



NUCLEAR WASTE MANAGEMENT ORGANIZATION SOCIÉTÉ DE GESTION DES DÉCHETS NUCLÉAIRES

Ignace Area Community Studies - Community and Culture Study



APM-REP-06300-0222

OCTOBER 2022

This report has been prepared under contract to the NWMO. The report has been reviewed by the NWMO, but the views and conclusions are those of the authors and do not necessarily represent those of the NWMO.

For more information, please contact:

Nuclear Waste Management Organization

22 St. Clair Avenue East, Sixth Floor

Toronto, Ontario M4T 2S3 Canada

Tel 416.934.9814

Toll Free 1.866.249.6966

Email contactus@nwmo.ca

www.nwmo.ca

SCATLIFF + MILLER + MURRAY

visionary urban design + landscapes

Ignace Area Community and Culture Study



Prepared For: The Nuclear Waste Management Organization

Prepared By: Scatliff + Miller + Murray Inc.
1120 – 201 Portage Ave.
Winnipeg, MB R3B 3K6
T: 204.927.3444
E: wpaetkau@scatliff.ca

InterGroup Consultants Ltd.
300 – 259 Portage Ave.
Winnipeg, MB R3B 2A9
T: 204.942.0654
E: kristin@intergroup.ca

Date: FINAL – October 20, 2022

DOCUMENT HISTORY			
Title	NWMO Ignace Community Studies Ignace Area Working Group for Community Studies Community and Culture Study		
Revision Number:	Final		
Prepared By:	Wes Paetkau Samantha Blatz	Date:	October 14, 2022
Technical Review By:	Tom Janzen	Date:	October 14, 2022
Quality Assurance Review By:	Graham Smith	Date:	October 17, 2022
Approved By:	Kristin Kent Drewes	Date:	October 19, 2022
Approval Signature:		Date:	October 20, 2022

Acronyms and Abbreviations

Term	Details
APM	Adaptive Phased Management
FTE	Full-Time Equivalent
IAWG	Ignace and Area Working Group
KDSB	Kenora District Services Board
LSA	Local Study Area
NHS	National Household Survey
NORWOSSA	Northwestern Ontario Secondary Schools Athletic Association
NWHU	Northwestern Health Unit
NWMO	Nuclear Waste Management Organization
OPP	Ontario Provincial Police
PACE	Patricia Area Community Endeavours Dryden
SMM	Scatliff+Miller+Murray
STEM	Science, Technology, engineering, Mathematics
The Project	APM Project
The Township or Ignace	Township of Ignace
VBS	Vacation Bible School
Wabigoon LSB	Local Service Board of Wabigoon

Contents

- INTRODUCTION..... 1
 - 1.1 Background and Context..... 1
 - 1.2 Land Acknowledgement..... 3
 - 1.3 Study Purpose and Scope..... 3
 - 1.4 Ignace Project Vision..... 3
 - 1.5 Study Objectives 3
 - 1.6 Spatial Boundaries 3
 - 1.7 Temporal Boundaries..... 6
 - 1.8 Linkages to Other Studies 6
 - 1.9 Disclosure..... 6
- METHODOLOGY AND ASSUMPTIONS 7
 - 2.1 General Approach 7
 - 2.2 Data Collection/Information Sources 7
 - 2.2.1 Desktop Research..... 7
 - 2.2.2 Knowledge Holder Interviews..... 7
 - 2.2.3 Ignace Area Working Group..... 7
 - 2.2.4 Other Key Information and Data Sources 8
 - 2.3 Study Limitations 9
- EXISTING CONDITIONS..... 10
 - 3.1 Population and Residency Profile 10
 - 3.2 Natural Environment Connections Profile 12
 - 3.3 Recreation Program Profile..... 15
 - 3.3.1 LSA Recreation Programs 15
 - 3.3.2 Recreation Program Gaps 16
 - 3.4 Social Services Profile..... 18
 - 3.4.1 LSA Social Service Programs..... 19
 - 3.4.2 Social Service Program Gaps..... 21
 - 3.5 Cultural Services Profile 25
 - 3.5.1 LSA Culture + Heritage Programs..... 25
 - 3.5.2 Cultural Program Gaps..... 26

PROJECT AND COMMUNITY CHARACTERISTICS RELEVANT TO THE STUDY	29
4.1 Relevant Project Highlights	29
4.2 Relevant Local Study Area Considerations	32
CHANGE ANALYSIS	33
5.1 Assessment Context.....	33
5.2 Potential Changes to Recreation Programs	33
5.3 Potential Changes to Social Services.....	36
5.4 Potential Changes to Culture and Heritage	37
5.4.1 Small Town Characteristics	37
5.4.2 Cultural Programs	38
5.4.3 Connection to Nature	39
OPTIONS ASSESSMENT	41
6.1 Options for Consideration.....	41
Option 1: Develop a Recreation and Culture Master Plan.....	43
Option 2: Diversify and Optimize NWMO Facilities	46
Option 3: Develop a ‘Social Safety Net Plan’	47
Option 4: Expand Supports for Childcare.....	49
Option 5: Expand Supports for Community Environmental Stewardship	50
SUMMARY	52
REFERENCES	54

List of Appendices

APPENDIX A: LIST OF COMMUNITY STUDIES

APPENDIX B: KNOWLEDGE HOLDER INTERVIEWEES AND KEY STUDY-RELATED INTERVIEWS

APPENDIX C: SERVICES AND PROGRAMMING INVENTORIES

APPENDIX D: GLOSSARY OF TERMS

List of Tables

Table 3.1-1: LSA Population and Residency Profile	11
Table 3.3-1: Knowledge Holder Interview Feedback - Recreation Programs	17
Table 3.4-1: Knowledge Holder Interview Feedback – Social Services	22
Table 3.5-1: Knowledge Holder Interview Feedback – Cultural Programs	27
Table 5.2-1: Changes to Recreation Activities	34
Table 5.3-1: Changes to Social Services by Phase	37
Table 5.4-1: Changes to Small Town Characteristics in Ignace by Phase.....	38

Table 5.4-2: Changes to Cultural Programs by Phase	39
Table 5.4-3: Changes to Connection to Nature by Phase	40
Table 6.1-1: Overview of Potential Options.....	42
Table 6.1-2: Option 1 Assessment	45
Table 6.1-3: Option 2 Assessment	47
Table 6.1-4: Option 3 Assessment	49
Table 6.1-5: Option 4 Assessment	50
Table 6.1-6: Option 5 Assessment	51

List of Figures

Figure 1.6-1: Study Area Map	5
Figure 3.2-1: Natural Environment within the Ignace Area.....	14
Figure 4.1-1: Project Residency Employment Planning Assumptions, 2024 to 2088	30
Figure 4.1-2: Ignace Population Projection Planning Assumptions, 2016 to 2046.....	31
Figure 4.1-3: Other LSA Communities Population Projection Planning Assumptions, 2016 to 2046.....	31

INTRODUCTION

1.1 Background and Context

Since 2010, the Township of Ignace (the Township or Ignace) has been involved in a process of learning about the Nuclear Waste Management Organization's (NWMO) Adaptive Phased Management (APM) Project (the Project) for the long-term management of Canada's used nuclear fuel. The two remaining siting areas in the process are the Ignace Area and the South Bruce Area. The NWMO plans to complete all preliminary assessment work and to select one siting area to host the Project by 2023. Preliminary studies suggest that the Project can be implemented safely in the Ignace Area for a repository that will contain and isolate used nuclear fuel from people and the environment for the long timeframes required.

Studies have been ongoing since 2010, however, further studies are required to fully assess the potential socio-economic impacts of the Project. Building on previous work and engagement completed to date, the NWMO and the Township of Ignace are working together to prepare a suite of community studies that will be shared. The list of socio-economic community studies is included in Appendix A. The information acquired through these studies is expected to help the Township of Ignace leadership and residents make informed decisions about whether the Project is a good fit for their community, and if they are willing to consider hosting it and under what circumstances and terms.

Community studies will ultimately inform the Project hosting agreement between the NWMO and the Township of Ignace. As well, they will provide pertinent information for agreements with the City of Dryden and potentially other regional agreements.

Note to Reader

This and other community studies are preliminary and strategic in nature, all intended to identify possible consequences (e.g., expansion of recreation programming and social services) in the Township of Ignace, and other local and regional communities. Using information about the APM Project known at this point in time, these community studies will describe a range of possible consequences that are the subject of specific and separate studies. For each possible consequence, potential options and strategies will be offered to leverage opportunities and/or mitigate possible negative consequences/effects.

It is important to note that these community studies (developed collaboratively by NWMO and the Township of Ignace) being investigated at this time are not the formal or final baseline or effects studies that will be part of the Impact Assessment as conducted under the regulatory process for the APM Project governed by the Impact Assessment Agreement of Canada. Effects assessment will be undertaken at a later date following the conclusion of the siting process, and the initiation of the formal regulatory process.

Community studies will ultimately inform the APM Project hosting agreement between the NWMO and the Township of Ignace. As well, they will provide pertinent information for agreements with the City of Dryden and potentially other regional agreements. The study will:

- a) Explore in more detail the questions, aspirations and topics of interest expressed by the community through the Township of Ignace project visioning process;
- b) Assist the NWMO and the Township of Ignace in developing and identifying possible programs and commitments that ensure the Project will be implemented in a manner that fosters the well-being of the Township of Ignace and communities in the Ignace Area and the region;
- c) Advance learning and understanding on topics of interest to communities in the Ignace Area and the region; and
- d) Provide the community with information it has requested to help them make an informed decision in the case of the Township of Ignace and continue to inform dialogue with communities in the Ignace Area and region prior to the conclusion of the site selection process in 2023.

The NWMO is committed to working collaboratively to ensure questions, concerns, and aspirations are captured and addressed through continuous engagement and dialogue.

The NWMO will independently engage with Wabigoon Lake Ojibway Nation and other Indigenous communities to understand how they wish to evaluate the potential negative effects and benefits that the Project may bring to their communities.

1.2 Land Acknowledgement

It is acknowledged that the lands and communities discussed in this report are primarily situated on the traditional territory of the Anishinaabe people of Treaty 3 and the Métis Nation.

1.3 Study Purpose and Scope

The intent of this Study can be described in general and specific terms. Its general intent is to inform dialogue with the Township of Ignace and other communities in the Local Study Area about the potential of the Project to contribute to community aspirations prior to the conclusion of the site selection process in 2023. Specifically, the intent is to describe the cultural, social, and recreational services in the Ignace Area, outline the communities' aspirations relative to these services, and develop scenarios and ideas in response to projected population and residency changes and impacts associated with the Project.

1.4 Ignace Project Vision

Key aspirations documented in the 'Ignace Project Vision' (2020) serve as the basis for the Study, as follows:

- (1) Maintaining the 'small-town' charm, identity, culture, and resilience of the Township of Ignace over the long term.
- (2) Celebrating the heritage of the Township of Ignace and the Ignace Area with consideration of people's connections to the surrounding boreal forest and natural landscapes.
- (3) Expansion of recreation programming and social services, in keeping with expected population growth in the Township of Ignace and other local area communities.

For the purposes of this Study, these aspirations are referenced herein as the 'Study Elements' and are further specified where appropriate.

1.5 Study Objectives

The key aspirations noted above further inform the following Study objectives:

- (1) To describe the existing conditions for the Study Elements.
- (2) To determine possible changes associated with the Project on each of the Study Elements.
- (3) To identify and assess possible options to leverage opportunities to enhance the Study Elements in the Township of Ignace and the Ignace Area and/or mitigate potential negative consequences in this regard.

1.6 Spatial Boundaries

As shown on Figure 1.6-1, the potential Project is located approximately 40 kilometres (km) west of Ignace within the Revell Batholith Temporary Withdrawal Area ('Revell Site'), which was identified as a potential site through earlier technical studies and engagement with local and Indigenous communities. Figure 1.6-1 provides context of where communities are situated relative to the Revell Site. The focus for this Study is identified as the 'Local Study Area' (LSA) which is described as:

- (1) The Township of Ignace.
- (2) Other communities which could be impacted by the Project, including the City of Dryden; Municipality of Machin; Municipality of Sioux Lookout; Local Service Board of Wabigoon (Wabigoon LSB); and the unincorporated communities along Highway 17, including Dinorwic, Dymont, Borups Corner,¹ Upsala; and along Highway 599, including Valora and Silver Dollar.
- (3) The natural areas surrounding the Township of Ignace that provide additional perspective on the Study Elements, including the boreal forest as well as Agimak Lake, Mennin Lake, Dinorwic Lake, Long Lake, Mameigwess Lake, Indian Lake, and Paguchi Lake.

¹ Dymont and Borups Corner are part of the Local Services Board of Melgund.

Figure 1.6-1: Study Area Map



1.7 Temporal Boundaries

The following three future timeframes have been used for this Study, which adhere to the pre-construction, construction, and operational phases of the Project:

- (1) Pre-Construction (2024 to 2032): this aligns with the end of the pre-construction phase (i.e., licensing and Project configuration tasks focusing on the Centre of Expertise and site preparation) in 2032 and design and construction starting in 2033.
- (2) Construction (2033 to 2042): this aligns with the construction phase ending in 2042 and the operational phase starting in 2043.
- (3) Operations (2043 to 2088 and beyond): this further aligns with the operational phase and includes monitoring of the Project.

1.8 Linkages to Other Studies

This Study is closely linked with other community studies that consider changes in population and residency patterns (both permanent and temporary) resulting from the Project on Ignace and other communities in the LSA. Other studies include:

- People and Health—Growing the Population, Ignace and Area Health Services, and Workforce Development;
- Local and Regional Economics and Finance—Labour Baseline and Housing;
- Ignace Area Tourism; and
- Infrastructure.

These studies examine the effects of population, employment, and tourism growth on housing demands, health services, and program requirements as well as recreation and social facility needs, which can also affect the Study Elements. These studies should be read in conjunction with this Study for a full appreciation and understanding of the effects of population growth and residency patterns from the Project on the Study Elements.

1.9 Disclosure

This report is based on data and information collected by and made available to Scatliff + Miller + Murray (SMM) and reflects the known conditions affecting the subject matter at the time the work was undertaken. SMM has exercised reasonable skill and care as well as professional diligence in undertaking a qualitative assessment of the data and information acquired during the preparation of this report.

METHODOLOGY AND ASSUMPTIONS

2.1 General Approach

The general approach for this Study involves the following steps:

1. **Existing Conditions:** Gathering information and data to characterize existing population dynamics and understand the current Study Elements without the Project. Data collection is described in more detail in Section 2.2.
2. **Community Engagement:** Engaging with the Ignace and Area Working Group (IAWG) at key intervals to confirm findings, test assumptions, and discuss options.
3. **Change Analysis:** Completing an analysis that identifies gaps in need and service as well as intersections, relative to the current Study Elements and the effects of population growth and residency patterns from the Project on the Study Elements.
4. **Options Assessment:** Describing and assessing potential options to maximize the potential benefits and minimize the potential risks related to the effects of population growth and residency patterns from the Project on the Study Elements.

2.2 Data Collection/Information Sources

2.2.1 Desktop Research

Data sources which supported this Study included existing public information sources, other community studies relative to each phase of the Project, and common information obtained from the other community studies (and the associated supporting baseline work). The list of data sources used for this Study can be found in the References section.

2.2.2 Knowledge Holder Interviews

Conducted by SMM, interviews focused on a cross-section of groups and/or individuals representing each of the Study Elements (described in Section 1.4). The intent of this stakeholder engagement strategy was to build upon the engagement work completed by NWMO to-date by further understanding the current state of each Study Element, including challenges and opportunities identified by service providers. The list of Knowledge Holder interviewees can be found in Appendix B.

2.2.3 Ignace Area Working Group

To support the baseline and community studies work, the IAWG was established with membership consisting of representatives from the Township of Ignace, service providers, businesses, civil society, and other interests - both local and regional. The Township of Ignace and NWMO have prepared reports noting the IAWG's input.

The IAWG provided community knowledge throughout the community studies to ensure local perspectives were considered. IAWG meetings relevant to this Study took place on:

- August 2021 (IAWG 2021a): IAWG reviewed the scope of work for the People and Health, Community and Culture, and the Economics and Finance studies.
- October 2021 (IAWG 2021b): IAWG reviewed objectives and study areas for each of the community studies.

- December 2021 (IAWG 2021c): IAWG reviewed the key steps and schedules for each of the community studies and reviewed initial population projections without the Project for Dryden and Ignace.
- March 2022 (IAWG 2022a): IAWG reviewed information on baseline conditions as well as gaps in need and service, relative to the current Study Elements.
- May 2022 (IAWG 2022b): IAWG reviewed information on potential gaps in need and service, relative to potential Project effects, and potential options to mitigate the negative changes and enhance the positive changes.

2.2.4 Other Key Information and Data Sources

Additional primary data was collected by SMM through a virtual workshop that was held in March 2022 (Youth Workshop 2022) with grade 7 to 12 youths from three communities (five from Ignace, three from Atikokan, and five from Upsala) to explore their perspectives on barriers and challenges they may face with employment, education, and entrepreneurship. The workshop was initially expected to be held during school hours but was deferred to after school hours at the request of the Keewatin Patricia District School Board. As a result, the turnout was less than initially anticipated and only representative of those individuals and communities who opted to participate.

Secondary data sources included data / documents that provided insight into the Study Elements included:

- Ignace Project Vision (InterGroup, 2020).
- Preliminary Assessment for Siting a Deep Geological Repository for Canada's Used Nuclear Fuel (NWMO, 2013a).
- Township of Ignace Draft Community Profile (NWMO, 2013b).
- Community Studies Planning Assumptions (NWMO, 2021a).
- Workforce Residency Scenarios for Ignace Area (NWMO, 2022a).
- The Report Card on Physical Activity for Children and Youth (ParticipACTION, 2018).
- Census Profile Data (Statistics Canada, 2002-2022).
- Volunteering in Canada (Statistics Canada, 2012, 2020).
- Canadian Health Measures Survey: Body Composition and Fitness (Statistics Canada, 2012).
- National Household Survey (Statistics Canada, 2013).

The full list of data sources used for this Study can be found in the References section.

2.3 Study Limitations

The study is limited by the nature and availability of data to support the assessment.

Baseline limitations include the availability of data and understanding of how residents access programs within each community or within and among communities within the LSA. Ignace is central to the assessment and was the focus of more detailed data collection, with acknowledgement that larger centres such as the City of Dryden and the Municipality of Sioux Lookout offer a broader array of service programming, which is often offered on a more regional level. While local proximity to service programming is important to Ignace residents, residents do access service programming in the LSA, particularly those that are not available or have capacity challenges in Ignace.

Based on this study's review of Ignace program and service offerings and capacity, as well as the projected population growth within the LSA communities, it was determined that material impacts to the LSA communities as related to the Study Elements will be limited. Detailed information on which services and to what extent they are accessed is not available across all study elements. However, as the Project progresses, LSA communities should monitor and evaluate the effect population growth has on their program and service offerings and pursue further study or adjustments/improvements if and where necessary.

EXISTING CONDITIONS

3.1 Population and Residency Profile

Table 3.1-1 summarizes available population and residency data within the LSA from Statistics Canada's 2001-2021 census profiles that are pertinent to this Study. The data is summarized with changes over the census period noted in parentheses.

Table 3.1-1: LSA Population and Residency Profile					
	Ignace	Dryden	Sioux Lookout	Machin	Wabigoon LSB
Census Period:	2001-2016				2011-2016
Data Indicators: 2016 Census (Census Period Change)¹					
(1) Total Population from 2001 to 2021 (growth / decline):					
Population:	1,206 (-29%)	7,388 (-10%)	5,839 (+9%)	1,012 (-12%)	419 (-2%)
(2) Total Population by Gender (growth / decline in proportional share of Total Population):					
Male:	625 (-1%)	3,710 (-1%)	2,600 (-1%)	500 (+1%)	195 (+3%)
Female:	570 (+1%)	4,040 (+1%)	2,675 (+1%)	465 (-1%)	175 (-3%)
(3) Total Population by Demographics (growth / decline in proportional share of Total Population):					
0-19:	220 (-10%)	1,660 (-6%)	1,415 (-4%)	170 (-9%)	90 (-2%)
20-44:	265 (-14%)	2,105 (-8%)	1,820 (-6%)	245 (-10%)	70 (-6%)
45-64:	435 (+10%)	2,350 (+6%)	1,470 (+8%)	360 (+11%)	135 (+1%)
65+:	280 (+14%)	1,625 (+8%)	575 (+2%)	200 (+8%)	65 (+6%)
(4) Indigenous Population (growth / decline in proportional share of Total Population) ² :					
Population:	230 (+9%)	1,465 (+12%)	1,955 (+13%)	230 (+7%)	190 (no data)
(5) Gender of Indigenous Population (growth / decline in proportional share of Total Population):					
Male:	95 (+4%)	720 (+6%)	920 (+6%)	95 (+1%)	95 (no data)
Female:	130 (+5%)	750 (+6%)	1,040 (+6%)	135 (+7%)	95 (no data)
(6) Visible Minorities Population (growth / decline in proportional share of Total Population) ³ :					
Visible Minorities:	25 (+1%)	220 (+2%)	205 (+2%)	NIL (NIL)	NIL (NIL)
Non-Visible Minorities:	1,165 (-1%)	7,360 (-2%)	4,995 (-2%)	945 (NIL)	340 (NIL)
(7) Households (growth / decline):					
Household Size:	2.1 (-0.6)	2.3 (-0.2)	2.6 (-0.2)	2.2 (-0.3)	2.5 (-0.1)
(8) Total Census Families (growth / decline in proportional share of Total Census Families) ⁴ :					
Married:	250 (-5%)	1,495 (-10%)	840 (-8%)	200 (-7%)	60 (-13%)
Common Law:	75 (NIL)	390 (+9%)	360 (+5%)	45 (+5%)	20 (+9%)
Lone Parent:	60 (+6%)	390 (+1%)	285 (+3%)	45 (+3%)	15 (NIL)

Sources: Statistics Canada Census: 2001, 2006, 2011, 2016, and 2021. National Household Survey (NHS), 2011.

Notes:

1. Total Population is presented for the 2021 Census and the Census period change from 2001 to 2021, except for Wabigoon LSB which presents the Census period change for 2011 to 2021.
2. Indigenous population: individuals who identify as First Nation, Métis, or Inuit, and/or those who reported as a Treaty Indian or Registered Indian and/or have membership in a First Nation or Indian Band.
3. Visible minorities: persons other than Indigenous peoples who are non-white in race or non-white in colour and includes: Chinese, South Asian, Black, Filipino, Latin American, Southeast Asian, Arab, West Asian, Korean, Japanese and others.

4. Family characteristics: a census family refers to a married couple or a common-law couple or a lone-parent of any marital status with at least one child living at home.

Notable highlights of Table 3.1-1 are as follows (see Growing the Population study for more information):

- (1) The population of most LSA communities decreased since 2001, but has shown more stability from 2011 to 2021:
 - a) The population in Ignace and the Wabigoon LSB largely remained unchanged.
 - b) Dryden's population still decreased, but by a more marginal 3% compared to its population decline since 2001.
 - c) The population of Sioux Lookout increased by 16% which was preceded by a population decline of 6% from 2001 to 2011.
- (2) The proportion of the male-female populations in Ignace and the other LSA communities has also remained relatively unchanged at nearly 50% male and 50% female from 2001 to 2016.
- (3) The population in Ignace and the other LSA communities has aged from 2001 to 2016 i.e., the proportion of residents aged 45 years and older increased by 24% in Ignace; 14% in Dryden; 10% in Sioux Lookout; 19% in Machin; and 7% in the Wabigoon LSB.
- (4) The proportion of residents in Ignace and the other LSA communities who identify as Indigenous has increased from 2001 to 2016 i.e., 9% in Ignace; 12% in Dryden; 13% in Sioux Lookout; and 7% in Machin. The Indigenous population continues to be largely comprised of First Nations and Métis (in Ignace, Dryden, Machin) or First Nations (in Sioux Lookout).
- (5) Household size in Ignace and the other LSA communities has gradually decreased from 2001 to 2016, by 0.1 persons per household in the Wabigoon LSB to 0.6 persons per household in Ignace.
- (6) The proportion of married couple families in Ignace and the other LSA communities has also gradually decreased from 2001 to 2016, from 5% in Ignace to 13% in the Wabigoon LSB.

3.2 Natural Environment Connections Profile

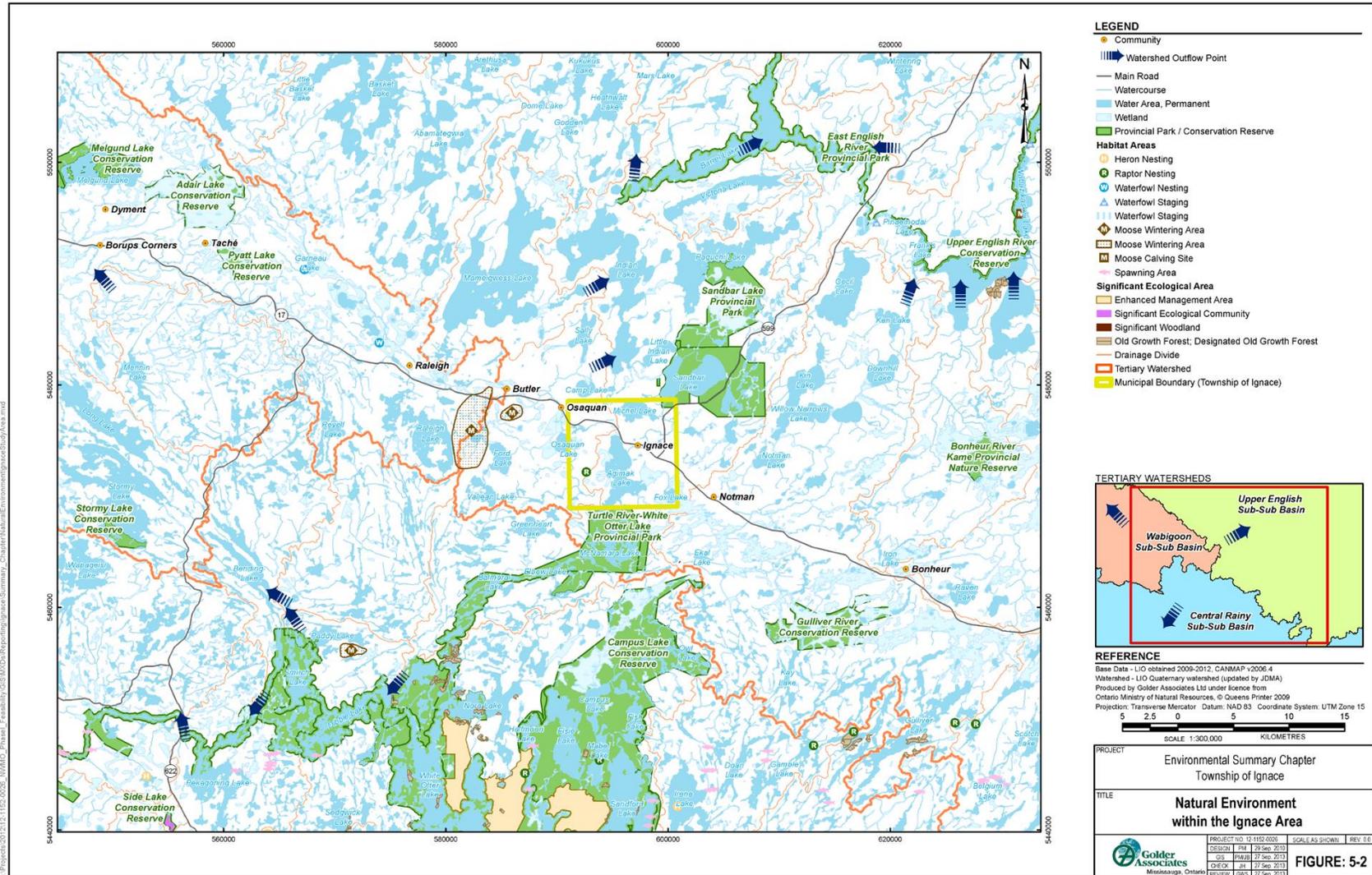
The geology of Ignace and the other LSA communities are dominated by the broadly rolling surfaces of Canadian Shield bedrock that occupies most of northwestern Ontario, either exposed at surface or shallowly covered. The terrain contains numerous lakes which, in the Ignace context, include three cool water lakes: Agimak, Michel, and Osaquan. These lakes are interconnected by a network of rivers, such as the Wabigoon River, Bending River, and Gulliver River. The LSA also supports conifer and mixed forest types which provides habitat for various forms of wildlife.

Residents of Ignace and the other LSA communities have strong connections to the surrounding natural environment. It is a source of pride and adds to their sense of place and quality of life. The natural setting provides various opportunities for fishing, forestry, hunting / trapping, and tourism. There are a number of businesses that draw labour and visitors to the LSA on the basis of these connections, which speaks to the natural environment's importance to local livelihoods. In addition to these more active pursuits, the LSA also provides opportunities for more passive appreciation of the natural environment – e.g. camping, swimming, hiking, biking, wildlife viewing, boating, canoeing, berry picking – mainly

through the four provincial parks [Sandbar Lake, Turtle River-White Otter Lake (water access only), East English River, and Bonheur River Kame (air access only)], and the eight conservation reserves in the LSA (Figure 3.2-1).

The above information is based primarily on the 'Ignace Project Vision' (2020) document and Knowledge Holder interviews. For additional information regarding outdoor facilities please refer to the *Ignace and Area Infrastructure: Community Recreation Facilities Study*.

Figure 3.2-1: Natural Environment within the Ignace Area



Source: NWMO (2013a) Preliminary Assessment Report for Siting a Deep Geological Repository for Canada's Used Nuclear Fuel.

3.3 Recreation Program Profile

LSA residents currently benefit from a variety of recreation programs. These programs include informal activities, organized sports, and community events. This section begins with a focused overview of the recreation programs currently offered in the LSA relative to the Ignace context, including the type of program, the provider, and the intended participant group or groups (e.g., youth, seniors, Indigenous, multi-community). Next, an assessment of gaps in current recreation programs is outlined.

3.3.1 LSA Recreation Programs

The list included below outlines existing recreation programs offered in Ignace:

Township of Ignace Recreation Programs

Organized Sports

- Ignace Minor Hockey League
- Ignace Older Timers Hockey
- Hockey Development Program
- Minor League Baseball
- Youth Soccer Club
- Ignace Badminton
- Ignace Falcons Student Basketball
- Ignace Falcons Student Volleyball

Informal Activities

- Agimak Ice Fishing Derby
- Snowmobile Group Activities
- Ignace Mixed Broomball Tournament
- Ignace Slo-Pitch Baseball Tournament
- Silver Sneakers Exercise Class
- Roller Skating
- League Bowling
- Fun in the Sun Women's Bowling Tournament
- Battle of the Sexes Bowling Tournament
- Bike Rodeo
- Adult Badminton

Informal Activities cont.

- Adult Pickleball
- Competitive Power Lifting
- Various Golf Tournaments (~11)
- Dance Classes
- Music Lessons
- Yoga Classes
- Teens-in-Motion
- Ice / Figure Skating Services
- Youth Pool and Dart Tournament
- Adult Pool Tournament
- Quilting
- Shuffleboard

Community Events

- Ignace Annual Kids Fest
- Spring Fever Fun Day
- Vacation Bible School (VBS) Day Camp
- Teddy Bear Picnic
- Christmas Parade
- Summer Day Camps
- Winter Carnival (White Otter Days)
- Summer Carnival (White Otter Days)

Knowledge holder interviews indicate that Dryden is the most likely location that Ignace residents will travel to regularly to access recreation opportunities. The list below highlights some of the additional recreation programs offered in Dryden that are not currently available in Ignace.:

Dryden Additional Recreation Programs

Organized Sports

- Competitive Swimming
- Football
- Ringette
- Karate and Judo
- Gymnastics
- Curling

Informal Activities

- Swimming Lessons
- Aqua Fitness Programs
- Horseback Riding
- Archery
- Sailing / Kayaking / Canoeing
- Trapping
- Brownies
- Scouts
- Squash

3.3.2 Recreation Program Gaps

3.3.2.1 Knowledge Holder Interview Feedback: Recreation Programs

Table 3.3-1 provides key highlights from the Knowledge Holder interviews in regard to recreation programs.

Table 3.3-1: Knowledge Holder Interview Feedback - Recreation Programs	
Ignace	LSA
<p>Gaps:</p> <ul style="list-style-type: none"> • Aside from the Recreation Programmer and volunteer Recreation Committee, there is no dedicated Recreation Department and/or more recreation staff resources are needed in the Township; people have ideas but no one to help execute them; recreation is mostly run by community organizations with the same volunteers, and they are experiencing burnout; broader volunteer recruitment and retention is also difficult; more programming is needed for the 10-13, 35+, and seniors age groups; there is poor / limited internet in the Township which makes virtual programming a challenge and inaccessible to many. 	<p>Gaps:</p> <ul style="list-style-type: none"> • It is challenging for residents to travel between communities to access recreation services (e.g., travel distance, vehicle access, seasonal weather, road conditions), which limits programming opportunities to local contexts and the capacity of local communities to provide them.
<p>Opportunities:</p> <ul style="list-style-type: none"> • The 5-10 age group has a variety of program offerings (e.g., dance, skating, hockey, piano); there has been higher turnout at community events post-pandemic; it seems people are eager to get outside or get together with their neighbours and community; the Teens in Motion group happens weekly and has a high turnout; the Township uses its municipal website and Facebook to communicate and advertise events and programming; there have been preliminary discussions regarding the development of a Friendship Centre as a way to engage more with Indigenous community members; there is interest in offering swimming lessons at the local beaches, subject to staffing capacity to deliver the program. 	<p>Opportunities:</p> <ul style="list-style-type: none"> • There is a high quality of recreation services provided in the LSA and should be considered an asset in terms of advancing personal / community health and wellbeing, supporting economic development, and improving overall quality of life.

3.3.2.2 Gap Analysis Summary

The following themes are apparent regarding the existing recreation programming regime in the LSA:

- (1) As highlighted in Table 3.3-1, based on feedback from the Knowledge Holder interviews, there is an emphasis on local proximity: residents are not interested in travelling to other communities to access or participate in recreation programming. It can be reasonably assumed this is due to convenience of access, concerns related to travel on the rural highway network, inclement weather conditions, and the convenience of being able to participate in lifetime pursuits, both indoor and outdoor, closer to home.

- (2) Given the above, the following recreation program gaps are noted:
- a) **Underused Resources:** There are missed opportunities to enhance usage of existing facilities to expand recreation program offerings, such as at the skatepark or municipal beaches. There are also missed opportunities to better leverage the surrounding natural environment to enhance recreation programming, such as for more informal activities such as bouldering.
 - b) **Seasonal Challenges:** There are limited opportunities for outdoor youth-focused recreation programs during the winter, compared to outdoor programming offered in the spring and summer months.
 - c) **Underserved Demographic Groups:** There are limited organized sports programs and informal recreation activities offered for certain demographics, such as seniors (i.e., 65+ years of age) and pre-teens (i.e., 11 to 13 years of age).
 - d) **Volunteer Burnout:** Volunteers who are depended upon to support recreation programs are burning out. Without question, a declining and aging population, coupled with a lack of time and the inability to make a long-term commitment continue to pose the biggest barriers to people becoming involved in volunteering. As a result, a smaller proportion of volunteers are being faced with having to do more of the work, which is creating gaps in leadership and affecting succession planning.
 - e) **Limited Planning and Engagement:** There is a lack of planning and engagement for improving recreation programming in Ignace, resulting in a lack of knowledge around local demands, priorities, and trends.
- (3) The extent of recreation programming regarding organized sports and community events is related to the size of the community and the demographic profile trends highlighted earlier (Table 3.1-1). The role of the public sector is to ensure a balance of service provision and deliver programming in a way that strives to respond to community needs and service gaps and prioritize the use of limited public funds to achieve the greatest public good. It is understandable, therefore, that programs are more limited in scope and capacity in communities such as Ignace, given its relatively small, declining, and aging population base, and more available in larger communities such as Dryden and Sioux Lookout.
- (4) But despite the above, this gap is offset to an extent based on the informal activities available in smaller communities such as Ignace, including what is offered at the recreation complex, the sister relationships with more non-traditional recreation and leisure programming at the local churches and schools, the various community events, and residents taking advantage of the surrounding natural environment.

3.4 Social Services Profile

LSA residents currently benefit from a variety of social service programs provided in the Township of Ignace, as well as in nearby communities within the LSA. These programs and services span themes of social and health supports such as counselling and addictions treatment, employment assistance such as skills training and job matching, and community and family focused supports such as food banks and childcare. The profile of services included here is extended outside the Township of Ignace, understanding that even with a large population increase, it is not feasible for all programs and services

to be offered in a small community and that some travel to nearby communities will always be necessary.

This section begins with a focused overview of the social service programs currently offered in the LSA relative to the Ignace context, including the type of program, the provider, and the intended participant group or groups (e.g., youth, seniors, Indigenous, multi-community). Following this, an assessment of barriers to accessing current social service programs is outlined.

3.4.1 LSA Social Service Programs

The list included below outlines existing social service programs located in Ignace and primarily serving Ignace residents, as well as programs located throughout the LSA that serve the region:

Township of Ignace and LSA Social Service Programs

Programs located in and serving Ignace

Mary Berglund Community Health Centre HUB

- Primary Care
- Seniors Services
- Mental Health
- Laboratory Specimen Collection with Primary Care
- Health Promotion
- Rehabilitation / Physiotherapy
- Telemedicine
- Foot Care
- Dental
- Eye Van
- Breast Screening Van
- Bi-weekly Food Bank

Crossroads Employment Services

- Skills training
- Employment and career planning
- Placement and incentives
- Job retention instruction
- Referral services
- School presentations

Ignace Silver Tops

- Exercise classes
- Meal program
- Bingo
- Social events

Programs located outside of Ignace that serve the region

Dryden Regional Mental Health

- Therapy
- Case Management Services
- Mental Health and Addictions
- Housing Case Manager
- Opioid Addictions Case Manager
- Child and Youth Mental Health Outreach Worker
- Family Healthy Team
- Mobile Crisis Line

Northwestern Health Unit (NWHU)

- Community Nutrition Project
- Heart Health Coalition
- Healthy Babies Healthy Children

Hoshizaki House Dryden District Crisis Shelter

- Domestic violence supports

Firefly

- Counselling and Therapy
- Child Development
- Community Education and Resources
- Family and Caregiver Skills Building
- Infant and Child Development
- Services
- SNAP (Stop Now and Plan)
- Psychology and Psychiatry
- Consultative Services

Firefly cont.

- Treatment Foster Care
- Youth Justice Counselling
- Youth Mental Health Court Worker Program
- Youth Justice Committee
- Occupational Therapy
- Physiotherapy
- Speech-Language Pathology
- Early Language Facilitators
- Northwestern ON FASD Diagnostic Clinic
- Autism Spectrum Disorders, Canadian Prenatal and Nutrition Program
- Respite Care
- Childcare at various locations

Tikinagan Child & Family Services

- Prevention
- Foster Parenting
- Adoption
- Child Protection

Kenora-Rainy River Districts Child & Family Services

- Foster Care
- Adoption
- Permanency Planning

Kenora-Rainy River District Child & Family Services cont.

- Residential Services
- Services for Youth
- Bookworm Club
- Child Protection
- Family Services
- Safer Sleep for Infants
- Child and Youth Mental Health
- Community Integration
- Family Respite Services
- Northwestern Ontario FASD Diagnostic Clinic

Patricia Area Community Endeavours (PACE)

- Business counselling
- MIRA: Mentorship, Business Incubation, Remote Access to Technology

Community Living Dryden-Sioux Lookout

- Community Inclusion Hub
- Employment Services
- Fee for Service & Intake
- Family Home
- Healthy Generations
- MMW Clinical Video Conferencing
- Quality Assurance
- Supported Independent Living

3.4.2 Social Service Program Gaps

3.4.2.1 Knowledge Holder Interview Feedback: Social Services

Table 3.4-1 provides key highlights from the Knowledge Holder interviews in regard to social services.

Table 3.4-1: Knowledge Holder Interview Feedback – Social Services	
Ignace	LSA
<p>Gaps:</p> <ul style="list-style-type: none"> • There is no adult education option at the local high school in Ignace. This is particularly relevant to the Indigenous population as many who come to the Crossroads Employment Services Centre do not have Grade 12, making it difficult to promote post-secondary skilled trades opportunities. • There is no long-term care facility in Ignace. • There is limited counselling and mental health supports available in Ignace. • The reliance on locums and nurse practitioners in Ignace is a temporary stop-gap solution as it does not provide regular access to specific services and does not allow for residents to form relationships with their healthcare providers. • There are some home care options for seniors in Ignace but staffing resources are limited. • The Ignace Nursery School operates four half day sessions per week for children aged 2-4, with a capacity of 14 children per session. There are currently no licensed full-time childcare spaces in Ignace, as well as no spaces that could accommodate shift work schedules or longer working hours. • There are limited after school childcare options. 	<p>Gaps:</p> <ul style="list-style-type: none"> • Accessing employment opportunities in the LSA is difficult, given that the region is sparsely populated which increases both travel distances between communities and the reliance on private automobile use. Partners and family members of hired workers can also have trouble finding employment in the LSA. • Skilled trades are needed in the LSA, but training is not generally available (training programs are located far away e.g., Thunder Bay and are expensive). • There is limited access to daycares, which is a hurdle to recruiting professionals to the LSA. • There is limited mental health resources in the LSA, especially for youth, and what is available is operating at capacity. Culturally appropriate mental health services are also limited, in that they are only available at Mary Berglund Community Health Centre and the Dryden Native Friendship Centre. • There are limited addictions treatment options in the region (i.e., no dedicated centre or beds). The region could benefit from addictions treatment beds (for residential treatment). • Supports for individuals with developmental disabilities are underfunded and underserved. • Homelessness in the region is very high.

Table 3.4-1: Knowledge Holder Interview Feedback – Social Services	
Ignace	LSA
<p>Concerns:</p> <ul style="list-style-type: none"> • There have been some issues with employee reliability and finding employment opportunities for residents with disabilities. • Although some new childcare spaces are planned (through the recently announced Kenora District Services Board (KDSB) initiative) childcare capacity would be challenged if the population were to grow. • In some cases, a lack of resources (or stable income) has helped some individuals manage their substance dependence as they are unable to purchase addictive elements (e.g., drugs, alcohol); with greater access to resources through job training and employment stable income, a substance dependence could become worse without the necessary supports in place to assist the individual as they transition to stable employment. 	<p>Concerns:</p> <ul style="list-style-type: none"> • There have been some issues with employee reliability and finding employment opportunities for residents with disabilities. • In some cases, a lack of resources (or stable income) has helped some individuals manage their substance dependence as they are unable to purchase addictive elements (e.g., drugs, alcohol); with greater access to resources through job training and stable employment income, a substance dependence could become worse without the necessary supports in place to assist the individual as they transition to stable employment.
<p>Opportunities:</p> <ul style="list-style-type: none"> • The Kenora District Services Board is creating a full day childcare centre in Ignace with construction concluding sometime in late 2023; the project will include 15 licensed full day childcare spaces and would be available for ages infant to twelve. This program would include some after school care, operating until 6:00 PM, with Junior Kindergarten being the youngest age accepted to the after-school portion of the program. • Support provided to licensed childcare providers through an employer could assist their employees with accessing childcare beyond operating hours. For example, if many employees of a company need childcare outside the childcare provider’s operating hours, the employer could provide additional funding to the provider to allow them to open earlier or stay open later. 	<p>Opportunities:</p> <ul style="list-style-type: none"> • Most communities have a satellite employment office to provide local services; advertising and marketing of employment programs could be increased to reach more residents.

3.4.2.2 Gap Analysis Summary

The following themes are apparent regarding the existing social service programming regime in the LSA:

- (1) Based on feedback from the Knowledge Holder interviews, as outlined in Table 3.4-1, there is an emphasis on local proximity: residents are not interested in travelling to other communities to

access programs and services. It can be reasonably assumed this is due to convenience of access, concerns related to travel on the rural highway network, and general mobility issues for those unable to drive themselves.

(2) Given the above, the following social service program gaps are noted:

- a) **Access Challenges:** Beyond services and programs that are not offered in the LSA (such as addictions treatment, homeless shelters, or some surgical or health related procedures), some residents of Ignace also experience barriers to accessing services and programs offered in Ignace and the other LSA communities. More specifically, there are limited transportation options for residents needing to travel to Dryden, Kenora, or further, with many residents relying on infrequent bus transportation or family and friends for transport. As well, the Mary Berglund Community Health Centre in Ignace is located on the periphery of the Township and is not easily accessible by sidewalk, requiring residents to either walk on the side of the highway or drive. Though the drive is not far, not all residents, especially senior residents, are able to drive to the Centre and must rely on family and friends for rides.

Another accessibility factor relates to when (i.e., time and dates) services and programs are offered. This gap is seen most notably for families requiring access to childcare (addressed below) and to a lesser extent, to hours of operation at the Ignace Public Library. Hours of operation in both the winter and summer months are limited and cannot always accommodate shift work schedules.

- b) **Childcare:** There are currently no licensed full-time childcare spaces offered in Ignace. Though the Ignace Nursery School can accommodate fourteen childcare spaces for four half-days for children aged 2-4, this does not provide adequate childcare for caregivers wishing to work full-time. This is especially true for single caregivers and for those who work shifts outside of traditional 9:00 AM to 5:00 PM schedules. For families with shift work employment, current childcare service hours often do not match the timing of their shifts, forcing them to either rely on family and friends for childcare or forgo shifts entirely. While the recent Canada-Ontario agreement on childcare should further support childcare requirements in Ignace, this situation should continue to be monitored and supported as needed.

As well, there are limited after school childcare options available in Ignace. A previous after school program was operating from 2000 to 2010, however, parents were unwilling to commit to a specific number of days per week, resulting in impacts to revenue and scheduling that were unsustainable in the long term.

- c) **Technology:** For many years, the rise in use of technology for service provision has been evident. However, the onset of the pandemic notably accelerated the use of technology in service delivery. This creates a barrier to services in Ignace, where internet access is often unreliable unless individuals or families can pay for premium services. As well, older residents in Ignace are not always comfortable using new technologies and are increasingly requiring assistance to meet with health care providers online, complete previously analog tasks at their current job, or access new employment opportunities.

- d) **Limited Resources:** Non-profit organizations delivering the bulk of social service programming have limited financial resources to invest in current or expanded programs. This limitation dramatically affects the availability and variety of programming that service providers can offer. It is felt most strongly in organizations' ability to recruit, retain, and train staff. Many organizations in the area struggle to find staff to meet client demand and are unable to offer much needed expanded programming.
- e) **Non-Existent Facilities and Related Programming:** Some facilities and associated programming are not available to support certain types of programs that are currently in demand and have increased demand with the introduction of the Project. For example, there is no homeless shelter in the region, though research, outreach data, and accounts from social service providers has shown a need for such a facility. As well, no addictions treatment facility or beds are available in the area, with individuals needing to travel to Thunder Bay or Ottawa for treatment. This creates a considerable barrier to accessing treatment and the need for treatment may be further compounded by the introduction of temporary workers to the area and the associated substance-use related issues that can arise with this type of workforce.² However, it is acknowledged that the impact of substance-use related issues arising from the temporary workforce at the work camp may be limited due to long working days and shift blocks, as well as strict substance-use policies.
- f) **Limited Indigenous-focused social service care:** There are limited social service supports that offer culturally appropriate care for Indigenous residents in Ignace. Though there are Indigenous-led and informed services in Dryden and Sioux Lookout, it is not always feasible for Ignace residents to travel to access the care they need.

3.5 Cultural Services Profile

3.5.1 LSA Culture + Heritage Programs

The list included below outlines existing programs in Ignace and the LSA that provide residents opportunities to connect with local culture(s) and heritage and engage in activities that prioritize various forms of visual, auditory, and physical art such as painting, film, music, and dance:

² Research shows that sudden increases in disposable income, long working hours, and separation from family and community can all contribute to increased alcohol and substance use as coping mechanisms for stress and isolation (Aalhus et al., 2018).

Township of Ignace and LSA Culture + Heritage Programs

Ignace Lions Club

- Install/relocate ramps
- Item Loan (i.e., walkers)
- Financial in-kind support

Ignace Public Library

- Public internet access
- Photocopier and fax services
- Inter Library loan
- Children / Youth reading contest
- Maker's space for STEM activities
- Drop-in crafting programs
- Storytelling
- Childcare programs
- Access to Ignace Heritage Centre

Dryden Native Friendship Centre

- Akwe: Go
- Apatisiwin Employment and Training
- Community Connections Program
- Diabetes Education Program
- EarlyON Centre
- Healing and Wellness
- Health Outreach Worker
- Indigenous Combined Court Worker
- Indigenous Mentor
- Kizhaay Anishinaabe Niin
- Life Long Care Program
- Life Long Care Home Maintenance
- Urban Aboriginal Healthy Kids
- Urban Aboriginal Healthy Living
- Urban Indigenous Homeward Bound
- Wasa-Nabin

Regarding this Study, the cultural themes that encapsulate Ignace are multi-faceted. As documented in the 'Ignace Project Vision' (2020), there is a focus on a sense of inter-connectedness, both within the community and with the surrounding environment. This inter-connectedness speaks to three main cultural aspirations, as generally reflected in the 'Ignace Project Vision' (2020):

- (1) A complete, livable, and vibrant 'small-town' community of between 2,500-3,000 people that can shape and direct its own competitive character by enhancing its innovative capacity and the quality of place are crucial to attracting and retaining skilled workers.
- (2) Personal health and wellness through physical activity, social engagement, and artistic expression that supports opportunities for people to improve their health and wellness, socialize and interact with others, learn new skills, have fun, and find balance in their lives. From a broader community standpoint, active lifestyles also help reduce health care costs, provide positive lifestyle choices for youth at risk, and contribute to independent living among older adults.
- (3) An enhanced quality of life at every stage of life where the sense of community is fostered by meeting the needs of residents of all ages. This sense of caring for one another, the community, and the natural environment supports sustainable growth and strengthens the bond between residents and to the places they share.

3.5.2 Cultural Program Gaps

3.5.2.1 Knowledge Holder Interview Feedback: Cultural Programs

Table 3.5-1 provides key highlights from the Knowledge Holder interviews in regard to cultural programs.

Table 3.5-1: Knowledge Holder Interview Feedback – Cultural Programs	
Ignace	LSA
<p>Gaps:</p> <ul style="list-style-type: none"> Regarding the Ignace Public Library: programming for teens and young adults is lacking; the Library operates on a very limited budget which restricts the programming that can be offered; there is a lack of advertising and marketing about programs, events, hours of operation, etc.; the current hours of operation are not convenient for all age groups and households; the Library also operates the Heritage Centre which is operating at over-capacity and there is no curator to rotate collections. 	<p>Gaps:</p> <ul style="list-style-type: none"> N/A
<p>Opportunities:</p> <ul style="list-style-type: none"> Regarding the Ignace Public Library: the Library has a children’s area, space for Science, Technology, Engineering, Mathematics (STEM) education with resources and tools for kids to build, experiment, and be creative using STEM, free wireless internet, a computer-use-and-training area and uses the surrounding grounds for outdoor programming; the service demographic is primarily families, elementary/preschool ages, and pre-teens; the Library would benefit from hiring a youth programmer to target youth age groups. 	<p>Opportunities:</p> <ul style="list-style-type: none"> N/A

3.5.2.2 Gap Analysis Summary

The following cultural program gaps are noted:

- Limited Resources at the Ignace Heritage Centre:** Though initially developed by a curator, the Ignace Heritage Centre is currently managed by Library staff. This gap in staffing resources limits programming opportunities for the Heritage Centre, and the extent of the collection that is displayed. The physical space the Heritage Centre currently occupies is not large enough to display the Centre’s full collection, however, with a dedicated curator, items in storage could be appropriately rotated through the Centre for public display.
- Non-Existent Facilities and Related Programming:** While Ignace residents have access to the Dryden Native Friendship Centre and the programs and services they offer, for many the distance to travel is prohibitive, making the Centre inaccessible. Ignace is lacking their own dedicated Friendship Centre that would be able to offer culturally appropriate programs and services to complement those already being offered through the Mary Berglund Community Health Centre.
- Limited Indigenous-focused Programming:** The Township understands the need for Reconciliation given the population of Ignace contains over 200 residents with Indigenous backgrounds. However,

there are currently limited opportunities for residents, both Indigenous and non-Indigenous, to participate in Indigenous-focused cultural programming. While there are social programs offered through the Dryden Native Friendship Centre that are delivered from a wholly Indigenous perspective, there are limited cultural or recreational programs in Ignace that would be considered leisure activities. This includes a missed opportunity to engage with the natural environment to enhance Indigenous-led land-based programming such as medicine gathering, food gathering, and others.

- (4) **Limited Youth-focused Cultural Programming:** Taking into account public and non-profit program offerings, as well as cultural programming provided through private individuals (e.g., dance and music lessons), there are limited options for youth of all ages and their families who are seeking cultural programming such as dance, music, arts, film, and others.
- (5) **Emphasis on local proximity:** Feedback from the Knowledge Holder Interviews indicates that residents are not interested in travelling to other communities to access recreation programming, but for those that do, Dryden is the most likely community to be accessed. As a leisure-based activity, it can be assumed that residents are also uninterested in travelling to access cultural programming. It can similarly be assumed this may be due to convenience of access, concerns related to travel on the rural highway network, and inclement weather conditions.

PROJECT AND COMMUNITY CHARACTERISTICS RELEVANT TO THE STUDY

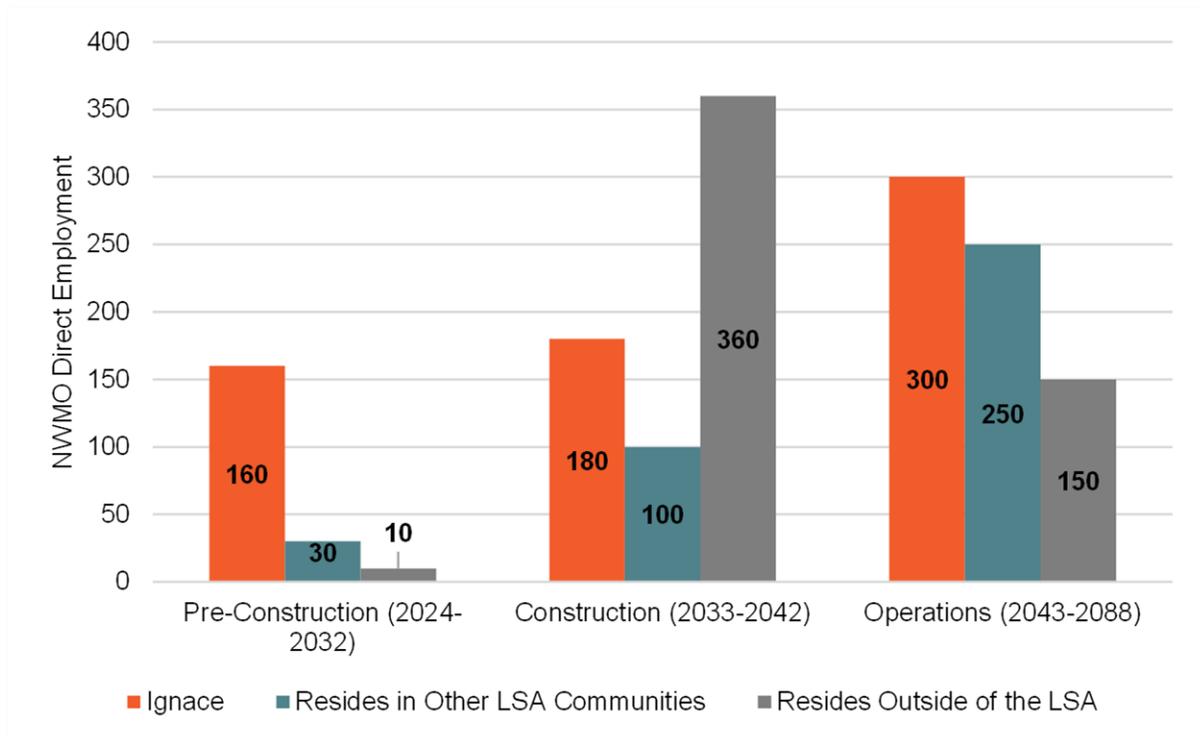
This section outlines the key Study assumptions that have been used as a basis for assessing how the Project might influence the Study Elements, including associated population and residency patterns.

4.1 Relevant Project Highlights

The Project components that could influence the Study Elements in terms of service demands and resource impacts include:

- (1) **The development of the Centre of Expertise during the pre-construction phase (2024 to 2032):** The Centre of Expertise would be designed to support a range of technical requirements and uses important to the Project. The Centre of Expertise is expected to be established within the Township of Ignace with the expectation that construction would be completed by 2028. This phase of the Project will be closely associated with permitting and licensing activities and is likely to involve activities mostly from the Centre of Expertise. In later phases of the Project, it may become a hub for knowledge-sharing across Canada and internationally or could also function as an attraction for tourists and a multi-purpose facility to support the needs and interests of Ignace residents.
- (2) **The development of the Work Camp for the workforce during the construction phase (2033 to 2042):** Envisioned to be located on or near the Revell Site, the Work Camp is conceptualized as accommodating up to 600 temporary or non-local workers, and includes a medical centre, airstrip, and a variety of other supporting infrastructure such as food and recreation services (NWMO 2021b). It is reasonable to presume that its location, in conjunction with (and in response to) matters regarding site security (i.e., authorized access / egress), available on-site services and amenities, as well as multiple FTE labour shifts and concentrated work blocks and patterns will limit impacts on the Study Elements in Ignace and the other LSA communities during the construction phase as workers will be able to access those services readily on-site.
- (3) **The need for temporary accommodation for some employees/visitors during the operations phase (2043 to 2088):** There are fewer trades and travelling labour (i.e., drive-in-drive-out, fly-in-fly-out) anticipated during operations; however, some temporary accommodation may still be required during the operations phase.
- (4) **Projected labour residency patterns during each Project phase:** As shown on Figure 4.1-1, it is anticipated that most NWMO staff would live permanently in Ignace during pre-construction (160), with some others residing in other parts of the LSA (30), and fewer yet beyond the LSA (10). During construction, an additional 20 people are anticipated to reside in Ignace (180 total), an additional 70 in other communities in the LSA (100 total), and approximately 360 beyond the LSA (thus necessitating the Work Camp). During operations, an additional 120 are anticipated to reside in Ignace (300 total), an additional 150 in other communities in the LSA (250 total), and a remaining 150 in other location beyond the LSA (necessitating some form of temporary accommodations).

Figure 4.1-1: Project Residency Employment Planning Assumptions, 2024 to 2088

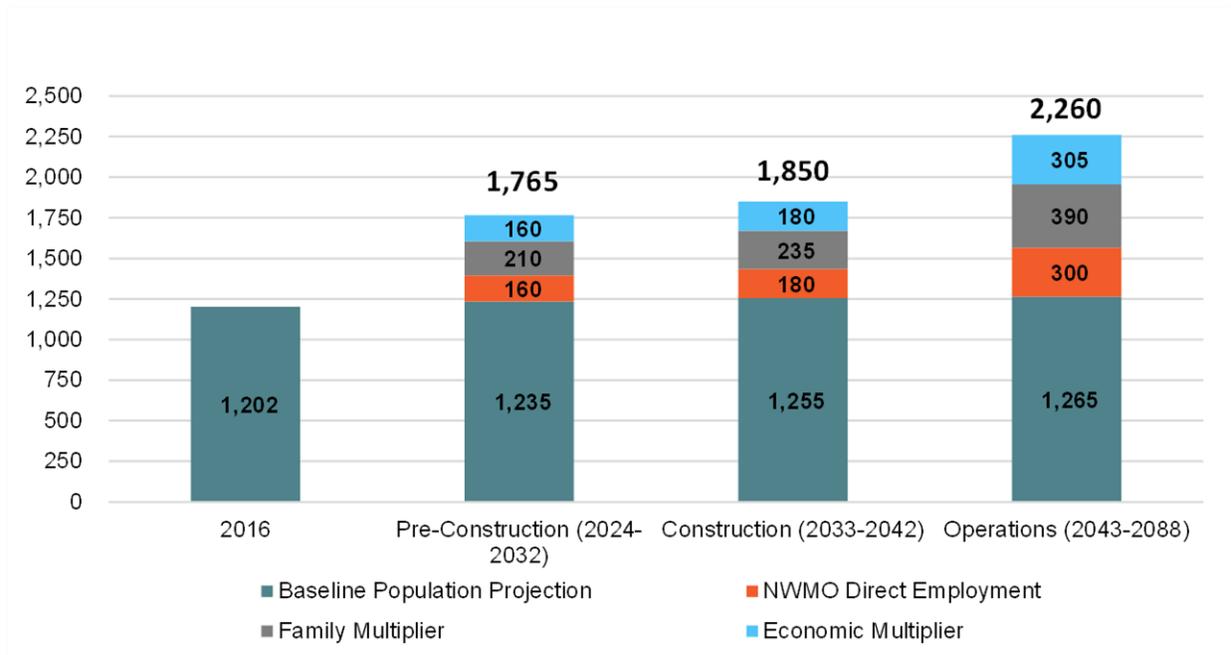


Source: NWMO Workforce Residency Scenarios for Ignace Area, 2022a.

- (5) **Projected population growth for Ignace and the LSA during each phase of the Project:** Population growth, in conjunction with labour residency and FTE labour patterns (both temporary and permanent) throughout the Project could further influence service demands and resource impacts, not only in Ignace, but also the wider LSA.

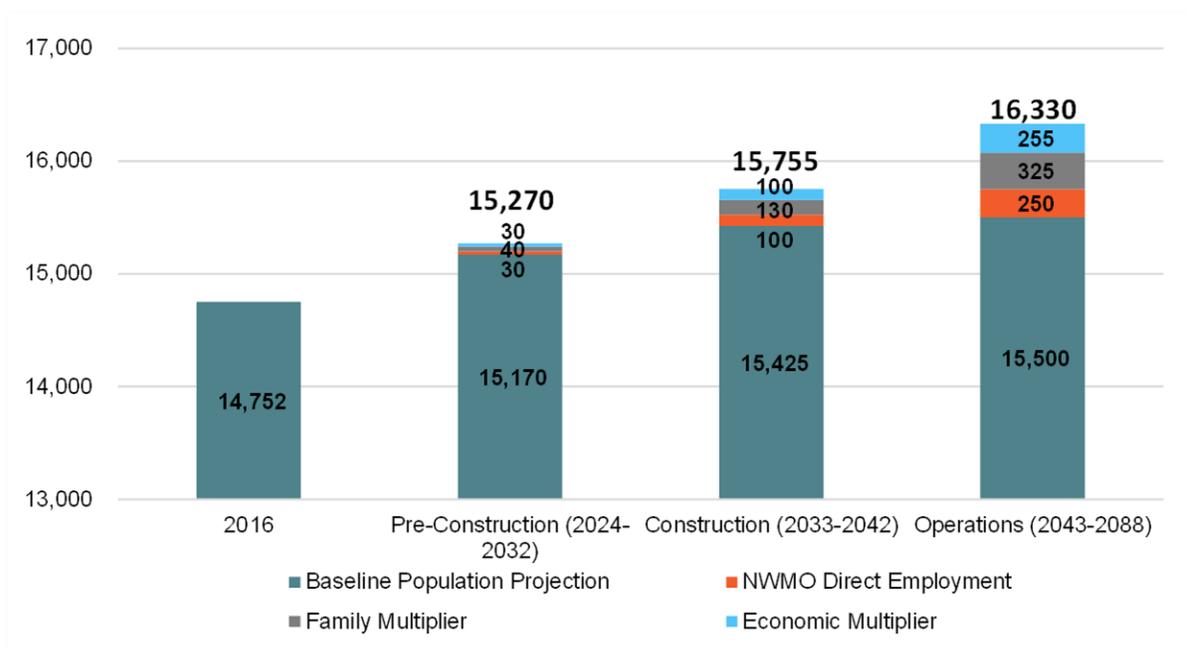
Projections are shown on Figures 4.1-2 and 4.1-3 for Ignace and the LSA (excluding Ignace) respectively, up to 2046. Further detail regarding population projections can be found in *Growing the Population and Opportunities*.

Figure 4.1-2: Ignace Population Projection Planning Assumptions, 2016 to 2046



Source: Ignace Area Working Group for Community Studies Meeting No. 9, 2022c.

Figure 4.1-3: Other LSA Communities Population Projection Planning Assumptions, 2016 to 2046



Source: Ignace Area Working Group for Community Studies Meeting No. 9, 2022c.

Based on Figures 4.1-2 and 4.1-3, it is anticipated that by 2046:

- a) The Ignace population will have almost doubled, from 1,202 people (2016) to 2,260 people. This growth represents 40% of the total growth (i.e., growth in both Ignace and the LSA [excluding Ignace]) anticipated across the entire LSA. Of this increase, 6% (or 63 people) constitutes baseline population growth over time; 28% (or 300 people) represents NWMO Direct Employment; 37% (or 390 people) constitutes family members of the NWMO labour force; and 29% (or 305 people) represent the Economic Multiplier.
- b) The LSA population (excluding Ignace) is projected to increase from 14,752 people (2016) to 16,330 people. Of this increase, 47% (or 748 people) constitutes baseline population growth over time; 16% (or 250 people) represents NWMO Direct Employment; 21% (or 325 people) constitutes family members of the NWMO labour force; and 16% (or 255 people) represent the Economic Multiplier.

4.2 Relevant Local Study Area Considerations

In addition to Project characteristics, community characteristics are also central to the analysis.

(1) **Community size and service program delivery capacity:** The extent of service programming is directly related to the size and demographic profile of a community and the role of local government in prioritizing the use of limited public funds to achieve the greatest public good. By extension of this, the extent of service programming is typically more limited in scope and capacity in smaller communities such as Ignace, and more available in larger communities such as the City of Dryden and the Municipality of Sioux Lookout. This includes the ability of the larger centres to offer a broader array of service programming and also offer these services on a more regional level as well, given their supporting local population base.

(2) **Local proximity:** Based on the Knowledge Holder interviews and compounding the challenges surrounding community size and service program delivery capacity, Ignace residents are not always interested in travelling to other communities to access service programming due to such factors as convenience as well as highway travel and seasonal weather concerns. While this is a trend, it is also acknowledged that Ignace residents are still accessing service programming in the LSA, particularly those that are not available or have capacity challenges in Ignace.

(3) **Shifting demographics:** The extent of potential changes would be affected by the demographics and needs of current and incoming residents, their chosen places of residency in the LSA, and the extent to which existing and planned services, programming, and infrastructure provisions would be able to keep pace with demand as the Project advances. This may include shifts in the demographics within Ignace itself (e.g., age, ethnicity, Indigeneity), and may also have influence in other communities in the LSA. All of these factors and the proactive responses to these factors would become clearer as the Project advances and labour migrates to the region in support of the pre-construction phase.

CHANGE ANALYSIS

5.1 Assessment Context

The Project is a catalyst for growth and change, the resulting changes to population dynamics and diversity pose both opportunities and challenges. These changes are expected to be most material in Ignace where the scale of growth will be readily observable relative to the current population. As the anticipated changes in communities beyond Ignace are smaller relative to existing populations, the extent of changes to community and culture and associated demand to services resulting from population change are expected to be less pronounced. As such, the analysis is focused on Ignace along with identifying any potential implications of growth beyond Ignace (if applicable).

A critical qualifier to the analytic approach regards the context of community size and service program delivery capacity. Since it would not be feasible for every program and every service to be offered in a small community such as Ignace, it is very likely that some travel to nearby communities to access services and programs of a more unique or regional nature should continue to be necessary, with or without the Project in place. Therefore, the Project influences would still likely be felt in the LSA. The extent of these influences would become clearer as the strategic planning advances in support of the pre-construction phase for the Project and subsequent Project phases.

With this context in mind, the following change analysis is presented for each of the Study Elements by Project phase, with potential opportunities and potential challenges offered as supporting rationale.

5.2 Potential Changes to Recreation Programs

The variety of recreation and community event options available in Ignace are summarized in Section 3.3, including opportunities not found in Ignace but offered elsewhere in the LSA. Potential opportunities and challenges for recreation programs and community events due to the Project are as follows:

- (1) **Potential Opportunities:** The increase in population, economic development and tax base could justify investment in new opportunities for recreation and community event programming, including more age groups and/or the types of activities and events that are currently not available. Similarly, volunteer recruitment could be enhanced due to an increased population providing additional capacity for recreation program and community event delivery. Active changes to recreation and event programming could also help create social connections and welcome new residents.³ In regard to outdoor recreation and leisure pursuits in particular, the opportunity for enhanced social connections could also extend to educating new residents on best areas of use for certain activities, and recommended stewardship practices (recognizing that actual eco-management falls to other authorities).
- (2) **Potential Challenges:** There could be limited availability and variety of the programs in relation to the evolving local needs and demands, as well as limited resource capacity to deliver new and/or expanded programs (i.e., funding, coordination, staffing). Furthermore, if the influx of new residents

³ Providing opportunities for leisure and recreation has been shown to increase community cohesion, contribute to greater physical and mental health of residents, increase volunteerism, and increase citizen satisfaction resulting in a greater likelihood that residents will move to and stay in the area (Lamanes, 2016).

does not result in additional volunteers to assist with service delivery, current volunteer capacity (which is not keeping up with demand) would need to go above and beyond to meet projected service demand.⁴ Moreover, if the recreation program and community event demands of new and existing residents are not well understood, investments may not yield optimal results in terms of material change, and the prioritization of some needs of others could create conflicts in the community.

Table 5.2-1 presents the assessment of potential changes to recreation activities, with consideration of organized sports, informal activities, and community events.

Table 5.2-1: Changes to Recreation Activities		
Pre-Construction	Construction	Operations
Organized Sports		
Due to the projected increase in the permanent population during this phase, it is anticipated that there could be increased demand for organized sports. This may result in additional coaching and resources required for existing teams and leagues, and/or the creation of new teams and leagues that expand existing programming or offer new activities altogether. New league and activity offerings could likely be needed in the case of organized sports leagues offered for adults as this demographic is underrepresented in this area at present and incoming residents could add additional strain on existing programming.	Due to plans to offer recreation amenities at the Work Camp and the concentrated work and off-work blocks for the construction labour, minor changes to demand for organized sports in the community are anticipated. These changes in demand could likely be accommodated by interventions initiated during the pre-construction phase to address increased demands for programming and services.	Similar to the pre-construction phase, the projected increase in the permanent population during the operations phase could likely result in increase demand for organized sports. This may result in additional coaching and resources required for existing teams and leagues, and/or the creation of new teams and leagues that expand existing programming or offer new activities altogether. New league and activity offerings could likely be needed in the case of organized sports leagues offered for adults as this demographic is underrepresented in this area at present and incoming residents could add additional strain on existing programming.

⁴ Based on Statistics Canada (2020) data from 2010 and 2018, volunteerism has declined from 47% of Canadians aged 15 and over participating in volunteer work to roughly 41% of Canadians aged 15 and over participating in volunteer work.

Table 5.2-1: Changes to Recreation Activities		
Pre-Construction	Construction	Operations
Informal Activities		
Due to the projected increase in the permanent population during this phase, it is anticipated that there could be increased demand for informal activities. This includes those activities that make use of the surrounding natural environment. Current activities are varied in type and equipment requirements and are primarily delivered by volunteers. The increase in demand could likely require expansion of existing activities, introduction of new activities, and a concentrated effort to recruit, train, and retain new volunteers.	Despite recognizing the quality of natural amenities, due to plans to offer recreation amenities at the Work Camp and the concentrated work and off-work blocks for the construction labour, changes in demand for informal activities could arise if individuals opt to access amenities and areas in the natural environment outside of work block times (i.e., when the non-local workforce is commuting between the Work Camp and home). ⁵	Similar to the pre-construction phase, the projected increase in the permanent population during the operations phase could likely result in increased demand for informal activities. This includes those activities that make use of the surrounding natural environment. Current activities are varied in type and equipment requirements and are primarily delivered by volunteers. The increase in demand could likely require expansion of existing activities, introduction of new activities, and a concentrated effort to recruit, train, and retain new volunteers.
Community Events		
Though there is projected to be an increase in the permanent population during this phase, the impact to community events is anticipated to be limited. The majority of community events can accommodate the increase in demand with limited adjustments. This includes events such as White Otter Days, the Teddy Bear Picnic, and the Christmas Parade. Other community events such as the summer day camps may require additional resources and staff/volunteers to accommodate increased demand and changing activity interests.	Due to plans to offer recreation amenities at the Work Camp and the concentrated work and off-work blocks for the construction labour (particularly during holidays when events are typically scheduled), no changes to demand for community events are anticipated.	Though there is projected to be an increase in the permanent population during this phase, the impact to community events is anticipated to be limited. The majority of community events can accommodate the increase in demand with limited adjustments. This includes events such as White Otter Days, the Teddy Bear Picnic, and the Christmas Parade. Other community events such as the summer day camps may require additional resources and staff/volunteers to accommodate increased demand and changing activity interests.

⁵ Research conducted in the resource-based community of Fort McMurray, Alberta shows that though work shifts (both during the day and over a work block) are long and do not allow for much leisure time, workers may still wish to leave the Work Camp after a shift in order to disrupt the “monotony” and “entrapment” of camp life (Dorow and Jean, 2022).

5.3 Potential Changes to Social Services

The variety of social services available in Ignace and the other communities in the LSA are summarized in Section 3.4. Potential opportunities and challenges for social services due to the potential Project are as follows:

- (1) **Potential Opportunities:** The increase in population, economic development, and tax base could result in increased funding opportunities from provincial and federal sources for expansion of existing services or development of new programs and services. There is also an opportunity for partners and family members to fill vacant positions in the area, as well as contribute to the volunteer pool.
- (2) **Potential Challenges:** In other instances, an influx of new residents, accompanied by higher disposable income levels (with limited spending options), resulted in an increase of behaviours requiring mental health supports⁶ (including addictions counselling and domestic violence support). There is a possibility that there could be an increased demand for similar supports in the area. As well, as discovered through the Knowledge Holder interview process, current social services and supports addressing youth mental health, adult education/training, seniors and long-term care, food insecurity, and homelessness⁷ are reaching or are beyond capacity. As the permanent population grows, these and other services could be pushed beyond their current capacities, resulting in limited availability and limited variety of programs offered. This could be more readily apparent for those programs mostly likely to be needed by family members captured by the family multiplier (refer to *Northwest Community Studies: Ignace and Area Health Services* Section 4.2.1 for further details).

With the introduction of 15 new licensed full day childcare spaces through the KDSB, current demand for childcare is largely being met (note: it is not yet known whether the new childcare spaces will accommodate shift work schedules – if not, this remains a gap in service delivery). However, the influx of permanent residents could increase the demand for childcare spaces. Combined, these potential challenges can be a barrier to recruiting and retaining new workers and residents.

Table 5.3-1 presents the assessment of potential changes to social services by phase of the Project.

⁶ In the mill town of Hinton, Alberta, research has linked higher income with substance use wherein the financial stability provided by regular and high-paying employment is used to sustain substance use behaviours (Parkins and Angell, 2011).

⁷ Information gathered through the Knowledge Holder interview process demonstrates that a housing deficiency is currently being experienced in the area. Without adequate housing to meet the incoming demand, housing shortages can lead to more instances of homelessness (Ennis, Finlayson and Speering, 2013).

Table 5.3-1: Changes to Social Services by Phase		
Pre-Construction	Construction	Operations
Due to the current provision of social services, many of which are near or at capacity, and the projected increase in the permanent population during this phase, an increase in demand for services is anticipated. The specific demands for services will be influenced in large part by the demographics of the incoming residents and their unique needs. Ascertaining the nuances of the increase demand will require close communication and collaboration with service providers.	Due to plans to offer a full-service environment at the Work Camp and the concentrated work and off-work blocks for the construction labour, limited changes to social services are anticipated, with some potential that demand for these services could increase if the services at the Work Camp do not meet worker demand (particularly in urgent or emergency circumstances) and/or construction labourers move to the area with their partners or families who require these services (but this is expected to be a relatively low likelihood).	With a further increase in the permanent population during the operations phase, additional increase in demand for services are anticipated. Though the scale of demand increase will likely be similar to that experienced during the pre-construction phase, the specific requirements of programming and services will be unique to the needs of new residents. Therefore, close communication and collaboration with service providers will be essential to stay abreast of service demands as the Project unfolds.

5.4 Potential Changes to Culture and Heritage

5.4.1 Small Town Characteristics

As summarized in Sections 1.4 and 3.5, the ‘Ignace Project Vision’ (2020) provides the community’s vision for the Project in supporting sustainable community growth while also maintaining the small-town feel of Ignace. Throughout several engagement touchpoints with the community, small-town characteristics that were discussed included:

- A sense of belonging;
- A sense of neighbourliness i.e., knowing your neighbours and looking out for one another;
- A sense of safety;
- Connection to the natural environment; and
- Protection and stewardship of the natural environment.

Potential opportunities and challenges in this regard are as follows:

- (1) **Potential Opportunities:** There is an opportunity to introduce residents to current cultural programming through community events and targeted information sharing, thereby helping to encourage community building.
- (2) **Potential Challenges:** The introduction of new residents to the area may result in a lack of understanding between new and existing residents and result in potential conflicts. Scenarios involving animosity between existing and new residents are more likely to occur in instances where

service, programming, and infrastructure provision has not kept pace with the demands of the increased population.⁸

Table 5.4-1 presents the assessment of potential changes to small town characteristics in Ignace by phase of the Project. Though some changes in small-town characteristics are anticipated throughout the course of the Project phases due to the influx of new residents with varying backgrounds, cultures, and lifestyles, the projected growth is still consistent with Ignace’s overall vision to grow the community to 2,500-3,000 people.

Table 5.4-1: Changes to Small Town Characteristics in Ignace by Phase		
Pre-Construction	Construction	Operations
Changes to small town characteristics during the pre-construction phase are anticipated to be related primarily on the extent to which services, programming, and infrastructure provision is able to keep pace with demand and nurture social cohesion in response to potential differences in demographics, cultures, and lifestyles between existing and new residents.	Due to plans to offer a full-service environment at the Work Camp ‘community’ (relative to the Township ‘community’), and the concentrated work and off-work blocks for the construction labour, resulting in limited interactions between LSA residents and the non-local workforce situated at the Work Camp. Due to this separation, it is anticipated that there would be only limited changes. However, the potential for changes would increase during the construction phase if workers were moving to the area with their families and living in or closer to the Township, contributing to the population increase.	Changes to small town characteristics during the operations phase are anticipated to be limited and dependant primarily on the extent to which services, programming, and infrastructure provision is able to keep pace with demand and nurture social cohesion in response to potential differences in demographics, cultures, and lifestyles between existing and new residents.

5.4.2 Cultural Programs

The variety of cultural programs available in Ignace and the other communities in the LSA are summarized in Section 3.5. Potential opportunities and challenges for cultural programs due to the potential Project are as follows:

- (1) **Potential Opportunities:** The increase in population, economic development, and tax base could result in increased funding opportunities from provincial and federal sources for expansion of existing services or development of new programs and services. There are also opportunities to introduce residents to current cultural programming through community events (thereby helping to

⁸ Research in the Regional Municipality of Wood Buffalo and its service centre in Fort McMurray were examined to explore local values and practices around recreation and leisure, only with examining the constraints that limit such opportunities. The area experiences a high level of resident transiency and diversity. Lamanes, T. (2016).

encourage community building), and for partners and family members to fill vacant positions in the area, as well as contribute to the volunteer pool.

- (2) **Potential Challenges:** There could be limited availability and variety of the programs in relation to evolving local needs and demands, as well as limited resource capacity to deliver new and/or expanded programs (i.e., funding, coordination, staffing, volunteers).

Table 5.4-2 presents the assessment of potential changes to cultural programs by phase of the Project.

Table 5.4-2: Changes to Cultural Programs by Phase		
Pre-Construction	Construction	Operations
Though an increase in the permanent population is expected during this phase, it is anticipated that only limited changes to existing cultural programs could be required to meet increased demand. This may include families looking for increased capacity from the Ignace Public Library or Ignace Heritage Centre. In addition, demands for new cultural programming will depend primarily on the demographics and cultural backgrounds of new residents. Furthermore, the pursuit of a Native Friendship Centre (or other relevant cultural support services) in Ignace prior to the pre-construction phase would decrease the burden of demand on cultural services when the Project commences.	Due to plans to offer a full-service environment at the Work Camp Due and the concentrated work and off-work blocks for the construction labour, limited changes to cultural programs are anticipated, with some potential that demand for these programs could increase if construction labourers move to the area with their partners or families (but this is expected to be a relatively low likelihood).	The extent of changes to cultural programs during the operations phase is dependent primarily on the demographics of new residents, as well as the extent to which cultural programming is enhanced or expanded during the pre-construction phase. The expansion of Library and Heritage Centre hours during the pre-construction phase, as well as the development of a Native Friendship Centre (or other relevant cultural support services) in Ignace would lessen demands for cultural programming during the operations phase. Continuous monitoring, communication, and collaboration with local cultural service providers will be necessary to ascertain the extent of the demand and associated capacity to deliver services and programming.

5.4.3 Connection to Nature

The ‘connectivity-to-nature’ profile for Ignace and the other communities in the LSA is summarized in Section 3.2. Potential opportunities and challenges for the area’s connection to nature due to the potential Project are as follows:

- (1) **Potential Opportunities:** There is an opportunity to educate non-local workers and new residents on best areas of use for certain activities, as well as recommended stewardship practices (recognizing that actual eco-management falls to other authorities).

- (2) **Potential Challenges:** The increased use of natural resources in the community, for recreation and leisure pursuits, by new and existing residents, could impact these resources due to over-use and create conflicts between new and existing residents. Depending on where they are coming from, new residents and workers may not be accustomed to the extent of natural environment available and the proper ways in which to be stewards to the land, potentially creating tension between new and existing residents.

Table 5.4-3 presents the assessment of potential changes to the ‘connectivity-to-nature’ element by phase of the Project.

Table 5.4-3: Changes to Connection to Nature by Phase		
Pre-Construction	Construction	Operations
<p>With the increase in the permanent population during this phase, it is anticipated that use of the natural environment will increase. This increase would likely be felt most acutely through the demand for additional adjacent infrastructure such as washrooms and parking at beaches, lakes, and trailheads (as outlined in the <i>Ignace and Area Infrastructure: Community Recreation Facilities Study</i>). As well, national recreation trends have also noted a rise in demand for nature programming such as summer and day nature camps, learn to hike, bike, or paddle programs for kids and adults, and more adventure or risk-focused activities. Continuous monitoring will be required to track the level of impact the increased population could have on the natural environment, potential conflict among users, if any, as well as the appetite and demand for new or expanded nature/environment-focused programming.</p>	<p>Despite recognizing the quality of natural amenities, due to plans to offer a full-service environment at the Work Camp and the concentrated work and off-work blocks for the non-local workforce, limited changes to the ‘connectivity-to-nature’ element are anticipated.</p>	<p>With the increase in the permanent population during this phase, it is anticipated that use of the natural environment will increase. As well, changes in the coming decades in recreation activities, appreciation for nature, and attentiveness to environmental concerns will significantly influence public appetite for access to nature and nature-focused programming. Continuous monitoring will be required to track the level of impact the increased population could have on the natural environment, potential conflict among user, if any, as well as the appetite and demand for new or expanded nature/environment-focused programming.</p>

OPTIONS ASSESSMENT

NOTE TO READER:

This section provides an overview of possible options to mitigate negative consequences or to enhance positive outcomes. They are presented by the authors to foster discussion only. They do not represent commitments or actions for the NWMO, the Township of Ignace, or other parties. The final decisions on actions and commitments will be made at a future date.

The following options have been developed to address gaps in programs / services and capitalize on opportunities identified for recreation, social services, and cultural resources.

6.1 Options for Consideration

Table 6.1-1 provides an overview of the options included in the assessment. Key considerations in developing the options included:

- (1) The primary place of work for most NWMO staff during pre-construction will be at the Centre of Expertise located in Ignace. Presuming Ignace will attract the majority of permanent NWMO staff to Ignace during pre-construction, then the Project becomes a catalyst for community development.
- (2) During construction of the Revell Site, the supporting Work Camp will accommodate the temporary or transient construction workforce. Given the anticipated multiple FTE labour shifts and concentrated work blocks, the extent of Project interactions with Ignace and the other communities in the LSA is expected to be low.
- (3) As the Project transitions to operations, the Ignace population is expected to almost double in size; the population of the residual LSA is also expected to increase, but more marginally. As a result, the extent of Project interactions with the other communities in the LSA is expected to be less pronounced.
- (4) Given that the Project is more of a catalyst for major growth and change in Ignace, (commencing in pre-construction and increasing through to operations) the resulting changes to population dynamics and diversity poses both new opportunities and challenges for the community. The increase in population, economic development, and tax base could (i) justify investment in new opportunities for recreation, social services, and cultural programming that are not available, and (ii) promote social cohesion and connection by tying opportunities to evolving community needs and environmental stewardship.

As such, the following options revolve around the theme of 'Community Ambassadorship': Project-to-Ignace-and-LSA-and-vice-versa. Their intent is to leverage opportunities related to the Project, commencing at pre-construction, and continue to monitor, adapt, and update them through to (and during) operations in order to nurture community connections and environmental stewardship as well as monitor and restore personal health and community well-being. They do so by focusing on

the need for regular interaction and collaboration; to resolve issues and celebrate successes through strategic planning; and to build and strengthening relationships.

Table 6.1-1: Overview of Potential Options	
Options	Timing
<p>Option 1 – Develop a Recreation and Culture Master Plan:</p> <ul style="list-style-type: none"> Effectively allocates available resources in support of developing a thriving, diverse, and cohesive community that is also more attractive to new residents and businesses by: (a) addressing the recreation and cultural services needs of current and future residents; and (b) promoting the richness of the community’s recreation and cultural resources. 	<ul style="list-style-type: none"> Pre-construction with periodic monitoring and updating during construction and operations.
<p>Option 2 – Diversify and Optimize NWMO Facilities:</p> <ul style="list-style-type: none"> Diversifying the Centre of Expertise supports the aspirations from Ignace residents, as documented in the ‘Ignace Project Vision’. Re-purposing the Work Camp amenities for use by residents once the camp is no longer operational may optimize the long-term role and benefits of this asset in responding to local and area needs (e.g., provide communities in the LSA the first right of refusal to purchase items such as fitness and recreation equipment). 	<ul style="list-style-type: none"> Pre-construction for implementation during operations.
<p>Option 3 – Develop a ‘Social Safety Net Plan’:</p> <ul style="list-style-type: none"> Effectively guides decisions that address potential social service demands and maximize potential benefits associated with the anticipated population increases resulting from the Project over a long-term planning horizon. Prepared in partnership with relevant service providers, Indigenous organizations, neighbouring Indigenous communities, other LSA communities, government agencies, and regional industries. Ensures that as the population increases or as various funding sources become available, Ignace and the other LSA communities are able to respond proactively to meet evolving demands, capitalize on opportunities, and support the development of healthy and cohesive communities. 	<ul style="list-style-type: none"> Pre-construction and operations with periodic monitoring during construction.
<p>Option 4 – Expand Supports for Childcare:</p> <ul style="list-style-type: none"> Monitoring of – and support for – childcare service providers in Ignace and the other LSA communities ensures local childcare services can meet demands associated with anticipated population increases from the Project. 	<ul style="list-style-type: none"> Pre-construction and operations with periodic monitoring during construction.

Table 6.1-1: Overview of Potential Options	
Options	Timing
<p>Option 5 – Expand Supports for Community Environmental Stewardship:</p> <ul style="list-style-type: none"> • Supports mitigating efforts to offset incremental environmental effects associated with the anticipated population increases resulting from the Project. 	<ul style="list-style-type: none"> • Pre-construction and operations with periodic monitoring during construction.

The options presented are assessed based on the following four criteria:

- (1) **Ease of implementation:** includes the degree of complexity required to implement, which may consider number of required partners and current municipal and provincial policies.
- (2) **Parties other than NWMO and/or Township required for implementation:** considers if the NWMO or the Township alone or in partnership can implement an option or if another responsible authority needs to be involved.
- (3) **Degree of effectiveness:** considers the conditions required for effectiveness as per the understanding of the community needs and aspiration.
- (4) **Cost, if known:** will document costs for implementation if known.

Option 1: Develop a Recreation and Culture Master Plan

Project Phase for Implementation: Pre-construction with periodic monitoring and updating during construction and operations.

Understanding the preferences and priorities of any community is critical to effectively provide recreation and cultural services. It is particularly important when a community is expected to undergo the type of growth that is being projected for Ignace as a result of the Project. While growth will bring an increased demand for recreation and cultural services, it also has the potential to contribute to the development of a thriving, diverse, and cohesive community that is more attractive to new residents and businesses.

A Recreation and Culture Master Plan, prepared at the outset of pre-construction (with periodic monitoring and updating during construction and operations), could guide decisions that address potential demands and maximize potential benefits associated with the anticipated population increases resulting from the Project over a long-term planning horizon. As well, it could be a tool for guiding capital investment through the development of community-focused decision-making criteria and equitable funding models for community organizations. The following themes could be used to inform the Recreation and Culture Master Plan:

- a) Enhancing the role of the Township, business community, and local agencies with respect to recreation and cultural programming and implementation through such means as:
 - i. Bolstering the Recreation Department staff to meet the anticipated increase demands for recreation and cultural services;
 - ii. Working with the business community and other local agencies to develop complementary positions to support with recreation and cultural program coordination and delivery; and

- iii. Hiring a qualified curator for the Heritage Centre to ensure the Heritage Centre collection is displayed accurately, and open further programming opportunities (e.g., rotating items through from storage, travelling with the collection to other areas as its own event or as part of other community events).
- b) Building partnerships and strengthening collective engagement within the recreation and cultural sectors across the LSA through such means as introducing a shuttle service that provides reliable service for residents to access programs both in Ignace and more unique programs in the other LSA communities (as opposed to building new facilities or developing new programs in Ignace) which, if successful, could then expand further to include inter-community service coordination and collaboration.
- c) Working collaboratively with Indigenous organizations and neighbouring Indigenous communities, within the context of the Township's broader Reconciliation efforts, to:
 - i. Integrate traditional Indigenous activities and knowledge sharing through recreation and cultural programming; and
 - ii. Support initiatives of Indigenous organizations and communities that pursue investments in sport, recreation, and culture opportunities for their members.
- d) Strengthening the promotion of recreation and cultural programs and events through such means as:
 - i. A 'Welcome Wagon' program consisting of various resources that could be offered to new residents as part of a welcoming, onboarding process (e.g., contact information for local guides, places to rent equipment, locations of notable natural amenities, general guidelines for respectful use); and
 - ii. A comprehensive Advertising and Marketing Strategy which could help to ensure a consistent message is delivered to residents and visitors regarding available recreation and cultural services and amenities as well as the respectful use and treatment of same.
- e) Strengthening the engagement and participation of the community in recreation and cultural service delivery through a Volunteer Recruitment Strategy that should focus on not only building volunteer capacity in response to the current context of volunteer burnout, but also manage and coordinate volunteer resources, and formally recognize volunteer service in the community (e.g., service awards, appreciation events).

Table 6.1-2: Option 1 Assessment	
Develop a Recreation and Culture Master Plan	
Factors	Considerations for Option
Ease of Implementation	<ul style="list-style-type: none"> Initiating the Master Plan process, building partnerships with the recreation and cultural sectors (both locally and in the other LSA communities), undertaking community engagement, and managing the project to completion would be the responsibility of the Township, making implementation straightforward. Implementing the Master Plan, including hiring required personnel, developing promotional materials, effecting the Volunteer Recruitment Strategy and strengthening collective engagement with the recreation and cultural sectors would also be the responsibility of the Township, making implementation straightforward. The Master Plan will also contain guidance and recommendations on potential capital investments – the analysis and options of which are covered in <i>Ignace and Area Infrastructure: Social Services Facilities Study</i> and <i>Ignace and Area Infrastructure: Community Recreation Facilities Study</i>. The Township could partner with the NWMO in preparing and implementing the Master Plan through such means as financial assistance and/or project team support, further easing its execution.
Parties other than NWMO and/or Township required for implementation	<ul style="list-style-type: none"> The preparation of the Master Plan should be undertaken by a third-party consultant, engaged through a competitive procurement process. No other parties would be required to hire and train Township staff. Other personnel training and deployment (i.e., Welcome Wagon, volunteers) should be done in consultation with local stakeholders as required (e.g., local guides, service providers). The private sector should be engaged to operate the shuttle service and develop complementary positions to help with recreation and cultural program coordination and delivery. Indigenous organizations and neighbouring Indigenous communities should be engaged to identify opportunities for collaboration. Regional partners in the other LSA communities should be consulted and engaged to optimize the effectiveness of the Master Plan.
Degree of effectiveness with consideration of gaps / change assessment	<ul style="list-style-type: none"> Addresses gaps in knowledge regarding the recreation and cultural program priorities and helps with adaptation to national trends in recreation programs in particular. Supports recreation facility gaps (as covered in the Infrastructure studies). Addresses gaps in programming where staff limitations and volunteer burnout are key factors. Improves access to recreation and cultural services and supports the optimization of existing resources in Ignace and the other communities in the LSA. Ensures that as the population increases or as various funding sources become available, Ignace is able to respond proactively to meet evolving demands and capitalize on opportunities. Contributes to the development of a thriving, diverse and cohesive community that is more attractive to new residents and businesses.
Costs (if known)	<ul style="list-style-type: none"> Master Plan Cost: \$65,000-\$80,000. Other Costs: to be determined.

Option 2: Diversify and Optimize NWMO Facilities

Project Phase for Implementation: Pre-construction for implementation during operations.

The Centre of Expertise is intended to “be a home to technical and social research program, and a technology demonstration program. Involving scientists and experts from a wide variety of disciplines (NWMO 2022b). Eventually, the Centre would become a hub for knowledge-sharing across Canada and internationally. During discussions with Ignace residents as part of the ‘Ignace Project Vision’ process, potential options were expressed on ways to further diversify the Centre⁹ so that it could also support other uses important to Ignace and the broader LSA. These options included:

- a) The Centre could function as an attraction for tourists, similar to a university that attracts researchers and experts, and supports experiential learning and other services such as a restaurant, gift shop, and welcoming outdoor spaces.
- b) The Centre could act as a multi-purpose facility to support Ignace’s needs and interests, focusing on:
 - i. Education / Training / Employment, associated with the Centre acting as a research facility, and with the potential support of – and partnerships with – regional post-secondary institutions;
 - ii. Community arts and culture through the inclusion of facilities that support social and cultural activities, such as an auditorium or other performance space, as well as offering space for community functions, events, and other programming (e.g., art lessons and cooking classes);
 - iii. Providing professional spaces and daycare for Project employees and other local residents; and
 - iv. Building in healthy living options, such as the creation of walking paths outside of the Centre and/or recreational spaces and outdoor play areas for all ages and abilities.
- c) The Centre could serve as a learning area about Ignace and the broader LSA (e.g., key socio-cultural, natural, and economic assets, sustainable development initiatives).
- d) The Centre could facilitate opportunities for Reconciliation through collaborations with Indigenous organizations and neighbouring Indigenous communities to share histories and knowledge.

In addition, once the construction phase of the Project ends, the recreation amenities offered at the Work Camp will no longer be needed to support non-local workers. At this time, rather than demolishing (or removing) these amenities, an option could see them being maintained and/or re-purposed and/or relocated for use by new and existing Ignace residents.

Both options would capitalize on community assets and further optimize the value of these investments while also offering amenities that would help diversify recreation and cultural service options. In conjunction with the Recreation and Culture Master Plan, this option would further contribute to the development of a thriving, diverse and cohesive community that is more attractive to new residents and businesses.

⁹ A Centre of Expertise visioning exercise is an ongoing exercise with the NWMO and the Township of Ignace.

Table 6.1-3: Option 2 Assessment	
Diversify and Optimize NWMO Facilities	
Factors	Considerations for Option
Ease of Implementation	<ul style="list-style-type: none"> The design, construction and operation of the Centre of Expertise would be managed by the NWMO. Strategies to support the future diversification of the Centre would have to be engaged and accommodated during the design and construction phase, and could be complicated by planning, design, and other programming factors. Re-purposing (and/or re-selling and/or re-locating) recreation amenities at the Work Camp would be managed by the NWMO in collaboration with the Township, making implementation of the option straightforward.
Parties other than NWMO and/or Township required for implementation	<ul style="list-style-type: none"> The design and construction of the Centre of Expertise could be undertaken by third-party consultants, engaged through a competitive bidding process. Any re-purposing of the recreation amenities at the Work Camp should be completed in consultation with community members to optimize the use of resources. Associated recreation and cultural programming should be developed in consultation with local stakeholders / partners as part of the periodic monitoring of the Recreation and Culture Master Plan. Engagement with Indigenous organizations and neighbouring Indigenous communities should be pursued to identify opportunities for collaboration and knowledge sharing.
Degree of effectiveness with consideration of gaps / change assessment	<ul style="list-style-type: none"> Addresses gaps related to recreation programming and/or limited facility capacity (the latter as covered in the Infrastructure studies). Builds local support for the Project if amenities are re-purposed for community benefit. Improves access to recreation and cultural services and supports the optimization of existing resources in Ignace. Ensures that as the population increases or as various funding sources become available, Ignace is able to respond proactively to meet evolving demands and capitalize on opportunities. Contributes to the development of a thriving, diverse and cohesive community that is more attractive to new residents and businesses.
Costs (if known)	<ul style="list-style-type: none"> To be determined.

Option 3: Develop a ‘Social Safety Net Plan’

Project Phase for Implementation: Pre-construction and operations with periodic monitoring during construction.

Social services in Ignace are primarily delivered by non-profit organizations, many of whom are struggling to keep up with existing demand, especially since the onset of the COVID-19 pandemic. As the population increases, efforts should be made to monitor the change in demand. A ‘Social Safety Net Plan’, prepared prior to pre-construction (with periodic monitoring throughout all phases), could guide decisions that address potential social service demands and maximize potential benefits associated with

the anticipated population increases resulting from the Project over a long-term planning horizon. As well, it could be a tool for guiding capital investment through the development of community-focused decision-making criteria and equitable funding models for community organizations. The following themes could be used to inform the Social Safety Net Plan:

- a) Work with Indigenous organizations and neighbouring Indigenous communities to identify and address Indigenous needs and aspirations.
- b) Establish partnerships with LSA communities, government agencies and regional industries (including the NWMO) in the strategic planning and implementation process.
- c) Establish a monitoring framework to assess social service outcomes and enable flexibility in the provision of social services to address evolving needs and demands.

Table 6.1-4: Option 3 Assessment	
Develop a 'Social Safety Net Plan'	
Factors	Considerations for Option
Ease of Implementation	<ul style="list-style-type: none"> Initiating the Plan process, building partnerships (both locally and in the other LSA communities), undertaking community engagement, and managing the project to completion would be the responsibility of the Township or other relevant stakeholders, with support from the NWMO. Implementing the Plan would also be the responsibility of the Township or other relevant stakeholders, making implementation straightforward. The Township or other relevant stakeholder could partner with the NWMO in preparing and implementing the Plan through such means as financial assistance and/or project team support, further easing its execution.
Parties other than NWMO and/or Township required for implementation	<ul style="list-style-type: none"> The preparation of the Plan could be undertaken by a third-party consultant, engaged through a competitive procurement process, particularly if sufficient capacity is not available within those communities/organizations involved. Other personnel training and deployment should be done in consultation with local stakeholders as required. The non-profit sector should be engaged to help with social program coordination and delivery. Regional partners in the other LSA communities should be engaged to optimize the effectiveness of the Plan.
Degree of effectiveness with consideration of gaps / change assessment	<ul style="list-style-type: none"> Addresses gaps in knowledge regarding social program priorities. Improves access to social services and supports the optimization of existing resources in Ignace and the other communities in the LSA. Ensures that as the population increases or as various funding sources become available, Ignace and the other LSA communities are able to respond proactively to meet evolving demands and capitalize on opportunities. Contributes to the development of healthy and cohesive communities that are more attractive to new residents and businesses.
Costs (if known)	<ul style="list-style-type: none"> To be determined.

Option 4: Expand Supports for Childcare

Project Phase for Implementation: Pre-construction and operations with periodic monitoring during construction.

There are currently no licensed full-time childcare spaces offered in Ignace. Though the Ignace Nursery School can accommodate fourteen childcare spaces for four half-days, this does not provide adequate childcare for caregivers wishing to work full-time. It has been announced that 15 full-day childcare spaces will be provided at the Ignace Public School through the KDSB, including extended hours for after school care until 6:00 PM. When these spaces are available, this will provide significant benefit to the community, especially for those caregivers who have been unable to work full-time due to lack adequate childcare accommodations. However, the date of delivery for these spaces is not yet confirmed.

An additional gap in the provision of childcare is in hours of operation, which typically adhere to a regular work week/day schedule and does not adequately accommodate families employed in shift

work. Current hours of operation for childcare spaces should be expanded to meet the need of shift work schedules. As well, as the population increases, greater demand for childcare spaces will arise. With a proportion of the workforce expected to be located in the Centre of Expertise, consideration could be given to incorporating childcare space into the design, while working with prospective childcare service providers to offer the necessary services. While the recent Canada-Ontario agreement on childcare should further support childcare requirements in Ignace, this situation should continue to be monitored and supported as needed.

As the Project progresses and the population grows, efforts should be made to liaise with childcare providers to monitor the provision of childcare and the extent to which caregiver and childcare needs are being met.

Table 6.1-5: Option 4 Assessment	
Expand Supports for Childcare	
Factors	Considerations for Option
Ease of Implementation	<ul style="list-style-type: none"> Considering creation of childcare space within the Centre of Expertise design would alleviate potential barriers to securing appropriate space for the services.
Parties other than NWMO and/or Township required for implementation	<ul style="list-style-type: none"> Provision of childcare services represents a business opportunity for an appropriately qualified party. Provision of childcare space could be considered either by the NWMO (e.g., Centre of Expertise) or the Township if other suitable spaces are available.
Degree of effectiveness with consideration of gaps / change assessment	<ul style="list-style-type: none"> Supports current and future demand for childcare in Ignace, and the attraction for new families interested in moving to the area.
Costs (if known)	<ul style="list-style-type: none"> To be determined.

Option 5: Expand Supports for Community Environmental Stewardship

Project Phase for Implementation: Pre-construction and operations with periodic monitoring during construction

As noted earlier, discussions with Ignace residents as part of the ‘Ignace Project Vision’ process underlined that the Project must be safe for both people and the environment and also help foster well-being in the areas that are important to the community. As also highlighted earlier, when the principles of environment, recreation, and social services as well as cultural resources are integrated with and between one another, the opportunity for an enhanced quality of life at every stage of life – wherein the sense of caring for one another, the community and the natural environment supports sustainable growth and strengthens the bond between residents and to the places they share – becomes more likely.

A potential change arising from the Project focuses on the increased access to the surrounding environment from anticipated Project-related population growth to Ignace and the other communities in the LSA. Although environmental compliance requirements for the Project as well as broader community-wide resource management matters will remain in the purview of the Province of Ontario, an option to consider is to also promote and support environmental stewardship and sustainable

development in Ignace and the other communities in the LSA, such as through investments in local environmental infrastructure, education initiatives, and environmental awareness programs.

This option also presents an opportunity to work with Indigenous organizations and neighbouring Indigenous communities to learn and implement best practices in environmental stewardship. Engagement should be conducted to ensure environmental stewardship actions align with initiatives or plans already in place from Indigenous communities.

As the Project progresses, efforts should be made to identify criteria meaningful to the community and in line with best practices to monitor and evaluate the state of the natural environment.

Table 6.1-6: Option 5 Assessment	
Expand Supports for Community Environmental Stewardship	
Factors	Considerations for Option
Ease of Implementation	<ul style="list-style-type: none"> Investments in local environmental infrastructure, education initiatives and environmental awareness programs could be the responsibility of the NWMO or Township, making implementation of the option straightforward. Overall resource management would still remain the responsibility of the Province of Ontario.
Parties other than NWMO and/or Township required for implementation	<ul style="list-style-type: none"> Investments and program development should be undertaken in consultation with local stakeholders / partners as required, such as the Province of Ontario, local guides, service providers, environmental groups, and residents. Engagement with Indigenous organizations and neighbouring Indigenous communities should be pursued to identify opportunities for collaboration and knowledge sharing.
Degree of effectiveness with consideration of gaps / change assessment	<ul style="list-style-type: none"> Supports environmental stewardship and sustainable development in Ignace and the other communities in the LSA, as well as serves as an attraction for new residents interested in moving to the area.
Costs (if known)	<ul style="list-style-type: none"> To be determined.

SUMMARY

This Study described the cultural, social, and recreational services in the Ignace Area, outlined the communities' aspirations relative to these services, and developed options in response to projected population and residency changes and impacts associated with the Project. Key Study findings are as follows:

- (1) Since 2001, the population of LSA communities has (a) decreased (except for Sioux Lookout), (b) aged, (c) remained relatively unchanged in terms of gender, and (d) continues to be largely comprised of non-visible minority persons. In addition, since 2001, the Indigenous population and the Indigenous share of the total population within the LSA increased and continues to be largely comprised of First Nations and Métis (in Ignace, Dryden, Machin) or First Nations (in Sioux Lookout).
- (2) The Project components that may influence services and programming demands and resource impacts include: (a) the development of the Centre of Expertise, (b) the development of the Work Camp during the construction phase to accommodate the non-local or travelling workforce, and (c) the projected labour requirements (i.e., permanent during the pre-construction and operations phases, temporary during the construction phase) and accompanying population growth.
- (3) It is anticipated that the Ignace population will have almost doubled by the operations phase; local employment growth is projected to be equally robust over this period. Conversely, the anticipated population projections for the LSA are expected to be less robust than in Ignace, with an equally limited material impact. This is due to the following two planning assumptions:
 - a) Based on the projected changes in population, particularly in the pre-construction and operations phases where an influx of labour is expected to permanently relocate to Ignace and the LSA it can be reasonably assumed that the demands on recreation, social, and cultural services and resource impacts will increase. This increase in demand would be most prevalent in Ignace which is likely to experience more material population growth relative to other communities in the LSA.
 - b) Services and programming that are already nearing or at capacity will need to be prepared for the increase in demand, and the NWMO and Township should work collaboratively with affected parties to both monitor and adjust to the associated changes.
- (4) As outlined below, this Study offers five options to mitigate the potential consequences of – and enhance the positive opportunities associated with – potential Project effects, relative to the Study Elements in Ignace. The options revolve around the theme of 'Community Ambassadorship' (Project-to-Ignace-and-LSA-and-vice-versa) by focusing on the need (a) for regular interaction and collaboration; (b) to resolve issues and celebrate successes through strategic planning; and (c) to build and strengthening relationships:
 - Option 1: Develop a Recreation and Culture Master Plan.
 - Option 2: Diversify and Optimize NWMO Facilities.
 - Option 3: Develop a 'Social Safety Net Plan'.

- Option 4: Expand Supports for Childcare.
- Option 5: Expand Supports for Community Environmental Stewardship.

REFERENCES

- Aalhus, M., Oke, B., and Fumerton, R. (2018). The Social Determinants of Health Impacts of Resource Extraction and Development in Rural and Northern Communities: A summary of Impacts and Promising Practices for Assessment and Monitoring. Prepared for Northern Health and the Provincial Health Services Authority.
- Dorow, S., Jean, S. (2022). Managing Liminal Time in the Fly-in Fly-out Work Camp. *Human Relations*, 75(4), 695-696.
- Ennis, G., Finlayson, M., & Speering, G. (2013). Expecting a Boomtown? Exploring Potential Housing Related Impacts of Large Scale Resource Development in Darwin. *Journal of Studies and Research in Human Geography*, 7(1), 33.
- Government of Canada, S. C. (2021, April 23). Study: Volunteering Counts: Formal and Informal Contributions of Canadians in 2018. *The Daily*. Retrieved August 9, 2022, from <https://www150.statcan.gc.ca/n1/daily-quotidien/210423/dq210423a-eng.htm>
- Ignace and Area Working Group (IAWG). (2021a). Ignace and Area Working Group Meeting #3. August 19, 2021. Meeting notes finalized August 19, 2021.
- Ignace and Area Working Group (IAWG). (2021b). Ignace and Area Working Group Meeting #4. October 6, 2021. Meeting notes finalized November 8, 2021.
- Ignace and Area Working Group (IAWG). (2021c). Ignace and Area Working Group Meeting #5. December 2, 2021. Meeting notes finalized January 12, 2022.
- Ignace and Area Working Group (IAWG). (2022a). Ignace Area Working Group Meeting #8. March 31, 2022. Meeting notes finalized May 3, 2022.
- Ignace and Area Working Group (IAWG). (2022b). Ignace Area Working Group Meeting #11. May 5, 2022. Meeting notes finalized June 02, 2022.
- Ignace and Area Working Group (IAWG). (2022c). Ignace Area Working Group Meeting #9. April 7, 2022. Meeting notes finalized May 11, 2022.
- InterGroup Consultants Ltd. (2020). Ignace Project Vision.
- Lamanes, T. (2016). Socially Sustainable Urban Development: The Role of Leisure and Recreation in a Canadian Resource Based Community. Thesis. University of Alberta.
- MDB Insight. (2019). City of Dryden 2020-2025 Community Strategic Plan. November 2019.
- MDB Insight. (2019). City of Dryden Technical and Input Summary Report: Strategic Plan Appendix. November 2019.
- MNP. (2021). Community Safety and Well-Being Plan: City of Dryden, Machin and Area. July 2021.
- Nuclear Waste Management Organization (NWMO). (2013a). Preliminary Assessment for Siting a Deep Geological Repository for Canada's Used Nuclear Fuel.

- Nuclear Waste Management Organization (NWMO). (2013b). Draft Community Profile – Township of Ignace.
- Nuclear Waste Management Organization (NWMO). (2021a). Community Studies Planning Assumptions. November 2021.
- Nuclear Waste Management Organization (NWMO). (2021b). APM 2021 DGR Lifecycle Cost Estimate. Update Cost Summary Report. September 2021.
- Nuclear Waste Management Organization (NWMO). (2022a). Workforce Residency Scenarios for Ignace Area. Revised March 2022.
- Nuclear Waste Management Organization (NWMO). (2022b). Centre of Expertise.
- Parkins, J. R., & Angell, A. C. (2011). Linking Social Structure, Fragmentation, and Substance Abuse in a Resource-based Community. *Community, Work & Family*, 14(1), 39–55. doi:10.1080/13668803.2010.506030
- ParticipACTION. (2018). The ParticipACTION Report Card on Physical Activity for Children and Youth. ParticipACTION.
- Statistics Canada. (2002). 2001 Community Profiles. 2001 Census. Statistics Canada Catalogue no. 93F0053XIE. Ottawa. Release date June 27, 2002.
- Statistics Canada. (2007). 2006 Community Profiles. 2006 Census. Statistics Canada Catalogue no. 92-591-XWE. Ottawa. Released March 13, 2007.
- Statistics Canada. (2008). 2006 Census. Statistics Canada Catalogue no. 94-581-XCB2006002. Ottawa. Release date May 29, 2008.
- Statistics Canada. (2012). Volunteering in Canada. Statistics Canada Catalogue no. 11-008-X No. 93 2012001. Ottawa. Archived Content, 2012.
- Statistics Canada. (2012). Canadian Health Measures Survey: Body Composition and Fitness. Statistics Canada. Ottawa. Archived Content, 2012.
- Statistics Canada. (2012). Census Profile. Statistics Canada Catalogue no. 98-316-XWE. Ottawa. Release date June 27, 2012.
- Statistics Canada. (2013). NHS Profile. 2011 NHS. Statistics Canada Catalogue no. 99-004-XWE. Ottawa. Release date June 26, 2013.
- Statistics Canada. (2017). Census Profile. 2016 Census. Statistics Canada Catalogue no. 98-316-X2016001. Ottawa. Release date November 29, 2017.
- Statistics Canada. (2020). Volunteering in Canada: Challenges and Opportunities During the COVID-19 Pandemic. Statistics Canada Catalogue no. 45-28-0001. Ottawa. Release date December 17, 2020.
- Statistics Canada. (2022). (table). Census Profile. 2021 Census. Statistics Canada Catalogue no. 98-316-X2021001. Ottawa. Released February 9, 2022.
- WSP. (2019). City of Dryden Community Improvement Plan. December 2019.

Youth Workshop. (2022). Northwest Ontario Youth Workshop Notes. March 2022.

APPENDIX A:
LIST OF COMMUNITY STUDIES

Table A-1: List of Socio-economic Community Studies		
Study Name	Study Proponent	Lead Consultant
Community and Culture	NWMO	InterGroup Consultants Ltd and Scatliff+Miller+Murray
Local and Regional Economics and Finance	NWMO	Hardy Stevenson and Associates Ltd
People and Health	NWMO	InterGroup Consultants Ltd
Infrastructure	Township of Ignace	WSP
Tourism	Township of Ignace	Urban Systems

APPENDIX B:
KNOWLEDGE HOLDER INTERVIEWEES AND
KEY STUDY-RELATED INTERVIEWS

Table B-1: Knowledge Holder Interviewees	
Knowledge Holder Organizations	
Alterna Credit Union	Ignace Resolute Sawmill
City of Dryden	Keewatin Patricia District School Board (KPDSB)
City of Kenora	Kenora District Municipal Association (KDMA)
City of Williston	Kenora District Services Board (KDSB)
Community Living Dryden-Sioux Lookout	Ministry of Natural Resources and Forestry (MNRF) Fire Centre
Confederation College	Municipality of Atikokan
Crossroads Training and Employment Centre	Municipality of Machin
Domtar	Municipality of Sioux Lookout
Dryden Native Friendship Centre	Northwest Business Centre
Dryden Regional Airport	Northwest Training and Adjustment Board (NTAB)
Dryden Regional Mental Health	Ontario Provincial Police (OPP)
FedNor	Patricia Area Community Endeavours (PACE)
Hoshizaki House	Ricci's Trucking
Ignace Area Business Association (IABA)	Sioux Lookout Friendship Accord Economic Development Corporation - Sioux Lookout Mining Centre of Excellence
Ignace Healthy Community Working Group	Thunder Bay Chamber of Commerce
Ignace Nursery School	Thunder Bay Homebuilders Association
Ignace Public Library	Township of Ignace
Ignace Public School	Treasury Metals
Ignace Recreation Committee	

Table B-2: Key Study-Related Interviews	
Knowledge Holder Organizations Relevant to the Community and Culture Study	
Community Living Dryden-Sioux Lookout	Ignace Public Library
Crossroad Employment Services	Ignace Recreation Committee
Dryden Native Friendship Centre	Keewatin Patricia District School Board (KPDSB)
Dryden Regional Mental Health	Kenora District Services Board (KDSB)
Hoshizaki House	Municipality of Atikokan
Ignace Healthy Communities Working Group	Municipality of Sioux Lookout
Ignace Nursery School	Patricia Area Community Endeavours (PACE)

APPENDIX C: SERVICES AND PROGRAMMING INVENTORIES

C1.0: Recreation Program Profiles

Table C-1 below outlines existing recreation programs offered in Ignace:

Table C-1: Township of Ignace Recreation Programs			
Program	Provider	Population Served	Associated Facility
Organized Sports			
Ignace Minor Hockey League	Ignace Minor Hockey Association	Youth	Ignace Recreation Complex (Hockey Rink)
Ignace Old Timers Hockey	Volunteer Group	Adults	Ignace Recreation Complex (Hockey Rink)
Hockey Development Program	Fox School of Hockey	Youth	Ignace Recreation Complex (Hockey Rink)
Minor League Baseball	Ignace Minor Ball / NWMO	Youth	Ignace Baseball Diamonds
Youth Soccer Club	Soccer Northwest Ontario	Youth	Ignace Soccer Field
Ignace Badminton	NORWOSSA (Northwestern Ontario Secondary Schools Athletic Association) / Township of Ignace / Public School	Youth	Ignace Public School (Gymnasium)
Ignace Falcons Student Basketball	NORWOSSA / Township of Ignace / Public School	Youth	Ignace Public School (Gymnasium)
Ignace Falcons Student Volleyball	NORWOSSA / Township of Ignace / Public School	Youth	Ignace Public School (Gymnasium)
Informal Activities			
Agimak Ice Fishing Derby	Ignace Recreation Department	Multi-community	Not Applicable
Snowmobile Group Activities	Ignace Otters Snowmobile Club	Multi-community	Trails
Ignace Mixed Broomball Tournament	Ignace Recreation Department	Multi-community	Ignace Recreation Complex
Ignace Slo-Pitch Baseball Tournament	Ignace Recreation Department	Multi-community	Ignace Recreation Complex
Silver Sneakers Exercise Class	Ignace Silver Tops	Seniors	Ignace Senior Centre
Roller Skating	Ignace Recreation Department	Youth	Ignace Recreation Complex
League Bowling	Ignace Bowling Club	Multi-community	Ignace Recreation Complex (Bowling Alley)
Fun in the Sun Women's Bowling Tournament	Ignace Bowling Club	Women	Ignace Recreation Complex (Bowling Alley)
Battle of the Sexes Bowling Tournament	Ignace Bowling Club	Multi-community	Ignace Recreation Complex (Bowling Alley)

Table C-1: Township of Ignace Recreation Programs			
Program	Provider	Population Served	Associated Facility
Bike Rodeo	EarlyON Centre / Ignace Recreation Department	Youth	Ignace Recreation Complex
Adult Badminton	Ignace Recreation Department	Adults	Ignace Recreation Complex (Badminton Courts)
Adult Pickleball	Ignace Recreation Department	Adults	Ignace Recreation Complex (Pickleball Courts)
Competitive Power Lifting	Ignace Fitness Club	Multi-community	Ignace Recreation Complex
Various Golf Tournaments (~11)	Ignace Golf and Country Club	Multi-community	Ignace Golf Course
Dance Classes	CJ Dance	Multi-community	Emmanuel Church
Music Lessons	JM Music	Multi-community	Private Dwelling
Yoga Classes	Cindy Winser	Multi-community	Private Dwelling
Teens-in-Motion Drop-in	Mary Berglund Community Health Centre / NWHU	Youth	Mary Berglund Community Health Centre
Ice / Figure Skating Services	Ignace Skating Club	Multi-community	Ignace Recreation Complex (Hockey Rink)
Youth Pool and Dart Tournament	Ignace Recreation Department	Youth	Northwoods Motor Inn
Adult Pool Tournament	Ignace Recreation Department	Multi-community	Northwoods Motor Inn
Quilting	Ignace Silver Tops	Seniors	Ignace Senior Centre
Community Events			
Ignace Annual Kids Fest	EarlyON Centre / Ignace Recreation Department	Youth	Playground (Municipal Grounds)
Spring Fever Fun Day	Ignace Recreation Department / Ignace Nursery School / Ignace EarlyON Centre / NWMO	Youth	Ignace Recreation Complex (Curling Hall)
VBS Day Camp	New Life Church Group	Youth	New Life Church
Teddy Bear Picnic	Ignace Recreation Department	Multi-community	Tourism Information Centre
Christmas Parade	Ignace Recreation Department	Multi-community	Not Applicable
Summer Day Camps	Ignace Recreation Department	Youth	Not Applicable
Winter Carnival (White Otter Days)	Ignace Recreation Department	Multi-community	Various indoor / outdoor venues

Table C-2 below outlines additional recreation programs offered in Dryden that are not currently available in Ignace:

Table C-2: Dryden Additional Recreation Programs			
Program	Provider	Population Served	Associated Facility
Organized Sports			
Competitive Swimming	Dryden Dolphins Swim Club	Youth	Dryden Pool and Fitness Centre
Football	Dryden Eagles (High School Sports)	Youth	High School (Football Field)
Ringette	Dryden Ringette Association	Youth	Dryden Arena
Karate and Judo	Dryden Isshin-ryu Karate Club / Tima Karate/ Dryden School of Judo	Multi-community	Lutheran Church (Gymnasium)
Gymnastics	Sunset Gymnastics Club	Youth	Gymnasium
Curling	Dryden District Curling Club	Multi-community	Dryden Arena
Informal Activities			
Swimming Lessons	City of Dryden	Youth	Dryden Pool and Fitness Centre
Aqua Fitness Programs	City of Dryden	Multi-community	Dryden Pool and Fitness Centre
Horseback Riding	Northern Lights Quarter Horse Association / Dryden Saddle Club	Multi-community	Stables / Equestrian Facilities
Archery	Dryden District Conservation Archery Club	Multi-community	Archery Range
Sailing / Kayaking / Canoeing	Dryden Kayak, Stand-up Paddleboard, and Canoe Club	Multi-community	Not applicable
Trapping	Dryden Trappers Council	Multi-community	Not applicable
Brownies	Girl Guides	Youth	Not applicable
Scouts	Scouts Canada	Youth	Not applicable
Squash	City of Dryden	Multi-community	Dryden Pool and Fitness Centre

Table C-3 below outlines additional recreation programs offered in Sioux Lookout that are not currently available in Ignace:

Table: C-3: Sioux Lookout Additional Recreation Programs			
Program	Provider	Community Served	Associated Facility
Informal Activities			
Blueberry Bocce Ball Tournament	Municipality of Sioux Lookout	Multi-community	Sioux Lookout Outdoor Sports Complex

C2.0: Social Service Profiles

Table C-4 below outlines existing social service programs offered in Ignace and the other LSA communities:

Table C-4: Township of Ignace and LSA Social Service Programs			
Program	Provider	Population / Community Served	Associated Facility / Location
Social, Employment, + Community Supports			
Primary Care Seniors Services Mental Health Laboratory Specimen Collection with Primary Care Health Promotion Rehabilitation / Physiotherapy Telemedicine Foot Care Dental Eye Van Breast Screening Van Bi-weekly Food Bank	Mary Berglund Community Health Centre HUB	Multi-community	Mary Berglund Community Health Centre HUB / Ignace
Therapy Case Management Services Mental Health and Addictions Housing Case Manager Opioid Addictions Case Manager Child and Youth Mental Health Outreach Worker Family Healthy Team Mobile Crisis Line	Dryden Regional Mental Health	Multi-community	Mary Berglund Community Health Centre HUB / Ignace Dryden Hospital / Dryden
Community Nutrition Project Heart Health Coalition Healthy Babies Healthy Children	NWHU	Children / Families	Mary Berglund Community Health Centre HUB / Ignace
Domestic violence supports	Hoshizaki House Dryden District Crisis Shelter	Women / Families	Hoshizaki House Dryden District Crisis Shelter / Dryden

Table C-4: Township of Ignace and LSA Social Service Programs			
Program	Provider	Population / Community Served	Associated Facility / Location
Social, Employment, + Community Supports			
Counselling and Therapy Child Development Community Education and Resources Family and Caregiver Skills Building Infant and Child Development Services SNAP Psychology and Psychiatry Consultative Services Treatment Foster Care Youth Justice Counselling Youth Mental Health Court Worker Program Youth Justice Committee Occupational Therapy Physiotherapy Speech-Language Pathology Early Language Facilitators Northwestern ON FASD Diagnostic Clinic Autism Spectrum Disorders, Canadian Prenatal and Nutrition Program Respite Care Childcare at various locations	Firefly	Children / Youth / Families	Dryden
Prevention Foster Parenting Adoption Child Protection	Tikinagan Child & Family Services	Indigenous Children / Youth / Families	Offices in Sioux Lookout and Ignace

Table C-4: Township of Ignace and LSA Social Service Programs			
Program	Provider	Population / Community Served	Associated Facility / Location
Social, Employment, + Community Supports			
Foster Care Adoption Permanency Planning Residential Services Services for Youth Bookworm Club Child Protection Family Services Safer Sleep for Infants Child and Youth Mental Health Community Integration Family Respite Services Northwestern Ontario FASD Diagnostic Clinic	Kenora-Rainy River Districts Child & Family Services	Children / Youth / Families	Offices in Kenora, Atikokan, Dryden, Fort Frances, Red Lake, and Sioux Lookout
Exercise classes Meal program Bingo Social events	Ignace Silver Tops	Seniors	Ignace Senior Centre / Ignace
Skills training Employment and career planning Placement and incentives Job retention instruction Referral services School presentations	Crossroads Employment Services	Youth / Adults	Crossroads Employment Services / Ignace
Business counselling MIRA: Mentorship, Business Incubation, Remote Access to Technology	Patricia Area Community Endeavours (PACE) Dryden	Adults	PACE Dryden / Patricia Area / Dryden
Community Inclusion Hub Employment Services Fee for Service & Intake Family Home Healthy Generations MMW Clinical Video Conferencing Quality Assurance Supported Independent Living	Community Living Dryden-Sioux Lookout	Individuals with developmental disabilities / Families	Offices in Dryden and Sioux Lookout

C3.0: Cultural Service Profiles

Table C-5 below outlines existing cultural programs offered in Ignace and the other LSA communities:

Table C-5: Township of Ignace and LSA Culture + Heritage Programs			
Program	Provider	Population / Community Served	Associated Facility / Location
Culture + Heritage			
Install/relocate ramps Item Loan (walkers, toilet seats, etc.) Financial in-kind support to many organizations, programs, events, and scholarships	Ignace Lions Club	Multi-Community	Ignace Seniors Centre / Ignace
Public internet access Photocopier and fax services Inter Library loan Children / Youth reading contest Maker's space for STEM activities Drop-in crafting programs Storytelling Childcare programs Access to Ignace Heritage Centre	Ignace Public Library	Multi-community	Ignace Public Library / Ignace
Akwe: Go Apatisiwin Employment and Training Community Connections Program Diabetes Education Program EarlyON Centre Healing and Wellness Health Outreach Worker Indigenous Combined Court Worker Indigenous Mentor Kizhaay Anishinaabe Niin	Dryden Native Friendship Centre	Indigenous Multi-Community	Dryden Native Friendship Centre / Dryden

Table C-5: Township of Ignace and LSA Culture + Heritage Programs			
Program	Provider	Population / Community Served	Associated Facility / Location
Culture + Heritage			
Life Long Care Program			
Life Long Care Home			
Maintenance			
Urban Aboriginal			
Healthy Kids			
Urban Aboriginal			
Healthy Living Program			
Urban Indigenous			
Homeward Bound			
Wasa-Nabin			

APPENDIX D: GLOSSARY OF TERMS

Table D-1: Glossary of Terms	
Term	Definition
Adaptative management	Adaptive management is defined consistent with the CNSC’s definition of adaptive management (REGDOC-3.6): A planned and systematic process for continuously improving management practices (primarily environmental) by learning from their outcomes. For an environmental assessment it involves, among other things, the implementation of new or modified mitigation measures over the life of the Project to address unanticipated environmental effects. Note: the need to implement adaptive management measures may be determined through an effective follow-up program.
Adaptive Phased Management (APM) Project	The Deep Geological Repository and other required infrastructure for the safe, long-term management of Canada’s used nuclear fuel.
Community	The use of the term ‘community’ (a group of people living either in the same place or having a particular characteristic in common) will be qualified to specify the specific community of reference.
Community Studies Purpose	Community studies will inform the primary APM Project hosting agreement between the NWMO and the Township of Ignace. In addition, they will provide pertinent information for agreements with the City of Dryden as well as other potential regional agreements.
Ignace Area	Delineates the general area surrounding the potential APM Project location Deep Geological Repository in Northwestern Ontario; mainly comprising of City of Dryden, Machin, the Local Service Board of Wabigoon, the Local Service Board of Melgund (Dyment and Borups Corner), and Sioux Lookout. The area is located in Treaty #3 within the traditional territories of multiple Indigenous and Métis communities.
Ignace and Area Working Group	The Township of Ignace and the NWMO have established a working group inclusive of the Township of Ignace, Wabigoon Lake Ojibway Nation, and other Indigenous and non-Indigenous local and regional community members and observers to collaboratively design and implement baseline and community studies to provide a basis for achieving informed decision making related to the APM Project.

Table D-1: Glossary of Terms	
Term	Definition
Local Study Area (LSA)	<p>The Local Study Area refers to the communities/areas most likely to experience future direct, indirect, and induced impacts of the APM Project - both positive and negative. For the purposes of the baseline studies, the potential “host” community (i.e., Ignace) is considered central to the Local Study Area, while other communities may be included on a topic-by-topic basis relative to potential future impacts and cumulative impacts.</p> <p>The Local Study Area will vary by baseline component/study as well as phase of the Project. For example, for workforce the Local Study Area includes communities that can commute to the Revell Site or the Centre of Expertise within an hour drive. This means that Ignace, Dryden, Sioux Lookout (for the Revell Site) and Machin (for the Revell Site) and unincorporated municipalities constitute the primary Local Study Area (micro labour-shed). This micro labour-shed includes settlement areas (unincorporated communities) between Dryden, Ignace, and Sioux Lookout. The preliminary spatial boundaries are as follows:</p> <ul style="list-style-type: none"> • Ignace; • Dryden; • Machin; • Sioux Lookout; • The Local Service Board of Melgund; and • The Local Service Board of Wabigoon.
Neighboring Community	Communities in Northwestern Ontario surrounding the Project or included in both Local and Regional Study Areas (i.e., Dryden, Sioux Lookout, Machin, and unincorporated municipalities).
Neighboring Community Leadership	For the purpose of engagement on draft materials, neighboring community leadership in this context refers to municipal administrative leadership inclusive of the Local Service Board of Wabigoon, the Local Service Board of Melgund, etc.
Potential Municipal Host Communities	Two municipal siting communities remain in the process. These are the Township of Ignace and the Municipality of South Bruce. Ignace has participated in the NWMO’s site selection process since initiation in 2010.
Project Site	Used to describe the location of the primary APM infrastructure including the Deep Geological Repository, and ancillary infrastructure to support operations.

Table D-1: Glossary of Terms	
Term	Definition
Regional Study Area	<p>The Regional Study Area refers to the area used to provide context for each component and may also experience future impacts of the APM Project (both positive and negative). During the future impact assessment, cumulative effects will be considered within the Regional Study Area. The Regional Study Area will also vary by baseline component/study as well as phase of the Project. In some instances, the regional boundaries are either narrowly defined by the area within the Kenora District or broader in scope such as the labour baseline for example:</p> <ul style="list-style-type: none"> • Atikokan; • Kenora; • Thunder Bay; • Steinbach; and • Winnipeg.
Revell Site	Revell Batholith Temporary Withdrawal Area.
Rights Holders	First Nation and Métis communities who have asserted and or hold recognized treaty and/or Indigenous rights and whose Traditional Territories include the Project site.
Siting Area	In the context of the Community Studies for Northwestern Ontario, 'siting area' refers to the Ignace Siting Area defined above for 'Ignace Area'.
South Bruce Area	Delineates the general area surrounding the potential APM Project location in southwestern Ontario; mainly comprising Bruce County (excluding the South Bruce Peninsula) and northern portions of Huron County, but not extending to the shores of Lake Huron. The area is located in Treaty #45 1/2 in the traditional territory of the Saugeen Ojibway Nation as well as the asserted traditional territories of Métis communities.
Spatial Boundaries as defined in Baseline Design Report	Spatial boundaries vary by topic and will be refined over the course of engagement. It is anticipated spatial boundaries will reflect inputs from local governments, the public, Indigenous communities, federal and provincial government departments and agencies, and other interested parties, consistent with the Tailored Guidelines template. Two general spatial study areas are considered as part of the Community Studies that referred to as the Local Study Area and Regional Study Area.