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**Report Title:**  
Sagkeeng Anicinabe  
Psychosocial Impact  
Assessment



# narratives



# Quality Information

## **Report Prepared for:**

### **Sagkeeng First Nation**

Fort Alexander, MB  
R0E 0P0

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Without your support, expertise, knowledge, and stories, this work would not have been possible.

## Executive Summary

This Psychosocial Impact Assessment (the “Study”) is intended to serve as a complement to Sagkeeng First Nation’s existing study assets documenting baseline information, impacts, and other Project assessments, and in facilitating ongoing discussions and decision-making regarding the future of the Whiteshell Laboratories Site. The Study provides a psychosocial baseline that entails an account of Sagkeeng’s collective identity as emerging from gathered data sources and Valued Components derived from semi-structured interviews with 26 community members conducted between August 14<sup>th</sup>, 2020 and September 5<sup>th</sup>, 2020. The Valued Components are family, community, sustenance, territorial sovereignty, spirituality, and flora. Psychosocial impacts are then presented. These include an account of experienced historical impacts, an account of experienced impacts from industry influence and activity in the area, an account of psychosocial impacts from Whiteshell Laboratories presence in the area, and an assessment of psychosocial impacts expected to occur from each alternative currently in consideration. Alternatives 1, 3 and 4 do neither, as with the impact on mental health, they sustain a status quo in defiance of the communities wishes. If appropriate measures were in place, and the fear associated with potential risks during the process of dismantling addressed, Alternative 2 offers an opportunity to prevent further harm, and allow the community to start healing. Specifically:

- **Alternative 1** entails a deferral of exposure, and according to the proponent, when exposure to radioactive waste does happen, it would happen at a relatively safe time compared to exposure that may happen before the radioactive materials have reached their half life. While Alternative 1 does offer removal of radioactive waste from Sagkeeng territory in 30 years, it does not offer a guarantee that the proponent will not revisit other alternatives in the next 30 years that have elements of in situ decommissioning, leaving members vulnerable to fear, anxiety, confusion and loss of agency in the event that the issue does come up again. In essence, members will not have any closure on the matter for a period of 30 years, and risk of distress whenever the matter is raised again. More specifically, the source behind the trauma remains, continuing to impact the psychological, emotional, and cultural wellbeing of this community. The Alternative therefore entails ongoing distress about having radioactive materials around them for 30 years resulting in a further decline in their already weakened psychosocial health and a significant delay in their ability to start improving their psychosocial wellbeing. Alternative 1 represents lack of redress for harm already caused, and ongoing psychosocial harm to the community for the next 30 years.
- **Alternative 2** entails immediate removal of radioactive materials, beginning of potential improvement in the psychosocial wellbeing of the Sagkeeng Anicinabe, but comes at the potential cost of a higher risk of environmental exposure which would cause significant anxiety, stress, fear in the short-term, but would allow the community to start the process of healing if (and only if) the process of removal is carried out safely with no environmental damage. Unfortunately, the lack of trust in the proponent and the perceived lack of transparency from the proponent would continue to act as barriers to the perception of how safe the removal

process may be. Provided the proposed mitigation measures are implemented, and the lack of trust mitigated, and the community engaged meaningfully, Alternative 2 offers a psychosocially healthy option. Furthermore, the process of engaging this option, might cause some barriers of trust to be diminished as community members may feel that their needs are finally being heard and met. This option does offer an opportunity (if executed properly, with the mitigation measures) to prevent further harm and improve the psychosocial health of the community.

- **Alternative 3** entails removal of some radioactive materials, burial of most of it, and a grout system which is expected slowly leach material into the receiving environment at an unknown rate. Coupled with monitoring requirements ceasing in 100 years, this option would represent a violation of most of Sagkeeng's value criteria. The alternative offers a single point of distress through removal activities, followed by multigenerational distress given the knowledge that radioactive materials will be kept in the earth in perpetuity and slowly be leaching into the environment at an unknown rate. While Alternative 3 does offer some removal action immediately that would be beneficial from a psychosocial perspective, the presence of radioactive material in the long turn will continue to be a source of significant distress.
- **Alternative 4** offers removal of most of the radioactive material, but burial of some of it, and a grout system which is expected slowly leach material into the receiving environment at an unknown rate. Coupled with monitoring requirements ceasing in 100 years, this option would represent a violation of most of Sagkeeng's value criteria. The alternative offers a single point of distress through removal activities, followed by multigenerational distress given the knowledge that radioactive materials will be kept in the earth in perpetuity and slowly leaching these materials into the environment at an unknown rate. While Alternative 4 does offer some removal action immediately that would be beneficial from a psychosocial perspective, the presence of radioactive material in the long turn will continue to be a source of significant distress.

The Whiteshell Laboratory Site has been a significant source of distress for members of Sagkeeng, who have found it to be responsible for environmental degradation, particularly the water, vegetation, and wildlife, on which they depend. Trauma-informed mitigation measures are strongly recommended, along with Draft principles for Sagkeeng and CNL to consider building upon to implement the following recommended measures:

- Building a Trauma-Informed Decision-Making Model,
- Building a Trauma-Informed Engagement Plan,
- Building a Long-term Monitoring Program,
- Providing capacity and access to independent expertise, and
- Actively investing in improving the psychological wellbeing of Sagkeeng members.

It is emphasized that these mitigation measures do not undo the harm already done but create an opportunity to prevent further harm and amplify opportunities to heal, re-establish their ties to the land, their culture, spirituality, and their individual and collective identity as the Sagkeeng Anicinabe.

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# 1 Introduction

## 1.1 Study Overview

Narratives Inc. is pleased to provide this Psychosocial Impact Assessment Study (the “Study”) for Sagkeeng First Nation (“SFN”) in relation to the Canadian Nuclear Laboratories’ (“CNL”) proposed in-situ decommissioning of the Whiteshell Reactor 1 (“WR-1”) at the Whiteshell Laboratories (the “Project”). The Study explores experienced past, present, and potential future social, psychological, cultural, and spiritual impacts of WR-1, the proposed in-situ decommissioning, and other decommissioning alternatives. The Study has been made possible through funding provided by the Canadian Nuclear Safety Commission (“CNSC”) and the participation of Sagkeeng Anicinabeg membership in sharing their experience, knowledge and stories as it relates to their individual and collective identity – a lived experience as an Anicinabeg.

This Study is intended to serve as a complement to SFN’s existing study assets documenting baseline information, impacts, and other Project assessments, including the Sagkeeng Anicinabe Land Use and Occupancy Study<sup>1</sup> and the Sagkeeng Anicinabe Alternative Means Assessment<sup>2</sup>, in facilitating ongoing discussions and decision-making regarding the future of the Whiteshell Laboratories Site.

The study is laid out in six sections:

1. **Study Overview** providing contextual information about the decommissioning project, Study scope, and Study limitations.
2. **Study Design** detailing the approach employed for the psychosocial analysis, the incorporation of existing assets, and methods employed to undertake the study.
3. **Psychosocial Baseline** establishing:
  - a. an account of SFN collective identity as emerging from gathered data sources,
  - b. Valued Components (VCs) mapping illustrating the interconnected and constitutive character of VCs, and
4. **Psychosocial Impacts** assessment including:
  - a. an account of experienced historical impacts – causal chains that have produced cascading effects on SFN up to the present day and that lay the foundation of potential impacts moving forward.
  - b. An account of experienced impacts from industry influence and activity in the area
  - c. An assessment of psychosocial impacts on the Valued Components (VCs) from the Whiteshell Laboratories Site of each proposed alternative.
5. **Proposed Mitigation** measures.

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<sup>1</sup> Rachel Olson and Firelight Research Inc., & Sagkeeng Anicinabe, 2019

<sup>2</sup> Sagkeeng Anicinabe and Firelight Research Inc., 2020



### 1.2 Background

The Whiteshell Laboratories Site in Pinawa, Manitoba, is located approximately 66km upstream of Fort Alexander Indian Reserve and on the ancestral lands of SFN, to which SFN claims Aboriginal Title. The facility was established by Atomic Energy of Canada Ltd. (“AECL”) in 1963 as a nuclear research laboratory. It was centred on the Whiteshell Reactor 1 (“WR-1”) – at the time, the largest of its kind in the world. The reactor was intended to assess the use of organic primary coolants in CANDU power reactors (as opposed to the use of heavy water used in conventional CANDU reactors). The reactor served as a test prototype until the program ended in 1972, at which point, WR-1 was used for irradiation, experimentation, and heating (Canadian Nuclear Society, 1982). The WR-1 reactor was permanently shut down in 1985 and has undergone a series of phases of decommissioning.

In 2002, a decommissioning license was granted by the Canadian Nuclear Safety Commission (“CNSC”) for the Whiteshell Laboratories Site as a whole. This license assumes a temporary period of on-site storage with eventual transfer to an off-site ‘deep geological repository’ once one could be identified. According to the Comprehensive Study Report (“CSR”) completed in support of the license, consultation with SFN between 1999 and 2002 yielded several issues and concerns pertaining to environmental effects, water quality, accidents, reporting, and ongoing monitoring. Each concern is marked in the CSR as “resolved” with reference the results of environmental study where applicable, or in the case of reporting and ongoing monitoring, commitments to involve SFN henceforth in a meaningful way (Atomic Energy of Canada Limited, 2001, pp. 12.27 - 12.28).

CNL, a private-sector company, is presently responsible for the decommissioning of the site. CNL is currently proposing an *In Situ Decommissioning* (“ISD”) – which calls for the radioactive material to be stored at the site indefinitely. To obtain a license from the CNSC for the ISD proposal, CNL submitted a Draft Environmental Impact Statement (“EIS”) for review and public comment in 2017. Following the provincial, federal, and public review process (concluded December 2017), CNL was required to provide a significant volume of information to fill in gaps in their Draft EIS. In March 2020, CNL failed a completeness check of its responses to feedback received, citing significant deficits in Indigenous engagement, among other deficits.

In its review of the Environmental Impact Study (EIS) report, SFN expressed strong reservations about the assessment methodology employed throughout the impact assessment process (Sagkeeng First Nation, 2020). In April 2020, CNSC communicated that it expects CNL to rectify Indigenous engagement deficits, including validation from SFN about the adequacy and completeness of CNL responses to Indigenous concerns.

### 1.3 Study Context

*A distinguished toxicologist was invited to speak at Akwesasne about adverse health effects associated with PCBs. She began her talk by noting that many Akwesasne residents, especially women of childbearing age, had virtually eliminated consumption of local fish and wildlife and congratulated Mohawk people for taking*



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*such an active role in decreasing the adverse health effects associated with PCB exposure. Much to the surprise of this toxicologist, Mohawk residents did not agree that the solution to contaminant issues was to change traditional cultural practices and behaviours to eliminate toxicant exposure...[She] was quick to point out that current risk assessment models state that if there is no exposure, then there are no adverse health effects.*

*Arquette, et al., 2002, p. 261*

SFN has resided along the Winnipeg River and Traverse Bay, Manitoba since Time Immemorial. Currently situated on Fort Alexander Indian Reserve #3, its traditional territories include lands, waters, skies, and soils within Treaty 1, to which SFN is a signatory, as well as Treaty 3, and Treaty 5. SFN membership continue to exercise their inherent Aboriginal and treaty rights within their territory – including in the vicinity of the Whiteshell Laboratory Site.

In January 2018, SFN provided CNSC with a comprehensive review of CNL’s submitted EIS. Fundamental in this review was the unequivocal rejection of the ISD alternative, citing concerns with the assessment methodology, and a lack of meaningful consultation with SFN. A key assertion made by SFN in its comments to CNL was that perceived physical impacts have *real* effects on culture, society, mental wellbeing, and spirituality. The mere existence of a radioactive waste disposal facility requiring perpetual care is expected to constitute a significant source of anxiety for SFN membership, alienating them from their traditional territory and *Anicinabe Pimatiziwin* (Anicinabe way of life).

As part of understanding the context for this study, it is important to note that SFN’s concerns about environmental degradation, contaminants, and health since the late 1980s have been studied through conventional analyses of impacts. For example, in 1994, the Winnipeg River Task Force was commissioned to review and make recommendations on SFN’s concerns regarding the Winnipeg River, including industrial contamination from the Pine Falls Abitibi Papermill, the operation of Manitoba Hydro dams, and coolant leaks from the Whiteshell Laboratories Site (CNL, 2020). The report concluded that

- SFN’s water treatment plants produced clean drinking water,
- Health Canada studies showed no increase in cancer rates or cancers attributable to environmental contamination, and
- that the Whiteshell Laboratories Site never posed, and likely will never pose, a “significant direct threat” to the health of Sagkeeng residents.

This approach to the study of impacts was continued in AECL’s CSR, which dealt with a range of concerns including impacts to water quality and riverbed sediments, impacts to flora and fauna, seepage of waste material into groundwater, and accidental discharge (i.e. spills). Here, AECL communicated the existence of contaminants in the receiving environment, that a risk for further contamination is present, and that toxic materials will be stockpiled in traditional territory.



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Over at least the past 75 years, SFN members have observed a higher incidence of cancer, diabetes, declining mental health, suicide, and substance abuse (Interlake-Eastern Regional Health Authority, 2019), among others relative to the province's non-Indigenous population. They have simultaneously reported declining numbers and disease in game and fish, visible chemical and particulate discharge in the Winnipeg River, burns and rashes from contact with the river water, and bacterial and viral outbreaks within the community (Winnicki, 1995, p. 9). Since engagement on these issues began, SFN has been failed by conventional approaches to impact assessment that do not consider the psychological effects of these observed events.

Impact Assessment (IA) has its roots in the mid-twentieth century as a tool to predict and assess the impacts of policies or projects on human environments with a focus on biophysical criteria (Partal & Dunphy, 2016, p. 2). Developments in strategic public policy areas like health, economics, environment, and social services have been key driving forces in expanding recognition for broader social and human-ecological considerations for use in causal inference in IA. Canadian policy circles have established a clear recognition for the importance of psycho-social, cultural, and spiritual domains of analysis. Health Canada, for example, endorses a comprehensive view of human health that sees the environment as one of many variables affecting human health that is not limited to the mere absence of disease or infirmity. This view acknowledges the influence of political, social, cultural, and economic elements and the interplay of these elements with experience of the natural environment as a “complex web of factors determining our quality of life” (Health Canada, 2004).

Additional policy commitments provide particularly strong direction toward holistic domains on which to assess impacts in the context of Indigenous communities. The United Nations has consistently endorsed a definition of Indigeneity that inextricably ties culture, language and heritage to ancestral territory and resource use (United Nations, 2004; Gibson, MacDonald, & O'Faircheallaigh, 2011). In the September 2020 Speech from the Throne, the Government of Canada announced its intention to introduce legislation to implement the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) by the end of the year, enshrining this understanding of Indigeneity in Canadian Law (Indigenous and Northern Affairs Canada, 2017). Similarly, at the provincial level, the Eastern-Interlake Regional Health Authority acknowledges that “the Indigenous peoples of Manitoba experience persistent health disparities resulting from historic and current traumatic experiences related to colonization and racism” (Interlake-Eastern Regional Health Authority, 2019, p. ix). These examples provide ample policy guidance on the appropriate scope of IA in Indigenous territory to include a broader range of criteria, particularly in the domains of psychology, culture, society, and spirituality.

As part of its response to the EIS, SFN has advocated for the meaningful consideration of Indigenous and psycho-social criteria in the Project. To this end, SFN has produced several assets to support this consideration, listed below:

- **Psycho-Social Brief** (January 2018) – Notes on the implications of Potential Psycho-Social impacts (including recommendations). Provided as “Appendix 2” to SFN’s comments on the Draft EIS in January 2018.



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- **Sagkeeng Anicinabe Land Use and Occupancy Study** (February 2019) – Specific to Canadian Nuclear Laboratories’ Proposed In-Situ Decommissioning of the WR-1 Reactor at Whiteshell Laboratories (“SALUOS”)
- **Whiteshell WR-1 Alternatives Assessment: Sagkeeng Values / Criteria** (February 2020) – A list of preferred criteria for use in a reassessment of the four technically and economically feasible decommission options.
- **Sagkeeng Anicinabe Alternative Means Assessment** (October 2020) – A (re)assessment of CNL’s four technically and economically feasible decommissioning alternatives according to eight alternative means assessment tests developed by SFN.

This Study is designed to complement the above Project Assets and incorporates their findings and content where possible.

### 1.4 Study Scope

This study is focused on identifying and understanding the impacts to culture, society, mental wellbeing, and spirituality established over generations of concern about environmental degradation, loss of agency in its territorial integrity, and distrust of the perceived originators of these impacts.

More specifically, the Study has three overarching objectives, including

1. the analysis of perceptions of SFN members resulting from the operation of WR-1,
2. identification of the likely psychosocial impacts of the ISD alternative, and
3. identification of the likely psychosocial impacts of the alternatives to the ISD decommissioning.

In support of these objectives, the Study includes:

- Project management activities pertaining to budget, schedule, and scope refinement with SFN;
- methods development and data collection activities, including
  - literature scan,
  - Interview protocol and consent forms,
  - data collection and handling protocols, and
  - community coordinator orientation;
- community member meetings planned in consultation with the Community Coordinator, including guidance on the provision of Anicinabemowin language services;
- provisions for meetings directed toward protecting the health of meeting participants and preventing the spread of COVID-19;
- 27 interviews with 26 community members;
- transcription and qualitative analysis of interview data to identify valued components and impact pathways focused on the domains of culture, society, mental wellbeing, and spirituality;
- analysis of differential impacts of other decommissioning alternatives, including identifying appropriate mitigation measures;
- completion of a draft report for refinement with SFN; and



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- final reporting, including the provision of data collecting in a logical and accessible format to be handed over to SFN leadership.

### 1.5 Study Limitations

- This study has several limitations that the reader should bear in mind when reviewing its contents.
  - References to “identity”, “culture”, “society”, “psychology”, and “spirituality” are made throughout this study in the context of communication tools like lists, concept maps, and other media. Their use and meaning are strictly relative to the scope of this study and interpretations and understanding of its authors. They should not be construed in any way as essential, final, or complete representations of SFN or its membership.
  - The Study is not inclusive of the perspectives of all knowledge keepers. Budgetary, time constraints, and the circumstances around COVID-19 limited the number of participants available to provide knowledge. An absence of data must not be interpreted as an absence of impact.
  - This work builds upon works completed to date and presents potential mitigation measures for discussion purposes only. Ultimately, mitigation measures should be decided collaboratively between CNL and SFN.
  - The language used to conduct the study is English. The reader is respectfully reminded to be cognizant of the fact that the depth of concepts may get lost in translation from how the participants would conceptualize a concept in Anicinabemowin into English language. Anicinabemowin is a verb-focused language, as opposed to the noun-focus of English and other European languages. The verb-focus of Anicinabemowin leads to a linguistic world filled with actions and processes, rather than objects and things (Lyons, 2010). Therefore, direct translations into languages like English strip meaning from the allegorical, story-laden content carried within Anicinabemowin words themselves, i.e., where one or two words in Anicinabemowin may describe a concept in its entirety, or sense of being, or feeling, or emotion; several words or even sentences may be needed to explain such in the English language. This document represents the authors’ best attempt at figuratively *translating* to be able to understand the expressions to the best of our ability.



## 2 Methods

This section describes the methods employed for the Study. See **Appendix 1** for a brief overview of methodological considerations informing the Study design.

### 2.1.1 Literature Review and Initial Coding

Applicable literature and documentation were reviewed to collect and organize available information. The review was conducted on the following documents:

- Whiteshell Reactor-1 Four Alternatives Descriptions
- Environmental Impact Statement for the In Situ Decommissioning of WR-1 at the Whiteshell Laboratories Site
- Sagkeeng O-Pimatiziiwin 2 Traditional Knowledge Study for the Manitoba-Minnesota Transmission Line Project
- Multiple Accounts Evaluation of Alternative Decommissioning Means for Whiteshell WR-1 Reactor (PowerPoint Presentation)
- Sagkeeng Anicinabe First Nation Review Comment Table
- Whiteshell WR-1 Alternatives Assessment: Sagkeeng Values/Criteria
- Notes of the Implications of Potential Psycho-Social Impacts
- Sagkeeng Anicinabe Land Use and Occupancy Study Specific to Canadian Nuclear Laboratories' Proposed In Situ Decommissioning of the WR-1 Reactor at Whiteshell Laboratories
- Sagkeeng Anicinabe Land Use and Occupancy Study Specific to Manitoba Hydro's Winnipeg River Dams

Common patterns and broad themes were identified and supported subsequent coding activities and the establishment of an interview protocol. Open (in vivo) coding was carried out on the above documentation to support the development of a preliminary code book. Predetermined codes were displayed graphically through a mind mapping exercise to visually represent and organize themes and codes collected in preceding activities, helping to establish early coding frames. The codebook was then consolidated based on the results of the above activities.

Two consent forms were prepared for participants to sign to participate in an interview. The purpose of these forms was to obtain the informed consent of the interview participant. A copy of the forms can be found in **Appendix 2**.

### 2.1.2 Community Coordination

Twenty-seven (27) interviews took place over five days:

- In Winnipeg, Manitoba on:
  - August 14<sup>th</sup>, 2020
  - August 18<sup>th</sup>, 2020
  - August 22<sup>nd</sup>, 2020



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- In Pine Falls, Manitoba on:
  - September 4<sup>th</sup>, 2020
  - September 5<sup>th</sup>, 2020

Interviewee selection and scheduling were coordinated by Sagkeeng Community Coordinator Carl Fontaine. An information sheet was circulated in the community in advance of the interviews taking place to allow potential interviewees the opportunity to familiarize themselves with the Project and consent forms. The information sheet can be found in **Appendix 3**. The information package contains:

- A description of the current status of the Whiteshell Reactor 1 (WR-1)
- The Project context
- A brief description of each decommissioning alternative
- A brief description of the interview process

Strict protocols based on public health guidelines were followed during interviews to prevent the spread of the novel coronavirus, COVID-19.

### 2.1.3 Data Collection

#### 2.1.3.1 Semi-Structured Interviews

Twenty-six (26) members of Sagkeeng First Nation participated in the Study. Interview Guidelines provided guidance throughout the interview process and can be found in **Appendix 4**. The Interview Schedule was developed to prepare for the interview process and to establish the interview purpose and direction. Interviews followed a semi-structured format. A limited number of scheduled “prompting” questions were designed to encourage the initiation of discussion of topics relevant to the study, while unscheduled “probing” questions were prepared to explore topics in-depth. The qualitative “feel” of the interview process was intended to emulate natural conversation. A guide to the topics explored during the interview process is presented in the table below:

*Table 1. Table of interview topic categories and subcategories.*

Categories				
Environment		Exposure (Actual/Perceived)	Cultural Continuity	The Decommissioning Project
Subcategories	The Lands	Radioactive Liability	Livelihood	Agency
	The Soils	ISD Failure	Language	Psycho-social Impacts
	The Waters	Risk of Contamination	Ceremonies	Lack of Precedent



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	The Skies		Sacred Sites	Measures to Reduce Vulnerability
	Environmental Changes		Spirituality	
	Access		Tradition	
	History of System Impact-Burden		Inherent and Treaty Rights	

Transcription was provided by *Rev*, a secure and confidential online transcription service. This service automatically transcribes recorded data and is overseen by a human transcriber. Transcriptions are then reviewed by Study administrators for additional quality assurance to remove any remaining errors.

### 2.1.3.2 Psychological Assessment

Thirteen members of the community participated in the psychological assessment. This assessment included a broad review of their personal and family history, potential difficulties tied to mental illness, community engagement, and their cultural and ethnic identity. Individuals who participated ranged between 51 years old to 80 years old, allowing this review of psychological impact to consider a multigenerational impact on mental health. A minority of those interviewed had remained in the community, while most had now left, or some had left for most of their adult life and returned later in life. Interviews were based loosely on a structured clinical interview to obtain clinical diagnoses but needed to account for differences in style of cultural expression of histories, perceptions of mental health difficulties, and participants' willingness to share personal and traumatic histories. Though the interviews were individual and there was some assessment of their past and current mental health, the purpose of the assessment is to relay the impact of Whiteshell Laboratories and the WR-1 Reactor on the SFN community as a whole, over several generations.

### 2.1.4 Coding & Qualitative Data Analysis

The coding of interview data adhered to inductive “grounded theory” methods to prioritize empirical content and reserve the application of research coding frames until later stages of analysis. This approach is intended to prioritize the lived experience of participants by permitting and integrating unanticipated patterns in the data.

This process can be divided into two phases of analysis described below:

- Open Coding – in-vivo and open coding techniques identify noteworthy patterns in the data without reference to a specific coding frame.
- Axial Coding - Open codes are consolidated into code categories with reference to the codes identified in the literature review process while integrating new codes identified in the open coding process. A finalized codebook is provided in **Appendix 5**.



## **Sagkeeng Anicinabe Psychosocial Impact Assessment**

Qualitative data analysis was conducted using the MaxQDA platform. Measures used to analyze the data include code co-occurrence and code proximity modelling. These relationships were modelled using the Gephi data visualization platform, where additional calculations were made to produce Valued Components. This is explained in greater detail in Section 3.2.



### 3 Psychosocial Baseline

#### 3.1 Identity Map

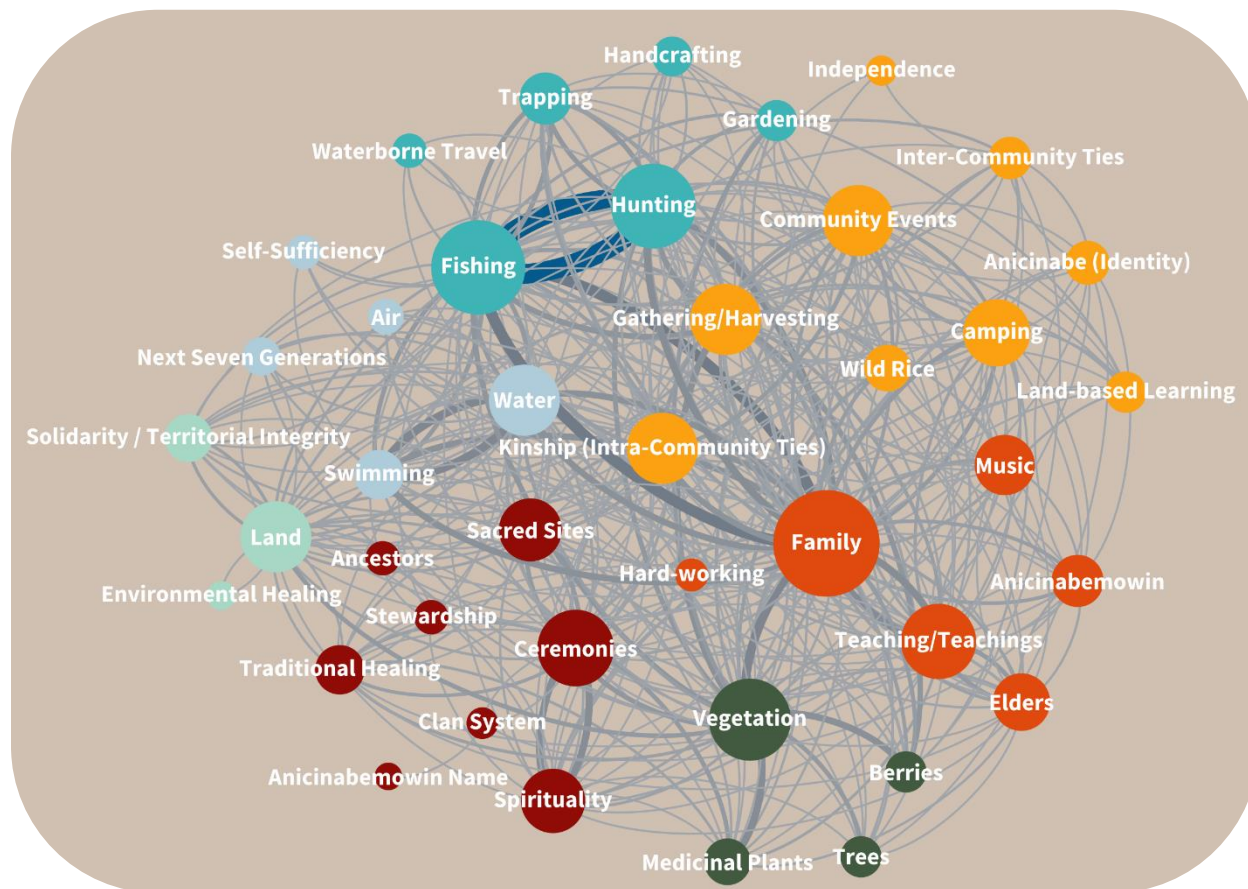


Figure 1: Sagkeeng Anicinabe Identity Map

Figure 1 above is an *Identity Map* for the Sagkeeng Anicinabe, generated from an assessment of language use in interviews conducted as part of this Study. It is intended both as an illustrative tool and to serve as a first step in the development of Valued Components. The following provides an overview on how to interpret the Identity Map and the role it plays in the identification of Valued Components.

The Identity Map is made up of Nodes connected (or not connected) by lines.<sup>3</sup> Nodes are elements of transcript data identified in the coding process. Lines, by contrast, show whether a node is connected or “co-occurred” with another node.<sup>4</sup> The size of the node indicates the relative sum (or “degree”) of edges between the node in question and all other nodes. For example, the node for *Family* was largest node pervasively connected to most of the language system, appearing in co-occurrence with 70% of

<sup>3</sup> In graph theory, these line connections are called “Edges”.

<sup>4</sup> For the purposes of this study, “co-occurrence” means intersection or proximity within one paragraph of transcript text.

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codes at least once. The size of an edge communicates the strength of co-occurrence between two nodes. For example, fishing and hunting had very strong co-occurrence, accounting for 32% and 39% of all of their connections, respectively.

Taken together, the above details support the Identity Map as a primarily *illustrative* tool. The tangle of connections between nodes demonstrates the profound level of interconnection between important parts of Sagkeeng Anicinabe identity. As an example, Figure 2 below shows how it is impossible to speak about *Traditional Healing* without also speaking about *land*, *water*, *sacred sites*, *kin*, *vegetation*, *medicines*, *teachings*, and *elders*.<sup>5</sup> Likewise, this also suggests that impacts to *Traditional Healing* must be expected to have or be a part of *cascading effects* (Gibson, MacDonald, & O'Faircheallaigh, 2011, pp. 1805-1806) on the noted components of Anicinabe identity.

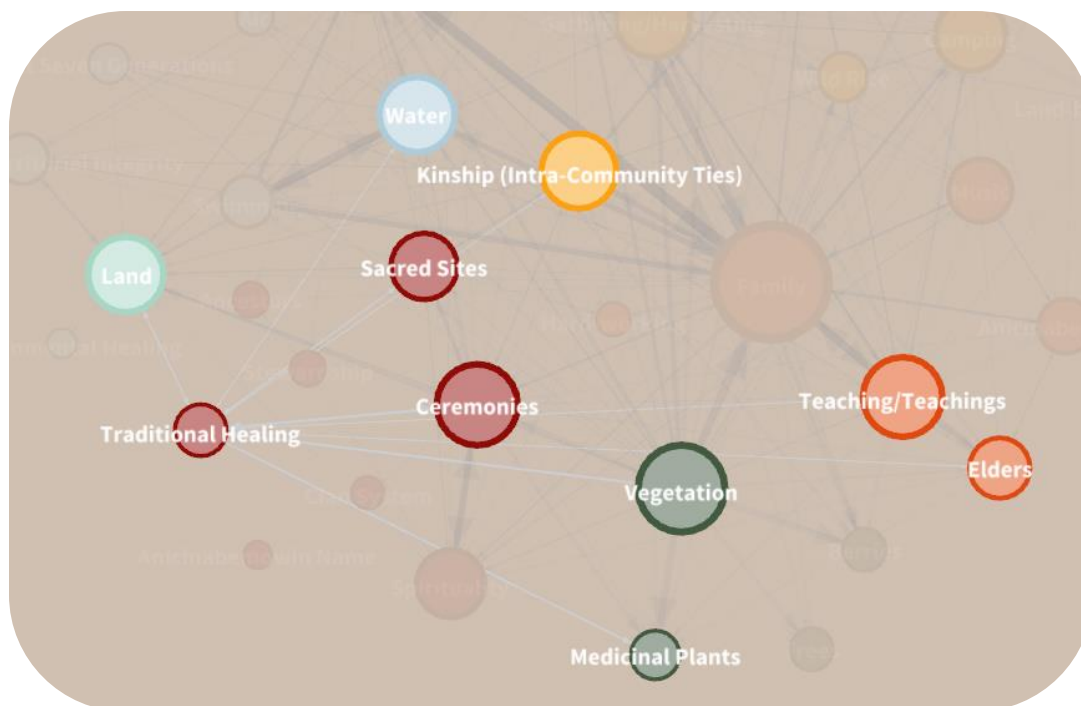


Figure 2: Identity Map Highlight: "Traditional Healing"

The Identity Map also performs a key *analytical* function in the Study that serves to ground the selection of Valued Components empirically in the transcript data. The colour of the nodes was generated algorithmically to identify “natural” communities or grouping patterns in the data.<sup>6</sup> A shared group implies greater average co-occurrence within the group than between groupings. It should be noted that a grouping does not imply all nodes within the group are directly connected, nor does it imply that there are weaker connections between nodes in other groups. The application of the algorithm to this Identity Map yielded 7 groups but was reduced to 6 due to the apparent similarity between two of the

<sup>5</sup> It is important to note that these connections as reported are based solely on co-occurrence within the data. It is not meant to constitute a complete or definitive record of the constitutive components of *Traditional Healing*.

<sup>6</sup> Algorithmic *Modularity*. Blondel, Guillaume, Lambiotte, & Lefebvre, 2008 as cited in Gephi: Graph Visualization and Manipulation software.

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groups. These groups are identified below and, for the purposes of this phase of analysis, named for their apparent group characteristics. This is analyzed in greater detail in Section 3.2.

- Intergenerational Knowledge / Culture
  - Family
  - Teaching / Teachings
  - Music
  - Anicinabemowin (Anicinabe language)
  - Elders
  - Hard-working (a valued personal characteristic)
- Community
  - Kinship (Intra-Community Ties)
  - Gathering / Harvesting
  - Community Events
  - Camping
  - Wild Rice
  - Inter-Community Ties
  - Land-Based Learning
- Sustenance
  - Fishing
  - Hunting
  - Trapping
  - Independence (a valued personal characteristic)
  - Gardening
  - Handcrafting
  - Waterborne Travel
  - Self-Sufficiency (a valued personal characteristic)
- Territorial Sovereignty<sup>7</sup>
  - Water
  - Land
  - Solidarity / Territorial Integrity
  - Next Seven Generations
  - Air
  - Environmental Healing
- Spirituality
  - Ceremonies
  - Spirituality
  - Sacred Sites
  - Traditional Healing
  - Stewardship
  - Ancestors
  - Clan System
  - Anicinabemowin Name
- Flora
  - Vegetation
  - Medicinal Plants
  - Berries
  - Trees

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<sup>7</sup> “Sovereignty” is used here in the “non-absolute” sense, referring not to the extent or character of exclusive control over territory, but to a scope of matters over which a holder of authority could be considered sovereign (Philpott, 2020). To this end, SFN membership are holders of unique rights (inherent Aboriginal and Treaty) and responsibilities (such as stewardship) to the environment, collective ownership and ability to exercise such rights, and the wellbeing of their lands. As a Valued Component, Territorial Sovereignty refers to SFN’s authoritative interest in its territory as it relates to these rights and responsibilities. The authors considered using an alternative term to describe these concepts, but Sovereignty was concluded to best represent them. As a reminder, this ties back to the limitations of the English language to capture nuanced concepts in the Indigenous worldview (see Section 1.5).



### 3.2 Valued Components

Valued Components (VCs) are used in Impact Assessment to identify important aspects of the environment that may be affected by a Project, event, or other intervention. VCs may include tangible biophysical or artifact assets, and may also include less tangible conceptual assets, like culture, social practice, and spirituality.

This section defines six VCs using the results of the Identity Mapping exercise discussed in Section 3.1. In developing these definitions, the values, preferences, and priorities communicated by SFN in other assets as part of its recent engagement with CNL are considered here in order to ensure completeness and cogency.

The Sagkeeng Anicinabe Land Use and Occupancy Study (“SALUOS”) considered four Valued Components, including:

- Water Resources;
- Medicines, berries and other food plants;
- hunting & trapping; and
- Anicinabe Pimatziwin (defined therein as “Anicinabe living” encompassing culture, identity, and way of life).

Taylor et al. (1991) categorizes psychosocial effects by social scale. Effects are classified into individual, social network, and community levels, as described below:

- Individual: These effects include emotional (e.g. guilt, loss of control, anger, fear), behavioural (e.g. help-seeking, task performance and eating and sleeping disorders), and somatic (e.g. fatigue, headache, depression, respiratory disorders)
- Social Network: These effects include social isolation, interpersonal conflict, and family disruption
- Community: These effects include dislocation and stigmatization.

Any consideration of Valued Components must therefore take into account the individual, the social, and the communal.

Valued components were chosen based on critical conditions for continuation of cultural / traditional activities. The Whiteshell WR-1 Alternatives Assessment: Sagkeeng Values / Criteria document also communicated 12 priorities for use in renewed consideration of decommissioning alternatives. These include:

- 1) Protecting and healing the water
- 2) Protect and Promote Sagkeeng Culture / Spirituality
- 3) Territorial Integrity
- 4) Food security and faith in traditional food sources
- 5) Reduced mental stress / fear / stigma
- 6) Reduced long-term risks in Sagkeeng territory
- 7) Reduced management requirements for future generations
- 8) Flexibility to adapt to contingencies



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- 9) Impact equity – not putting the impacts on the shoulders of Sagkeeng
- 10) Higher affected public / Sagkeeng acceptability
- 11) Lower Treaty rights impacts overall
- 12) Adherence to / respect for Indigenous laws and norms

In consideration of the above information, valued components are defined below. Representative examples of facets of these valued components are also provided.

### 3.2.1 Valued Component 1: Family

Family is a core component of the Sagkeeng Anicinabe identity and a critical determinant of emotional wellbeing and mental health. The web of relationships established through family facilitate teachings between generations, particularly Anicinabemowin.

*And I always tell my generation and the generation before me, I tell them, practice it. Practice it, because it's inside of us. You can say it's here. But to speak it, because there's that conditioning gets in the way of speaking our language. That's impacted a lot of us, and it's impacted all our children. So, it goes down generation from generation.*

P12, 2020

Elders play an integral role in this process and are revered community-wide as knowledge keepers and wise decision-makers. When asked about their Ojibwe heritage passed on by their ancestors, one participant explained:

*I am very proud of who I am. And I'm proud of my family. I'm proud of my ancestors. We never accomplished much, but I'm very, very proud. One of the things that we were taught when we were growing up, like I'd said about the tobacco, don't pretend you're something that you're not. And whatever you do, make sure it comes from the heart. And that's honesty. Never shy away from people that want to know you, and never lie to them just to make yourself feel you're better than they are, because we're all equal. And that's my philosophy.*

P05, 2020

The integrity of the family is also intimately connected to livelihood. Participants told stories that included specific roles for members of the household that contributed to the health of the family.

*He used to feed us, you know, if he didn't have a job in the mill, he would be fishing and hunting. And we always had food on the table ... It's tremendous what he did for us. Like he was our economist (laughs). And ... my mom was more of the big heart of the family. She kept the family together [and] that sort of thing ... But she was a hard worker too... [W]e [are a] really hardworking working people ... [I]n those days, we had to do our laundry [by hauling] water from the river.*



P02, 2020

### 3.2.2 Valued Component 2: Community

Sagkeeng Anicinabeg community is rooted in close ties of kinship. This aspect of community establishes an individual's relationship towards others and determines social responsibilities. For instance, harvested food and resources were commonly shared amongst community members.

*When I grew up ... we weren't rich, but say if my neighbour killed a deer, well that was shared in the community. If there was fishing and you got abundance of fishing, that was shared in the community. The gardens were shared in the community. Milk was shared in the community. Butter that you made was shared in the community. I hate cottage cheese to this day because I ate so much of it. But that was all shared. Like just all shared. You didn't have to have money... Your neighbours fed you or you fed your neighbours.*

P05, 2020

Community cohesion is also realized in social gatherings and collective activities such as feasts, celebrations and pow wows, and ceremonies. Journeys to sites within traditional territory and Treaty lands to camp affords the ability to meet with members of other Anicinabe communities, to conduct land-based learning, and to conduct medicine gathering, berry picking, and wild rice harvesting.

*It was this gathering that they had each year. They were rice picking. They were hunting. They were doing these things together. And, if some of them left in May, then they must have [been] planting there, planting and reaping the stuff ... [W]e had vegetables and everything when we were there... And then, like I said, all the teaching. I remember aunts and other people looking after us in the evening while we'd hear this music in the background, the drumming and things like that...*

P01, 2020

Finally, Anicinabe community is characterized by a strong sense of duty, whereby friends, neighbours, and members of other families support one another in daily tasks, sharing of resources, and assisting with work and collective security.

*It was families. Families connecting with family all the time. If I went down the road where I wasn't supposed to be, my mom would be called right away ... I was scolded by the neighbours far back over there ... [I]t was always protection, protection. Watch over, watch over, right? So, they had very strong family values and [they were] very respectful to each other as families .... Sure, that river divided our community, the Winnipeg River, north shore [and] south shore. But it didn't matter to these families. They'd visit each other all the time.*





P20, 2020

### 3.2.3 Valued Component 3: Sustenance

Sagkeeng Anicinabeg derive their food security from the practices of living off the land and its resources. Fishing, hunting, trapping, and gardening are among the core activities providing nutritious sustenance to families and to the community as a whole. Members of Sagkeeng strongly emphasized the importance of traditional practices related to sustenance.

*... my dad always had a fishing net, from as far as I can remember. Sometimes even in the wintertime they did ice fishing. And a lot of the stuff that he did was hunting and fishing and probably about 75% of our food supply was through that, because my mom was taught how to can meat and how to do different things like that. So, I remember growing up on a lot of fish, and it was awesome. It was really good... And we had gardens, and those kinds of things were canned... It was a beautiful lifestyle.*

P01, 2020

Sagkeeng Anicinabeg exercise their inherent and treaty rights in accessing these resources. For this reason, the land and water is inextricably tied to this traditional mode of sustenance and healthy living.

*Food sovereignty... is very important for us, to go back to the land. Because that's the only connection we have left, really. Money's not going to buy us happiness. It's going to be the land, still, and I really want to emphasise the food sovereignty part because it's healthy.*

P20, 2020

Materials and tools needed to undertake sustenance practices are maintained and often handcrafted, as are the practices required to make use of the resource in its entirety after being harvest. This reflects the independence and self-sufficiency of the Sagkeeng Anicinabe.

*And harvesting, hunting, fishing. She was very good at a lot of things. She was very amazing, my mother. She tanned hide. She made moccasins, mukluks. And made [scontlets], jackets. She could knit so she done a lot of knitting. She crocheted. And she canned meat. She canned meat and berries, fruit. She was a very, very good cook and she really knew how to bake. She made wedding cakes and all kinds of stuff she made. She was totally amazing at what she did.*

P08, 2020



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### 3.2.4 Valued Component 4: Territorial Sovereignty

The lands, skies, and waters within the territory of the Sagkeeng Anicinabe constitute an important part of their nationhood. The Sagkeeng Anicinabe have resided in their territory since Time Immemorial and they have a duty to ensuring that the Seven Generations to come inherit it free and unspoiled.

*They always looked ahead at generations... And they preserved, and they protected, and they did all this so that the next generations that were coming would be safe as well. They didn't just look at their own life. Now, Sagkeeng has to look forward to the next generations that are there. They're, they're coming up as well.*

P01, 2020

As the stewards of their territory, the Sagkeeng Anicinabe are responsible for the protection and healing of the land and the water.

*Our ancestors talked about how we traveled and how we harvested the earth in terms of the way we looked after everything. That was our purpose, as a people, was to protect the earth and to use the abundance of the earth to the benefit of all people.*

P19, 2020

The Sagkeeng Anicinabe are a Treaty People who continue to exercise their agency in their territory and expect involvement in all territorial affairs.

*P08: We are being heard. If we are not heard, we have to ensure that we are heard because that is in our traditional territory and if there was any authority given for the nuclear company to go and build in Pinawa, I have no knowledge of it and I don't know anybody else that have any knowledge of it, where are the documents that gave them the authority to build there? And what guarantees of protection were there?*

*Interviewer: What if there are no documents and there was no authority given? Why is that a problem?*

*P08: It's a problem because it's in our territory. And the government of the day that gave that authority should be answerable as to why they did not inform us.*

P08, 2020

### 3.2.5 Valued Component 5: Spirituality

The Sagkeeng Anicinabe are a spiritual people who follow the laws and teachings of the Creator. They conduct ceremonies, protect and make offerings at sacred places as their ancestors have done before them. Sagkeeng Anicinabeg rely on spiritual practices as a source of healing from the traumas they have endured in their lives.



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*... I always think I'm strong, mentally. And I'm very spiritual. And [if] I'm really, really, really hurting for something I pray, all the time I pray for guidance and everything. It helps. I find it helps a lot, 'cause my pain goes away a bit, and I'm okay.*

P09, 2020

They take pride in the spiritual kinship they share with their clan and through their Anicinabemowin name – bestowing personal responsibility, gifts, and other qualities to the individual or group.

*When I was doing my fast, I did it in Saddle Lake because you go out there, they put you out there for four days. No food, no water. But, on the third night ... my throat was just starting to hurt and I started praying. I was talking to my doodem [the fish clan]. All of a sudden, it was like as if I open my mouth and there was drops of water ... and I could see the fish. All fishes came and give me water and I made it to the fourth night and days with the water.*

P25, 2020

For Anicinabeg, spirituality is inexorably linked with the land. Ceremonies are performed in special places on the land and waters using sacred medicines and items collected from the earth. Anicinabeg are said to be guardians of the earth.

*Our people talk about spirituality... And our people were the protectors of especially Mother Earth and creation... That's our belief. And anything on Mother Earth, even the river flows and stuff like that is the blood stream of our Mother Earth. And if anything disrupts that, of course, it's going to cause problems.*

P21, 2020

### 3.2.6 Valued Component 6: Flora

Sagkeeng Anicinabeg make use of the resources provided to them by the plants, trees, and vegetation in their territory. Each year, they follow the seasons to pick berries and fruit, sharing the bounty with the community.

*Anyway, that's my Sagkeeng, it was full of forests, the trees, it had berries, all kind of berries.*

P08, 2020

They also maintain extensive knowledge about medicines, using certain plants to treat ailments and provide strength.

*There are so many plants. Even people now are only starting to discover some of our eatable plants. 'Cause we have a lot of eatable plants that the people that came from*



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*other countries didn't have. And we taught them how to live, we taught them what medicines to use.*

P08, 2020

The vegetation in Sagkeeng Anicinabe territory supports a wealth of community and sustenance practices. As such, the community retains knowledge about certain locations where resources are known to be harvested, how these places have changed, migrated, or become lost, and how to tend to them.

### 3.3 Historical Impacts

#### 3.3.1 Overview

This section presents an account of the historical impacts on the Sagkeeng Anicinabe. They are organized by Valued Components.

Members of Sagkeeng Anicinabe have been subject to centuries of colonial policies and practices. These policies and practices were directed toward the assimilation of the Indigenous population into Euro-centric culture by subversion of Anicinabe cultural identity. A critical example of this includes the establishment of the Indian Residential School (IRS) system and the forced attendance of thousands of Indigenous children. The trauma from these experiences has intensified already existing trauma previously caused by discrimination and oppression. This continues to worsen such that trauma becomes cumulative and internalized (Aguilar & Halseth, 2015). Over time, this chronic exposure to trauma is compounded and transmitted across generations, reflected in “feelings of marginality and alienation, heightened psychosomatic symptom level, and identity confusion” (Berry, Kim, Minde, & Mok, 1987). This leads to aftereffects related to the ability of individuals to cope with and heal from trauma (Centre for Suicide Prevention, n.d.).

Trauma-informed decision-making places emphasis on the physical, emotional, and psychological safety of impacted parties and fosters an environment of agency and empowerment. A trauma-informed approach in an Indigenous setting must include an understanding of the historical and present-day impacts of racism and social and economic marginalization on the life and development of an individual. For the Anicinabeg of Sagkeeng, historical impacts to their Valued Components throughout history lie at the core of their psychological and mental wellbeing, influencing adaptation and ability to withstand any further impacts.

#### 3.3.2 Family

This section speaks to historical impacts to families that have contributed significantly to the decline in the psychological and mental wellbeing of the Sagkeeng Anicinabe. The importance of family to the wellbeing of Sagkeeng was outlined in Section 3.2.1.

Impacts to families in Sagkeeng can generally be characterized as pernicious to close bonds between parents, their children, grandparents, and close relatives, leading to fracturing or splitting of traditional



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family units. By far, the most significant reported cause of these fractures was the legacy of Residential Schools.

*The darker part of being in Sagkeeng was the residential school that was right on the reserve. Some described it as the boogeyman part of our past. There's 10 siblings in our family. I'm the fifth of the last. There are five that are older than me, and I'm the oldest of the five younger. The five older went to residential school. They were literally taken from our homes. It was my dad fighting and everything, for them not to go, but eventually they had to go. So, there was a divide there already between that. Families looked forward to when the kids came home in the summer. Yeah. It was like a big celebration. They're finally being connected back home. So that was the difficult part. That's the dark part of what I see in Sagkeeng.*

P01, 2020

This legacy was manifested both directly, through the forceful removal of children from parents, and indirectly in the abuse suffered within the walls of the School. Taking each in turn, the act of directly removing children from family homes caused significant stress and anger.

*I guess he asked my mother where I was. I had been taken away while he was over there fighting [in the war]. And he said to me one time, he was holding my hand. He says, uh, he was sorry for what happened. "If I was home," he said, "you wouldn't have gone." He said, "That would never, never happen, for you to be taken away." And then he says, "You know, while I was fighting over there, I was fighting the wrong, the wrong people. I should've been here fighting these people," he says, "the priests and the cops. While I was away out there, they came here and stole you."*

*... he was hardworking and silent after that. But he was very angry. He was angry at my mom for allowing what happened. But what can my mother do with a cop, six-foot cop standing in front of her with a gun in his belt? I always think, I always say, I would never allow a person to come into my house and take my kid. I would lay down my life for my child. He's my child. You don't take him or her.*

P09, 2020

Younger community members described significant difficulties with mental health coming from sexual abuse, physical abuse, and substance use disorder. They report remembering parents and grandparents who once relied on traditional ways, no longer able to do so. They describe a change in their parents, with a clear behavioral shift occurring when they were less able to rely on a traditional way of life, such as hunting and fishing. They describe a shift in mood in their parents, increased anger, and for some, a reliance on substances.



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*Whatever we talked about, that's all, something spiritual. And then, they found out all the abuse that happened that they confused us. There was a confusion. So, I came out because I didn't know my family because we weren't allowed to see each other, brothers and sisters [inaudible] school. So, we became strangers. Strangers to our brothers and sisters and strangers to our parents when we came out. And that's the White man government did torture. And a lot of my people died without healing, and our kids are still doing it. Drinking, taking pills because they don't know the stories of their parents.*

*P25, P26, 2020*

Participants exhibited a hypervigilance to race as a category of meaning and understanding. This was not explicitly sourced to Residential Schools by participants, but race was often an important part of the narrative shared by participants on the subject. The impact of racism on community members was evident, as it was brought up consistently. The examples they pointed to often involved how they felt they were disregarded or considered unimportant to neighboring communities. They reflected upon the effects of environmental contamination on their family (e.g., open sores after swimming, cancer, and diabetes attributable to the Papermill or reactor) and referred to these effects as a sign that they were viewed as dispensable by the surrounding white community.

*But, that's the courage I get because of the healing I went through. I want my people to be healthy. And then, that happens again whenever we're abused by the White people, so there's a lot of healing that needs to be done, and half of my people are gone. My dad was in residential school so we got abused by my dad. It was tough for us girls, and I have to share that with my children. Of course, if I didn't, their children would do the same thing, and I know it happened because I didn't talk about this stuff earlier because there's a lot of abuse that's happening still in the reserve, and it's painful when you see that. And, it's hard when you heal yourself because you could see all these things happening and you know why they're happening, where they come from.*

*P25, P26, 2020*

It is interesting to note that the community members who were best able to cope through the transition to urban life were those individuals with some European ancestry who phenotypically looked less Indigenous and more Caucasian; otherwise colloquially known as “white passing.” Although they report suffering a “culture shock” moving into the city, they were provided with more opportunity and thus were better able to cope because they appeared white. This included access to jobs and ultimately, education. Within the same family, the people we interviewed spoke about how siblings who appeared more white were generally more successful, while siblings who appeared more Indigenous struggled a great deal more with their lives, including their psychological health. This tended to produce differential socioeconomic outcomes within families, sowing further division and alienation. When



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asked about whether there were any noticeable differences between those who they considered “white-passing” in their family, a participant responded:

*Education, positions. There's a vast difference in some of our [education]. Some of us have degrees and we have Master's, and then there are some that don't. I think there are a few of them that didn't finish high school. They have been trained in different areas, but they haven't gone to university.*

*[My dad] describes this world of being in the middle, but he was more discriminated against because of his Aboriginal connection. Grade six was the highest level they could go for education back then, then they were told they couldn't go to school anymore. Meanwhile, the non-native people from Powerview and Pine Falls continued on to grade 12 and everything, but they couldn't. They were not allowed to go. So they had to go labour jobs. So, when they came to Winnipeg, they had to go through all the upgrading and then back into school and all their training and stuff so that they could work.*

P01, 2020

A key consequence of the breaking of family was the loss of means for the dissemination of traditional knowledge. Participants reported that Anicinabe families are key progenitors of knowledge for new generations, a key component of this transfer of knowledge being language. Residential School staff employed a strict non-Indigenous language protocol. When asked whether they spoke Anicinabemowin, a participant explained,

*I try to follow it now. Before, I didn't want to think about it. It's funny what Indian School did. They took everything away from us. Didn't know nothing. We were punished. I don't know how many bars of soap I ate, because we used to talk our language. After a while, you get tired of eating soap, so you stop talking.*

P11, 2020

In more recent cases, families have been split by a rise in disease-related death, with specific reference to cancer and diabetes.

*[N]o one's left to really teach them anymore. Like, people are getting sick and dying off... I was really surprised by that leukemia. I just don't know if that's ... just certain cancers that people were getting, because like I said, that I never seen. Because I know with some sort of waste, depending on the waste, that it can change the dynamics of a cell. It can become cancerous.*

P03, 2020



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Historically, Sagkeeng Anicinabe families experienced fractures and reduced cohesion over several generations, beginning with the earliest enrolment in Residential Schools. The physical removal of children from their families, coupled with the trauma experienced away from home, were critical causes of divide within families, leaving a legacy of mental health and substance abuse issues. Disconnection with traditional ways of life drove many away from Sagkeeng and into the City, where some struggled with homelessness and addiction. Race was observed to be a salient social category for those seeking to make sense of their experience, contributing to divisions within families.

These impacts have disrupted the traditional flow of knowledge and practice from the older generations to the new, particularly with respect to Anicinabemowin. This has been accelerated by the loss of Elders and knowledge keepers to diseases novel to the community in recent memory.

### 3.3.3 Community

This section speaks to historical impacts to Community (as a Value Component) that have contributed significantly to the decline in the psychological and mental wellbeing of the Sagkeeng Anicinabe. The importance of Community to the wellbeing of Sagkeeng was outlined in Section 3.2.2.

Impacts to Community in Sagkeeng are strongly associated with the gradual loss of traditional practices resulting from the historical impacts of colonization and institutionalization. These have been detrimental to traditional practices, which has in turn led to the erosion of intracommunity relationships and an increasing intergenerational divide over time.

*... And you know, ... [we] try and adapt ... with the progress, we're trying to adapt but ... we seem to be getting lost along the way because we're not bringing the younger generation with us. ... You know, a long time ago there was not one person in a community that was left unattended.*

*P21, 2020*

Historically, the required attendance of Indian Residential Schools and Day Schools and the forced removal of children through Child and Family Services (CFS) led to fractured community dynamics and outmigration over time.

*... I see the changes... from the legacy of the schools and CFS and everything like that... It's not a good environment to raise kids there... It's just the whole dynamics that are going on there. There's basically nothing to do. They can't hunt no more. They don't go fishing anymore. I remember when we were young, we used to fish. Can't do that. The river was right there. Can't do that. There's absolutely nothing for the kids to do in terms of learning their heritage, about culture and living off the land, which we did.*

*P03, 2020*





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The loss of food security and associated dissolution of community ties was closely tied to the implementation of the pass system in 1885, when Indigenous peoples were restricted from leaving their designated reserve without being issued a pass. This restricted the practice of traditional activities such as gathering and harvesting, which were largely community-wide events which historically took place outside reserve boundaries.

*...They have this connection. It was the same thing for them when they were out there when they camped. They had this spiritual thing going on. They had this learning going on. They had this connection that they had with the other people. And they had all this community building and strengthening of families. And all this was going on in those camps. And then to have it taken away. They must have went through a lot, as well.*

*...They all got together at a certain time. Sometimes it was early, like May, and they would take, pack their families out. They would take their tents and everything, and there were some cabins that were out there. But they would take their family out there, and they would live out there for the summer... it was like, moving the reserve and going to another community that was safe, and that was their second place to be. So [community members] talking about that, and they weren't able to do that anymore. That's what I saw... almost like a sadness in their face, and some of them very angry.*

P01, 2020

These large-scale community events were important for the intergenerational transmission of knowledge and in maintaining the close connection with the lands and waters. Decline in these practices over time led to an increase in displacement and outmigration, and consequently an impact on Community as being core to the Sagkeeng Anicinabe.

*But the community seems to me like we've split further and further away from each other. Like even me, I find that happening with my own family. Like, you know, we don't even get together the way we used to.*

P21, 2020

Many women described being sexually abused and assaulted from their teenage years onward, many feeling they did not have the protection of the community they felt they would have had in their cultural communities in Sagkeeng. This decline in a sense of security led to a further decline in the sense of Community.

*I always call myself a third-party product of [the Indian Residential School System]. Like, nobody ever talks about us, right? Because if you're raised with people that have been impacted, you basically experience [it]... The loss of my dad was one [way it impacted me]. I remember poverty was another, and then the, the violence was*



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*another and then, well, of course, the child sexual abuse. And it came to a place where I literally thought it was normal.*

P03, 2020

Following disintegration of Community, many individuals moved to urban centres. Many had difficulty finding employment further entrenching them into poverty. Several participants described being homeless, including throughout childhood, living alone for years on end. Social difficulties that followed them compounded difficulties with education.

*Yeah. That's when I lived on the street, just a young kid. Hard to imagine, eh? But I did, that's my experience. So we had a good life with my grandparents but most of my time with my mom and dad was not very good. I remember starving when we moved into Winnipeg, my dad, and we had nothing to eat a lot of the times. That's when me and my sister used to take the Ford out, go see my grandpa, because we knew we'd be able to eat there. So there was a lot of neglect in terms of that, in that area anyway. But we still cried, we still lived, you know? Still love my parents, no matter what.*

*Interviewer:*

*How long were you in Winnipeg and homeless for?*

*P07:*

*13 until around... About four to five years.*

P07, 2020

Community and kinship form an important network contributing to a distinct sense of identity—who the Anicinabeg are, and where they come from. Historical influences have exerted significant strain on these ties and caused the degradation of kinship over time, impeding cultural continuity and resulting in impacts such as a loss of heritage, an increase in unhealthy coping mechanisms, a reduction in food security and food sharing, and an increased intergenerational divide. The resurgence in traditional activities through land-based learning and intentional practice are contributing to positive impacts on community members and intracommunity relationships as time goes by.

### 3.3.4 Sustenance

This section speaks to historical impacts to Sustenance (as a Value Component) that have contributed significantly to the decline in the psychological and mental wellbeing of the Anicinabe of Sagkeeng. The importance of Sustenance to the wellbeing of Sagkeeng was outlined in Section 3.2.3.

Impacts to Sustenance in Sagkeeng are strongly associated with contamination and pollution and have been significantly damaging to traditional practices, employment, physical health and wellness, and



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the availability of food and drinking water. The lack of safe and available traditional foods has historically challenged practices associated with living off the land and continue to perpetuate today.

Historically, policies such as the pass system impacted Sustenance. By restricting movement on and off the reserve, traditional practices were suppressed, and the nomadic system was inhibited. While some traditional practices were encouraged, the accommodations failed to allow for adequate sustenance.

*We were self-sufficient proud people until we became institutionalized... which is when they created the reserve system and then that's when they needed passes to leave the community for anything. So that nomadic system stopped because it was imposed upon our people, my people and my family. But they did designate trap lines where people were designated to trap by the powers that be, which meant the government. But they were limited. And told what to do.*

P07, 2020

Rations promised under the Treaty also failed to provide ample sustenance.

*What I remember growing up... is that they had treaty once a year. And people would get together for seven days. There would be dancing and there would be rations... I asked my dad, "How do they expect a family of 10 to live off a sack of flour?" They gave lard, they didn't give butter, and they gave a slab of bacon. And I think beans in a can like this. And that was the rations that you got at treaty.*

P05, 2020

In more recent history, environmental contamination has been the primary threat to food security in Sagkeeng. Participants strongly emphasized the detrimental effects that contaminants and pollutants have had on food quality and environmental health. Stories of diseased and mutated animals were common, as well as sickness from consuming traditional foods.

*You have the cysts sometimes in the animals, and they have to be checked to see if they're in good condition to eat. You can't just kill an animal and eat it anymore.*

P18, 2020

Historical environmental issues have not only impacted the quality of traditional foods, but also the availability. Declining health and populations observed in native fish and mammal species has allowed other disruptors, such as invasive species, to further exacerbate the issues. The depletion of certain species has caused many members of Sagkeeng to no longer see traditional activities as viable means for obtaining sustenance.

*Their existence has relied upon the fish, but even the fish itself, stocks have dwindled. As a result, the new species, invasive species have been entering into the waterways and they're affecting their catches and their fish and many new diseases that have*



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*been through the fish that they haven't seen before. A lot of people have stopped fishing as a result, but more or less for me too, it's like we relied upon that as a source of protein and a source of accessible means of protein.*

*P19, 2020*

Diminishing quality and availability of traditional foods resulting from environmental degradation has forced the Anicinabe of Sagkeeng to become increasingly more dependent on store-bought foods. This has created concerns regarding self-sufficiency, food sovereignty, and human health.

*There's no fish to be eaten. They're killing our food supply and making us more dependent on manmade stuff. They're making the junk food cheap and for the good stuff, it's more expensive and that's having an impact on our people. That's why we're chubby because we're eating processed food. We can't eat wild meat no more. We can't fish no more.*

*P13, P17, 2020*

Health impacts associated with the decline of traditional sustenance extend beyond physical health. Various members of Sagkeeng also noted a strong connection between sustenance and mental health.

*I'm aware that even in myself with depression... I have to watch what I eat... So if I eat certain types of food, I can feel the change in me... it's got to be pretty clean food... Otherwise, I can feel the change in my mentality... There's all types of concerning things about that, especially when it comes to people's health.*

*P03, 2020*

The relation of sustenance to mental health was further emphasized through expressions of self-doubt. For many participants, historical impacts to sustenance translated to mistrust and uncertainty about the land that was previously a secure source of nutritional sustenance. Most participants described stories that started to spread amongst the community warning them to avoid eating the fish or animals in the area. Stories of mammals with abscesses were common, as were fish with growth. More frightening were the stories of children developing abscesses after swimming in the bodies of water. Families reported doubt in their own ability to care for their children. Specifically, one woman reported remembering telling herself, “I know I keep my children clean” but was in doubt of herself given the inability for that abscess in her son to heal. What were previously recalled as very happy times, were now in doubt because of the lack of their ability to live off the land, or even enjoy it recreationally.

As agency decreased in the community, many participants describe increasing self-doubt. As they felt increasingly unable to rely on their land and thus their cultural practice.

It became apparent that the traditional Anicinabe way of life in SFN became unsustainable for many, forcing many to move to urban settings, the impacts of which were previously noted in Section 3.3.2 (Historical Impacts, Family)



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*From what I remember seeing leading up to the time my dad and them left was that that was becoming less and less. I remember times of being hungry. The stuff was not as plentiful as it was before. We still had the garden stuff and all that, but I don't remember as much fish and as much meat and things like that before we left... But what I learned was my mom and dad had to make a decision, because they had seen deer and moose and stuff with big pockets of puss and looked diseased and things like that. They couldn't feed us like the way they did before. I think my mom and dad had to make a decision of how we were going to live after that.*

P01, 2020

Historic impacts to sustenance have had severe lasting consequences that have forced many members of Sagkeeng to leave the community. These impacts have not only altered traditional diets and compromised food security, but they have also affected the practices and traditions that define the Anicinabe way of life in Sagkeeng. With sustenance being foundational to the wellbeing of the Anicinabe, such effects ultimately translate into psychological and mental impacts.

### 3.3.5 Territorial Sovereignty

This section speaks to historical impacts to territorial sovereignty (as a Valued Component) that have contributed significantly to the decline in the psychological and mental wellbeing of the Sagkeeng Anicinabe. The importance of territorial sovereignty to the wellbeing of Sagkeeng was outlined in Section 3.2.4.

Impacts to territorial sovereignty in Sagkeeng are strongly associated with the loss traditional practices of living off the land and water, recreational activities, and mental and physical health and wellness. By far, the most significant reported cause of impacts to Sagkeeng's territorial sovereignty is contamination and pollution of the lands, waters, and air.

*We desire community life again, which is interdependence. And we desire independence at the same time. The ability to go out and provide for our families, our people.*

P02, 2020

One participant shared that Sagkeeng has been experiencing the impacts from contamination and pollution for many generations.

*We know that. We've always had warning signs from our people who have gone before us and they're not with us anymore, but they've always talked about fish that we ate. They always warned us about the toxins that were in the water system because they used the water every day. They were fisherman. They came back to the community and talked about it. They always talked about the warning signs. We see it today, large clusters of cancer and diseases that we've never even witnessed before or seen before*



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P19, 2020

Territorial sovereignty relies on free and unspoiled lands and waters. The contamination and pollution in Sagkeeng began to threaten that. Participants noted that the lands and waters have changed in quality from previous generations leading to changes in traditional practices that were once so common.

*I've noticed pollution over time. Like I said, we used to use the water for domestic purposes. And then, it started to change in color. And the fish started tasting different.*

*Interviewer:*

*So, your parents and grandparents, they would remember the water as being clean?*

*P08:*

*Right... Very Clean.*

P08, 2020

*I hear some of the stuff you ask her and a couple questions that you asked her and my aunties always talked about that when they were together. They would sit and they'd talk about the water, about the ... being able to just basically walk across each side and go see each other. Since the water was not the way it is now, they says the land is gone. Land that's ours.*

P25, P26, 2020

As noted previously, to cope with the loss of culture, some individuals turned to substances to self-medicate, while others worked hard to relocate a sense of their cultural identity and practices. Those who were able to return to these practices currently report greater psychological health, however, many were only able to do so much later in their life.

*P20:*

*So, you know, they talk about wellness, that's what I mean by wellness. So, a lot of our families didn't know but they're going back to it. I think their spirits are starting to get mended here.*

*Interviewer:*

*How hard is it...or how easy is it for people to come back to the traditional ways, would you say?*

*P20:*



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*It's getting there but it's a slow process. A very slow process.*

P20, 2020

The Sagkeeng community had many established connections with the lands and waters, using them for sustenance and recreation, which were building blocks of their territorial sovereignty. Swimming was once a common activity for the community of Sagkeeng and formed part of their community identity. Many participants shared that in their youth, they would be able to go swimming in the Winnipeg River without worry.

*I used to swim in that water. You can't swim in the water anymore. That water, by my grandmother's house at the point, there's no swimming there at all. The water is just totally ruined.*

P02, 2020

The participants shared that the river is now contaminated, and that drinking and swimming in the water has led to widespread illness in the community.

*The kids, a few years back, my sister-in-law, I think...they ended up in the hospital, because of the [water]. When they swam in the river, they broke [out] in all kinds of stuff, and they ended up in the hospital. And her first cousin ended up with cancer. He died of cancer. And that was because of all of that. The toxins. That he [got] when he went swimming. The other one was lucky. He's still alive. My daughter's still alive. But they were affected.*

P12, 2020

The waters of Sagkeeng are an integral component of territorial sovereignty. When the health of the water declined, as did other elements of Sagkeeng's environment.

*You can't fish, and [if] there's no fish, that means there's something wrong with the water. Well, then you go turn to the wild animals, the deer, and the moose, and all that. It's going to affect them as well. You know what I mean? Water is the number one thing here. They contaminate that, we're all done.*

P06, 2020

Like the lands, the air around Sagkeeng was also impacted by historical contamination and pollution.

*The air. It's still there. The air. What they're building today, the air comes out and it goes all over, it goes all over and it affects everything. Affects our health, our plants, everything and they don't realize that.*

P25, P26, 2020



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The contamination of the waters has led to worry among parents for their children's mental and physical health. Participants also mentioned that there is a lack of activities for youth in Sagkeeng.

*It's sad, because we end up being the ones that lose, because, like I said, these kids don't have the same pleasure that I did when I was young... They should be able to go and jump in the water on a hot day. You know? Like we were able to. They can't do that now. They just basically, wander around and stuff. Can't use that river.*

P03, 2020

Contamination and pollution of the environment has created a disconnect between the Anicinabe of Sagkeeng and their territorial lands as their access has been denied because of health risks. Lack of access to traditional practices and activities has brought stress to community members as many remain disconnected from the traditions they were taught while growing up.

*It's not a good environment to... like, I honestly wouldn't raise kids there. I didn't want to. Yeah. And it's not because I think I'm better or look down. It's just the whole dynamics that go on there, you know. There's basically nothing to do. They can't hunt no more. They don't go fishing anymore. I remember when we were young, we used to fish. Can't do that. The river was right there. Can't do that. There's absolutely nothing for the kids to do in terms of, like, learning their heritage, about culture and, you know, living off the land, which we did. And that's how we were fed, like my dad did, so there's none of that. None of that anymore.*

P03, 2020

As the community members of Sagkeeng had so greatly relied on the healthy lands, waters, and air to ensure their territorial sovereignty, many found the adjustment to living in cities difficult.

*I think, like I said, our power as a people come[s] from connection to the land. When you lay out a system that's there to break you and to bend you from leaving that connection, not only do you lose your spirit, but you lose your strength. I think that's what's happening to a lot of our people who are in the cities. Those cities don't make- they can't really meet their needs, their basic needs either in terms of their housing and health and food quality and stuff like that. It's quite a shock to our system.*

P19, 2020

The historical impacts of contamination and pollution on the territorial sovereignty in Sagkeeng has also impacted the seven generations that are still to come in the community.

*How it can affect us for long-term generations. Like I said, I have grandchildren. I've got to defend their rights and I've got to protect them. They're going to say to me, "What have you done for us to allow this to happen?" I have a lot of questions why*





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*things happened in the past, but I can see my parents and my grandparents, they did everything they can within their natural power to do whatever they could do now.*

P19, 2020

A recent resurgence in Anicinabe nationhood and heritage have positively impacted the Anicinabeg of Sagkeeng. Land-based learning offered through the on-reserve education system is introducing children to traditional practices and nurturing community ties and encouraging pride in cultural heritage.

*There's lots of people that hunt still. The schools do land-based education where you go take trails. You cook wild meat in the bush. You go ice-fishing—and there's all kinds of stuff they do with the kids in the school... they learn how to trap. They learn how to skin animals. They know how to fix them. What else do they do? They do the fishing. They do all kinds of stuff, really. They load kids up on skidoos. They got all kinds of skidoos and they just go out into the bush. I've never gone with them, but just from what the kids come back and say.*

P06, 2020

Historically, the Anicinabe of Sagkeeng have been experiencing a breakdown of their territorial sovereignty because of contamination and pollution of their lands, waters, and air. Contamination of the waters used for recreation and sustenance purposes has led community members to experience a forced disconnect from their territorial sovereignty. As the contributors to environmental degradation continued to increase, Sagkeeng became unable to exercise their duty in their territorial sovereignty to protect their lands and waters for the future generations.

### 3.3.6 Spirituality

This section speaks to historical impacts to spirituality (as a Valued Component) that have contributed significantly to the decline in the psychological and mental wellbeing of the Sagkeeng Anicinabe. The importance of spirituality to the wellbeing of Sagkeeng was outlined in Section 3.2.5.

Historically, practicing the traditional ways of Anicinabe culture and spirituality were met with brute force on the part of residential school administrators and other outside influences such as the Royal Canadian Mounted Police (RCMP).

*Well, the thing is a lot of our traditional, spiritual lifestyle was outlawed in all kinds of different ways. When the missionaries came, there was an interruption of our faith. And then the residential schools, that was implemented by the government to be run by the churches, outlawed our spirituality. They even used to jail our people for practicing their spirituality.*

P08, 2020



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Many participants describe emotional and physical abuse in the residential school system which included the removal of language and culture through punishment when practiced. Several of the Elders who participated described being punished when they spoke their language.

*We learn from it because they weren't allowed to speak like that. They weren't. They couldn't. If you did, you would get strapped or you get beatings...there are stuff there that they weren't allowed to speak, and especially if it was in regards to your culture, your heritage. You couldn't speak it. You weren't allowed to, and a lot of stuff is missed. A lot of stuff we try to learn again.*

P25, P26, 2020

Some described needing to practice their spiritual traditions in hiding and others gave up traditional practices completely to survive.

*But in [my grandfather's] day, they used to have to hide their ceremonies....But as time changed I remember my grandfather, watching him when he was doing his trap, fishing his traps and stretching his furs and all that. And what I learnt later on in life is that he was asking the animals of the creator for them to give [us] their lives for our sustenance in order for us to eat. He was praying. He was singing. He kept that part of the culture, but he kept it very, very quiet because he didn't want to be penalized and labelled.*

P07, 2020

At times the loss of traditional spiritual practices resulted in Anicinabe spirituality not being passed on to the next generation and a cultural gap between family members.

*No. I don't [follow the traditional ways]. I respect them. I respect any type of religion. Whatever your belief is, that's yours. I'm not going to try and change it for you. And I would ask you not to interfere with mine. And my sister and her husband follow the traditional ways. I don't. I never did...That wasn't how I grew up. I wasn't comfortable with that.*

P05, 2020

More than the acute and obvious trauma of the residential school system was the inability for this community and its members to return to a way of life and cultural practice that they relied on for not just survival, but for their sense of identity and self-worth. After having been deprived of family, culture, language, and spirituality (everything they relied on for a sense of psychological safety), they expected and yearned for a return to the familiarity of what they considered home.



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Unfortunately, many of the participants describe coming home to a community that was much changed. The reliance on the land for cultural, spiritual, and basic sustenance was no longer present. The inability to rely on a longstanding way of life, now caused a psychological decline of a people. As their identities crumbled without an ability to return to an organized culture and way of life reliant upon the land, many now coped with their past trauma through the residential school system by engaging in unhealthy behaviors themselves. There was a consistent report of the use of alcohol to cope, and the resulting social difficulties that came with alcohol use including physical violence and sexual assault and abuse.

A lack of availability of cultural resources (ex. lack of access to traditional areas) that could have otherwise assisted individuals in overcoming psychological difficulties they face has had negative impacts on the mental health of the Anicinabeg of Sagkeeng.

*So that's how I feel like it's really harmed the people at Sagkeeng psychologically. Because if they went through the same thing with my mom and dad did, what our family had to go through, the, all the changes and all the life, the lifestyle changes. And then to feel like all those things of your, that you, you held so dear, you can't go out and do that anymore. Because they had to have certain areas. Traditional areas that, you can't just go and do this somewhere else.*

P01, 2020

Many older participants mentioned finding their spiritual connections again in later life and how it helped them heal from past traumas.

*When I became sober 25 years ago, it was the culture and the people, the Elders that helped me stay sober. And I had a spiritual awakening as a result of that, the cultural way. Not the religious way, but as the cultural way in terms of our ceremony, my pipe and stuff like that, and sun dancing and all these other activities that I used to do, ceremonies. That's what changed. That's when things changed. Because I was an alcoholic as a result of all that stuff. I drank, I did coke, I did stuff like that until I was about 36, 37 years old.*

P07, 2020

Those that reconnected with spiritual practices expressed positive emotions related to exploring their culture.

*Well, I'm sort of proud and I'm starting to talk. I don't get all the words right, by any means, but I try. I try to teach our kids. Now, she's taking the last 10 years, I guess, she's been taking me to Pow-Wows every summer, something like that.*

P11, 2020



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Spiritual practices are reported to be legitimate and practical methods of therapy and may be preferred to “western” medical practices. When reflecting on what helped a participant recover, they reported:

*Time and I guess a lot of my own culture. I was only able to deal with it that way. Like I sun danced and I went to ceremonies and there was a lot of things that happened in there...It's an inner work. It's not hocus-pocus... it's very practical, I find.*

P03, 2020

Another participant shared:

*I've been doing it with my people. You sit in a circle. Whatever is shared in the circle, you have to understand that it stays in the circle. You sit in the circle to talk about your feelings. I see when they sent the white man for counselling, the counsellors starts from the top here...when we do our healing, we start with water. That's where the pain is. It doesn't start from here... But, when we do those circles, we go down to the roots of where the pain started.*

P25, P26, 2020

Spirituality remains an important part of the Anicinabeg of Sagkeeng’s way of life and way of working through historical impacts.

*I still talk to my clan when I'm in trouble... I believe that I survived all those years with all the abuse I went through. You know I was sexual abused, and emotional abused. When that kind of abuse had happened, happened to me and I believe that my culture, my doodem helped me all through that to make me strong so I could help other people and that's what I've been doing. I'm not scared to say anything as long as I know it's the truth.*

P25, P26, 2020

### 3.3.7 Flora

This section speaks to historical impacts to flora (as a Valued Component) that have contributed significantly to the decline in the psychological and mental wellbeing of the Sagkeeng Anicinabe. The importance of flora to the wellbeing of Sagkeeng was outlined in Section 3.2.6.

Anicinabeg connect to the land in many ways, including picking medicines and harvesting wild plants for sustenance. Participants expressed changes in the quality and quantity of these plants over time.

*We've lost a connection to the land. We had that before. 'Cause everything was there and we made use of it. But with everything that's taken place... Then you look for it, you know, you find your little puny, little berries now. Back then I remember them being so big and naturally grown. But now ... sure, they grow big but it's not natural. So,*



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*there's a lot of difference. Cause like I said, like I seen them when I was a child picking whatever and there were like huge and delicious and large, you know? And now they're so tiny.*

P21,2020

Changes to flora resulted in people having to travel much further in order to find those of sufficient quality and quantity.

*I started to notice the changes with the berries about oh, like between, between 18 and about 25. And I noticed a difference right away when I first went out to start. I used to follow berry season, so the first one I went looking for, the strawberries. I noticed that. I noticed when I picked cherries. I had a hard time finding them. Whereas before it was so easy to find them, [now] I have to go like a long way out in the bush. But ... I had to look for them. Like really look for them.*

P21,2020

### 3.4 Impacts from Broader Industry Presence in the Area

This section outlines the impacts reported by participants from broader industry presence in the Area – defined herein as Sagkeeng territory as Study participants perceived it. These impacts have had lasting repercussions on trust and credibility of proponents for existing and future projects.

#### 3.4.1 Family

This section speaks to the impacts from broader industry presence in the area that have contributed significantly to the decline in the psychological and mental wellbeing of the Anicinabeg of Sagkeeng. The importance of family to the wellbeing of Sagkeeng was outlined in Section 3.2.1.

Several participants spoke about deformation in wildlife and vegetation affecting family cohesion. Changes to the environment as a result of industrial activity in the area led to increasing distrust of traditional sources of sustenance and traditional medicines (see Sections 3.4.1 and 3.4.6, respectively). Existing precarious employment, mainly as labourers for the Papermill, coupled with reduced exercise of traditional practice, led to the loss of traditional sources of livelihood. This further impacted family wellbeing and resulted in emigration from the community.

*No wonder my dad took us away from [the community] ... I don't think we would have left if he was still able to supply us with the kind of food that we had. Because it was healthy. It was good... It was just, the food supply was not gonna be there. And now, instead of the hunting and fishing and stuff that he was gonna do, and all that supplemented our income. Then if that's gone, then he had to look for more work. He had to look for something else that he could [do] to support us. So when we moved into*



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*the city, life just changed so much. Mom had to work. Dad had to work. You know, it was... different... No more freedom*

P01, 2020

Participants ascribed environmental changes that have had lasting psychosocial impacts to the neighboring community of Pine Falls and the Papermill, sometimes citing purposeful poisoning or contamination to the detriment of SFN.

*But he didn't fish anymore, 'cause the fish were bad. You couldn't eat them anymore. I haven't had fish for a long time. I used to have lots when he was living. And moose meat, and deer meat, and even rabbits. He stopped. "You can't do it anymore," he says. "They're ... no good." But ... he always thought Pine Falls was... He blamed them. He thought they were doing it on purpose, poisoning ... the waters and contaminating stuff to prevent the aboriginals from Sagkeeng to do fishing.*

P09, 2020

Others blamed themselves for the outcomes they observed within their family, in some cases, leading to increased perception of value of western education and conventional employment, and implicit denigration of traditional ways of being. The internalization of racialized stereotypes or “double-consciousness” (Pyke, 2010) was apparent throughout the Study, even for those who prioritized and spoke of valuing traditional ways of life. Some of these were subtle, for example, in describing their feelings about their heritage, a participant remarked that “We never accomplished much, but I'm very, very proud” (P05, 2020). In other cases, the prioritization was an overt, conscious decision about lifestyle:

*To be honest with you, I was never in the rice lake. I never did go once to rice lake, but my mom and dad did. And my rest of my family did. I was always trying to work, do something, to better my education. And I always worked and looked after myself. I never did go to rice lake to try and learn how to pick rice.*

P05, 2020

The subtle changes in value structure in families is most apparent between generations, particular Elders, and youth. Elders traditionally play a central role in educating youth, particularly about spirituality and oral history. In these cases, youth have been alienated from Elders from the accumulated difference resulting from lost teachings between generations. Reflecting on the role that dreams have, a community member explained:

*The night before we left, the next day, I had a dream. And one of my great-grandmothers come and see me. And she told me don't drink that water. And in my dream, I was like "drink water...?". And she says, "It's sick." ... And I'm saying, "Oh, wow. I'll have to let people know" ... And so, we get things like that in our answers, and what*



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*we have to do through dreams. But today, you wouldn't see that in children of today, because of all the technology.*

*I remember our teacher in Shoal Lake I used to get teachings from... And he told us, "The kids are not dreaming." And I said, "Well, why?" And he says, "Well, look at all the gadgets. It's stealing their dreams. It's stealing their imaginations. It's stealing the things that we would know, through dreams and through different sources.*

*P12, 2020*

As families observed changes to their environment and lost access to traditional practices, they reported a sense that they no agency as industrial activities continued to affect their traditional ways of life:

*I'm saying what I have to say. But do I feel like it's going to be used? I'm not sure. I really can't answer the question. Because, you know, we ... keep insisting, we keep protesting ... but it, they still do it... The same with the hydro construction. You know? No matter what we say, no matter what we do, no matter how we try to get the attention of the powers that be, the corporations, the governments and everything ... the government sanctions [it (allows it to go forward)].*

*P21, 2020*

This lack of agency also extended into employment, whereby SFN's endorsement for development in its territory was ostensibly predicated on jobs, particularly in the context of the Papermill (P07, 2020). One participant noted,

*To qualify for the project, I would say, they promised the Aboriginal people that they would have jobs, like the mill itself. But you can count in your one hand how many Aboriginals [worked] at that mill. And same with the Hydro, same with the Pinawa. You can count on your hand how many Aboriginal people they hired.*

*P05, 2020*

This lack of agency was constitutive of the increasing uncertainty that drove many in SFN to urban centres, citing that there was "nothing" left for them in Sagkeeng (P08, 2020). Without exception, for those born in Sagkeeng, no participant reported staying in the community exclusively from birth, having been uprooted at some point in their lives.

Industry impacts to families stemmed primarily from the cascading effects of environmental contamination. These impacts had a significant impact on the ability for families to maintain traditional ways of life (*Anicinabe Pimatiziwin*). Loss of both traditional and employment-based sources of livelihood had harmful effects on participants' sense of self-worth. This served to reconfigure participants' values to the detriment of traditional Anicinabe values. Finally, the experience of a lack of agency accelerated feelings of helplessness, leading many to leave Sagkeeng.



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### 3.4.2 Community

This section speaks to the impacts from broader industry presence in the area that have contributed significantly to the decline in the psychological and mental wellbeing of the Anicinabeg of Sagkeeng. The importance of community to the wellbeing of Sagkeeng was outlined in Section 3.2.2.

Broader industry presence in the area has impacted community cohesion. A predominant theme that emerged during interviews was the presence of the Pine Falls Papermill affecting a wide range of effects over the land and its people, commencing with a highly dubious beginning.

*There were things that were done that are questionable in terms of how that land came to be the Pine Falls Paper Company ... They ripped off the people. What they said was, okay, there was a recording of a meeting that took place at this facility, which they said there was about 400 community people in this meeting, to surrender a portion of land to the Pine Falls Paper Company, because that mill is right on reserve land. But they leased it for 99 years, but then they surrendered it afterwards for a meeting. And this meeting apparently happened in the fall when everybody was rice picking. There was hardly anybody in the community—they were off harvesting rice. So, it was fraud.*

P07, 2020

The lack of transparency in operations and non-existent communications between the Papermill and Sagkeeng resulted in the erosion of trust between the Papermill, the people of Powerview/Pine Falls, and the Anicinabeg of Sagkeeng. A source of community conflict emerged when the Papermill began purchasing harvested wood pulp from members of SFN, contributing to deforestation and the reduction of the traditional territory on which to practice traditional activities.

*When the pulp mill came there, our men on the reserve were harvesting the pulp and then selling it to the mill. Now I don't know who got clearance for that, but you know, that was harvesting our pulp.*

P08, 2020

*At one time, my grandfather and my aunt and my uncles and cousins, they worked in the bush for Abitibi, that's what they named that mill here, and that's the only place they worked. They never got a job in Sagkeeng. It's sad to know it's so. They'd get out in the bush and cut pulp for them. So, that's another thing that Abitibi did, and that nuclear plant did—they cut the trees down. Protection for the land, that's what the trees do—they protect the land. They keep it together.*

P23, P24, 2020

Members of Sagkeeng stood together against the Papermill (from which contaminated effluent was entering the Winnipeg River) and succeeded in procuring a water treatment plant for the community.





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*When the mill was here, we fought against the mill [redacted]. When we fought against the mill, we ended up winning, but we did a lot of protests because the old people started seeing in the wintertime, the snow on the river...this is where it got upsetting to them. They were very upset, and the people gathered at the hall and said, "It's time we bring those people here." And they [inaudible] because the snow was yellow. So, they had spilled...from this mill a whole bunch of spills happened. I forget what that chemical was. The people gathered and got upset. One of the Elders had gone up and took that water to those people there that they finally came and sat with us, "drink the water", almost like an Erin Brockovich story. "Drink this water," and that person wouldn't drink it. They said, "well, we've got to drink it."*

*So, from there it was a big thing again, fighting for the rights of the water because we're the ones drinking it, and then fighting the government about filtering and getting a new filtering system for our water, waste management, whatever that's called. I don't know what it's called. We've got a water thing there to clean the water, right, and we wanted it fixed. So, they fixed it up because of that spill. But we ended up in court. So, they got charged with 155 charges from our Chief. We wanted the drum in there when it was a victory for us. They wouldn't let us drum in there, either. We had to drum outside.*

P20, 2020

Community members also faced community division when faced with the possibility of a second hydro accord.

*...The treaties are our stronghold, I guess you might as well say. I think that's how I look at it anyway. And I always tell people, the treaties, we have to carry those forward, because our grandfathers [redacted] [were] the signatories. So, I'm going to carry that forward, and with the strength of it.*

*We were supposed to be tax exempt, but we're not. That's one of the treaty rights. And why I say that is—Manitoba Hydro has been...Like I said [redacted] went around seeing our people to fight against the hydro accord. They were going in for a second hydro accord, and I said, "No." I'm going to speak to people. I'm going to even put signs up and say, "Nope." [redacted]*

*Anyway, we defeated it. We defeated it once, and then against the chiefs said, wow, because there wasn't a great number of people that showed up. And I said, "But you can't get 5,000 people, 2,000 people in one meeting." I says, "You're lucky if you get 300 people or less." And that's what you get. So, again, the second time that he called for a referendum we defeated it again.*

P12, 2020



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The broader industry presence on the traditional territories of SFN has resulted in impacts affecting community cohesion and exerted significant strain on intracommunity relationships. The gradual degradation of kinship over time through conflict brought on by Manitoba Hydro and the Papermill has, in turn, adversely influenced the ability of community members to practice traditional sustenance activities and pass down traditional knowledge. This has also contributed to the erosion of intercommunity ties, cultivating a culture of prejudice and mistreatment between Powerview/Pine Falls and Sagkeeng First Nation.

### 3.4.3 Sustenance

This section speaks to the impacts from broader industry presence in the area that have contributed significantly to the decline in the psychological and mental wellbeing of the Anicinabeg of Sagkeeng. The importance of sustenance to the wellbeing of Sagkeeng was outlined in Section 3.2.3.

Impacts from broader industry presence in the area are largely related to two main developments: Winnipeg River dams and the Pine Falls Papermill. Members of Sagkeeng identified both as being associated with environmental contamination and water quality issues, which in turn impact sustenance.

The Winnipeg River dams have altered water levels and caused significant changes to the ecosystem health of the area. This has consequently affected fish populations and thus fishing practices that are integral to Anicinabe sustenance.

*I didn't start it when I was a kid. But I used to hear things when I was getting older about these fish that would be upside down, boils... It was by the dam, upstream. And the Hydro had the power to run the water whenever they wanted to for energy, so the fish would come across. They used to find fish that were with boils in them and everything.*

P07, 2020

In addition to the direct impacts to fish and fishing practices, hydro dams have cascading effects that are relevant to other wildlife the Anicinabe depend on as well. As a result, hunting and trapping activities have also experienced extensive impacts.

*I think all of Lake Winnipeg, not just Sagkeeng, all the reserves are affected because of what went down with the Manitoba Hydro and that station there out in Pinawa, because it killed the fish and it eroded a lot. They lost a lot of land because of erosion. And there's no more... Do you see a deer when you come out now any place? They used to be abundance. You hardly see any bears even.*

P05, 2020



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Some participants identified that hydro activity has exacerbated the impacts from the Whiteshell Laboratory Site. Impacts to sustenance from the Whiteshell Laboratory Site are outlined in Section 3.5.3.

*We're poisoned. We get that nuclear waste inside of us. And that's what I think happens too, along that river, there's a lot of erosion there underneath the banks of the river. When they open the dams up, going East, the dams open up and they're pulling the land into the water. They're making it wider, that's what happened here. As soon as they put that dam there. They opened the gates and this became a big river. Like I said, some of the fish are polluted. Below the dam there, they don't fish. Well, some fish below the dam, but I wouldn't fish below there. That's for sure.*

*P23, P24, 2020*

The Papermill was also frequently noted by participants as a source of harm to traditional practices such as hunting, trapping, and fishing. Many pointed to the mill as the reason for decreased water quality and aquatic health.

*With the people that I have went fishing with, a lot of them end up wasting a lot of their fish because as soon as they start to fillet them, they have tumours in them, so many of them. Some people will actually just cut those off and just eat them anyway, and then they end up getting sick. So it's just like the ripple effects from the old mill and then whatever is coming from upstream, coming down to us.*

*P04, P18, 2020*

Rather than distinguishing whether impacts to sustenance arose from the dams or the mill, many participants identified that the two developments, in addition to the Whiteshell Laboratory Site, have cumulative impacts on the environmental health of the area, and thus on traditional practices relating to sustenance.

*That was the reason why we left the reserve as well, because my dad started saying that the land and the things were being damaged. Everybody knew about that; that going down the river and close to Lac du Bonnet, you were going to get bad fish. You were going to get deer that sometimes had big pockets of pus or something on the sides. And they'd talk about this, that it was dangerous to get meat and food from over there... And although I didn't understand when I was little, I understand it now, that it had to do with the nuclear [Whiteshell Laboratory Site]. But it also had to do with the dams. And it probably had to do with that mill, too.*

*P01, 2020*

Broader industry presence in the area has ultimately caused substantial damage to the water quality and thus the local ecology on which the Anicinabe of Sagkeeng depend for sustenance. Because of the



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importance of sustenance to the wellbeing of Sagkeeng, these impacts therefore contribute to the decline psychological and mental wellbeing.

### 3.4.4 Territorial Sovereignty

This section speaks to the impacts from broader industry presence in the area that have contributed significantly to the decline in the psychological and mental wellbeing of the Anicinabeg of Sagkeeng. The importance of territorial sovereignty to the wellbeing of Sagkeeng was outlined in Section 3.2.4.

The Sagkeeng territory has been marked by industry activities, creating a chain of impacts on Sagkeeng's territorial sovereignty. The Papermill, the Winnipeg River dams, tourism, and the Whiteshell Laboratories Site have each contributed to creating ongoing impacts on the community of Sagkeeng's territorial sovereignty. The presence of industry in the area has contributed to pollution and contamination in the waters and lands of Sagkeeng, created flooding and erosion problems, and the health and wellness concerns the community was already facing.

The Papermill has been a source of stress and created a sense of uncertainty for the community. Participants expressed feeling helpless when it came to the Papermill as there were many unknowns in what was being released and the true effects it was having on the land. The Papermill has been threatening Sagkeeng's territorial sovereignty as it has been altering the health of the waters, something that the community is meant to ensure.

*When they put up the Papermill, I think that they were trying to fight for it not to be processed and they started it up anyways. And what did they give us? A dollar for rent, and that's all polluted. If you go by the river too, there's a big hole by the point over here, but that's what they said. They used all that water that was come pouring off from the Papermill. What was all in there? You don't know.*

*P04, P18, 2020*

The Papermill discharged contaminants into the waters flowing through Sagkeeng. This altered how the Sagkeeng community was able to use the river, displacing them from an integral component of territorial sovereignty. One participant noted when the community began to lose their connection to the land.

*It was nice a long time ago, even the land was nice and green. As the years went by, that started to change and everything was lost, even the land. Even the rivers, there used to be mud in the rivers but you don't see the mud, just grass and trees are falling into the river. But maybe that's when they built this, everything started. That we were slowly losing our land. Because it's going into the river. It even the trees are falling in the river.*

*P14, P15, P16, 2020*



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As the Papermill began damaging the Sagkeeng territory, a lack of availability of cultural resources (e.g., reliance on cultural practices tied to the land, loss of language, etc.) that could have otherwise assisted individuals began to unravel the territorial sovereignty of Sagkeeng.

*I remember before the mill started damaging stuff. I remember we used to go down the back and swim. We'd spend half our days by the lake. Of course, the water was just clear then. Now, we can't even drink our own water now. That's the cause of the mill. There's all kinds of stuff flowing in our river that was ... come from the mill. Black stuff.*

P25, P26, 2020

A participant recalled the stress and trauma that the Papermill caused when Sagkeeng advocated for a water treatment plant.

*It's stressful when you think about it because what we went through with the mill, it was just awful. Lots of fighting. You know what I mean? With the reserve and then town, lots of fighting. The blockades, we put up, that started a lot of arguments because we wanted our clean water. That's all we wanted was the clean water. Put up some more safety measures. Make sure the water's not being contaminated. Then that's when they put up the water plant.*

P06, 2020

Many participants reported cancer developing in their families, with many having suspicions that it was due to the output of the Papermill in Powerview-Pine Falls. One participant noted that the health of the community greatly decreased after the Papermill was built.

*Well, what I hear from my elders is that it that before the mill came, they were healthy. You didn't hear [of] diabetes. You didn't really hear of cancer, stuff like that. Then after when the mill came and all those chemicals started going in, that's what started happening because I've had lots of family members die of cancer. Well, for us, it was cancer, not so much diabetes. Now, I'm starting to hear lots of people with diabetes. You never heard that before.*

P06, 2020

The Papermill, coupled with the Whiteshell Laboratories, created more stress and health concerns for the land, water, and people in Sagkeeng.

*The mill, it was putting raw sewage into the river. Like you know, we were getting it from both places the nuclear plant and the, and the Papermill. Well, we got rid of the Papermill finally, and the [nuclear plant] is decommissioned, but then we still have the aftereffects of all this stuff. There's nobody, coming to step forward, "Well, we'll do it, just clean up and make sure that everything is safe now." No, it's not. That hasn't*



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*happened. There has been some money given for the erosion of the banks, but to clean up the river. We need to have that river cleaned up because there's a lot of, a lot of debris at the at the riverbed. It's very important.*

*P08, 2020*

One participant noted that the presence of the nuclear reactor and the Papermill in the past has led to a disconnect from the land, which has in-turn led to an increase in abuse within the community.

*With all this stuff happening to us from the past, we lost touch with the land. We lost the connection with the land. Like, how many generations? And the nuclear reactor being built there... There's been quite a large amount of cancers... I think, to me anyway, it seems that the connection to the land has a lot to do with the abuses. You know the abuses and the connection to the land contribute to some of the illnesses, like mental illnesses, that are evident.*

*P21, 2020*

A participant shared that Sagkeeng was not consulted when the nuclear reactor was built. The participant shared that the entirety of Sagkeeng's territory is sacred, and that this kind of development should not have been allowed.

*All of it is our traditional territory. So, I guess at the time when they put that there, again, our people probably didn't realize that they shouldn't allow anything like that in our traditional territory. They didn't, they weren't consulted. Because our traditional territories around, around from Sagkeeng all the way to the Ontario border, south.*

*P08, 2020*

Tourism has also impacted the territorial sovereignty of Sagkeeng. A participant noted that increased tourism in the area has exasperated the impacts already created by other industry activities. Flooding, caused by the Winnipeg River dams, has further impacted the community and their access to traditional areas.

*Our traditional territory has been altered in some ways by tourism and some mines, and the Papermill harvesting the forest.*

*P08, 2020*

*Because tourism [has] flooded the Whiteshell area to accommodate the tourists so they could travel up and down the rivers and streams, and to be able to go up into the lakes.*

*P08, 2020*



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The flooding caused by the Winnipeg River dams has also decreased access to traditional areas. The river was relied upon for more than sustenance but contributed to Sagkeeng's overall territorial sovereignty through using the land for all that it could provide.

*That's what our water was, our highway.*

P08, 2020

The flooding and erosion caused by the Winnipeg River dams has increased the surface area of the river, infringing on the traditional grounds of Sagkeeng.

*there is a lot that has happened from the Hydro, the fluctuation of the water. It keeps washing away, you know? Our river is like a huge lake now.*

P08, 2020

*It's scary, like, and just how big it is now. Like, uh, you go towards Catfish Creek, and how close it is, it's going to... eventually crack away at that... Because it's ... really bad. [E]very time I go by there, it's worse and worse, you know?*

P03, 2020

The industry presence in Sagkeeng has greatly impacted their ability to express their territorial sovereignty. The surrounding industries have contributed to the loss of access to traditional lands, foods, and practices. The impacts of these industries have in turn caused lasting health implications on the community.

*Now you've got the nuclear reactor sitting there. You've got these dams that have caused all this damage. You've got the water supply. That's a big thing with my dad, was the water supply is so affected here. What's it going to be like now if we keep living here? More and more people getting sick. Now, in Sagkeeng, cancer is rampant. I don't know if there's one family out there that doesn't have cancer. It's got to be with all these things that have affected them.*

P01, 2020

The multitude of industries in the Sagkeeng territory has led to frustration and stress among the community members. With consistent contamination and pollution coming from the surrounding industries, questions about the land sustaining the community have arisen.

*It's more worrying about the land and water because if that's gone, what do you have? You're not going to have nothing.*

P25, P26, 2020



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Industry impacts to Sagkeeng's territorial sovereignty stemmed primarily from the increasing environmental contamination that accumulated in the lands and waters of Sagkeeng. These impacts had significant effects on Sagkeeng's ability to exert their territorial sovereignty through using and protecting their traditional lands and waters.

### 3.4.5 Spirituality

This section speaks to the impacts from broader industry presence in the area that have contributed significantly to the decline in the psychological and mental wellbeing of the Anicinabeg of Sagkeeng. The importance of spirituality to the wellbeing of Sagkeeng was outlined in Section 3.2.5.

Previous development such as hydroelectrical dams flooded areas used for ceremonies and other spiritual activities.

*That was a ceremonial place, long, long time ago. It's gone. They flooded it.*

P03, 2020

Lack of consultation and the resulting impacts of these projects were seen as disrespectful to the Anicinabe.

*But they just have no respect. They just don't care about anybody else's spiritual beliefs, religion, anything. And especially with us, you know, as people. They don't care. Sure, they'll entertain themselves with our stories, but you know what? They go ahead and do what they want to do. And that's so disrespectful, I think. Yeah. I mean, I don't go wandering in a church and start rearranging it because I don't like the way things look, right? You know? I don't bother that sort of stuff, and they should respect our spiritual beliefs and practices as well. And that part of, like, they should have no business flooding that area right there.*

P03, 2020

There was a general feeling from some participants that broader industry in the area, and the world beyond, was negatively impacting the earth. This feeling was gained from awareness of recent and historical events as well as through spiritual practices such as sweat lodges and sun dances.

*When I did my sun dance I had a break and I was laying down, and taking a rest ... and I put my ear to the [ground] and I could hear a woman crying... So, I called the person that was in charge of the sun dance, the Elder. I said, "Every time I lay down," I said, "I could hear a woman crying." And that's what he said to me. "You can hear your part of Mother Earth, that's who you hear, is Mother [Earth] crying because of all the damage that's being done to her".*

P21, 2020





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Some expressed belief that recent events such as the COVID-19 pandemic were a result of divine intervention to prevent further development,

*Yeah, I think that's kind of funny how there was so many protests for that pipeline going on, and how they were shutting down areas and people were so against it. But then as soon as both places got shut down, within a few days, the whole country got shut down because of COVID. And that kind of tells you something, that Mother Nature is trying to fight with us to try to save this planet.*

P04, P18, 2020

or as punishment on those that had already transgressed.

*That's what I was telling, I have a friend, and he's a minister... And we were talking the other day about stuff like that. And I was telling him, "This is my thinking," I said, "just me." I said, "This is a sign from above to open our eyes of what's going on in this world. This is a wake-up call," I said. "This is not just a disease. Somebody wants us to see where we're doing wrong, and to straighten out or else," I said. I said, "This is just something, look at all over the world," I said, "it's happening. That's my belief," I said. "This is a warning."*

P09, 2020

Despite a spiritual connection to the land, there was frustration that Anicinabe voices weren't being heard in regard to development on Anicinabe land.

*We are the stewards of Mother Earth, but we haven't been able to do what was handed to us by the creator because of all the industries' technology. Although we voice our concerns, to the point that we would at times go to court, or some people have gone to the Supreme Court of Canada, and still sometimes the law is not on the side of the traditional people.*

P08, 2020

Participants hope that they will have a say in further development on their territory as protectors of the land and expressed interest in the ongoing details of the decommissioning project.

*And at least we are starting... This a small step, but at least we are starting to get acknowledgement that we are the keepers of this land and that we should be within, I don't know, the frequency of what's going on with that land, and to have some say, even if it doesn't mean anything. At least we're speaking about it.*

P04, P18, 2020



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### 3.4.6 Flora

This section speaks to the impacts from broader industry presence in the area that have contributed significantly to the decline in the psychological and mental wellbeing of the Anicinabeg of Sagkeeng. The importance of flora to the wellbeing of Sagkeeng was outlined in Section 3.2.6.

For most participants, the greatest reported impact to flora in Sagkeeng was the Papermill in Pine Falls. Participants described the double-edged sword of obtaining livelihood from logging which resulted in loss of trees from Sagkeeng itself and a reliance on the industry for employment:

*And when you talk about it, you've also got another obstacle in our ... for me, because my dad was a pulp cutter. A pulp cutter. He'd cut all over, doing all kinds of jobs. That's the one job that he stayed with and that's the one company that he stayed with 'till he died.*

*Seeing it, myself, you get ... I get angry, but there's not much you can do because that's your livelihood. You chop your livelihood down, you know what happens to you. See, we were always put in a catch-22 situation if you say something or do something, then right away you go here and you lose a lot. You lose your economy. You lose your livelihood. That was always a threat. I seen that as how we would do things with my uncles because they were all pulp cutters. They all were pulp cutters. They were all hard working people.*

P25, P26, 2020

For some cutting down trees for income was seen as an antithesis to life as an Anicinabe person.

*I've always been Anicinabe ... I don't know why. I always thought differently when I was a kid. My dad worked with the company, but in my eyes, I didn't see it as a good thing. I always thought of it as it's ruining our lives as an Anicinabeg because it was killing the trees, the trees and plant life died. I always had that difficulty to this day.*

P2, P26, 2020

There was also a belief that replanting efforts on behalf of the mill were ultimately detrimental to the flora of the area because of pesticide use.

*Well, there certainly has been a depletion of certain plants. Medicinal plants, because like in the forestry area, they would more recently I guess they were replanting some trees. But then they would spray so that there would be no other vegetation [except] for what they were planting, and then it would kill the other vegetations and that includes our medicines.*



P08, 2020

As we see with fauna collected through hunting, fishing and trapping. There were impacts to fauna that may have been perceived at the time to be the cause of other industry in the area such as hydro or the Papermill but may in fact have been downstream effects from the reactor. Some participants expressed confusion and concern about changes to plants and not knowing why these changes were occurring.

*I do that today. I use the medicines around me in my community, although there's, it's very rare to find them now, because of the environment, the changes that have been happening. I watch the trees around me. My ash died. The ash trees, the two that were in my yard. The oaks are dying. I don't get no more plums from where I live. Close by there's a bush, and there used to be wild nuts there. There's nothing the past three years. There's been nothing. I've been watching them, trying to... Why? How come they're not growing? The mill is not here. You worry, you know they should be being... I don't know. They should be growing, but they aren't. The first year I ever noticed the plums they were black. They were big. There was nothing inside.*

P12, 2020

### 3.5 Impacts from the Whiteshell Laboratories Site

This section outlines the impacts from the Whiteshell Laboratories Site on the Sagkeeng Anicinabe to-date, as told by the lived experience of interview participants.

#### 3.5.1 Family

This section speaks to the ways in which the Whiteshell Laboratory Site has impacted family and contributed to the decline in psychosocial wellbeing of the Anicinabe of Sagkeeng. The importance of family to the wellbeing of Sagkeeng was outlined in Section 3.2.1.

Knowledge about the Whiteshell Laboratories Site was limited and typically second hand. With some notable exceptions, most community members recalled being unaware of the activities of the Whiteshell Laboratories Site, and only now making connections between events in their memory to relatively recent knowledge about how the reactor functioned, spills, and studies undertaken. Many community members reported knowing that they should avoid the site and avoid harvesting resources near it. Some also reported observing strange environmental effects, such as increased water temperature at certain times of day and trees that appeared to be chemically burned (P01, 2020).

The interviews that were conducted included prompting questions about the Whiteshell Laboratories Site. The overwhelming sentiment in these parts of the interview was confusion and fear given the context of historical secrecy and lack of engagement. Several participants came prepared with their own research to discuss the effects of nuclear irradiation to voice their grave concerns about the Project, with examples ranging from Chernobyl to Fukushima (P21, P08, 2020). One community member succinctly drew the connection between the secrecy and historic lack of consultation or



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engagement surrounding the Whiteshell Laboratories Site on the one hand, and feelings of self-worth, family cohesion, and traditional lifestyle on the other.

*That was their place for all those years to go there and do that. And then, to have that gone. The other part they talked about was the scary part, the uncertainty of, "What is there?" And why the government or whoever else has been involved in that, that thing, that they've been hiding it for years. They haven't been open and honest about what is there. People even remember ... an army base that had been there at one point.*

*And a landing strip ... people are wondering, "Okay, what happened there? Why was that there? And why ... they've had to put this ... thing there. Why nothing was reported when there was that spill. People knew about it, but how come nobody said anything to them?*

...

*Where it's all hidden, it's all sneakily done. And then to not have your lands that were so important to you, to be devalued that way. To be, you know, as though it wasn't important.*

*And I think that's what a lot of the psychological thing with ... It just kind of coincided with all the residential school and everything that, that you're not an important person. Your land is not important. Your home is not important. Even your children, we can just take them away. And your, your parents are not important, because we can ruin all their food supply and everything that's there.*

P01, 2020

The legacy of powerlessness, lack of agency, and racial division in employment outcomes was exacerbated by the fact that, to the knowledge of Study participants, no Sagkeeng Anicinabeg had ever been employed at the Whiteshell Laboratories Site:

*And a lot of our people, especially in Sagkeeng or First Nations Communities have suffered from drug addiction. 95% unemployment. And meanwhile they have, they had told me that there was, right now there's about 1100 people or a thousand people [in our community], no. 120 people working on that site, right now. Where is the input of our people in order to get opportunities even to work? To sustain a lifestyle - a livelihood. There isn't. We're ... not even considered.*

P21, 2020

Community members viewed the Whiteshell Laboratories Site as shrouded in secrecy. Although some drew direct connections between the Site and the environment, most could only make speculative connections to their experience in the past. Community members associated their experience with the



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Whiteshell Reactor Site as a continuation of a pattern of treatment of Sagkeeng Anicinabe that began generations ago with the Residential School system – that they are unimportant, their practices are unimportant, their food supply is unimportant, and finally, that the ties that bind families together are unimportant.

### 3.5.2 Community

This section speaks to the ways in which the Whiteshell Laboratory Site has impacted community and contributed to the decline in psychosocial wellbeing of the Anicinabe of Sagkeeng. The importance of community to the wellbeing of Sagkeeng was outlined in Section 3.2.2.

The impact of lack of transparency with respect to the Whiteshell facility is noteworthy. The Whiteshell facility used water drawn from the Winnipeg River as a secondary coolant for the Primary Heat Transport System. In this heat exchange system, the primary coolant flows through tubes and river water flows over those tubes to facilitate heat transport. The river water is eventually returned to the Winnipeg River as effluent after absorbing the heat from the primary coolant. Throughout its operating life, there have been four known coolant leaks, three of which released organic coolant into the Winnipeg River. These include:

- August 1967: 300 litres of coolant released into the Winnipeg River (CNL, 2020)
- January to May 1977: 1,450 kilograms<sup>8</sup> of coolant released into the Winnipeg River (CNL, 2020)
- November 1978: 3,270 kilograms of coolant leaked within the facility. According to CNL, no coolant entered the river (CNL, 2020). Three fuel elements were broken in the incident, allegedly leading to some fission products being released into the facility (Gage, 1981, p. 14).
- 1980: 680 litres of coolant leaked into the Winnipeg River (Gage, 1981, p. 14).<sup>9</sup>

The 1978 spill had not been disclosed to the public until a former plant employee notified the Winnipeg Free Press of the event. Provincial officials were made aware of the leak through the Winnipeg Free Press article and, at a meeting held in April 1980, AECL officials reported the more recent 1980 leak. AECL committed to greater transparency with the Province at the meeting (Gage, 1981, p. 14). It is unclear when any of these four leaks were directly communicated to SFN, if ever.

The lack of consultation also exacerbated racial tensions between the Indigenous community and the neighboring white community of Powerview/Pine Falls.

*I don't like the impact it has on the animals... I don't like the impact it has on the people, on the water, and the fact that they did it so underhandedly and*

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<sup>8</sup> The CNL Fact sheet switches to kilograms in spills 2 and 3. Because the temperature of the effluent material is not known, a precise conversion between units is not possible.

<sup>9</sup> The 1980 leak is omitted in CNL's April 2020 Whiteshell Reactor #1 Coolant Leak Fact Sheet (Document No. 135531E).



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*disrespectfully, without ever letting anybody know about it, you know what I mean?... I don't like how we're perceived, like I guess native people.*

P03, 2020

It could also be said that those racial tensions (although there prior due to ongoing racism) were likely fanned and decreased alternatives for work in the community for many Indigenous people.

*The only communication that I am aware is when the people that cut the trees for pulp wood and sell it to the mill. But those people from Sagkeeng, I don't there ever was anybody that achieved seniority in the offices or in the camps or inside the mill ... I have no idea if they were considered not educated enough to work inside the office or not, I don't know. But surely in the bush, you could have a foreman.*

P08, 2020

All these factors resulted in an apparent loss of community cohesion and intracommunity ties.

*I don't know how far, how long that place has been there, but for me, I don't like it. I never did. I know progress is progress and I understand changes and all that, but at the same time, you look at it, then they see it destroy people. And it's destroyed a community because it's just the way things were done.*

P25, P26, 2020

### 3.5.3 Sustenance

This section speaks to the ways in which the Whiteshell Laboratory Site has impacted sustenance and contributed to the decline in psychosocial wellbeing of the Anicinabe of Sagkeeng. The importance of sustenance to the wellbeing of Sagkeeng was outlined in Section 3.2.3.

Due to a lack of consultation, the Whiteshell Laboratory Site is not well understood by many members of Sagkeeng. However, regardless of whether there is an awareness of the site, the lasting impacts that it has had on traditional practices and sustenance have been a lived experience in the community.

*Nobody knew about it... They put it [Whiteshell Laboratory Site] there without ever even consulting anybody.*

P03, 2020

Those who were aware of the Whiteshell Laboratory Site expressed significant concern over observed changes to the health of fish and other aquatic animals. With fish as a significant food source, these effects directly translate to the health of the Anicinabe of Sagkeeng.

*We had a general fear, and then I heard about a spill at the Pinawa [Whiteshell Laboratory Site]. Some people were talking about two or three spills... and another guy*



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*had found deformed fish in that river... he was showing people this one fish that had a big lump on its back... I remember seeing that fish... That scared the daylight out of us. After seeing that fish, you get to wonder how many fish are contaminated?*

P02, 2020

Contamination from the Whiteshell Laboratory Site has negatively affected the activities on which Sagkeeng depends for nutritional sustenance. Many emphasized the risk it also poses to human health as a result.

*We knew the dams were not good... We knew the Papermill was not good. But they also knew that this nuclear [Whiteshell Laboratory Site] was probably even worse... that was a real taboo, don't go there, don't go in that area... They were still going to fish from the dams. They were still trying to hunt and do their trapping... But to go around that area was putting yourself at risk.*

P01, 2020

Such effects to sustenance have resulted in significant impacts to human health. Illness and disease such as cancer are experienced by the community at disproportionately high rates, and many attributes the reason to the Whiteshell Laboratory Site.

*Now you've got the nuclear reactor sitting there. You've got these dams that have caused all this damage. You've got the water supply. The water supply is so affected here. What's it going to be like now if we keep living here? More and more people getting sick. Now, in Sagkeeng, cancer is rampant. I don't know if there's one family out there that doesn't have cancer. It's got to be with all these things that have affected them, but some of the people, it's sad that they don't know that that's why. They don't have their history of back then, of what they had and what was taken.*

P01, 2020

The lack of consultation has only magnified these concerns. For the Anicinabe of Sagkeeng, information on the Whiteshell Laboratory Site and its impacts largely comes from shared and lived experiences. Many experienced the effects to traditional activities and foods without knowing about the reactor, only to discover it as a source of the impacts much later.

*My grandpa used to have a trap line... There used to be streams, like Catfish Creek, Brokenhead River, and all these other creeks would go in there, going into the River and off to the Lake... But I remember him, one time, he said, "There's got to be oil out there." Oil. He figured there was crude oil. In the stream he found black stuff. But as I got older and thought about it, I was remembering what my grandfather told me, I thought right away it came from that nuclear site.*

P07, 2020



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Based on the realized and perceived risks associated with the Whiteshell Laboratory Site, many traditional practices such as hunting, fishing, trapping, and gathering, have been deterred from the area.

*During the summer months, we were passing by Pinawa. We noticed the leaves, and that they were all burned up to a certain point. And after that they were green... But when we passed that certain area, my dad said, "there's a reactor back there," So we began to suspect that there was some kind of leakage going on there... So we just went around. He was looking for a fishing spot where we could fish, but I think after we saw that we kind of got afraid of going there. My dad used to go all over for hunting and fishing... That kind of deterred it. It deterred us from going there.*

P02, 2020

While not well understood, the Whiteshell Laboratory Site has been a significant source of distress for members of Sagkeeng, who have found it to be responsible for environmental degradation, particularly the water, vegetation, and wildlife, on which they depend.

### 3.5.4 Territorial Sovereignty

This section speaks to the ways in which the Whiteshell Laboratory Site has impacted territorial sovereignty and contributed to the decline in psychosocial wellbeing of the Anicinabe of Sagkeeng. The importance of territorial sovereignty to the wellbeing of Sagkeeng was outlined in Section 3.2.4.

Although some community members were unaware of the construction and presence of the nuclear reactor, the concern for the territorial sovereignty of the seven generations ahead was shared among the community.

*I don't think the government had a right to go and put a nuclear research site there without consulting everybody that's going to be impacted. They may have said that we wouldn't be impacted, but they weren't looking far ahead. In our tradition, we have to do everything seven generations. We have to keep in mind that whatever we do is going to affect seven generations ahead. But the government and the industries, especially the industries, don't look ahead. It's only recently that I've heard environmental assessments being done anywhere, by the government or by companies. And they're mostly being forced by Indigenous people. It's not something they relish to do, but they are being forced to, to assess the environmental issues.*

P08, 2020

For those that were aware of the Whiteshell Laboratories Site, the contamination and pollution stemming site was evident and has created widespread concerns for the traditional territory of Sagkeeng.





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*The reactor itself, I think had some effects with our people, because that area where it's located, it's right close to that sacred territory. And also, very close to the river [that] runs by there.*

P02, 2020

*But, yeah, I heard stories about that. I heard stories about that there's nothing growing there. There's like some kind of a thing there that uh, I think we're drinking that water already from that place where it's gone through. That's how they taught me. It's got something in our water that's coming here and I think that's why we're getting cancer. A lot of them said that and I believe them now because we have a high rate of cancer in Sagkeeng. So, the cancer has taken a lot of knowledge keepers.*

P20, 2020

The Anicinabe of Sagkeeng were alienated from using their own traditional areas. The risk of entering an area that had been contaminated by the Whiteshell Laboratories Site caused enough stress and worry to avoid certain areas all together.

*People talk around here, say "I wouldn't hunt around here or there, near Pinawa." They're scared I guess because of that... whatever it is, that nuclear thingmajig... They're scared of it, I guess, because of the contamination.*

P11, 2020

One participant talked about feelings of distress on what was being done to Mother Earth and what it would take to bring it back:

*Just leave her alone for a while and then see what happens, and then go back and check her out every year in that area to see how she's healing and then, check out if wildlife is coming back up, if the animals are coming back there. Just monitor to see if it's not happening, then you know that there's severe damage.*

P21, 2020

Many participants also expressed concern for the land's ability to heal from the impacts from the Whiteshell Laboratories Site, and that achieving territorial sovereignty from a healed environment would not be possible if the radioactive materials are left in the ground long-term. As doubts are cast over the likelihood of the land and water recovering, Sagkeeng's territorial sovereignty will continue to be infringed upon.

*I would prefer that it was to be shut down and have everything removed from there, just so that environment can start to heal itself to back to where it used to be. Because you can be out there for hundreds of years and stuff, but a tree can get through cement*



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*no problem. It can grow out of nothing. So, I highly doubt that would actually be safe for 300 years, if it was to be entombed and everything.*

P04, P18, 2020

*I don't believe them, I've got a mistrust for them because they don't want to get rid of their garbage and these companies should. They made the money off it, why can't they share their profits and dispose of it and not put people in the area in jeopardy.*

P06, 2020

In the past, community members were shut down when they expressed their concerns about the contamination coming from the Whiteshell Laboratories Site.

*This is in the eighties. The people were concerned about the discharge because our fishermen were talking about the heat from those discharge areas in Pinawa because they were up and down. They had a net set up, up and down. They realized that the heat was coming out at a certain time in the evening, about two or three o'clock in the morning when no one was around. They have actually felt the water temperature change, so they talked to the chief in council at the time. The chief and council brought it up to federal officials about the ... I was a small guy. I think that was about 13, 14 years old. They were talking about ... I used to go to meetings with my father and grandpa. They used to talk about their issues with the federal officials. They also brought those up and they said, "Oh, it's all in your imagination. It's not happening. The water changes. Water levels changes." They were trying to dissuade us from believing that the nuclear reactors in that place.*

P19, 2020

The Whiteshell Laboratories Site has also created concern amount Sagkeeng for the seven generations that are to come. The next seven generations will be unable to express their territorial sovereignty in the area because of the ongoing contamination.

*Especially [the] kids, what have they got to look forward to now? Why don't they say, "Well, this is what we should focus on, is the generation that's coming up. What's going to happen to the kids after our generation is dead?" If they can't participate even for this, this reactor, that the decommission of the reactor, how is it going to affect them? What is the side effects that it's going to have on them after?*

P05, 2020

*I was like, "Well, if you leave it there, who's to say there's not going to be a leak? Can't that stuff last for hundreds of years? If it leaks, then there goes our land. There goes our water. There goes the animals, not including the plants. Then what's going to*



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*happen to the kids? That's generations after me." In 300 years, I ain't going to be here, but there's going to be some kind of bloodline of mine that's going to be there, and I'm like I would worry. I would worry a lot because it's made me think. After I found out about the reactor, I've thought about it a lot. What if it leaks? Then what? Is it safer to leave it or is it safer to take it? What outweighs what?*

P06, 2020

From a psychological perspective, it is important to understand that the impact of trauma occurs not only by the traumatic event, but also by the removal of resources to resolve that trauma. This further exacerbates the loss of control experienced by victims of trauma, further exacerbating difficulties related to the original trauma, and sometimes creating new difficulties. Outside of professional psychological treatment, resources such as culture/spiritual practices, community, social support are critical preventative and healing factors necessary for positive psychological health. For indigenous peoples, including the Sagkeeng First Nation, culture, community and the social support tied to spiritual tradition is all tied to the lifestyle of living off the land. The Whiteshell Laboratories Site has impacted Sagkeeng First Nation by alienating the community from accessing their traditional territories and casting doubt of the lands ability to heal. Rejecting expressions of concern have resulted in a decline in self-worth, loss of personal control and disempowerment both on an individual, social, and community level.

### 3.5.5 Spirituality

This section speaks to the ways in which the Whiteshell Laboratory Site has impacted spirituality and contributed to the decline in psychosocial wellbeing of the Anicinabe of Sagkeeng. The importance of spirituality to the wellbeing of Sagkeeng was outlined in Section 3.2.5.

The site of the WR-1 reactor is in the near vicinity of an important spiritual area for the Anicinabeg including ancient and sacred petroforms and other rock formations.

*I know that in the area there was sacred ceremonies going on in the Whiteshell area. And in the Whiteshell area we had a very sacred place there. And it's where Manitoba, the name Manitoba came from. It's Manitou Ahbee, they called it. And I went there and I saw it, and, it's a rock, there's a rock there... so it just looks like somebody sat there. So that's, that's what they called it, Manitou Ahbee. Where God sits.*

P02, 2020

As well as being used for ceremonies, the area in the vicinity of the reactor was used traditionally for healing by picking and sharing medicines.

*And yet, that very same place, it's across the river from where that nuclear thing is... Not very far away from there was that big rock, that they talked about, where they*



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*used to go and... they shared medicines, they said. They talked about how they, they helped one another. It was almost like, the season of healing.*

P01, 2020

One participant mentioned the importance of perceived limited access to the area as just important as actual access being limited by outside forces.

*And in that area, in our traditional area, in the Whiteshell area, there's those petroforms. And I'm sure that's right adjacent, is part of that nuclear site. But a lot of people I know back in the day, because they didn't know what was going on, were told not to go in that area. Which meant, which they figured they meant, "Well, you can't go onto the petroforms anymore. You can't conduct ceremonies over there," you know what I mean? A lot of missed people misinterpreted all of that stuff, but they did.*

P07, 2020

This highlights the lack of information shared with the people of Sagkeeng. For most participants, knowledge of the nature of purpose for the facility was limited.

### 3.5.6 Flora

This section speaks to the ways in which the Whiteshell Laboratory Site has impacted flora and contributed to the decline in psychosocial wellbeing of the Anicinabe of Sagkeeng. The importance of flora to the wellbeing of Sagkeeng was outlined in Section 3.2.6.

Despite lack of knowledge about the reactor, the effects were still seen by the community.

*And the nuclear reactor being built there. We don't know what was coming down towards us from there. Like, we don't know. All we know is the effects. We see the animals, the plant life, the berries.*

P21, 2020

Many people were warned not to go into specific areas near the reactor because of visible negative effects to flora.

*Even with my brother, like I said ...him seeing the trees being burned. Like, they're chemically burned. I don't know, that's what it sounds like. Like, when he talked about it with my dad. And they were being told, "Don't ever walk around that area. Don't go around that."*

P01, 2020

Whether from previous industry or the WR-1 facility, the perceived safety of flora in the area caused participants to travel further out of their way to gather.



*And I think back then it was, it must have already been starting to be affected. Well, there was the Papermill. There was the dams. And then there was the nuclear site. So we were taught that we were never to go there. And in listening to their conversations when we were younger, things around there were getting poisoned...So, we were just told to stay away from there, and my brother remembers a time where he had gone around there with my dad. Like, even for berry picking, they said there, it used to be so full there, full of blueberries and raspberries. And they just didn't want to take a chance to take us there, so they would take us in the other direction. And we'd go towards beaches and to Traverse Bay and Belair, and all those places. And that's where we would have to go berry picking.*

P01, 2020

## 4 Impacts from the Proposed Project

This section outlines the impacts of each of the alternatives. The section presents the criteria used for the assessment, an overview of the alternatives in consideration, a characterization of the potential impacts from each alternative, followed by recommended mitigation measures.

### 4.1 Overview

Impacts from the proposed project have been assessed considering:

- The socio-cultural baseline (i.e., existing psychological and mental health, and socio-cultural health)
- Valued Components as outlined in Section 3.2 (family, community, sustenance, territorial sovereignty, spirituality, flora)
- The social scope of the potential impact (individual, social, community)
- Duration of the stressors
- Immanency of the stressors
- Suddenness of the stressors
- Direct and indirect impacts
- Importance (considering the values criteria outlined by the Sagkeeng Anicinabe), summarized below and provided in detail in **Appendix 6**.:
  - Criteria 1: Protecting and healing the water
  - Criteria 2: Protect and promote Sagkeeng culture/spirituality
  - Criteria 3: Territorial integrity
  - Criteria 4: Food security and faith in traditional food sources
  - Criteria 5: Reduced mental stress/fear/stigma
  - Criteria 6: Reduced long-term risks in Sagkeeng territory
  - Criteria 7: Reduced management requirements for future generations
  - Criteria 8: Flexibility to adapt to contingencies



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- Criteria 9: Impact equity – not putting all the impacts on shoulders of Sagkeeng
- Criteria 10: Higher affected public/Sagkeeng acceptability
- Criteria 11: Lower Treaty rights impacts overall
- Criteria 12: Adherence to/respect for Indigenous laws and norms.

It should be noted that the analysis is based on assumption of status quo with respect to process and approach to the project to-date. Following the analysis of the four alternatives, Section 4.7 provides a summary and qualitative comparison of the alternatives from a psychosocial perspective.

### 4.2 Alternatives in Consideration

This section presents the four alternatives currently being considered.

#### 4.2.1 Alternative 1: Deferred Dismantling

Alternative 1 is deferred decommissioning with the complete building dismantling of the WR-1 Reactor at some point in the future as a result of the building aging or in response to the availability of long-term or permanent storage.

Major tasks involved in the deferred dismantling of the WL WR-1 are described in CNL's Environmental Impact Assessment (2017) and include the following:

- Removal of non-contaminated asbestos-containing materials and disposal at the WL asbestos landfill
- Removal of contaminated asbestos-containing materials and disposal as radioactive waste
- Removal, segmentation, packaging, and transport of the reactor fuel channels
- Removal, segmentation as required, packaging and transport of reactor thermal shield, the reactor vessel, and components
- Removal, segmentation, packaging, and transport of reactor process systems and equipment
- Decontamination of the building to meet the release criteria
- Management of materials in an approved waste storage facility or transferred to an off-site facility
- Final radiological surveys to verify that release criteria are met
- Removal of the building structure to 3 m below-ground level (rubblized concrete may be used to backfill the building location or transferred to an inactive landfill)
- Complete backfilling of the site and return to a state that blends with the surroundings

#### 4.2.2 Alternative 2: Immediate Dismantling

Alternative 2 is the immediate and complete dismantling of the WL WR-1 facility without a deferment period.

The general approach for Alternative 1 has been extracted from the Canadian Nuclear Laboratories' Alternatives One-Pagers (2020) and includes the following:

- Performing a complete dismantling of WR-1, including:



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- Cutting of all contaminated components (pipes, tanks, etc.) into manageable sizes to fit through doorways or hatchways
- Rigging and hoisting of all components out of the below grade structure
- Demolishing of all above ground building structures
- Demolishing of below ground structure down to 1.5 m below grade structure
- Ongoing maintenance and monitoring of WR-1 building for next several decades
- Complete dismantling of WR-1 reactor building including:
  - Cutting of contaminated components (pipes, tanks, etc.) into manageable sizes to fit through doorways or hatchways
  - Rigging and hoisting of all components out of the below grade structure
- Demolishing of all above ground building structures
- Demolishing of below ground structure down to 1.5 m below grade structure
- Backfilling the foundation structure with clay or similarly suited material containing similar properties to soils in the area
- Sorting of all removed and demolished materials in “Radioactively Contaminated” versus “Non-contaminated” wastes
- Disposing of all non-contaminated demolition waste to municipal landfill or recycle facilities, and per standards in place at that time
- Packaging of all contaminated wastes (building and reactor components) to a waste storage facility at Chalk River Laboratories to await final disposal
- Monitoring of stored wastes until final disposal

Following decommissioning, all that will remain at the site is a clean concrete foundation below 1.5 m and clean soil used to backfill.

### 4.2.3 Alternative 3: In Situ (in Place) Disposal

Alternative 3 is the complete in-situ decommissioning of the WL WR-1 building. The building above ground is decommissioned and dismantled, with PCBs and accessible lead below ground removed. The remained of the below ground structure is filled with grout and covered with an engineered cap, which includes a concrete pad meant to prevent intrusion, overlaid by a cover of natural and man-made materials designed to shed water away.

The general approach for Alternative 1 has been extracted from the Canadian Nuclear Laboratories’ Alternatives One-Pagers (2020) and includes the following:

- Removing hazardous materials (such as PCBs) not suitable for in-situ disposal
- Cutting open reactor system pipes, and tanks to allow grout to fill them
- Sealing of all openings into the underground foundation
- Filling of the underground reactor rooms with grout
- Demolishing of all above ground building structures
- Backfilling of the foundation structure with clay or other suitable material containing similar properties to soils in the area



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- Sorting of all removed and demolished materials in “Radioactively Contaminated” versus “Non-contaminated” wastes
- Disposing of all non-contaminated demolition waste to municipal landfill or recycle facilities, as per regulations in place
- Packaging of all contaminated materials into certified waste containers
- Transporting of all contaminated wastes (building and reactor components) to a waste storage facility at Chalk River Laboratories to await final disposal
- Installing a cap and cover over the grouted underground structure
- Installing fencing, signs, and monitoring equipment
- Monitoring of both the grouted underground structure, and the wastes transported to Chalk River Laboratories awaiting final disposal, until such time as CNSC, or the replacement governing body, determines that institutional and administrative controls are no longer required

Following decommissioning, what will remain at the site is building foundation concrete, clean soils used to backfill the demolished areas, grouted underground structure and reactor systems, radioactive reactor system components, a concrete cap and cover, and fencing, signs, and monitoring equipment.

### 4.2.4 Alternative 4: Partial In Situ (in Place) Disposal

Alternative 4 is the partial in-situ decommissioning of the WL WR-1 building. The reactor core components (the largest source of radioactivity in the reactor), including the calandria and fuel channels are removed, and the remainder of the below ground structure is filled with grout and covered with a protective engineered cap.

The general approach for Alternative 1 has been extracted from the Canadian Nuclear Laboratories’ Alternatives One-Pagers (2020) and includes the following:

- Removing Deck Plate (62 tonnes), Upper Shield (55 tonnes), Radial Shield (55 tonnes), Fuel Channels (~15 tonnes), and Calandria (16 tonnes), from the reactor facility
- Removing hazardous materials, such as PCBs, not suitable for in-situ disposal
- Cutting open of all reactor system pipes and tanks to fill with grout
- Sealing of all openings into the underground reactor rooms
- Filling of the underground reactor rooms, pipes, and tanks with grout
- Demolishing of all above ground building structures
- Backfilling of the foundation structure with clay or other suitable material containing similar properties to soils in the area
- Sorting of all removed and demolished materials into “Radioactively Contaminated” versus “Non-contaminated” wastes
- Disposing of all non-contaminated demolition waste by municipal landfill or recycle facilities, as per standards in place
- Packaging of all contaminated materials into certified waste containers





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- Transporting of all contaminated wastes (building and reactor components) to a waste storage facility at Chalk River Laboratories to await final disposal
- Installing a cap and cover over the grouted underground structure
- Installing fencing, signs, and monitoring equipment
- Monitoring of both the grouted underground structure, and the wastes transported to Chalk River Laboratories awaiting final disposal until such time as CNSC, or the replacement governing body, determines that institutional and administrative controls are no longer required

Following decommissioning, what will remain at the site is building foundation concrete, clean soils used to backfill the demolished areas, grouted underground structure and reactor systems, radioactive reactor system components, a concrete cap and cover, and fencing, signs, and monitoring equipment.

### 4.3 Impact Analysis from Alternative 1 (Deferred Dismantling)

#### 4.3.1 Sources of Psychosocial Impacts

Sources of psychosocial impacts from Alternative 1 include:

- Presence of AECL / CNL in SFN territory:
  - Presence of radioactive infrastructure for more than 30 years (AECL, 2001, pp. ES-6; CNL, 2017, pp. 2-12)
  - Presence of non-radioactive infrastructure for more than 30 years (AECL, 2001, pp. ES-6 - 7; Canadian Nuclear Laboratories, 2017, pp. 2-12)
    - Presence of non-radioactive infrastructure 3 metres below ground to be left indefinitely (CNL, 2017, pp. 2-13)
  - Presence of approximately 30 decommissioning staff for at least 30 years<sup>10</sup> (AECL, 2001, pp. ES-6)
  - Knowledge of Institutional Control of Waste Management Area for additional 200 years<sup>11</sup> (AECL, 2001, pp. ES-6; CNL, 2017, pp. 2-15)
    - Chance to have remaining land returned to industrial use without restriction (WR-1 “Building Area”) (CNL, 2017, pp. 2-13)
- Presence of other wastes in Sagkeeng territory directly related to CNL, but externalized to this project, including 1) riverbed sediments and 2) low-level waste (LLW) in Waste Management Area trenches.

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<sup>10</sup> 30 Care & Maintenance staff are described for remaining phases of the “End State in a Moderate Time Period (60 years)” alternative.

<sup>11</sup> The “End State in a Moderate Time Period (60 years)” option describes indefinite in-situ decommissioning of 1) riverbed sediments and 2) low-level waste (LLW) in Waste Management Area trenches.



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- Uncertainty with respect to future of the project, particularly the possibility that the proponent may suggest other alternatives in the 30-year timeframe leading up to decommissioning that trigger another round of assessing options.
- Perceived lack of transparency regarding operational aspects of the facility
- Perceived lack of meaningful involvement in decision-making
- Lack of trust and/or credibility of the proponent, and the regulator in ability to oversee the project
- Deferral of eventual outcome of the project, adding significant time (approximately a generation) to onset of potential healing process
- Continued changes to natural environment because of the deferral

### 4.3.2 Potential Psychosocial Impacts from Alternative 1

This section outlines the potential psychosocial impacts from Alternative 1 taking into account the considerations outlined in 4.1. Given the interconnected nature of the impacts, they are characterized not by Valued Components or by specific sources, but by the impacts themselves.

#### 4.3.2.1 *Mental Illness*

Agency and self-determination are critically important variables in improving mental health and reducing mental illness in most cases. Given that community members individually or as a whole were not consulted in the installation of the radioactive infrastructure, agency and self-determination (specifically in the face of surviving the residential schools), were taken from this community. To regain this, community members spoke strongly about the need to remove the radioactive infrastructure in its entirety. This option represents continuing ongoing harm to the members. Status quo (i.e., continued presence of radioactive material in Sagkeeng territory, with no opportunity to exercise agency and/or self-determination, and hence no opportunity to begin healing post-removal) will thus represent ongoing harm for the next 30 years. A 30-year period represents a lifetime of difficulties, allowing yet another generation of people from this community to have to tolerate a lack of control in their own environment. Even if a mitigation option of therapy or cultural development was provided to offset some harm, there is still the basic principle that the root cause of the problem remains. Much like cancer; treatment cannot be effective unless the tumor is addressed first. In speaking with the members of this community, the impact of the nuclear facility has been consistently mentioned. Sustaining it for another 30 years will only perpetuate a loss of control, continued psychological harm, increase in mental illness, and members of this community and the coming generation will continue to live in uncertainty, fear, and confusion.

#### 4.3.2.2 *Racial Tensions*

The perceived lack of meaningful involvement in decision-making and presence of decommissioning staff (a vast majority of who may not be members from Sagkeeng) for a period of 40 years (or possibly



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200 depending on the nature of institutional management) can exacerbate already existing racial tensions (as noted in Sections 3.3, 3.4, and 3.5) due to continued lack of employment opportunities. This can impact **sustenance** (specifically elements of self-sufficiency) and **territorial sovereignty** (specifically exercise of agency and maintaining their roles as stewards of the land) by continuing to induce a sense of unworthiness and lack of pride. Continued lack of employment opportunities in the community can also force people to leave the community in an attempt to find employment in urban settings, potentially making them vulnerable to culture shock. Outmigration can also impact **families** and **community**, depending on how many members of the family out-migrate.

### 4.3.2.3 Intergenerational Trauma

The impact of intergenerational trauma already caused by the radioactive infrastructure in Sagkeeng's territory without their consent cannot be undone, however, future intergenerational harm can be mitigated to some degree by recommendations outlined in Section 5.2 below. Any alternative selected must consider not only addressing past trauma but preventing future trauma. Alternative 1 represents causing intergenerational trauma for another 30 years. Alternative 1 does neither, as with the impact on mental health, it sustains status quo which would only exponentially increase difficulties for this community and its members.

### 4.3.2.4 Mental Stress

Deferring the eventual outcome (and hence delaying closure and initiation of a healing process), continuing to proceed in an environment of perceived lack of meaningful involvement, uncertainty with respect to future of the project, and the potential that the proponent may revisit decommissioning (at any time in the next 30 years) by introducing other in situ options, could potentially increase emotional distress. Members may continue to feel personal helplessness, anger, fear (of a potential cataclysmic event at some point), stigma, worry, guilt, and self-doubt from not having been able to make a conclusive decision to protect their children, grandchildren, i.e., the next seven generations. Another potential cause of increase in mental stress could be 'fear of the unknown' given the perceived lack of transparency (due to occurrences in the past where information on leaks was not shared with community members). An increase in mental stress could in turn impact **family** ties and affect the strength of the **community** by compromising people's ability to participate in celebrations and social gatherings, exacerbating feelings of being stigmatized and isolated. Individuals who have experienced significant trauma through the course of history may experience this distress every time the project is reintroduced, which could in turn trigger unhealthy coping mechanisms. The resulting impact could be experienced to a higher degree on an individual level, with consequential social and communal outcomes depending on the severity of the coping mechanisms. Given the importance of reducing mental stress/fear/stigma (Criteria 5), and reduced management requirements for future generations (Criteria 7) to the Sagkeeng Anicinabe, this impact could be significant.

### 4.3.2.5 Food Security

Ongoing changes to the environment (as a minimum up until such a time that dismantling has been completed and the land returned to pre-project conditions) including changes to **flora** (specifically



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plants, trees, vegetation, berries, fruit, etc.), irrespective of their magnitude can result in a further decline in **sustenance** (specifically food security as people continue to avoid fishing, hunting, trapping, or gardening). This would be due to perceived risks associated with consuming contaminated foods, potentially affecting **families** as parents feel the pressure to rely on grocery-bought foods or make other unhealthy choices that they can afford. This can also affect **community** as people continue to avoid celebrating harvests together. A decline in use of **flora** can have consequential impacts on intergenerational transmission of knowledge of medicines (both within the **family**, and **community**), potentially preventing people from using medicines to treat ailments, thereby preventing use of their **spirituality** and knowledge for healing. Given the importance of food security (Criteria 4) and reducing long-term risks in Sagkeeng territory (Criteria 6) to the Sagkeeng Anicinabe, this impact would be significant.

### 4.3.2.6 Territorial Sovereignty

Ongoing changes to the environment (in the form of biophysical impacts to the flora, fauna, water, soils, mammals, birds, etc.) can result in a decline in **territorial sovereignty** by inducing fear and uncertainty about the future of the land and inability to act as its stewards. Parents could potentially start to further restrict children's time out on the land, given the uncertainty around the health of the land, which can exacerbate internal **family** conflict, and transfer stress and worry on to children. In turn children who are restricted to be outside may start experiencing social isolation and a loss of sense of **community**. **Territorial sovereignty** also includes amongst other things healing of the land, and exercise of Treaty rights. Deferring dismantling would represent deferring healing of the land, which would violate Sagkeeng's criteria of protecting and healing the water (Criteria 1), increasing territorial integrity (Criteria 3), and reducing management requirements for future generations (Criteria 7). Unmitigated, impacts to territorial sovereignty can be expected to be experienced at the individual, social, and community levels.

### 4.3.2.7 Agency

Lack of meaningful involvement in decision-making for Alternative 1 has the potential to result in further decline in agency with consequential impacts to personal wellbeing of individuals and an increase in self-doubt and frustration stemming from inability to exercise **territorial sovereignty**. This impact on agency may be further amplified by the fact that the proponent can potentially introduce other in situ options anytime in the next 30 years leading up to the agreed upon dismantling, potentially triggering threat to agency depending on the level of involvement of Sagkeeng members at that time. Not being involved meaningfully can also impact **family**, by inducing a sense of inability to protect their children, increasing family conflict, and a general loss of control over both the present and the future. Maintenance of status quo with respect to involvement in the project can potentially further erode the already strained relationship and limited trust between Sagkeeng and CNL. Knowledge that land may eventually be opened for other industrial use, which Sagkeeng may or may not have any meaningful decision-making involvement with may further erode **territorial sovereignty** by increasing Sagkeeng's vulnerability to other external influences, particularly if those industrial uses do not align with

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Sagkeeng’s interests. Given the importance of higher affected public/Sagkeeng acceptability (Criteria 10) to the Sagkeeng Anicinabe, this impact would be significant.

### 4.3.2.8 Spirituality

Lack of meaningful involvement in the process and being able to exercise agency has the potential to cause a decline in **spirituality** due to inability of leadership, Elders, and community members to incorporate ceremony in decision-making. This can have consequential impacts on knowledge-keepers (individuals), their families (social), and the **community**. Considering the historical impacts of loss in **spirituality** (as outlined in Section 3.3.6) on and its importance to the Sagkeeng Anicinabe (Criteria 2), this impact could be significant.

## 4.4 Impacts from Alternative 2 (Immediate Dismantling)

### 4.4.1 Sources of Psychosocial Impacts

Sources of psychosocial and socio-cultural impacts from Alternative 2 include:

- Presence of AECL / CNL in SFN territory:
  - Institutional Control of Waste Management Area for additional 200 years<sup>12</sup> (AECL, 2001, pp. ES-6; CNL, 2017, pp. 2-15)
    - Chance that remaining land will be returned without restriction (“WR-1 Building Area”) (CNL, 2017, pp. 2-17)
  - Presence of non-radioactive infrastructure 3 metres below ground to be left indefinitely (CNL, 2017, pp. 2-17)
- Presence of other wastes in Sagkeeng territory directly related to CNL, but externalized to this project, including 1) riverbed sediments and 2) low-level waste (LLW) in Waste Management Area trenches.
- Decommissioning activities at current radiation levels
- Uncertainty with respect to impacts of the decommissioning activities
- Perceived lack of transparency regarding operational aspects of the facility
- Perceived lack of meaningful involvement in decision-making
- Lack of trust and/or credibility of the proponent, and the regulator in ability to oversee the project

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<sup>12</sup> The “End State in a Moderate Time Period (60 years)” option describes indefinite in-situ decommissioning of 1) riverbed sediments and 2) low-level waste (LLW) in Waste Management Area trenches.



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### 4.4.2 Potential Psychosocial Impacts from Alternative 2

This section outlines the potential psychosocial impacts from Alternative 2. Given the interconnected nature of psychosocial impacts, they are characterized not by Valued Components or by specific sources, but instead by the impacts themselves.

#### 4.4.2.1 *Mental Illness*

Given that community members are clearly demanding a complete removal of the radioactive infrastructure, Alternative 2 provides them with the agency and self-determination necessary for the foundation of good psychological health and positive ethnic and cultural identity development. If this Alternative is chosen, risks of exposure should be reviewed with the community to allow them to understand and make an informed decision specifically about what the risk is, and how the risk of potential exposure can be appropriately managed. Should community members be fearful of the potential exposure, they must also be made aware of the full benefits and consequences of all the options so they may have much agency and information to regulate their own decisions instead of acting out of fear and lack of information. This Alternative provides the community with a sense of regained control, which has been articulated as lost by all members participating in the interviews. Though this Alternative may not resolve all the problems with current mental health in the community, it would begin to alleviate the pressure that caused it, allowing members to better address their own psychological well being and mental health without ongoing undue stress.

#### 4.4.2.2 *Racial Tensions*

Following completion of the dismantling process, this alternative could result in limiting further exacerbation of existing racial tensions. However, that may not be the case depending on the nature of institutional management for 200 years (i.e., if institutional management still entails presence of CNL staff in the area, then racial tensions can be expected to continue to rise, particularly if institutional control entails majority non-Sagkeeng employees. This can impact **sustenance** (specifically elements of self-sufficiency) and **territorial sovereignty** (specifically exercise of agency and maintaining their roles as stewards of the land) by continuing to induce sense of unworthiness and lack of pride. Continued lack of employment opportunities in the community can also force people to leave to find employment in urban settings, potentially making them vulnerable to culture shock. Outmigration can impact **families** and **community**, depending on how many members of the family out-migrate.

#### 4.4.2.3 *Intergenerational Trauma*

As noted above, the impact of the intergenerational trauma already caused by the radioactive infrastructure cannot be undone because the consequences of trauma have already occurred. Community members have left Sakgeeng, the impact of those moves, including the difficulty with adjustments (e.g., homelessness, drug addiction, unemployment, etc.) have already occurred, and the secondary impacts (psychological, socio-economic, educational) on the next generation have also occurred. Treatment can mitigate the psychological consequences, at best, but cannot undo the trauma that has passed. The damage has been done. That said, Alternative 2 has the potential to



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prevent future intergenerational harm (assuming the recommendations made in section 5.2 below are effectively implemented). By eliminating ongoing stress, Alternative 2 allows for recommendations in 5.2 to start addressing harm. It also allows for current and future generations to feel more engaged in their community and obtain that sense of agency and self-determination noted in the section above.

### 4.4.2.4 *Mental Stress*

Given the perceived lack of uncertainty about impacts of the dismantling process itself, execution of Alternative 2 can cause significant fear, anxiety, and distress in individuals in the community during the dismantling process. Not knowing what to expect or what is expected of them during the dismantling process may trigger feelings of helplessness, anger, fear of exposure, or fear of a potential cataclysmic event during dismantling. The perceived lack of transparency (due to occurrences in the past where information on leaks was not shared with community members) can also trigger feelings of guilt amongst parents about not knowing what to protect their children from. This could in turn impact **family** dynamics that can affect **community** dynamics by reducing people's willingness to participate in social gatherings or partake in traditional activities, thereby risking isolation, particularly during the timeframe during which dismantling would be carried out. Individuals who have experienced significant trauma through the course of history may find themselves triggered, potentially resorting to unhealthy coping mechanisms (the effects of which can be limited to individuals, or affect the broader community, depending on the nature and severity of the coping mechanism). Given the importance of reducing mental stress/fear/stigma (Criteria 5) this impact warrants careful consideration and appropriate mitigation. However, this alternative does allow people to experience closure, and initiate the process of healing, and re-establish connections with the land with immediate effect (provided appropriate mitigation measures are in place to allow for this to happen). This is important given the significance of reducing long-term risks in Sagkeeng territory (Criteria 6), and reduced management requirements for future generations (Criteria 7) to the Sagkeeng Anicinabe.

### 4.4.2.5 *Food Security*

Alternative 2 may result in impacts to the environment during the dismantling process, including changes to **flora** (specifically plants, trees, vegetation, berries, fruit, etc.). Irrespective of the magnitude of this impact, the perception of contamination can result in a further decline in **sustenance** (specifically food security as people continue to avoid fishing, hunting, trapping, or gardening), during the dismantling process, and until such time that they have assurance that the **flora** and traditional foods are safe to consume. The short-term avoidance of traditional foods may strain families as parents worry about feeding their children and would need to increase reliance on store-bought produce. The sense of disempowerment and self-doubt can be significant, particularly if the parents were already struggling to provide for the basic needs of their children. However, the decline in **sustenance** may be temporary if families are assured of the safety of consumption of the food following the dismantling process. During the dismantling process, given the fear and anxiety over potential exposure, community members may avoid gathering, celebrating, or engaging in community ceremonies, and find themselves feeling isolated. Given the importance of food security (Criteria 4) and reducing long-term risks in Sagkeeng territory (Criteria 6) to the Sagkeeng Anicinabe, this impact would require



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appropriate mitigation. Over time, this Alternative does provide an opportunity for the Sagkeeng Anicinabe to re-establish their trust in the quality of the food, thereby potentially increasing their food security after having given the land a chance to heal following dismantling.

### 4.4.2.6 Territorial Sovereignty

Residual changes to the environment (in the form of biophysical impacts to the flora, fauna, water, soils, mammals, birds, etc.) after the dismantling process can result in a decline in **territorial sovereignty** by inducing uncertainty about the future of the land and inability to act as its stewards. However, this Alternative does create the potential for restoration of **territorial sovereignty** if individuals have the comfort about immediate effects during dismantling and have assurance that impacts to the land can be mitigated appropriately. This alternative does allow Sagkeeng to reduce long term stress/fear/stigma (Criteria 5), reduce long-term risks in Sagkeeng territory (Criteria 6), if appropriate mitigation is applied (see Section 5), and reduce management requirements for future generations (Criteria 7), which is representative of exercise of their agency and territorial sovereignty.

### 4.4.2.7 Agency

If the perceived lack of meaningful involvement in decision-making for Alternative 2 continues, it has the potential to result in further decline in agency with consequential impacts to personal wellbeing of individuals and an increase in self-doubt and frustration stemming from inability to exercise **territorial sovereignty**. As noted earlier, not being involved meaningfully can also impact **family**, by inducing a sense of inability to protect their children, increasing family conflict, and a general loss of control over both the present and the future. Maintenance of status quo with respect to involvement in the project can potentially further erode the already strained relationship and limited trust between Sagkeeng and CNL. Given the importance of higher affected public/Sagkeeng acceptability (Criteria 10) to the Sagkeeng Anicinabe, this impact would be significant. However, if Sagkeeng members were to exercise their agency and choose Alternative 2 through meaningful involvement and effective implementation of the mitigation measures outlined in Section 5.2, this Alternative creates an opportunity to restore their agency and self-determination.

### 4.4.2.8 Spirituality

Lack of meaningful involvement in the dismantling process and being able to exercise agency has the potential to cause a decline in **spirituality** due to inability of leadership, Elders, and community members to incorporate ceremony in decision-making. This can have consequential impacts on knowledge-keepers (individuals), their families (social), and the **community**. Considering the historical impacts of loss in **spirituality** (as outlined in Section 3.3.6) on and its importance to the Sagkeeng Anicinabe (Criteria 2), this impact could be significant. However, should Sagkeeng members be able to incorporate ceremony and traditional activities as a part of the dismantling process, and subsequent healing of the land following dismantling, this Alternative offers an opportunity to initiate the process of restoring immediately.





### 4.5 Impacts from Alternative 3 (In Situ (in Place) Disposal)

#### 4.5.1 Sources of Psychosocial Impacts

Sources of psychosocial and socio-cultural impacts from Alternative 3 include:

- Presence of AECL / CNL in Sagkeeng territory:
  - Presence of radioactive infrastructure including radioactive reactor system, Deck Plate, Upper Shield, Radial Shield, Fuel Channels, and Calandria indefinitely (CNL, 2017, pp. 2-20)
  - Presence of monitoring staff for approximately 100 years of Active Institutional Control (CNL, 2017, pp. 1-11)
  - Restriction of Land Use for 300 years of Passive Institutional Control (CNL, 2017, pp. 1-11)
- Presence of other wastes in Sagkeeng territory directly related to CNL, but externalized to this project, including 1) riverbed sediments and 2) low-level waste (LLW) in Waste Management Area trenches.
- Uncertainty with respect to the magnitude of long-term impacts
- Uncertainty surrounding grout integrity and ceasing of monitoring activity at 100 years
- Lack of transparency regarding operational aspects of existing facility
- Lack of trust and/or credibility of the proponent, and the regulator in ability to oversee the project
- Perceived lack of meaningful involvement in decision-making
- Changes to the natural environment during disposal process
- Continued changes to the natural environment following In Situ Disposal

#### 4.5.2 Potential Psychosocial Impacts from Alternative 3

This section outlines the potential psychosocial impacts from Alternative 3. Given the interconnected nature of psychosocial impacts, they are characterized not by Valued Components or by specific sources, but instead by the impacts themselves.

##### 4.5.2.1 *Mental Illness*

With community members clearly insisting on a complete removal of the radioactive infrastructure, and openly against the encasement (partial or full) Alternative 3 continues to deny the community of the agency and self-determination necessary for the foundation of good psychological health and positive cultural identity development. As noted above, agency and self-determination are critically important variables in improving mental health and reducing mental illness in most cases and engaging in Alternative 3 without approval and engagement of the community would only facilitate the same unfortunate outcomes present today. If this Alternative is chosen, risks of exposure during any dismantling activities should be reviewed with the community to allow them to understand and make an informed decision specifically about what the risk is, and how the risk of potential exposure can be

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appropriately managed. Should community members be fearful of the potential exposure, they must also be made aware of the full benefits and consequences of all the options so they may have much agency and information to regulate their own decisions instead of acting out of fear and lack of information.

### 4.5.2.2 *Racial Tensions*

The perceived lack of meaningful involvement in decision-making and presence of monitoring staff (a vast majority of who would not be members from Sagkeeng) for a period of 100 years can exacerbate already existing racial tensions (as noted in Sections 3.3, 3.4, and 3.5) due to continued lack of employment opportunities, as well as restricting use of the land by Sagkeeng members while allowing it for use by predominantly non-Sagkeeng members (i.e., CNL staff responsible for institutional oversight of the land). This can impact **sustenance** (specifically elements of self-sufficiency) and **territorial sovereignty** (specifically exercise of agency and maintaining their roles as stewards of the land) by continuing to induce sense of unworthiness and lack of pride. Continued lack of employment opportunities in the community can also force people to leave to find employment in urban settings, potentially making them vulnerable to culture shock. Outmigration can impact **families** and **community**, depending on how many members of the family out-migrate.

### 4.5.2.3 *Intergenerational Trauma*

As noted earlier and repeated for emphasis, the harm from intergenerational trauma caused by the radioactive infrastructure cannot be undone, however, future intergenerational harm can be mitigated by recommendations made in section 5.2 below. The impacts of Alternatives on intergenerational trauma should focus not only on mitigating past trauma, but on preventing future trauma. Alternative 3 does neither, as with the impact on mental health, it would sustain status quo in defiance of the communities wishes by retaining radioactive material in their territory. This will exponentially increase difficulties for this community and its members.

### 4.5.2.4 *Mental Stress*

Uncertainty with respect to the impact of radioactive materials in the earth in perpetuity and the slow leaching out into the environment at an unknown rate may continue to trigger personal helplessness, anger, fear (of a potential cataclysmic event at some point), worry, guilt, and self-doubt from not having been able to make a decision to protect their children, grandchildren, i.e., the next seven generations. This can be further exacerbated due to the knowledge that CNL's monitoring requirements end at the 300-year mark, resulting in no accountability for recourse for Sagkeeng at that point. Another potential cause of mental stress could be the fear of the unknown given the perceived lack of transparency (due to occurrences in the past where information on leaks was not shared with community members). Mental stress could in turn impact **family** ties and affect the strength of the **community** by compromising people's ability to participate in celebrations and social gatherings, exacerbating feelings of being stigmatized and isolated. Individuals who have experienced significant trauma through the course of history may experience this distress every time the project is reintroduced, which could in turn trigger unhealthy coping mechanisms. The resulting impact could be experienced to a



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higher degree on an individual level, with consequential social and communal outcomes depending on the severity of the coping mechanisms. Given the importance of reducing mental stress/fear/stigma (Criteria 5), impact equity (Criteria 9) and reduced management requirements for future generations (Criteria 7) to the Sagkeeng Anicinabe, this impact requires appropriate mitigation.

### 4.5.2.5 Food Security

Ongoing changes to the environment over the long-term, including changes to **flora** (specifically plants, trees, vegetation, berries, fruit, etc.), irrespective of their magnitude can result in a further decline in **sustenance** (specifically food security as people continue to avoid fishing, hunting, trapping, or gardening) for the Sagkeeng Anicinabe. This would be due to perceived risks associated with consuming contaminated foods, potentially affecting **families** as parents feel the pressure to rely on grocery-bought foods or make other unhealthy choices that they can afford and can affect **community** as people continue to avoid celebrating harvests together. The decline in **sustenance** could continue to occur into the unforeseeable future. A decline in use of **flora** can have consequential impacts on intergenerational transmission of knowledge of medicines (both within the **family**, and **community**), potentially preventing people from using medicines to treat ailments, thereby preventing use of their **spirituality** and knowledge for healing. Given the importance of food security (Criteria 4) and reducing long-term risks in Sagkeeng territory (Criteria 6) to the Sagkeeng Anicinabe, this impact would be significant.

### 4.5.2.6 Territorial Sovereignty

Ongoing changes to the environment over the long-term (in the form of biophysical impacts to the flora, fauna, water, soils, mammals, birds, etc.) can result in a decline in **territorial sovereignty** by inducing fear and uncertainty about the future of the land and inability to act as its stewards. Parents could potentially start to further restrict children's time out on the land, given the uncertainty around the health of the land, which can exacerbate internal **family** conflict, and transfer stress and worry on to children. In turn children who are restricted to be outside may start experiencing social isolation and a loss of sense of **community**. **Territorial sovereignty** also includes amongst other things healing of the land, and exercise of Treaty rights. The decision to retain radioactive materials in the earth in perpetuity and the slow leaching of material into the environment at an unknown rate would prevent healing of the land, which would violate Sagkeeng's criteria of protecting and healing the water (Criteria 1), increasing territorial integrity (Criteria 3), and reducing management requirements for future generations (Criteria 7). Accepting Alternative 3 would also violate Sagkeeng's criteria on Impact equity (Criteria 9).

### 4.5.2.7 Agency

Lack of meaningful involvement in decision-making for Alternative 3 has the potential to result in further decline in agency with consequential impacts to personal wellbeing of individuals and an increase in self-doubt and frustration stemming from inability to exercise **territorial sovereignty**. Not being involved meaningfully can also impact **family**, by inducing a sense of inability to protect their children, increasing family conflict, and a general loss of control over both the present and the future.



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Maintenance of status quo with respect to involvement in the project can potentially further erode the already strained relationship and limited trust between Sagkeeng and CNL. Knowledge that land will continue to be restricted from use could further erode **territorial sovereignty** and affect exercise of treaty rights (Criteria 11). Given the importance of higher affected public/Sagkeeng acceptability (Criteria 10) to the Sagkeeng Anicinabe, this impact requires appropriate mitigation.

### 4.5.2.8 Spirituality

Lack of meaningful involvement in the process and being able to exercise agency has the potential to continue to cause a decline in **spirituality** due to inability of leadership, Elders, and community members to incorporate ceremony in decision-making. This can have consequential impacts on knowledge-keepers (individuals), their families (social), and the **community**. Considering the historical impacts of loss in **spirituality** (as outlined in Section 3.3.6) on and its importance to the Sagkeeng Anicinabe (Criteria 2), this impact could be significant.

## 4.6 Impacts from Alternative 4 (Partial In Situ (in Place) Disposal)

### 4.6.1 Sources of Psychosocial Impacts

Sources of psychological and socio-cultural impacts from Alternative 4 include:

- Presence of AECL / CNL in Sagkeeng territory:
  - Presence of some combination of radioactive materials stored indefinitely (CNL, 2017, pp. 2-24)
  - Presence of monitoring staff for approximately 100 years of Active Institutional Control (CNL, 2017, pp. 1-11)
  - Restriction of Land Use for 300 years of Passive Institutional Control (CNL, 2017, pp. 2-26)
- Environmental risks of conducting partial decommissioning activities at current radiation levels (CNL, 2017, pp. 2-25)
- Presence of other wastes in Sagkeeng territory directly related to CNL, but externalized to this project
- Uncertainty with respect to the magnitude of long-term impacts
- Lack of transparency regarding operational aspects of existing facility
- Lack of trust and/or credibility of the proponent, and the regulator in ability to oversee the project
- Perceived lack of transparency regarding operational decisions
- Perceived lack of meaningful involvement in decision-making
- Changes to the natural environment during disposal process
- Continued changes to the natural environment following In Situ Disposal



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### 4.6.2 Potential Psychosocial Impacts from Alternative 4

This section outlines the potential psychosocial impacts from Alternative 4. Given the interconnected nature of psychosocial impacts, they are characterized not by Valued Components or by specific sources, but instead by the impacts themselves.

#### 4.6.2.1 *Mental Illness*

With community members clearly insisting on a complete removal of the radioactive infrastructure, and openly against the encasement (partial or full) Alternative 4 continues to deny the community of the agency and self-determination necessary for the foundation of good psychological health and positive ethnic and cultural identity development. As noted above, agency and self-determination are critically important variables in improving mental health and reducing mental illness in most cases and engaging in Alternative 4 without approval and engagement of the community would only facilitate the same unfortunate outcomes present today. If this Alternative is chosen, risks of exposure should be reviewed with the community to allow them to understand and make an informed decision specifically about what the risk is, and how the risk of potential exposure can be appropriately managed. Should community members be fearful of the potential exposure, they must also be made aware of the full benefits and consequences of all the options so they may have much agency and information to regulate their own decisions instead of acting out of fear and lack of information.

#### 4.6.2.2 *Racial Tensions*

The perceived lack of meaningful involvement in decision-making and presence of monitoring staff (a vast majority of who would not be members from Sagkeeng) for a period of 100 years can exacerbate already existing racial tensions (as noted in Sections 3.3, 3.4, and 3.5) due to continued lack of employment opportunities, as well as restricting use of the land by Sagkeeng members while allowing it for use by predominantly non-Sagkeeng members (i.e., CNL staff responsible for institutional oversight of the land). This can impact **sustenance** (specifically elements of self-sufficiency) and **territorial sovereignty** (specifically exercise of agency and maintaining their roles as stewards of the land) by continuing to induce sense of unworthiness and lack of pride. Continued lack of employment opportunities in the community can also force people to leave the to find employment in urban settings, potentially making them vulnerable to culture shock. Outmigration can impact **families** and **community**, depending on how many members of the family out-migrate.

#### 4.6.2.3 *Intergenerational Trauma*

As noted earlier, the impact of the harm from intergenerational trauma caused by the radioactive infrastructure cannot be undone, however, future intergenerational harm can be mitigated by recommendations made in section 5.2 below. The impacts of Alternatives on intergenerational trauma should focus not only on mitigating past trauma, but on preventing future trauma. Alternative 4 does neither, as with the impact on mental health, it would sustain a status quo in defiance of the

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communities wishes by retaining radioactive material in their territory. This will exponentially increase difficulties for this community and its members.

### 4.6.2.4 Mental Stress

Fear of exposure to radioactive material during the removal process and uncertainty with respect to the impacts of slowly leaching radioactive materials into the environment may continue to trigger personal helplessness, anger, fear (of a potential cataclysmic event at some point), worry, guilt, and self-doubt from not having been able to make a decision to protect their children, grandchildren, i.e., the next seven generations. This can be further exacerbated due to the knowledge that CNL's monitoring requirements end at the 300-year mark, resulting in no accountability for recourse for Sagkeeng at that point. Another potential cause of mental stress could be the fear of the unknown given the perceived lack of transparency (due to occurrences in the past where information on leaks was not shared with community members). Mental stress could in turn impact **family** ties and affect the strength of the **community** by compromising people's ability to participate in celebrations and social gatherings, exacerbating feelings of being stigmatized and isolated. Individuals who have experienced significant trauma through the course of history may experience this distress every time the project is reintroduced, which could in turn trigger unhealthy coping mechanisms. The resulting impact could be experienced to a higher degree on an individual level, with consequential social and communal outcomes depending on the severity of the coping mechanisms. Given the importance of reducing mental stress/fear/stigma (Criteria 5), impact equity (Criteria 9) and reduced management requirements for future generations (Criteria 7) to the Sagkeeng Anicinabe, this impact requires appropriate mitigation.

### 4.6.2.5 Food Security

Ongoing changes to the environment over the long-term (including changes that might occur during the removal process of some radioactive materials), including changes to **flora** (specifically plants, trees, vegetation, berries, fruit, etc.), irrespective of their magnitude can result in a further decline in **sustenance** (specifically food security as people continue to avoid fishing, hunting, trapping, or gardening) for the Sagkeeng Anicinabe. This would be due to perceived risks associated with consuming contaminated foods, potentially affecting **families** as parents feel the pressure to rely on grocery-bought foods or make other unhealthy choices that they can afford and can affect **community** as people continue to avoid celebrating harvests together. The decline in **sustenance** could continue to occur into the unforeseeable future. A decline in use of **flora** can have consequential impacts on intergenerational transmission of knowledge of medicines (both within the **family**, and **community**), potentially preventing people from using flora to treat ailments, thereby preventing use of their **spirituality** and knowledge for healing. Given the importance of food security (Criteria 4) and reducing long-term risks in Sagkeeng territory (Criteria 6) to the Sagkeeng Anicinabe, this impact would be significant.



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### 4.6.2.6 Territorial Sovereignty

Changes to the environment during the removal of radioactive materials, and ongoing changes to the environment thereafter due to the leaching of radioactive materials into the environment (in the form of biophysical impacts to the flora, fauna, water, soils, mammals, birds, etc.) can result in a decline in **territorial sovereignty** by inducing fear and uncertainty about the future of the land and inability to act as its stewards. Parents could potentially start to further restrict children's time out on the land, given the uncertainty around the health of the land, which can exacerbate internal **family** conflict, and transfer stress and worry on to children. In turn children who are restricted to be outside may start experiencing social isolation and a loss of sense of **community**. **Territorial sovereignty** also includes amongst other things healing of the land, and exercise of Treaty rights. Decision to retain radioactive materials in the earth indefinitely and allowing them to enter the environment at an unknown rate would represent preventing healing of the land, which would violate Sagkeeng's criteria of protecting and healing the water (Criteria 1), increasing territorial integrity (Criteria 3), and reducing management requirements for future generations (Criteria 7). Accepting Alternative 4 would also violate Sagkeeng's criteria on Impact equity (Criteria 9).

### 4.6.2.7 Agency

Lack of meaningful involvement in decision-making for Alternative 4 has the potential to result in further decline in agency with consequential impacts to personal wellbeing of individuals and an increase in self-doubt and frustration stemming from inability to exercise **territorial sovereignty**. Not being involved meaningfully can also impact **family**, by inducing a sense of inability to protect their children, increasing family conflict, and a general loss of control over both the present and the future. Maintenance of status quo with respect to involvement in the project can potentially further erode the already strained relationship and limited trust between Sagkeeng and CNL. Knowledge that land will continue to be restricted from use could further erode **territorial sovereignty** and affect exercise of treaty rights (Criteria 11). Given the importance of higher affected public/Sagkeeng acceptability (Criteria 10) to the Sagkeeng Anicinabe, this impact requires appropriate mitigation.

### 4.6.2.8 Spirituality

Lack of meaningful involvement in the process and being able to exercise agency has the potential to continue to cause a decline in **spirituality** due to inability of leadership, Elders, and community members to incorporate ceremony in decision-making. This can have consequential impacts on knowledge-keepers (individuals), their families (social), and the **community**. Considering the historical impacts of loss in **spirituality** (as outlined in Section 3.3.6) on and its importance to the Sagkeeng Anicinabe (Criteria 2), this impact could be significant.

## 4.7 Summary of Impacts from the four Alternatives

**Alternative 1** entails a deferral of exposure, and according to the proponent, when exposure to radioactive waste does happen, it would happen at a relatively safe time compared to exposure that



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may happen before the radioactive materials have reached their half life. While Alternative 1 does offer removal of radioactive waste from Sagkeeng territory in 30 years, it does not offer a guarantee that the proponent will not revisit other alternatives in the next 30 years that have elements of in situ decommissioning, leaving members vulnerable to fear, anxiety, confusion and loss of agency in the event that the issue does come up again, which, from a psychosocial perspective, can be distressing. In essence, members will not have any closure on the matter for a period of 30 years, and risk of distress whenever the matter is raised again. More specifically, the source behind the trauma remains, continuing to impact the psychological, emotional, and cultural wellbeing of this community. The Alternative therefore entails ongoing distress about having radioactive materials around them for 30 years resulting in a further decline in their already weakened psychosocial health and a significant delay in their ability to start improving their psychosocial wellbeing. Alternative 1 represents lack of redress for harmed already caused, and ongoing psychosocial harm to the community for the next 30 years.

**Alternative 2** entails immediate removal of radioactive materials, potentially improving the psychosocial wellbeing of the Sagkeeng Anicinabe, but also coming at the cost of a higher risk of environmental exposure which would cause significant anxiety, stress and, fear in the short-term, but would allow the community to start the process of healing if (and only if) the process of removal is carried out safely with no environmental damage. Unfortunately, the lack of trust in the proponent and the perceived lack of transparency from the proponent would continue to act as barriers to the perception of how safe the removal process may be. Provided the proposed mitigation measures are implemented, and the lack of trust mitigated, and the community engaged meaningfully, Alternative 2 offers a psychosocially healthy option. Furthermore, the process of engaging this option might cause some barriers of trust to be diminished as community members may feel that their needs are finally being heard and met. This option does offer an opportunity (if executed properly, with the mitigation measures outlined in Section 5.2) to prevent further harm and improve the psychosocial health of the community.

**Alternative 3** entails removal of some radioactive material, burial of most of it, and a grout system which is expected slowly leach material into the receiving environment at an unknown rate. Coupled with monitoring requirements ceasing at 100 years, this option would represent a violation of most of Sagkeeng's value criteria. The alternative offers a single point of distress through removal activities, followed by multigenerational distress given the knowledge that radioactive materials will be kept in the earth in perpetuity and slowly leach these materials into the environment at an unknown rate. While Alternative 3 does offer some removal action immediately that would be beneficial from a psychosocial perspective, the presence of radioactive material in the long term will continue to be a source of significant distress.

**Alternative 4** offers removal of most of the radioactive material, but burial of some of it, and a grout system which is expected slowly leach material into the receiving environment at an unknown rate. Coupled with monitoring requirements ceasing at 100 years, this option would represent a violation of most of Sagkeeng's value criteria. The alternative offers a single point of distress through removal activities, followed by multigenerational distress given the knowledge that radioactive materials will



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be kept in the earth in perpetuity and slowly leach these materials into the environment at an unknown rate. While Alternative 4 does offer some removal action immediately that would be beneficial from a psychosocial perspective, the presence of radioactive material in the long turn will continue to be a source of significant distress.

In summary, psychosocial impacts of any of the Alternatives should focus not only on mitigating past harm, but on preventing future harm. Alternatives 1, 3 and 4 do neither, as with the impact on mental health, they sustain a status quo in defiance of the communities wishes. If appropriate measures were in place, and the fear associated with potential risks during the process of dismantling addressed, Alternative 2 offers an opportunity to prevent further harm, and allow the community to start healing.

## 5 Mitigation

This section presents recommended mitigation measures to reduce further harm that must inform the path forward. Regardless of the alternative selected, it is recommended that the mitigation measures outlined below be implemented to try and address the harm caused and prevent further harm. The measures provide an opportunity to amplify reduction of harm.

### 5.1 Key Guiding Principles

The mitigation measures outlined here consider a few general principles that are critical to the success of the measures: To be effective, the measures will require:

- Active participation of Sagkeeng, the proponent, and the regulator
- To be trauma-informed
- Recognition on part of the proponent of the extent of trauma that already exists in the community and hence committing to trauma-informed decision-making hereon
- Recognition that the proponent has been a part of a systemic problem that has left the people of Sagkeeng with the sense that they are unimportant, their practices are unimportant, their food supply is unimportant, and the ties that bind their families together are unimportant.
- Commitment to building a workable relationship with the community
- Commitment to transparency
- Commitment to build a dispute resolution mechanism that embodies the principles of conflict transformation and is rooted in the Anicinabe teachings

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Figure 3 illustrates the general principles behind building effective trauma-informed mitigation measures. These principles are presented as a starting point and should be built upon collaboratively by Sagkeeng and CNL.<sup>13</sup>



Figure 3: General Principles of Psychosocial Wellbeing

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<sup>13</sup> Klinic. (2013). (rep.). Trauma-informed: The Trauma Toolkit. Retrieved from [https://trauma-informed.ca/wp-content/uploads/2013/10/Trauma-informed\\_Toolkit.pdf](https://trauma-informed.ca/wp-content/uploads/2013/10/Trauma-informed_Toolkit.pdf)  
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### 5.2 Mitigation Measures

This section outlines the mitigation measures. These measures have been developed based on the psychosocial analysis of the Sagkeeng Anicinabe and an understanding of how the project is likely to impact them.

- 1. Building a Trauma-Informed Decision-Making Model** specific to the project that entails:
  - a. Collaboratively identifying the current sources of distress in **how** decisions are made on the project
  - b. Collaboratively identifying which decisions specifically cause distress (i.e., which topics or components of the project)
  - c. Collaboratively identifying a working model for how all future decisions can be made, considering the territorial sovereignty and the values criteria of the Sagkeeng Anicinabe and the corporate interests and values of CNL
  - d. Collaboratively building a dispute resolution mechanism that is mutually agreeable and is rooted in the Anicinabe teachings on finding resolutions.
  - e. Collaboratively building an accountability framework that is mutually agreeable and that can last for the life of the project. (which depending on the option would be well over 300 years of institutional control)
- 2. Building a Trauma-Informed Engagement Plan** with the community before any irreversible decisions are made that entails:
  - a. Facilitating a process that empowers community members to find community-driven measures to address historical trauma
  - b. Facilitating a process that empowers community members to identify mechanisms to increase resilience and find and execute achievable avenues to promote healing (including committing to appropriate resources to enable this)
  - c. Identifying mechanisms to build trust between Sagkeeng and CNL
  - d. Identifying constructive, reliable mechanisms to share information, seek input, and demonstrate how the input is influencing decision making so Sagkeeng members can make informed decisions about either of the alternatives
  - e. Ensure sufficient and targeted resources are available for Sagkeeng to participate in the process meaningfully.
- 3. Building a Long-term Monitoring Program that includes:**
  - a. Extensive involvement (and financial support) for Sagkeeng members so they can understand the impacts and communicate the impacts in ways that respect their cultural identity and way of life
  - b. Incorporation of collaboratively built psychosocial indicators based on Sagkeeng's value criteria and the Valued Components identified in this analysis
  - c. Collaboratively built measures to restore land that is free of radioactive waste and can be restored to conditions that can promote the psychosocial wellbeing of the Sagkeeng Anicinabe

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- d. Collaboratively built emergency response plan, including risk communications, actions, response, and accountability in the case of any accidents, malfunctions, or other events that may have the potential to trigger adverse psychosocial responses.

### **4. Capacity and Access to Independent Expertise:**

- a. Given the nature of the information, Sagkeeng should be equipped to engage technical experts at any time to assist with interpretation of the information so informed decisions can be made.

### **5. Psychological Well Being**

- a. **Therapy:** The psychological cost to the community members of SFN are profound. It may be said defensively, that the source of this lies solely on the residential school system, however, it is evident that the presence of the radioactive infrastructure on their land had a significantly negative impact on survivors abilities to make use of cultural resources available to them to overcome that trauma, thereby also removing a sense of community and wellbeing for future generations. As a means of reparations, the provision of psychological therapy, by registered clinical psychologists trained in trauma recovery should be provided for the community. This might include a large sum of resources made available at the disposable of the community to be strictly used for any community member, living in Sakgeeng or not, to have access to a registered clinical psychologist.
- b. **Cultural & Spiritual Development:** Given that the presence of the radioactive infrastructure removed the ability for SFN to rely on their culture and spiritual traditions which involved living off the land, and the challenges had by all community members interviewed to re-engage with their culture to begin a process of self-healing, a large fund should be made available to assist the community in building social and physical structures helpful in the community to assist them in rebuilding psychological infrastructures necessary to rebuild and return to a way of life important to them.
- c. These particular steps would assist a great deal with preventing ongoing intergenerational trauma, and would also assist individual members to address trauma they incurred by the presence of a radioactive infrastructure in their community and the interruption it has had on all of their lives.

## **6 Conclusion**

This Study is intended to serve as a complement to Sagkeeng First Nation's existing study assets documenting baseline information, impacts, and other Project assessments, in facilitating ongoing discussions and decision-making regarding the future of the Whiteshell Laboratories Site. While not well understood, the Whiteshell Laboratory Site has been a significant source of distress for members of Sagkeeng, who have found it to be responsible for environmental degradation, particularly the water, vegetation, and wildlife, on which they depend. Psychosocial impacts of any of the Alternatives should focus not only on mitigating past harm, but on preventing future harm. Alternatives 1, 3 and 4 do



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neither, as with the impact on mental health, they sustain a status quo in defiance of the community's wishes. If appropriate measures were in place, and the fear associated with potential risks during the process of dismantling addressed, Alternative 2 offers an opportunity to prevent further harm, and allow the community to start healing. Irrespective of the alternative selected, trauma-informed mitigation measures are strongly recommended. While draft principles for Sagkeeng and CNL to consider are presented, these must be collaboratively built upon to inform development and implementation of the measures, which are: building a trauma-informed decision-making model, a long-term monitoring program, providing capacity and access to independent expertise, and actively investing in improving the psychological wellbeing of Sagkeeng members. It is emphasized that these measures do not undo the harm already done but create an opportunity to prevent further harm and amplify opportunities to heal, re-establish their ties to the land, their culture, spirituality, and their individual and collective identity as the Sagkeeng Anicinabe.



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# Appendices

## APPENDIX 1: METHODOLOGICAL CONSIDERATIONS

## Identity: Operationalizing Psychosocial Dimensions of Wellbeing

A key challenge in holistic approaches to IA that integrate socio-cultural dimensions of wellbeing is the operationalization of concepts to make them amenable to analysis (Partal & Dunphy, 2016; Gibson, MacDonald, & O'Faircheallaigh, 2011). Recognizing that these domains are necessarily interconnected and overlapping, this study uses the concept of *identity* as an organizing concept to inform data collection and early analysis.

Identity, as it is understood in sociological discourse analysis, is a fundamentally social-relational property of an individual. It is the sum total of all ongoing formative social experiences in a person's life – the notion that minds, selves, and identities are constituted (developed and maintained) by the way individuals and groups participate in talk and text (or, “*discourse*”) (Potter & Wetherell, 1987). The central premise in the study of discourse is that individuals make choices (that is, exercise their identity) to position themselves on issues, whether consciously or unconsciously. By building an account structure of language, identity can be conceptualized relative to a set of interpretive socio-cultural criteria.

Using identity as an organizing principle, several key methodological consequences have informed the design of this Study and are described below:

- The goal of data collection was to obtain representations of natural language use. Apart from prompting questions to help establish direction and momentum, interviews were designed to be semi-structured and emphasize reflection and fluidity.
- The identification of Valued Components was assessed based on categories that emerged from the coded data. Minor refinement was conducted based on cogency and completeness.

## Psychosocial Dimensions of Wellbeing

As cited in Sagkeeng's Psycho-Social Impacts Brief, psychosocial impacts are “a complex of distress, dysfunction and disability, manifested in a wide range of psychological, social and behavioural outcomes, as a consequence of actual *or perceived* environmental contamination” (Elliot, 1992). Psychosocial impacts therefore involve the effects of an environmental contaminant event on the emotions and cognitions of a people, with exposure to a contaminant needing to only be *perceived* to induce chronic stress and a fear of the unknown (Unger, Wandersman, & Hallman, 1992). This permits psychosocial effects to occur well in advance of an environmental contaminant situation taking place (Elliot, 1992). For the Anicinabe of SFN, the psychosocial effects of the Whiteshell Laboratories' WR-1 are the key drivers of socio-cultural and spiritual alienation.

Hine et al. (1997) identifies risk perceptions and opposition to nuclear storage facilities as greater in Indigenous communities as opposed to their non-Indigenous counterparts. The threat of nuclear contamination poses a demonstrably greater effect on Indigenous communities (Health Canada, 2004), in part due to the indivisible connection between Indigenous communities, the environment and elements of cultural identity. Psychosocial effects therefore impact social and community health

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through the loss of cultural identity, the dismantling of community and family support networks, an increase in social disruption, and a diminished quality of life (Health Canada, 2004). The effects of actual or perceived nuclear contamination are also compounded by the cumulative effects of colonization and intergenerational trauma of Indian Residential Schools.

Tangible outputs resulting from psychosocial effects include the stigmatization of environmental features of importance for sustenance and traditional activities. As an example, individual effects such as fear and uncertainty surrounding the use of water for bathing, drinking, and swimming will limit the use of the feature resulting in social network and community effects. In this way, psychosocial impacts are the conduits to socio-cultural change and drive the accumulation of cumulative effects.

A key approach to the consideration of psychosocial consequences of the Project on members of Sagkeeng First Nation involved an accompanying psychological assessment process undertaken by a clinical psychologist. The resulting report, as integrated below, describes the psychological impact of the WR-1 on members of Sagkeeng First Nation and emphasizes the implication of mental health impacts on the perpetuation of cumulative effects, identifying the Whiteshell Laboratories' WR-1 as a major player in a "domino effect of trauma that contributed to the psychological damage of an entire community, still being felt today".

## APPENDIX 2: CONSENT FORMS



# Informed Consent Form

**Project Title:** Sagkeeng First Nation Socio-Cultural Impacts Assessment Study

**Study Lead:** Somia Sadiq and Conor Smith, Narratives Inc.

**Partners:** Dr. Rehman Abdulrehman

**Background:** Canadian Nuclear Laboratories (CNL) is proposing to decommission the Whiteshell Reactor (WR-1) in Pinawa, Manitoba. They are pursuing an “in-situ” option for decommissioning that would see the reactor decommissioned in-place. You are being asked to participate in a study requested by Sagkeeng First Nation (SFN) that is focused on the socio-cultural impacts of this in-situ decommissioning option on members of SFN. The study is being conducted by employees of Narratives Inc. A clinical psychologist may also be present on the call or conduct a follow-up interview.

The purpose of the study is to analyze SFN members’ perceptions of the operation of WR-1, and to identify potential social, cultural, and health impacts of decommissioning alternatives. The study is also designed to assess how two alternative designs could differentially impact SFN members socially, culturally, and in terms of health.

**Your participation in the study:** Interviews may take between 30 and 60 minutes to complete. During this time, a series of discussion questions will be asked, meant for you to freely speak your mind. Due to the COVID-19 pandemic, the interviews will be conducted through an online video conferencing platform known as “Zoom”. You will receive an honorarium for your time.

**Potential benefits and risks of participating:** The potential benefits of participating in this study include sharing your experiences and knowledge of the socio-cultural impacts of the Whiteshell Reactor with SFN leadership, the proponent, and other relevant parties, which may influence the decommissioning process. The interview questions are meant to explore potential social, cultural, and health impacts of the decommissioning process. As a result, a risk of participating is that you may experience slight emotional distress during the interview.

**Use, access, and ownership of the data:** Audio and video from your interview will be recorded using Zoom. The interviews will be transcribed through the secure, online service known as “Rev”. Employees from Narratives Inc. in collaboration with the clinical psychologist will analyze and include information from your interview in the final study for SFN. Your anonymity will be maintained in the final report. The data and final report will be owned by SFN.

**Questions and contact information:** If you have any questions about this project, please contact Somia Sadiq at Narratives Inc. You can reach her by email at [somia.sadiq@narrativesinc.com](mailto:somia.sadiq@narrativesinc.com) or by phone at 204-807-0339.



*I have read this consent form and had the opportunity to discuss this study with the study team. I understand the purpose of the study. The risks and benefits have been explained to me. I believe that I have not been unduly influenced by any study team member to participate in an interview by any statements or implied statements. Any relationship I may have with the study team has not affected my decision to participate and that I may choose to withdraw my consent and decline to be recorded and to participate in any activity related to this study at any time, without penalty, prejudice or consequence.*

*By signing this consent form, I have not waived any of the legal rights that I have as a participant in a study and I have not released the study leads, project partners, or involved institutions from their legal and professional responsibilities.*

**CONSENT**

Yes	No	
		I consent to participate/allow my child to participate in the study conducted by Narratives Inc.
		I authorize the use of data from the interview with myself/my child in written reports and publications resulting from this study.

<b>Participant or Parent/Guardian Information:</b>	
Name:	Address:
Phone number:	Email address:
Date:	Signature:
<b>Interviewer Information:</b>	
Name:	Signature:

**ASSENT**

*Only fill out this section if the interview participant is a minor.*

Yes	No	
		I assent to the previous statements which my parent/guardian provided consent to.

<b>Minor's Information:</b>	
Name:	Phone number:
Date:	Signature:

## **IMPORTANT INFORMATION ABOUT HEALTH SERVICES**

### **INFORMED CONSENT TO PSYCHOLOGICAL INTERVIEW**

When engaged in this psychological interview, you have a right to be informed about the nature of the service and to decide whether or not you agree to participate. This interview is intended to review mental health difficulties and factors that may have contributed to it, for the purpose of a Socio-Cultural Impacts Assessment Study specific to Canadian Nuclear Laboratories' proposed in-situ decommissioning of the WR-1 Reactor at Whiteshell Laboratories.

You are entitled to information about this interview including outcome (e.g., diagnosis, if any, for example), but treatment will not be provided following this interview. You may want to ask more about the advantages and disadvantages of this interview and about the training and experience of the interviewer you are seeing. You have the option of choosing not to participate in this interview. You have the right to withdraw from this interview at any point without consequence. If in this interview you do not understand something or have additional questions about your care...please ASK! It is the responsibility of the person conducting the interview to you to answer your questions to the best of their ability.

If you have a concern about the interview that you engage in, and cannot settle it with the psychologist conducting the interview, or in discussion with the service provider or team, you may contact the professional body responsible for psychological services, the Psychological Association of Manitoba for information or to make a complaint.

### **CONFIDENTIALITY OF SERVICES**

Your health information is private and Dr. Abdulrehman (your interviewer) is trained to maintain that privacy. That said, given this interview is meant for the purpose of a Socio-Cultural Impacts Assessment Study, your health information from this interview will be accessed by Narratives Inc. and the transcription team at Rev. The information you provide about your experiences will be stored as health information. Furthermore, your information will be used to produce a report whereby it may assist in the understanding of the socio-cultural impacts of the proposed in-situ decommissioning of the WR-1 Reactor at Whiteshell Laboratories. Your name and identifying information about you will be omitted from the report. No other record will be kept about this interview, other than the final report and your stored health records.

You should be aware of the following exceptions:

1. Health care providers by law, must report any concern regarding a child in need of or potentially in need of protection. This usually refers to concerns about child neglect or abuse.
2. Health care records may be subpoenaed or demanded by a court for a legal proceeding. The health care provider involved may also be required to testify.
3. If there is a **serious** concern that an individual is intending to harm herself or himself or someone else, then health information related to that may be released to others (e.g., family, police).
4. Health care records may be used for research and teaching by authorized personnel. Information identifying the person is removed in order to maintain privacy.
5. If you are applying for or receiving disability benefits through an insurance plan, the plan may require you to sign a permission form that allows the plan to request health information from your records.

### **YOUR ACCESS TO YOUR HEALTH RECORDS**

In Manitoba, the use of health information is governed by The Personal Health Information Act.

The health care file belongs to the organization providing the service. Clients have the right to review the chart or to have a copy of it. A fee may be charged for copying. If a client finds an error in the chart, he or she may ask that a correction be added. If you wish to see your chart or have copies of information in it, please discuss this with the staff person you are seeing or contact the person in charge of health records.

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Printed Name

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Date

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Signature



APPENDIX 3: INFORMATION SHEET

# Sagkeeng Anicinabe Socio-Cultural Assessment Study

## INFORMATION SHEET



narratives



narratives

**Contact:** Somia Sadiq  
**Phone:** (204) 807-0339  
**Email:** somia.sadiq@narrativesinc.com

### PROJECT OVERVIEW

Canadian Nuclear Laboratories (CNL) is proposing an *In Situ* decommissioning (ISD) strategy for the Whiteshell Laboratories' Whiteshell Reactor 1 (WR-1) located in Pinawa, Manitoba, 66 km upstream of Sagkeeng First Nation. The Project would involve permanently storing radioactive material at the Whiteshell Laboratories site.

As part of this **Socio-Cultural Impacts Assessment Study**, Sagkeeng hopes to identify social, psychological, cultural, and spiritual effects of the ISD and other alternatives

The following Information Sheet has been prepared to provide you with key points and a summary of the Project.

## WHITESHELL REACTOR 1 (WR-1) CURRENT STATUS

The Whiteshell Laboratories' Whiteshell Reactor 1 (WR-1) was established in 1963 by Atomic Energy of Canada Ltd. (AECL) and was in operation until 1985, when it was permanently shut down. Between 1985 and 1996 all fuel was removed from the fuel storage pools and the reactor and stored at the waste management area. The reactor was also drained of operating fluids, including the heavy water moderator and reactor coolant.

Building 100 on the Whiteshell Laboratories site contains WR-1. The foundation of the building is thick, reinforced concrete, up to 1m thick in some areas. The building is about 18m tall with a foundation that extends 5 stories down to bedrock (approximately 18m deep). The central area (green shaded area in the above images) houses the reactor systems. The orange shaded areas are the outer wings of the building which once contained laboratory space and support systems. The HVAC, sump, and power systems remain in operation to allow for safe building access. Many of the outer wings are empty and demolition-ready. The 50 ton overhead crane in the reactor hall remains operational, and a small group of experienced building staff are presently employed on site.

WR-1 is currently in a **storage with surveillance** state, meaning it is safely shutdown and regularly monitored and maintained as it awaits decommissioning.

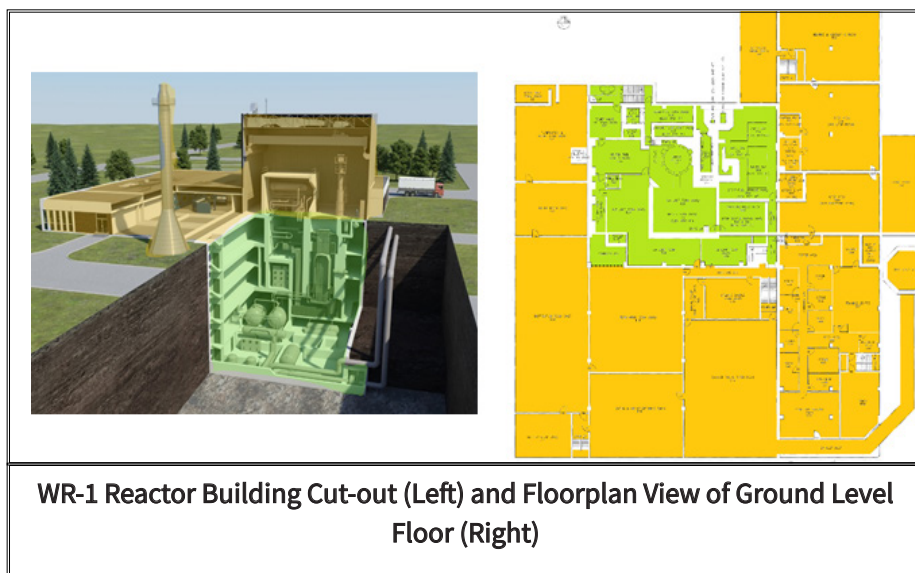
## THE PROJECT CONTEXT

Sagkeeng First Nation is home to Anicinabe people who have resided at or near the Fort Alexander Indian Reserve #3 since time immemorial. The traditional territories of Sagkeeng include the lands, waters, skies, and soils within Treaty 1, to which Sagkeeng was a signatory, as well as Treaty 3 and Treaty 5. Many Sagkeeng members continue to exercise their inherent and treaty rights in the vicinity of the Whiteshell Laboratory.



Sagkeeng First Nation Welcome Sign

In 2002, Atomic Energy of Canada committed to the complete removal of all radioactive materials from the WR-1 facility and was granted a license to do so. In 2016, Canadian Nuclear Laboratories (CNL) overtook responsibility for the decommissioning of WR-1 and applied for a license to do this, hoping to complete the decommissioning by 2024. CNL currently proposes *In Situ* decommissioning (ISD). With ISD, the structures that are underground are filled with grout and covered with an engineered cap until it is determined that institutional and administrative controls are no longer required.



WR-1 Reactor Building Cut-out (Left) and Floorplan View of Ground Level Floor (Right)

The Canadian Nuclear Safety Commission (CNSC) oversees all nuclear development in Canada. To receive a license from the CNSC, CNL submitted a draft Environmental Impact Statement (EIS) for review and public comment in 2017. In 2018, Sagkeeng rejected the ISD plan and provided CNSC with an in-depth review of the EIS. Sagkeeng also conducted a Traditional Use and Occupancy Study (TUOS) and is now hoping to build on this existing study with a Socio-Cultural Impacts Assessment Study. This study will examine the proposed ISD and the decommissioning alternatives as they relate to past and future social, psychological, cultural, and spiritual impacts of WR-1 and its proposed in-situ decommissioning. Part of this assessment will include individual interviews with SFN members.

## DECOMMISSIONING ALTERNATIVES

### Alternative #1 - Deferred Dismantling (Continue Storage with Surveillance)

With Deferred Dismantling, the WR-1 facility will remain as is for several decades under storage with surveillance. At some point in the future, dismantling of the building will proceed.

### Alternative #2 - Immediate Dismantling

With Immediate Dismantling, the WR-1 facility will undergo immediate and complete dismantling. All contaminated wastes (building and reactor components) will be transported to a waste storage facility at Chalk River Laboratories to await final disposal.

### Alternative #3 - In Situ (In Place) Disposal

With *In Situ* Disposal (ISD), the above-ground building will be decommissioned and dismantled. The below-ground structure will be filled with grout (a mixture of water, cement, and sand) and covered with an engineered cap and a concrete pad to prevent intrusion. It will then be overlaid by a cover of natural and man-made materials designed to shed water away.

### Alternative #4 - Partial In Situ (In Place) Disposal

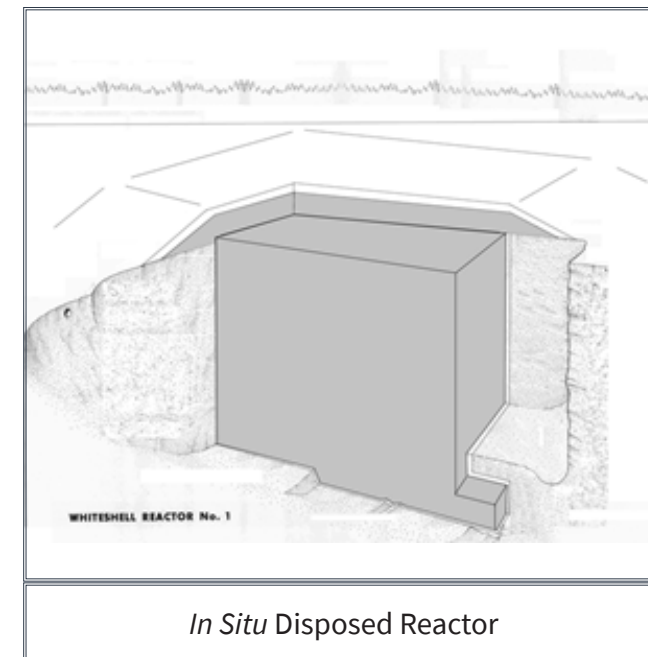
With Partial *In Situ* Disposal, the core reactor components will be removed and all contaminated wastes (building and reactor components) will be transported to a waste storage facility at Chalk River Laboratories to await final disposal. The remaining below-ground structure will be filled with grout and covered with a protective engineered cap.

## THE INTERVIEW PROCESS

In July 2020, Sagkeeng leadership hired Narratives to carry out the Socio-Cultural Impacts Assessment on behalf of Sagkeeng. Over the next few weeks, we will be conducting interviews to better understand how this project will impact you socially, psychologically, culturally, and spiritually. Before your interview, your community coordinator will provide you with an overview of the project and walk you through the consent forms. Dr. Rehman Abdulrehman, our team's clinical psychologist, may sit in on your interview. If not, you will be invited to participate in a follow-up interview with Dr. Abdulrehman.

Interviews will be scheduled through the Sagkeeng Community Coordinator, Carl Fontaine. If you would like to share your thoughts on the Decommissioning Project, please contact Carl by phone at (204) 218-8038 or by email at nowge6@hotmail.com.

Thank you for considering to participate. We look forward to talking to you.



## APPENDIX 4: INTERVIEW GUIDELINES



## 1 Purpose

The Whiteshell Laboratories' Whiteshell Reactor 1 (WR-1) is situated approximately 66 km upstream of Fort Alexander Indian Reserve and is located on the ancestral lands of the Sagkeeng First Nation ("SFN"). The WR-1 reactor was permanently shut down in 1985 and has undergone a series of phases of decommissioning since. At present, WR-1 holds a decommissioning licence assuming a temporary period of on-site storage with eventual transfer to an off-site repository.

Canadian Nuclear Laboratories ("CNL") is presently responsible for the decommissioning of the reactor and is proposing an *In-Situ Decommissioning* ("ISD") strategy. To obtain a license from the Canadian Nuclear Safety Commission ("CNSC") CNL submitted a draft Environmental Impact Statement ("EIS") for review and public comment in 2017. In January 2018, SFN provided CNSC with a comprehensive review of the EIS, including the unequivocal rejection of the ISD alternative, citing key concerns with the deferral of radiological risk and responsibility onto future generations, the lack of opportunity for SFN to participate in the selection of the preferred alternative, bias of the selection criteria, and the lack of comprehensiveness of the assessment of alternative options.

SFN has since conducted a Traditional Use and Occupancy Study ("TUOS"), and is now seeking to build upon these existing findings with an assessment of impact pathways of the proposed ISD and other alternatives as they relate to social, psychological, cultural, and spiritual effects. As part of this assessment, Narratives Inc. ("Narratives") will conduct interviews with SFN community members to collect information for the Socio-Cultural Impact Assessment Study. Interview questions will focus on the effects of the four decommissioning alternatives on psychological and mental wellbeing and cultural continuity. Dr. Rehman Abdulrehman will engage in a separate clinical diagnostic interview that will assess for the presence of psychological difficulties and determine the contributing factors to those difficulties (if any). Cultural, social, and racial contributions to mental health will also be considered. This document represents the Interview Plan and Guidelines.

## 2 Use of Data

The purpose of this assessment is to document social, psychological, cultural, and spiritual effects of the decommissioning of the WR-1 Reactor on members of Sagkeeng First Nation. The data generated through this assessment is the property of Sagkeeng First Nation and will not be shared with Canadian Nuclear Laboratories in its raw format. Generic information may be shared with the proponent upon request.

## 3 Interview Guidelines

### 3.1 Pre-interview Setup Guide

The Pre-interview Setup Guide includes the following sections:



1. Introductory Comments
2. Project Overview
3. Description of Interview Process and Goals
4. Review of Consent Form
5. Opportunity for Participant Questions
6. Presentation of Tobacco

### **3.1.1 Introductory Comments**

*Good morning/afternoon. My name is [name] and I am here with Narratives. With me are [study team]. This is Dr. Rehman Abdulrehman, a clinical psychologist, and he will be sitting in on this interview. Narratives has been recruited by Sagkeeng First Nation to interview community members and document cultural and traditional knowledge as part of a Socio-Cultural Impact Assessment Study. This study will help Sagkeeng First Nation document the social and psychological effects of decommissioning the Whiteshell Reactor-1 In-Situ, or permanently storing the radioactive material at the site.*

### **3.1.2 Project Overview**

*As you know, the Canadian Nuclear Laboratories (also known as CNL) is currently proposing to decommission the Whiteshell Reactor-1 located here (indicate on map), through an In-Situ process which involves permanently storing the radioactive material at the site. This In-Situ decommissioning plan is one of four other options. The other three options are:*

- *Deferred Dismantling (continued storage with surveillance);*
- *Immediate Dismantling (immediate and complete dismantling); and*
- *Partial In-situ (in place) Disposal (removal of reactor core components).*

*Some decommissioning work has been completed to date, including the removal of easily mobilized radioactive materials such as fuel, fluids, and bulk organic coolant. Most remaining decommissioning activities are associated with activated metals, contaminated systems, and components. It is also important to note that CNL's application only applies to the Whiteshell Reactor-1 and does not include the other buildings, activities, or components of the Whiteshell Laboratories site at which the Whiteshell Reactor-1 is housed. Additional decommissioning activities will require separate licenses to carry out.*



### 3.1.3 Description of Interview Process and Goals

*The purpose of this study is to document the effects of the four decommissioning alternatives on psychological and mental wellbeing and cultural continuity.*

*We will be compiling all the information obtained through these interviews into a Report for Sagkeeng First Nation.*

### 3.1.4 Review of Consent Form

*Now we just want to thank you for signing the consent forms Carl went over with you. Do you have any questions for us about these forms?*

### 3.1.5 Opportunity for Participant Questions

*Do you have any questions for any of us?*

Questions presented by SFN members should be answered as accurately and transparently as possible, in the spirit of free, prior, and informed consent. Technical Project-based questions should only be answered with accurate, validated information. If unable to answer a question, the interviewee should direct their question to the Community Coordinator or commit to return with an answer.

### 3.1.6 Presentation of Tobacco

*Thank you for joining us for this important interview. We appreciate you accepting the tobacco presented to you by Carl to do this interview.*

## 3.2 Interview Guidelines

### 3.2.1 Participant Information

My name is **[name]** and I am here with **[team names]**. We are interviewing **[participants name]** for the Sagkeeng Socio-Cultural Impact Assessment Study. **[Participant name]** has signed the consent forms and we have explained the study objectives.

1. What is your full name?
2. Do you also go by a traditional name?
3. Where were you born?
4. Where were you raised?
5. Where do you live now?



### 3.2.2 Topics of Interest

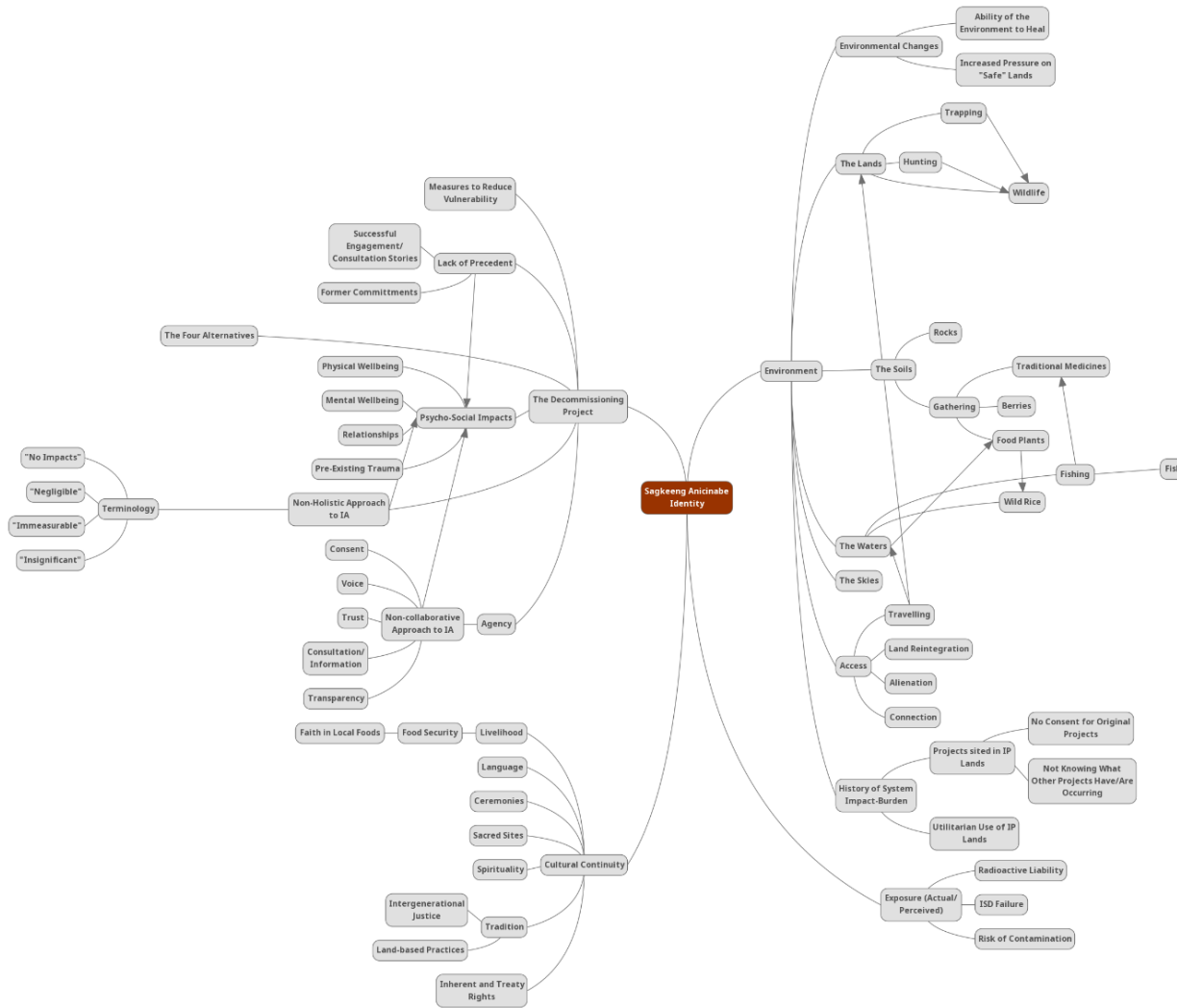


Figure 1. Mind map of topics of interest relating to Sagkeeng Anicinabe identity





### 3.2.3 Question Categories

The interviews will be conducted in a semi-structured format. Four overarching categories were divided into 21 subcategories to guide interview dialogue.

Table 1. Table of interview topic categories and subcategories.

Categories				
Environment				
Exposure (Actual/Perceived)				
Cultural Continuity				
The Decommissioning Project				
Subcategories	The Lands	Radioactive Liability	Livelihood	Agency
	The Soils	ISD Failure	Language	Psycho-social Impacts
	The Waters	Risk of Contamination	Ceremonies	Lack of Precedent
	The Skies		Sacred Sites	Measures to Reduce Vulnerability
	Environmental Changes		Spirituality	
	Access		Tradition	
	History of System Impact-Burden		Inherent and Treaty Rights	

Each category is associated with several “Scheduled Questions”. These are intended solely to get the conversation started – the interviewer is not expected to ask all of the questions and is not expected to ask them in any order. The interviewer is expected to ask at least one scheduled question from each category.

After posing a scheduled question, the interviewer may probe the interviewee with unscheduled questions. In general, these follow the format of “who, when, what, and how”. A list of unscheduled questions is included in Section 3.2.3.5 below.

#### 3.2.3.1 Scheduled Questions for Environment

- Do you have any memories on the land around Pinawa?
- Do you have any memories on the Winnipeg River between Sagkeeng and Pinawa?
- Have you ever used the river to get places (like a highway)?
- Have you noticed any pollution over time in the area?



- Can you think of any big development projects in the area?

#### 3.2.3.2 *Sample Questions for Exposure (Actual/Perceived)*

- Have you ever been to or near the WR-1 facility?
- Do you know any stories about the WR-1 facility or Whiteshell Laboratories?
- Do you feel the nuclear facility has impacted your life?
- How confident are you in the proposed in-situ decommissioning method?
- How confident are you that the radioactive materials can be safely contained?

#### 3.2.3.3 *Sample Questions for Cultural Continuity*

- Do you harvest food or water from the region surrounding or downstream of the WR-1 reactor?
- How do you feel about the food and water near the reactor?
- How would you feel about the food if the reactor were removed?
- Is there any spiritual significance to the area around the reactor?
- Has the health of the food changed over time?

#### 3.2.3.4 *Sample Questions for The Decommissioning Project*

- If the in-situ decommissioning goes forward, do you think your life will be impacted?
- What measures could be put into place to protect you?
- Do you feel like you have a say in the decommissioning process?
- We understand some community members attended a trip to Hallam, Nebraska, to visit the site of a similarly decommissioned reactor. Did you attend this trip?
- Did you attend any Project sessions held by the Canadian Nuclear Laboratories in Sagkeeng?

#### 3.2.3.5 *Unscheduled Questions*

- Who?
  - Relationships
  - Kin (parents, children)
  - Community member / non-Indigenous
  - Ancestors
- When?
  - How old were you?
  - What season?
  - For how long?
  - When did it start? When did it end?
- What?
  - What event?
  - What activity?
  - What practice?
  - What happened?



- How?
  - What tool was used?
  - How did you get there?
  - How did it make you feel?
  - How did it affect the community?
- Why?
  - Why is this important to you?
  - Why is this important to the community?

#### **3.2.4 Conclusion**

This concludes the interview. We truly appreciate you sharing your stories with us today.

DRAFT

## APPENDIX 5: CODEBOOK



# narratives

## Socio-cultural Impacts Assessment Study for Sagkeeng First Nation

### Qualitative Codebook

<b>Environment</b>	The lands, soils, skies, and waters of SFN's traditional and treaty territory
<b>The Lands</b>	SFN's traditional and treaty lands, including the traditional practices carried out on these lands, and the wildlife species that inhabit these territories
<b>Trapping</b>	The practice of trapping
<b>Hunting</b>	The practice of hunting
<b>Wildlife</b>	The species inhabiting the SFN traditional and treaty lands. This does not include species inhabiting the waters of the SFN traditional and treaty territories
<b>The Soils</b>	The soils of SFN's traditional and treaty lands
<b>Rocks</b>	The rocks present on SFN traditional and treaty lands
<b>Gathering</b>	The practice of gathering traditional medicines, berries, and food plants
<b>Traditional Medicines</b>	The traditional medicines found on SFN traditional and treaty lands. This includes fish and wildlife-based medicines
<b>Berries</b>	The berries and small fruits found on SFN traditional and treaty lands
<b>Food Plants</b>	The food plants found on SFN traditional and treaty lands

<b>The Waters</b>	SFN's traditional and treaty waters, including the traditional practices carried out on the waters, and the species that inhabit these waters
<b>Fishing</b>	The practice of fishing
<b>Fish</b>	The fish species inhabiting the SFN traditional and treaty waters
<b>Wild Rice</b>	Wild rice found in/on SFN traditional and treaty waters and soils
<b>The Skies</b>	SFN's traditional and treaty skies and air
<b>Access</b>	The ability of SFN members to approach, enter, and occupy space and time on traditional and treaty lands and waters
<b>Travelling</b>	Travel on traditional and treaty lands and waters
<b>Land Reintegration</b>	The reintegration of formerly CNL occupied land
<b>Connection</b>	The level of connectedness to traditional and treaty lands and waters
<b>Alienation</b>	The state of being isolated from traditional and treaty lands and waters
<b>History of System Impact-Burden</b>	The burden of systemic impacts on SFN
<b>Projects Sited in IP Lands</b>	Past and present projects situated on SFN traditional and treaty lands and waters
<b>No Consent for Original Projects</b>	The lack of consultation and consent for the construction of WR-1
<b>Not Knowing What Other Projects Have/Are Occurring</b>	The lack of agency and consultation for past/present/future projects occurring on SFN traditional and treaty lands and waters
<b>Utilitarian Use of IP Lands</b>	The past and present utilitarian use of SFN traditional and treaty lands and waters
<b>Environmental Changes</b>	Changes to the lands, soils, skies, and waters of SFN's traditional and treaty territory
<b>Ability of the Environment to Heal</b>	Innate ability of the environment to restore itself to its undeveloped state
<b>Increased Pressure on "Safe" Lands</b>	The increase in harvesting of environmental features found outside the Project Area
<b>Exposure (Actual/Perceived)</b>	Perceived and/or actual exposure to radioactivity
<b>Radioactive Liability</b>	The legal and perceived responsibility of radioactive materials

<b>ISD Failure</b>	The failure of the <i>In-situ</i> decommissioning
<b>Risk of Contamination</b>	The risk of contamination of radioactive or other harmful substances
<b>Cultural Continuity</b>	The integration of SFN members within their culture. This includes the methods of traditional knowledge transmission
<b>Livelihood</b>	The ability of SFN members to secure the necessities of life
<b>Food Security</b>	The ability of SFN members to have physical and economic access to food
<b>Faith in Local Foods</b>	The confidence of SFN members in food obtained traditionally
<b>Language</b>	Traditional languages spoken by SFN members
<b>Ceremonies</b>	Ceremonies performed or attended by SFN members
<b>Sacred Sites</b>	Sites of cultural importance. These include, but are not limited to, burial sites, ceremonial sites, gathering places, teaching places, and places of spiritual importance
<b>Spirituality</b>	The sense of connection to a stronger force or to the environment and other beings
<b>Tradition</b>	The intergenerational transmission of customs
<b>Intergenerational Justice</b>	Meeting the needs of the present generation without compromising the ability of future generation to meet needs
<b>Land-based Practices</b>	Activities carried out on the lands, soils, skies, and waters of SFN's traditional and treaty territory
<b>Inherent and Treaty Rights</b>	Collective rights to the continued occupation and use of lands inhabited, prior to colonization
<b>The Decommissioning Project</b>	The proposed decommissioning of the WR-1
<b>Measures to Reduce Vulnerability</b>	Community-proposed measures to reduce vulnerability in relation to the decommissioning project
<b>Lack of Precedent</b>	The lack of similar decommissioning projects to serve as a successful example
<b>Successful Engagement/Consultation</b>	Examples of successful engagement/consultation
<b>Former Commitments</b>	Commitments formerly agreed to
<b>Psycho-social Impacts</b>	Impacts caused by environmental factors on an individual's social/psychological wellbeing
<b>Physical Wellbeing</b>	The ability to ensure health, avoid disease, and to live in a balanced state of body, mind, and spirit

<b>Mental Wellbeing</b>	Emotional, psychological, and social wellbeing
<b>Relationships</b>	Individual, family, and community relationships
<b>Pre-existing Trauma</b>	Trauma unrelated to the decommissioning project
<b>The Four Alternatives</b>	The four decommissioning alternatives provided by CNL
<b>Non-holistic Approach to IA</b>	The atomistic approach to IA
<b>Agency</b>	The ability to act independently and make free choices
<b>Non-collaborative Approach to IA</b>	An approach to IA in which CNL and SFN do not/minimally collaborate
<b>Consent</b>	Permission/agreement for something to occur
<b>Voice</b>	The ability to present an opinion or attitude
<b>Trust</b>	The belief in the reliability and truth of something
<b>Consultation/Information</b>	Being formally consulted and provided with correct information
<b>Transparency</b>	Operating in a way that fosters openness and trust



APPENDIX 6: SAGKEENG ANICINABE VALUES / PREFERENCE CRITERIA

# Whiteshell WR-1 Alternatives Assessment: Sagkeeng Values/Criteria

February 2020

## Introduction

In preparation for the February 2019 Alternatives Assessment Workshop, Sagkeeng Chief and Council worked together with our consultants to identify what criteria have the most meaning for Sagkeeng in consideration of the benefits and risks of the four identified technically and economically feasible alternative means to undertake the required decommissioning process for the WR-1 reactor.

Given the alternatives assessment has yet to be reactivated between the parties, Sagkeeng is providing this material to CNL now. We hope and trust that this may be part of reinvigorating the stalled alternatives assessment process. We look forward to the opportunity to test these criteria against the four alternatives, and continue to encourage CNL to engage with us in this process.

## Sagkeeng Values/Preference Criteria

The twelve values/criteria adopted by Sagkeeng to represent priorities related to alternative means assessment are:

- 1. Protecting and healing the water:** While this is something that carries through many of the other criteria as well, water is life, and therefore its protection merits its own criterion. Sagkeeng members and everything in the world relies on available clean water in order to survive. Sagkeeng prefers for alternatives that provide greater real and perceived long-term protection of the water, especially but not only in the Winnipeg River. Clean water is a right and a responsibility that Sagkeeng takes very seriously.
- 2. Protect and promote Sagkeeng culture/spirituality:** Sagkeeng have strong cultural connection to the lands and waters in vicinity of Whiteshell Labs. The area has seen alienation of cultural activities for over 50 years due to the Whiteshell Labs; Sagkeeng members have expressed a desire to use the area again for ceremonial activities. Sagkeeng prefers for alternatives that are respectful of spiritual balance of people with the earth, and allow at least the potential for greater access to territory for cultural purposes in the future.
- 3. Territorial integrity:** Increased Sagkeeng access to territory over time requires that the land be allowed to heal as quickly as possible, and that

barriers to access be removed from as much of Sagkeeng territory as possible.

4. **Food security and faith in traditional food sources:** Sagkeeng prefers for alternatives that will increase trust in traditional foods and water sources over time, increased potential territory to access country foods in; reduced risk of wildlife contamination and health risks; relevant to terrestrial and aquatic plants and animals (fish, berries, moose, deer, wild rice, collection of medicines).
5. **Reduced mental stress/fear/ stigma:** These are the psychosocial impacts that Sagkeeng raised with CNL back in January 2018. Sagkeeng prefers for alternatives that are less likely to cause long-term fear and stigma to be associated with any portion of Sagkeeng territory.
6. **Reduced long-term risks in Sagkeeng territory:** This is a multi-faceted criteria that include biophysical and human environmental receptors and risks on them. Reduced long-term human population health risks, reduced long-term risks on the Winnipeg River waters and fish, lowest amount of in situ risks at the Whiteshell Labs site, and a permanently safe solution for Sagkeeng territory, are all Sagkeeng preferences.
7. **Reduced management requirements for future generations:** Given funding, managerial capacity, and managerial requirement uncertainties (we don't know who will be funding, how much they can afford, whether it is a priority, who will be around to do the management, and how much active management will be required) in the long distant future, Sagkeeng prefers for alternatives that don't ask for heavy management into the future. Such management cannot be guaranteed in the same way that short-term management can be. The confidence that a site can be managed reduces with every year that goes by, into the future. So to does the confidence erode that a failure mode can be identified and effectively managed in the future, for the same reasons. As a result, Sagkeeng prefers for alternatives that occur quicker AND which leave less residual risk to be managed into the future. The sooner no management is required at all, that the site returns to relatively natural conditions, the better.
8. **Flexibility to adapt to contingencies:** Sagkeeng prefers for alternatives that either include the flexibility to alter management plans at the site in the future, such as being able to remove remaining radioactive materials from the site most easily, or which eliminate the need for this flexibility entirely by taking the risk factors out of the site completely.
9. **Impact equity - not putting all the impacts on shoulders of Sagkeeng:** Sagkeeng territory has been damaged based on actions taken without its approval and in some cases even knowledge. The materials brought in have

created great harm and concern, and are an ongoing risk. Sagkeeng prefers for alternatives that don't ask Sagkeeng members, now and in the future, to take on the vast bulk or all of the risks; they have not been asked for or accommodated for, so why should they simply be allowed to continue?

**10. Higher affected public/ Sagkeeng acceptability:** The importance of social acceptability and Sagkeeng consent for a preferred alternative cannot be underestimated. It is both a reflection of the concerns people have, and a reflection of their agency (or lack of agency) to make decisions about things that are going to impact their lives.

**11. Lower Treaty rights impacts overall.** Sagkeeng obviously prefers for alternatives that will allow members to meaningfully practice their Treaty rights in as much of Sagkeeng territory as possible, free wherever possible from infringements to those Constitutionally-protected rights.

**12. Adherence to/respect for Indigenous laws and norms. Such** Anicinabe laws and norms include but are not limited to: 1. Allowing and encouraging the land to heal when it is damaged; 2. Water flows naturally and will "find a way"; 3. Protect the land for future generations; 4. Respect for ancestors and ability to maintain and pass on history and Sagkeeng connection to land. Sagkeeng prefers for alternatives that adhere to or are otherwise are not likely to conflict with such ancestral laws.