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Ignace Area Community Studies: Economics and Finance - Economic Development Study



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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.

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Ignace Area Community Studies: Economics and Finance

Economic
Development
Study

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List of Acronyms:

APM	Adaptive Phased Management
CATB	Construction Association of Thunder Bay
CMHC	Canada Mortgage and Housing Corporation
EMSI	Name of data analytics company
FedNor	Federal Economic Development Agency for Northern Ontario
FIR	Financial Information Return
FTE	Full Time Equivalent
HSAL	Hardy Stevenson and Associates Limited
IABA	Ignace and Area Business Association
ICNLC	Ignace Community Nuclear Liaison Committee
KDMA	Kenora District Municipal Association
MLS	Multiple Listing Service
NCIR	Northern Communities Readiness Initiative
NTAB	Northwestern Training and Adjustment Board
NW	Northwest
NWMO	Nuclear Waste Management Organization
PACE	Patricia Area Community Endeavours
PWG	Partnership Working Group
WLON	Wabigoon Lake Ojibway Nation

1 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 APM 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 APM 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 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., to vulnerable populations, to local business opportunities and for local and regional job creation) 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 Ignace and other communities in the Local Study Area and the region;
- c) Advance learning and understanding on topics of interest to Ignace and other communities in the Local Study 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 Ignace and other communities in the Local Study 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.

1.1.1 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.

1.2 Scope and Purpose

The *Economic Development Study* is one of a number of community studies. Its objective is to describe and characterize the local/regional economy and supply chains that would support the economic benefits of the Project. The supply chain is the network of all the individuals and businesses that can supply services to the NWMO project.

The purpose of this study is to:

- Describe the local and regional economies with attention to the business supply chains that could provide goods and services to the Project in the Pre-Construction, Construction, and Operations phases, as well as understand the local/regional aspirations for economic development.
- Describe economic and commercial development opportunities in Ignace and the local study area associated with the APM Project.
- Identify and assess related strategies/options to encourage economic development and business readiness for the Pre-Construction phase of the project in the Local Study Area.
- Identify and assess strategies to grow the supply chain in the local study area in preparation for the Construction and Operations phase.
- Identify opportunities and employers to work with the major contributors to the regional economy to leverage the regional service, equipment, and material product suppliers such that the needs of the NWMO and the regional businesses can result in the maximization of regional economic benefits.

This study is focused on Northwest Ontario Economic Development but does broaden the geographic focus to Winnipeg and Steinbach to look at industries and suppliers that could service the Project.

Ignace's Project Vision (2020)¹ states that the APM Project must foster well-being in areas that are important to the community. Priorities in relation to the Economic Development Study identified by the community include:

- Enhance strategies to sustain and support local businesses while diversifying the economy.
- Increase business activity and employment opportunities through the project in the community.
- Enhance local training programs to maximize participation in project opportunities and diminish the need for social assistance.
- Increase household income through project employment, contracting and associated opportunities.

¹ InterGroup Consultants Ltd. (2020). Ignace Project Visioning Community Conversations.

1.3 Spatial Boundaries

Two areas have been used to frame this study:

- a. Regional Study Area
- b. Local Study Area

The Regional Study Area is outlined in **Figure 1** and includes the Kenora District, Town of Atikokan, Town of Marathon, City of Greater Sudbury, City of Thunder Bay, City of Steinbach, and City of Winnipeg. For the Project sited in Ignace, the Regional Study Area could meet most needs for labour and goods and services. The Regional Study Area includes the communities within the Local Study Area.

Figure 1 Regional Study Area



Table 1 outlines the Regional Study Area as defined within the Work Plan compared to the Regional Study Area identified for this report.

Table 1 Regional Study Area Data Mapping

Regional Study Area (Work Plan)	Regional Study Area (Report)	Statistics Canada Census Division/Subdivision
Atikokan	Atikokan	Census Subdivision
Kenora	Kenora	Census Division
Thunder Bay	Thunder Bay	Census Subdivision
Steinbach	Steinbach	Census Subdivision
Winnipeg	Winnipeg	Census Subdivision
	Marathon	Census Subdivision
	Greater Sudbury	Census Subdivision
	Timmins	Census Subdivision

The Local Study Area, **Figure 2**, includes neighbouring communities surrounding Township of Ignace as well as Ignace itself. The Local Study Area is comprised of the Township of Ignace, City of Dryden, Municipality of Machin, Municipality of Sioux Lookout, Melgund Local Services Board, and Wabigoon Local Services Board.

Figure 2 Local Study Area

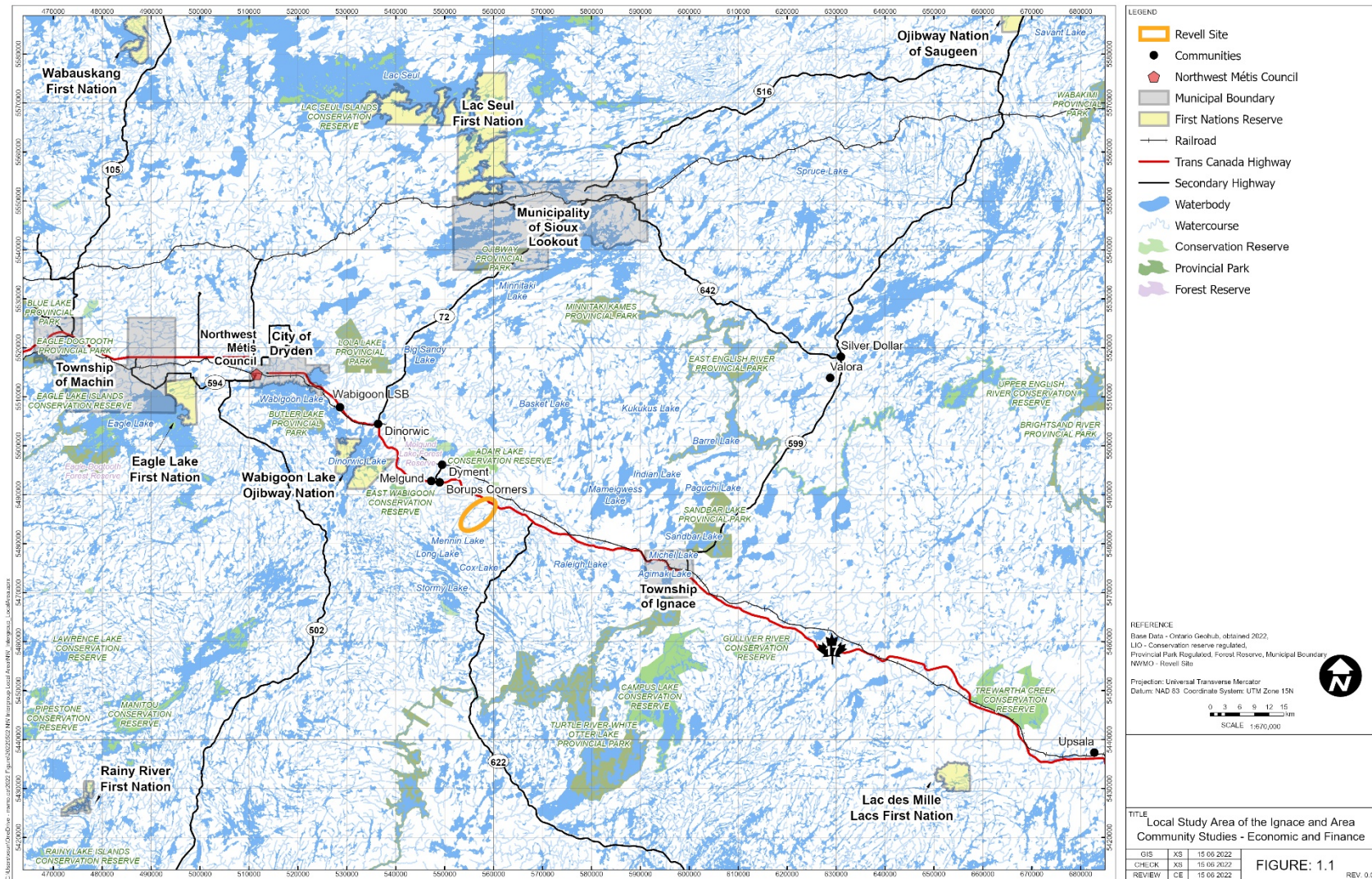


Table 2 outlines the Local Study Area as defined in the Work Plan. Due to data shortages for the Melgund and Wabigoon Local Services Boards, these areas were not included in the Economic Development Report.

Table 2 Local Study Area Data Mapping

Local Study Area (Work Plan)	Local Study Area (Report)	Statistics Canada Census Division/Subdivision
Ignace	Ignace	Census Subdivision
Dryden	Dryden	Census Subdivision
Machin	Machin	Census Subdivision
Sioux Lookout	Sioux Lookout	Census Subdivision
Melgund Local Services Board*		
Wabigoon Local Services Board*		

*Data not available

1.4 Temporal Boundaries

Three temporal boundaries define the phases of the APM Project for this study.

- a. Pre-Construction – 2024 to 2032
- b. Construction – 2033 to 2042
- c. Operations – 2043 to 2088

Pre-Construction is denoted by 160 NWMO staff working from the Centre of Expertise (CoE) in Ignace by 2032. This phase of the project will focus on permitting and licensing activities and site preparation.

The Construction phase of the project will begin in 2033 once permits and licenses have been obtained. It will run for 10 years. This phase of the Project is comprised of surface and underground facility construction, involving about 450 trades who are expected to be temporary to the project and will live on site in a camp-style facility.

Following the completion of construction, site operations will commence in 2043 and continue to 2088. During this phase underground excavation will continue in conjunction with waste container emplacement activities.

2 Methodology

2.1 General Approach

Each of the municipalities in the Local Study Area have recently updated their economic development strategies (Ignace 2019, Machin 2020/2017, Sioux Lookout 2020, and Dryden 2020/2015). While initiatives required to grow their economies vary, common aspirations include attracting labour, building housing, enhancing tourism initiatives, retaining business and attracting businesses. The municipalities have identified methods of growing their economies based on resource sector growth, growth in tourism, incubating new businesses that can thrive given the economic characteristics of Northwestern Ontario. As economic development initiatives are achieved, the quality of life of residents is enhanced.

NWMO's APM project presents the opportunity to provide a positive boost to the Local Study area economies by attracting and retaining skilled labour and purchasing goods and services.

The general study approach can be summarized in the following series of steps:

- Review a variety of data sources to assemble labour force and job statistics for the local and regional study areas.
- Review a variety of data sources to assemble industry statistics for the two study areas.
- Study the NWMO parameters data to determine APM Project labour force and supply chain requirements across the three project phases.
- Conduct interviews with Local and Regional Study Area knowledge holders to understand existing economic conditions, trends and issues. See **Section 2.1.1** for details.
- Review of municipal planning documents and economic development strategies.
- Review available growth strategies for Ignace and other communities in the Local Study Area to gain insight on future area employment forecasts and economic development.

2.2 Data Collection Information Sources

Data was collected from the following sources:

- Statistics Canada data were used to assemble labour force and job statistics from 2001 to 2016.
- Manifold Data Mining Inc. (hereafter referred to as Manifold) data were used to construct labour force and household spending profiles current to 2021 for the two study areas. Manifold retrieves their data from Statistics Canada and Numeris.
- Emsi data for 2021 were used to assemble occupational and supply chain data for each of the two study areas. Emsi combines employment data from the Survey of Employment and Payrolls and Hours (SEPH) with data from the Labour Force Survey (LFS), Census, and Canadian Business Patterns (CBP) to form detailed geographic estimates of employment. Projections are based on

the latest available Emsi industry data, 10-year past local trends in each industry and growth rates from national industry projections from the Canadian Occupational Projection System (COPS) produced by Human Resources and Skills Development Canada.

- A variety of published documents from economic development agencies, municipalities, labour boards, and key employers that are located/operate within the study areas were examined to better understand the workings of the area economy and supplement the quantitative data obtained from the sources noted above.

2.2.1 Knowledge Holder Interviews

In addition to gaining knowledge from the baseline data, we recognized that many people across Northwestern Ontario also pay attention to economic development. Knowledgeable regional and local experts were identified and consulted. Interviews were conducted with economic development organizations, area employers, planning officials and municipal administrators to gain insight into economic development. The list of knowledge holders interviewed is set out in **Appendix B**. The rationale for who was interviewed was in large part based on professional experience and knowledge of the types of agencies and personnel able to provide insight. Knowledge holders were identified by an iterative process among the Township of Ignace, the NWMO and the consulting team. No interviews were conducted with any municipal elected officials.

2.2.2 Ignace and Area Working Group

To support the baseline and community studies work, comments were obtained from the Ignace and Area Working Group (IAWG). The IAWG is made up of the Township of Ignace staff and leaders and a diverse range of staff from municipalities, Indigenous communities, service providers, businesses, civil society, and other interests - both local and regional. The Township of Ignace and NWMO prepared feedback reports noting the IAWG's input.

The collection of community knowledge was supported through the IAWG, to ensure local perspectives were considered throughout the process.

2.3 Project Goods and Services View of Economic Baseline

A focus of the economic development assessment is based on the goods and services required by the Project.

The Project Supply Chain for Northwestern Ontario was developed by Avaanz based on an analysis prepared by MDB Insight supported by their review of the Community Planning Assumptions and discussions with NWMO² ³. This supply chain model is also used in Regional Economic Development Study (E11) – Southwestern Ontario Community Study⁴. The assessment focuses on major component

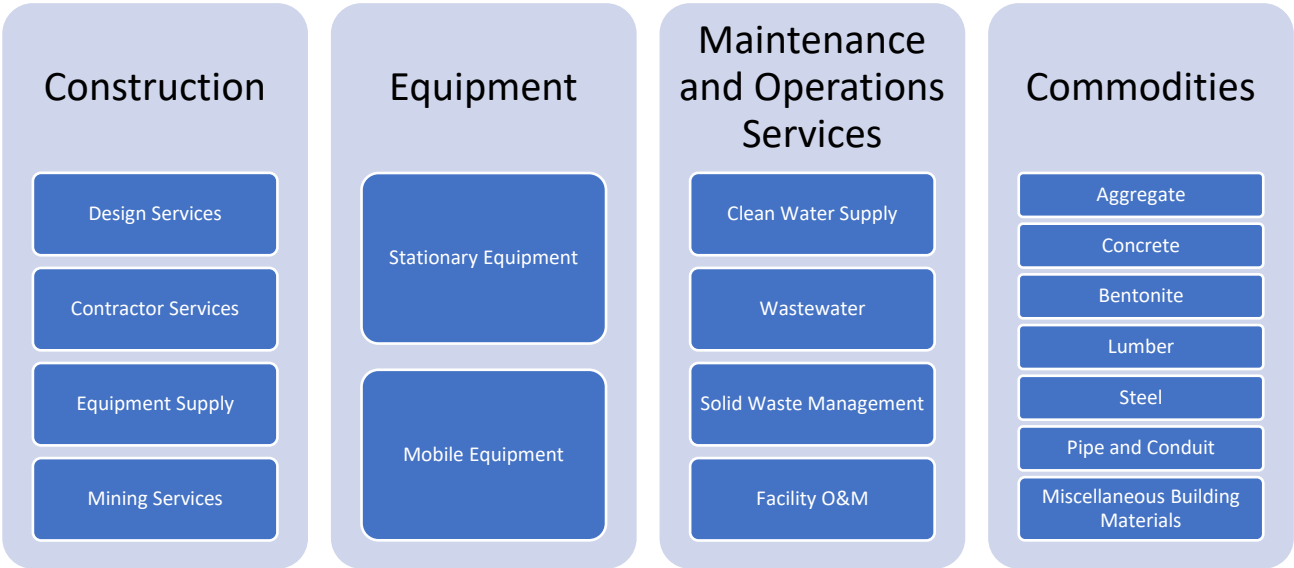
² MDB Insight. (2022). NWMO APM Project Supply Chain V2. Prepared for the Municipality of South Bruce. – modified by Avaanz

³ Nuclear Waste Management Organization (2021). Community Studies Planning Assumptions. November 2021.

⁴ Keir Corp. (2022) Regional Economic Development Study (E11) Draft Southwestern Ontario Community Study.

categories and the associated goods and services that are required by the Project during the three project phases.

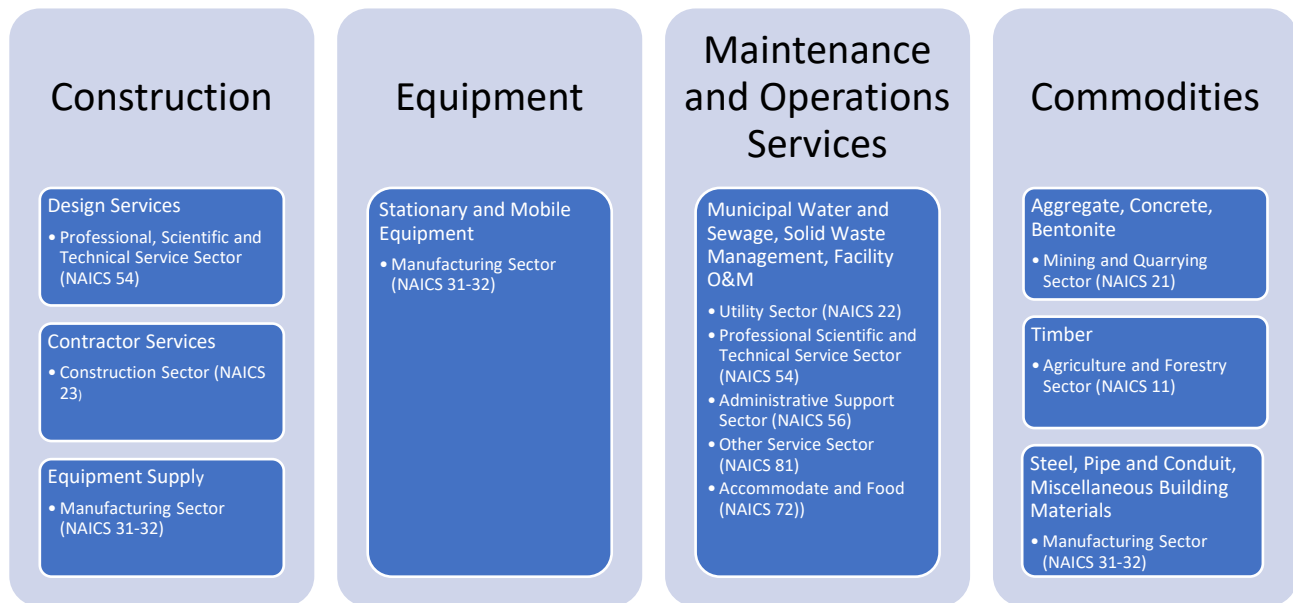
Figure 3 Goods and Services Required by the Project⁵



The capacity of the Study Areas to supply goods and services required by the Project can be estimated by looking at the industries that supply these inputs. Although this type of assessment can help estimate the impact, it does not fully capture the nuance of the firms operating in a study area. Key industries were selected that best reflect the supply chain categories in **Figure 4**. The nine industries that are prominent in the Project supply chain will be an area of focus in this analysis.

⁵ MDB Insight. (2022). NWMO APM Project Supply Chain V2. Prepared for the Municipality of South Bruce. – modified by Avaanz

Figure 4 Categories of Goods and Services Required by the Project⁶



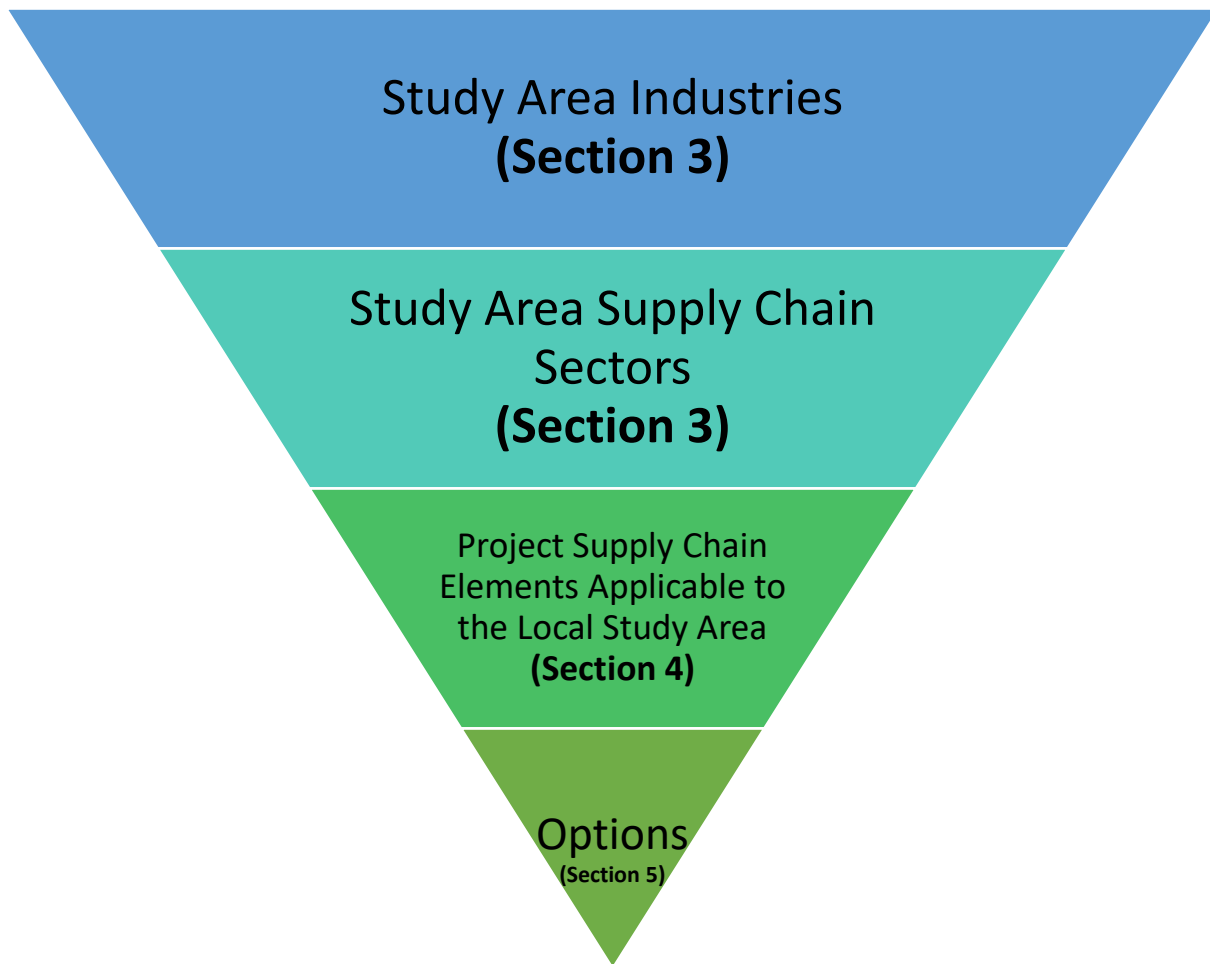
2.4 Structure of the Analysis

Whether or not the NWMO's APM project will assist the development and growth of the study area economies requires the analysis of both the study area economies and the requirements of the APM Project for people, equipment, and materials. Key facets in identifying change include seeking and asking questions such as: What businesses and organizations can benefit? Where are there synergies between suppliers of goods and services as depicted in **Figure 4** and the needs of NWMO?

To address this, the analysis in this report moves from an assessment of the baseline industries, businesses, and other economic development characteristics of the Regional and Local Study Area and identifies options to enhance economic development opportunities for the LSA and the NW Region. The structure of the analysis is presented in **Figure 5**.

⁶ Keir Corp. (2022) Regional Economic Development Study (E11) Draft Southwestern Ontario Community Study. – modified by Avaanz

Figure 5 Structure of Analysis



The industries that are prominent in the Study Areas are discussed in **Section 3**. In **Section 4**, the project supply chain elements that are applicable to the Local Study Area are described, allowing for the identification of options that may enhance economic development opportunities discussed in **Section 5**.

2.5 Linkages with Other Studies

This study is linked with the following Community Studies currently underway:

Study Name	Objective
Labour Baseline Study	Describes and characterizes the local/regional labour supply market and household incomes.
Workforce Development Study	Focuses on attracting and retaining labour and new residents to Ignace and area.
Infrastructure Study	Focuses on information related to existing water, sewer, roads, community recreation, social service facilities, capacity, demand, and needs.
Housing Study	Focuses on how to provide housing to meet the demands of the Workforce
Tourism Study	Examines who may decide to invest and live in the community because of tourism as well as associated employment patterns.

This study should be read in conjunction with the above noted to fully appreciate and understand economic development in the Study Areas. Specifically, this study benefits from labour, workforce, tourism and other information to create a composite view of economic development opportunities.

3 Economic Development Baseline – Existing Condition Without the Project

This section is divided into two major sections, local and regional study areas. **Section 3.1** describes business and labour within the Regional Study Area that may benefit from NWMO expenditures. In turn, the procurement of these goods and services by NWMO will grow the economy and strengthen people, goods, companies, and associated organizations.

3.1 Regional Study Area

The Regional Study Area has greater business and labour to supply goods and services that meets much of needs of the NWMO project.

3.1.1 Regional Industry

The top five industries in the Regional Study Area are health care and social assistance, retail trade, public administration, educational services, and accommodation and food services. Accommodation and food services will make up a smaller component of the supply chain compared to construction, commodity and equipment suppliers. **Table 3** provides an overview of the industries within the Regional Study Area. The table is sorted to show which industries create the most jobs in the Regional Study Area. The table also shows the total industry sales volume, the number of companies operating in the Regional Study Area by industry, and the average wage by industry.

Table 3 Industry Sectors in the Regional Study Area Sorted by Jobs (2017)⁷

	Jobs	Sales (Output)	Wages	Average Wage	Number of Companies	Average Size
All Industries	575,888	\$134,599.0M	\$28,016.6M	\$48,649	90,816	6
Health care and social assistance	89,938	\$9,117.6M	\$4,009.4M	\$44,580	8,771	10
Retail trade	69,361	\$5,564.8M	\$2,011.3M	\$28,998	6,369	11
Public administration	50,033	\$12,094.3M	\$3,194.3M	\$63,844	334	150
Educational services	45,856	\$4,746.8M	\$2,498.2M	\$54,478	1,071	43
Accommodation and food services	45,262	\$3,429.5M	\$798.0M	\$17,630	3,013	15
Manufacturing	43,662	\$35,142.2M	\$2,476.8M	\$56,726	1,711	26
Finance and insurance	31,397	\$10,766.7M	\$2,063.6M	\$65,726	6,642	5
Transportation and warehousing	29,975	\$7,948.6M	\$1,612.4M	\$53,792	6,278	5
Construction	29,708	\$8,840.9M	\$1,879.6M	\$63,269	7,419	4
Other services (except public administration)	24,312	\$3,188.5M	\$949.5M	\$39,057	6,704	4
Administrative and support, waste management and remediation services	21,767	\$2,691.8M	\$796.2M	\$36,580	2,956	7
Wholesale trade	21,620	\$4,522.9M	\$1,289.2M	\$59,629	2,377	9
Professional, scientific and technical services	20,141	\$3,897.2M	\$1,217.9M	\$60,469	8,017	3
Information and cultural industries	11,356	\$4,255.0M	\$680.2M	\$59,902	1,102	10
Real estate and rental and leasing	9,690	\$4,825.2M	\$420.3M	\$43,373	14,996	1
Mining, quarrying, and oil and gas extraction	8,993	\$7,047.2M	\$785.2M	\$87,315	284	32
Arts, entertainment and recreation	8,905	\$1,338.0M	\$340.2M	\$38,201	1,528	6
Management of companies and enterprises	5,725	\$777.5M	\$373.5M	\$65,246	1,058	5
Utilities	5,337	\$2,452.0M	\$475.1M	\$89,022	70	76

⁷ Emsi Burning Glass. (2022, April). Analyst. Retrieved from Emsi:
<https://a.economicmodeling.com/analyst/?t=3lqvW#h=dl1mJ&page=home&vertical=standard&nation=ca>

Agriculture, forestry, fishing and hunting	2,852	\$1,952.5M	\$145.7M	\$51,096	841	3
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3.1.2 Regional Industries associated with goods and services required by the Project

The scope and size of relevant industries and their presence in the Regional Study Area is sufficient to supply a great deal of the Project's supply chain requirements. Goods and services will also be sourced from Southern Ontario and elsewhere. The nine industries listed in Figure 3 that will be prominent in NWMO's Project supply chain represent 31,015 firms employing 202,034 staff and driving \$68,641.8 million in sales⁸. While the industries that best map to the goods and services required by the project are prominent, there needs to be caveats to the extent they will play a role in the supply chain. A significant component will be the procurement of used fuel containers. The location of the manufacture of the containers is not determined at this time. Also, it is not clear at this point which parts of the procurement will require nuclear quality credentials. There is potential within the Regional Study Area for business growth over time to support NWMO related manufacturing needs. The options section of this report looks at possibilities of linking procurement with business growth to support manufacturing needs.

Industries within the Regional Study Area make most of their supply chain purchases in the study area. Across all the industries in the Regional Study Area that could be prominent in NWMO's Project supply chain, the average percentage of goods purchased in the Regional Study Area is 60 percent⁹. This means that the indirect economic impacts generated by the industries that could be prominent in the Project supply chain are captured in the Regional Study Area. Businesses in the Regional Study Area's supply chains are much more regionally sufficient than those of the businesses in the Local Study Area. The Regional Study Area's industries can meet a large portion of the Project's needs.

Table 4 outlines the purchasing patterns in the Regional Study Area within the NWMO's Project supply chain industries.

⁸ Emsi Burning Glass. (2022, April). Analyst. Retrieved from Emsi: <https://a.economicmodeling.com/analyst/?t=3lqvW#h=dl1mJ&page=home&vertical=standard&nation=ca>

⁹ Emsi Burning Glass. (2022, April). Analyst. Retrieved from Emsi: <https://a.economicmodeling.com/analyst/?t=3lqvW#h=dl1mJ&page=home&vertical=standard&nation=ca>

Table 4 Regional Study Area Industries within NWMO's Project Supply Chain Purchasing Patterns¹⁰

	Sales (Output)	Wages	Supply Chain Purchases	% In Area	% Imported
Accommodation and food services*	\$3,429.5M	\$798.0M	\$934.0M	64.75%	35.25%
Manufacturing*	\$35,142.2M	\$2,476.8M	\$9,122.2M	64.24%	35.76%
Construction*	\$8,840.9M	\$1,879.6M	\$3,271.3M	66.90%	33.10%
Other services (except public administration)*	\$3,188.5M	\$949.5M	\$922.6M	61.54%	38.46%
Administrative and support, waste management and remediation services*	\$2,691.8M	\$796.2M	\$617.9M	76.19%	23.81%
Professional, scientific and technical services*	\$3,897.2M	\$1,217.9M	\$1,016.0M	77.83%	22.17%
Mining, quarrying, and oil and gas extraction*	\$7,047.2M	\$785.2M	\$495.5M	25.16%	74.84%
Utilities*	\$2,452.0M	\$475.1M	\$264.3M	42.74%	57.26%
Agriculture, forestry, fishing and hunting*	\$1,952.5M	\$145.7M	\$652.4M	69.91%	30.09%

*Industries in NWMO Supply Chain

3.1.3 Regional Labour

The Regional Study Area has the labour required to fulfill the Projects labour requirements. Most of the labour is concentrated in Winnipeg, Thunder Bay, Greater Sudbury, and Kenora, which when combined make up 93 percent of jobs within the occupations required by the project compared to the seven percent of the occupations in the Local Study Area. Although the skilled labour does exist there is still a shortage within Northwestern Ontario and there are currently more jobs than skilled labour in the Region. While the demand for skilled labour is higher than the supply, the workforce is mobile and seems willing to go to wherever they can find the highest wages¹¹. For further detail, refer to the Workforce Development Study and Labour Baseline Study.

3.2 Local Study Area

The Local Study Area has limited available resident labour to meet the project's staffing needs when compared to the Regional Study Area. The suppliers of goods and services are also limited. That said, there are many economic development organizations active within the Local Study area and across Northwestern Ontario. In addition to the Municipalities having economic development departments and dedicated staff, cooperating organizations include: FedNor, Northwest Employment Works, PACE, Crossroads Employment and Training, Dryden District Chamber of Commerce, Ignace Area Business Association, Sioux Lookout Chamber of Commerce, Regional Economic Development Organization. Existing local business, labour and economic development goals and aspirations are discussed below.

¹⁰ Emsi Burning Glass. (2022, April). Analyst. Retrieved from Emsi:

<https://a.economicmodeling.com/analyst/?t=3lqvW#h=dl1mJ&page=home&vertical=standard&nation=ca>

¹¹ Kenora District Municipal Association. (2022, February 11). Knowledge Holder Interview. (Hardy Stevenson, Interviewer).

3.2.1 Local Industry

The top five industries/employers in the Local Study Area are:

1. Health care and social assistance,
2. Retail trade,
3. Accommodation and food services,
4. Educational services, and
5. Public administration.

Accommodation and food services will both be required for the Project's supply chain. Although these industries in NWMO's Project supply chain are likely impacted, they will also likely make up a smaller component of the overall supply chain when compared to construction, commodity, and equipment suppliers. **Table 5** provides insight into the industry sectors within the Local Study Area.

Table 5 Industry Sectors in the Local Study Area Sorted by Jobs (2017)¹²

	Jobs	Sales (Output)	Wages	Average Wage	Number of Companies (2020)	Average Size
All Industries	9,143	\$1,633.6M	\$383.9M	\$41,992	1,463	6
Health care and social assistance	1,767	\$183.2M	\$80.6M	\$45,581	144	12
Retail trade	1,257	\$86.0M	\$30.4M	\$24,168	141	9
Accommodation and food services	1,128	\$118.7M	\$22.3M	\$19,791	147	8
Educational services	1,039	\$94.4M	\$49.7M	\$47,812	18	58
Public administration	784	\$178.7M	\$42.9M	\$54,715	9	87
Transportation and warehousing	780	\$202.0M	\$35.9M	\$46,060	73	11
Manufacturing	441	\$353.9M	\$32.9M	\$74,655	11	40
Agriculture, forestry, fishing and hunting	342	\$128.6M	\$21.6M	\$63,088	70	5
Other services (except public administration)	314	\$34.9M	\$10.2M	\$32,452	132	2
Construction	308	\$62.3M	\$13.4M	\$43,568	141	2
Administrative and support, waste management and remediation services	245	\$22.8M	\$7.7M	\$31,582	31	8
Finance and insurance	153	\$27.1M	\$5.8M	\$38,200	67	2
Utilities	104	\$24.0M	\$6.2M	\$60,047	11	9
Professional, scientific and technical services	103	\$15.8M	\$4.9M	\$47,626	73	1
Mining, quarrying, and oil and gas extraction	87	\$46.1M	\$9.2M	\$105,048	3	29
Information and cultural industries	82	\$16.0M	\$2.9M	\$35,809	18	5
Wholesale trade	82	\$13.5M	\$3.5M	\$43,012	26	3
Real estate and rental and leasing	75	\$21.4M	\$2.4M	\$31,783	222	0

¹² Emsi Burning Glass. (2022, April). Analyst. Retrieved from Emsi:
<https://a.economicmodeling.com/analyst/?t=3lqvW#h=dl1mJ&page=home&vertical=standard&nation=ca>

Arts, entertainment, and recreation	51	\$4.3M	\$1.3M	\$25,271	21	2
Management of companies and enterprises	-	-	-	-	-	-

3.2.2 Local Industries associated with goods and services required by the Project

There are nine industries (listed in **Table 6**) that will be prominent in NWMO's Project as they can provide people, goods and services in support of NWMO. Across all the industries that will likely be prominent in NWMO's Project supply chain the average percentage of goods purchased in the Local Study Area is 24 percent ¹³. Businesses in the Local Study Area are heavily reliant on imports in their supply chains. **Table 6** presents the industry purchase patterns within the Local Study Area and shows the percentage of purchases that are imported from outside of the Local Study Area.

Table 6 Local Study Area Industries within NWMO's Project Supply Chain Purchasing Patterns¹⁴

	Local Focus	Sales (Output)	Wages	Supply Chain Purchases	% In Area	% Imported from Outside Area
Accommodation and food services*	Hotels Restaurants	\$118.7M	\$22.3M	\$4.0M	11.06%	88.94%
Manufacturing*	Mills	\$353.9M	\$32.9M	\$38.2M	20.09%	79.91%
Agriculture, forestry, fishing and hunting*	Forestry	\$128.6M	\$21.6M	\$14.2M	20.26%	79.74%
Other services (except public administration)*	Hairstylists/barbers Cleaners	\$34.9M	\$10.2M	\$3.3M	18.91%	81.09%
Construction*	Construction Carpenters	\$62.3M	\$13.4M	\$9.0M	26.57%	73.43%
Administrative and support, waste management and remediation services*	Security guards Contractors	\$22.8M	\$7.7M	\$2.3M	32.49%	67.51%
Utilities*	Water and waste treatment operators	\$24.0M	\$6.2M	\$1.1M	18.08%	81.92%
Professional, scientific and technical services*	Veterinarians Translators Accountants	\$15.8M	\$4.9M	\$2.5M	49.55%	50.45%
Mining, quarrying, and oil and gas extraction*	Mining Quarrying	\$46.1M	\$9.2M	\$2.6M	19.17%	80.83%

*Industries in NWMO Supply Chain

There are several businesses in the Local Study Area that could also act as suppliers for the Project, however many businesses are already operating at capacity. Many of the businesses in the Local Study

¹³ Emsi Burning Glass. (2022, April). Analyst. Retrieved from Emsi: <https://a.economicmodeling.com/analyst/?t=3lqvW#h=dl1mJ&page=home&vertical=standard&nation=ca>

¹⁴ Emsi Burning Glass. (2022, April). Analyst. Retrieved from Emsi: <https://a.economicmodeling.com/analyst/?t=3lqvW#h=dl1mJ&page=home&vertical=standard&nation=ca>

Area struggle with getting the necessary inputs from their supply chain¹⁵. Most of the businesses in the Local Study Area do not have experience acting as a prime contractor or constructor on very large, 10-year construction projects.

Businesses in the Local Study Area may currently be better prepared to act as a supplier to a direct supplier, rather than as a direct supplier to the Project. Businesses in the Local Study Area with a strong local presence could be good candidates for Joint Ventures (purpose-built companies jointly owned by local business and larger suppliers) to supply the project.

An example of some of the businesses in the Local Study Area that could potentially supply NWMO are listed in **Table 7**. This list is further expanded as a full list in **Appendix C**.

Table 7 Illustrative Businesses in Local Study Area

Construction	Food Services	Accommodation	Aggregate
<ul style="list-style-type: none"> • Ricci Trucking, Ignace – 50-99 employees • The Miller Group, Dryden • Nissley Construction, Sioux Lookout – 4 employees • Moncrief Construction Ltd, Machin – 32 employees • Sigfussion Northern, Sioux Lookout • RES Equipment Sales, Dryden 	<ul style="list-style-type: none"> • Windigo Catering, Sioux Lookout • Cc's Restaurant & Catering, Sioux Lookout • Pelican Lake Sandwich Company, Sioux Lookout • Crooked Arrow Catering, Dryden • Ma's Homestyle Catering, Dryden • Sysco Canada, Dryden 	<ul style="list-style-type: none"> • Ignace White Otter Inn, Ignace • Lone Pine Inn, Ignace • Northwoods Motor Inn, Ignace • Westwood Motel, Ignace • Best Western Hotel, Dryden • Comfort Inn, Dryden – 1-25 employees • Holiday Inn Express, Dryden 	<ul style="list-style-type: none"> • Steven Blair Contracting Ltd., Dryden • R B Rostek Construction Ltd., Dryden • Perron Contracting, Sioux Lookout – 21 employees • Fred J. Cook Construction, Sioux Lookout – 6 employees • Miller Northwest Ltd, Dryden • Wildwood Contracting, Dryden

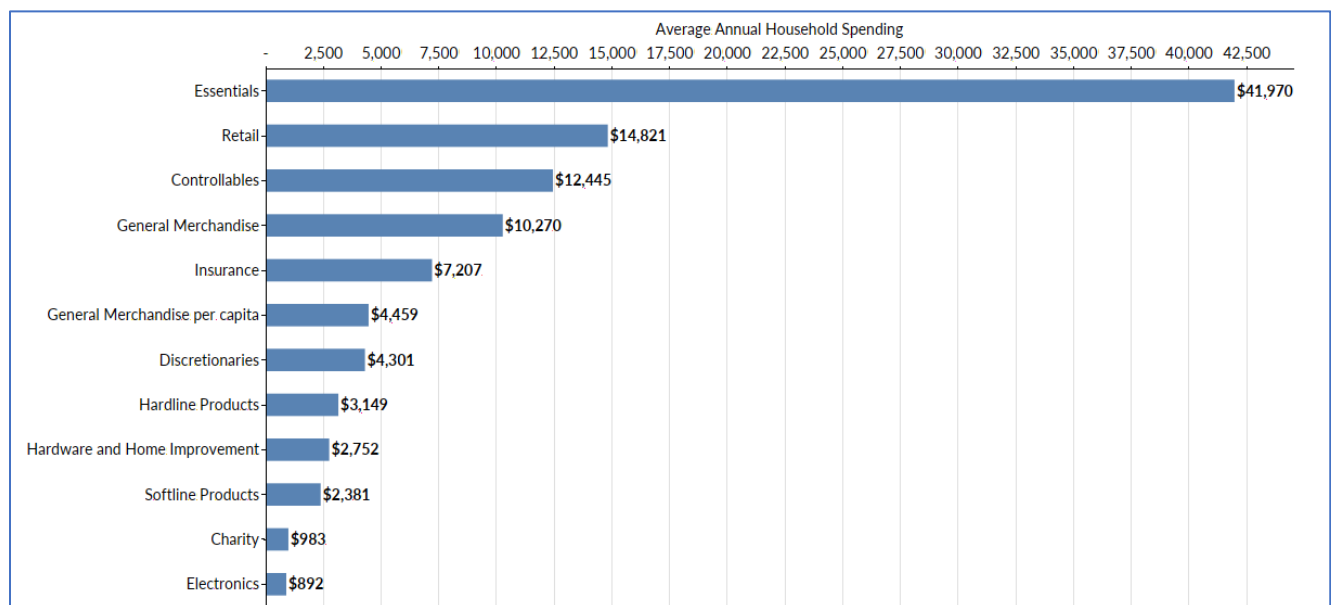
¹⁵ Northwest Business Centre. (2022, January 28). Knowledge Holder Interview. (Hardy Stevenson, Interviewer).

		<ul style="list-style-type: none"> • Patricia Inn, Dryden • Sioux Lookout Inn & Suites, Sioux Lookout 	<ul style="list-style-type: none"> • Allan Hutchison Contracting Ltd, Dryden
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3.2.3 Local Business to Support Household Spending

The assessment of household spending patterns provides an important piece of the economic fabric that makes up a community. The data shows what residents are spending their money on, and where are they spending it in terms of which businesses are benefitting. The industries that provide residents the goods and services they require will concentrate in the areas where they are spending their money. Residents in the Local Study Area's typical household spending pattern is shown in **Figure 6**. Spending Categories are defined in **Appendix D**.

Figure 6 Local Study Area Average Household Spending Patterns¹⁶



¹⁶ Manifold. (2022). Retrieved from https://app.polarisintelligence.com/profile/showreport?comparison_session=true&_locale=en&component_name=comparison_listMiller

Beyond expenditures on principal shelter, transportation, and health care much of the household spending is in the following industry categories:

- Retail trade (e.g., clothing, food, appliances),
- Accommodation and food services, and
- Arts, entertainment, and recreation.

In the Local Study Area, most of the household purchases in these industries are made locally. Arts, entertainment, and recreation is the only one of these industries where more than 50 percent household spending is outside the Local Study. **Table 8** provides a breakdown of the spending within these key household spending industries.

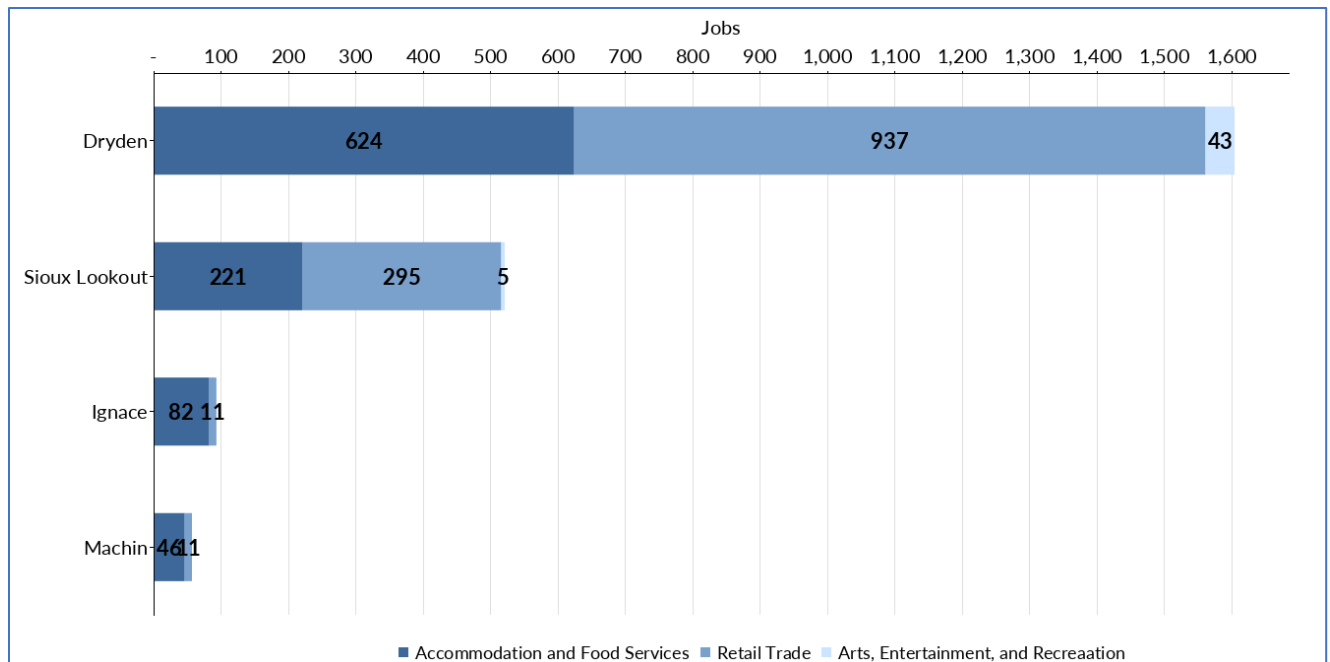
Table 8 Local Study Area vs Import Purchases in Key Household Spending Industries¹⁷

	Purchased in Local Study Area	Imported
Retail trade	61.03%	38.97%
Arts, entertainment and recreation	21.28%	78.72%
Accommodation and food services*	52.00%	48.00%

Local Household spending patterns can be derived through the concentration of economic activity in key household spending industries. **Figure 7** shows the concentration of employment in the key household spending industries in each of the communities in the Local Study Area. Based on the concentrations of employment in these industries, we can determine that most of the household spending takes place in Dryden and Sioux Lookout. There is a limited amount household spending being captured in Ignace. This means current residents of Ignace must travel up to an hour each way to purchase most goods and services as well as access health care.

Figure 7 Local Study Area Employment by Household Spending Industry by Municipality

¹⁷ Emsi Burning Glass. (2022, April). Analyst. Retrieved from Emsi: <https://a.economicmodeling.com/analyst/?t=3lqvW#h=dl1mJ&page=home&vertical=standard&nation=ca>



3.2.4 Other Baseline factors

In addition to local business there are other important baseline factors that relate to economic development. Specifically, consideration of local labour, tourism, and vulnerable populations are important baseline factors and are described further below.

3.2.4.1 Local Labour

Understanding who is employed, how they are employed and where they are employed, helps us to understand the nature and characteristics of the local study area economy. The labour force in the Township of Ignace has always been limited, transient, and has minimal longevity as it is reactionary to short term needs (e.g. mining, forestry)¹⁸. The skilled labour that is available in the Local Study Area is concentrated in Dryden and Sioux Lookout which account for 90 percent of the occupations required for the Project even with Dryden having the highest concentration of skilled labourers there is still a shortage of skilled labour locally and businesses are being forced to bring in labour from outside the community (e.g. Manitoba and Quebec)¹⁹. Refer to the Labour Baseline Study and the Workforce Development Study for further detail.

3.2.4.2 Tourism

Tourism is an important contributor to the strength of most Canadian communities. Tourism attracts people who may decide to invest and live in a community. It employs people with a range of skills including people employed in seasonal occupations.

¹⁸ Township of Ignace. (2022, February 28). Knowledge Holder Interview. (Hardy Stevenson, Interviewer).

¹⁹ City of Dryden. (2022, February 14). Knowledge Holder Interview. (Hardy Stevenson, Interviewer).

At the time of this study baseline data on tourism was not available for inclusion in this report. Most municipalities in the Local Study Area have identified tourism as an economic goal. An assessment of the Tourism baseline will be available in the Tourism Study.

3.2.5 Economic Development Goals and Aspirations

The municipalities that make up the Local Study Area have similar goals and aspirations. All municipalities want to attract investment to their communities and want to collaborate with other municipalities in the Region. Ignace, Dryden, and Sioux Lookout are also focused on beautification, revitalization, and commercial development of their towns, as well as promoting tourism, to enhance residential growth. Each community has their own unique aspects and areas of focus, but across the board their economic development goals are very similar. **Table 9** summarizes the economic goals and aspirations of the Local Study Area.

Table 9 Economic Development Goals and Aspirations of Municipalities in the Local Study Area²⁰

	Ignace	Dryden	Sioux Lookout	Machin
Attract Investment	✓	✓	✓	✓
Beautification, Revitalization, Commercial Development	✓	✓	✓	
Residential Development	✓	✓	✓	
Promote Tourism	✓	✓	✓	
Collaboration with other communities	✓	✓	✓	✓
Unique Elements	Promote natural features of community, Shop Local Program	Regional Food Network, Airport	Airport, Healthcare, Indigenous	Infrastructure improvements

These aligned economic development aspirations create an opportunity for cooperation and business collaboration with the goal of attracting new businesses to the area and a regional tourism hub, and/or other collaborative activities. By collaborating, the four communities can achieve growth for themselves and Northwestern Ontario.

If the communities in the Local Study Area fail to collaborate, they run the risk of not fully optimizing their combined investments. This could create a climate where municipalities each make overlapping investments and not share resources between communities. This competition may cause communities to not fully realize the benefits possible through economic development.

Without the Project, the Local Study Area economy has been slow growing, and in some communities contracting. Recently a main business within the Municipality of Machin has been put up for sale however attracting buyers is difficult due to the size of the community and lack of development²¹. An economic challenge for the Municipality of Sioux Lookout is that they are mainly a service-based municipality and do not derive a lot of tax revenue from commercial or industrial property classes. The municipality would like to see more commercial and industrial development. However, it has been a challenge to realize this²². In Ignace, an obstacle to economic development has been their labour force.

²⁰ The Township of Ignace. (2019). The Township of Ignace Community Strategy - Explore Our Possibilities 2019-2024., Miller Dickinson Blais. (2015). Dryden Development Corporation Economic Strategic Plan., Municipality of Machin. (2022, January 31). Knowledge Holder Interview. (Hardy Stevenson, Interviewer)., Macnaughton Hermesen Britton Clarkson Planning Ltd. (2018) Sioux Lookout Official Plan., Municipality of Sioux Lookout. (2022, February 18). Knowledge Holder Interview. (Hardy Stevenson, Interviewer)., Township of Ignace. (2022, February 28). Knowledge Holder Interview. (Hardy Stevenson, Interviewer).

²¹ Municipality of Machin. (2022, January 31). Knowledge Holder Interview. (Hardy Stevenson, Interviewer).

²² Municipality of Sioux Lookout. (2022, February 18). Knowledge Holder Interview. (Hardy Stevenson, Interviewer).

With a highly specialised labour force in mining and forestry services they are limited and struggle to attract youth back after they leave.²³

In 2020, the City of Dryden implemented the Modernized Community Improvement Plan which intends to promote community revitalization and beautification and to help achieve economic, community planning, and development goals. Its purpose is to encourage investment by helping private property owners to offset the costs of their development, redevelopment, and community improvement projects through a series of Financial Incentive Programs.²⁴

²³ Township of Ignace. (2022, February 28). Knowledge Holder Interview. (Hardy Stevenson, Interviewer).

²⁴ City of Dryden. (2022, February 14). Knowledge Holder Interview. (Hardy Stevenson, Interviewer).

4 Change Assessment

Currently, the Local Study Area will be challenged to meet all the supply and labour requirements of the Project except for select key industries. Given the strength of nuclear certified industries in Southern Ontario, it can also be expected that goods and services will be sourced outside of the Regional Study Area. The Regional Study Area, however, is very well positioned to meet most supply needs for materials and labour. Without interventions, much of the impact of the Project to industries in the Supply Chain will take place in the Regional Study Area, outside of the Local Study Area. It is important to note that while the Region is well positioned to meet most supply needs for materials and labour there is significant competition for labour in the mining and forestry industries. This has been a challenge for Northwestern Ontario which continues to struggle to recruit sufficient labour to fill the positions within these industries²⁵. This also holds true for the Local Study Area, where Ignace has struggled with the issue of sufficient labour force, due to high specialisation within mining and forestry services²⁶.

The Project will benefit many industries and within the Local Study Area, which is discussed in the following sections.

4.1 APM Project Supply Chain Elements Applicable to Local Study Area

Section 4.1.1 below illustrates primary direct and indirect services and commodities potentially impacted by the Project. This is further described using case studies by investigating the strengths, weaknesses, opportunities, and threats created by the Project as it relates to three select examples, i.e., the food industry, accommodation and aggregates (**Section 4.1.2**).

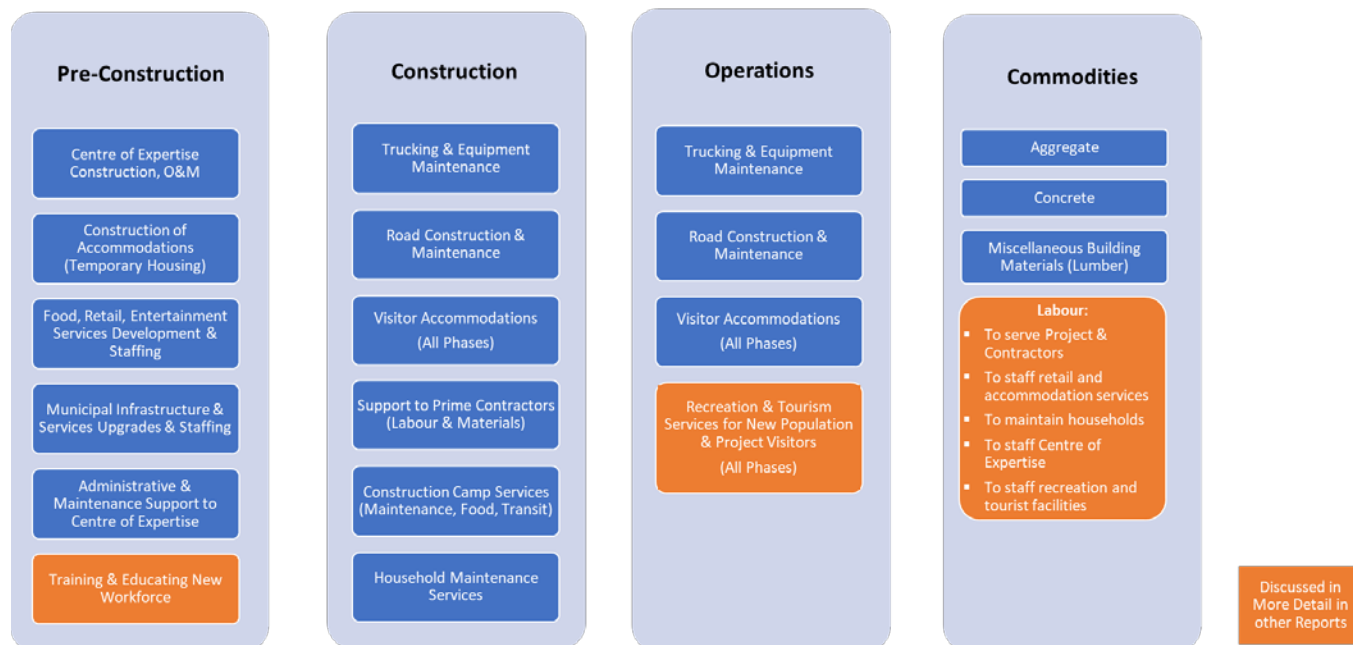
4.1.1 Primary Direct/Indirect Services & Commodities Potentially Impacted by APM Project (Examples Only)

While the view of industries associated with the goods and services required by the Project presented in **Section 3.1.2 and 3.2.2** capture some of the industries that will be required in the Project supply chain, it can be difficult to imagine what this might look like to businesses in Local Study Area. To help the reader envision the possibilities that the Project creates it is helpful to look at some examples of the different services and commodities that might be needed by the Project, by Phase (**Figure 8**).

²⁵ Kenora District Municipal Association. (2022, February 11). Knowledge Holder Interview. (Hardy Stevenson, Interviewer).

²⁶ Township of Ignace. (2022, February 28). Knowledge Holder Interview. (Hardy Stevenson, Interviewer).

Figure 8 Primary Direct/Indirect Services and Commodities Potentially Impacted by APM Project (Examples only)



4.1.1.1 Pre-construction

In Pre-construction, businesses in Ignace and other communities in the Local Study Area might see construction opportunities around building the Centre of Expertise and associated accommodations. Ignace and Local Study Area truckers, heavy equipment operators and suppliers, aggregate suppliers, equipment repair shops, are expected to benefit from opportunities provided during the APM site preparation stage. There could be opportunities for food, retail and other service providers to supply the Project and meet the growing demand induced by growth in the population and income.

For example, there may be the need for increases in municipal infrastructure and services, construction materials, engineering services and administrative support for the Centre of Expertise. The APM camp will need food suppliers, support staff and security that can be provided by firms in Ignace and the Local Study Area. NWMO already has evidence of local capability and procurement through the borehole drilling and site assessment activities since 2017. This demonstrates opportunities in these areas that can be further utilized and enhanced.

Given that housing in Ignace will need to begin to be constructed, opportunities open for businesses that can provide excavation, concrete, aggregate, framing, roofers plumbing and electrical, millwork, painters, landscaping, appliance and other housing needs. In turn, induced and indirect opportunities will open for equipment suppliers, financiers, lawyers and accountants, vehicle sales and support services.

Business opportunities associated with the APM facility will include engineering, geological testing labs and contractor services. Indirect and induced economic opportunities include computer sales and servicing, accounting, safety equipment, construction clothing and personal protective equipment. In addition, there might be opportunities for training and educating the new workforce. The opportunities surrounding training and education are more fully described in the Workforce Development report.

The increase in labour income will induce additional spending on goods and services in Ignace and the Local Study Area. This initial phase of induced spending could result in opportunities for meeting the immediate of the resident workforce. These needs could include things like groceries, food purchased from restaurants, and basic clothing and accessories. An example of what this might look like in Ignace could be a new downtown based businesses, introduction of new food vendors, accommodation services , or an additional small grocery store on Highway 17 that sells a full range of groceries. These induced opportunities to contribute to the revitalization of the downtown while being consistent with the community's built and natural heritage. In addition, Ignace has an industrial park located off the Trans-Canada Highway. This industrial park has potential for light manufacturing, warehousing, storage and distribution. The industrial lots have no prior use by industry and have access to highways and Canadian Pacific Railway's main line.

4.1.1.2 Construction

During construction there is potential for opportunities for businesses in the Local Study Area to support with equipment and vehicle maintenance. Local businesses could be active in road construction and maintenance. There could be a myriad of opportunities to support larger firms who are directly supplying the Project. Food, accommodation, and operational support services required by the Project and visitors could create an opportunity for local businesses during this phase. There could be an increase in demand for household services at this time as well.

During the Construction phases as the resident labour income increases the economic opportunities in Ignace and the Local Study Area created from induced spending will also increase. As the size of induced spending rises business opportunities could expand from small retail and food to more discretionary needs such as recreation and household services. An example of what this might look like in Ignace could be a small recreational vehicle sales and service centre as well many new small businesses targeting households such as residential landscaping, residential renovations, and window and gutter cleaning services.

4.1.1.3 Operations

As the Project moves to operations, some of the opportunities for business will continue (equipment maintenance, road construction and maintenance, and accommodation). There might be new opportunities for business in recreation and tourism associated with visitors and a growing population. The recreation and tourism opportunities are more fully explored in the Tourism Study.

In the Operations phase of the project the resident labour income will likely peak providing a further increase to the opportunities associated with induced spending. As the induced spending will have likely

stabilized due to the long-term stable employment prospects associated with the Project, economic opportunities in this stage could include general care services such as healthcare and paramedical. An example of what this might look like in Ignace could be new massage therapy or chiropractic businesses as well as potentially a family doctors and/or dentist.

4.1.1.4 Commodities

The Local Study Area may have opportunities to supply the project with some of the commodities required throughout its different phases. Opportunities for supplying commodities locally could include aggregates, concrete and other miscellaneous building supplies, including lumber. These commodities are present in the Local Study area. As the APM project advances through each stage, economic development opportunities will expand. The need for firms and suppliers related to housing will continue as will the need for firms that can construct retail, hotels, and other requirements of a growing community. Each stage will require an expanded list of commodities. One of the major inputs is the opportunity for the Local Study Area to provide is labour. This is more fully explored in the Workforce Development Study.

The following section presents case examples surrounding some opportunities created by the Project to further support the understanding of how potential opportunities may translate into good businesses.

4.1.2 Case Examples of the opportunities created by the APM Project

To better comprehend the potential impacts of the Project on the local supply chain, the possible effects on three industries are explored by assessing the impacts of the Project on each industry by means of a SWOT analysis (strengths, weakness, opportunities, and threats). This exercise showcases how possibilities can be turned into business opportunities which could be easily applied in other sectors. For example, this type of SWOT analysis illustrates the potential that can be realized by local community members whether it be through opportunities related construction, operations and maintenance to opportunities associated with food and beverage and administration. The challenge lies in the ability of the community to capture the opportunities.

Note, for all scenarios the procurement process for the services will be one weighted denoting local hiring, Indigenous ties, in addition to costs etc. Some national firms have significant track records locally. Other local firms would be ideal to support this kind of venue.

4.1.2.1 Food Industry

Opportunity	Food Services Companies	
Aspiration	To provide food services for the Project On-Site and Off-Site operations, including the Centre of Expertise for example, a commercial cafeteria and catering for meetings..	
Location	Centre of Expertise, Project site	
Requirements	<ul style="list-style-type: none"> Contract with a company to set-up and manage a food service facility initially to service the Project Off-Site and the Centre of Expertise, and subsequently On-Site once it is up and running. Preference will be given to local food service companies to enter a contract with NWMO to deliver these services. The selected company will commit to an initial staff complement of local hires which will increase within 3 years. 	
Connections	<ul style="list-style-type: none"> The company will engage with educational institutions to provide training to fully up-skill their staff. The company will encourage staff to engage in continuous education programs related to new technology and techniques in food services management and preparation. 	
Evaluation	Strengths	Weaknesses
	<ul style="list-style-type: none"> Builds capacity and offers a business opportunity to local entrepreneurs. Builds on existing strengths by providing employment and training opportunities for locals and the potential to repatriate former residents. 	<ul style="list-style-type: none"> A small to mid-size local food services company may not be as competitive as a larger more established company from outside the Region. Many of the local food services companies are smaller in size and may not be able to accommodate
	Opportunities	Threats
	<ul style="list-style-type: none"> Contributes to the skilled talent pool necessary for growth of the Tourism and Hospitality Sector 	<ul style="list-style-type: none"> Large-scale food service companies can most likely be more cost competitive



Figure 9 Food Services Example ²⁷

4.1.2.2 Accommodation

Opportunity	Leveraging Local Study Area Accommodations	
Aspiration	<ul style="list-style-type: none"> To provide Project workers with accommodation during each phase of the Project by leveraging Local Study Area businesses 	
Location	Ignace and Local Study Area	
Requirements	<ul style="list-style-type: none"> Could involve contracting directly with hotel owners Needs to balance the need for Project related accommodation with the need for accommodation for tourists. 	
Connections	<ul style="list-style-type: none"> Local hotel and motel owners Individual short-term rental operators (AirBnB, etc.) Possible mid-sized hotel 	
Evaluation	Strengths	Weaknesses
	<ul style="list-style-type: none"> Provides business opportunity to local business owners Provides income assurance during slow tourism times Cuts down commute times 	<ul style="list-style-type: none"> Limited accommodation in Ignace Accommodation may not meet all of workers needs (i.e. fully equipped kitchen, laundry, etc.) If workers take up all the short-term accommodation, the tourism industry could suffer.
	Opportunities	Threats
	<ul style="list-style-type: none"> Lots of developable land in the Local Study Area, particular Ignace to create more accommodation 	<ul style="list-style-type: none"> Not enough accommodation available in Ignace for staff in Pre-Construction Tourism accommodation needs

²⁷ Crooked Arrow Catering. (2020). Retrieved online June 30th, 2022 from https://www.facebook.com/crookedarrowcatering/photos/?ref=page_internal



Figure 10 Accommodation Example - Best Western Plus Hotel and Conference Centre, Dryden²⁸

4.1.2.3 Aggregates

Opportunity	Aggregate Supply	
Aspiration	To use local aggregate resources for Project construction purposes.	
Location	Ignace and Local Study Area	
Requirements	<ul style="list-style-type: none"> Identify the aggregate sources that can meet the needs of the Project with minimal transportation requirements and environmental impacts 	
Connections	<ul style="list-style-type: none"> Local aggregate suppliers. 	
Evaluation	Strengths	Weaknesses
	<ul style="list-style-type: none"> Uses resources that are available locally. Provides business opportunity for local suppliers, equipment suppliers and transporters of aggregate material. 	<ul style="list-style-type: none"> Potential transportation impacts (i.e., traffic issues, noise, dust, vibrations, wear and tear on roads etc.) Environmental and aesthetic issues because of pit and quarry operations.
	Opportunities	Threats
	<ul style="list-style-type: none"> Much of the cost of delivering aggregate is transportation. Firms located close to the 	<ul style="list-style-type: none"> Unwanted disruption to Local Study Areas from transportation and pit operations.

²⁸ Trip Advisor. (2022). Retrieved online June 30, 2022 from https://www.tripadvisor.ca/Hotel_Review-g181721-d182038-Reviews-Best_Western_Plus_Dryden_Hotel_Conference_Centre-Dryden_Kenora_District_Ontario.html

	<p>site will have a competitive advantage compared to firms located further away.</p> <ul style="list-style-type: none"> • If aggregate resources are located on-site or immediately adjacent to the site, this may minimize transportation impacts to local residents and road infrastructure. • Use of local roads may require improvements to serve the purposes of the Project but will also benefit Ignace and other communities in the Local Study Area. 	<ul style="list-style-type: none"> • Perceived safety issues involving transport of materials on local roads.
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Figure 11 Aggregate Example - Perron Contracting, Sioux Lookout²⁹

As is seen from the SWOT analysis for the three selected industries, the Project has the potential to create a myriad of tangible business opportunities. The possibilities extend from capacity building, employment, and training for residents in the food service industry to the tourism industry, to utilizing locally available resources. It is evident that the potential is great, however, the realization of these possibilities hinge on the ability for the local community to capture them.

4.2 Impact of the Project on Other Baseline Factors

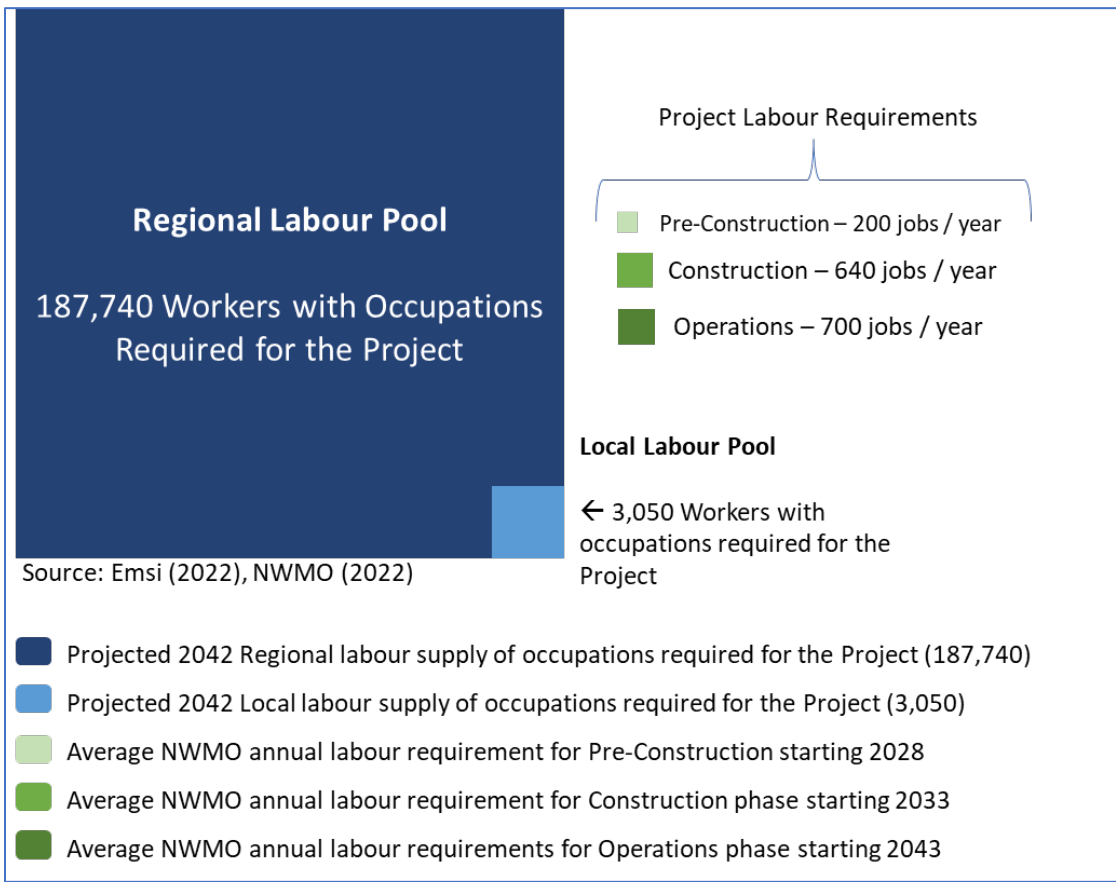
4.2.1 Labour

The Project will have the greatest impact on the size of workforce resident in Ignace and a smaller relative impact on other communities in the Local Study Area across all phases of the Project. **Figure 12**

²⁹ Perron Contracting. (2019). Retrieved online June 30, 2022 from <http://perroncontracting.com/>

visually represents the size of the Regional and Local Labour markets relative to the Project labour requirements by phase.

Figure 12 2042 Projected Regional and Local Labour Pool compared to the Project Labour Requirements by Phase³⁰



Within the Regional and Local Labour pools in occupations required by the Project there is currently low unemployment and high competition for workers. This results in workers often changing positions for increases in wages. However, it is materially significant that unlike more cyclical resource driven employment opportunities in the region the NWMO Project provides an opportunity for stable long-term employment for workers. This will provide certainty for local economic decision making. This topic is explored in more detail in the Labour Baseline Study and the Workforce Development Study. Further, the Housing Study provides analysis of the waves of housing construction required, with each providing

³⁰Nuclear Waste Management Organization (2021). Community Studies Planning Assumptions. November 2021., Emsi Burning Glass. (2022, April). Analyst. Retrieved from Emsi: <https://a.economicmodeling.com/analyst/?t=3lqvW#h=dl1mJ&page=home&vertical=standard&nation=ca>

economic development opportunities due to the requirements for contracting companies and housing construction material. In addition to skilled contracting firms, materials will be required for camp construction (ATCO-type housing and office units, kitchen and recreation units) Ignace worker housing (wood, stone, concrete, heating and cooling equipment, piping, millwork).

4.2.2 Tourism

The Project's Centre of Expertise and its visitor centre could create a new avenue for promoting tourism in the Ignace area. Currently tourism in Ignace is focused on fishing and outdoor recreation. The COE would be expected to incorporate a visitor centre to educate people around the APM. The COE could attract people interested in science, technology, and energy. This change in tourism could create business opportunities for small retail, food, accommodation, and tour operators. For example, in Ignace this might result in a local tour provider offering 2-day tours that combine visits to the Centre of Expertise with visits to other natural heritage features. An assessment of the impacts of tourism is available in the Tourism Study.

4.3 Opportunities and Challenges Associated with Project Impacts

The baseline of the industries in the supply chain, and the forecast impacts of the Project on industries in the supply chain, and labour markets present both challenges and opportunities for NWMO and Ignace and other communities in the Local Study Area.

While accommodations and other services can benefit, within the Local Study Area, there are some businesses in key industries that could be a direct goods, materials, and service supplier the Project. Some of these are listed in Appendix C. and Table 7. Local Study Area businesses would require preparation to be a prime contractor during the Construction phase. There are also few businesses in the Local Study Area that can play a major role in supplying the construction or equipment needs of the Project. Attracting labour to support the Project from the existing labour supply may involve taking labour from other industries and employers, which could present challenges for these other employers. Knowledge holders recommend that NWMO partner/collaborate with other employers to develop a common strategy to provide economic benefits to all Northwestern Ontario.

There are opportunities in the Local Study Area for businesses and new employment. These opportunities refer to parts of the economy that may experience material change due to the APM project. 'Material change' refers to economic activity that would not occur without the APM project. These changes may be positive or negative.

The Project will involve expenditures that may grow and develop Local Study Area businesses who might supply other prime suppliers to the Project. This in turn may drive spin off economic development throughout the Local Study Area. The Project may enhance building capacity of Local Study Area businesses through training, investment, and strategic long-term contacts as secondary suppliers. The project may incent permanent presence of labour and new business that could incent investment in local retail, accommodation and housing.

The Project could be a catalyst to incubate and bring new purpose-built companies that will combine local business community presence with larger more experienced companies' resources and expertise to effectively supply the Project. The Project will also bring the opportunity to have the Centre of Expertise expand its focus beyond the industries that are core to supplying the Project and meet some of the aspirational needs of the Local Study Area (e.g., tourism, recreation, etc.).

Section 5 below, explores potential options to address and mitigate these challenges and enhance opportunities for the local supply chain, labour markets, industries, and businesses.

5 Options to Enhance Economic Development Opportunities

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.

Many of the options for Local and Regional economic development discussed here are linked to the development of the workforce and enhancement of the housing stock in Ignace and the Local Study Area. These considerations are documented in the *Ignace and Area Community Studies Economics and Finance Workforce Development Report* and the *Ignace and Area Community Studies: Economics and Finance Housing Study*. For this reason, it is important that this report is read in the context of these other reports.

This section presents several opportunities that aim to mitigate some of the challenges presented in previous sections and leverage the opportunities that may result from the Project. The options are then assessed based on four criteria:

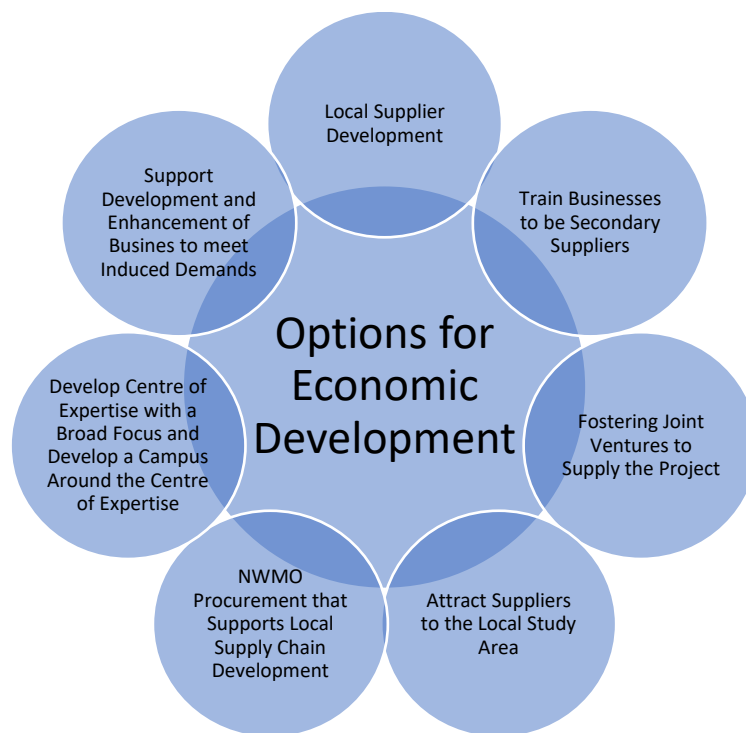
- **Ease of implementation:** includes demonstrated success on other projects if known and the degree of complexity required to implement, which may consider the number of required partners and current municipal and provincial policies;
- **Degree of effectiveness:** considers the conditions required for effectiveness based on understanding of the community needs and aspiration;
- **Cost, if known:** will document costs for implementation if known; and

- **Ability for the NWMO or the Township of Ignace to implement:** considers if the NWMO or the Township alone or in partnership can implement an option or if another responsible authority needs to be involved.

The options explored in this section are as follows:

- Option 1: Local Supplier Development
- Option 2: Train Businesses to be Secondary Suppliers
- Option 3: Support Development and Enhancement of Business to meet Induced Demands
- Option 4: Fostering Joint Ventures to Supply the Project
- Option 5: Attract Suppliers to the Local Study Area
- Option 6: NWMO Procurement that Supports Local Supply Chain Development
- Option 7: Develop Centre of Expertise with a Broad Focus and Develop a Campus Around the Centre of Expertise

Figure 13: Options for Economic Development



While the above are presented here as discrete options, NWMO will likely be active with many and/or a combination of options, as is seen with other large entities such as OPG, CNL and Bruce Power, who are likely already employing many or most of these options as part of their own operations. For example, OPG's Centre for Canadian Nuclear Sustainability is actively cultivating its labour, joint venture and vendor supply chain so as to have long term success with the decommissioning of the Pickering Nuclear Generating Station. Darlington Nuclear Generating Station, in parallel is doing the same with

partnerships and training support with Durham College and Ontario Technical University for the Small Modular Reactor project. For both projects, there are over a dozen firms and major local institutions partnered with OPG. The City of Pickering, Municipality of Clarington and Durham Region and well informed and supportive partners.

It should be noted that no recommendations on what options are to be implemented are made in this report.

5.1 Local Supplier Development

Various suppliers within the Local Study Area have the required materials to supply the Project however there is a limited capacity. Securing local suppliers will be critical to the success of the Project and therefore developing these key resources is paramount. As referred to in Option 1, HSAL research and interviews indicated that some potentially strong suppliers need to operate at a higher level to become suppliers. For example, the business would need email and a web page as a minimum requirement. Local supplier development would include but not be limited to providing businesses with training, investing in businesses, and entering strategic long-term contracts with local businesses. Whether suppliers are available or can be cultivated, will be an important factor in fostering economic diversity and opportunity for Ignace and the Local Study Area. **Table 10** presents an assessment of Option 1: Local Supplier Development.

Table 10 Local Supplier Development

Challenge/Opportunity:	<ul style="list-style-type: none"> • The project will involve expenditures that might benefit some local businesses. • There are currently few businesses in the Local Study Area that capable of supplying the diversity of construction and operations requirements for labour, material and expertise of the project.
Description of Option:	<ul style="list-style-type: none"> • Preparation to have local businesses meet the quality, safety, and reliability standards required to supply the project <ul style="list-style-type: none"> ○ Provide awareness training to businesses on what standards are required to be met to supply the Project ○ Provide training and tools to businesses so they have resources and abilities to meet these standards ○ Partner with local economic development organizations, FEDNOR, and Northern Ontario Heritage to fund investments in businesses that enable local suppliers to meet some needs of the Project • Breaking work down into smaller contracts • Long-term contracts <ul style="list-style-type: none"> ○ Enter contracting arrangements that are longer term that support businesses making capital investments <ul style="list-style-type: none"> ▪ E.g., long-term contracts with accommodation providers may incent hotel owners to undergo capital

	expansion to increase the beds available and improve the quality of the facilities
Timing:	<ul style="list-style-type: none"> Starting in Pre-Construction <ul style="list-style-type: none"> Focus on immediate opportunities around the development of the Center of Expertise in Ignace and accommodation facilities. For example: painting, aggregate/cement supply, landscaping, lumber and other "finishing" materials and labour, food and accommodation services, etc. Develop relationships and programs that will allow local businesses to start preparing during Pre-Construction to be suppliers in Construction and Operations
Assessment:	<p>Ease of Implementation:</p> <ul style="list-style-type: none"> NWMO might lead a local supplier capacity building program which will incur some cost in development; and will require a material investment of staff time <p>Degree of effectiveness:</p> <ul style="list-style-type: none"> These programs in other sectors have been effective in creating a supply chain that performs at the industry standards <p>Cost if known:</p> <ul style="list-style-type: none"> Staff time Limited program development costs Program operating costs Direct business funding <p>Ability to implement:</p> <ul style="list-style-type: none"> Some training aspects are within NWMO's control such as increasing awareness. No external funding currently identified to invest in businesses. To be successful major area employers may need to come together to support new businesses that have a depth and breadth to meet their needs.

5.2 Train Businesses to be Secondary Suppliers

Suppliers in the Local Study Area are currently not well positioned to be primary suppliers for the Project. Although they do not have the capacity to meet all Project supply needs, they can be suppliers to the prime suppliers in some specific instances. This option focuses on the resources within the Local Study Area and ensuring that primary contractors and operators are incented to leverage local businesses in the supply chain. **Table 11** presents an assessment of Option 2: Train Businesses to be Secondary Suppliers.

Table 11 Train Businesses to be Secondary Suppliers

Challenge/Opportunity:	<ul style="list-style-type: none"> • Most businesses in the local study area are not well prepared nor have the capacity to be a prime contractor, during Construction. • Businesses in the Local Study Area can be better qualified to supply the prime suppliers • Training can be focused in part on getting businesses certified. Work with industry associations to do this.
Description of Option:	<ul style="list-style-type: none"> • Communicate to any potential primary contractors or operators the expectation and incentives for leveraging local business in the supply chain. • Provide training and tools to primary contractors and potential local suppliers on how local content will be measured and evaluated. • Work with primary direct suppliers and secondary suppliers to the Project on the processes and expectations required to supply the Project. <ul style="list-style-type: none"> ○ Could involve facilitating procurement fairs
Timing:	<ul style="list-style-type: none"> • Starting in Pre-Construction • In place through all phases of the Project
Assessment:	<p>Ease of Implementation:</p> <ul style="list-style-type: none"> • Highly internal process to NWMO • Requires primary suppliers to be on board and willing to collaborate with NWMO in leveraging local business <p>Degree of effectiveness:</p> <ul style="list-style-type: none"> • Large projects often create and report on local economic benefit reports when they are required to, or when they believe it helps them maintain their social license to operate. Ultimately, this could be increased economic activity for Ignace. <p>Cost if known:</p> <ul style="list-style-type: none"> • Staff time • Limited program development costs • Program operating costs <p>Ability to implement:</p> <ul style="list-style-type: none"> • Led by large contractors, engineering firms and or NWMO

5.3 Support Development and Enhancement of Business to meet Induced Demand

The economic impact on labour income associated with direct Project jobs and indirect jobs in the upstream Project supply chain could result in induced demand related to increased household spending. This increase in household spending can create new or expanded opportunities for local businesses. Entrepreneurs or local businesses may have technical skills to deliver goods and services that meet the induced demand, but they may struggle to turn these skills into new or expanded businesses. This option focuses on how NWMO can help new and existing businesses in the Local Study Area benefit

from the induced increase in household spending. **Table 12** presents an assessment of Option 3: Support Development and Enhancement of Business to meet Induced Demand.

Table 12 Support Development and Enhancement of Business to meet Induced Demand

Challenge/Opportunity:	<ul style="list-style-type: none"> Increased labour income from direct and indirect labour resident in the Local Study Area could induce an increase in household spending. <ul style="list-style-type: none"> For example, housing construction will require materials and services, there may be the need for a hardware store, millwork shop, roofing company, centre for construction materials such as wood for framing, drywall, plumbing supplies. Further, this spending may incent entrepreneurs to open a second grocery store, coffee shop, restaurant, clothing store etc. as an induced economic effect. Entrepreneurs and existing businesses may have the abilities to meet the demands of an induced increase in household and labour spending, but they may not have the business experience or risk tolerance to start new businesses or expand existing businesses. There are existing economic development programs that service the Local Study Area to assist businesses to develop and expand (Patricia Area Community Endeavors, Northwest Business Centre, FedNor).
Description of Option:	<ul style="list-style-type: none"> Help link entrepreneurs and existing businesses with the economic development organizations that can help organizations grow. Economic development organization assistance could be financial (grants, loans, etc....) or support in kind (business planning, administrative and financial training, marketing, etc...) Help entrepreneurs meet with each other to share ideas and problem solve. For example: this could be a “Founders club”, where entrepreneurs meet as a group and share their learnings. NWMO could provide space and other resources to facilitate this business development.
Timing:	<ul style="list-style-type: none"> Starting in Pre-Construction The opportunity for businesses to benefit from induced spending will grow along with the labour spending in the Local Study Area.
Assessment:	<p>Ease of Implementation:</p> <ul style="list-style-type: none"> NWMO may need to invest some staff time Economic Development Agency willingness could be dependent on their internal capacity Community outreach to make existing businesses and entrepreneurs aware of the opportunity and resources available. <p>Degree of effectiveness:</p> <ul style="list-style-type: none"> This could be very effective at creating business growth in the Local Study Area.

	<ul style="list-style-type: none"> For example: <ul style="list-style-type: none"> New restaurants and coffee shops could open or expand to meet the needs of a growing workforce. Businesses doing millwork could expand into custom kitchen planning and installation. <p>Cost if known:</p> <ul style="list-style-type: none"> Staff time Limited program communication costs Potentially making space and facilities available to facilitate collaboration <p>Ability to implement:</p> <ul style="list-style-type: none"> Catalyzed by NWMO with the support of Economic Development organizations and municipalities.

5.4 Fostering Joint Ventures to Supply the Project

Many of the businesses in the Local Study Area are not prepared nor do they have the capacity to be prime suppliers for the Project. This option focuses on the possibility of favouring suppliers who are partnered with Local Study Area businesses. Considering suppliers who have entered joint ventures with local companies will promote economic growth in the Local Study Area. **Table 13** presents an assessment of Option 4: Create Joint Ventures to Supply the Project.

Table 13 Create Joint Ventures to Supply the Project

Challenge/Opportunity:	<ul style="list-style-type: none"> Businesses in the Local Study Area are not well prepared to be prime contractor, or operator during Construction or Operations. New purpose-built companies that combine local business community presence and larger more experienced companies' resources and expertise can effectively supply the Project.
Description of Option:	<ul style="list-style-type: none"> In evaluating suppliers, NWMO would evaluate, foster and enter into joint ventures based on the tenure, qualifications, and location of their founding companies rather than the newly formed company. For example, Ontario Power Generation and the Canadian Centre for Nuclear Sustainability have brought together many local and international suppliers as a network to assist with decommissioning of the Pickering Nuclear Generating Station. NWMO would communicate that Joint Ventures with local companies would be given favourable consideration in selecting suppliers. Create opportunities for suppliers to add to their Joint Ventures throughout the Project.
Timing:	<ul style="list-style-type: none"> Starting in Pre-Construction In place through all phases of the Project

Assessment:	<p>Ease of Implementation:</p> <ul style="list-style-type: none"> • Difficult for NWMO to implement, although there are recent successful precedents. NWMO can foster. <p>Degree of effectiveness:</p> <ul style="list-style-type: none"> • Joint ventures could effectively funnel large company expertise and resources through a new local business. • Putting conditions into contracts to locate in Ignace would be desired. This is because joint ventures run the risk of being relatively hollow-store fronts, with not much economic impact in the local community. <p>Cost if known:</p> <ul style="list-style-type: none"> • Very little cost to NWMO • Most of the cost would be on the firms forming JVs <p>Ability to implement:</p> <ul style="list-style-type: none"> • NWMO could create incentives and encouragements for this type of activity.
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5.5 Attract Suppliers to the Local Study Area

Attracting larger suppliers to the Local Study Area who have the capabilities to act as principal suppliers will ensure that the Project demand requirements are met. It will need to be communicated to the larger suppliers and incorporated as part of contracts. Specifically, NWMO desires to grow the local supply chain and local vendors should be leveraged whenever possible. This option will be relatively inexpensive and easy for the NWMO to implement as large suppliers will be interested in the opportunity and the potential contracts are large enough to garner international attention. **Table 14** presents an assessment of Option 5: Attract Suppliers to the Local Study Area.

Table 14 Attract Suppliers to the Local Study Area

Challenge/Opportunity:	<ul style="list-style-type: none"> • Large companies that could act as principal suppliers during Construction and Operations do not exist in the Local Study Area.
Description of Option:	<ul style="list-style-type: none"> • Communicate to potential partners the big picture <ul style="list-style-type: none"> ○ Let larger potential suppliers know the size, scope and timing of the opportunity and NWMO's desires with regards to growing local supply chain. • Communicate how NWMO will factor in local presence as part of supplier selection. • Conduct a "Request for Information" (RFI) process that formally connects potential vendors and NWMO <ul style="list-style-type: none"> ○ Publish RFI across North American channels to reach the most potential suppliers. • Design NWMO facilities (Centre of Expertise) so that they can accommodate colocation of suppliers with NWMO staff working on the Project.

	<ul style="list-style-type: none"> Plan for office and commercial office space in Ignace to accommodate suppliers.
Timing:	<ul style="list-style-type: none"> Pre-Construction <ul style="list-style-type: none"> Start dialogue with potential suppliers Develop the Centre of Expertise in a way that could accommodate collocating space with suppliers Incent developers to build office and commercial space along with housing construction
Assessment:	<p>Ease of Implementation:</p> <ul style="list-style-type: none"> Not necessarily easy but doable, large suppliers will be interested in discussing the Project opportunity with NWMO. Companies are not going to relocate without a reasonable sense of a return. Companies may not relocate until they have contracts. Centre of Expertise is a greenfield construction and could be expanded. <p>Degree of effectiveness:</p> <ul style="list-style-type: none"> Often results in companies creating the minimum credible footprint in the community. This limits the benefits that the community receives through supply chain activity. Companies that locate more substantively will want to diversify their operations. The more local government, institutions and other companies are willing to purchase from these new organizations, the more substantive the local presence will be. <p>Cost if known:</p> <ul style="list-style-type: none"> Staff time Cost of outreach Additional construction and operating costs of the Centre of Expertise <p>Ability to implement:</p> <ul style="list-style-type: none"> NWMO can implement this option, but it may result in “Store-fronting” where a company maintains office space but staffs the location with the minimal requirement labour. This may have limited impact on benefits from the Supply Chain.

5.6 NWMO Procurement that Supports Local Supply Chain Development

With few businesses in the Local Study Area that can contribute significantly to the supply needs of the Project, a key area of opportunity will be the development of the local supply chain throughout the duration of the Project. Ensuring that local suppliers are being considered for small scale supply and contract needs will drive economic development throughout the Local Study Area. **Table 15** presents an assessment of Option 6: NWMO Procurement that Supports Local Supply Chain Development.

Table 15 NWMO Procurement that Supports Local Supply Chain Development

Challenge/Opportunity:	<ul style="list-style-type: none"> • The project will involve large expenditures that will grow the businesses that supply inputs. • There are few businesses in the Local Study Area that can play a major role in supplying construction or equipment needs of the Project. • Accommodation, food services, transportation and road construction, and tourism industries could ramp up and leverage the Project.
Description of Option:	<ul style="list-style-type: none"> • Decide on the supply strategies <ul style="list-style-type: none"> ○ Many direct suppliers option ○ One or few direct suppliers option • Communicate upcoming procurements – small picture • In advance so there is time to adjust • Procurement Process <ul style="list-style-type: none"> ○ Reflect what is desired in the procurement process ○ Transparent process that will show how selection will work
Timing:	<ul style="list-style-type: none"> • Starting in Pre-Construction • In place through all phases of the Project
Assessment:	<p>Ease of Implementation:</p> <ul style="list-style-type: none"> • Internal process and communication with industry is relatively easy <p>Degree of effectiveness:</p> <ul style="list-style-type: none"> • Very effective in shaping market responses to supply needs <p>Cost if known:</p> <ul style="list-style-type: none"> • Primarily staff time <p>Ability to implement:</p> <ul style="list-style-type: none"> • Within NWMO's control

5.7 Leverage Synergies Linked to the “Centre of Expertise” Within the Local Study Area there are a limited number of businesses that currently meet the industry requirements of the Project. The Centre of Expertise provides opportunity/synergy to enhance capacity of local businesses in the Local Study Area to capture Project opportunities. Examples of this might be training, tourism, or regional manufacturing; ultimately this would require community input. The Centre of Expertise will also be a hub for innovation by attracting suppliers in one location. This option would require financial investment on behalf of the NWMO and coordination between NWMO, suppliers, Ignace and other communities in the Local Study Area. Table 16 presents an assessment of Option 7: Develop “Centre of Expertise” with Broad Focus and Develop a Campus Around the Centre of Expertise.

Table 16 Leverage Synergies Linked to the Centre of Expertise

Challenge/Opportunity:	<ul style="list-style-type: none"> • There are limited businesses in the key industries required to supply the Project within the Local Study Area and/or those that can play a major role in supplying construction or equipment needs of the project. • Opportunity to have the Centre of Expertise expand its focus beyond the industries that are core to supplying the Project. • The project will involve large expenditures that will grow the businesses that supply inputs.
Description of Option:	<ul style="list-style-type: none"> • Create opportunity for leveraging the Centre of Expertise to foster new business opportunities. • Foster opportunity for incubating hubs that align with the industries present in the Local Study Area and the aspirations of Ignace and other communities in the Local Study Area (e.g. Tourism, recreation, etc.). • Train local entrepreneurs. • Create a catalyst that will drive growth in the industries that have a strong presence in the Local Study Area. • Develop space to support a supplier Hub around the COE.
Timing:	<ul style="list-style-type: none"> • Starting in Pre-Construction • In place through all phases of the Project
Assessment:	<p>Ease of Implementation:</p> <ul style="list-style-type: none"> • Would require coordinating NWMO, Ignace and potential suppliers, and collaboration with local industry and the communities on how the centre would function, what its focus would be, and what level of funding would be required. • Relatively complex combination of capital investments, planning and policies with multiple actors. <p>Degree of effectiveness:</p> <ul style="list-style-type: none"> • There would be a wide range of potential positive economic outcomes associated with this activity. It could result in the strengthening and growth of local industries and businesses, if the incubated hubs met market demand and grew beyond the incubator. Alternatively, it could result in an organization that does not grow beyond the immediate financial support provided to it, if it is unaligned with market forces. • Locating suppliers in a material way (not just storefronts) around the Centre of Expertise would help the Local Study Area capture the benefits from the supply chain <p>Cost if known:</p> <ul style="list-style-type: none"> • NWMO needs reliable and competent suppliers and needs to have assurances that those suppliers will be available long before they are required in each Phase. • Costs for this could be highly variable depending on what industry and communities would want to do. • Requires capital investment. • Could require additional servicing costs from the municipality

	<p>Ability to implement:</p> <ul style="list-style-type: none"> • There would have to be careful thought on what the focus would be. • There would have to be coordination on who would fund what (NWMO, industry, government) in this option. • Requires coordination with NWMO, municipality and suppliers.
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6 Conclusions

The APM project will have a material economic effect on the Local Study Area as this will be where the greatest economic opportunities will be. The Local Study Area has businesses that are best able to support the Project are suppliers. The Local Study Area is well positioned to provide accommodations, food services, transportation, heavy equipment repair and road construction and related support services. It has limited available resident labour to meet the project's staffing needs when compared to the Regional Study Area. Current household spending in the Local Study Area will likely be captured by Dryden and Sioux Lookout. Although the Regional Study Area has ample labour in occupations required by the Project, they currently are fully employed. There is competition for labour on wages.

The Project will require a supply chain with inputs from nine key industries. These industries are abundant and prominent in the Regional Study Area and can supply much of the Project's supply chain needs. The Local Study Area some relatively high per capita concentration of industries that will be able to play a role in aggregate, road building and civil works, timber supply, and facility operations and maintenance. Based on a relatively high per capita concentration there are opportunities to develop logistics, construction and manufacturing Industries in the Local Study Area. Additional accommodation suppliers may have an interest in relocating to Ignace. There are other hyper local services that can also be supplied by industries in the Local Study Area.

The impact of the Project on the supply chain will change by project phase, but more information is required on the distribution of spending by phase before this impact can be assessed.

Capturing the economic opportunities associated with the Project, and mitigating negative impacts requires action. Economic Development is about the imagining the possible opportunities and turning them into new businesses and business growth. Options are presented and assessed to increase the economic benefit and reduce potential negative benefits of the Project.

7 Gaps and Challenges

The analysis of the impact of the Project on “Career opportunities for youth” identified as part of Step 2 c. of the Ignace Community Studies Economics and Finance Workplan for the Pre-construction Economic Development is not included in this report. The analysis of the impact of the project on “Strengths and shortcomings for Project support” identified as part of Step 2 b. of the Ignace Community Studies Economics and Finance Workplan for Construction and Operations Economic Development is not addressed in this report, as our study did not look at the impacts of the Project on Willingness and Project support.

8 References

- City of Dryden. (2022, February 14). Knowledge Holder Interview. (Hardy Stevenson, Interviewer) .
- Crooked Arrow Catering. (2020). Retrieved online June 30th, 2022 from https://www.facebook.com/crookedarrowcatering/photos/?ref=page_internal
- Emsi Burning Glass. (2022, April). Analyst. Retrieved from Emsi: <https://a.economicmodeling.com/analyst/?t=3lqvW#h=dl1mJ&page=home&vertical=standard&nation=ca>
- Integroup. (2022, March 28). Ignace and Study Area Projections DFT (002).xls. Winnipeg.
- Kenora District Municipal Association. (2022, February 11). Knowledge Holder Interview. (Hardy
- Keir Corp. (2022) Regional Economic Development Study (E11) Draft Southwestern Ontario Community Study.
- Macnaughton Hermsen Britton Clarkson Planning Ltd. (2018). Retrieved from Municipality of Sioux Lookout Official Plan: <https://www.siuoxlookout.ca/en/resources/pdfs/corpserv/Sioux-Lookout-Official-Plan-Feb-2021.pdf>
- Manifold. (2022). Retrieved from https://app.polarisintelligence.com/profile/showreport?comparison_session=true&_locale=en&component_name=comparison_listMiller
- MDB Insight. (2022). NWMO APM Project Supply Chain V2. Prepared for the Municipality of South Bruce. – modified by Avaanz
- Miller Dickinson Blais. (2015). Dryden Development Corporation Economic Strategic Plan. Retrieved from <https://www.dryden.ca/en/business/resources/Documents/DDC-Economic-Development-Strategic-Plan-2015-09-14.pdf>
- Municipality of Machin. (2022, January 31). Knowledge Holder Interview. (Hardy Stevenson, Interviewer)
- Municipality of Sioux Lookout. (2022, February 18). Knowledge Holder Interview. (Hardy Stevenson, Interviewer) .
- Northwest Business Centre. (2022, January 28). Knowledge Holder Interview. (Hardy Stevenson, Interviewer).
- Nuclear Waste Management Organization (2021). Community Studies Planning Assumptions. November 2021.
- Perron Contracting. (2019). Retrieved online June 30, 2022 from <http://perroncontracting.com/>
- Statistics Canada. (2017). Population and Dwelling Count 2016 Census.

The Township of Ignace. (2019). The Township of Ignace Community Strategy - Explore Our Possibilities 2019-2024. Retrieved from <https://www.ignace.ca/business/economic-development/township-of-ignace-community-strategy-explore-our-possibilities-2019-2024>

Thunder Bay Chamber of Commerce. (2022, February 14). Knowledge Holder Interview. (Hardy Stevenson, Interviewer) .

Township of Ignace. (2022, February 28). Knowledge Holder Interview. (Hardy Stevenson, Interviewer) .

Trip Advisor. (2022). Retrieved online June 30, 2022 from https://www.tripadvisor.ca/Hotel_Review-g181721-d182038-Reviews-Best_Western_Plus_Dryden_Hotel_Conference_Centre-Dryden_Kenora_District_Ontario.html

Appendices

Appendix A List of 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 Limited
People and Health	NWMO	InterGroup Consultants Ltd
Infrastructure	Township of Ignace	WSP
Tourism	Township of Ignace	Urban Systems

Appendix B Inventory of Knowledge Holders

Interviewee	Organization
Executive Director	Northwest Training and Adjustment Board
Manager	Northwest Business Centre
Executive Officer	Thunder Bay Home Builders Association
Initiatives Officer	FedNor
Economic Development Officer	Township of Machin
Owner/Operator	Sunset Carpentry
HR	Treasury Metals
Program Manager	Crossroads Employment & Training Centre
Executive Director	Sioux Lookout Mining Centre of Excellence
Owner/Operator	Ricci Trucking/Raleigh Falls Timber
Principal	KPDSB - Ignace/Upsala Schools
Executive Director	Thunder Bay Chamber of Commerce
MGR Planning & Development	Township of Ignace
Mayor and KDMA President	Township of Ear Falls
EDO	City of Dryden
CAO	Township of Sioux Lookout
CAO	Township of Atikokan
Mill Manager	Ignace Sawmill - Resolute
Treasurer	Township of Ignace
IABA	Ignace
Executive Director	PACE - Dryden
Manager	Nexus/Alterna Credit Union - Ignace
Manager	Dryden Regional Airport/Loomex
EDO	City of Kenora
Director	Hoshizaki House Dryden District Crisis Shelter
Regional Public Affairs Manager	Domtar Mill, Dryden
CEO	KDSB - Dryden

Knowledge Holder Organizations and What we Heard Relevant to Economic Development	
City of Dryden - EDO	Municipality of Atikokan - CAO
City of Kenora - EDO	Municipality of Machin - EDO
FedNor	Municipality of Sioux Lookout - EDO
Crossroads Training and Employment Centre	Northwest Training and Adjustment Board (NTAB)
Northwest Business Centre	Patricia Area Community Endeavours (PACE)
Township of Ignace – City Planner	Thunder Bay Chamber of Commerce
Dryden Regional Airport	
What we Heard about Economic Development in Ignace and the Local Study Area	
Economic Development Opportunities	<ul style="list-style-type: none"> • Development of vacant and/or underutilized lands, specifically housing development • Support the growth and retention of local businesses and emerging sectors • Investment in infrastructure that supports growth in the tourism industry • Development of Regional airports
Economic Development Challenges	<ul style="list-style-type: none"> • Housing shortage across Northwestern Ontario • Labour supply shortages • Many businesses in Northwestern Ontario are at servicing capacity • Minimal grants available to businesses to support growth • Difficulty attracting youth back to the Local Study Area • Infrastructure servicing capacity (i.e., municipal sewer systems, water)

Appendix C Potential Local Study Area Suppliers

Category	Company	Location
Food Services	Windigo Catering	Sioux Lookout
Food Services	Crooked Arrow Catering	Dryden
Construction	Ricci's Trucking	Ignace
Construction	The Miller Group	Dryden
Construction	Nissley Construction	Sioux Lookout
Construction	Full Span Construction	Sioux Lookout
Construction	Moncrief Construction Ltd	Machin
Construction	Elk Construction	Ignace
Heavy Equipment	Sun Trac Contracting and Rentals	Dryden
Heavy Equipment	Rostek R B Construction	Dryden
Heavy Equipment	Wildwood Contracting	Dryden
Heavy Equipment	Miller Northwest Ltd	Dryden
Heavy Equipment	EMCON Dryden	Dryden
Mining Equipment	Resource Equipment Sales	Dryden
Industrial Suppliers	Intercity Industrial Supply	Dryden
Industrial Suppliers	Wolseley Mechanical	Dryden
Industrial Suppliers	Rona Dryden	Dryden
Industrial Suppliers	EECOL Electric	Dryden
Industrial Suppliers	MGM Electric	Dryden
Industrial Suppliers	Linde Canada	Dryden
Industrial Suppliers	NAPA Dryden	Dryden
Mill	Ignace Resolute Sawmill	Ignace
Mill	DOMTAR	Dryden

Appendix D Household Spending Categories Definition

Category	Definition
Essentials	Includes food, principal shelter, clothing, transportation, and healthcare
Retail	Including shelter (principal and all others), household operations, furnishings and equipment, clothing, transportation, health and personal care, recreation, etc.
Discretionaries	Including childcare, personal care, furnishings and equipment, telecom, pet, education, reading materials, recreation, art and antiques
Controllables	Including tobacco and alcohol beverage, gardening supplies, games of chance, and miscellaneous
Insurance	Including payments for life insurance, health insurance, annuities, employment insurance, home insurance, auto insurance, car rental insurance
Softline Products	Including clothing, footwear, jewellery, and accessories, etc.
Hardline	Including furnishings, appliances, tools, household wares, recreation equipment, garden equipment, etc.
Electronics	Including computer hardware/software, electronic games, home entertainment equipment, camera, telephone equipment, etc.
Hardware and Home Improvements	Including appliances, house maintenance and repair costs, household supplies, garden supplies and services
General Merchandise	Spending on clothing, furnishings, electronics, household goods, recreational goods, etc.

Appendix E Glossary

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 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.

Term	Definition
Local Study Area	<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 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.

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.</p> <p>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 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.