



Beyond the Trees - Traditional Ecological Knowledge and Whole Landscape Silviculture: *Phase I*

Final Report

fRI Research Healthy Landscapes Program

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fRI Research
Informing Land & Resource Management

DISCLAIMER

Any opinions expressed in this report are those of the authors, and do not necessarily reflect those of the organizations for which they work or fRI Research.

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About fRI Research

fRI Research develops and disseminates resource-based knowledge and tools to a community of diverse and actively engaged shareholders and partners. Learn more at www.friresearch.ca.

About the Healthy Landscapes Program

The Healthy Landscapes Program (HLP) is one of several Programs at fRI Research. The HLP team includes West Fraser, Tolko, Weyerhaeuser Company, Alberta Newsprint Company, Canfor Corporation, Alberta Pacific, Vanderwell Contractors, Mistik Management, Mercer Peace River, Alberta Forestry and Parks, Alberta Environment and Protected Areas, Sakaw Askiy, Government of Saskatchewan, Louisiana Pacific, Government of Manitoba, and Parks Canada,

The goal of the Healthy Landscapes Program (HLP) is to *understand ecosystem patterns and processes and help partners explore the potential of Ecosystem-Based Management (EBM) approaches.* The HLP defines EBM as *a collaborative, integrated, science-based approach to the management of natural resources that focuses on the health and resilience of entire ecosystems while allowing for sustainable use by humans of the goods and services they provide.* In other words, it is a management paradigm that focuses on overall ecosystem health and resilience, which is quite a broad topic!

In most parts of North America, EBM is synonymous with using pre-industrial patterns as guides for forest land management (Franklin 1993, OMNR 2014). The theory is attractive: by maintaining the type, frequency, and pattern of change on a given landscape, we are more likely to sustain historical levels of the various biological goods and services. So-called “coarse filter” knowledge can also be applied directly to planning and management programs at all levels and scales. Thus, defining the prep-industrial or “natural” range of various (NRV) ecosystem patterns is a fundamental part of EBM. However, EBM includes much more.

The HLP breaks EBM down into four elements 1) Knowledge of how ecosystems work (i.e., NRV), 2) Appropriate tools, 3) Partnerships, and 4) Enabling strategies (Andison 2020). The logic of the other three element is consistent with the definition. If we are to move towards managing whole ecosystems, we need partnerships within and across borders and shift from managing individual activities to outcomes, which requires not just knowledge of how ecosystems work, but new tools and strategies for implantation.

Historically, most of that work of the HLP is focused on element #1 (i.e., NRV knowledge), although a higher proportion of more recent projects also touch on one or more of the other three elements. This project potentially involves three of the four EBM horsemen; new knowledge, new partnerships, and new enabling strategies.

EXECUTIVE SUMMARY

By definition, ecosystem-based management (EBM) involves a shift from focusing on individual pieces of a landscape to all parts of a landscape. Until now, most EBM initiatives in the Canadian forest sector focus on trees – largely through understanding pre-industrial disturbance patterns of forest over time and space. Consistent with the vision of the Healthy Landscapes Program at fRI Research, this project represents one of the ways in which we are expanding our scope in service of holding a more inclusive version of EBM by a) considering the dynamics of other components of forested landscapes, and b) including cultural values.

Understory vegetation provides a unique range of ecological, social, and economic services that are linked to productivity, resilience, diversity, forage, soil stability, and medicinal and ceremonial plants. This project is specifically concerned with if, in what ways, for how long, and under what circumstances current forestry practices may be creating different post-disturbance understory vegetation communities than those experienced historically. More specifically, the focus on this project is on developing a better understanding of the dynamics of understory species of high value to Indigenous communities as forage, medicinal, ceremonial, economic, or community protection services.

As part of a new venture for the Healthy Landscapes Program (HLP), this project will proceed in phases. The first phase – and the focus on this report – involves reaching out to potential industry, government and local Indigenous partners who may be interested in being a part of this project, building relationships and trust through both remote and in-person workshops and meetings, identifying and managing concerns over capacity and privacy, and co-developing plans for what Phase II could look like.

As part of phase I, we cast a wide net of people to talk to in industry, government, and Indigenous communities, and learned many valuable lessons along the way both in terms of engagement and partnership protocols but also community specific concerns as regards understory vegetation values. In the end, we identified four communities (and their associated industry and government partners) who were interested in engaging with us on this topic; two in Alberta and two in Saskatchewan. Not surprisingly, given the time and effort to initiate discussions and workshops, we are at different stages in the process with each community. We were able to identify priority needs and values for each community, many of which overlapped with others, but many of which were unique. In some cases, we were also able to identify some potential sites and complete some preliminary fieldwork.

The investment in phase I of this project is considerable, but well worth the effort. We have established relationships and identified common goals. The four case studies we have provide an excellent range of local needs and capacity that we are now better prepared to address in Phase II. It also helps us to navigate how we can integrate traditional ecological knowledge (TEK) into the research process, ultimately creating a model for forest management that not only preserves ecological integrity, and but also respects and upholds the cultural values of Indigenous communities.

1.0 Introduction

The relationship between forestry practices and the diversity of understory vegetation is complex and has yielded mixed results in scientific literature. While some studies suggest that certain forestry practices can enhance understory diversity by creating gaps and promoting light penetration, others have found that these practices can lead to the decline of sensitive species, particularly those with specific habitat requirements (Hart and Chen 2006). In the context of western Canada, where Indigenous communities depend on a diverse array of understory plants, understanding the specific impacts of timber harvesting and wildfire disturbances on these species is critical (Niemelä et al. 2005). Underestimating the significance of understory vegetation can lead to the degradation of plant species that are vital for Indigenous communities, not only ecologically but also culturally and economically. The lack of focused research on this issue creates a significant gap in our understanding and limits the effectiveness of management strategies aimed at preserving both ecological and cultural values in these landscapes (Niemelä et al. 2005). Moreover, the increasing frequency and intensity of wildfires due to decades of suppression and climate change add another layer of complexity to this issue, as these disturbances can both positively and negatively affect understory vegetation depending on the context (Brandt et al. 2013).

Given these challenges, there is a need for research that addresses the type and degree of potential impacts of past and current forest management practices on culturally significant understory vegetation in western boreal Canada. The most logical benchmarks against which the impacts of forest management would be a) naturally occurring wildfire, and b) cultural burning. Such research would not only fill a critical knowledge gap but also a) contribute to the development of forest management practices that are more inclusive of Indigenous perspectives, and b) potentially develop some new management tools that are responsive to the ecological realities of a changing climate (Berkes et al. 2000). The overarching purpose of this study is to identify and bridge gaps between traditional ecological knowledge (TEK) and contemporary forest management practices as it relates to understory vegetation on western boreal and foothills landscapes.

By integrating TEK into the research process, this study aims to create a model for forest management that not only preserves ecological integrity, and but also respects and upholds the cultural values of Indigenous communities (Berkes et al. 2000). In doing so, the study will contribute to the broader discourse on sustainability in forest management, emphasizing the need for approaches that are inclusive, adaptive, and responsive to the needs of all stakeholders and multiple values – which is by definition a critical component of EBM (ecosystem-based management).

2.0 Background

Culturally significant understory plants can play an important role within Indigenous cultures, providing food sources, medicines, materials for building and/or assisting in spiritual customs and practices. The sustainable management of these plants should take into consideration their respective regeneration patterns. To ensure continued and future availability of these plants for cultural, ecological, and economic purposes, management practices should take into consideration the species-specific

regeneration strategies and potential factors that may influence regeneration (Holmgren et al. 2013). Factors that may contribute to and influence the regeneration of understory vegetation, such as local climatic conditions, severity of a wildfire, and specific silvicultural applications, can play a role in determining the resilience of the vegetation to disturbances (Gaoue and Ticktin 2007). The diversity of factors that can affect understory vegetation highlights the complexity of managing these plants for their continued, sustainable presence on the landscape.

Many culturally significant plants can be positively or negatively affected by wildfire and silvicultural disturbances to achieve desired qualities, such as abundance and size (Turner et al. 2000). For example, the bear-grass plant (*Xerophyllum tenax*) can increase flowering and re-sprout from rhizomes after wildfire, showcasing its adaptation to this disturbance (Wan et al. 2007, Turner et al. 2012). In addition, wildfires can promote seedling establishment (e.g. jack pine) and create opportunities for other plant species to establish and grow by burning away deadfall and competing taller trees and by creating nutrient-rich soils (e.g. fireweed and blueberries) (Holmgren et al. 2013). To preserve and enhance access to a diversity of plants and animals, Indigenous Peoples would periodically culturally burn specific regions inside the boreal forest, with the aim of stimulating new plant growth, enhancing species and habitat, and improving biodiversity through interspecies competition (Stevenson and Webb 2004). Indigenous-led fire prescription was a common practice many decades ago; however, it has begun to make a comeback more recently (see 'We are Fire', https://wearefire.ca/). The application of Indigenous-led fire practices takes on a holistic approach based on ecological, spiritual, socio-cultural, and economic aspects to understand and positively apply fire on the landscape. A community in Northern Saskatchewan, Cumberland House, has developed a program that focuses on cultural burning to reduce the risk of severe wildfires by removing vegetation and promoting a healthy, biodiverse landscape. As the interest in reintroducing Indigenous-led fire practices onto the landscape increases in Canada (e.g. Prince Albert Grand Council, We are Fire – Cumberland House, Salish Fire Keepers- BC and Parks Canada), there is an opportunity to apply these practices to enhance regrowth and create a biodiverse mosaic of culturally significant vegetation in the boreal forest.

3.0 Project Objectives

The primary objective of this research is to assess the potential impacts of different silvicultural systems on the regeneration and sustainability of culturally significant understory vegetation in timber-harvested and fire-disturbed landscapes near Indigenous communities in Saskatchewan (SK) and Alberta (AB). Specifically, this study aims to:

- Evaluate the impacts of various silvicultural practices on the diversity and abundance of understory plant species that are culturally important to Indigenous communities.
- Investigate the role of disturbances (wildfire, cultural burning, and different types of timber-harvesting) in shaping the regeneration dynamics of these plants.
- Engage with Indigenous communities to document TEK related to the use and management of understory vegetation and incorporate this knowledge into the research process and interpretation of results.

- Develop recommendations for forest management practices that enhance the sustainability of culturally significant understory vegetation, while also contributing to broader goals of biodiversity conservation and climate resilience.

This project will be completed in two phases. Phase I will identify and develop relationships with willing and able Indigenous communities and other (industrial and government) partners who are interested in this topic. Phase I will also collaboratively develop methods in terms of sampling sites, protocols, personnel, logistics and data sharing with both communities and researchers. This report focuses on the results from Phase I.

Phase II will further refine the methods and protocols, complete the sampling and analyses, and draft final reports.

3.0 Project Management

This project began under the watch of Dr. Vilbert Vabi, who was the HLP Program Coordinator from April 2023 to March 2024. Early in September 2023, Vilbert began to collaborate with the Government of Saskatchewan, specifically Forest Service representatives Melissa Nordin and Sarah Schmid, to assist with managing and facilitating the project. Vilbert was succeeded in this position at fRI by Ms. Sarah Schmid, who held that post until January 2025. The project, and this report, was completed by Sarah over the next year as a consultant.

4.0 Methods: Developing Partnerships

4.1 Scope

This study focused on the Boreal Plain and Boreal Shield in Saskatchewan and Alberta, specifically those near Indigenous communities where understory vegetation plays a crucial role in cultural practices. Our original goal for Phase I was to identify 2-4 willing Indigenous communities s in these provinces, ensuring that their knowledge, cultural protocols and perspectives are integrated into the study design and interpretation of results (Berkes et al. 2000). Our other requirement was that forestry companies and/or provincial governments should be actively involved, providing connections and in-kind support.

4.2 Who Was Involved?

The Beyond the Trees project adopted a collaborative approach by engaging relevant stakeholders. These stakeholders include government and non-governmental organizations that are considered active forest industry players whose activities and operations directly impact forest areas.

The non-governmental organizations involved in the project are mainly companies that have allocations within the boundaries of the participating Indigenous communities or are involved in the management of the forest lands within those communities. Mistik Management has its operations centered in the midwestern section of Saskatchewan, and some of its allocations can be found within the boundaries of Île-à-la-Crosse (Ile a la Crosse). It is owned by two parent companies, and its primary role is to provide the necessary fibre resources needed by these companies. Mistik's mission is to build relationships with

stakeholders and Indigenous communities, and to ensure the long-term sustainability of the allocated forest area through a Forest Management Agreement (FMA) with the Province of Saskatchewan. Sakâw Askiy Management Inc. (Sakaw Askiy) manages forest operations in the Prince Albert Timber Supply Area for five forest product companies and two First Nations under a Forest Management Agreement. One of the five forest product companies it manages is Tolko, and they have allocations within the Ahtahkakoop Cree Nation. West Fraser is a company that focuses on ensuring ethics, compliance, and performance. The relationship with West Fraser was crucial in establishing the relationship with the organization in Alberta that participated in the project. Finally, Tolko, an industry leader in operating sustainably, provided their support in the engagement with a community in Northern Alberta. Their engagement and dedication to this project assisted in the progress of Phase I and the pilot of Phase II of the project in Northern Alberta.

The Government of Saskatchewan (GoS) played an instrumental role in the development and implementation for phase 1 of the project. Their involvement ensured that the project adhered to all relevant laws and regulations in Saskatchewan, minimizing legal risks and ensuring that the project's outcomes will be legally sound. Government agencies usually have first-hand information, large databases, research facilities, and a network of experts that can enhance the research process. Government agencies can also provide some form of funding in support of the research process and this aids in the achievement of research goals and objectives. The GoS provided both in-kind and cash support for this project.

4.3 How Were the Communities Identified?

The project team (i.e., those identified above) worked with the GoS and several Saskatchewan and Alberta forestry companies to identify communities who have expressed concerns on the regeneration of understory vegetation following wildfire and harvesting disturbances. Communities who have expressed an interest in more direct participation in forest management activities were also considered. Mistik Management had built a solid relationship with Ile a la Crosse, thus Mistik proposed that Ile a la Crosse may be a community with an interest to participate in the project and facilitated the initial conversations about the project between community representatives and the project team. The GoS suggested that Ahtahkakoop Cree Nation may be interested in the project. The community has continually expressed their concerns and the perceived lack of interest from the government and companies in the regrowth of the community's critical medicinal and culturally significant plants within their traditional territories. Building an initial relationship with the community was a bit difficult as there was mistrust of the government and the research process; however, the project team met with the lands department several times before the development of the workshops to begin to build a positive relationship. These meetings focused on the development of a knowledge-sharing agreement, cultural protocols, concerns with forest management within the traditional territories, and expectations of the project. Through open dialogue and transparency, the community agreed to participate in the project.

Identifying a community in Alberta to participate in the project proved a challenge. Initially, two communities had expressed interest in participating; Swan River First Nation (SRFN) and Aseniwuche Winewak Nation (AWN). However, due to capacity challenges and lack of interest in participation, engagement with those communities did not continue. On a positive note, when connecting directly

with a forestry company, specifically West Fraser, an Indigenous not for profit company was identified as a potential project participant. Ultimately, this company, Fox Creek Development Association and its staff, became an active participant in the project. In addition, when connecting with Tolko, Tallcree Tribal Government was identified as a potential community who may be interested with participating in the project. After building a relationship with the community representative, Tallcree became the second Alberta community to participate in the project.

4.4 Meeting with the Indigenous communities

Table 1 below describes a timeline of how and when the communities that participated in the project were approached and how communication took place. Also, see Appendix A for details of the agenda of the meetings and engagement.

Table 1. Engagement and Communication with Communities.

Date	Participants	Description	Location
Mar 2023	Sturgeon Lake Cree Nation, Alberta	Reach out to community representative to discuss community interest in project participation	Virtual
May 2023	Sturgeon Lake Cree Nation, Alberta	Project objectives and overview sent to community representative	Email
Sept 2023	Mistik Management	Reach out to representative to discuss potential community interest in project participation	Email
Sept 2023	Ila a la Crosse	Initial meeting with community representative to discuss project	Phone call
Sept 7 2023	Weyerhaeuser, Sakaw, Mistik, Manitoba Government, Government of Saskatchewan Forest Service, Vanderwell	Meeting with Government and industry representatives to discuss project	Virtual
Oct 2023	Swan River First Nation (SRFN)	Reach out to representative with SRFN to discuss project participation	Virtual
Oct 3 2023	Ile a la Crosse	Initial meeting with community representatives from project	In person – Ile a la Crosse
Oct 20 2023	Aseniwuche Winewak Nation (AWN)	Reach out to representative with AWN to discuss project participation	Virtual
Oct 24 2023	SRFN	Project meeting	Virtual
Nov 2023	AWN	Project meeting with representative	Virtual
Nov 1-2 2023	SRFN	Project meeting during HLP meeting	In person - Edmonton
Nov 1-2 2023	AWN	Project meeting during HLP meeting	In person - Edmonton
Nov 20 2023	SRFN	Project communication	Email

Nov 22 2023	SRFN	Project meeting	Virtual
Nov 24 2023	AWN	Project meeting with representative	Virtual
Dec 15 2023	AWN	Meeting with community to discuss project	Virtual
Jan 1 2024	Canfor	Reach out to discuss community interest in project	Email
Jan 1 2024	Mercer	Reach out to discuss community interest in project	Email
Jan 1 2024	Alberta-Pacific (AlPac)	Reach out to discuss community interest in project	Email
Mar 2024	AWN	Meeting cancelled	In person
Oct 2024	West Fraser (WF)	Meeting with representative to discuss SRFN potential interest in the project	In person - Hinton
Nov 12 2023	Tolko	Meeting with representative to discuss community potential interest in the project – Tallcree Tribal Government	Virtual
Nov 13 2023	Government of Saskatchewan – Forest Service	Contract signed between fRI – HLP and Forest Service for TEK project in Saskatchewan	Email
Jan 2024	Ahtahkakoop Cree Nation (Ahatahkakoop)	Initial meeting with community representative to discuss project	Phone call
Jan 22 2024	Tolko and Tallcree Tribal Government (Tallcree)	Project discussion meeting	Virtual
Jan 28 2024	WF	Project discussion on Fox Creek Development participation in the project	Virtual
Feb 1 2024	Ahtahkakoop	Meeting with community representative to discuss community participation in project and protocols	In person - Ahtahkakoop
Feb 5 2024	Tallcree	Meeting with Tallcree representative during HLP meetings to discuss community participation	In person - Edmonton
Mar 1 2024	Manitoba Government, Sakaw, Government of Saskatchewan, Mistik	Project Team Meeting – project updates	Virtual
Dec 4 2024	Big River First Nation	Interest from community to participate in project	Phone call
July 21 2025	Makwa Métis	Meeting with Mawka consultant to discuss community participation in piloting Phase 2 of project	In-person – Prince Albert

4.5 Communities who Participated in the Project

4.5.1 Île-à-la-Crosse

Île-à-la-Crosse, a village in northwestern Saskatchewan, was established as a fur trading post in 1776. Its location along major waterways made it a strategic point for trade. As a result, it became a central hub for economic, social, and cultural exchanges between the Cree and Dene peoples and European traders, particularly the French, Scots, and English (Jones, 2019). This community was not only shaped by the fur trade but also by the arrival of Catholic missionaries in the mid-19th century. Over time, the relationship formed through intermarriage between European traders and Indigenous women gave rise to a Métis community, with Île-à-la-Crosse becoming a center for Métis culture in northwestern Saskatchewan. Today, the majority of IÎle-à-la-Crosse's population identifies as Métis, and Michif, a blend of Cree and French, is the predominant language in the community (Pannekoek, 2013).

4.5.2 Ahtahkakoop Cree Nation

Ahtahkakoop Cree Nation is a Cree First Nation located one hour slightly NE of Prince Albert, Saskatchewan. The land holds immense importance for Indigenous communities, both culturally and economically. With a current land base of around 43,000 acres and a population of 4,100, acknowledging the land is a critical step toward reconciliation. The cumulative impacts of land use, both within and outside the community, need to be addressed, especially given the restrictions on reserves, such as requiring permits for activities like burning or removing trees. Many areas, including those used for agriculture, hold cultural and environmental significance, with 50% of Ahtahkakoop's land being agricultural. The land is not just a resource but a symbol of economic viability and cultural identity. Ahtahkakoop has traditional territories throughout the Island Forests (managed by the Government of Saskatchewan, Forest Service) and in the Prince Albert Forest Management Area (managed by Sakaw Askiy).

4.5.3 Tallcree Tribal Government (Tallcree)

Tallcree is a Woodland Cree First Nations government located four hours north of Slave Lake, Alberta. In the present, the Nation includes North Tallcree, South Tallcree, Beaver Ranch and Fort Vermilion, including eight parcels of reserve land. The Nation is a proud community that has lived on their land for generations and is connected to the forest and the Peace River. Many community members continue to express their cultural traditions through hunting, trapping, and fishing. The community is in close proximity to La Crete, a growing hamlet with a strong Mennonite heritage that focuses on farming, forestry, and oil and gas.

4.5.4 Fox Creek Development Association Ltd.

Fox Creek Development is an Indigenous-owned not-for-profit business, located in Hinton, Alberta. They provide forestry and oilfield contracting services, campground maintenance, tree and snow removal, and community programming. The members who are hired by Fox Creek are Treaty; however, they are not associated with a Nation. Fox Creek has an excellent working relationship with West Fraser, and West Fraser often hires Fox Creek to provide forestry services in their blocks.

Table 2 provides is a synopsis of the engagement sessions that took place with the communities.

TABLE 2. SUMMARY OF ENGAGEMENT WITH THE FOUR COMMUNITIES.

Date	Community	Description and Attendees	Location
Nov 9 2023	Ile a la Crosse	Workshop 1 – ICS4 members, Mistik Management, Forest Service, two Elders	Meadow Lake
Jan 17 2024	Ile a la Crosse	Workshop 2 – Two Elders, ICS4 representatives, Forest Service, Mistik Management	Ile a la Crosse
Feb 13 2024	Ahtahkakoop Cree Nation	Workshop 1 – Two Elders, representatives from Land Management and Chief and Council, Forest Service	Ahtahkakoop Cree Nation
Mar 13 2024	Ile a la Crosse	Workshop 3 - Two Elders, ICS4 representatives, thirty High School children, Forest Service, Mistik Management	Ile a la Crosse
Mar 19 2024	Ahtahkakoop Cree Nation	Workshop 2 – Representatives from Chief and Council, community members, Forest Service and Saskatchewan Government Relations	Ahtahkakoop Cree Nation
Mar 20 2024	Ahtahkakoop Cree Nation	Workshop 3 – Representatives from Chief and Council, community members, Forest Service and Saskatchewan Government Relations	Prince Albert, SK
Mar 12 2025	Tallcree Tribal Government	Workshop 1 – Community representatives, land users, Elders	Tallcree Tribal Government
Mar 13 2025	Tallcree Tribal Government	Workshop 2 – Community representatives, land users, Elders	Tallcree Tribal Government
Apr 17 2025	Fox Creek Development	Workshop – Community representatives, land users, WF	Hinton, AB

4.6 MAIN DISCUSSION POINTS DURING INTERVIEWS

The interview questions (see Appendix B) were developed by fRI and the Saskatchewan Forest Service, focusing on disturbed sites on traditional lands (specifically harvest and wildfire disturbed sites), prioritizing five topics. Below are brief highlights from those engagement and interview sessions.

4.6.1 OVERALL

A large variety of culturally significant understory plants were identified by community members during the workshops. These plants provide numerous uses among Indigenous Peoples in Alberta and Saskatchewan. Table 3 provides a brief description of a small sample of plants and their uses shared by the community members.

TABLE 3. CULTURALLY SIGNIFICANT UNDERSTORY PLANTS

Plant	Cree and Michif Names	Use(s)
Sage	paskwâwihkwaskwa l'arb a saent (Michif)	Used prominently in ceremonies and for various spiritual purposes, often in 'smudging' practices. It also helps to increase energy within oneself.
Sweetgrass	wîhkaskwa	Braided sweetgrass can be used for spiritual purposes, representing a spiritual connection with the earth.
Wild Rice	manôminak li rii faroosh (Michif)	Often found in communities located near waterways and eaten as traditional foods.
Labrador Tea	maskêkopakwa	Consumed to help clear airways and assist with strengthening the lungs.
Fireweed	Ihkapaskwa	Used for medicinal purposes, such as to help with kidney and liver function and act as an antiseptic.
Bearberry	maskomin	Often used as a food source (turned into jams and jellies). The leaves can also be added to tea to help with constipation.
Mint	amisko-wîhkaskwa li boum (Michif)	Often used to season cooking and brewed into teas.

- Please note that this is not an extensive list of all culturally significant species.
- Not all communities utilize the same species, nor use the species in identical methods.
- Michif is the Métis Language spoken by the Métis communities in Saskatchewan. Not all words are translated into Michif.

4.6.2 Île-à-la-Crosse

Community members raised several key concerns regarding the land and forest management practices. A primary question was about the aftermath of harvesting: how trees regenerate and where animals move post-harvest. The community expressed a strong desire to be involved in monitoring these activities, believing that Knowledge Keepers, with their deep understanding of plant regeneration and animal behavior, should play a key role in this phase.

The community also reported a loss of traditional trapping and hunting sites due to changing weather patterns, with wildfires being a significant contributing factor. They expressed interest in understanding the full extent of wildfire impacts and suggested that roads remain open longer after salvage harvesting to facilitate access. There was also concern about overharvesting, particularly of trees post-wildfire, which could harm forest recovery.

4.6.3 AHTAHKAKOOP CREE NATION

This community heavily relies on the understory vegetation, which is more commonly used in cultural practices. For example, vegetation, including shrubs, herbs, fungi, lichens, and other plants found beneath the trees, is harvested as a source of food, medicine, or perhaps for spiritual uses. The most commonly collected species are red willow, wild onion, wild turnips, mint, cranberry, sweet grass, sage, and chaga. These resources are often used to make teas, utilized for medicinal preparations, baskets, and other culturally significant items.

Concerns about modern silviculture practices, particularly concerning clear-cutting, were brought forward. Several members felt the practice is not being done in accordance with traditional forest knowledge or in a way that respects the land. The removal of all vegetation and the subsequent disruption to the forest floor leaves little to no opportunity for regeneration of culturally significant understory plants. For example, one member noted that mint, a culturally significant plant, has entirely disappeared and has not regrown in a specific area following a harvest event.

Throughout the interviews, participants identified several possible solutions that involve forest management practices aligning with TEK. One solution is to simply make clear-cut areas smaller and less frequent and incorporate measures that respect traditional harvesting practices and compensation to communities for the loss of plants essential to their culture. A more collaborative solution proposed is for forestry industry partners to work Indigenous communities to create more sustainable harvesting methods. Community members highlighted co-management as important and pushed for an alternative that, if implemented, would have allowed more Indigenous presence in land use decisions and forest renewal treatments to protect the ecosystem and TEK.

4.6.4 Tallcree Tribal Council

During the workshops, it was apparent that the participants, along with many other community members, have engaged in wildfire firefighting and/or forestry activities. In addition, there is a long history of traditional use of the forest, such as medicinal plants and hunting moose, deer, and bear. The proximity of La Crete to the community and traditional lands was expressed as a considerable concern, as well as the expansion of agricultural lands and the deforestation of the forests due to land use changes. This appeared to be a greater concern to the community than harvesting or wildfires, as the community has a forestry company and a positive working relationship with Tolko.

During harvesting and silvicultural practices, the community expressed concerns about access to blocks and the surrounding area to the blocks due to the establishment of roads. Roads provide increased and easy access for non-community members, which is negatively impacting the population of moose in the area. While harvesting and wildfire disturbance were noted as concerns, participants expressed that the disturbances were temporary and the forests were recovering in a healthy manner following those disturbances. Agricultural expansion, subsequent deforestation due to agricultural activities, and the spraying of chemicals for agricultural purposes remain the main concerns for community members.

4.6.5 Fox Creek Development

All the participants had experience working in various forestry positions, as West Fraser often hired Fox Creek to complete contracted forestry activities. Participants described their cultural use of the forests explaining some of the traditional uses such as berry gathering and hunting. While many of the participants live within Hinton, there is still a cultural and spiritual connection to the forests and its many resources.

Wildfires were the main disturbance concern for the participants. The areas surrounding Hinton has experienced large, intense fires within the past few years (e.g. Jasper National Park,2024, and Edson, 2023). While wildfires can be a natural disturbance, participants have observed significant soil changes and delayed regrowth following large, intense fires. In addition, there appear to be changes in cultural

understory vegetation following the fires, in terms of quality and quantity of some plant species. For example, berries, such as raspberries, take a lot longer to regrow or do not return following an intense fire. Another concern raised was the use of spraying during silvicultural practices, specifically the potential for negative impacts to the plants themselves, the animals that depend on the plants, and people who use the plants. While spraying does sometimes occur, the representative from West Fraser explained that it does not occur as often as in the past and when used, it is used in very diluted quantities.

5.0 Piloting Phase II

The second phase of the project builds on the literature review and knowledge collected during Phase I. However, as part of Phase I, we had the time and resources to test some field protocol assumptions with two of the communities in anticipation of Phase II. Towards this, the project continued to use a collaborative approach, engaging and consulting with colleagues and interested parties, including individuals from partnering Indigenous communities, industry, governmental and non-governmental organizations. fRI worked with two communities in Alberta and one community in Saskatchewan to identify key sites, potential impacts, and discuss exploration methods going forward. The project team worked with the communities to design a study to address key local knowledge gaps and perceived impacts.

With each Indigenous community and the participating industry representatives, sites were located, specifically: a block scheduled to be harvested the following year (2025); a reclaimed block at year 5-6; a block at free to grow (year 14); an area that has recently been burned (5-6 year); area that was burned (10-14 years); and, an unburned area adjacent to a burned area. All sites selected were the same ecosite. Within each site, culturally significant understory vegetation was identified and mapped onto a specific location in that area. Other significant features to the communities and other participating team members were identified and mapped (e.g. streams, water bodies, linear features). Table 3.0 describes the piloting of Phase II with the communities. Please note that Ahtahkakoop Cree Nation was unable to participate due to capacity, and Île-à-la-Crosse was unable to participate due to the intensity of the wildfires. In their place, the project coordinator engaged with Makwa Métis Local, as this community has a long-standing relationship with Ile a la Crosse and is also within Mistik's FMA.

Below are Tables 4, 5 and 6 describe how Phase II was piloted with three of the identified communities/company. Each pilot differed and was adapted to better suite the needs and wants of the participating communities and company. During fieldwork with Makwa in Saskatchewan, sites were selected in the Mid-Boreal Lowland, within the Boreal Plain Mixedwood ecoregion. Sites were located within these ecosites: Trembling Aspen/Prickley Rose/Grass with fresh sand soils; Balsam-Popular/White Spruce/Feathermoss with very moist silty loam soils; and Balsam Popular/Trembling Aspen/Prickly Rose with fresh clay loam soils. In Alberta, while conducting fieldwork with Tallcree, fieldwork was focused within the Central Mixedwood region, focusing on sites that had a Deciduous Bias (predominantly Trembling Aspen Leading), with Brunisolic soils dominating and Luvisolic soils as the second most common soils. Fox Creek selected sites within the Hinton FMA (Upper Foothills) and Edson FMA (Lower Foothills), as there were no post 7 or 14-year fire sites within the Hinton FMA. Sites featured coniferous

leading species (Lodgepole Pine, Black Spruce and White Spruce), with a greater occurrence of Trembling Aspen in the Lower Foothills. Both the Upper and Lower Foothills featured Luvisolics as the dominant soils, with Brunisolics as the second most common soils.

TABLE 4. MAKWA MÉTIS COMMUNITY, PLANNED HARVEST BLOCK

Plot	Identification of plant species	Coverage (sunlight %)	% of species coverage	Other area and plot attributes
1	Bunchberry ~15-yr-old white spruce Bentgrass Moss Wild rose Trembling aspen Popular Raspberry Tiger lily Wild flower Ferns	40% open	70% raspberry/bunchberry /wild rose 5% trees 25% grass/moss	No birch Fairly green Heat-stressed trees Moist soil/ground
2	Bunchberry Wild ross Raspberry Popular Grass Unidentified white berry plant Tiger lily Moss Blueberry Mushroom Bog cranberry Trembling aspen	10% open	50% berries 50% moss/grass	Soft, spongy plot Abundance of mushrooms and moss. Old jack pines surrounding plot Trembling aspen surrounding plot Very old growth surrounding plot
3	Tiger lily Mushroom Blueberry Bog cranberry Bunchberry 3 unidentified plant species Trembling aspen Moss Grass	70% open	30% moss/grass 60% berries 2% trees 8% tiger lilies	Few white spruce, jack pine and trembling aspen surrounding plot
4	Bunchberry Sarsaparilla Deadwood Raspberry Mushroom Bog cranberry 2 unidentified plant species Tiger lily Moss	20% open	50% moss/fern/grass 10% sarsaparilla 10% berries 30 % deadfall	Signs of whitetail deer Potential trapper trail Abundance of mushrooms Bluebells in the area Abundance of game trails

	Horsetail Unidentified fern species			
5	Sarsaparilla Clubmoss Grass Wild rose Bunchberry Blueberry	40% open	90% grass/moss 5% sarsaparilla 5% berries	Insect damage Dead trees surrounding area Green alder surrounding plot Presence of hardwoods surrounding plot Abundance of deadwood Old to very old white spruce in area
6	Aster Bentgrass Pea vine Wild rose Raspberry Tiger lily Unidentified plant species (white poofs on plant) Unidentified plant species (large-leafed plant)	95% open	60% grass 10% raspberry 10% unidentified 15% wild rose/tiger lily 5% deadfall	Drier soil, uphill area Dead white spruce surrounding plot Very young white spruce in area
7	Sarsaparilla White spruce Blueberry Bunchberry Deadwood Trembling aspen Wild rose Fern	30% open	5% white spruce 5% trembling aspen 5% deadwood 40% berries 10% sarsaparilla 35% moss	Halfway up a hill Unidentified plant ('butt berry' found in area)
8	Grass Wild rose Moss Stiff clubmoss Bunchberry Tiger lily Raspberry Sarsaparilla	100% open	80% grass/moss 15% berries 5% tiger lily	Drier soil Bottom of a hill Abundance of sunlight Long grass Deadwood surrounding plot

TABLE 5. TALLCREE TRIBAL COUNCIL, 6-YEAR HARVEST BLOCK

Plot	Identification of plant species	Coverage (sunlight %)	% of species coverage	Other area and plot attributes
1	Grass White spruce Green Alder Red osier dogwood Red willow Wild red current	30% open	90% grass	Abundance of grass surrounding plot Signs of moose using the area
2	Aster Grass	70% open	85% grass	Abundance of dead species in plot and surrounding area

	Red willow White spruce Red osier dogwood			Drier soil
3	Red willow Wild rose Round-leafed hawthorn Pin cherries Popular White spruce Trembling aspen	30% open	10% forbs 10% trees 40% bare/soil/deadfall 25% shrubs 5% berries	Presence of bear activity in area Wet, spongy soil No grass in plot Abundance of deadfall Possible former slash pile in area No grass in plot
4	White spruce Popular White birch Pin cherry Wild rose Moss Ferns Green alder	50% open	40% berries 30% soil/bare 20% wild rose and hawthorn 10% trees	Abundance of deadfall in area Mature trees in plot and surrounding area
5	Fern White birch Popular Bog berry Moss Wild rose Mushrooms Aster	20% open	40% fern 10% mushrooms 20% moss 5% trees 10% berries and shrubs	Moss tracks in plot and area High moisture in soil
6	White spruce Trembling aspen Popular Pin cherry Red osier dogwood Fern	80% open	60% bare 10% fern 5% trees 25% shrubs	Soil in area is moist and open in many areas Abundance of litter in plot and surrounding area Appearance of game trails Potential bear activity Popular in plot appears to be struggling (black bark)

TABLE 6. FOX CREEK DEVELOPMENT, 2015 HARVEST BLOCK

Site	Identification of plant species	Other area and plot attributes
2015 Harvest Block	Dwarf raspberry Fireweed Twin berry Blue bell Horsetail Lady fern Mock strawberry Gooseberry Raspberry Trembling aspen Huckleberry Grass Deadwood Lodgepole pine	Bear activity in are Block is located across from a recent harvest block Planted trees appear to be healthy and growing

6.0 Lessons Learned in Phase I

6.1 Connection

Building relationships with Indigenous communities can take time, and trust must be established before implementing a project. Through Phase I and piloting of Phase II, it became clear that in-person visits and meetings were preferred over email or virtual communication. Building a connection also allows for the understanding of cultural and community protocols, as protocols vary depending on the Nation and the community. In addition, engagement with a community improves when a connection is made through industry. Most communities who participated in the project had a positive working relationship with industry. The trust between industry and communities was instrumental to the success of the project. In addition, to build a more trusting relationship between fRI, the coordinator and the communities, a data sharing agreement was developed (see Appendix C). This agreement specified what data was shared, why it was shared, and how it would be used and stored. It provided transparency and positively enhanced the relationship between the communities and the coordinator

6.2 Language

The language used during the engagement of this project was crucial and became adaptive as the project moved forward. Forestry language, specifically silviculture, recovery, and reclamation, can have many meanings and can be interpretive if the definition is not fully defined. For example, forest or harvest block recovery can have very different meanings for industry versus Indigenous communities. Industry follows provincial legislation and regulations, whereas communities perceive the changes to their forests in a different way and may view the changes according to their own experiences within their traditional lands. When industry or other organizations engage with communities, there needs to be an effort to learn what language or words work more appropriately for those communities.

6.3 Capacity

Capacity (financial, human, and timing) proved to be a considerable barrier for engagement and the project. First of all, financial capacity became a critical factor for the project. It was important to provide reimbursement for those who became involved with the project. Elders and Knowledge Keepers have critical information and experiences and need to be compensated for their time and involvement in projects. The exact amount can be difficult to calculate, and working with the communities themselves can aid in determining the amount/honorarium. In addition, when considering the budget for a project, the project coordinator must consider the transportation amount (e.g. travel to site, rental of ATVs, etc.). This amount must be flexible and should be projected to be higher than initially anticipated, especially as some sites may not be easily accessible.

Next, human capacity must be addressed when developing a project. In order to successfully engage with a community, one should work directly with a community lands person (leader) or a recognized community ‘gatekeeper’. Once that relationship is established, community participants can be

identified. The issue arose in the project with the capacity of those individuals identified as leaders or gatekeepers to participate in the project. Oftentimes, their time was over-allocated to other projects or activities, which impacted the timeline of this project. This became a barrier at some points in the project; however, due to the positive relationships already established, this barrier was more easily overcome.

Finally, timing and the timeline were barriers that became a concern during the project and became a challenge for continued engagement with communities. Often, there were community events, other priorities, or natural events (especially wildfires) that hindered the initiation and/or progress of the project. Although some communities ultimately did not proceed with the project, the positive relationships built with other communities became the key aspect to the initiation and continuation of the project. Weather also became an issue, as during the spring and summer of the pilot Phase II, many of the field days were extremely hot, which led to exhaustion and other issues. Going forward, the project will need to be adaptive based on the weather and the landscape conditions. The timeline for the project became a challenge as much of the work, such as meetings, workshops, and fieldwork, could not be scheduled in a linear fashion; rather, the timeline had to adapt to the needs and ability of the communities to participate and also the project team.

6.4 Building Internal Capacity

Throughout Phase I of the project, all communities displayed internal capacity to participate, as all communities had a representative/champion, who took on the role of community coordinator for the project. During the pilot of Phase II, all of but one of the communities required training for the fieldwork. The fRI Coordinator provided guidance and training in order to effectively and consistently complete the fieldwork, as the communities expressed the desire to build internal capacity to train their own staff to carry out the fieldwork. Going forward, it will be essential for fRI to provide training and help to build community internal capacity for the project and for fieldwork.

6.5 Role of the Coordinator

The role of the HLP coordinator for the project is critical for the success of the project. The coordinator must be available for in-person meetings, must be able to travel long distances, and should be present for all events. The connection and relationship with the communities relies on building trust and transparency. In addition, enhancing personal knowledge of Indigenous protocols and values and learning more about the communities is necessary and is appreciated by the community members. Furthermore, the coordinator should be available for all fieldwork, as this ensures consistency among all the data collected for the project and how the study is implemented. Finally, the coordinator needs to be adaptive in terms of delaying or changing timelines, project objectives, and goals based on community priorities and values.

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APPENDIX A - EXAMPLE OF AN AGENDA

Agenda

Beyond the Trees

COMMUNITY: WORKSHOP

DATE

TIME

Agenda

1. Call to order
2. Opening prayer
3. Land acknowledgment
4. Round of Introductions
5. Consent forms
6. Data Sharing Agreement
7. Introduction to interview questions
8. Lunch
9. Group interview questions
10. Wrap up and adjourn

APPENDIX B – INTERVIEW GUIDE

Interview guide

The following interview guide is being used to inform a larger study to understand the effects of silvicultural treatments and practices on understory vegetation in Indigenous communities.

Community member

1) We wish to talk to you about your knowledge and experiences in the past and today. Your information is important and valuable. Would you mind sharing that information with us? If no, cannot continue. If yes, we will need to take our time explaining the project, its importance and benefits to the community and encourage their participation.
2) Would you be willing, after we have written and recorded your information, to mark on the map to make general or specific locations?
3) Would it be possible to visit some of the places that you will be talking about?

May we use a tape recorder to record our discussion? May we take a picture of you?

Life Biography

4) How long have you or your family lived in this area? Where are some of the places your family has lived?

Perceptions of forest change

5) In your own words, are the forest and its resources important to you and your family? Why or why not?
6) When you were young, what was the forest like? (Quantity/cover, quality). What activities in the forest did you enjoy?
7) In your opinion, have there been any changes to the forests? If yes, what have been those changes?
    a. Quantity/cover
    b. Quality of forest resources (shrubs, medicinal plants etc)

Cultural use

8) How does the community utilize the forest?
    a. Is gathering important to you?
    b. What are some of the specific things that you gather from the forest?
    - *In particular*: Are plant medicines important to you?
        - *Can you share some the ways you use medicinal plants*?
        - Spiritual/health aspects?
9) Where do you find the medicines, berries, herbs, plants, shrubs and/or trees things you gather?
    - Habitat and ownership types- is it located on Crown land, reserve land, etc.
    - Are there places you used to gather that you don't go to anymore? What are the reasonings that you no longer visit those sites?

- What has changed?

10) Has it become easier to find what you gathered /gather compared to 10 years ago?
    a. If not easier: Has is become more difficult to find what you gathered /gather compared to 10 years ago
    b. Can you speak to some of the possible reasons why it is easier/difficult to find these plants?
11) Has it become easier to find what you gathered /gather compared to 20 years ago?
    a. If not easier: Has is become more difficult to find what you gathered /gather compared to 20 years ago
    b. Can you speak to some of the possible reasons why it is easier/difficult to find these plants?
12) How do you take care of these resources to ensure future generations also have access to them?
    - Rules/practices you observe when gathering?
    - Do you return to the same place? Why or why not?
13) Do you share any of the plants you gather?
    - If yes, who?
    - When (holidays, ceremonies, etc)

Silviculture Practices

14) Knowing now how you gather, use and take care of these resources, are (current?) silviculture practices consistent with gathering, use and protection of the resources? Why or why not?
    a. Which specific silvicultural treatments and practices does the community have concerns about?
    b. What are the effects of these silvicultural treatments and practices?
        - Positive and negative aspects
            - access
            - contamination
            - changes in environmental conditions
            - any questions they may have pertaining to a specific plant…
15) In managed forest landscapes vs burned landscapes have you observed any differences?
    a. For example, in clear cut landscapes vs landscapes where variable retention is being practiced.
    b. Burned vs undisturbed landscapes?
    c. Where are these effects more pronounced?
16) What concerns do you have about silvicultural treatments and practices?

17) Can you tell us about some of the specific forest resources that have not returned compared to 10 and 20 years ago?
    a. Are there any that are returned but not in similar condition post-harvest and post-fire (e.g. reduced quantities?)
18) Which plants do you want to make sure that your grandchildren know about?
19) How do you define forest recovery?

Potential solutions

20) You mentioned several concerns. In your opinion and experience on the land, how can these be addressed?
21) If you were to be prioritize these concerns, which would be the most important and the least important ones? Why or why not?
22) What are the most important issues that need to be addressed immediately (and in the long run)? Why or why not?
23) How do you think these issues can be addressed? How would you present these issues and recommendations to forestry policy people, companies and the government?
    a. What are some concrete recommendations that if you had 3 mins with the CEO of a forest company you would make?

General

24) Is there anything that we haven't talked about that you would like to add?

Thank you for your time

APPENDIX C – DATA SHARING AGREEMENT

Principal Investigator:

The Forest Research Institute (fRI Research) is the Principal Investigator for this research titled *Beyond the Trees*. The main contact person will be Vilbert Vabi, Program Coordinator, Healthy Landscapes Program, Forest Research Institute, 1176 Switzer Dr, Hinton, AB, scchmid@friresearch.ca.

1. INVITATION AND ENGAGEMENT PURPOSE

fRI Research is seeking the participation of NATION OR COMMUNITY in this research project. The community is being invited to participate in this research project that seeks to examine the potential impacts of silvicultural practices on understory vegetation. On managed forests, the question of creating or maintaining early seral forest communities via management or changes in management is particularly important, especially where Indigenous communities are dependent on forest resources. The objectives of this project (this proposal) are to: (1) gain a better understanding of Indigenous community values and concerns as it relates to lower vegetation dynamics (via focused, local consultation), and (2) Gain a better understanding of the state of knowledge as it relates to lower vegetation dynamics (via a literature review).

2. ENGAGEMENT PROCEDURES

fRI Research together with NATION OR COMMUNITY intends to conduct three engagement sessions in the community. The first engagement session will be held with the Leadership Council in each participating community. We anticipate that this initial focus group discussion will be attended by 2 Elders and/or Knowledge Keepers from the community. The second engagement session will be held with about (6-8) Indigenous Elders and Knowledge Keepers that are actively engaged in forest use and management. A third engagement session will be held with community members that are not designated as either Indigenous Elders or Knowledge Keepers, but who are knowledgeable or have an interest in forest management, have knowledge of culturally important plants and/or may be crucial in the transfer of knowledge between generations. These engagement sessions will identify attributes of silvicultural practices that could contribute to positive and negative outcomes on socio-cultural, economic, and environmental aspects of the landscape. With the permission of the community and research participants, we intend to record these engagement sessions.

At any time during the engagement session, you may refuse to answer any question, or you may ask that your response to a question is not recorded. You also have the right to end the interview at any time, for any reason.

At the end of the engagement session, research participants will be given the opportunity to request a review of the contents of any audio recording. If you chose to review the recording, you can review it immediately or a time will be arranged for you to do so. At this time, participants will be informed that they may make a request to edit portions of their contribution to the engagement sessions. If this request is made, the recording will be edited in accordance with the request. If participants are satisfied with the contents of the original recording, it will be retained in its original condition.

3. RESULTS FROM THE ENGAGEMENT SESSIONS

Information gathered during the engagement sessions will be used to prepare a '**what we heard'** report by the facilitator that will be shared with the community and fRI Research. A 'what we heard' report from each engagement session will be produced by the facilitator and shared with the representatives of the community and fRI Research. The information will enable both parties gain a better understanding of a) what, where, when, and how various (lower vegetation) species were used by the Sturgeon Lake Cree Nation, and if, how, and in what ways the community feels that forest harvesting may be affecting the provision of those services.

If you require information on how you can access the report, please contact the Principal Investigator or the community representative at the email address provided above.

4. POTENTIAL RISKS OF THE RESEARCH

We do not anticipate that the community will be harmed during this project. However, as indicated above you can 1] participants can end their participation in each engagement session at any time and withdraw from the engagement process 2] refuse to answer any questions 3] request access to any record documenting the engagement session including any written, or audio records 4] or request that any contribution they make be partially or completely removed from the 'what we heard' report**.**

If in any way after the engagement, we feel that the information you provided during the engagement sessions is compromised, we will contact and inform the community of any action that we will take. At that time, the community can inform us of what they think is the most appropriate action we should take.

5. POTENTIAL BENEFITS OF YOUR RESEARCH

Engaging with the NATION OR COMMUNITY to learn about their observations and working towards whole landscape silviculture would enable both forest management companies and the community to identify understory vegetation that is of cultural, spiritual and economic importance to the community. This project will also examine and record the impacts of silvicultural practices on understory vegetation and incorporate Indigenous knowledge into forest management practices in ways that preserve these culturally significant plants.

On a broader scale, this project is a ground-breaking initiative that will hopefully generate a) a blueprint for others to follow, and b) greater levels of trust with the HLP from Indigenous Peoples and communities in general.

6. CONFIDENTIALITY

The information collected during the engagement sessions will be protected in line with the Privacy Act of Canada **and the** Personal Information Protection and Electronic Documents Act (PIPEDA). Accordingly, any information you provide during this study will be held in the strictest confidence. The information generated from this project will be co-owned and co-managed by the NATION OR COMMUNITY and Forest Research Institute.

7. LIMITS OF CONFIDENTIALITY

We promise full confidentiality for all the information you provide during the engagement sessions.

8. **PAYMENT**

For the engagement sessions, Elders, Knowledge Keepers and ISC-4 representatives will be paid $350 per engagement session. For the third engagement session, youth will be paid $150 each. Refreshments, tobacco, and cloth will also be provided for each engagement session.

9. **CONTACT FOR INFORMATION ABOUT THE INTERVIEW**

If you require clarification, please contact David Andison at andison@bandaloop.ca

10. **CONTACT FOR COMPLAINTS**

If you have any concerns or complaints about your rights as a participant or your experiences during the engagement session, please contact the Forest Research Institute for support at andison@bandaloop.ca

11. **PARTICIPANT CONSENT AND SIGNATURE**

Your participation in this research project is voluntary. Your signature indicates that you have given your consent to participate in this study.

_____

Community Representative Date

_____

Printed Name of the Community Representative Date

_____

fRI Lead Investigator Date

_____

Printed Name of the fRI Lead Investigator Date

During this project, we consent to audio recording:

_____

Printed Name of the Community Representative Date

_____

Witness Date

During this project, we consent to being photographed:

_____

Printed Name of the Community Representative Date

_____

Witness Date