

Community consultations for a non-motorized, multi-use community trail along the Vancouver Island Corridor

By

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B.A., Simon Fraser University, 2014

A Master's Project Submitted in Partial Fulfillment of the Requirements for the Degree of
MASTER OF PUBLIC ADMINISTRATION
in the School of Public Administration

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ACKNOWLEDGEMENTS

I respectfully and humbly acknowledge that my work at the University of Victoria has taken place on the traditional territory of the Lekwungen peoples, and the Songhees, Esquimalt and WSÁNEĆ peoples whose historical relationships with the land continue to this day. I also acknowledge that as a resident of Vancouver, I live my life and undertook a significant portion of this work on the unceded territory of the Coast Salish Peoples, including the territories of the xwməθkwəyəm (Musqueam), Skwxwú7mesh (Squamish), Stó:lō and Səlílwətaʔ/Selilwitulh (Tseil- Waututh) Nations.

I would like to sincerely thank my clients, Alastair Craighead and Wilfrid Worland for their unbridled enthusiasm for this project, which spurred me to match their efforts and for contributing their extensive experience, knowledge, and expertise. I would also like to thank my supervisor, Lynda Gagné, for her encouragement, support, and guidance, and extraordinary dedication. This project would not have been possible without either of these three people.

This research would not have been possible without the participation of those people who gave up their time to participate, and the depth and breadth of knowledge they contributed.

And to my family (both the family I was born into and the one I have chosen), your support, love, and, encouragement has been invaluable over the past year. This project and the path to completing it was made possible by your presence in my life.

EXECUTIVE SUMMARY

Introduction

Across North America, the increasing interest in policy development around recreational trails has been accompanied by a growing body of literature investigating the impact of recreational trails and active transportation infrastructure development. These studies include a range of economic and social impact analyses of infrastructure development on users and non-users alike. These studies recognize that active transportation and recreational trails development has policy implications for transportation, economic, health, and environmental concerns. Likewise, local and provincial governments are increasingly including active transportation in local plans, and are dedicating more resources to recreational trail and active transportation infrastructure.

This research project focuses on a proposed rail trail project in the Esquimalt and Nanaimo (E&N) Railway corridor on Vancouver Island, which would see the E&N rail replaced entirely by a multiuse trail through the length of the corridor north of Langford (FORT-VI, 2017) (See Appendix A for a map and details of the corridor). The E&N main corridor runs 224km from Victoria to Courtenay, with an additional branch extending 64km from Parksville to Port Alberni (FORT-VI, 2017). This trail would link with existing rail trails on the island, including the Lochside Galloping Goose trail and the Duncan to Shawnigan Lake trail (FORT - VI, 2017).

About the Research

Research Objectives

The client organization, FORT-VI, has identified the need to explore the extent of support for the proposed trail to understand opportunities for successful engagement in the future. Similarly, by uncovering the root issues behind a lack of support or unfavourable views of the proposed trail project, the aim is to be able to better address and perhaps alleviate concerns, or identify areas where a different approach to engagement might be needed.

The primary research question is:

- **To what extent and in what ways might the proposed trail add value to communities along the corridor?**

The secondary research questions include:

- What perceived potential positive impacts do stakeholders identify from the proposed trail?
- What concerns or perceived potential negative impacts stakeholders identify from the proposed trail?
- How might the proposed trail address community needs?
- To what extent do stakeholders' perceptions align with the literature?
- What opportunities exist for future engagement to leverage support and address concerns about the proposed trail project?

Methods and Methodology

This study employs a qualitative methodology that uses an exploratory approach to investigate the specific context of the proposed trail. Methods include a literature review, a document review (17

documents from 6 municipalities, 5 First Nations, and 4 Regional Districts), and 13 in-depth, semi-structured interviews with 14 key informants (one interview included two stakeholders from the same organization) selected to represent particular stakeholder groups.

Conceptual Framework

While this study is a qualitative study, the conceptual framework informing the design and selection of interview participants is adapted from cost-benefit analysis (CBA), and in particular the Total Economic Value (TEV) framework). In conducting a CBA, the central research question is whether the net social benefits of the project outweigh the net social costs. TEV is an economic evaluation framework that accounts for the values individuals and society may gain out of a good beyond the benefits accruing from direct use. While this study does not employ a CBA or use the TEV framework to attempt to monetize or quantify these values, it has been used to organize the research findings.

Key Findings

To what extent and in what ways might the proposed trail add value to communities along the corridor?

Perceived benefits of the proposed trail that were identified by stakeholders through key informant interviews and suggested in local planning documents were highly convergent with many of the benefits reported in the literature. These include:

- Economic benefits from new tourism opportunities and enhancements and connections to existing tourism sites
- Economic benefits for local businesses along the corridor (e.g., more diverse business opportunities, attracting and retaining employees)
- Increased access to active transportation routes and increased viability of active transportation for shorter distances
- Increased safety for both commuter and recreational cyclists
- Increased rideshare of low-carbon transportation modes (resulting from increase in active transportation mode share)

However, a number of perceived benefits identified in the literature as key factors of support for trails, and highly important impacts of trails reported by residents were largely absent in the interviews. These mostly related to intangible, social benefits such as increased social cohesion, educational and volunteer opportunities, connections to nature, and linkages to local history and increased sense of place. These may be key areas for further engagement and education among stakeholders on potential impacts that have a less tangible, and less easily quantifiable impacts that nonetheless could be of significant value to communities along the corridor.

Challenges, concerns, and complexities about the proposed trail project identified by stakeholders in the interviews included:

- Desire for the restoration of rail service in some areas and a concern over losing specific uses of the railway (e.g., in Alberni Valley for specific tourism sites)
- Concern over the possibility of losing sections of the corridor through abandonment process should rails be discarded
- Necessity and importance of securing First Nations consent and partnership for any proposed project to gain support at local or regional level

- Costs of construction and ongoing maintenance (particularly from smaller municipalities)
- Collaboration and alignment of priorities across multiple jurisdictions

Many of these challenges are closely related to a number of barriers to active transportation development identified in the literature. The literature review identified development and maintenance costs as an institutional barrier. It also showed that a lack of local data on trail users and a lack of stakeholder understanding of the potential benefits of trails often contribute to insufficient political will to fund trail projects. Research participants noted that the potential cost of the trail project may be a barrier for communities, particularly in smaller communities. As a cost estimate of the proposed project has not been determined, this may be a reflection of their perceptions of political will and community support rather than a true concern over financial resources, and continued engagement and information sharing about the proposal's potential benefits may address some of these concerns.

Recommendations

Based on the research findings and subsequent analysis, it is recommended that future engagement with stakeholders on the proposed trail project be centred around three priority approaches:

1. Prioritize engagement and collaboration with First Nations communities
2. Identify opportunities for the trail to support public transit
3. Educate and engage communities on the benefits of rail trails to both users and non-users

The recommendations are designed to be complementary, aiming to capitalize on the areas in which community and political support for the project is evident, and at the same time address some of the primary concerns raised by interviewees.

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1. INTRODUCTION

Strategies and policies aimed at the development, maintenance, and sustainable management of recreational trails in British Columbia have become key areas of policy development across ministries and departments, with an integrated trail strategy touching on economic, social, health, and environmental policy areas developed in 2012 (Government of British Columbia, 2012). Across North America, the increasing interest in policy development around recreational trails has been accompanied by a growing body of literature investigating the impact of recreational trails and active transportation infrastructure development. These studies include a range of economic analyses, and a variety of social impacts of infrastructure development on users and non-users alike. These studies have recognized that development of active transportation and recreational trails has policy implications for local transportation planning, economic development, health care, and environmental concerns. Likewise, local and provincial governments are increasingly including active transportation in local plans, and are dedicating more resources to recreational trail and active transportation infrastructure.

This research project focuses on a proposed rail trail project in the Esquimalt and Nanaimo (E&N) Railway corridor on Vancouver Island, which would see the sections of the E&N rail north of Langford replaced by a multiuse trail (FORT-VI, 2017) (See Appendix A for a map and details of the corridor). The corridor runs 224km from Victoria to Courtenay with an additional branch extending 64km from Parksville to Port Alberni (FORT-VI, 2017). The proposed trail would link with existing rail trails on the island, including the Lochside Galloping Goose trail and the Duncan to Shawnigan Lake trail (FORT - VI, 2017).

About Friends of Rails to Trails – Vancouver Island

FORT-VI was founded in the fall of 2016 as an unregistered society to advocate for the conversion of the existing rails in the Vancouver Island Corridor into a non-motorized, multi-use community trail. The priorities of the society are to provide a trail along the continuous length of the corridor (starting North of Langford as noted above), and promote cost-mitigation strategies for the project through salvaging rail materials, sponsorship from local businesses and government grants, and lease agreements with utility companies (FORT-VI, 2017). From 2017 to 2018, FORT-VI conducted presentations to all five regional districts along the corridor, three municipalities, and two First Nations communities, as well as a number of community organizations. Since becoming registered as a BC Non-Profit Organization in 2019, FORT-VI has continued presentations with the BC Transportation Minister and elected officials, including the Cowichan First Nation Band Chief. Of particular interest for the society is assisting in negotiations with First Nations whose reserve lands are bisected by the corridor, recognizing the need for First Nations' consent and partnership and encouraging sharing cultural traditions in the development of the proposed trail (FORT-VI, 2017).

1.1 Objectives of the Research

Open access recreational trail projects require public funding for construction and maintenance and thus community and political support. This research can assist FORT-VI and policy-makers in identifying potential positive and negative impacts of rail-trails, and the extent to which this aligns with stakeholder perceptions of this proposed use for the corridor. This research also contributes to the body of knowledge of the potential impacts of rail-to-trail projects for local communities, and to understanding

the variety of factors that may contribute to or hinder political and community support for these types of projects.

The client organization, FORT-VI, has identified the need to explore the extent of support for the proposed trail in order to understand opportunities for successful engagement in the future. By understanding the potential benefits and negative impacts of the project, and the specific opportunities and barriers identified by stakeholders, the aim is to be able to better address and perhaps alleviate concerns, or identify areas where a different approach to engagement might be needed.

The primary research question is:

- **To what extent and in what ways might the proposed trail add value to communities along the corridor?**

The secondary research questions include:

- What perceived potential positive impacts do stakeholders identify from the proposed trail?
- What concerns or perceived potential negative impacts stakeholders identify from the proposed trail?
- How might the proposed trail address community needs?
- To what extent do stakeholders' perceptions align with the literature?
- What opportunities exist for future engagement to leverage support and address concerns about the proposed trail project?

1.2 Organization of the Report

This report is organized in 8 sections. The following section (Section 2) provides a background on the Vancouver Island Corridor and the relevant history, and outlines the conceptual framework that informed this study. Section 3 outlines the methods and methodologies employed in this study, and discusses the limitations and delimitations of the research. Section 4 presents the findings of the literature review, organized by theme. Section 5 outlines the main findings of the document review of relevant community plans, transportation plans, and active transportation plans. Section 6 discusses key findings and themes from the key informant interviews. Section 7 brings together the results of the interviews with findings from the literature review and document review to discuss the degree of support expressed in interviews and the implications for the proposed project as informed by the literature review and overall conceptual framework. Section 8 proposes 3 key recommendations for future engagement on the proposed trail project. Finally, Section 9 offers concluding remarks on the research.

2. BACKGROUND AND CONCEPTUAL FRAMEWORK

2.1 Rail to Trail Conversion Projects

Out of an estimated 30,000km of recreational trails formally recognized in British Columbia, rail trails (recreational trails built on the bed of former railway lines) connect 18 communities province-wide (Government of British Columbia, 2012, p. 7). Rail trail conversion projects have been gaining in popularity throughout the United States and Canada since the late 1980's (Siderelis & Moore, 1995, p. 344). These projects convert unused or abandoned railway corridors into multi-use recreational trails with the aim of encouraging sustainable transportation, increasing public health, and providing positive local economic benefits (Beiler, Burkhart, & Nicholson, p. 509). Since the late 1990's the Government of British Columbia has acquired abandoned railway corridors for conversion to public trails, 800km of which have been converted for sections of the B.C. portion of the Trans Canada Trail (Government of British Columbia, 2012, p. 7). These projects include the BC section of the Trans Canada Trail, the Kettle Valley Rail Trail, the Slocan Valley Rail Trail, Columbia and Western Rail Trail, Cowichan Valley Rail Trail, and the Great Northern Rail Trail (Government of British Columbia, 2012, p. 7). Strategies and policies aimed at the development, maintenance, and sustainable management of recreational trails in British Columbia have become key areas of policy development across ministries and departments, with an integrated trail strategy touching on economic, social, health, and environmental policy areas developed in 2012 (Government of British Columbia, 2012).

2.1 Vancouver Island Corridor and Proposed Rail-to-Trail Project

Vancouver Island Corridor

The Vancouver Island corridor (also referred to as the E&N Corridor) was a part of a land grant of around 800,000 hectares of land on southeast Vancouver Island, which British Columbia gave to the Esquimalt and Nanaimo (E&N) Railway Company in 1884 as a way of subsidizing construction of the railway, a critical piece of British Columbia's entry to confederation (Ekers, 2019, p. 276). However, Indigenous peoples, namely the Kwakwaka'wakw, Coast Salish, and Nuu-chah-nulth people, had not ceded any of the lands through treaties bar for the area primarily covering the southern tip of Vancouver Island through the Vancouver Island Treaties (Douglas Treaties) (Ekers, 2019, p. 276). The colonial history of the corridor, and the expropriation of the land from Indigenous peoples has had a profound effect that is interconnected with the broader colonial history of Canada and British Columbia. The history of the E&N land grant coincides with the history of the first Indian Reserves in the area in the 1860s, when colonial authorities demarcated reserves in Hul'qumi'num territory (the traditional territory of six Coast Salish First Nations – the Chemainus, Cowichan, Halalt, Lake Cowichan, Lyackson, and Penelakut) (Egan, 2012, p. 399, 404). In 1877, more reserves were demarcated on Hul'qumi'num territory by the Joint Indian Reserve Commission (the federal body responsible for the allocation of reserve land), and marked 23 reserves encompassing a total of 5,000 hectares of land, the boundaries of which remain largely unchanged today (Egan, 2012, p. 404).

Currently, the Vancouver Island rail corridor is operated under contract by the Southern Railway of Vancouver Island (SRVI) and is owned by the Island Corridor Foundation (ICF) (Ministry of Transportation and Infrastructure, 2010A, p. 6). Passenger service on the E&N rail corridor ceased in 2011, and no plans to revive passenger service has yet been announced (FORT – VI, n.d.). Freight service continues in Nanaimo, with freight running to Nanaimo Waterfront and linking to Fraser River port

facilities on the mainland via a rail barge (Ministry of Transportation, 2010 A, p. 11). Some sections of the E&N corridor have been developed into a rail with trail - a multiuse trail running alongside the existing rail line. The Capital Regional District (CRD) is undergoing construction on the E&N Rail Trail-Humpback Connector, which when built will entail a 17km section of trail between Victoria and the western communities. Currently 12km of this trail is open for public use in the Township of Esquimalt, the Esquimalt Nation, the Songhees Nation, and the City of Langford (Capital Regional District [CRD], n.d.). Another section of the corridor in Nanaimo has been developed as a rail-with-trail, with 8km of trail currently open to public use (City of Nanaimo, n.d.). Within the Cowichan Valley Regional District (CVRD), a 30km trail section following the Vancouver Island Corridor has been developed as a combination of rail-with-trail sections and roadside pathways (Cowichan Valley Regional District [CVRD], 2019, p. 1). In the city of Courtenay, a 2.5km long multi-use trail known as the Rotary Trail has been constructed along the corridor (City of Courtenay, n.d.). Finally, along the Alberni line of the corridor, a 7km section of trail was developed along the corridor from Coombs to Parksville and opened for use in 2016 (Regional District of Nanaimo, 2019).

Jurisdictional and Strategic Considerations

The proposed rail trail would involve a wide range of stakeholder interests, including the ICF and SRVI, as well as the five regional districts, 14 municipalities, and 14 First Nations that are connected by the railway corridor (Ministry of Transportation and Infrastructure, 2010A, p. 9). In addition, residents of the areas adjacent to the corridor, potential trail users, businesses, and local recreational groups all have a stake in the proposed project. Potential trail users ranging from cyclists, equestrians, to people with mobility issues would need to be considered in the design and planning of the trail, as each will have their own diverse needs. This diversity of stakeholder interests creates a complex and challenging landscape in which to determine the needs and priorities for the proposed project, as well as the degree of support.

Jurisdictionally, trails are governed by a network of legislation and policies, across multiple levels and spheres of governance (Government of British Columbia, 2012, p. 14). Broadly speaking, regional parks and trails and community parks and trails in rural areas are under the jurisdictions of regional governments (Regional District of Nanaimo [RDN], 2014, p. 2014). However, as rail trails often cross regional government boundaries, they are often managed in British Columbia through partnerships between regional governments, municipalities, provincial agencies, and volunteer groups (Government of British Columbia, Sites and Trails Policies & Strategies). In the case of the Vancouver Island Corridor, the management and ownership structure of the corridor should the rail corridor be abandoned is unclear, and presents a significant unknown factor in the current discussions around development. As is detailed in Section 6, many stakeholders expressed concern over the potential fragmented jurisdiction of the corridor should it be formally abandoned.

A significant part of the uncertainty over the fate of the Vancouver Island Corridor as an unbroken, continuous linear corridor are the legal claims of First Nations. Fourteen First Nations are located along the length of the corridor, including Songhees, Esquimalt, Malahat, Cowichan Tribes, Halalt, Lake Cowichan, Stz'uminus, Snuneymuxw, Snaw-Naw-As, Tseshaht, Qualicum, Penelakut Tribe, Hupacasath, and K'omoks. A number of these nations have reserve lands that are directly intersected by the corridor. These nations and the reserves are listed below in Table 1.

Table 1: First Nations Reserves Transected by the Vancouver Island Corridor

Nation	Reserve(s) transected by Vancouver Island Corridor
Snaw-Naw-As	Snaw-Naw- As Reserve
Stz'uminus	Oyster Bay 12 Sqaw-Hay-One 11
Halalt	Halalt 2
Cowichan Tribes	Cowichan 1
Esquimalt	Esquimalt
Songhees	New Songhees 2

Source: Government of Canada (n.d.) First Nations Profiles Interactive Map

Many of the First Nations along the corridor are at various stages of negotiating modern treaty agreements with the Government of British Columbia and Government of Canada; and as such, the particularities of government-to-government relationships with British Columbia and Canada varies between the Nations. Canada's and British Columbia's modern treaty process is a product of colonial history, and current treaty negotiations under the British Columbia Treaty Commission began in 1993 to address land title and questions of Indigenous jurisdiction and governance (Egan, 2012, p. 402). The Hul'qumi'num Treaty Group submitted a "Statement of Intent" in 1993 negotiating an area of land approximately 335,000 hectares, including territory that was included in the E&N land grants.

The Hul'qumi'num treaty negotiations are just one piece of a complex landscape of Indigenous claims to the corridor in the context of the colonial history of the area. Currently, three legal proceedings are in the Supreme Court of British Columbia brought by the Snaw-Naw-As, Halalt, and Cowichan Tribes against Attorney General of Canada and the ICF. The cases are currently active, and the case of Halalt and Snaw-Naw-As seeks for the railway right of way (ROW) to be returned to Canada for "the use and benefit" of Halalt and Snaw-Naw-As nations as part of their respective reserves (*Halalt First Nation v. The Attorney General of Canada; Snaw-Naw-As First Nation v. The Attorney General of Canada*). The Cowichan Tribes notice of claim references laws enacted by the Cowichan Tribes on property assessment and taxation within Cowichan Indian Reserve 1 in 2013, and seeks for the ROW to be declared reserve lands subject to those laws, as well as a declaration that the ROW revert to the administration of the government of Canada for the "use and benefit of Cowichan Tribes as part of the reserve land" (*Cowichan Tribes v. The Attorney General of Canada*). While the legal basis of these claims is beyond the scope of this research, the impacts the claims have on the perceptions of the proposed project are significant and are explored further in Section 6.

2.3 Conceptual Framework

While this study is a qualitative study, the conceptual framework informing the design and selection of interview participants is adapted from cost-benefit analysis (CBA), and in particular the Total Economic Value (TEV) framework). In conducting a CBA, the central research question is whether the net social benefits of the project outweigh the net social costs. CBAs estimate the full social benefits and costs resulting from a proposed project, including a valuation of non-market impacts, with the assumption that the project is acceptable should the social benefits exceed the social costs, and unacceptable should the reverse be true (Gagné et al., 2013, p. 281). A CBA should consider social pecuniary and non-pecuniary impacts, and include both positive and negative externalities resulting from the trail's use. Furthermore, CBAs can provide a more holistic account of the ways in which the project impacts different social groups (Pearce, Atkinson, & Mourato, 2006, p. 35), and in particular, may allow for

investigations into the distributional incidence of costs and benefits (Pearce, Atkinson, & Mourato, 2006, p. 24), which is particularly important when they accrue to historically marginalized groups.

The TEV framework conceptualizes the range of benefits and costs that may accrue to society as a result of a particular policy or project. The framework relies on an identification and valuation of both use-values (those relating from direct and indirect actual use or potential use of the trail) and non-use or passive values (which may include the motivation to ensure the good is available for current or future generations despite no actual or intended use for that individual themselves), or the existence of the good despite no intended use for themselves or others (Pearce, Atkinson, & Mourato, 2006, p. 86). The basis of the TEV framework, in exploring the range of interrelated impacts to all of society, informed the selection of key informants based on their position to speak to perceived potential for a wide range of stakeholders. While this study does not employ a CBA or use the TEV framework to attempt to monetize or quantify these impacts, it has been used to organize the findings of the research.

3. METHODS AND METHODOLOGY

3.1 Methodology

This study employs a qualitative methodology that uses an exploratory approach to investigate the specific context of the proposed trail. The use of a qualitative methodology allows for a richer analysis and exploration of the context-specific nature of the research questions, and for emerging themes to guide any further refinement of the research questions and data collection tools.

3.2 Methods

Literature Review

The relevant literature was reviewed to identify key themes around benefits and drawbacks of rail-to-trail projects, active transportation trails, and recreational trail projects, and to formulate interview guides and identify key stakeholders. Positive and negative impacts of trails, facilitators and barriers to active transportation and recreational trail use, and barriers municipalities and local governments face in implementing infrastructure projects have been explored in the literature. These themes provide a basis for examining potential reasons behind support or lack of support for the proposed project.

Document Review

To develop a basic understanding of communities', regional districts' and First Nations' priorities in relation to the proposed trail project, 17 documents outlining community plans, regional transit plans, cycling and walking networks, and active transportation plans were reviewed from 6 municipalities, 5 First Nations, and 4 Regional Districts. Documents included community plans, transportation plans, and where available, active transportation plans. Not all affected regional districts or municipalities had completed specific plans related to active transportation or parks and trails management, and in these cases community plans or general transit plans were reviewed. First Nations communities are in varying stages of community plans development, and for some communities such plans were not available, or were not made public. Some plans were reviewed that did not contain relevant information or limited relevant information, and only those plans that revealed priorities and strategies offering potential alignment with the trail project as proposed by FORT-VI were included in the study. Findings from the literature review were used to determine the extent of alignment with a plan's content.

Interviews

A total of 13 In-depth, semi structured interviews with 14 interviewees (one interview included two stakeholders from the same organization) were conducted with a range of key informants selected based on their representation of particular stakeholder groups including government administrators ($n=3$), elected officials ($n=1$), tourism boards ($n=1$), business interests ($n=4$), cycling and recreational user groups ($n=3$), transportation planning subject matter experts ($n=1$), and subject matter experts on First Nations land and title and engagement ($n=2$). Interviewees represented geographic areas from the whole length of the corridor, and covered all five of the regional districts. Interview participants were selected based on a theoretical sampling method (Flick, 2015, p. 104) in which interviewees were recruited based on their expected knowledge and expertise of the theories generated by the literature review. Interview guides for all stakeholder groups are included in Appendix B.

Recruitment for interviews was conducted through email contact using publicly available contact information, or where applicable, through using a neutral third party to facilitate introductions.

A total of 41 individuals were invited to participate in the research, including representatives from all 14 First Nations along the corridor. In some cases, multiple people from a First Nation were contacted with the intent of facilitating introductions to communities. The invitation to participate included information about the project, proposed research questions, and an invitation for further discussion on the specific interview questions. For those nations with reserve lands bisected by the corridor, multiple attempts, including emails and phone calls were made to try to engage a representative for the Nation in the research. However, no representatives from First Nations along the corridor agreed to participate in the study, and the interests of the First Nations communities along the corridor are therefore not reflected in the interview findings.

To address the general issues concerning First Nations land and title and the implications of the colonial history of the Vancouver Island area specifically, two subject matter experts in government relations with First Nations and Aboriginal Law (specifically, Indigenous Land and Title) were interviewed for the research. One subject matter expert had worked extensively in government relations with First Nations and in private industry, with a specialty in negotiating agreements around rights-of-way for rail and oil and gas development projects. The other is a legal expert in Indigenous Law and Aboriginal Rights and Title, and with a particular knowledge of the history of treaty negotiation in Vancouver Island. It is important to stress that neither of these subject matter experts were engaged as representatives for First Nations' communities, or as Indigenous representatives. Both subject matter experts identify as non-Indigenous, and as such the interviewees and researcher took care to keep the focus to general issues and historical facts, and not to purport to speak for Indigenous peoples.

3.3 Data Analysis

The data from the research was analyzed through a qualitative content analysis of the available transportation, community, parks and trails and active transit plans, as well as a thematic analysis of the interview data.

In both methods of data analysis, the theoretical framework was developed from key themes emerging from the literature review. In the content analysis of regional and community planning documents, a summarizing content analysis as described in Flick (2015, p. 167) was employed to identify commonalities and emerging themes across the material. These were used to triangulate findings from the interviews and identify common themes or areas in which the findings diverged. In-depth interviews were analysed based on the theoretical framework, and emerging findings were coded according to the key themes.

3.4 Limitations and Delimitations

A number of unique barriers beyond the control of the researcher may have influenced the degree to which the sampling was truly representative of political and community support, and by extension the findings of the research. At the time of writing, a renewed exploration of the financial costs to restore passenger rail service to the Victoria-Langford section of the corridor was announced by the Government of British Columbia. This renewed and reinvigorated discussions of the rail service, and as the proposed plan necessitates removal of the rails, a number of stakeholders whose interests are highly relevant to the study declined to take part. As much as possible, interview guides for all stakeholder

groups were designed to address the full breadth of the research questions to allow for comparisons across stakeholder groups and geographic areas, and to also capitalize on stakeholder groups specific areas of expertise. While a full sampling of all stakeholder groups from all of the geographic regions was not obtained, at least all of the stakeholder groups are represented in one or more of the geographic areas, and all geographic areas are represented through one or more stakeholder groups.

Perhaps the most significant limitation of this study is the lack of engagement from First Nations representatives. All of the First Nations identified in Section 2 whose territories are located along the corridor were invited to participate, and in the case of those Nations whose reserve lands are bisected by the corridor, multiple invitations through a variety of methods were sent. However, no First Nation representatives agreed to participate. Active legal proceedings related to the corridor by First Nations groups may have influenced their decision to not participate. To account for and illuminate some of the general issues pertaining to First Nations engagement for this project, two subject matter experts were recruited with expertise in Indigenous governmental relations, and in Indigenous law and rights and title.

To limit the scope of this research, the study focused on the proposed trail only, and not on a comparative analysis of the rail option or other options for use of the corridor that have been expounded. However, given the current discussions on reviving rail service, it was impossible to entirely exclude the option of rail from the study. Inasmuch as the potential for rail constituted a barrier to support for the proposed trail, the research explored this alternative option. Furthermore, while the study is based on the conceptual ideas of the TEV framework employed in certain CBAs, an economic evaluation of this project is beyond the scope of this research, and the TEV framework serves to inform the overall theoretical framework, rather than as a methodological framework. A companion study, employing a CBA method to estimate the economic value of the proposed trail, is under way at the time of writing, and the results will further inform future proposals for this project.

4. LITERATURE REVIEW

The literature review begins with a relevant literature on the TEV framework, which served as the conceptual framework for the research. From there, a review of economic evaluations and other evaluative studies on the impacts of trails, rail-trail projects, and greenways allowed for a basic understanding of the potential impacts of this project to the local communities, regions, and the province as a whole. As the purpose of this study is to determine the extent of community and political support for the proposed trail project, an understanding of the potential perceived benefits and costs to communities was established through reviewing studies on trails employing a mix of quantitative and qualitative methods, and exploring economic, social, health, and other costs and benefits to communities. In addition, literature on barriers to active transit, cycling, and physical activity was reviewed to better understand the impact of the built environment and trail projects in particular in promoting active transit and supporting multi-modal transit infrastructure.

While much of the literature reviewed on the potential impacts of trails focuses on the impacts of single trail projects, it is important to view any trail project or improvements to active transportation infrastructure as they relate to the local network. Transportation and recreational networks, just as economic and tourism networks, tend to have a synergistic effect, with the impacts and potential benefits increasing as the network expands (Litman, 2012, p. 46). Moreover, in the case of active transportation, different modes of transit, be it public mass transit, walking, or cycling, tend to be mutually reinforcing and complementary (Litman, 2012, p. 41). Additionally, benefits or costs associated with trail projects cannot be considered to be individual impacts, the sum of which accounts for the full value of the trail. For this reason, the TEV framework provides the most useful conceptual framework for arriving at a complete, holistic picture of the full social, economic and environmental impact of a trail project, by acknowledging the interrelated relationships between various impacts.

4.1 Total Economic Value (TEV)

TEV is an economic evaluation framework that accounts for the values individuals and society may gain out of a good beyond what is directly and quantifiably attributed to use of the good. A key feature of the TEV framework is the concept of “existence” or “non-use values.” This concept was initially suggested by Krutilla in his 1967 work proposing a shift in the way natural and environmental resources were valued (Smith, 1996b, p. 11). It is a framework for cost-benefit analysis (CBA) that allows for an expansion of accounting for the types of benefits that can be measured in monetary terms (Smith, 1987, p. 551). This framework has been commonly employed to evaluate natural protected areas, parks, recreational spaces, greenways, and other environmental resources because of its ability to account for more “intangible” benefits, which, as opposed to other benefits or costs such as infrastructure, income generation, pest management, etc., are harder to monetize, and thus not as easily articulated into manageable action or policy (English and Lee, 2003 p. 45). Figure 1: Total Economic Value. Adapted from Pearce, Atkinson, & Mourato, 2006, p. 86 and Gagné et al., 2013, p. 285. below provides a visual representation of the breakdown and classifications of the total economic value framework.

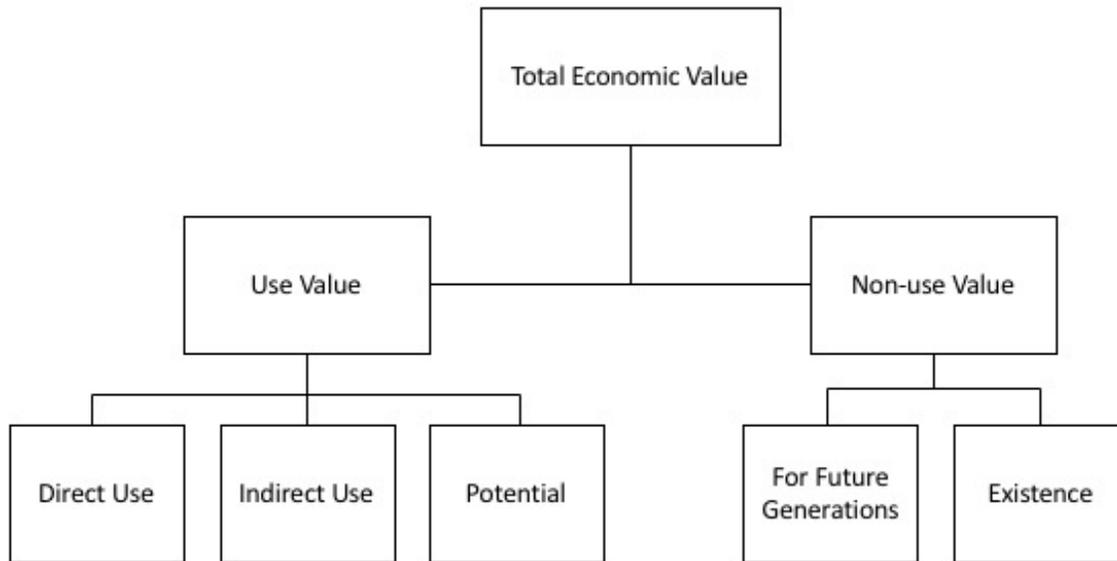


Figure 1: Total Economic Value. Adapted from Pearce, Atkinson, & Mourato, 2006, p. 86 and Gagné et al., 2013, p. 285.

The split between use and non-use values can be useful for conceptualizing public goods especially, as they are largely financed by taxpayers, and as such the evaluation for support of these goods must consider the benefits (and costs) to all members of society regardless of whether they use the public good or not (Harnik and Crompton, 2014, p. 188-189). Numerous studies have explored the various types of benefits and costs of trails, recreational areas, parks, and greenways, and the use of the TEV framework allows for the categorization and exploration of a multitude of overlapping and inter-related benefits and costs. The ability to account for the impacts to society of policies or development projects that may alter the status quo or existence of a good is a key strength of the TEV framework (Smith, 1996b, p. 11). The impacts of policies on the status of natural assets (or indeed any public good), may be extended beyond the populations that actually use these assets (Smith, 1996b, p. 11). The TEV framework allows for the accounting of benefits and costs to the whole of society in aggregate, and extends the boundaries of evaluation – essentially giving standing to a more widely and holistically drawn population (Smith, 1996, p. xvii).

Particularly in the research of economic values of environmental assets, TEV non-use values are separated into those “existence” values in the present, and the possible value gained by future generations (Bateman, Lovett, and Brainard, 2003, p. 2). Similarly, the TEV framework allows for the accounting of “potential” use values, or those benefits that may be gained from use by individuals or society in the future (Bateman, Lovett, and Brainard, 2003, p. 2). While the focus of this research is a qualitative study on the perceived benefits and costs of the proposed trail project, the TEV framework proves useful for conceptualizing the interrelations between potential benefits and costs, and the ways in which the project may elicit perceived impacts unrelated to direct use of the corridor. In the following sections, findings from the literature on the potential impact of trails have been outlined in terms of their categorization as use values or non-use values. However, both positive and negative externalities may result from economic activity (Gagné et al., 2013, pp. 280-281), and potential negative impacts found in the literature are outlined as well as the positive.

4.2 Potential Impacts of Trails

Evaluations of the impacts of trails on communities largely centre on their economic impacts, and to varying degrees, many employ a TEV framework in assigning monetary value to non-market impacts, such as health and wellbeing, and existence values for the project to community members. This section outlines results of previous studies on trail projects, and develops an inventory of potential societal impacts of trails from the literature.

The potential impacts described in the literature serve to develop a deeper understanding of the possible sources of support, or non-support for a trail project. In a study assessing public support for urban greenway trails, Palardy, Boley, and Gaither hypothesized that the demand for recreational trails is a function of frequency of use, perceived or expected economic benefits, the sense of psychological empowerment (i.e. price and self-esteem in residents' neighbourhood), social empowerment (i.e. sense of community cohesions), and political empowerment (i.e. community agency and sense of control over development) brought on by the project (2018, pp. 251- 252). Using a survey distributed to Atlanta residents regarding the Atlanta Beltline trail, the authors found statistically significant results to suggest that intended use, economic benefits, and psychological and social empowerment contributed to support (Palardy, Boley, & Gaither, 2018, p. 257). In essence, the perceived potential economic, social, and environmental benefits of a trail or active transportation development project within local communities have been found to influence the level of support, and an understanding of the more general perceptions of the impacts of trails on a community helps to inform the study of the specific case of the proposed Vancouver Island corridor trail.

Economic Impacts Analysis (EIA) vs Cost-Benefit Analysis (CBA)

In the United States in particular, economic evaluations of rail trail projects are abundant, primarily focusing on ex-post evaluations of the economic impacts. A large portion of these studies employ an economic-impact analysis (EIA) to evaluate the economic impacts of rail trails on local communities through an estimation of dollars spent per user, and often employing economic multiplier effects to estimate the indirect economic benefits to local businesses, the community, and in some cases estimating impacts on GDP. Many of the commonly cited benefits arising from multi-use trails and active transportation are reported in studies that employ EIA methods rather than a CBA. The key difference between EIA and CBA is that benefits in EIA are generally reported in terms of the positive increases of economic activity, rather than the net value to society, as in CBA (Federal Railroad Administration, 2016, p. 9). CBA, and the TEV framework, aims at estimating the full, net value to society, and takes into account the opportunity cost of a project, or how the resources might have been put to alternative use for the benefit of society (Federal Railroad Administration, 2016, p. 9).

Reported economic benefits of trails include attracting and retaining new businesses related to trail activities, and increasing tourism opportunities for recreational and heritage excursions, among other indirect economic benefits accruing to societal benefits such as increased physical activity, and expanded active-transit options to reduce vehicular traffic (Beiler, Burkhart, & Nicholson, 2013, p. 514). These benefits have been estimated through various methods using actual trail use or through projections of use through CBA, and can be categorized as use-value impacts of a trail. As noted above, under the TEV framework, certain economic impacts cannot be viewed as a simple benefit or cost to society, as it may represent a trade-off or transfer of economic activity from one economic area to another, one community to another, or one stakeholder to another, and thus the net impact can neither be described as a positive or negative effect. Other impacts that can be accounted for in CBA include

societal impacts that may not be easily monetized, but are nonetheless of value to society and can be described qualitatively (Federal Railroad Administration, 2016, p. 6).

Many of the impacts of trails and active transportation described in the literature would not be accounted for with the TEV framework. However, the perception of these changes, and the perceived economic impact (be it positive or negative) by stakeholders is an important factor in the degree of support for a trail. For this reason, such impacts are explored here as reported in EIA studies, and are differentiated from those that could be accounted for through CBA using the TEV framework. The potential impacts of multiuse trails and active transit infrastructure development from the literature (both in CBA and EIA studies) are discussed in the following sections, and summarized in Table 2 below. While impacts have been categorized as separate line items, in reality they often inform and support one another, and the effects in one area (e.g., reduced traffic congestion) may lead to impacts in another area (e.g. increased economic efficiency). Note that those impacts covered under CBA using a TEV framework are described in their impact, with no assumed positive or negative directionality. This is to underlie the use of the TEV framework in assessing the net impacts to society, which may include both positive and negative impacts.

Table 2: Summary of impacts of multiuse trails and active transportation infrastructure

Reported Impact	Counted in EIA	Counted in CBA
Direct revenue from user fees	✓	✓
Expenditures in local economy by trail users	✓	
Jobs created from project-related activities	✓	
Revenue from tourism activities	✓	
Impact on tourism		✓
Economic efficiency		✓
Contribution to GDP	✓	
Equitable access to affordable transit		✓
Impact on air pollution		✓
Impact on traffic congestion		✓
Impact on ecosystems		✓
Physical and mental wellbeing		✓*
Avoided cost of health care utilization (from increased physical activity)	✓	✓
Educational opportunities		✓*
Social cohesion		✓*
Access to cultural and historical sites		✓*
Human connection to nature		✓*
Impact on safety and security		✓*

* These impacts may be discussed qualitatively, but would be unlikely to be monetized in a CBA

Economic Impacts and Values of Trails

Many studies on the economic impact on trails focus on expenditures in the local economy by trail users, boosting local economies through direct and indirect means (Mundet and Coenders, 2010; Cope et al., 1998; Moore & Ross, 1998; Turco et al., 1998). In fact, most studies exploring the benefits of trails focus on economic impacts. Indeed, in one of the few empirical studies on support for trail projects (for a recreation trail in Atlanta), the authors concluded that the most significant indicators of support were the expected use of a trail and the expected economic gains (Palardy, Boley, & Gaither, 2018, p. 257). In a review of available literature on the impact trails have on local economies, one study found that a 20-point increase in neighbourhood walkability score associated with a new regional trail was associated with an 80% rise in retail revenue (Bowen, 2009, p. 478). However, a CBA using the TEV framework would only account for direct revenue through user fees collected from non-residents (which would not be applicable to the proposed Vancouver Island Corridor Trail. This is because revenue generated through direct spending by residents is a transfer of their spending in other areas (Gagné et al., 2013, p. 281).

A number of studies (using EIA methods) aimed to quantify the economic activity associated with active transit modes (e.g., cycling, walking, and public transit) versus car transit modes, though did not specify whether spending was attributable to residents or non-residents (Kornas et al., p. 478). The studies reported mixed results, with one study finding that car travellers had higher spending rates in supermarkets versus those using active transit, whereas others exploring the impact of cycling industries found significant positive impacts on economic activities related to consumer spending (Kornas et al., p. 478). Other research has specifically looked at the impact of tourism revenues from cycling and visitors to cycling and running events. Studies in Vermont and New Jersey estimated that annual spending at cycling and running races and other events totaled \$6.2 million and \$35 million respectively, while general tourism revenue related to cycle tourism and recreation in Ontario was estimated at \$391 million, which accounted for 3% of all tourism revenue in the province (Kornas et al., p. 479).

A 2011 report explored an EIA of trail and recreational site use in British Columbia, including an estimate of user spending, tax revenues from direct trip-related spending, employment supported by the sites, and an estimate of GDP generated (Ministry of Forests, Lands and Natural Resource Operations, 2011, p. 12). The report concluded that collectively, recreation sites and trails contributed to the provincial GDP through the operations of sites and trails, and direct user spending by recreation site and trail users (Ministry of Forests, Lands and Natural Resource Operations, 2011, p. 2). Estimates of spending by non-local trail users in the study (defined as those living elsewhere in BC or out of the province) averaged \$55 per day, which was higher than the \$37 per day estimated spending by local users (Ministry of Forests, Lands and Natural Resource Operations, 2011, p. 12). This suggests that trails and recreational sites may increase tourism revenue by attracting higher levels of spending by non-residents as opposed to residents, for instance, if tourists are more likely to purchase cooked food during their trips while locals bring home-made food.

Other, more indirect economic impacts of trails have been explored in the literature that centre around the impact of the built environment on human choice and behavior. Litman posits that trails, by contributing to an active transportation network, trails can increase overall economic efficiency by reducing traffic congestion, road and parking facility costs, and the costs associated with vehicular traffic accidents (Litman, 2019, p. 33). Additionally, improved active transportation infrastructure (which includes public transit) may increase access to education and work opportunities by improving

affordable transit options, which may expand the local labour pool and have a positive effect for local economies (Litman, 2019, p. 33).

Many studies have focused on the indirect economic impacts of trails and active transportation infrastructure in the reduction of health care costs associated with higher levels of physical activity. By providing free, easily accessible forms of recreation and exercise, trails and greenways have been posited to promote increased physical activity (Mundet and Coenders, 2010, p. 658). Furthermore, other studies have suggested that health benefits of physical activity increase when taking place in a natural environment, which adds an additional element to the health implications of trails (Mundet and Coenders, 2010, p. 658). Some studies have linked increased physical activity resulting from trail infrastructure to economic gains by estimating the avoided cost of health care utilization, which may extend beyond government health expenditures and into businesses and employers due to improved work performance (Paul, Deng, and Cook, 2019, p. 526). One common method of monetizing health benefits is in calculating the avoided health care delivery costs resulting from the physical activity supported by a recreational trail. In an EIA of all recreational trails in British Columbia, health costs incurred as a result of physical inactivity were estimated at 1.8%, or \$146.10 per person (Ministry of Forests, Lands and Natural Resource Operations, 2011, p. 16). With the assumption that all trail users are physically active, and that trail usage accounted for 8.2% of physical activity requirements, the report estimated annual provincial health care costs avoided through trail use to be \$4,366,690 (Ministry of Forests, Lands and Natural Resource Operations, 2011, p. 16).

However, evidence of a positive impact on physical activity of the existence of a nearby trail is mixed: a systematic review of studies evaluating changes in physical activity after the construction or development of a trail found varied results (Smith et al. 2017). The health impacts of a multi-use trail are not only difficult to quantify and monetize, they also involve a wide and complex range of risk factors (Colman & Walker, 2004, p. 10), and are easily confounded by additional factors (Smith et al, 2017, p. 22). Nevertheless, given that access to free recreational sites, facilitating physical activity, and promoting public health and welfare are often cited as major benefits of recreational trails (Beiler, Burkhart, & Nicolson, p. 509), the economic value of health impacts derived from trail use is worthy of consideration when accounting for net social benefits.

Environmental Impacts

One benefit that is less-often monetized and accounted for in economic analyses of recreational trails is the reduction in negative externalities resulting from reduced vehicular travel and other environmental impacts. To the extent that trail access can reduce vehicular traffic, they can reduce the carbon footprint of users (Clarke, 1996). Furthermore, cycle tourism and other tourism generated by trails and greenways may have a less damaging impact on the immediate environment than other modes of tourism (Mundet and Coenders, 2010, p. 658), though this excludes the modalities of travel that tourists may take to reach the trails in the first place. Even for local residents, greenways and trails are often accessed by other modes of transit, and as such reduction in pollution as a result may be difficult to measure, or lower than stated in these studies (Mundet and Coenders, 2010, p. 658). In a 2011 report estimating the economic impact of trails in B.C., opportunity for education on environmental stewardship, and preserving green spaces for vegetation and wildlife were noted as additional social benefits (Ministry of Forests, Lands and Natural Resource Operations, 2011, pp. 20-21). However, walking trails and multi-use trails may also have negative environmental impacts, such as disruptions to local wildlife habitats from increased human activity (Lindsay, Craig, and Low, 2008, p. 731).

Social Impacts

Many studies evaluating recreational trails include valuations of broad social impacts. CBA allows for an examination of the broad social impacts of the existence of a trail, particularly through the TEV framework in exploring both use- and non-use values. Many such values may be monetized in a CBA, but others may only be described if they are not easily quantified. Numerous studies have reported perceived benefits of increased health and wellness (Cole et al., 2008, p. 211; Heesch, Sahlqvist, and Gerrard, 2012, p. 6; Corning, Mowatt, and Chancellor, 2012, p. 277). Benefits gained by individuals' use of trails range from enjoyment of the environment (Cole et al., 2008, p. 211; Corning, Mowatt, and Chancellor, 2012, p. 277) and finding relaxation, independence, and solitude (Corning, Mowatt, and Chancellor, 2012, p. 278). Ex-post studies on the impacts of trails in communities have found that positive impacts include an enhanced sense of place and pride in a community (Mundet and Coenders, 2010, p. 659) and a focal point for social gatherings with family, friends, and community members (Mundet and Coenders, 2010, p. 659; Corning, Mowatt, and Chancellor, 2012, p. 282). In a study on residents' perceptions of a trail in Indiana, the authors note that "the social aspect of the trail proved much more significant than previous literature implied" (Corning, Mowatt, and Chancellor, 2012, p. 282). While these impacts are not often included in economic analyses due to the inherent difficulties of monetizing such complex and intangible social interaction impacts, they are worth noting in order to gain a fuller picture of the issues involved in assessing the full net social benefits of a recreational trail on both direct users and society as a whole.

Some research on the social impacts of trails focus on the increased social cohesion that can result from regional or local trails. Access to trails saw reported benefits such as improved family and friend relationships, and improved relationships among neighbours in a particular area (Corning, Mowatt, and Chancellor, 2012, p. 282). Qualitative research has found that the social nature of trail use constitutes a key benefit reported by trail users: sharing an activity with others, receiving encouragement from others, and participating in organized programs were specific benefits cited in one study (Heesch, Sahlqvist, and Gerrard, 2012, p. 6). A qualitative study on a rail trail in Indiana found that users noted the trail provided a social gathering space, a space where children learned new skills, and an area for leisure activity (Corning, Mowatt, and Chancellor, 2012, p. 282). The authors noted that the social aspect of the trail was reported to be far more impactful than the literature on the benefits of trails may have previously suggested (Corning, Mowatt, and Chancellor, 2012, p. 282). Interestingly, a study on factors of support for a trail project in Atlanta found perceived benefits of psychological and social empowerment to be statistically significant indicators of support (Palardy, Boley, & Gaither, 2018, p. 257). Depending on the location of the trail, other unique social impacts have been noted. Study participants in Indiana noted that the semi-rural location of a recreational trail provided connections with nature unavailable in urban settings, and allowed users to experience natural areas and explore the local environment (Corning, Mowatt, and Chancellor, 2012, p. 282). Moreover, trails can allow access and connection to historically and culturally important heritage sites, including in the case of rail trails, historic bridges, tunnels, and stations (Mundet and Coenders, 2010, p. 659).

As noted above, the capacity of trails to incentivise people into active transportation and reduce dependency on cars for transit is a common benefit cited in economic analyses and other evaluations of the impacts of trails. Environmental impacts have also been included in qualitative studies on the value of trails. A personal desire to reduce their carbon footprint has been found to be a key incentive for trail use and a primary benefit of use (Cole et al., 2008, p. 211; Heesch, Sahlqvist, and Gerrard, 2012, p. 6). Access to an enhanced active transit network has implications for social equity as well. In many North American communities, an estimated 20% to 40% of the population is reliant on modes of transit other

than driving, due to disability, low income, or age (Litman, 2019, p. 28). Improving transit infrastructure for these populations contributes to the affordability of transportation, basic mobility, economic opportunity, an increased respect and dignity (Litman, 2019, p. 28). There are also noted links between improvements in active transportation infrastructure and general public transit access. Litman asserts that public transit and active transit are most often complementary, and higher transit use is generally correlated with higher rates of active transit as well (2019, p. 7). Moreover, a longitudinal study on active transportation habits in the US found that the presence of a public transit station less than half a mile from home increased the likelihood of a person taking active modes of transit to work (Paul, Deng, and Cook, 2019, p. 528).

Security is another impact cited in the literature, particularly in qualitative studies on perceived negative impacts or concerns of local residents regarding trail projects. Concerns over trail projects among local residents often include crime, property damage and vandalism, and issues around legal liability in the case of accidents (Bowen, 2009, p. 299). However, perceptions of a trail's impact on local security is mixed. As Corning, Mowatt, and Chancellor note, "one person's concern was another person's benefit" (2012, p. 283). High traffic on trails was found by some users to be an increased safety benefit, while others were concerned with the associated decrease in privacy, and noise was similarly equated to a safety benefit as well as a nuisance (Corning, Mowatt, and Chancellor, 2012, p. 283). Furthermore, effective management strategies, such as security patrols and landscape managing can increase security both directly and indirectly, as other studies have shown increased use of trails has contributed to "passive surveillance" (i.e., more people available to report and thus deter threats and criminal activity), and some studies indicate that crime rates overall decrease in communities that are more compact, mixed, and walkable (Litman, 2012, p. 28). Furthermore, increases in social equity from making transit more accessible, affordable, and flexible through active transit infrastructure improvements may serve to increase economic opportunity for at-risk residents (Litman, 2012, p. 28).

4.3 Facilitators and Barriers to Active Transportation and Trail Use

Connected to the literature on the potential benefits and costs to trails and developments in active transport networks is a body of literature concerned with the factors enabling or disincentivizing active transportation or the use of trails and greenways more generally. This body of literature is generally focused on the uptake of active transit for commuting purposes, although a number of studies have focused on the extent to which trails, as part of the built environment, impact physical activity levels from a health perspective. Many studies focusing on the use of active transportation have highlighted the importance of the combined effect of policies designed to discourage auto use with infrastructure development and policies that incentivise active transit (Piatkowski, Marshall, and Krizek, 2019; Iwinska et al., 2018). However, the focus here is on elements that predict higher use of trails and other means of active transportation, and not on policies that discourage auto use (such as higher parking rates or congestion pricing), which may impact active transportation mode share.

This literature illuminates various potential factors related to the use of active modes of transit and utility of multi-use trails more generally, and can assist in developing a more comprehensive understanding of the precise ways in which trail projects can contribute to a more developed and well-utilized active transportation and recreational trail network. Table 3 summarizes the key facilitators to active transportation and recreational trail use identified in the literature discussed below. Facilitators include the built environment, policies and regulations, and socioeconomic factors, though the extent to which these influence behaviours varies based on individual preferences and circumstances. These

factors are reported as facilitators, though the inverse of all of these can also be considered barriers to trail use and/or active transportation.

Table 3: Facilitators and Barriers to Active Transportation / Recreational Trail Use

Key Facilitators to Active Transportation / Recreational Trail Use
Perceived safety
<ul style="list-style-type: none">• Slow or minimized motorized traffic• Separated cycling paths• Safety of the surrounding area (e.g., low crime rates)• Availability of secure bicycle storage
Distance
<ul style="list-style-type: none">• Shorter total trip distance (~5km)• Shorter distance of trails from key destinations
Socioeconomic Factors Influencing Active Transportation / Recreational Trail Use
<ul style="list-style-type: none">• Income levels (higher income associated with higher rates of cycling/walking for recreation and higher trail use; lower incomes associated with higher rates of public transportation use and walking for utilitarian purposes)• Gender (e.g., perceptions of safety of less importance for men)

Much of the literature separates the use and demand for trails, greenways and walkways for the purposes of active transportation, or utilitarian purposes, and recreation. To an extent, this is useful for planning purposes as the potential benefits and value of a trail may be considerably different to different user or non-user groups depending on the potential demands and uses of the trail for these purposes. However, the lines between these types of uses is blurred, and in reality, hard to distinguish. For example, a commute to work might involve a route down recreational trails through the countryside, which may be viewed by participants as a recreational activity or an activity for fitness purposes as well as utilitarian (Mundet and Coenders, 2010, p. 672). Consequently, plans for development or perceived gains in favour of active transportation or for promoting recreational or tourism infrastructure may be mutually reinforcing and involve many of the same goals and strategies.

Infrastructure and the built environment

Many studies have explored the effects of the built environment on the use of active transportation and trails for recreation and physical activity. Certain environmental factors such as the presence of sidewalks and pathways and other cycling amenities, slow or little motorized traffic, and separated cycling paths on roadways correlate with higher levels of active transit (Alberta Centre for Active Living, 2016, p. 3). While the correlation may be intuitive, many active transportation studies have attempted to find positive correlations between active transit infrastructure development and changes in peoples' behaviour; many have indeed found a positive association between physical activity and improved trail infrastructure (Wang et al., 2004, p. 550; VanBlarcom and Janmat, 2013, p. 188, Smith et al., 2017, p. 2).

Studies on facilitators to choosing active transit to school or work most commonly report the distance of the trip as a key factor (Paul, Deng, and Cook 2019, p. 526; Cole et al., 2008, p. 213; Manaugh, Boisjoly, and El-Geneidy, 2017, p. 873; Litman, 2019, p. 5). In studies that quantify the impact of trip distances on the likelihood of choosing active transit, most show that active transit occurs primarily on shorter trips, for example under 2 miles, or 3.2km (Litman, 2019, p. 5) or around 5km (Paul, Deng, and Cook, 2019, p. 526). However, other studies have shown that for more regular cyclists, distance is less of a barrier. A study among university faculty, staff, and students at McGill University found that for respondents

identifying as regular cyclists, a distance of 10-20km was not a significant deterrent, whereas this was identified as a barrier for potential cyclists (Manaugh, Boisjoy, and El-Geneidy, 2017, p. 873). If distance is an important factor in the uptake of active transportation, this has implications for how trail project development affects the level of support. A trail with more connections to higher density areas within a short distance may be more utilized as a transit corridor, and designing a trail as a viable transportation corridor would likely increase support.

Infrastructure safety, whether actual or perceived, has also been found to greatly impact the uptake of active transportation. Perceived safety may be influenced by road design (with narrow roads and a lack of separated lanes or sidewalks contributing to a lack of perceived safety), traffic volume and speeds (Litman, 2019, p. 5) or even crime rates in the area (Silva et al., 2011, p. 750). The influence of perceived safety in active transportation and recreational trail use uptake has also been found to vary by demographics. A perceived lack of safety was found in one study to increase with age, and safety is significantly more likely to be identified as a barrier by women than by men (Manaugh, Boisjoy, and E-Geneidy, 2017, p. 881). Similarly, the perceived security of bicycle storage facilities at destinations was also cited as a barrier to active transportation, with concerns of theft coming up in 24% of open responses in one qualitative study from McGill University. (Manaugh, Boisjoy, and E-Geneidy, 2017, p. 881).

Socioeconomic Factors

While the literature is fairly conclusive that accessibility and availability of walking and cycling infrastructure, as well as shorter commuting distances positively correlate to higher active transportation use, it is also important to distinguish between the types of use of trails. Higher income areas are more likely to use trails for recreation purposes and lower income areas are more likely to use trails for transportation (Lee, 2007, p. 299). And while disadvantaged households may use trails for transportation, higher income households have reported higher trail use than lower income households (Brownson et al., 2000, p. 240). This may primarily be due to lower access to trails and other cycling and walking infrastructure in low-income areas (Lee, 2007, p. 293).

4.4 Barriers to Developing Active Transit Infrastructure and Trails

While the previous section focused on the factors influencing the population's use and demand for active transportation and recreational trail infrastructure, a small body of literature has examined institutional facilitators and barriers to its development and maintenance. This section reviews findings from the academic and grey literature on barriers municipalities and regional government face at all stages of developing, including planning, implementation, and maintenance. Table 4 summarizes the key barriers identified in the literature discussed below.

Table 4: Key Barriers for Active Transportation and/or Recreational Trail Development

Key Barriers for Local Governments

- Insufficient political will in policy/infrastructure development decision-making
- Lack of public/stakeholder awareness or acceptance of benefits of active transportation
- Lack of technical, financial, administrative capacity for planning and development of active transportation infrastructure
- Cost of developing and maintaining active transportation and/or recreational trails
- Lack of empirical evidence of fiscal benefits to developing active transportation infrastructure
- Inadequate local data on active transportation use and gaps

- Inadequate evaluative evidence on active transportation
- Need to coordinate regulations and policies across multiple jurisdictions

Policies and infrastructure development that support active transportation occur mostly at a municipal or local government level (Blanchette et al., 2019, p. 350). However, a number of studies exploring local government interventions to promote active transportation have found that municipal governments face a multitude of barriers. Political will, or lack thereof, was found in one study among municipal officials to be a barrier in decision-making concerning active transportation infrastructure (Blanchette et al., 2019, p. 350). Similarly, qualitative studies have reported that a lack of public and stakeholder awareness of the benefits and importance of active transportation infrastructure can be a barrier (Blanchette et al., 2019, p. 350). These two factors are likely linked, as stakeholder and voter interests influence the political will and support behind projects, and a lack of public support may translate to a lack of political will.

The capacity of local governments to implement policies has also been found to be a significant barrier, which may be related to insufficient financial, technical, and administrative capacity to plan and develop projects. In a review of studies from around the world, the costs of developing, operating, and maintaining active transportation infrastructure has been cited as a common barrier for municipalities (Kornas et al., 2017, p. 466). Kornas et al. noted a need to explore the potential for municipalities to gain fiscal benefits from active transport infrastructure, similar to studies showing fiscal benefits of investments in non-active transportation, given that the potential economic and fiscal impacts are certainly a large part of planning (2017, pp. 466-467). Costs of trails may explain the lack of political will. Empirical evidence on the fiscal benefits of active transportation infrastructure development could increase political will to allocate finite resources towards their development and maintenance.

Limits in data and research were identified by municipal government stakeholders themselves as being a barrier to implementing active transportation infrastructure. Inadequate local data on active transportation, and the dominance of transportation evaluation frameworks geared towards auto travel was cited as detrimental to local governments' abilities to enact policies around active transportation and implement infrastructure improvements (Cole et al., 2010, p. 497). Additionally, many studies separate active modes of transit (such as walking and cycling) from other modes of transportation and more importantly, discount active transit linked to motor vehicle trips (Litman, 2019, p. 5). For example, a trip using a combination of public buses and cycling may be counted as simply a transit trip, or people who walk many blocks from their parking space to their destination may be considered solely as auto transit users (Litman, 2019, p. 5). For this reason, active transit may be underreported. More detailed survey questionnaires suggest that reported levels of active transit may be as much as 3 to 6 times higher than basic questionnaires may indicate (Litman, 2019, p. 5). The possibility that available data significantly underreports use of active transportation in communities may contribute to a reluctance or lack of political will to allocate resources to the development of infrastructure.

An additional barrier relates to coordinating planning and implementation efforts across multiple municipalities or across different levels of government. Case studies in Ontario revealed that projects shared by multiple municipalities often posed cost allocation and design standard coordination challenges (Toronto Centre for Active Transportation, 2014, p. 21). Design standards and regulations for active transportation may differ between jurisdictions, and additional resources and guidance are required to coordinate between municipalities for cross-jurisdictional projects. This can be a particularly challenging for smaller municipalities with less-developed facilities and policies, which may be burdened with additional costs of meeting standards of larger municipalities (Toronto Centre for Active

Transportation, 2014, p. 22). These discussions and the process of coordinating various regulations were found to be particularly contentious for projects involving municipalities and the Ministry of Transportation of Ontario (Toronto Centre for Active Transportation, 2014, p. 21). These findings are worth noting in the context of the proposed Vancouver Island Corridor trail project, as it crosses through multiple municipalities, regional districts, and may involve direction and coordination with the BC Ministry of Transportation and Infrastructure.

5. Findings from Document Review

This section outlines the findings of the document review and identifies areas of potential alignment with the proposed trail project. Based on priorities and community goals outlined in planning documents, areas of opportunity for engagement and areas where interests may be aligned with the goals of the project have been identified. Additionally, areas where engagement may need to focus on addressing issues of competing or misaligned priorities are also outlined. Key findings from the document review discussed below are summarized in Table 5.

Table 5: Key findings from review of local planning documents

Key Factors Supporting Active Transportation and/or Recreational Trail Development
Contribution to Local Transportation Network
<ul style="list-style-type: none">• Alleviating congestion on key transit routes• Increased sustainability of transportation network• Increased walkability of local areas
Environmental Concerns
<ul style="list-style-type: none">• Increased ride share in low-carbon transit modes• Increased environmental sustainability of transit network
Community Health and Wellness
<ul style="list-style-type: none">• Increased opportunity for physical activity• Increased social cohesion• Addressing safety concerns of existing infrastructure
Priorities for Vancouver Island Corridor
<ul style="list-style-type: none">• Development and/or expansion of rail-trails within or alongside corridor• Value of corridor for inter- and intra-community connections• Maintenance of corridor as continuous transportation corridor• Value of existing rail-trails within or along the corridor

5.1 Active Transportation as a Priority or Strategy

Many planning documents outline strategies and priority areas involving active transportation development, including general transit plans and community plans not explicitly aimed at addressing active transportation or trail networks. This indicates the growing awareness of active transportation as a policy areas needing a dedicated development and management strategy, which is a relatively new area of planning (Cole et al., 2010, p. 502).

For most strategies and priorities around active transportation, the primary motivations outlined in documents generally referenced combined benefits of relieving congestion on overtaxed roadways, increasing and promoting public health by encouraging active modes of transit, and increasing ride share among low-carbon modes of transit, though the various jurisdictions ranked the importance of these factors differently. Reducing traffic congestion was cited as a primary benefit of increasing active transportation in the Town of Ladysmith community plan (2019, p. 9), as well as the Langford community plan (2019, p. 72). In the Nanaimo Future transit plan, the primary focus of strategic planning around increasing active transportation share was for a more sustainable transportation system and to orient the city to a more walkable, less auto-traffic oriented environment (2014, pp. 15-16). Similarly, in many general or future transit plans, active transit was identified as a means of contributing to a more environmentally sustainable transit system. For example, in the Cowichan Valley

Future transit plan, active transit is referenced as a way of promoting a sustainable transit system (2012, p. 56).

Connections between active transportation development and health and wellness was evident in some plans, but particularly in First Nations plans. For example, in the Hupacasath community plan, references to walking and biking trail developments were included in goals aligned with increasing infrastructure (2018, pp. 78-79), improved community communication (in terms of advertising availability of local trails) (2018, p. 87), educational opportunities (linked to new trail building) (2018, p. 88), and health and wellness (in regards to providing walking groups on safe and accessible trails) (2018, p. 28). In the Cowichan Tribes community plan, development of walking and cycling infrastructure was predominantly framed as addressing safety concerns related to heavy traffic and unsafe road crossings, however, the plan explicitly referred to increased safety and related social cohesion that would be resultant from improvements (2014, p. 22).

Safety, and the need for improvements to the current active transportation infrastructure were frequently mentioned in planning documents. In many municipal community plans, specific references to problem areas or roads or crossings that pose a hazard to cyclists and pedestrians underscored a broader priority of improving transit system safety. For example, the Halalt community plan notes that the Island Highway poses a particular threat as the highway corridor was constructed without provision of pedestrian or bicycle traffic along the shoulders, and that as population in the reserve increased, the E&N corridor may pose safety threats to residents crossing as well (2019, p. 10). Duncan's Active Transportation Plan likewise identifies a number of crossings and areas of the Trans-Canada Highway, along with other major arteries where residents responding to surveys noted particular safety challenges (2014, pp. 32-33).

5.2 References to the Vancouver Island Corridor

For those regions with already developed trail sections, much of the references to the Vancouver Island Corridor reiterated the corridor's value as a link within and between communities (CVRD, 2012, p. 63; City of Nanaimo, 2014, p. 138; Comox Valley Regional District, 2014, p. 32). In these cases, the viability of the corridor as an option for future mass transit is underscored, indicating that support for a rail option or rail-with-trail option, in at least sections of the corridor, may be a barrier or challenge for the proposed rail-to-trail project. However, these plans reflect the current state of transportation options, and decisions regarding the financial feasibility of a return of passenger rail service along the Langford to Victoria sections (pending governmental review at the time of writing), may significantly alter these views. Where preserving mass transit options for the corridor is explicitly mentioned, the importance of keeping the corridor continuous and unbroken is generally the focus (City of Nanaimo, 2014, p. 138; City of Langford, 2019, p. 13). This may suggest that opposition to removing the rail may not wholly be due to a preference for rail service, but related to a concern over the future of the corridor should rail be abandoned.

Many regional and municipal plans that reference existing rail-trails within the corridor also highlight their unique benefits to the communities, which may also indicate avenues for alignment in priorities. The CRD regional trails management plan highlighted the E&N trail's position in the broader regional trail network, and the increased connectivity to outlying communities that the trail brings (2016, p. 13). The city of Nanaimo's transit plan highlights the E&N Trail's importance as the "spine" of the city's

cycling network (2014, p. 49). This suggests that there are ample opportunities to enhance communities' familiarity and commitment to a trail along the corridor.

6. INTERVIEW FINDINGS

This section presents findings from interviews with 14 participants. Findings are organized into thematic groupings, and while interview questions differed slightly depending on the stakeholder group represented, all of the interviews were designed to address the research questions, and findings are likewise organized in support of these questions. A summary of the key themes and findings from interviews are presented below in Table 6.

Table 6: Key Themes and Findings from Key Informant Interviews

Key Findings from Key Informant Interviews
Existing Infrastructure
<ul style="list-style-type: none">• The extent and connectivity of trail networks vary widely between regions• There is growing interest in developing policy and planning documents for active transportation and recreational trails that would be supported by a provincial strategy• Coordination between municipalities, regional districts, First Nations communities, and MOTI necessitates a considerable effort
Gaps in Existing Active Transportation and Recreational Trails
<ul style="list-style-type: none">• Safety concerns (e.g., narrow shoulders, crossings, high-volume traffic) on main commuting arteries are a primary concern• There are limited active transportation options between commuter nodes• Demand for public transportation exceeds current infrastructure, and connectivity to active transportation routes is lacking in many areas
Perceived Opportunities for a Vancouver Island Corridor Trail
<ul style="list-style-type: none">• There are opportunities to encourage active transportation in urban areas and larger regional centres• Significant opportunity exists to promote “experiential tourism” (e.g., wilderness trail in remote sections, cycle tours through local wineries and historic sites, etc.)• There is potential to incentivise longer stays and direct tourist traffic to areas that currently see short stops between more established destinations
Perceived Challenges for a Vancouver Island Corridor Trail
<ul style="list-style-type: none">• Desire for the restoration of rail service in some areas and a concern over losing specific uses of the railway (e.g., in Alberni Valley for specific tourism sites)• Concern over the possibility of losing sections of the corridor through abandonment process should rails be discarded• Necessity and importance of securing First Nations consent and partnership for any proposed project to gain support at local or regional level• Costs of construction and ongoing maintenance (particularly from smaller municipalities)• Collaboration and alignment of priorities across multiple jurisdictions

6.1 Existing Infrastructure

As noted in Section 2, a number of municipalities and regional districts have already developed parts of the Vancouver Island corridor with trails, or laid trails along or beside the corridor. However, as a whole, the extent and reach of multi-use trails varies significantly between regions. In the CRD for example, both regional municipal trails are abundant, and form an already established and well-connected network. CRD interviewees noted that the E&N Trail (the current rail-trail along the Vancouver Island

Corridor) is a key component of the region’s existing trail network, and has been deliberately and carefully designed and constructed in order to maximize connectivity to other trails in the region. Cowichan Valley Regional District interviewees noted that while multi-use trails are abundant, connectivity between municipalities is lacking. Nanaimo interviewees noted that the developed sections of the E&N regional trail see high levels of use, but that overall, regional infrastructure for active transportation is lacking, and that development has generally been “car-centric.” Comox Valley Regional District interviewees noted that there is an extensive variety of recreational trails, although active transportation in smaller municipalities or in rural areas outside of Courtenay is not very well-developed. In Port Alberni, existing cycling, walking, and active transportation infrastructure was reported to be the least developed. Interviewees noted that similarly to the Comox Valley Regional District, the network of outdoor recreational trails, such as hiking trails is extensive, though multi-use trails appropriate for commuting, or multi-use trails connecting municipalities or connecting areas in the City of Port Alberni were lacking.

“For outdoor recreational trails, we have lots, but where we’re weak is we don’t have the kind of trail network this project proposes. We don’t have bike paths; we don’t connect the dots.”
-Alberni Valley Interviewee

Across the board, stakeholders noted a growing awareness of the importance of multi-use trails as part of a multi-modal transit system, and that both communities and elected officials were placing increasing importance on the development of these networks. A common theme that emerged was the growing interest in integrating planning for multi-use trails and active transportation infrastructure with transit plans and community plans. This was partly connected to a recent initiative by the Ministry of Transportation and Infrastructure (MOTI), regional governments, and municipalities to develop a set of consistent guidelines and specifications for the development of multi-use trails and active transportation infrastructure. A provincial guide to multi-use trail and active transportation development was identified as a next step in the recent provincial active transportation strategy released in June 2019, as part of a broader plan to develop a comprehensive provincial active transportation policy in the upcoming year (Government of British Columbia, 2019, p. 22). Interviewees from regional districts noted that the direction and consistency provided by a provincial policy would greatly enhance their ability to collaborate on plans and designs for active transportation projects.

Regional district interviewees noted that for already built sections of regional trail along the corridor, a considerable amount of work involved coordinating efforts with member municipalities and with MOTI. For multi-use trail projects in general, interviewees noted that funding through grants was often only available for the initial capital development costs or for one-time project use (such as through the federal gas tax), and that regional trails have an advantage in sharing ongoing trail maintenance costs among a wider population base. In fact, for rural areas or municipalities with smaller population bases, such as Port Alberni, a smaller tax base was noted as a barrier to developing active transportation infrastructure locally.

At the same time, navigating the various jurisdictional responsibilities was noted by some as a challenge. This is particularly the case in more rural areas, where infrastructure and road development in electoral areas is under the jurisdiction of MOTI, and potential transit corridors or routes through rural areas often necessitated partnerships with private landowners, the Agricultural Land Commission, navigating road rights-of-way (ROW) and consulting and partnering with First Nations and municipalities. One interviewee from the Comox Valley noted that he “interchangeable boundaries” in rural areas tended to add costs to projects because of the increased complexity.

6.2 Gaps in Existing Infrastructure

Safety of Active Transit Infrastructure

An important theme emerging from interviews was the safety of current roadways or networks for cyclists and pedestrians. In all areas other than the CRD, safety was identified as the primary barrier for increased uptake of active transportation, and one of the primary concerns about the existing infrastructure. The CRD already has an extensive network of regional trails and dedicated cycle lanes, which could explain why safety did not feature as prominently in interviews with stakeholders from that region. In fact, numerous interviewees from other regions noted that large urban centres like Victoria and Vancouver have funded the development of cycling and walking networks, and cited these as examples of highly functional multi-modal transit systems.

"Safety is a big deal - a lot of rural roads are pretty narrow and don't even have good shoulders, so as a cyclist you are truly part of the traffic. And people that are avid cyclists and doing that, they're at least a little more comfortable with that. But the person who say, during a beautiful summer day would like to bike to work, the safety is going to be a barrier to them doing that."
- Comox Valley Interviewee

"One of the big problems we have is around Cathedral Grove; the parking is a gong show, and you have people crossing a two-lane highway, and someone is going to die there one day. It's not a case of if, it's when."
- Alberni Valley Interviewee

Non-CRD interviewees noted that commuter options between transit nodes were often limited, and cycle commuters especially were relegated to riding along highways with narrow shoulders and heavy volumes of traffic. This was noted to be a significant barrier to active transit for those commuting from smaller communities into regional centres. Stakeholders noted that cycling along main arteries (such as Highway 19 in the Comox Valley, Cobble Hill Road in Cowichan Valley, or Alberni Highway near Cathedral Grove) was common, though only undertaken by confident cyclists as the narrow shoulder presented a significant safety issue that likely deterred many other would-be cyclists. Aside from discouraging active transportation, safety issues were noted as a likely barrier to general recreational cycling as well within and between communities.

Meeting demand for active or alternate transit options

To some degree, all interviewees noted that more development would be necessary to meet demands for active transportation or public/alternative transit. CRD interviewees noted that the traffic on existing regional trails was already nearing capacity. For the E&N trail in particular, increased user volume poses a problem where sections of the trail narrow to accommodate both the rail line and the trail. Additional transit options and better connections to and between core communities was noted by interviewees as a priority. The municipalities of Victoria, Saanich, Esquimalt and Oak Bay were said to be where the majority of active transportation trips were taken in the region, and connections between these areas (particularly east to west and northbound) were perceived to be inadequate to keep pace with the growing demand. More generally, CRD interviewees noted that attracting and retaining employees was a struggle for local businesses, in large part due to the challenges of finding affordable housing and childcare. Interviewees noted that improving public transit and active transportation options could mitigate this, and that this partially why maintaining the corridor's option for future use as a transit spine, in whatever format, was a key strategic priority.

Similarly, RDN interviewees noted that a lack of transportation options for those who do not drive posed problems for local businesses. According to one interviewee, businesses in the area had reported having problems recruiting new employees because of the lack of public or active transit options. The car-centric design of Nanaimo was cited as a barrier to attracting and retaining employees, and anecdotally, many businesses would welcome improvements to active transit infrastructure. Another interviewee noted that the lack of public transportation from Duncan to Nanaimo was a significant barrier for commuters, particularly for low income residents. A lack of public transportation between communities was reported to also lead to a high number of residents from Cowichan Tribes hitchhiking on the highway, which was a significant safety concern.

“One of my students had been enrolled at VIU, and she found transportation so challenging that she dropped out. And here was this opportunity for an Indigenous student to get post-secondary education, and she couldn’t do it because of the lack of access to transportation.”
-Cowichan Valley interviewee

For rural areas in particular, where public transit was reported to be inadequate, one interviewee noted that a critical challenge for regional districts was in managing the low user volumes with higher needs in rural areas, versus investing expenditures in higher density regions that would ultimately serve more people. Generally, interviewees reported that while public transportation and active transportation networks have improved, accessible public transit or active transportation is still lacking between communities, and especially in more rural areas.

6.3 Identified Opportunities from the Proposed Vancouver Island Corridor Trail

The Vancouver Island Corridor as an Active Transportation Route

Overall, views on the opportunities for the corridor to serve as a viable active transportation route for commuters were mixed. Generally, interviewees identified certain areas that would be more likely to support greater commuter traffic through cycling, walking, or other modes of non-motorized transit along the corridor in urban areas or between nearby municipalities. Sections of the corridor identified by interviewees as having the most potential for utilitarian or active transportation purposes include the cities of Victoria and Nanaimo, the corridor between Langford and downtown Victoria, and corridors between smaller municipalities and larger regional centres such as Duncan, Nanaimo, and Courtenay. This was seen primarily as a way to target individuals who would like to take up commuting, but for whom the safety concerns of commuting along a highway is a deterrent. In these areas, interviewees noted that the potential for increasing active transportation aligned well with local priorities to shift towards more low-carbon forms of transportation.

I think where it could fill a need [in terms of active transportation] would be for people who would not want to cycle along the highway. People in Royston [for example], might not be keen on the old island highway, but might be prepared to ride down a safe, separated multimodal bike path into town. Within Courtenay there’s a good multi-modal trail, but if you’re in Union Bay or Royston there isn’t a good connection unless you’re comfortable riding the highway.”
- Comox Valley interviewee

In many areas along the corridor, the longer distances between “nodes” of transit were seen as a barrier. Interviewees noted that for those commuting from communities in the Cowichan Valley to

Victoria for example, the distance would likely be too great for active transportation to be viable, though some noted that with the increasing popularity of e-bikes, distances that were traditionally thought to be beyond the average commuter distance for active transit may be more feasible.

Opportunities for Tourism Development

Across the board, interviewees reported tourism as the most significant draw for the proposed project, and generally saw the opportunities the proposed trail brought for tourism to be the most significant. Stakeholders across all regions noted the possibilities for a trail along the whole corridor to support cycling and walking excursions and experiential tourism that took advantage of the corridor as an unbroken route. Interviewees cited examples of cycling tours through wineries in California and tourism excursions giving guests opportunities to forage for local plants and mushrooms as part of culinary tours as examples of the types of experiential tourism that might be developed along a fully unbroken trail. The potential to bring in multi-day cycling and hiking tours could spur the development of service industries along the corridor, including bed and breakfasts, cafes, restaurants, and support shops catering to outdoor recreation tourists. Although many interviewees noted that tourism opportunities would likely be limited to supporting what already exists, this boost could make a significant difference in local economies. Comox Valley interviewees noted that local tourism was primarily driven from visitors coming from the CRD, often on the way to Tofino or other major destinations along the coast. The development of a continuous trail that would enhance the existing network was cited as a possible avenue to increase the length of stay for tourists in the area.

"Historically people would arrive in Victoria, spend a few days, then drive through the Cowichan...before heading west out to Tofino. Through the cycling opportunities, hiking opportunities, we're looking at ways to get people to stay longer than one day. That has a multiplier effect on the dollars they're leaving in the community."

- Cowichan Valley interviewee

For other areas, the rural nature of significant portions of the trail was cited as a unique opportunity. A tourism industry interviewee noted the increasing trend of tourists to Vancouver Island looking for more active experiences and the opportunity to explore natural areas. The location of the corridor through more rural and remote areas, particularly the section from Parksville to Port Alberni, was identified as a unique opportunity for tourists to access and experience the wilderness in Vancouver Island. While interviewees were careful to note that developing the trail along these sections would require careful consideration towards education on remote travel and possible wildlife encounters, this was cited by multiple interviewees as a unique feature of the corridor that could attract tourists to new areas on Vancouver Island.

"There is a big demand for people to get out into what they consider to be the real wilderness, and to have an opportunity to access it with a with a trail would be an opportunity for tourism."

- Interviewee in tourism sector

For CRD interviewees, this was particularly important as tourism priorities in that region are to direct visitors to outer communities and elsewhere in the island to alleviate some of the pressures that the busiest summer months bring to local infrastructure in Victoria's core.

In some cases, interviewees identified specific regional or local historic sites or tourism destinations that could be enhanced by a connection to the proposed trail. In many municipalities, historic railway

infrastructure, such as the Kinsol Trestle in the Cowichan Valley, were noted as possible destinations that could be enhanced or connected with the tourism promotion for a trail along the Vancouver Island Corridor. In Nanaimo, it was noted that the Nanaimo Railway Station (which previously serviced VIA Rail passenger services) currently houses a popular pub and coffee house, and that should the trail along the corridor be further developed, businesses such as these could see significantly more traffic and become popular cycling destinations. More generally, interviewees noted the possibility for a development of new businesses in areas where trail networks linked together with the proposed trail along the Vancouver Island Corridor. Whereas smaller, less populated areas around existing trail networks may not be able to sustain businesses currently, it was suggested that increased tourism traffic at intersecting points along the Vancouver Island corridor may allow for expanded growth.

6.4 Challenges for the Proposed Vancouver Island Corridor Trail

Preservation of the Rail Line

Perhaps not unexpectedly, one of the main concerns with the proposal was around the loss of the rail line and the loss of options for future transit. CRD and CVRD reported that a multi-use active transportation trail would not be sufficient to meet the needs of growing pressures on transit infrastructure, and maintained that the possibility of a return of rail, particularly while the Langford to Victoria section is currently under exploration by the Government of British Columbia, was enough to wait on a decision to permanently remove the rail bed. While the proposed trail would not involve the Langford to Victoria section, the review of rail service in this area was referenced by stakeholders in other regions when asked about the importance of maintaining the option for mass transit operating in the corridor in the future. One elected official noted that particularly for certain population segments, (e.g., low-income residents, the elderly, those with mobility issues), affordable, mass public transportation was of a higher priority for the use of the corridor as it would serve to benefit the most people with the highest need.

Other reasons for wishing to maintain the option for rail in the future is related to tourism opportunities. In the city of Port Alberni for example, the McLean Mill was noted as a local historic site with potential opportunities to be connected to a trail. The mill is currently accessed by the rail line, and until last year a steam train ran tours from the City of Port Alberni to the historic site (the train was decommissioned for repairs last year, but it expected to be operational again in 2020). An interview from the Alberni Valley district cited a unique tourist event, “Race the Train,” that occurred in 2017 and 2018 as a potential tourism boom for the region. Participants in the event ran a 10km race against the steam engine along a path adjacent to the railway, and it was noted that such an event, if able to occur on a dedicated rail with trail path, could be a massive tourist draw. A similar event near Melbourne, Australia, the “Puffing Billy Great Train Race”, which drew over 2,200 participants in 2019 (Puffing Billy, n.d., 2019 results), was cited as an example of the potential for such an event. In this case, the interviewee noted that at least for the section from Port Alberni to the mill, it would be most beneficial to explore a rail with trail option to maintain the service of this tourism site.

"Tearing up the tracks is tearing up history, and there's no other way to put it. and there's a major cost to that...why not leave in in place, just in case some innovative thing comes along where there's push cars along railways or buses along railways, let's keep our eyes open to the future and not close them to the past. That's my fear is that we get overreactive on things and we tear it up and then we miss it, and once it's gone, you're never getting it back again."

- Alberni Valley interviewee

Interviewees from other areas also identified specific sections of the corridor where maintaining the rail was of greater importance. Multiple interviewees from CRD suggested that due to higher demands on public transit, and the near completion of the E&N rail-trail within the region, it would be more beneficial to maintain the option for rail in the Victoria to Langford segment. As this is in line with the proposed trail plans, this may point to an area of opportunity to highlight linkages to potential rail or other mass transit development within this section.

Cost of Development and Ongoing Maintenance

The potential cost of the trail was cited by interviewees from all regional districts as a concern. In terms of the initial capital investment to develop the trail, stakeholders expressed some doubt over the process of securing funding, mostly related to the allocation of costs and the availability of grants. The process of coordinating across multiple regions in order to plan and develop a grant proposal for such a project was noted as a potential challenge, but not a significant barrier or concern. More prevalent among interviewees was a concern over the total cost of maintaining the trail, and the availability and allocation of costs between regional governments. Interviewees with experience and the perspective of regional parks and trails departments noted that annual maintenance for a rail trail could be significant, including vegetation management, maintaining culverts, crossings, trestles, and the inevitability of major cleanup requirements in the event of major wind or rain events. One interviewee from the Cowichan Valley cited maintenance costs of the Kinsol Trestle alone averaging \$100,000 annually, and noted that in a region with a population base of roughly 90,000, the cost of maintaining a trail may be a barrier to wider community acceptance.

“In the E&N [corridor] itself there are large areas which go through remote parts of the island, and infrastructure and maintenance is very challenging... With a gravel path and gravel walk, with large wind and rain events, wild animals, they all add to complexity, and a lot of the most remote areas go through smaller populations and smaller tax bases to maintain.”

-Capital Regional District interviewee

The cost of maintenance was of particular concern to regions with smaller population sizes. Ongoing maintenance of trails is generally funded through regional government budgets, and for regions with smaller tax bases, this was noted to be a significant challenge and concern for the proposed project. Relatedly, some noted that the associated cost and potential smaller ridership base in less-populated areas may make it more difficult to gain public support for the project, as it might be more difficult to articulate the value of a multi-jurisdictional trail for those regions where the perception is that there would be less use.

Endorsement of First Nations Communities

For many interviewees, the most significant concern was the question of whether First Nations communities endorsed or would see value in the proposed project. As discussed in Section 3, no First Nations representatives along the corridor were successfully recruited for participation, although First Nations views are very important. However, many interviewees spoke to the fact that the corridor bisected First Nations reserve land in multiple locations and across many First Nations, and that decisions on the development of those sections of land should first and foremost reside there.

This concern arose partly from an acknowledgement among interviewees of the ownership of the land of the First Nations for whom the corridor passed through reserve territories. Interviewees from

multiple regional districts noted that for any development project or proposed use of the corridor, a decision would not be made or endorsed without the partnership and involvement of neighbouring First Nations. Beyond this, the history of the corridor, and the impacts of the land grant and subsequent privatizations of First Nations territories on the island has left a lasting legacy, the influence on which discussions around the corridor cannot be overstated.

"[Historically] with railways, Nations were not consulted for any purposes, on anything, ever. Things were done to and around them, without their input. They might [have gotten] 24 hours' notice to stay ahead of the bulldozer, but that's about it. So there's a real lack of trust from Nations for one, developers, two, governments, and three, railways especially, as railways were under special jurisdiction over their activities, they can do basically whatever they want, ship whatever they want, and they had no legal reason, and no political reason, or at the time they thought, to work at all with the Nations.

- Subject matter expert – Indigenous and Governmental relations

The lack of trust stemming from the colonial legacy of Canada and British Columbia's relationship to First Nations was stressed heavily by subject matter experts in Indigenous relations and Indigenous law, particularly as it related to development in the corridor. The complete lack of consent and consultation and disregard for Indigenous rights and ownership of the land, and the long-standing history of developments of the railway that were not only undertaken without First Nations prior consent but to the detriment of their own wellbeing has significantly impacted the context in which these discussions currently take place. Many interviewees obliquely noted that relationships with First Nations today were different than in the past, and in some cases explicitly referenced the absence of consent with which much of the railway development has occurred.

It is thus not only necessary to acknowledge First Nations right to consent to development projects within their territories, but also to acknowledge that priorities for First Nations may differ significantly from those of the surrounding communities when it comes to development of the corridor. Subject matter experts noted that particularly for those First Nations whose reserve lands are bisected by the corridor, there may be significant problems arising from the bisection of the community that would lead to very different priorities for development of the corridor. One interviewee noted that an ongoing implication of the location of the corridor is the continued lack of access to parts of the reserve, where sections of land have been cut off from use. Given the extremely limited space that was allocated to reserve lands across Vancouver Island, the land occupied by the corridor might be identified by communities as having priority need for basic infrastructure development such as housing. Moreover, in some cases, the construction of railway corridors necessitated water diversions that changed water flows and flooding patterns, which has had a negative impact on First Nations reserve communities.

As noted in Section 2, there are currently three First Nations communities with active legal actions seeking the return of reserve lands that were expropriated for the rail corridor. Whether or not interviewees were aware of these cases, nearly all referenced the potential for the return of sections of the corridor to First Nations in the event of the full abandonment of rail in the corridor as a potential challenge given the almost certain result of the corridor being broken in that event. This is not to say that interviewees viewed this as a negative or undesirable consequence, but there was a certain degree of tension between interviewees' (and evidenced by regional and municipal governments' plans) priorities to keep the corridor as an unbroken, linear path, and the recognition of First Nations' rights to the corridor lands within their reserves.

This was a crucial point of concern for many interviewees when asked if preserving the option for rail in the future was a priority. Some interviewees noted that should the rail line be fully removed from the corridor, it would very possibly result in sections of the corridor being returned to First Nations, and in that event the value of the corridor as an unbroken, linear connection through its full length would be lost. While further discussion and exploration of the legal precedents and issues in the cases concerning the return of land to First Nations is beyond the scope of this research, it was noted in interviews with subject matter experts that through modern treaty processes, there is a “significant onus on the crown in some measure to try and return the expropriated lands on reserve.” In sum, First Nations have been undeniably disadvantaged throughout the history of the railway development by the expropriation of their lands. In the case of reserve lands, the legal claims to return corridor land within reserve territories present significant opportunities for First Nations Communities along the island for development and land use that align with their needs and priorities. At the same time, while stakeholders may be entirely in acknowledgement of First Nations’ position and the claims to expropriated lands, the potential for the corridor to be thus broken is a definite concern for many who see the value of the unbroken corridor in and of itself as a continuous, linear transit spine.

7. DISCUSSION

This section draws together the findings from the literature review, document review and key informant interviews, illuminating where convergences and divergences may provide opportunity or guidance for further project engagement activities. Overall, there was a strong convergence between the potential benefits of trails identified in the literature, and the types of opportunities stakeholders identified through interviews and in local planning documents. Interviewees easily identified benefits of the proposed trail that would fall under the category of “use values” under a TEV framework. Among these benefits, those related to direct use values were most easily and readily referenced, particularly those related to economic gain. Conversely, indirect benefits such as health and wellness were less likely to have been mentioned. In terms of potential challenges to the proposed trail, two themes emerging from the literature, the cost of trails and the challenges of implementing a multi-jurisdictional trail project, were also noted prominently in the interviews. However, a number of specific challenges were identified through interviews that provide key insights unique to this project, particularly as it relates to multi-jurisdictional projects and engagement with First Nations.

7.1 Potential Value-add of the Proposed Trail

A few main themes are derived from the research as a whole. Overall, there are definitive ways in which stakeholders see potential value for their communities from the proposed trail. These include the potential for tourism opportunities related to unique, experiential tourism that would be created by the trail. Additionally, stakeholders generally agreed that within urban centres, larger regional hubs, and between some smaller communities located at close distances to larger centres, the trail could encourage greater use of active transportation. When asked to identify the potential benefits the proposed trail might bring to their communities or regions, interview respondents overwhelmingly focused on the benefits accruing from tourism opportunities or use of the trail as an active transportation route. The dominance of use values (both direct and indirect) in interview findings of the perceived benefits of the trail reflects the emphasis of these themes within the literature. The vast majority of literature exploring the potential benefits of trails and greenways involve economic evaluations assessing the impact on tourism, and the impact on uptake for active transportation.

Perceived Positive Impacts of the Proposed Trail

In terms of its potential as a transit corridor, interviewees noted that while it may not be a benefit universally applicable to all communities along the corridor, in certain areas there is definitely potential to enhance existing active transportation networks, or support other forms of public transit. This is entirely consistent with the literature, where trip distance was noted to be a significant deterrent to choosing active transportation. The literature also revealed the strong connections between active transportation and public transit, where infrastructure developments in the former was associated with higher use in the latter. Additionally, interviewees clearly identified a potential for benefits to tourism and local economies in general. This is consistent with much of the literature which suggests multiuse trails can have a positive impact through increased tourism.

Interestingly, while the literature did include a fairly large body of research on the positive associations between health and active transit availability, the interviewees very rarely mentioned the social and health benefits that the proposed trail might provide. Similarly, while the literature and other reviewed documents also connect GHG emissions reductions to an increased use of active transit, interviewees only rarely made references to climate change efforts or environmental considerations. Across the board, interviewees more readily identified the clear, direct-use impacts of the trail (transportation

impacts, tourism development, and on the negative side, maintenance costs), but less often expanded on more indirect-use value categories such as broader societal health benefits, social cohesion, or reduced carbon emissions. More exploration of these factors with a wider range of stakeholders may yield results that align with the literature and increase support for the proposed project.

As this study was a small, qualitative study, it is possible that the primary focus on the more direct use values was a feature of the interview participant selection, and that interviewees connected with regional government operations, tourism, and business interests would focus more on use values. While representatives of cycling and recreation groups were included in the research, all interviewees had been heavily involved in cycling and active transportation advocacy for many years, and have a keen understanding of the process for approving and securing funding for active transportation infrastructure. Because of this, the lens through which they view the proposed trail may be similar to government administrators and elected officials with a clear focus on the tangible impacts that can be more easily monetized, as cost is very often a defining factor with the finite resources available for infrastructure developments. Additionally, the absence of representatives from Indigenous communities may have skewed results. As noted in Section 5, planning documents from First Nations communities tended to connect active transportation to social impacts related to health, wellness, and social cohesion. While a selection bias may be at play, the absence of more societal-level impacts in the interview findings merits attention, both for the possible implications in terms of the perception of the proposed trail project as well as the direction for future engagement with stakeholders.

The dominance of direct use values in interview findings may be because the study focused on a hypothetical project not yet completed. The simple fact that use values, and particularly direct use values, of a trail projects are the most widely understood and widely studied in the literature makes it understandable that these would be the impacts forefront in stakeholders minds when asked to imagine potential benefits and concerns for the trail. Comparably, the literature on the impacts of trails on communities necessarily involves ex-post evaluations of trails. It is worth considering however, whether the absence of focus on broader social impacts, such as health and wellness of communities supported by outdoor trails and the connection to more environmentally sustainable transportation networks is a feature of a broader, more systemic bias towards immediate economic gains.

The emphasis on the direct use-value benefits as an indicator of support may also be indicative of a historic bias in the valuation of public goods that was in many ways the catalyst for the development of welfare economics and the concept of non-use values within the TEV framework. Values that are less tangible (which may include externalities of trail use such as health and wellness and environmental impacts) are “by their nature more difficult to measure or define” (English and Lee, 2003, p. 45). It is for this reason that the TEV framework is valuable in defining and conceptualizing, if not quantifying, the values of a good that are less immediately recognizable, and the effects of which are less readily quantifiable. Moreover, in the case of the potential environmental impacts, individuals tend to have a myopic view of the value over the long-term, the ability for CBA to account for impacts to future generations is especially useful (Gagne et al., 2013, p. 290).

Perceived Challenges of the Proposed Trail

As noted in the literature, a primary perceived and actual barrier at the institutional level for the development of trails was the cost to develop and maintain them, and similarly, interview participants noted that cost was a primary concern, and may prove to be a barrier for smaller municipalities. However, many interviewees noted that the *perceived* or *potential* cost may be a challenge in promoting the project as proposed, and further explained that the uncertainty of the total cost and how it would

be financed was at the centre of that issue. This is an important distinction, as in absence of a cost estimate for the proposed project, the perceived cost may be a barrier related more to perceptions of political will and community support than financial resources.

An additional challenge often cited by stakeholders was the desire to preserve the option for mass transit, and in some cases, a specific desire to restore rail service. In this regard, the TEV framework proves useful for conceptualizing these challenges as the opportunity cost of the proposed trail. Some interviewees pointed to specific ways in which they felt the corridor would be better used for rail service (e.g., the tourist train in Port Alberni). For some sections of the corridor, there may be a lack of support for removing the sections of the rail because stakeholders see greater net social value in retaining the rails based primarily on their perceptions of the current use values of the corridor.

Another potential challenge raised in both interviews and planning documents related more to potential use values. Interviewees' concern with the preservation of the corridor for its own sake and/or the future potential (as an unbroken, continuous corridor) was a dominant theme. In this case, many interviewees did not identify specific uses for the corridor (e.g., restoration of rail service for commuter or tourism transport). These responses were focused on the potential for the corridor being broken, and noted that the value would be severely undermined, if not outright eliminated, should it cease to be a continuous corridor. Similarly, there was a strong focus in planning documents on preserving the corridor for future use, while the purpose of that use has yet to be decided.

Finally, numerous interviewees noted that collaborating and aligning priorities across multiple jurisdictions has been a challenge in previous projects, and would likely prove to be a challenge with the proposed project. This was another key theme emerging from the literature, though in the specific case of the Vancouver Island Corridor, the importance of partnering with First Nations communities was the dominant factor. Multiple interviewees suggested that any proposed project within the corridor would have to be in alignment with First Nations communities' priorities, and that other local governments would be unwilling to support a project in absence of First Nations' support.

7.2 Opportunities for Future Engagement

Potential benefits revealed in the literature as well as the results of this study identify clear opportunities for further engagement. These are clear points where the direction and goals of the proposed trail project align with community and political perceptions of its potential benefits, and are backed up by academic literature on already existing trails. Less evident however is the extent to which community and political support for the trail may align with some of the more intangible benefits suggested from the literature. Interviewees made scarce references to benefits of the trail that would be classified as indirect use, such as the increased social cohesion or benefits related to health and wellness. As noted in Section 4, studies on people's perceptions of the benefits of trails revealed that intangible, less easily-monetized benefits (such as social cohesion) were often more impactful for local residents than benefits associated with economic efficiency. In light of this, it is worth exploring the views of residents along the corridor to ascertain if their perceived benefits of the trail align more with personal and social benefits, or echo the results of this study and exhibit a strong focus on economic factors. Additionally, given that Indigenous communities and voices were not represented in this study, it would be highly informative in further engagement to ascertain where First Nations communities see primary value in the proposed trail plan, and in the corridor itself.

From the planning documents, it is evident that at least at some level of governance, there is a connection between the broader, less easily monetized values (such as community connections, health and wellness, and reduced carbon emission) and the development of multi-use trails. This indicates that these types of benefits may be an unexplored source of support for the proposed project. It is possible that a wider qualitative study with a broader range of stakeholders and community members and residents may in fact reveal a greater emphasis on the more intangible, social values of the proposed trail. However, the results of this study suggest that at least at the regional government level and among government administrators, there is a greater emphasis and greater importance placed on the tangible, quantifiable values that might be yielded from the trail.

Interviewees identified a few clear potential challenge areas that further engagement could address. Some stakeholders have identified isolated sections where the option of a rail-with-trail may be preferable given the value that the rail holds for present use. However, for most stakeholders, the preservation of the rails was more strongly connected with the potential future uses of the corridor itself, and perhaps, an expression of the existence value of the corridor as an unbroken, linear artery. This concept is worth exploring further, particularly as the current public discourse around the restoration of rail service was highly active during the time of this study. It may be that stakeholder perceptions of the value of the rails alters as political decisions at the provincial level around rail service are made more concrete.

Finally, the concerns around the potential cost of the trail point to an additional opportunity for further engagement and exploration. As noted in the literature, community or political support is linked with local governments' abilities to justify and secure funding for projects. As such, it is worth exploring further whether the perceived financial barriers indicated by stakeholders are a factor of available resources, or of perceived community support. In this respect, the results of the companion study to this research, which will identify communities' willingness to pay for the trail as proposed, may help in identifying how best to address these concerns. The valuation of the trail based on stakeholders' willingness to pay will provide local decision makers with an estimated, monetary value of the trail, as well as signal the extent of residents' support for the project. The literature suggested that in some cases, a lack of political will to invest in active transportation projects may be partly linked to a lack of local data, and the information gleaned from the CBA will be valuable in continued discussions around the perceived financial barriers for this project.

8. RECOMMENDATIONS

This section outlines recommendation for future engagement with stakeholders on development in the trail corridor, and identifies ways in which engagement could be targeted to capitalize and leverage identified areas of support, as well as ways in which identified concerns might be addressed. In brief, these recommendations are as follows:

1. Prioritize engagement and collaboration with First Nations Communities
2. Identify opportunities for a trail to support public transit
3. Educate and engage communities on the benefits of rail trails to both users and non-users

8.1 Prioritize engagement and collaboration with First Nations Communities

While this is already a priority of FORT-VI's engagement strategy for the trail, based on the history of the corridor and the lasting impact on First Nations communities alone, and in recognition of Indigenous ownership of the unceded territory on which the corridor sits, the need to prioritize open, transparent, and sustained engagement with First Nations communities cannot be overstated. Stakeholders in interviews identified the pragmatic need for open dialogue and continued collaboration with First Nations communities in any development of infrastructure in their regions, and many noted that support of any proposed development along the corridor would be contingent on support from local First Nations.

Beyond this, there is likely significant potential for creative partnerships and alignment with priorities in First Nations communities that may be unexplored and could contribute to the enhancement of the trail project, as well as opportunity to partner with communities in addressing pressing community needs. From the available community plans from First Nations communities, it is evident that safe, and accessible transportation within communities is a priority, as is promoting health and wellness through opportunities for physical activities – two basic starting points for addressing where priorities between FORT-VI and First Nations communities may align.

On a broader level however, open and fully transparent discussions with First Nations communities should also be predicated on the assumption of consent of the community. This may involve an acknowledgement that portions of the corridor will not be included in the proposed trail route should First Nations see more value in using the sections of the corridor for other purposes. However, this may open opportunities for discussions about potential alternative routes that would better serve the needs of First Nations communities. Based on this research, the potential for the corridor to be broken through the formal abandonment process is perceived by stakeholders to be a significant barrier, and from the perception of interviewees, at least a large portion of that is attributable to First Nations claims to those sections within reserve lands. Openly acknowledging and addressing this fact would help in moving conversation forward with First Nations by demonstrating a commitment to working in partnership to address the needs and wishes of communities. Indirectly, this may also serve to move conversations forward that are currently hampered by the uncertainty over the corridor and the perception that the value of the corridor lies either fully or primarily in its unbroken status quo. Beginning the conversation with First Nations communities with the possibility of adjusting or altering the course of the trail would have the most impact in addressing and working with those concerns.

8.2 Identify opportunities for a trail to support public transit

As noted in Section 7, interviewees saw the trail's potential to support and enhance active transportation across the corridor. However, it was evident in the interviews that while certain sections of the trail are more easily identifiable as potential active transit routes, specific opportunities for the trail to support public transit and other active transit networks are less understood.

Further engagement with municipalities focusing on specific ways active transportation can support and complement efforts to improve public transportation may enhance support for the trail as a viable transit corridor. While the literature recognizes that active transportation and public transportation initiatives and infrastructure are complementary, this was less evident from stakeholder interviews. This could point to a key area of opportunity to further education and awareness of a potentially significant benefit of the proposed trail.

Municipalities and First Nations communities will be the primary stakeholder groups to discuss opportunities for linkages with existing and planned public transportation infrastructure. Examples of potential linkages might include:

- bike storage or other cycling facilities to encourage multi-modal trips and increase overall active and public transit rideshare;
- policy options to encourage and promote use of e-bikes in areas where distances may deter use of other fully manual forms of active transportation; and
- connections with other active transportation routes creating transit nodes which could be served by enhanced transit services.

Promoting active transportation within communities is a growing priority, and the formalized plans that may result from the upcoming MOTI framework for active transportation development will almost certainly serve to enhance active transportation developments. Public transit however will remain a crucial priority, and given the established links between active transportation and mass transit options, there is substantial opportunity to create new areas of support for the trail project by tapping into the existing public transit and active transportation networks.

8.3 Educate and engage communities on the benefits of rail trails to both users and non-users

Based on the findings from this research, it is evident that there is much more to be learned about the personal and individual motivations and potential avenues of support within communities for the proposed trail. By extension, there is also a great potential for further community engagement around the more intangible potential benefits evident in the literature. The companion contingent valuation study on the proposed trail aims to offer insights into individuals' preferences and motivations for planned trail use and establish the community's willingness-to-pay for the trail, and may help to fill these gaps.

The research identified that the safety of current active transportation and recreational cycling infrastructure is a significant concern for many communities. As this is a potential benefit of the proposed project that closely aligns with already identified priorities, it would be expedient to explore more specific and pointed concerns around safety in communities, and to use these discussions as a jumping-off point to address broader societal benefits the trail might bring. Providing a safe, dedicated

trail for use by commuters and recreational users would not only increase safety for users of the trail, but would benefit the whole of the community by allowing alternative routes which did not put motorists, cyclists, and pedestrians in potentially dangerous interactions. Engaging communities on how the proposed trail might improve safety of the transportation system for all users would be a useful starting point into other discussions on the broader social benefits to all community members.

Further education and engagement sessions could focus on the potential of the trail to enhance social cohesion, provide social gathering opportunities, education and experiential learning opportunities, and improved health and fitness and contributions to overall wellbeing. This could potentially identify and recruit more support at the community level for the project, as well as develop further evidence of the broader societal benefits of the trail to present to local governments and elected officials. As noted in Section 4, local governments often lack adequate local data relevant to potential active transportation infrastructure development, and the results of the companion CBA study, together with the results from this study, would be a significant resource for continued engagement with local and regional governments.

For intended or potential users, a focus on potential non-monetary, social benefits could offer a key point of entry to the project on a personal level, and create more individual-level connections between the project and communities. Even on a broader scale, expanding on and exploring these benefits further would increase the understanding of how the trail might benefit communities as a whole, in a way that is beyond the economic benefits identified in this study. From there, there may be opportunities to reach out to and partner with a broader range of stakeholders than has already been identified, which may in turn lead to more creative and innovative suggestions for how the trail might be utilized by communities to fill as of yet undetermined functions.

8.4 Concluding Remarks

The recommendations put forth in this section are designed to work in tandem and in a complementary fashion. Based on the findings of this research, these recommendations for future engagement efforts work to capitalize on the areas in which community and political support for the project is evident, and at the same time address some of the primary concerns raised by interviewees.

9. CONCLUSION

This research aimed to determine the extent of political and community support for a proposed multi-use non-motorized trail within the Vancouver Island Corridor. This was achieved through a review of the existing literature on the impacts of trails, barriers and facilitators to development and use of active transportation and recreational trails; document review of relevant community and transportation plans; and in-depth, semi-structured interviews with key informants, representative of a range of stakeholder interests.

At a high level, the research found strong evidence of support for the trail project in relation to direct and indirect use values of the trail, particularly those that promote and support economic development of communities and regions. As a potential new source for tourism, and in the potential to enhance and augment existing tourism markets, interview findings were in strong alignment with the literature. In terms of the potential to serve as a transit corridor for active transportation modes, this was seen more as an opportunity within urban areas (with less of an impact in Victoria with extensive existing development) and between certain smaller communities that are located at shorter distances from primary employment hubs. However, other perceived benefits related to broader societal impacts were less evident in stakeholder interviews than the literature might suggest. This highlights the potential for further engagement and education among stakeholders on potential impacts that have a less tangible, and less easily quantifiable impacts that nonetheless could be of significant value to communities along the corridor.

Going forward with further engagement and discussions, a key factor that is outside of the scope of this research, and thus not addressed in recommendations, is the results of renewed provincial investigations on the financial cost and feasibility of restoring rail service along the Langford to Victoria section of the trail. The results of this study will likely influence public discourse around the corridor. However, the challenges and barriers identified through this research revealed key focus areas for engagement that will be relevant in the meantime regardless of the outcome of the study, and the results of the companion CBA study on the total value of the trail should provide a solid baseline for this work to start.

Based on these findings, three recommendations for continued engagement on the project are brought forth in this report. Ideally, all of these options would be employed in tandem, as they support and inform one another.

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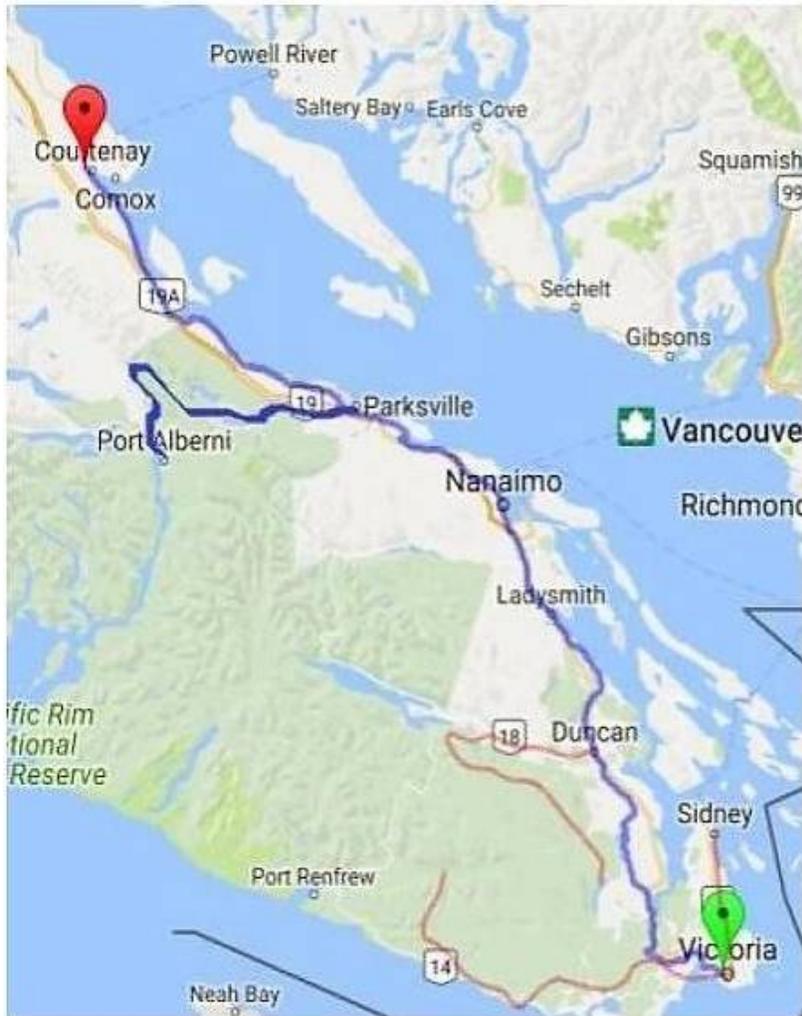
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Appendix A: Map of the Corridor



Corridor Sections

Coastal Corridor

Victoria to Courtenay 224 km

Victoria West – Langford – Malahat - Shawnigan Lake - Cobble Hill - Cowichan - Duncan – Ladysmith – Cassidy - Nanaimo – Lantzville – Nanoose – Parksville - Qualicum Beach -Bowser/Deep Bay – Fanny Bay/Union Bay – Royston – Courtenay

Inlet Branch Corridor

Parksville to Pt. Alberni 64 km

Parksville - Coombs – Little Qualicum Falls – Cameron Lake – “Cathedral Grove” – Loon Lake - Mount Arrowsmith Ridge – McLean Mill Historic Park – Port Alberni/Alberni inlet

Completed Rail-Trails

Connecting with Vancouver Island Corridor

Lochside/Galloping Goose 80 km
Shawnigan/Lake Cowichan /Duncan 75 km

Appendix B: Sample Interview Guides

Elected officials

1. Do you consider yourself reasonably informed about the Vancouver Island Corridor (E&N Rail Corridor), including its history, and proposed development for future uses?
2. What provincial or local government policies and/or programs are you aware of that support the development and maintenance of active transportation, including multi-use trails in your jurisdiction?
3. Is your jurisdiction drawing on resources from the provincial government to support the development and maintenance of multi-use trails?
4. Is your jurisdiction supporting the development and maintenance of active transportation with its own funds, including the development and maintenance of multi-use trails?
5. Are your constituents aware of existing trails and the potential for trail expansion in your community and nearby communities?
 - a. From your perspective, how supportive are your constituents of trail expansions?
6. What do you consider to be the primary transportation needs/issues that are currently not being addressed in your jurisdiction?
7. How might an inter-community active trail on the E&N corridor address these issues?
8. How might alternative proposals for the Vancouver Island Corridor (restoring rail service and/or building a trail alongside the rail) address these issues?
9. What do you consider to be the potential positive impacts of the FORT_VI-proposed trail? E.g. recreation opportunities, active modes of transport, inter-community transportation, tourism, business opportunities, health impacts, etc.)
 - a. For your electoral district specifically?
 - b. For the province as a whole?
10. What barriers or obstacles do you see to building the proposed trail?
 - a. In your electoral district specifically?
 - b. In the province as a whole?
11. Can you think of any negative impacts a multi-use trail would have for your jurisdiction?
 - a. Can you give examples?
12. Are there any reasons you believe it would be important to preserve the option for future rail service in the E&N corridor?
13. Is there anything we haven't touched on that you would like to discuss?

Government Administrators

1. Do you consider yourself reasonably informed about the Vancouver Island Corridor (E&N Rail Corridor), including its history, and proposed development for future uses?
 - a. What (if any) consultation around development and operations of the rail corridor took place?
 - b. What services were operating in the past?
 - c. What (if any) use does the corridor serve in the region now?
2. What provincial or local government policies and/or programs are you aware of that support the development and maintenance of active transportation, including multi-use trails in your jurisdiction?
3. Is your jurisdiction drawing on resources from the provincial government to support the development and maintenance of multi-use trails?
4. Is your jurisdiction supporting the development and maintenance of active transportation with its own funds, including the development and maintenance of multi-use trails?
5. Does your regional district/community have a transportation strategy or plan? *If yes, what are the key priorities of that plan?*
 - a. Does this plan include provisions for active transportation?
 - b. How would a multi-use trail using the E&N corridor support that plan?
 - c. What about the other proposed options? (i.e. rail, rail-with-trail)
6. Can you describe the active transportation options that exist now in your community/region? (e.g. cycling/walking paths, separated bike lanes, etc.)
7. What do you think are the biggest barriers to choosing active transportation (e.g. cycling or walking) in your region?
8. What options for inter-community transit currently exist?
 - a. What are the main gaps/barriers with inter-community transit?
 - b. How would a multi-use trail address those issues or connect with existing options?
 - c. How would the other proposed options address these issues?
9. Does your region/community have any existing multi-use recreational trails?
 - a. What are the main benefits of these trails for your region/community?
 - b. Do you see opportunity for a trail using the E&N corridor to connect to or expand on the existing trail network?
10. What challenges do you see related to the conversion of the E&N corridor to a multiuse trail? (e.g. community support, liability issues, construction/maintenance costs)
 11. Do you have any suggestions for how to address these challenges?
11. What are some of the positive impacts a multi-use trail might have for your region/community?
 - a. Can you give examples?

12. Can you think of any negative impacts a multi-use trail would have for your community/region?
 - a. Can you give examples?
13. Are there any reasons you believe it would be important for your community to preserve the option for future rail service in the E&N corridor?
14. Is there anything we haven't touched on that you would like to discuss?

Transportation/land use specialist(s):

1. What contribution do you think multiuse trails have in a multi-modal integrated transportation system?
 - a. In what ways might this differ between urban/suburban/rural areas?
 - b. What factors in trail design or features might help or hinder a trail being a viable and transportation option?
2. Do you consider yourself reasonably informed about the Vancouver Island Corridor (E&N Rail Corridor), including its history, and proposed development for future uses?
3. Looking at the specific context of the E&N rail corridor, what are the potential opportunities for the trail to support active transportation within the communities or separate regional districts?
 - a. Are there any sections of the proposed trail or communities where these opportunities are particularly high? For what reasons?
4. What are some of the barriers or potential issues with the proposed trail as a viable mode of active transportation within communities or regional districts?
 - a. Are there any sections of the proposed trail or communities where these barriers/issues are particularly high? For what reasons?
5. What potential do you see for an E&N rail corridor trail to support inter-community transportation on Vancouver Island?
 - a. Are there any sections of the proposed trail where inter-community transportation might be particularly challenging?
 - b. Any sections where it might be a particularly good option?
6. Can you speak to the potential challenges arising from various user-groups of a trail such as the one proposed in the E&N corridor? E.g. recreational users, commuters, cyclists/walkers/equestrians, etc.
 - a. Are there any aspects or sections of the proposed trail that may cause particular challenges in this area?
7. In what ways might the proposed trail have advantages as a part of a multi-modal integrated transportation system over the alternative options proposed for the corridor (i.e. restoring rail service and/or constructing a trail alongside the rail)
8. What might be some of the disadvantages relative to the other proposed options?

9. What future do you see for rail service along the E&N corridor?
 - a. What do you see to be the biggest challenges to restoring rail service?
 - b. What do you believe to be the potential positive and negative impacts in restoring rail service?
10. Is there anything we haven't touched on that you would think would be important to know?

Cycling/recreation groups:

1. Do you consider yourself reasonably informed about your group and your use of multi-use recreational trails?
2. What are the current gaps or issues in your community or area in terms of recreational trails? E.g. safety of trails, maintenance, accessibility, etc.
3. How much do you know about the Vancouver Island Corridor (E&N Rail Corridor), including its history, and proposed development for future uses?
4. What are some of the ways your group might benefit from the trail as proposed by FORT_VI?
5. Can you think of any issues or problems the proposed trail poses in terms of its use as a recreational trail?
6. What opportunities do you see for the proposed trail to link with or contribute to existing trail networks and recreation opportunities in your area?
7. The proposed trail project involves removing the railway entirely and replacing it with a trail. Are there any reasons you can think of why it might be important to maintain the option for future rail service or mass transit?
8. What challenges do you see related to the conversion of the E&N corridor to a multiuse trail? (e.g. community support, liability issues, construction/maintenance costs?)
9. Do you have any suggestions for how to address these challenges?
10. Is there anything we haven't touched on that you would think would be important to know?

Local chambers of commerce/business sector:

1. Do you see recreation trails as being part of the business infrastructure of your community/region?
 - a. Why or why not?
2. Do you consider yourself reasonably informed about the Vancouver Island Corridor (E&N Rail Corridor), including its history, and proposed development for future uses?

3. What potential benefits do you see the proposed trail having on local business activity in your community/region?
 - a. Are there opportunities to expand existing opportunities related to recreational trails?
 - b. Are there new opportunities for business growth related to the proposed recreational trail?
4. Do you have any thoughts about how the proposed project might affect the business sector in your region/community?
5. The proposed trail involves removing the existing rail line to construct the trail. Are there any reasons why it might be important to maintain the option for future rail service?
6. What challenges do you see related to the conversion of the E&N corridor to a multiuse trail? (e.g. community support, liability issues, construction/maintenance costs)
7. Do you have any suggestions for how to address these challenges?
8. Is there anything we haven't touched on that you would think would be important to know?

Tourism sector and local tourism boards:

1. Are recreational trails/multiuse trails currently a part of your community/region's tourism strategy?
 - a. Do you see recreational trails to be a tourism draw for your community/region (currently or in future)?
2. Do you consider yourself reasonably informed about the Vancouver Island Corridor (E&N Rail Corridor), including its history, and proposed development for future uses?
3. How might the proposed trail benefit local tourism?
 - a. Are there opportunities to connect to or expand on existing trails or trail networks?
 - b. Would this be an entirely new feature for tourism?
 - c. Are there opportunities to connect the trail to existing cultural/natural/historical tourism locations?
4. Do you have any thoughts about how the proposed project might affect tourism in your region/community?
5. The proposed trail involves removing the existing rail line to construct the trail. Are there any reasons why it might be important to maintain the option for future rail service?
6. What challenges do you see related to the conversion of the E&N corridor to a multiuse trail? (e.g. community support, liability issues, construction/maintenance costs)
6. Do you have any suggestions for how to address these challenges?
7. Is there anything we haven't touched on that you would think would be important to know?

Subject Matter Expert(s): First Nations Land Grant History of E&N corridor

1. Can you tell me about your knowledge of the Vancouver Island Corridor (E&N Rail Corridor), including its history, location, and development in regard to First Nations Lands?
2. To your knowledge, what functions did the railway serve for First Nations communities while the railway was operating?
(e.g. economic, transportation functions, tourism, etc.)
3. To your knowledge, what functions (if any) does the railway currently serve for First Nations communities at the moment?
4. What challenges do you see related to the conversion of the E&N corridor to a multiuse trail in areas that transect First Nations reserve lands and/or traditional territories?
5. In your opinion, assuming consent and active participation with First Nations were achieved, how might the proposed active transportation trail project benefit First Nations communities along the corridor?
 - a. (e.g. tourism potential, recreational options, inter- or intra-community transit, cultural promotion/education initiatives, etc.)
6. In your opinion, how might the proposed active transportation trail project negatively impact First Nations communities along the corridor?
 - a. Can you give examples?
7. In your opinion, what are the implications in the present day for proposed development in the corridor (either the proposed active trail project or others) stemming from the legacy of the E&N Land grants of First Nations land?
 - a. How has the lack of engagement with First Nations at the time of construction impacted the current context of discussions around the development and use of the corridor?
 - b. What would you say are the primary considerations for engaging and partnering with First Nations communities for this proposed project, or any development in the corridor?
8. Is there anything we haven't touched on that you would like to discuss?