details about trail difficulty, safety precautions, and responsible

behaviour, including the LNT principles (Rogers & Leung, 2023; Neumann & Mason, 2023; Martin, 2017).

5.4. Core Issues

5.4.1. Physical Barriers

Physical barriers to accessibility in backcountry trails that align with issues identified in the literature include both natural and infrastructural barriers. Backcountry terrains are rugged, with steep inclines, rocky paths, and narrow sections. These natural obstacles make it difficult for PwPD to navigate, even with the use of adaptive equipment (Goodwin et al., 2009; James et al., 2018). As noted in the findings, the terrain's variability, including rocks, roots, and uneven surfaces, creates challenges that make it hard to provide a universal solution for all types of disabilities. Both the literature and the findings acknowledge that adaptive equipment, while helpful, often cannot accommodate all types of backcountry and even some front-country terrains.

The lack of essential infrastructure, such as accessible parking, washrooms, and on-trail resting areas, is another physical barrier. Participants noted that the absence of these amenities impacts PwPD's ability to access backcountry trails. In particular, accessible parking spaces are crucial for PwPD to reach trailheads, while the lack of rest areas along the trails exacerbates fatigue and discomfort on long hikes. Accessible infrastructures are crucial for ensuring that PwPD can safely and comfortably engage in outdoor activities (Ankre & Wall-Reinius, 2024; Piskin & Akdeniz, 2023). The findings also emphasized that the challenge of maintaining and modifying backcountry trails due to their remote locations and physical conditions limits the development of accessible infrastructure. This issue is further amplified by limited resources and funding allocated for accessible trail planning and maintenance (Neumann & Mason, 2023).

5.4.2. Social and Attitudinal Barriers

Social and attitudinal barriers impact PwPD's ability to access backcountry hiking trails. Both the literature and findings highlight that negative stereotypes and

misconceptions about PwPD's abilities in outdoor settings contribute to social exclusion and discourage participation. PwPD are often perceived as incapable of participating in outdoor activities like backcountry hiking due to the perceived risks associated with challenging terrain, leading to their marginalization and maintenance of exclusive policies (Burns et al., 2013; Yau et al., 2004). Participants in this study reported a persistent attitude where making trails accessible is deemed as either too difficult or unnecessary, with one participant pointing out that organizations often neglect or overlook accessibility improvements, despite their benefits for all user groups. In some cases, PwPD felt that their input was undervalued or ignored, which aligns with other studies that discuss the lack of inclusive representation in outdoor spaces (Freudenberg & Arlinghaus, 2009; Yau et al., 2004).

The importance of interdependence in outdoor spaces, where assistance and collaboration are seen as empowering rather than diminishing, has been consistently promoted in literature (Goodwin et al., 2009). However, the findings point to a lack of guiding principles within parks and trails governmental organizations, as staff and organizations appear to rely on adaptive sports organizations and PwPD themselves to fill in the gaps rather than proactively promoting an inclusive environment. One participant highlighted that, while adaptive equipment might be a temporary solution, it is far from a comprehensive approach to accessibility. This suggests that, while some progress has been made, a more systemic and inclusive approach to planning and management is necessary (Groulx et al., 2021; Neumann & Mason, 2023), as reflected in the frustrations voiced by participants when their feedback was either not implemented or disregarded.

Additionally, the findings reveal another layer to these social barriers, the exhaustion experienced by PwPD and the organizations supporting them. While many articles from the literature emphasize the benefits of collaboration, there is limited literature on the burnout and exhaustion experienced by PwPD and advocacy organizations. As noted, many PwPD and advocacy organizations are volunteering their time and expertise, often without compensation or follow-up on their contributions. This creates a sense of burnout and skepticism about the sincerity of consultations, a problem that was not deeply explored in the literature but is a key finding in this study. Participants expressed frustration with the lack of follow-through on accessibility projects and felt their input was sometimes

sought only to fulfill a procedural requirement rather than as a genuine attempt to create change. This reflects a broader issue within outdoor recreation, where efforts to improve accessibility may be limited by budget constraints, lack of resources, and an overall lack of commitment to making meaningful change (Arni & Khairil, 2013; Harshaw et al., 2006).

The “othering” of PwPD, where they are treated as different or less capable, is another social barrier discussed in both the literature and the findings (Burns et al., 2013; Groulx et al., 2021; Reece, 2018). These attitudes contribute to a feeling of isolation, where PwPD are discouraged from participating in backcountry activities due to societal expectations of their limitations (Freudenberg & Arlinghaus, 2009; Yau et al., 2004). Participants in this study have recounted experiences of condescending attitudes where well-meaning individuals would cheer them on in a way that made them feel uncomfortable or diminished. While these attitudes may not seem harmful to people without disabilities, they reflect dismissive behaviours rooted in a lack of representation and understanding of the experiences of PwPD. This lack of awareness often leads to projecting stereotypes and making assumptions about PwPD’s abilities, creating an uncomfortable dynamic. The ongoing lack of representation in outdoor spaces perpetuates these stereotypes, affecting how PwPD are perceived and treated in outdoor spaces and backcountry environments (Freudenberg & Arlinghaus, 2009; Loeffler & White, 2022; Yau et al., 2004).

5.4.3. Infrastructure and Resource Barriers

Insufficient accessible infrastructures and resources, including funding, transportation, and capacity for consistent maintenance, impact the ability of PwPD to get into backcountry spaces. The literature and findings point out the importance of amenities such as accessible washrooms, water refill stations, parking, and resting areas. These features are important for PwPD to feel comfortable and safe in outdoor spaces (Neumann & Mason, 2023; Ankre & Wall-Reinius, 2024). In the findings, participants mentioned that limited parking spaces and access to trails were barriers, with one participant noting that even front-country areas, such as Shannon Falls in the S2S, are always overcrowded, which makes it difficult to improve accessibility features. Another key point raised in both the literature and the findings is the difficulty in maintaining accessible infrastructure, particularly in backcountry settings. The lack of suitable roads and maintenance on

industrial logging roads makes it challenging for trail organizations to provide consistent and safe access to PwPD (Piskin & Akdeniz, 2023). In the findings, provincial parks and trails staff discussed the cost and difficulty of maintaining roads, highlighting the financial challenges involved in ensuring that trails remain accessible. Similarly, the literature identifies how insufficient funding impacts the ability to maintain and improve backcountry infrastructure for PwPD (Ankre & Wall-Reinius, 2024; Lovelock, 2010). The findings echoed this concern, with participants mentioning that maintaining backcountry trails with accessible features can be very costly, and budgets often restrict their capacity to prioritize accessibility projects.

The issue of capacity, both in terms of staffing, resources, and financial limitations, is presented as another major challenge in both the literature and findings. Organizations, whether governmental or non-profit, struggle to prioritize and implement accessibility improvements due to constraints in staff, time, and finances (Ankre & Wall-Reinius, 2024). The lack of long-term planning and commitment to accessibility, as identified in the literature, further complicates efforts to improve outdoor recreation opportunities for PwPD (Ankre & Wall-Reinius, 2024; Derakhshan et al., 2024). Financial barriers emerge as a significant challenge, impacting the availability of adaptive equipment, infrastructure, and program funding for PwPD, provincial parks, and adaptive outdoor sports organizations. Both the literature and the findings highlight that adaptive sports organizations providing hiking programs often struggle with resource limitations, including a lack of equipment, volunteers, and transportation options (Lovelock, 2010). As one participant noted, without proper adaptive equipment or sufficient volunteer support, it becomes difficult to provide consistent and reliable access to backcountry trails. This shortage of resources, along with the high costs of adaptive equipment, leaves many PwPD with limited options for accessing outdoor spaces (Derakhshan et al., 2024). Similarly, provincial parks and trails departments are frequently constrained by budget limitations, which hinder their ability to make essential infrastructure changes that would accommodate a wide range of disabilities (Garrod & Fennell, 2023). For example, creating wheelchair-accessible trails can cost upwards of $70,000 to $100,000 per kilometre, and there is insufficient budget allocated to the parks and trails planning and management.

The issue of insufficient information on up-to-date details and information on trial conditions, terrain difficulty, and accessibility features is a common theme identified in both the literature and findings. (Groulx et al., 2022; Yau et al., 2004). The findings further emphasize that PwPD rely heavily on word-of-mouth or personal networks to obtain information about accessible trails, which limits their ability to plan trips safely and effectively. The difficulty in providing consistent and relevant information for PwPD with varying needs is highlighted by provincial parks and trails staff, who pointed out the challenges in creating accurate accessibility ratings for trails (Groulx et al., 2022).

Transportation is necessary in facilitating access to outdoor recreation and backcountry spaces. Participants shared how difficult it is for PwPD to reach trailheads due to the lack of reliable public transit or accessible charter bus services. PwPD often have to rely on informal networks or personal vehicles to get to accessible locations, which is not always a feasible or reliable solution (Aguilar-Carrasco et al., 2023; James et al., 2018; Lovelock, 2010). In the findings, participants reported that public transit and charter buses in the S2S area are not equipped to accommodate PwPD, especially those using wheelchairs. One participant emphasized the need for accessible buses with lifts and tie-down spaces for wheelchairs, yet such options are not currently available, leaving PwPD without a reliable means of transport to the trails if they did not have their own personal vehicle. Similarly, adaptive sports organizations also face transportation challenges when attempting to bring participants to backcountry locations. The distances to these sites from their meeting point can be far, and the lack of accessible transport options further complicates the logistics of providing inclusive programs.

5.4.4. Policy, Funding, and Gaps within Government

The findings of this research reveal both alignment and discrepancies with existing literature on the accessibility of backcountry trails for people with PwPD, particularly in the context of policies and regulations. Many policies and park management plans in BC do not adequately address the specific accessibility needs of PwPD, particularly in the context of backcountry trails. As highlighted in literature, inadequate enforcement of policies and inconsistent regulatory frameworks significantly hinder the ability of PwPD to access backcountry recreational spaces (Ankre & Wall-Reinius, 2024; Neumann & Mason, 2023)

The findings of this study confirm that many policies and regulations, although developed with good intentions, have often overlooked the needs of PwPD in the context of backcountry trails.

One of the primary barriers identified in both the literature and the findings is the lack of clear, enforceable accessibility standards for backcountry areas (Derakhshan et al., 2024) Despite frameworks and laws, such as the ACA, and provincial initiatives, like the BC Parks' *Commitment to Inclusion*, there are still gap in clear guidelines for backcountry accessibility. In the findings, several provincial parks staff acknowledged that while the BC Parks' *Commitment to Inclusion* provides a broad vision of equity and inclusion, but it does not provide the specific tactics or detailed guidelines necessary for improving access to remote areas. This lack of specificity is problematic due to the complexity of developing accessible infrastructure in the backcountry, the complexity of integrating adaptive devices, and ensuring that trails are navigable for PwPD (Ankre & Wall-Reinius, 2024).

When accessibility work on hiking trails is being conducted, the focus remains heavily on front-country trails, where accessibility modifications are easier to implement. The emphasis on front-country areas is due to their more straightforward terrain and location, which makes it simpler to develop accessible features (Neumann & Mason, 2023). In the findings, staff from provincial parks and trails management confirmed this, noting that while the BC Parks' *Commitment to Inclusion* document lays out the vision for more inclusive spaces, it primarily addresses front-country trails, leaving backcountry areas largely untouched. This reflects the challenges identified in the literature, where the complexities of making backcountry trails accessible are often not prioritized (Derakhshan et al., 2024; Neumann & Mason, 2023). The findings also highlight that many park management plans are outdated, written to guide statutory decision-makers on park values rather than focusing on accessibility. One factor that contributes to this focus gap is that there is insufficient government capacity and resource allocation to prioritize accessibility. Government staff often juggle competing priorities, and accessibility needs tend to be sidelined due to limited capacity (Groulx et al., 2021; Freudenberg & Arlinghaus, 2009). The findings further highlighted that provincial parks and trails staff feel a lack of adequate resources to address accessibility comprehensively, with several participants

acknowledging the difficulties in securing the necessary funding and capacity to support access in backcountry spaces for PwPD.

Both the literature and the findings pointed to the competing demands on park resources. In the S2S region, which is home to numerous high-use recreational areas, the prioritization of environmental protection and visitor management often takes precedence over accessibility efforts (Harshaw, 2024). The findings reflect this reality, with participants mentioning the difficulty of balancing these competing priorities. While environmental sustainability and visitation management are vital for the long-term health of backcountry areas, these priorities can divert attention and resources from the implementation of accessibility features (Burns et al., 2013; Groulx et al., 2022).

The findings further highlighted the inconsistency in policy implementation across different agencies. Participants in the study noted that BC Parks, which operates under the Parks Act, has more restrictions on what exemptions they can allow for PwPD. In contrast, RSTBC are generally more flexible, allowing more exemptions for e-bike usage and aircraft access to remote camping sites for PwPD. Although these exemptions are crucial for ensuring PwPD can enjoy these spaces, the varying policies between BC Parks and RSTBC can create confusion. As noted in the findings, park staff identified that these inconsistencies may lead to confusion among user groups, as PwPD may not be aware of the specific exemptions that apply to them, depending on the park or trail system they are visiting. This inconsistency in policies and regulations amplifies the need for more coordinated and uniform policies to ensure clarity and equity in accessibility initiatives (Ankre & Wall-Reinius, 2024; Groulx et al., 2022).

With multiple jurisdictions involved in managing trails, such as municipalities, regional districts, RSTBC, BC Parks, Indigenous communities, and private landowners, consistent policies and strategies are lacking. The findings echoed this concern, with park staff mentioning the difficulty in coordinating across these various entities to implement unified accessibility strategies. This fragmentation has led to inconsistent policies and a reliance on adaptive sports organizations to provide access, rather than incorporating accessibility into mainstream park management practices (James et al., 2018; Lovelock, 2010).

5.4.5. Overcrowding and the Impacts of Social Media and Digital Technology

The use of digital technology and social media is a growing concern. The consensus between the literature and the findings is that while digital tools like apps, GPS devices, and social media platforms can enhance safety, accessibility, and enjoyment, they also bring significant challenges, particularly in terms of overcrowding, environmental degradation, and user safety (Arni & Khairil, 2013; Martin, 2017). The increased digital access to trail information and backcountry spaces can lead to unintended consequences, such as overcrowding and overuse (Miller et al., 2023). There is a delicate balance between providing improved access to backcountry spaces and maintaining the integrity of these natural environments. Several participants emphasized that while increased access to trails might seem beneficial, it also carries the risk of environmental degradation and increased strain on sensitive backcountry ecosystems.

A further aspect that emerged from the study and aligns with literature is the growing role of social media in driving visitation to once lesser-known destinations. As the findings show, sites like Joffre Lakes and Watersprite Lake, and perhaps better suited to experienced hikers, have become overrun with visitors, largely due to social media exposure. The participant who referred to social media as “Death by Instagram” captures the essence of the growing concern around digital platforms. Joffre Lakes, for example, despite its easy access, has seen significant overuse, which has heavily impacted the physical environment but also compromised the user experience, with increasing concerns about wildlife disturbance and the erosion of natural spaces (Neumann & Mason, 2023; Rogers & Leung, 2023).

Similar to what has been outlined in the literature, the findings also indicate that the oversimplification of the backcountry experience on social media can detract from the seriousness of trail safety and responsible outdoor behaviour. This concern about the lack of context in online trail recommendations was echoed by several participants, particularly about the negative impacts on trail safety and overcrowding. The participant from the private outdoor recreation sector expressed that when backcountry areas become overly accessible, it opens the door to users who may lack the necessary knowledge, skills, or experience to safely navigate these environments, potentially causing harm to the area,

themselves, and others. Digital technology can enhance access, but it also brings an influx of unprepared users that can increase risk for other users and the natural environment (Derakhshan et al., 2024; Neumann & Mason, 2023).

Finally, the challenge of user conflict and overcrowding was also evident in the findings. The main concern is that increasing accessibility of trails and the lack of sufficient management measures can contribute to a rise in user conflicts, as different groups, including hikers, mountain bikers, and horseback riders, converge on the same trails, sometimes leading to negative environmental and safety impacts. The literature supports this, noting that effective visitor management strategies, such as staggered entry times or reservation systems, can help alleviate some of these pressures (Scholl-Grissemann et al., 2022). However, the findings reveal that these strategies are not yet universally applied, and the management of overcrowding continues to be an ongoing challenge.

5.5. Current Effective Parks and Trails Planning Practices

5.5.1. Balancing Accessibility, the Preservation of the Backcountry Experience, and Environmental Protection

A common assumption in making backcountry trails accessible is that they require significant physical modifications, such as widening paths, adding ramps, or paving surfaces. Through literature and the findings, there is a consensus that trail modification is necessary to some extent, but accessibility can be enhanced through alternative solutions that don't always require direct trail alterations. Many participants emphasized that lower-costing, less invasive changes, such as removing obstacles like dead roots, improving trail signage, and improving available information online or from other sources, could improve accessibility for PwPD (Burns et al., 2013; Lovelock, 2010). In the findings, a participant who works at an adaptive sports organization agreed that accessible amenities at the trailhead, such as washrooms and water refill stations, clearer signages, and improved pre-trip planning resources, could provide meaningful access without altering the “essence” of the backcountry experience (Prescott et al., 2022). Supported by literature, improved signage and better communication can also inform users of potential challenges, which are key aspects of accessible recreation, and ensure that users feel

prepared and safe before embarking on their journeys (Goodwin et al., 2009). Alternative solutions could be further development of digital tools, such as mapping systems that offer information on trail grades, surfaces, and accessibility features that will inform PwPD on planning their trips and choosing the trails that suit their abilities (Lovelock, 2010).

An important aspect raised in both the literature and the findings is the tension between increasing accessibility and ensuring environmental and social sustainability. Many participants expressed that making backcountry areas more accessible compromises the true essence of the "backcountry" experience. The increasingly widespread use of digital tools and social media to guide users toward backcountry areas compromises the sense of risk and self-sufficiency that traditionally comes with backcountry exploration (Molnár, 2020). In the findings, some participants are concerned that making backcountry spaces “too accessible” means that these spaces will lose their natural characters and become more like urban space. One participant noted that the more accessible a backcountry trail becomes, the less it feels like part of the wilderness. However, findings and literature suggested that careful planning and community involvement can address these concerns while improving accessibility. By involving PwPD, disability advocacy groups, parks and trails planners and land managers, and other stakeholders in the planning process, better solutions can be identified that enhance accessibility without compromising the environmental or cultural integrity of the space (Arni & Khairil, 2013). Incremental improvements, such as introducing more detailed trail information and access to adaptive equipment, can be made over time, allowing for a gradual enhancement of accessibility (Miller et al., 2023). A broader cultural shift is also required to move beyond the view that outdoor spaces, particularly backcountry hiking trails, should remain free from using adaptive equipment (Lovelock, 2010; Prescott et al., 2022). Adaptive equipment, like the TrailRider or the GRIT chair, provides access for PwPD, and while adaptive equipment increases access, it does not lead to an unsustainable increase in visitors (Loeffler and White, 2022).

While some adaptive equipment may be motorized, there are many adaptive equipment that are not motorized. However, participants in the findings mentioned that sometimes motorized adaptive equipment is the only way they can get around. Several participants suggested that policy updates that allow for adaptive equipment use beyond

e-bike-permitted zones are required for PwPD to use adaptive equipment on more trails. This will ensure increased accessibility in backcountry spaces for PwPD without overwhelming these trails with too many visitors (Burns et al., 2013). By rethinking how accessibility is approached through solutions such as improved signage, adaptive equipment, and better pre-trip planning resources, backcountry hiking spaces can be made more inclusive for PwPD.

5.5.2. Effective Planning Strategies

A critical theme emerging from both the literature and the present research is the necessity of planning accessible trails to accommodate a wide range of users. In the findings, a participant from an adaptive sports organization highlighted that developing trails suitable for younger children, seniors, and PwPD is crucial for inclusivity, as this then creates a space to build connectivity. With various types of users on the trail, clearly identifying and communicating accessibility features and information on the trail conditions is important to ensure that all users share the backcountry spaces safely and respectfully (Neumann and Mason, 2023; Scholl-Grissemann et al., 2022). Participants in the study agreed with this perspective, noting the need to equip users with the information necessary to make informed decisions when planning trips.

The strategic placement of signage also emerged as a key theme. Municipal planners and provincial staff in the findings emphasized the importance of clear, symbol-based signage, especially at trailheads and junctions, to improve accessibility and safety for all users. Signage plays a crucial role in enhancing the trail experience for individuals with varying abilities (Blye and Halpenny, 2020; Piskin and Akdeniz, 2023). Providing spaces and funding for accessible infrastructure at trailheads, such as washrooms, benches, and designated parking, was identified as vital for supporting diverse user groups (Aytur et al., 2015; Piskin & Akdeniz, 2023). While UD standards are often applied to new trails and upgrades, the challenges remain, particularly in adapting certain backcountry environments. Some terrains can accommodate wider pathways, altering the slope of a trail may not always be feasible (Derakhshan et al., 2024; James et al., 2018). This emphasizes the importance of providing adaptive equipment where necessary, as ensuring that users can access the full backcountry trail experience.

From both the findings and the literature, researching a trail in advance to plan and prepare for your hike out is crucial for users, particularly PwPD. Participants from the findings, including both staff and PwPD, noted the importance of improving websites and communication channels to offer more comprehensive accessibility information (Molnár, 2020; Neumann & Mason, 2023). Participants also stressed the necessity of incorporating user feedback throughout all planning stages to ensure trails meet the needs of diverse users. Given the variations between municipalities and trail networks, some participants recommended the development of geographically specific accessibility plans, even at the park level.

Another key finding from this research is the ongoing need to balance environmental preservation with accessibility. While some participants expressed concerns about the environmental impact of infrastructure modifications, the consensus was that, with careful planning, sustainable adaptations can be made. From literature, there are opportunities for adaptive infrastructure to be integrated with eco-friendly materials to minimize disruption to natural ecosystems (Lovelock, 2010; Neumann & Mason, 2023). Additionally, maintaining and periodically evaluating accessibility features is essential to ensuring their long-term effectiveness (Demrow et al., 2007; Lukoseviciute, & Nelson, 2024).

Consistent communication and ongoing dialogue among stakeholders, including trail users, local governments, PwPD, adaptive recreation organizations, and others, were identified as crucial in advancing accessibility efforts (Ankre & Wall-Reinius, 2024; Lovelock, 2010). Participants in the study emphasized that continuous engagement with PwPD is vital for refining design standards and ensuring that future projects meet the diverse needs of all trail users. By speaking with and working alongside a variety of user groups, including PwPD, parks and trail planners and managers can better understand the diversity within disabilities and move away from the assumption that disability solely means reliance on a wheelchair (Garrod & Fennell, 2023; Lukoseviciute & Nelson, 2024). Regular updates to accessibility information, shaped by user feedback, would improve trail usability and also promote inclusivity and a stronger sense of belonging for individuals with disabilities in outdoor spaces.

5.5.3. Alignment with Policies, Legislation, and Regulatory Processes

The literature emphasized the importance of regulatory frameworks and accessibility standards in ensuring that outdoor spaces, including backcountry trails, are accessible to PwPD. Documents and mandates, such as ACA, ABCA, and BC Parks' Commitment to Inclusion, and various other guidelines emphasize the need to remove barriers and promote inclusivity in outdoor spaces. However, while these frameworks provide a solid legal foundation, gaps remain in their application to backcountry hiking trails, where accessibility improvements are often considered secondary to front-country spaces (Aytur et al., 2015; Freudenberg & Arlinghaus, 2009; Lovelock, 2010).

The findings from this study showed some alignment with these policy frameworks but also reveal significant gaps, particularly concerning backcountry trails. Several participants pointed out that BC Parks has made strides in embedding EDI considerations into their work, focusing on front-country trails initially. These efforts align with the literature, which notes that front-country trails are typically prioritized for accessibility improvements due to their relative ease of modification (Lovelock, 2010; Neumann & Mason, 2023). BC Parks' *Commitment to Inclusion* document and other related policies reflect a commitment to removing barriers and creating inclusive spaces, which participants also acknowledged. However, as noted by many participants, the focus remains predominantly on front-country spaces, leaving backcountry areas underdeveloped in terms of accessibility for PwPD.

This discrepancy between front-country and backcountry accessibility is further reflected in the findings, where provincial parks staff admitted that the development of accessible backcountry trails is hindered by the logistical and financial challenges specific to these environments. Although efforts like the creation of the UD standards for outdoor built environments are notable, the absence of specific guidelines for backcountry trails, as pointed out in the findings, shows a gap in policy implementation. These findings aligned with the literature's observation that legal frameworks such as the ACA and ABCA, while important, do not explicitly address backcountry trails or provide clear strategies for their accessibility (Government of BC, 2021; Government of Canada, 2019). The literature further highlights the need for continuous policy evaluation to reflect the evolving and

diverse needs of PwPD. The findings suggested that while BC Parks has conducted accessibility audits and offers some information on front-country trail conditions, the current policies and regulations are not consistently applied to backcountry trails. As one participant stated, the barriers in backcountry environments are “substantial and specific to individuals”, showing the need and importance for site-specific planning and tailored solutions (Ankre & Wall-Reinius, 2024; Groulx et al., 2022).

The findings also highlighted a lack of coordination and consistency in the application of accessibility policies across different agencies. While the provincial government mandates accessibility committees and encourages municipalities to prioritize EDI, there are still gaps in how these guidelines are implemented on the ground. Concerns for inconsistency of accessibility measures are raised in both the literature and findings, with some participants pointing out that older park plans and conflicting regulations, such as those around e-bike usage, create confusion for users (Lovelock, 2010; Molnár, 2020). The findings also reveal a need for clearer, more streamlined processes to facilitate access for PwPD, particularly in backcountry areas. Inclusive consultation and early engagement with PwPD to inform the parks planning and management process needs to be prioritized (Groulx et al., 2021; Yau et al., 2004). This was echoed in the findings, where participants consistently emphasized the need for consultation with user groups, including PwPD, in planning and decision-making processes. The “nothing about us without us” sentiment, expressed by one participant, highlights the role that lived experience plays in designing accessible spaces. The findings also mentioned that while some progress is being made, more comprehensive engagement with PwPD throughout the planning and management process is necessary to ensure truly inclusive access to all outdoor spaces.

5.6. New Ideas and Opportunities to Inform Planning Strategies

5.6.1. Recommendations and Opportunities

The participants from the findings revealed several key opportunities, concerns, and recommendations for enhancing backcountry hiking access for PwPD. A major theme

was the need for increased staff training across provincial government organizations and the outdoor tourism sector to improve understanding and support for PwPD in outdoor recreation spaces (Lukoseviciute & Nelson, 2024). Participants emphasized that information about accessibility, especially on exemptions or specialized needs, needs to be more readily accessible. Improving communication through websites, social media platforms, newsletters, and other forms of media can help dismantle stereotypes and misinformed beliefs about PwPD in outdoor spaces (Burns et al., 2013; Yau et al., 2004). This approach could also can help empower PwPD by reinforcing that they have a rightful place in these environments (Altinay et al., 2016; Groulx et al., 2022). Collaboration with PwPD and other diverse user groups was viewed as essential. Their lived experiences offer unique insights into accessibility challenges that non-disabled individuals may not fully comprehend (Aguilar-Carrasco et al., 2023; Altinay et al., 2016). Many participants supported the idea of partnering with adaptive sport and recreational organizations, which already have substantial expertise in navigating local trails and understanding obstacles specific to PwPD, This collaboration would provide valuable information for both users and provincial staff, ensuring that future projects better meet the diverse needs of all trail users (Piskin & Akdeniz, 2023). The need for better engagement with PwPD, in the planning process was highlighted. Some provincial parks and trails staff acknowledged that engagement surveys in previous planning efforts had missed key demographics, and there was much more room for improvement in how these processes are conducted (Neumann & Mason, 2023). Participants emphasized the importance of being mindful of the capacity of adaptive sports and recreational organizations, as well as PwPD, to ensure they are not overwhelmed.

While some participants expressed concerns about paving trails to create access, due to the negative impacts that certain changes could have on the natural environment, there was strong support for alternative solutions. These included funding, subsidies, or other resources to help PwPD gain access to adaptive equipment, educational tools, and support services for sustainable outdoor recreation (Ankre & Wall-Reinius, 2024; Mosca, 2012). A particularly insightful recommendation was the idea of creating park-specific accessibility plans, which could identify key access barriers, like transportation limitations, and offer practical solutions. These plans could highlight adaptive trails and essential amenities, ensuring that parks prioritize accessibility and inclusivity at every level (Groulx

et al., 2022; Molnár, 2020). This concept reflects the growing recognition that a tailored, park-specific approach is critical for creating accessible outdoor spaces that meet the needs of all users. Additionally, participants stressed the importance of a more strategic approach to funding and maintenance. Having sustainable funding models that support the initial development and maintenance is important (Derakhshan et al., 2024; Groulx et al., 2021). A major challenge continues to be the ongoing need for both the construction of accessible infrastructure and long-term maintenance to ensure that these features remain functional and beneficial over time.

To further improve accessibility in backcountry hiking areas, participants suggested that creating detailed maps of accessible trails and implementing better communication and collaboration among park staff, users, and stakeholders could significantly enhance the experience for PwPD. Engaging PwPD directly in the planning process, ensuring their voices are included from the outset, would foster a more inclusive and user-centred approach to trail design (Ankre & Wall-Reinius, 2024; Burns et al., 2013). Establishing clear accountability frameworks for maintenance would ensure that accessible features remain operational and could prevent them from becoming barriers over time.

5.6.2. Incoming Adaptive Outdoors Program with BC Parks

During the course of this research, BC Parks introduced its adaptive outdoors program, which aims to improve accessibility in outdoor spaces for people with disabilities. Although the program is still in its early stages and lacks specific details, it represents a significant development in light of the findings from this study. This initiative aligns closely with previous literature that advocates for more inclusive, participatory approaches to planning and designing outdoor recreational spaces (Bibri, 2018; Groulx et al., 2021). Participants in the study stressed the significance of integrating feedback from PwPD into accessibility projects, recognizing that those with lived experience offer insights that planners and land managers without disabilities may overlook. The incoming adaptive outdoors program has the opportunity to demonstrate this partnership by focusing specifically on creating inclusive environments through collaboration with PwPD and other stakeholders. As mentioned in the literature, collaborative, user-centred design processes

are essential for ensuring that outdoor spaces truly meet the diverse needs of all users (Piskin & Akdeniz, 2023).

BC Parks' program resonates with calls for more investment in adaptive technologies and tools that enhance accessibility, as it offers an opportunity to provide the necessary adaptive equipment and information to PwPD, ensuring a sustainable way to experience nature. This initiative could also contribute to addressing the gaps identified in the study, such as the need for improved information accessibility and better communication about available resources for PwPD. BC Parks' adaptive outdoors program is a much-needed initiative that builds upon the themes discussed in the literature and reinforces the importance of ongoing collaboration, innovation, and inclusive planning strategies for improving access to outdoor spaces for people with disabilities.

5.7. Conclusion

This discussion has explored the factors influencing accessibility in backcountry hiking spaces for PwPD, examining the balance between enhancing accessibility and preserving the integrity of the outdoor spaces, particularly in the backcountry. A key takeaway from both the findings and the literature is that improving access does not necessarily require invasive modifications to the trails themselves. Alternative solutions, such as better signage, adaptive equipment, and adequate and applicable pre-trip planning resources, can significantly enhance the experience for PwPD while respecting the environmental and social sustainability of the backcountry (Burns et al., 2013; Lovelock, 2010). The tension between making backcountry trails more accessible and maintaining their natural character is a significant challenge. While there is concern about the potential for overdevelopment and the loss of the "wilderness" experience, both the findings and literature suggest that with careful planning, involvement of relevant stakeholders, including PwPD, advocacy groups, and park planners and managers, and gradual improvements, these concerns can be addressed. Solutions like adaptive equipment and enhanced digital tools provide meaningful access without overwhelming these spaces (Loeffler & White, 2022; Miller et al., 2023).

Additionally, a shift in cultural perspectives about the use of adaptive equipment and the inclusion of PwPD in these environments could contribute to a more inclusive outdoor culture (Prescott et al., 2022). Effective and inclusive planning strategies, such as the development of park-specific accessibility plans and better communication channels, emerged as essential for creating truly inclusive outdoor spaces. Ensuring that all users, particularly PwPD, have access to necessary information about trail conditions, accessibility features, and adaptive equipment is crucial for enhancing safety, usability, and the overall trail experience (Blye & Halpenny, 2020; Neumann & Mason, 2023).

The importance of ongoing engagement with PwPD and the continuous evaluation of accessibility features ensures that these spaces evolve in a way that truly meets the needs of diverse users (Ankre & Wall-Reinius, 2024; Groulx et al., 2021). The findings also highlighted major gaps in policy and legislation, particularly with regard to backcountry trails, which remain largely underdeveloped and underprioritized in terms of accessibility. Although progress has been made in enhancing accessibility in front-country areas, the backcountry presents distinct challenges that demand specialized solutions (Lovelock, 2010; Neumann & Mason, 2023). The upcoming adaptive outdoors program by BC Parks presents a valuable opportunity to address these gaps by prioritizing the integration of adaptive technologies, user-centred design, and collaboration with PwPD. These elements are crucial for developing accessible, sustainable outdoor spaces and form the foundation of effective planning strategies. This program, along with the ongoing efforts to improve staff training, communication, and funding models, has the potential to significantly enhance accessibility in the backcountry (Bibri, 2018; Groulx et al., 2022).

A comprehensive approach, informing planning strategies, that includes enhanced infrastructure, strategic management, inclusive policy development, and ongoing stakeholder engagement, is essential for improving backcountry accessibility for PwPD. By centring these planning strategies around ensuring that PwPD are actively involved in the decision-making process, backcountry spaces can become more inclusive spaces, allowing all individuals, particularly PwPD in this context, to experience and enjoy the beauty of the natural environment and outdoor recreational spaces (Molnár, 2020; Yau et al., 2004).

Chapter 6. Recommendations and Conclusions

6.1. Introduction

The following recommendations are based on a synthesis of research findings and existing literature. These recommendations emphasize the importance of accessible information, the cultivation of strategic partnerships, the development of transportation solutions, and the promotion of sustainable design practices. Together, these strategies aim to inform planning efforts and cultivate a more inclusive and supportive environment for PwPD in outdoor recreation areas, especially within the S2S corridor, where the steep, rugged, and complex terrain presents distinctive challenges (Blais-Stevens et al., 2012; Harshaw et al., 2006). By working collaboratively across jurisdictions, leveraging funding, and prioritizing the perspectives of PwPD, backcountry trails can become more accessible while preserving the qualities that make them meaningful. Beyond physical infrastructures, creating great accessibility in outdoor spaces also requires a cultural shift in how these spaces are perceived and planned. The assumption that backcountry recreation is inherently exclusive must be challenged, as accessibility improvements do not diminish the nature of these trails but invite more people to experience them in ways that align with their abilities (Lovelock, 2010). Creating a system where PwPD has the necessary tools, resources, and information to tailor their trips can foster independence, confidence, collaboration, and unity. Ensuring that efforts are made to improve accessibility in the backcountry spaces is a long-term commitment that requires ongoing evaluation, adaptive management, and collaboration with the disability community to refine and expand solutions as needs evolve (Aguilar-Carrasco et al., 2023; Mosca, 2012; Piskin and Akdeniz, 2023).

6.2. Recommendations

6.2.1. Adopt an Equity-Centred Approach to Planning

Embedding a planning approach that integrates both community engagement and equity requires a careful balance between technical specifications, competing priorities,

and the diverse needs of trail users (Groulx et al., 2021; Mehta & Mahato, 2021). An inclusive planning process must prioritize active, ongoing engagement PwPD, marginalized groups, and other local communities, ensuring that their voices shape trail design (Mehta & Mahato, 2021; Reece, 2018). This can be achieved through participatory engagement methods like co-design workshops and community consultations, where PwPD and other groups can contribute directly to the planning process (Groulx et al., 2021; Neumann & Mason, 2023). The equity lens requires that planners go beyond the baseline standards to address systemic inequities, focusing on the needs of the most vulnerable groups, including PwPD who also face race, gender, socio-economic, and other additional barriers (Sterman et al., 2019; Gradinaru et al., 2023). While balancing these needs, planners must also navigate technical specifications, such as trail width, gradients, and surface materials, which are essential for ensuring safety and accessibility (Aguilar-Carrasco et al., 2023; Groulx et al., 2022; Moore et al., 2023; Yau et al., 2004). However, these specifications can conflict with environmental constraints, limited funding, and the need to respect cultural differences (Bibri, 2018; Groulx et al., 2022; Rigolon, 2016). To address these challenges, an equitable planning model is essential, allowing for phased development that prioritizes the most pressing needs and fosters collaboration with local communities, government, and private partners to share resources and expertise (Mehta & Mahato, 2021; Neumann and Mason, 2023).

6.2.2. Enhance Collaboration Across Jurisdictions

In the S2S region, where diverse landscapes, jurisdictions, and recreational opportunities exist, a collaboration between federal, provincial, and local governments, as well as adaptive outdoor sports organizations and disability advocacy groups, is important to ensure connectivity amongst efforts. The federal government can further implement accessibility policies that focus on improving access to outdoor spaces, inclusive of backcountry terrains, for PwPD, through legislation that mandates accessible design (Piskin & Akdeniz, 2023). These standards can guide local planning while ensuring consistency across jurisdictions in the S2S area. In the S2S region, communities rely heavily on recreation and tourism, federal support for regional development initiatives can help promote equitable access across diverse and growing populations (Wolch et al., 2014). Continued federal investment and additional funding is also essential to the

maintenance and improvement of infrastructure, ensuring that existing and future facilities are inclusive, resilient, and responsive to the needs of PwPD (Aytur et al., 2015).

Within the provincial government, BC Parks, RSTRC, and other connected departments are responsible for the overall management and protection of provincial parks, including backcountry areas, ensuring that natural and cultural heritage resources are preserved while providing sustainable recreational opportunities (Prescott et al., 2022). In the S2S corridor, planners must prioritize accessibility by embedding accessibility goals into land use, environmental, and transportation planning frameworks (Aguilar-Carrasco et al., 2023). This includes aligning provincial policies with federal accessibility standards to ensure that trails, infrastructure, and features are universally accessible and barrier-free (Groulx et al., 2021). Policies and exemptions need to be better aligned and consistently implemented across backcountry parks and trails to reduce confusion and improve informational accessibility for PwPD. A key recommendation is for provincial planners to design backcountry trails with accessible surfaces, rest areas, implement basic amenities, and adaptive equipment options, and ensure information is available in accessible formats. Ongoing consultation with local disability communities and advocacy groups is essential to ensure that planning reflects the needs of PwPD. Additionally, provincial should develop targeted funding programs to support accessibility improvements across the S2S region, ensuring that sustainable, inclusive recreation opportunities are available for all.

At the local and regional level, municipal planners, the SLRD, and other parks agencies within the S2S region have an important role in identifying community-specific needs and designing inclusive trail systems that reflect the lived experiences of PwPD (Sterman et al., 2019). In the context of backcountry areas, planners can focus on designing accessible trailheads, pathways, and rest areas that accommodate adaptive equipment such as the TrailRider and all-terrain wheelchairs. This includes ensuring that backcountry trail surfaces are made from accessible materials and that infrastructure is suitable for various mobility needs. Clear communication about trail features is essential. Local and regional governments, in partnership with PwPD and adaptive outdoor sports organizations, can to develop accurate, accessible signage and trail descriptions. Additionally, integrating real-time updates about trail conditions, available adaptations,

and accessibility accommodations across multiple platforms, such as trailhead signage, park websites, and mobile apps, is crucial for facilitating access (Guo et al., 2015; Lukoseviciute & Nelson, 2024). By collaborating with provincial authorities, local governments can secure the necessary funding and resources to maintain and enhance these backcountry spaces, ensuring their accessibility and long-term functionality (Blye & Halpenny, 2020; BC Parks, Líl̓wat Nation, and N'Quatqua, 2021).

Cross-jurisdictional collaboration is key within the S2S corridor to support accessibility in backcountry hiking trails. Planners have a major role in coordinating collaboration efforts between local, provincial, regional, and federal governments to reduce informational and resource fragmentation and provide PwPD with consistent, reliable access to recreation and trail planning. This coordinated effort will also ensure equitable access across diverse communities, helping to preserve and enhance the natural environment while fostering inclusive recreational opportunities for all users. (Aguilar-Carrasco et al., 2023). Planners can oversee the development of data that includes trail conditions, accessibility features, and adaptive equipment availability, ensuring that it is available on trailhead signage, park websites, and mobile applications (Guo et al., 2015; Lukoseviciute & Nelson, 2024). These platforms should provide real-time information about terrain, available adaptations, and accessibility accommodations, allowing PwPD to tailor their trip plans according to their specific needs (Lukoseviciute & Nelson, 2024; Molnár, 2020; Scholl-Grissemann et al., 2022). This approach enhances the experience of PwPD and ensures they can participate in outdoor activities safely and comfortably (Freudenberg & Arlinghaus, 2009).

6.2.3. Streamline Policies and Regulatory Processes

To effectively address the gaps in accessibility PwPD in backcountry hiking trails, government organizations need to mandate the creation of specific accessibility plans tailored to these environments. The BC Parks Commitment to Inclusion and the BC GBA+ framework set strong precedents for integrating accessibility and inclusivity into park and trail planning (BC Parks, 2023; Government of British Columbia, N.A.). However, these frameworks need to be expanded to explicitly require the creation of accessibility plans for backcountry environments. This ensures that PwPD are consistently involved in the

planning process and that their specific needs are met. Other current regulatory frameworks that apply to Canada, and more specifically in BC, such as the ACA and ABCA, provide legal structures for inclusivity in outdoor spaces, but they often focus predominantly on front-country areas (Miller et al., 2023; Neumann and Mason, 2023). Considering the complexity of backcountry environments, which involve logistical, environmental, and financial challenges, these spaces must be specifically addressed in the planning process. This can be accomplished by requiring the creation of park or site-specific accessibility plans for backcountry trails that emphasize UD standards and foster collaboration with diverse user groups, particularly PwPD. These plans should provide clear guidelines covering key areas such as visitation management, trail design and maintenance, signage and communication methods, facilities and amenities, and transportation options, ensuring that backcountry trails and recreational spaces are accessible and inclusive for all individuals, regardless of ability (Aguilar-Carrasco et al., 2023; Arni & Khairil, 2013; Groulx et al., 2021).

Additionally, as mentioned previously, exemptions for using adaptive equipment or other alternatives, granted exclusively to PwPD or individuals requiring support, should be consistent and streamlined across all jurisdictions. At present, discrepancies in how exemptions are provided and inconsistencies in the application process can create confusion and often result in a patchwork of accessibility features. Planners should ensure that any exemptions are clearly defined and consistent across all levels of planning and regulation to reduce confusion and facilitate the development of accessible spaces, providing clarity for both land managers and users.

6.2.4. Enhancing External Partnerships, Securing Funding for Accessibility Programs, and Improving Community Engagement Efforts

To facilitate broader access and participation on backcountry hiking trails for PwPD, it is essential to establish and strengthen partnerships across public, private, and non-profit sectors. This includes coordination between provincial parks and trails departments, municipalities, regional districts, adaptive sports organizations, and tourism bodies such as Destination BC. Collaborative partnerships can serve as centralized platforms where PwPD can learn about adaptive equipment, inclusive programs,

accessible trails, and other relevant services (Lukoseviciute & Nelson, 2024). In addition to public partnerships, engaging with private recreation operators, such as the Sea to Sky Gondola or Vail Resorts, which manage Whistler Blackcomb, can support expansion of funding streams and integrating accessibility into commercial outdoor spaces. These partnerships can help co-fund infrastructure upgrades (e.g., accessible viewpoints or trailheads), contribute to staff training, or support accessible programming and events. Planners and park managers can encourage corporate social responsibility initiatives, inviting private operators to reinvest in accessibility improvements as part of their operational mandates.

Securing consistent, long-term funding for these efforts is critical. This may include provincial and federal grants, private sponsorship, tourism revenues, and compensation for community organizations playing key roles in facilitating inclusive recreation (Garrod & Fennell, 2023). Funding should be allocated to adaptive equipment, infrastructure maintenance, staff education, and community engagement programming to ensure that services are sustainable and equitable. Planners can coordinate these complex networks, support efforts to design inclusive planning processes, align budgets and goals across departments, and ensure that accessibility for PwPD is embedded in project proposals, policy frameworks, and long-term accessibility plans in backcountry trails. Effective engagement strategies, such as co-design workshops or planning tables can ensure that solutions reflect lived experiences and local needs (Ankre & Wall-Reinius, 2024; Arni & Khairil, 2013). Planners also help monitor progress and advocate for ongoing investment in inclusive recreation as part of broader goals for community health, social equity, and sustainability.

6.2.5. Improving Access to Information and Implementing Accessible Transportation Solutions

Once partnerships across departments, levels of government, and stakeholder groups, including PwPD, outdoor adaptive recreation groups, are better established, planners can take a lead role in coordinating collaborative efforts to ensure that accessibility information is accurate, consistent, and widely available. This includes facilitating cross-jurisdictional meetings, aligning priorities across land use and parks

planning, and embedding accessibility considerations into long-term strategies for backcountry recreation (Ankre & Wall-Reinius, 2024; Groulx et al., 2021).

Planners are also well-positioned to guide the development and maintenance of user-friendly digital platforms and park websites that offer real-time updates on trail accessibility, terrain conditions, adaptive equipment availability, and rest points (Lukoseviciute & Nelson, 2024; Molnár, 2020; Scholl-Grissemann et al., 2022). These platforms should be designed using UD principles and be accessible and available in format. Ensuring that information is integrated across trailhead signage, parks planning documents, and online resources helps PwPD make informed decisions about participation in outdoor and backcountry activities (Derakhshan et al., 2024).

Transportation remains a major barrier for PwPD accessing outdoor recreation areas, particularly to backcountry trails in the S2S region (Piskin & Akdeniz, 2023). To address this, it is recommended that provincial parks and trails departments and municipalities collaborate with adaptive sports organizations to develop accessible transportation options. This could include accessible buses or shuttles that provide pre-arranged and pre-planned routes to popular outdoor destinations. These transportation systems should accommodate various mobility devices and allow easy booking or reservations to ensure a smooth and predictable experience for PwPD (Derakhshan et al., 2024). Creating a booking system that enables PwPD to arrange transportation ahead of time will further reduce barriers to participation. Such systems should be integrated with park websites and mobile apps to allow users to plan their trips, ensuring they have all the necessary accommodations for a positive outdoor experience (Groulx et al., 2021; Molnár, 2020). Planners take on the role in facilitating these transportation solutions by working with provincial parks, municipalities, and adaptive sports organizations to identify and address transportation gaps. Coordinating efforts across various sectors will help ensure that the transportation options are accessible, reliable, and meet the specific needs of PwPD. Planners are responsible for conducting needs assessments to determine the most effective routes and modes of transportation for PwPD, as well as ensuring that reservation systems and information are easily accessible and user-friendly (Ankre & Wall-Reinius, 2024; Derakhshan et al., 2024).

6.2.6. Advocate for Education and Training Programs

Building capacity for accessibility in backcountry recreation requires comprehensive and adaptable education and training initiatives tailored to planners, land managers, recreation staff, volunteers, and the general public (Arni & Khairil, 2013; Freudenberg & Arlinghaus, 2009). Beyond physical inaccessibility to backcountry trails, barriers to inclusion are perpetuated by the lack of understanding, awareness, and representation among trail users and those responsible for planning, managing, and maintaining outdoor spaces (Arni & Khairil, 2013; Neumann & Mason, 2023; Sterman et al., 2019). Embedding accessibility and equity training into standard staff education programs across government agencies, private recreation operators, and non-profit organizations is essential (Reece, 2018; Yau et al., 2004). Training should cover principles of UD, the unique challenges faced by PwPD in backcountry environments, and the importance of fostering a welcoming, inclusive culture in outdoor spaces (Derakhshan et al., 2024; Moore et al., 2023; Aguilar-Carrasco et al., 2023). Programs and educational resources should be developed in collaboration with PwPD, disability organizations, and adaptive outdoor recreation groups. This will help ensure that the content reflects diverse perspectives and challenges faced by marginalized communities in accessing outdoor spaces (Arni & Khairil, 2013; Freudenberg & Arlinghaus, 2009; Yau et al., 2004).

Education programs should also address broader concepts of equity, particularly how accessibility barriers intersect with race, socio-economic status, and cultural factors (Lu et al., 2024; Rigolon, 2016). For example, it's crucial to acknowledge the added challenges faced by PwPD who are also part of the BIPOC community, where access to nature are amplified by historical exclusion, cultural perceptions of outdoor spaces, and limited representation in outdoor recreation leadership (Mehta & Mahato, 2021; Gradinaru et al., 2023). Public education initiatives can include trail signage, visitor centre materials, and online platforms that emphasize accessible and responsible trail etiquette, adaptive equipment use, and inclusive trail maintenance practices for all trail users (Arni & Khairil, 2013; Evju et al., 2021; Guo et al., 2015; Miller et al., 2023). These efforts should specifically highlight the needs of both PwPD and marginalized communities, promoting awareness of how intersecting identities impact accessibility and trail use experiences (Derakhshan et al., 2024; Miller et al., 2023; Yau et al., 2004)

Planners can guide the development of education and training initiatives that promote accessibility and inclusivity in backcountry recreation by facilitating collaboration and synthesizing resources. Embedding these initiatives early can help land managers, planners, and recreation professionals within the S2S region, and the general public better understand the needs of PwPD (Rigolon, 2016; Mehta & Mahato, 2021). Ongoing training efforts, supported by planners, can shift cultural attitudes toward inclusivity, ensuring that the region's difficult terrains remain accessible and welcoming. By fostering an environment that addresses equity, planners can help create spaces where PwPD and diverse communities feel empowered to engage with backcountry hiking trails throughout the region (Burns et al., 2013; Groulx et al., 2021; Sterman et al., 2019).

6.2.7. Enhancing Accessibility in Existing Trails

Improving accessibility in existing trails is a practical and sustainable way to expand backcountry hiking opportunities for PwPD. Rather than creating new trails, targeted modifications to well-trafficked routes can enhance inclusivity while preserving natural environments. UD standards should guide improvements such as widening paths, maintaining smooth surfaces, installing rest areas, and providing clear signage (Derakhshan et al., 2024; Groulx et al., 2021; Prescott et al., 2022). Several trails in the S2S region present strong opportunities for accessibility enhancements, which could also support BC Parks' new adaptive recreation program. Elfin Lakes offers vehicle access and e-bike-friendly sections, making it suitable for adaptive equipment. Brandywine Meadows already features a 1.5 metre wide trail, further maintenance could enhance access to alpine areas. The Spearhead Mountain Range, including the Singing Pass Trail, has broad, gradual sections identified by provincial parks and trails staff for potential improvements. Modifying the trail that heads towards the Kees and Claire Memorial Hut could expand backcountry overnight options for PwPD, though this would require significant collaboration and investment. Environmental considerations should still remain a priority in these upgrades, ensuring long-lasting, environmentally responsible solutions (Arni & Khairil, 2013; Grand Teton National Park Foundation, n.d.). The role of planners in guiding these modifications helps ensure that accessibility enhancements align with UD standards while respecting the natural environment. Planners can support conducting site assessments to identify which trails would benefit most from modifications and

collaborating with relevant stakeholders, including adaptive sports organizations, environmental experts, and provincial parks and trails departments, to achieve the best possible outcomes (Coulson et al., 2021; Lovelock, 2010). Emphasizing sustainable and inclusive design practices is key to preserving the integrity of the environment while addressing the needs of PwPD. Careful coordination and thoughtful execution of modifications and maintenance work are necessary to improve accessibility without compromising the natural beauty of the trails (Arni & Khairil, 2013; Demrow et al., 2007; Lovelock, 2010). These upgrades require funding security, which planners can support through coordinating efforts across jurisdictions and evaluating the effectiveness of the changes over time (Derakhshan et al., 2024; Groulx et al., 2021).

6.3. Conclusion

6.3.1. Creating Access in Backcountry Hiking Trails for PwPD: Effective Planning Strategies

This research aimed to explore how planning strategies can inform and improve access to backcountry hiking trails in the S2S corridor for PwPD. Through an in-depth review of the literature and findings, several important insights emerged regarding the current barriers, strategies, and perspectives that can shape future efforts to improve accessibility in backcountry spaces.

The study identified multiple barriers to access for PwPD on backcountry trails in the S2S. Financial, social, political, and policy barriers were found to limit the availability of resources, opportunities, and support for PwPD in outdoor spaces. Financial constraints, such as the cost of adaptive equipment and infrastructure, remains as a major obstacle for many PwPD (Ankre & Wall-Reinius, 2024; Groulx et al., 2022). Social barriers, including misconceptions and stigmas surrounding PwPD in outdoor spaces, contribute to a lack of inclusive design and limited public awareness of accessibility issues (Burns et al., 2013; Lovelock, 2010). The political and legal challenges, including insufficient regulations and a lack of comprehensive policy frameworks, hinder the development of accessible outdoor infrastructure (Ankre & Wall-Reinius, 2024; Neumann & Mason, 2023). These barriers, however, also present an opportunity for the implementation of targeted

planning strategies aimed at removing these obstacles and ensuring equitable access for all users (Scholl-Grissemann et al., 2022).

In addressing these barriers, the study found that existing parks planning initiatives in the S2S region have made some efforts in promoting accessibility, but much more can be done. Current efforts, including the development of adaptive trails and accessible amenities at trailheads, are important but need to be expanded and refined (Neumann & Mason, 2023). Existing policies, such as UD standards and strategic accessibility plans, should be better implemented across all trails, and not just in new developments (Derakhshan et al., 2024; Prescott et al., 2022). Additionally, collaboration with PwPD, disability advocacy groups, and adaptive recreation organizations was identified as essential in ensuring that these planning efforts reflect the actual needs of users (Lovelock, 2010). The study also highlighted several best practices from other regions, such as the integration of digital tools for better trail information and access to adaptive equipment, which can be adapted to the S2S region for more effective and sustainable solutions (Altinay et al., 2016; Miller et al., 2023; Neumann & Mason, 2023).

The research found that while some municipalities and organizations in the S2S region are making progress in incorporating EDI strategies into their planning, there remains significant room for improvement. The study revealed that PwPD are often not sufficiently engaged in the planning process, leading to a mismatch between the designed infrastructure and the actual needs of users (Molnár, 2020). Effective EDI strategies require active engagement with PwPD at every stage, from initial planning to ongoing feedback and evaluation (Lovelock, 2010). Furthermore, the research highlighted the need for more comprehensive, park-specific accessibility plans that consider the diverse needs of all users, including PwPD, and provide clear guidelines for improving access without compromising the natural environment (Arni and Khairil, 2013; Groulx et al., 2021; Guo et al., 2015).

The findings indicated that PwPD have specific needs and concerns regarding access to backcountry trails. These include the need for improved signage, better trail information, and access to adaptive equipment to navigate challenging terrains (Ankre & Wall-Reinius, 2024; Neumann & Mason, 2023). Participants emphasized the importance

of providing pre-trip planning resources, such as detailed maps and trail ratings, to ensure that PwPD can make informed decisions when choosing trails (Goodwin et al., 2009; Lukoseviciute & Nelson, 2024). Ensuring that adaptive equipment, including motorized and non-motorized devices, is available for use on appropriate trails is essential for improving access (Groulx et al., 2021; Derakhshan et al., 2024). The integration of adaptive technologies and equipment with sustainable infrastructure is necessary for providing PwPD with an equal opportunity to enjoy the backcountry while minimizing environmental impacts (Derakhshan et al., 2024).

A key theme that emerged throughout the research is the importance of collaboration among local governments, parks planners, adaptive sports organizations, and PwPD in creating inclusive backcountry spaces. Engaging PwPD and other stakeholders early in the planning process, and ensuring ongoing dialogue, will be essential for achieving effective accessibility improvements (Ankre & Wall-Reinius, 2024; Lovelock, 2010; Yau et al., 2004). The study also highlighted the importance of training for staff in parks and outdoor tourism sectors to better understand and support PwPD in outdoor recreation (Piskin & Akdeniz, 2023). Building strong partnerships between local governments and adaptive sports organizations could facilitate the sharing of resources, knowledge, and expertise, helping to overcome barriers to access and ensuring that accessibility efforts align with the needs of the community (Aguilar-Carrasco et al., 2023).

The introduction of BC Parks' adaptive outdoors program marks a significant step toward improving accessibility in the S2S corridor. The program, although still in its early stages, offers an opportunity to implement the recommendations identified in this research, particularly in terms of integrating user feedback and promoting collaboration. This initiative could help address gaps in accessibility by providing adaptive equipment, creating more inclusive trail environments, and ensuring that access to nature is available to all (Carrión, et al., 2022; Groulx et al., 2021; Yau et al., 2004). Moving forward, the development of park-specific accessibility plans, the application of UD principles, and the incorporation of user feedback will be crucial to ensuring the long-term success of accessibility efforts on backcountry hiking trails in the S2S corridor.

The research highlights the need for comprehensive, inclusive planning strategies that prioritize the needs of PwPD in backcountry spaces. These strategies should focus on several key elements, including addressing physical barriers, promoting collaboration among local governments, park planners, adaptive sports organizations, and PwPD to ensure that design reflects actual needs, and integrating best practices for UD standards and EDI principles. Additionally, strategies should include clear signage, access to adaptive equipment, and comprehensive pre-trip planning resources, allowing PwPD to make informed decisions. Consistent engagement with PwPD is essential to refining these strategies and ensuring that backcountry trails within the S2S region remain accessible, sustainable, and inclusive for all.

6.3.2. The Continuous Battle: Preservation of the "Backcountry Experience," Environmental Protection, and Increasing Access

The challenge of preserving the authenticity of the "backcountry experience" while increasing access to these spaces, especially for PwPD is an ongoing balancing act. The demand for outdoor recreational opportunities grows, impacted by the increasing popularity of outdoor activities and the push for more inclusive access, the pressure on backcountry trails and their ecosystems intensifies (Arni & Khairil, 2013; Miller et al., 2023; Neumann & Mason, 2023). As backcountry spaces become more accessible, this sense of adventure and spontaneity could be compromised. PwPD, as well as other visitors, require adaptive infrastructure, clear signage, and certain accommodations to fully enjoy the outdoors (Derakhshan et al., 2024; Prescott et al., 2022). This dilemma becomes particularly complex when considering the environmental protection of backcountry spaces (Coulson et al., 2021; Guo et al., 2015). The addition of adaptive features, such as accessible pathways, rest areas, and signage, must be carefully designed to minimize environmental impacts. Improper planning or overdevelopment can lead to trail erosion, habitat destruction, and diminished biodiversity (Neumann & Mason, 2023). As the backcountry trails in the S2S area is growing in popularity, overcrowding becomes and additional concern.

To address these concerns, planners must implement strategies that prioritize both accessibility and environmental sustainability. This includes integrating low-impact

development principles, utilizing sustainable materials for trail construction, or developing accessibility priorities in policies. The goal is to create a balance where PwPD can access backcountry trails without compromising the integrity of backcountry hiking spaces (Arni & Khairil, 2013; Coulson et al. 2021). Additionally, the integration of digital tools and the rise of social media present both opportunities and challenges. Digital tools, like a GPS app other trail navigation systems can enhance accessibility by providing detailed, real-time information on trail conditions and locations of accessible features (Molnár, 2020). However, the widespread promotion of backcountry trails through social media has also been shown to lead to overcrowding and environmental degradation (Martin, 2017; Neumann & Mason, 2023). The popularity of certain trails, fueled by online influencers and the ease of sharing experiences, can increase foot traffic to sensitive areas that may not be equipped to handle the demand (Rogers & Leung, 2023; Neumann & Mason, 2023; Martin, 2017). Managing the flow of visitors and ensuring that accessibility improvements do not contribute to the degradation of backcountry spaces is important.

The preservation of the backcountry experience while improving access for PwPD is a complex and evolving challenge that requires careful planning, collaboration, and ongoing evaluation. As more people seek to experience the beauty of backcountry trails in the S2S corridor, it is important that trail planning and management efforts remain mindful of both the environmental impacts and the needs of diverse users, particularly PwPD in this context. Balancing these priorities can ensure that backcountry trails remain accessible, sustainable, and capable of offering the enriching outdoor experiences that they are known for.

6.3.3. Future Research Opportunities

The S2S region lies within the unceded territories of the Skwxwú7mesh, Líl̓wat Nation, N’Quatqua, and other Indigenous Nations, who hold deep knowledge and relationships with the land. Their meaningful involvement in trail planning and accessibility efforts is essential for reconciliation and rethinking how access is understood. Future research should explore how Indigenous perspectives on land, healing, and mobility can inform more holistic definitions of accessibility. This includes examining co-governance models, like Joffre Lakes Provincial Parks partnership, and how they might support

culturally relevant, inclusive backcountry planning (BC Parks, Líl̓wat Nation, & N'Quatqua, 2021). There is a critical need to ensure that accessibility planning respects Indigenous rights while addressing the needs of PwPD in a way that avoids extractive practices and supports self-determination.

In addition to building relationships with Indigenous Nations, collaboration with provincial tourism bodies can also support broader accessibility goals. One important aspect raised by the research is the potential for collaboration with organizations like Destination BC, which plays an important role in tourism and outdoor recreation within the province. Destination BC receives substantial funding and could be supportive in driving accessibility initiatives on backcountry trails in the S2S area (Neumann & Mason, 2023). Through collaboration, they could support the development of adaptive infrastructure, promote inclusive marketing efforts, and allocate resources to trail maintenance that focuses on accessibility (Jakubec et al., 2016; Lovelock, 2010; Lukoseviciute & Nelson, 2024). Their involvement could also help bridge the gap between public and private sector efforts in improving access, particularly given the importance of funding in realizing the necessary infrastructure changes for PwPD (Ankre & Wall-Reinius, 2024; Derakhshan et al., 2024; Neumann & Mason, 2023). Further study could be made on exploring how partnerships with Destination BC or similar organizations, can align their objectives with inclusive planning practices.

Another opportunity for future research involves the role of private outdoor recreational spaces in accessibility. While public lands are often the main focus point for trail accessibility planning, private spaces also offer potential opportunities for increasing access for PwPD. Research could explore the unique challenges and benefits of improving accessibility within private spaces and how collaboration between the public and private sectors could foster more inclusive outdoor experiences.

A key challenge in backcountry accessibility is the tension between preserving the backcountry experience and modifying trails for accessibility. Some participants expressed concerns about paving trails or making significant alterations, citing potential environmental impacts (Arni & Khairil, 2013; Demrow et al., 2007; Miller et al., 2023; Neumann & Mason, 2023). Future research could explore how trail modifications can

balance accessibility with environmental conservation, investigating low-impact solutions that enhance access without fundamentally altering the backcountry experience. The concept of a "choose-your-own-adventure" approach, where users can access detailed information about trails to assess their suitability based on personal abilities, could be an innovative direction for future studies (Loeffler & White, 2022; Scholl-Grissemann et al., 2022). Research could also examine how adaptable trail knowledge and consistent trail updates can empower PwPD to navigate outdoor spaces safely and confidently (Molnár, 2020).

Social and psychological barriers to participation in backcountry hiking among PwPD require an intersectional approach to dismantle. While physical infrastructure improvements are often prioritized, it is equally important to examine the societal attitudes, internalized perceptions, and psychological factors that impact access in outdoor spaces (Burns et al., 2013; Goodwin et al., 2009; Yau et al., 2004). Stigma and stereotypes surrounding disability, limited visibility of diverse bodies and experiences in outdoor spaces, and internalized feelings of inadequacy or dependence can discourage PwPD from engaging in outdoor activities, particularly backcountry terrains (Garrod & Fennell, 2023; Yau et al., 2004). These challenges are often more difficult for individuals who also experience other forms of marginalization. For example, BIPOC individuals with disabilities may face additional cultural stigma, systemic racism, language barriers, or exclusion from mainstream outdoor communities. These overlapping barriers can lead to a greater sense of disconnection, limit access to adaptive equipment or information, and make it harder to feel confident in outdoor environments (Ankre & Wall-Reinius, 2024; Derakhshan et al., 2024). To address these issues, future research and planning should explore the role of community-led initiatives, culturally inclusive outreach, peer support networks, and the experiences with additional forms of marginalization that reflect the diverse realities of PwPD.

As outdoor recreation increasingly rely on the use of digital spaces, social media platforms have become crucial tools for sharing information, promoting trails, and gathering user feedback. However, the overwhelming flow of information, both accurate and inaccurate, can lead to confusion about trail conditions and the accessibility of certain locations (Derakhshan et al., 2024; Rogers & Leung, 2023). The promotion of backcountry

hiking trails or environmentally sensitive areas on social media can unintentionally lead to overcrowding, environmental degradation, and a diminished experience for all users, including PwPD. More research could investigate on the impact of social media on outdoor recreation, focusing on how it influences access to trails, the level of awareness about accessibility issues, and the potential consequences for trail sustainability (Rogers & Leung, 2023; Martin, 2017).

While this research has provided important discussion and understanding on how planning strategies can improve access for PwPD on backcountry trails in the S2S corridor, there are still many opportunities for further research and development. Collaborative efforts, the role of private spaces, a deeper understanding of PwPD's specific access needs, and the impact of social media on backcountry trail accessibility are just a few of the areas that can inform future planning strategies. By exploring these elements, planners can continue to refine their approaches to creating inclusive, sustainable outdoor spaces that meet the diverse needs of all visitors.

6.4. Research Reflections and Positionality

This research project has been shaped by my personal experiences and academic training. I was initially driven by a strong passion to seek accessibility solutions for PwPD, with a focus on environmental protection. While this value remains core to my work, it also led me to approach accessibility in outdoor environments, particularly in backcountry areas, with a bias toward minimal interference or modification of the natural landscape. This perspective led me to prioritize non-invasive approaches such as digital tools, adaptive technologies, inclusive trail descriptions, mentorship, and community-led education programs. While these alternatives offer valuable strategies, I also came to see the limitations of relying on them alone.

Throughout this study and in discussions with my supervisor, I began to recognize that my inclination to avoid physical modifications in outdoor spaces, rooted in a strong commitment to environmental protection, could continue to create barriers to inclusion. Equity planning requires us to acknowledge that, in some cases, physical modifications are necessary to ensure meaningful access for all. This tension pushed me to think more

critically about how accessibility and environmental protection are often framed as opposing goals within conventional environmental management frameworks. My research encouraged me to explore how planning can support both, advocating for access to nature without assuming it always involves building or altering trails. Accessibility can also mean enhancing representation, expanding knowledge, and ensuring safety so that people with physical disabilities feel empowered to navigate outdoor spaces on their own terms.

While I do not have a physical disability, my identity as a second-generation immigrant with chronic health issues gives me a degree of insight into the complexities of navigating public spaces while managing additional challenges to access and belonging. I understand the discomfort, judgment, and barriers that can come with being perceived as incapable or different. These experiences motivated me to approach this research with care and humility while also recognizing that my position is still one of relative privilege in comparison to many PwPD. As an emerging planner, I understand my role in balancing multiple priorities and examining and questioning the values that are being centred on and whose needs are being overlooked. I also see my role as one that challenges conventional planning assumptions that reinforce exclusion. I aspire to support access that aligns with both justice and sustainability by centring voices that are often left out and seeking solutions beyond physical modifications. Through this project, I've learned that accessibility calls for flexibility, collaboration and engagement, and a commitment to equity, even when it disrupts dominant ways of thinking.

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Appendix A

Interview Semi-Structured Questions

Research Question: How can planning strategies inform and improve access to backcountry hiking trails in the Sea to Sky corridor for people with physical disabilities?

Research Sub Questions

1. What are the current barriers to accessibility on backcountry trails in the Sea to Sky corridor for individuals with physical disabilities?
2. How do existing parks planning initiatives address accessibility issues on backcountry trails?
3. What are the best practices and successful strategies from other regions or similar contexts for improving accessibility on backcountry trails?
4. What are the perspectives and needs of individuals with physical disabilities regarding backcountry trail accessibility?
5. How can local governments, parks planners, and other stakeholders collaborate to implement effective accessibility enhancements on backcountry trails?

Interview Questions

1. Personal Background
    a. Tell me about your experience with accessibility advocacy and/or initiatives within the Sea to Sky corridor area (and if applicable, particularly in your municipality).
2. EDI Strategy
    a. Can you provide insights into your organization's equity, diversity, and inclusion (EDI) strategy and implementation efforts in promoting accessibility in outdoor recreational spaces?
    b. Is there anything that focuses on backcountry hiking trails?
3. Current Challenges
    a. What are the current barriers (ie: financial, social, policy, political, and legal barriers) to enhancing accessibility on backcountry hiking trails within the Sea to Sky corridor (and if applicable, particularly in your municipality) for individuals with physical disabilities?

4. Policies, Plans, and Regulations
    a. How do you think existing parks planning initiatives address accessibility issues on backcountry trails, and what improvements can be made?
    b. What policies or regulations do you believe are necessary to promote accessibility in backcountry hiking trails and spaces?
        i. Anything else that you think can be done that will contribute to accessibility in the backcountry?
5. Community Engagement and Collaboration
    a. What are effective best practices for fostering collaborative approaches among stakeholders to create more inclusive and accessible environments on backcountry hiking trails for individuals with physical disabilities?

Appendix B

RSTBC Sea to Sky Corridor Recreation Trail Strategy - Trail Type Classification

	Type I	Type II	Type III	Type IV	Type V
Tread Surface	Concrete or asphalt	Surfaced with compacted aggregates	Unsurfaced	Unsurfaced	Unsurfaced
Tread Width	2-4m	2m for double-track trails; 1m for single-track trails	50-70cm	30-50cm	30-50cm
Clearing Width	Tread width plus 1m on each side	5m for double-track trails; 1.6m for single-track trails	1.1m - 1.3m	1m	n/a
Typical Use	• Non-motorized multi-use	• Pedestrian • Biking • Equestrian • Limited Motorized	• Hiking • Mountain biking • Trials riding • Equestrian • Limited Motorized	• Hiking • Mountain biking	• Pedestrian • Mountain bike
Tread Type	Paved double track	Double-track or single-track	Single-track	Single Track	Single Track
Typical Mountain Bike Difficulty Rating	n/a	Green circle	Green Circle Blue Square Black Diamond Double Black Diamond	Blue Square Black Diamond Double Black Diamond	Black Diamond

Appendix C

RSTBC Sea to Sky Corridor Recreation Trail Strategy - Trail Standards

	GREEN CIRCLE 	BLUE SQUARE 	BLACK DIAMOND 	DOUBLE BLACK DIAMOND 
APPROPRIATE USER	Beginners and Recreational Riders. Mountain Bikes recommended. Safety equipment required (including helmets).	Intermediate Riders. Mountain Bikes required. Increased challenges and difficulty. Full safety equipment required.	Advanced/Expert Riders. Difficult and technical challenges. Full safety equipment required. High level of fitness required.	Expert Riders only. Most difficult and technical challenges. Highest risk level. Full safety equipment required. Do not bike alone. Recommend carrying a cell phone with you.
TRAIL DESCRIPTION	Gentle slopes and easily avoidable obstacles such as rocks, roots and pot-holes.	Challenging riding with steep slopes and/or obstacles, narrower trails with reduced traction. Requires riding experience.	Mixture of long steep climbs and descents, loose trail surfaces, numerous difficult obstacles to avoid or jump over, drop-offs and sharp corners. Some sections easier to walk than ride.	Exceptional bike control skills and balance essential to clear many challenging obstacles. Higher risk level. Only a handful of riders will enjoy these rides. Some sections easier to walk than ride.
FEATURES	Embedded trail obstacles up to 10 cm. high.	Embedded trail obstacles up to 20 cm. high	Embedded trail obstacles may exceed 20 cm.	Same
MINIMUM WIDTH	1 metre	50cm	30cm	.3 m. or less
TRAIL SURFACE	Primarily soil and small loose rock, occasional compacted aggregates.	Rough natural terrain and increased rock and root debris. TTF's (see below)	Rugged natural terrain. See TTF's below.	Same
AVERAGE GRADE	8%	10%	15%	May exceed 15%.
MAXIMUM GRADE	15%, except rock faces at 25%	Climbing – 25%, Descending – 35%, Rock Surface - 45	Climbing – 35%	May exceed 35%
MINIMUM CURVE RADIUS	2.4 m.	1.8 m.	Sharp Corners	Same
EXPOSED NATURAL OBSTACLES (MAX. HEIGHT)	10 cm. max. height. Occasionally higher height for highly visible, easily avoidable obstacles.	20 cm. max. height	Various heights, some exceeding 20cm.	Same
BRIDGES (MIN. WIDTH)	Min. 1.0 m.	Minimum width of 50 cm. Flat decking is minimum one-half the height above surface.	Various widths. Minimum 30 cm. Flat width of decking is one-quarter the height above surface. Elevated bridges less than 3 m. high above surface.	Most difficult, exceeds Black Diamond.
TECHNICAL TRAIL FEATURES (TTF'S)	Small roots and logs to cross, embedded rocks to avoid.	TTF width to height ratio of 1:2. Small bridges (flat, wide, low and rollable from section to section). Small rollable drops. Small teeter-totters, less than 60 cm. high. Small jumps. Medium sized logs.	TTF width to height ratio of 1:4.Elevated bridges and teeter-tooters with maximum deck height. Connected Bridges. Larger Jumps. Steep descents with sharp transitions.	Most difficult, exceeds Black Diamond TTF's.
ROCK FACE OR RAMP DESCENTS (MAXIMUM ANGLE)	Rock face descents not to exceed 25% grade.	45%	Not to exceed 120%	May exceed 120%
DROPS (MAX HEIGHT)	None	Drops up to 30 cm., with exit cleared of all obstacles	Drops greater than 30cm. Some mandatory air.	Mandatory air.
JUMPS (MAX HEIGHT)	None	45 cm. No jumps with consequences for lack of speed. Table top jumps max. 40 cm. high.	Table tops, no maximum height. No gap jumps.	Same, except may include gap jumps.