



NUCLEAR WASTE MANAGEMENT ORGANIZATION SOCIÉTÉ DE GESTION DES DÉCHETS NUCLÉAIRES

Phase 1 Preliminary Community Well-Being Assessment

TOWNSHIP OF HORNEPAYNE, ONTARIO



APM-REP-06144-0008

OCTOBER 2013

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Preliminary Community Well-Being Assessment: Hornepayne, ON

OCTOBER 2013



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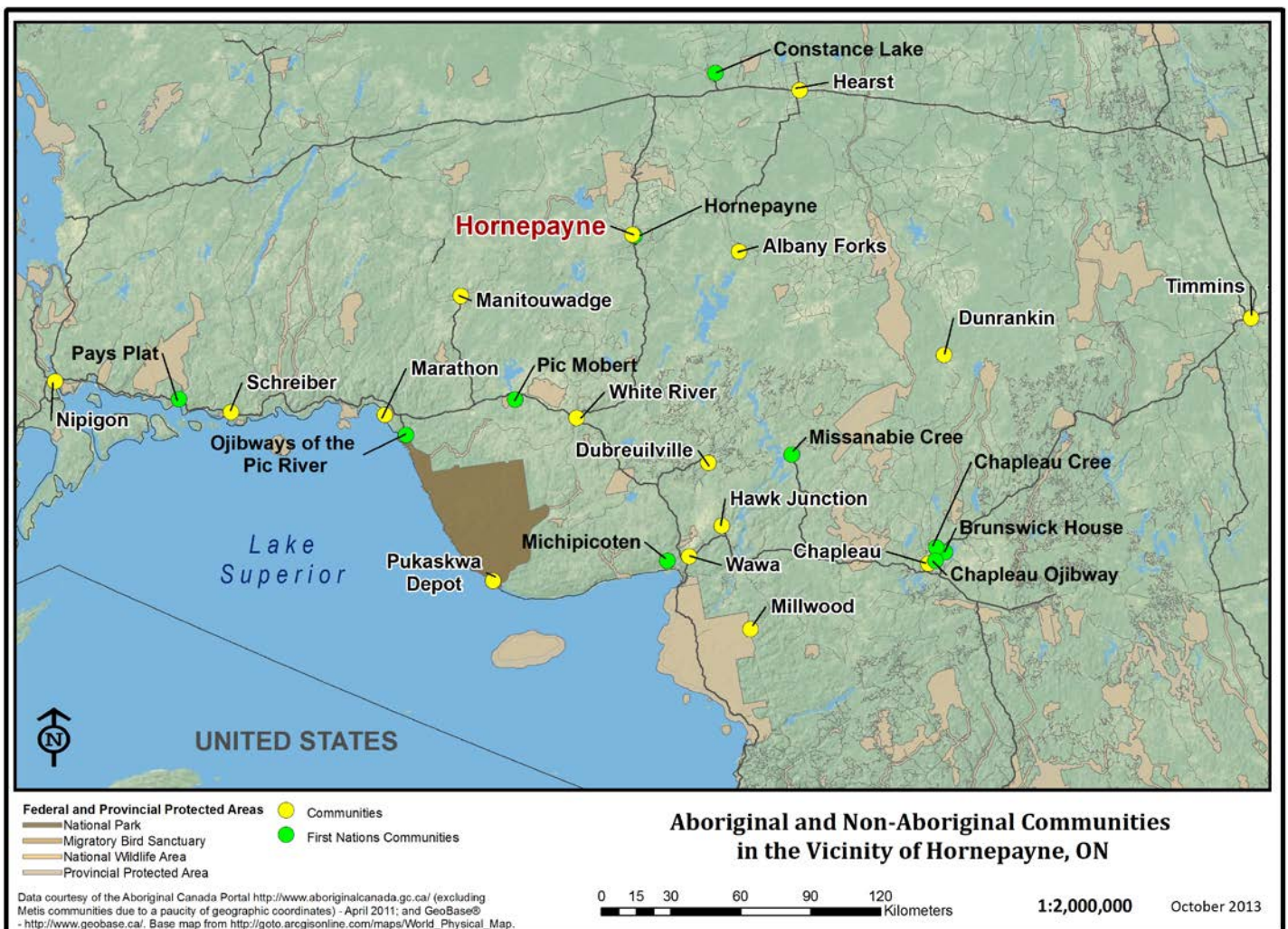
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1.0 INTRODUCTION

This Preliminary Community Well-being Assessment Report aims to provide a summary of the expected influences that the implementation of the Adaptive Phased Management (APM) Project would have on the overall community well-being of Hornepayne, Ontario (see Figure 1). This report also seeks to answer some fundamental questions to assist the NWMO and the community in understanding the suitability of Hornepayne to move forward in the siting process. While each of the communities currently participating in the ‘Learn More’ process will likely benefit in many ways from the APM Project and the economic development and employment opportunities associated with it, there are certain unique uncertainties and priorities to be managed for each community.

Figure 1: Hornepayne, Ontario



Source: DPRA Canada, 2013

Work has been completed to understand the community profile of Hornepayne¹, and also to understand and summarize the ways in which the APM Project might affect the community and the surrounding areas. In concert with the community NWMO worked to develop an understanding of the community today and its goals and aspirations for the future. To this end information has been assembled and studied through a variety of means including, engagement activities, community visits and tours, one-on-one discussions, Community Liaison Committee meetings, open houses and the development of a community profile.

All of this research and study, along with professional judgement, is used in this report to understand the potential implications of the project to the community's well-being and gain insights into the unique uncertainties and priorities that need to be managed.

As outlined at the inception of this step in the site selection process, the objective of the social, economic and cultural assessment is to assess both the potential to foster the well-being of the community and surrounding area and the potential to create the foundation for community and surrounding area confidence and support needed to implement the project. In Phase 1 of this assessment, which is the focus of this report, the intent is to explore the potential to foster the well-being of the community and, for this reason, the subset of factors and considerations related to the community are addressed at this time. Regional considerations are noted where early insight is available, however more detailed work would be conducted in Phase 2 should the community be selected to proceed to this phase of work and agree to do so.

A number of factors were identified as minimum criteria to consider in the site selection process in assessing the potential to foster well-being²:

- Potential social, economic and cultural effects during the implementation phase of the project;
- Potential for enhancement of the community's and the region's long-term sustainability through implementation of the project;
- Potential to avoid ecologically sensitive areas and locally significant features;
- Potential for physical and social infrastructure to adapt to changes resulting from the project; and
- Potential to avoid or minimize effects of the transportation of used nuclear fuel from existing storage facilities to the repository site.

In order to ensure that a broad, inclusive and holistic approach is being taken to assessment in these areas, a 'community well-being' framework was identified to help understand and assess the potential effects of the APM Project. This includes exploring the project, understanding how the community may be affected were the project to be implemented in the area, and identifying opportunities to leverage the project to achieve other objectives the community considers important. The framework is also used to explore the relative 'fit' of the APM Project for the community and the potential to create the foundation of confidence and support required for the implementation of the project.

¹ DPRA Canada. October 2013. *Community Profile, Hornepayne Ontario – Draft*.

² NWMO. 2010. *Moving Forward Together: Process for Selecting a Site for Canada's Deep Geological Repository for Used Nuclear Fuel*.

The framework is designed to encourage exploration of the project through five different 'lenses':

- **People or Human Assets** – How might the implementation of the project affect people?
- **Economics or Economic Assets** – How might the implementation of the project affect economic activity and financial health of the area?
- **Built Environment or Physical Assets** – How might the implementation of the project affect infrastructure and the physical structures which the community has established?
- **Society and Culture or Social Assets** – How might the implementation of the project affect the sense of belonging within the community, and among residents, and the services and network of activities created to serve the needs of community members?
- **Natural Environment or Natural Assets** – How might the implementation of the project affect the natural environment and the community's relationship with it?

This report begins with an overview of the basic assumptions about the Project and potential effects used for the preliminary assessment. The community's priorities/key issues, aspirations, capabilities and capacities are described. Next, the report explores the implications of the implementation of the APM Project on the well-being of the community in terms of the five 'lenses' or asset categories. The preliminary findings are also considered in terms of the 'criteria to assess factors beyond safety' identified by NWMO prior to the initiation of the siting process. A summary of relationship building and engagement activities, and the issues and questions raised to date, is provided. The report concludes by addressing key questions framed by NWMO at the outset of the site selection process.

Ultimately, the potential effect of the project on the well-being of a community needs to be identified and assessed by the community itself. This includes identifying the broad range of factors that need to be considered, the approach to measuring potential effect on well-being and judgements about the magnitude of this effect. It is also recognized that more detailed studies and further investigations of community specific risks and uncertainties will be required if the community continues in the siting process.

This report reflects the insight from desktop research and professional judgement, as well as reports shared by the community, insight provided by Community Liaison Committee members through their regular meetings over the course of more than a year, and individual discussions with community leaders and residents and others in the surrounding area. In preparing this report, we have been welcomed into the community and community members have graciously shared their time. We are extremely grateful for their time and participation.

2.0 THE APM PROJECT

The APM Project is currently still in early stages of design thus there remains flexibility in the nature and scope of its implementation. This provides an opportunity for the project to be structured and operated in a manner that suits the conditions and aspirations of the host community and surrounding area. However, it is important at this early stage of the preliminary assessment to understand the potential implications of the project on the community and its surroundings. This requires some basic assumptions about the project and initial effects. The starting assumptions for this preliminary assessment include the following:

1. The on-site labour workforce required by the APM Project (see Table 1) is in the range of 400 – 1,200 jobs and further jobs (indirect and induced) and community wealth creation will result from project spending for goods and services and employee income spending.³ The following table summarizes the estimated number of direct, on-site jobs throughout the life of the APM Project, which spans over 150 years.

Table 1: Estimate of On-Site Labour Workforce Required by APM Project

APM Phase	Number of Years (approx.)	Direct Jobs per Year (approx.)	Primary Skills Required
Construction	10	400-1,200	Mining, engineering, geoscience, safety assessment, manufacturing, construction, trades, project management, social science, engagement, communication, transportation
Operation	30 or more	700-800	Mining, engineering, geoscience, safety assessment, manufacturing, trades support, project management, social science, engagement, transportation
Extended Monitoring	50 or more	100-150	Geoscience, safety assessment, mining
Decommissioning and Closure	30	200-300	Mining, construction trades, geoscience, safety assessment, regulatory affairs
Long term monitoring	100 or more	25-50	Environmental and health and safety monitoring

Source: NWMO. 2012. *Description of Canada's Repository for Used Nuclear Fuel and Centre of Expertise*.

2. Realization of employment benefits within a community will depend on a variety of factors such as:
 - A. Preference for local hiring and sourcing from local businesses,
 - B. Training of local residents for positions in the project or in supporting services, and
 - C. Planning to prepare for and leverage future opportunities.

This project will be implemented through a long-term partnership involving the community, neighbouring communities and Aboriginal peoples in the area and the NWMO. Only through engagement, dialogue and collaboration will the NWMO ensure that needs are addressed at each stage

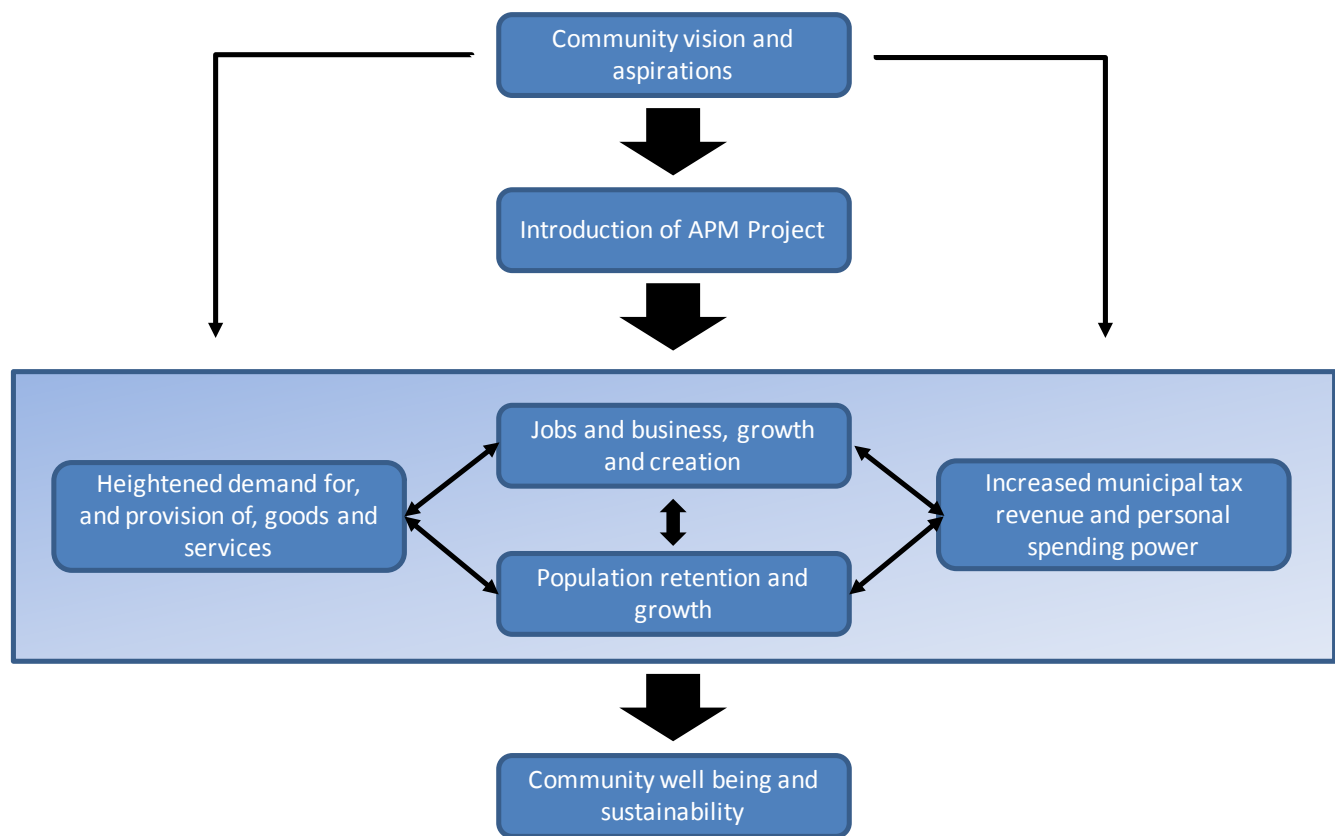
³ NWMO. 2012. *Description of Canada's Repository for Used Nuclear Fuel and Centre of Expertise*. Available online at <http://www.nwmo.ca/brochures>.

of the process, and determine the specifics of how a partnership arrangement would work. For illustration purposes only, employment opportunities could be in the order of hundreds of new jobs (direct, indirect and induced) within the local area⁴. However, it will be up to the community to determine the nature and scope of how it wishes to grow in discussions with the NWMO.

3. The NWMO is committed to working with communities and those in the surrounding area to optimize the benefits associated with the project in a manner that will directly and positively contribute to the overall well-being of not only the host community, but also other communities within the surrounding area, and as much as possible, drive future growth, capabilities and expertise that will sustain the community over a long period of time.

The following figure provides a graphical representation of the direct and indirect effects that may result from the siting of the APM Project (see Figure 2). The figure illustrates how the project could be the impetus for growth in population, business activity and municipal finances.

Figure 2: Direct and Indirect Effects of APM Project in Hornepayne



⁴ AECOM. 2010. *A Preliminary Assessment of Illustrative Generic Community Economic Benefits from Hosting the APM Project*. Available online at: http://www.nwmo.ca/uploads_managed/MediaFiles/1497_nwmosr-2010-09_preliminary_ass.pdf

3.0 VALUES AND ASPIRATIONS OF HORNEPAYNE

The Township of Hornepayne is a resilient community, having faced significant social, cultural and economic change⁵. The greatest changes in the community in recent years included changes in the local economy and the closure of the Hornepayne town mall. The Hornepayne community faces an aging and declining population, high unemployment rates and gaps in key infrastructure. Population and economic growth remain priorities.

The Township of Hornepayne conducted strategic planning activities in 2011 leading to the adoption of the *Strategic Plan for the Community of Hornepayne* (July 2011)⁶. The Plan was prepared in consultation with community members and identifies future opportunities, including growth of the local economy. The Plan also recognizes that Hornepayne has experienced past challenges and is currently undergoing transition. Hornepayne's vision is:

To position Hornepayne to take advantage of business opportunities and promote the successful growth of those endeavours while providing the best possible care and services to the citizens of Hornepayne.

An aspiration of the community is the continued support for resource based industries to help stabilize the population in the community and surrounding area. This will provide a greater level of security and sustainability to the community.

The Strategic Plan also identified a number of common values shared by individuals, agencies and businesses in the Community of Hornepayne. These values are:

- i. Public safety supersedes all economic needs;
- ii. Municipal revenues are public funds for the betterment of municipal services that are applied to the greater community good and delivered in an open and accountable fashion;
- iii. Quality of life extends beyond economic returns and includes quality education, health and social services, safe and free public space, access to affordable leisure and recreational facilities;
- iv. Private sector initiatives are at the core of the Hornepayne economic structure and competitiveness is defined and achieved through standard market conditions without government interference;
- v. The natural resource based industries including forestry, tourism and transportation are the economic foundations on which Hornepayne has been developed and are the heritage that will ensure prosperity and a stable future;
- vi. All sectors must work harmoniously to preserve existing businesses and facilitate the development of new businesses;
- vii. Environmental sustainability and effective management of natural resources are critical elements of a long term and prosperous future;
- viii. The cultural diversity of the local population is an integral part of the Hornepayne Community and its future.

⁵ DPRA Canada. October 2013. *Community Profile, Hornepayne Ontario – Draft*.

⁶ Hornepayne Community Adjustment Committee. July 2011. *Strategic Plan for the Community of Hornepayne*.

4.0 SUMMARY OF COMMUNITY ASSETS – KEY ISSUES, ASPIRATIONS, CAPABILITIES AND CAPACITIES

As described in the Community Profile⁷, Hornepayne has several priorities, aspirations, capabilities and capacities that are most vital to the well-being of the community. These are organized to describe the characteristics of the community through five different perspectives or ‘lenses’:

- **Human:** Skills, knowledge and essential services supporting the well-being of the community;
- **Economic:** Monetary or financial resources supporting the well-being of the community;
- **Infrastructure:** Basic physical infrastructure supporting the well-being of the community;
- **Social:** Social and community activities in which people participate and the services and programs they draw upon to support well-being; and,
- **Natural environment:** Nature and the natural environment important to well-being.

The characteristics of the community are referred to as “assets” throughout the report. This is intended to highlight their importance and pave the way for a broad and holistic discussion of how the community may be affected by the APM Project, or other large projects which the community may consider.

Table 2 below summarizes the priorities and key issues as understood through desktop research, review of documentation, and discussions with community leaders and residents. Table 3 sets out the aspirations of the community that have been articulated in the Strategic Plan for the Community of Hornepayne and in discussions with community leaders and representatives. Table 4 describes some of Hornepayne’s capabilities to overcome key issues, address main priorities and achieve aspirations as understood through discussions with the community.

The findings in these tables provide the foundation for this preliminary assessment of community well-being and the potential implications of the APM Project.

⁷ DPRA Canada. October 2013. *Community Profile, Hornepayne Ontario – Draft*.

Table 2: Summary of Priorities and Key Issues

Asset Category	Overall Priorities and Key Issues
Human	<p>Hornepayne is a community strongly tied to its resource-based economy. As a result, the economic downturn as well as the downsizing and closure of major employers in recent years have resulted in a decline of employment opportunities. However, the continued presence of two major employers – CN Rail and the Olav Haavaldsrud Timber Company – has enabled a degree of stability despite economic decline and business closures. Available information suggests that because of the two main employers, many residents are employed in a well-paying job even though there have been declining employment opportunities.</p>
Economic	<p>Historically, Hornepayne has experienced a series of “boom and bust” cycles associated with the local economy and Northern Ontario’s natural resources. Downturns in the forestry industry and the ensuing global recession have significantly impacted Hornepayne and the surrounding area. More recent strengthening of the forest industry has resulted in local employment opportunities.</p> <p>Out-migration continues to be experienced as young, mobile and generally well-educated residents leave the Township in search of employment opportunities. Hornepayne’s labour force has been in decline for the past 15 years due to trends of aging and population decline. In 2001 and 2006, Hornepayne residents were consistently employed in Business Services, Other Services and Manufacturing and Construction industries. In 2001 and 2006, Sales and Service Occupations and Trades, transport and equipment operators were the occupations with the largest labour force activity. Hornepayne’s unemployment rates have fluctuated over the past 10 years having decreased between 1996 and 2001; then increasing between 2001 and 2006. Household incomes have fluctuated between 1996 and 2006 having first declined between 1996 and 2001; and then increasing between 2001 and 2006.</p> <p>Declines and “boom and bust” cycles in the local and surrounding economy have resulted in some Township residents receiving social assistance through the Algoma District Administration Board.</p>

Asset Category	Overall Priorities and Key Issues
Infrastructure	<p>The Township of Hornepayne is well-situated along rail transportation networks, specifically the mainline CN Rail corridor. However, trends of business closures and population decline have resulted in financial constraints to maintain existing infrastructure networks first constructed to support larger population levels than currently exists.</p> <p>Priorities and key issues identified include: effective use and provision of infrastructure networks; financial constraints associated with supporting current population levels; effective management of infrastructure upgrade requirements; and encouragement of new development utilizing available, serviced land.</p>
Social	<p>Despite recent hardships, Hornepayne is a community with a number of social assets. Priorities and key issues related to the 'social assets' category identified include: expansion of recreational and social programming for community members of all ages; continued support for a range of sport and recreational activities throughout the year; and provision of new community facilities for recreational and social activities.</p>
Natural Environment	<p>The natural environment within and surrounding Hornepayne is a source of pride for residents. It also provides a number of recreational and tourist opportunities. Priorities and key issues related to the natural environment category include: preservation of the pristine natural environment present within and beyond Hornepayne; protecting the environment and water quality of the surrounding lakes and rivers; provision of additional tourism opportunities to further explore and appreciate Hornepayne's natural environment; protecting the integrity of Protected Areas; and balancing tourism growth with environmental protection.</p>

Table 3: Summary of Community Aspirations

Asset Category	Overall Community Aspirations
Human	<p>The Township’s <i>Strategic Plan</i> (2011) identifies a number of priorities for the Township now and into the future. Among the identified priorities, Hornepayne residents desire growth in terms of population and employment opportunities. Despite decline and recent hardships resulting from the October 2010 closure of the Hornepayne Town Centre, residents have a sense of resiliency and pride.</p>
Economic	<p>Hornepayne is a resilient community despite having experienced recent hardships, including the October 2010 closure of the Hornepayne Town Centre. The Centre’s closure was a shock and resulted in the loss of many community facilities once utilized by Township and surrounding area residents. The <i>Strategic Plan for the Community of Hornepayne</i> identifies a number of priorities for encouraging the growth of Hornepayne. There is a desire for economic diversification and economic development. The Strategic Plan identified a series of priorities that can further inform ways Hornepayne can facilitate growth and prosperity into the future.</p>
Infrastructure	<p>Hornepayne is a community well-situated along existing rail transportation networks. This positioning is a strategic advantage and can provide a catalyst to stimulate new growth. In addition, there are existing infrastructure networks in place capable of accommodating a larger population than currently exists. There is a collective desire for Hornepayne to receive population and employment growth. Other desires, including goals and objectives, have been stated in the <i>Strategic Plan for the Community of Hornepayne</i> (2011).</p>
Social	<p>The October 2010 closure of the Hornepayne Town Centre impacted the availability of social and recreational programming for members of the community. There is a desire for social and recreational programming to be expanded to levels previously experienced in the community. However, the provision of new social and recreational programming may require additional financial resources and community facilities to accommodate demand.</p>
Natural Environment	<p>The natural environment, including the land, water and air, surrounding Hornepayne are highly valued by residents and visitors. The community’s proximity to Nagagamis Provincial Park and other area natural features is a source of pride. However, there is a desire to further grow and expand the local tourism industry. As noted in the <i>Strategic Plan for the Community of Hornepayne</i>, growth of the tourism industry must balance economic growth with environmental protection. Strategies to grow tourism include the packaging of services to further develop and attract niche markets. In addition, seasonal activities such as fishing and hunting are highly valued by residents who wish to ensure the protection of the Hornepayne and surrounding area’s natural resources.</p>

Table 4: Summary of Community Capabilities

Asset Category	Community Capabilities and Capacities
Human	Between 1996 and 2006, an increasing number of Township residents obtained some form of formal education. In 2001 and 2006, a greater number of residents received university education compared to 1996 levels. For the same period, Township residents were consistently employed in “Trades and related occupations”. The availability of a trained workforce will enable Township residents to benefit from new employment opportunities associated with the natural resource-based economy.
Economic	Hornepayne is a community actively seeking population and employment growth, returning to a community of around 1,800 residents with the appropriate services. Some growth can be accommodated through the Township’s available land and existing economic development services. The Hornepayne Economic Development Corporation and Nord-Aski Regional Economic Development Corporation are active in the community to pursue new opportunities as they arise. However, new opportunities are constrained by available financial resources and entrepreneurial spirit. There are new opportunities to grow the local economy, including expansion of forestry initiatives within the community and growth of the local tourism industry.
Infrastructure	Hornepayne has existing surplus infrastructure and a desire to grow. Existing municipal infrastructure networks, including water, have a designed capacity in excess of current population levels. As a result, some growth can be accommodated within the community’s existing fabric. However, long-term growth may require infrastructure upgrading to accommodate a larger population base.
Social	There are a number of identified gaps with respect to community and recreation facilities and programs. Additional facilities are desired to replace those lost as a result of the Hornepayne Town Centre closure. In addition, additional recreational programming is desired for community members of all ages. However, despite the recent loss of facilities, Hornepayne is able to provide residents with a range of recreational and social programming. In addition, the community’s surrounding natural environment provides additional recreational opportunities, particularly for outdoor enthusiasts.
Natural Environment	Hornepayne’s natural environment has historically supported the local tourism industry and is a valued community asset. The presence of the Nagagamis Provincial Park and many nearby lakes are also valued assets which support the current lifestyle of many residents. There are a number of fly-in lodges located outside of Hornepayne which assist the local tourism industry and would benefit from growth in the local tourism industry.

5.0 COMMUNITY WELL-BEING ASSESSMENT

In this section, implications of the APM Project on the well-being of the community are examined through each of the five different perspectives or “lenses”. These are referred to as “assets”. Additional detail on these is provided in the Hornepayne Community Profile.⁸

5.1 IMPLICATIONS FOR HUMAN ASSETS

For the purpose of this analysis, the Human Assets within a community are understood to include the skills and knowledge inherent in it and the ability of a community to provide its residents with access to other skills, knowledge and essential services that are fundamental to maintaining community well-being, quality of life or a desired standard of living. In this analysis, the specific indicators examined included:

- Population Size and Demographics;
- Skills and Labour Supply;
- Education; and,
- Health and Safety Facilities and Services.

Table 5 summarizes observations with respect to the APM Project for the human assets of Hornepayne.

Hornepayne and many Northern Ontario communities have experienced a major decline in population. Hornepayne’s 2011 population was 1,050 residents –much less than what the community was 25 years ago. Hornepayne has experienced out-migration resulting from a loss of employment opportunities. The population is aging and the community struggles to attract and retain younger people of working age. Population decline is a primary concern for the people of Hornepayne, and there is strong desire to grow. The community has said it would like to see its population increase to about double its current size. Hornepayne would require assistance to plan for and manage growth.

With the population decline, retail establishments have closed, and, in particular, the Hornepayne Town Centre mall closed in 2010. Concurrently there have been reductions in recreational and community services and facilities.

The APM Project has the potential to bring in a large enough population to achieve the community’s goal of doubling its population. This growth will rejuvenate the schools, retail options and community facilities and services. The APM Project would likely utilize any existing skilled labour force and attract a new skilled and diverse workforce as well as attracting new families. The APM Project offers the opportunity for local residents to obtain opportunities in direct, indirect and induced jobs. Hornepayne would require assistance to train and engage any available local workforce.

With respect to education, Hornepayne has experienced a decline in enrolment and staff at educational facilities as well as a reduction in programming in recent years. Community education facilities are underutilised given current population levels. It is expected that the APM Project will attract young families to

⁸ DPRA Canada. October 2013. *Community Profile, Hornepayne Ontario –Draft*.

the area, increasing enrolment, and would stimulate career aspirations and interest in education and training. Hornepayne may require investment for new training facilities in the local region or the community.

Basic healthcare facilities are available at the Hornepayne Community Hospital; however any specialist services require travel outside the community. Emergency response services are available in the community and there is an emergency response plan in place. Residents of Hornepayne are able to access health services through the Porcupine Health Unit, Ontario Telemedicine Network and connect to a larger hospital in Hearst. The APM Project will result in an increased demand on health and safety facilities to support an influx of new residents and workers.

The APM Project has the potential to bring positive net benefits to the Human Assets of Hornepayne were the project to be implemented in the area. It would help the community realize its aspiration and goals, and it would drive development and expansion in other aspects of its community well-being.

Table 5: Implications for Human Assets

Criteria / Measures	Ideal CWB Condition	Current Hornepayne Profile	Possible Hornepayne Profile with APM Project	Observations
HUMAN ASSETS:				
Population Size and Demographics	Increase population to 1,500-2,000 Retention of youth and young families	Declining (Loss of 50% over past 25 years)	Growth in population and diversity	<ul style="list-style-type: none"> Hornepayne has experienced out-migration because of decreased employment opportunities. Aging population with limited opportunity to attract working population. The community has expressed a strong desire to grow – to double its current population and return to former days of prosperity. APM Project offers potential to create jobs and attract and retain population. Hornepayne would require assistance to plan for and manage growth.
Skills and Labour Supply	Presence of a diverse, skilled workforce	Constrained opportunities for employment	Job creation and growth of a diverse, skilled workforce	<ul style="list-style-type: none"> Majority of past and current out-migration has been workforce seeking employment elsewhere. Limited local employment opportunities to attract a diverse and growing workforce. APM Project would likely attract new skilled and diverse workforce and bring in new families. The APM Project offers diverse career opportunities for existing local residents in direct and indirect jobs. Hornepayne would require assistance to train and engage any available local workforce.
Education	Access to education and training Increased enrolment and programming	New elementary and secondary schools Declining enrolment Constrained programming	Increased enrolment and opportunities for education and training Broader range of programming	<ul style="list-style-type: none"> Hornepayne has experienced declining enrolment and declining staff and a contraction in programming in recent years. Community educational facilities are underutilized given current population levels. Wide range of new local employment/career opportunities with the APM Project will attract young families to the area, increasing enrolment. The APM Project will stimulate career aspirations and interest in training and education. Hornepayne would require planning and support to educate and train current workforce and future generations to take advantage of career opportunities. Hornepayne may require investment for new training facilities in the local region or the community.
Health & Safety Facilities and Services	Access to full range of health services 24/7 Fully serviced by emergency responders	Local hospital is able to meet many local needs Specialty care not available within the community Emergency response needs adequately met	Increased demand on services and facilities Catalyst to broaden supply of services and facilities, particularly healthcare	<ul style="list-style-type: none"> Basic healthcare is available; however, specialty healthcare requires travel outside the community. Emergency services are adequate for community at this time. With growth, demand for health and safety services will increase. Potential for increased social risks associated with population growth and project activity. Conversely, growth may also stimulate planning and expansion of health and safety facilities and services.
Declining-Negative				
Neutral-Stable				
Increasing-Enhanced-Positive				
Uncertain				

5. 2 IMPLICATIONS FOR ECONOMIC ASSETS

The Economic Assets within a community are understood to include the monetary or financial related resources that people use to achieve their well-being objectives. It includes cash or equivalents to individuals and/or their community, and availability of financial and economic resources that allow the community and residents to manage their finances and wealth. In this analysis, the specific indicators examined included:

- Employment;
- Business Activity;
- Income;
- Tourism;
- Economic Development Services; and,
- Governance and Municipal Finance.

Table 6 summarizes observations with respect to the APM Project for the economic assets of Hornepayne.

At the moment, employment in Hornepayne is at a point of equilibrium. The economy of Hornepayne has been in decline with the closure of many businesses which has had a ripple effect across the community. The population decline has seriously affected the retail and services sector and recreational facilities and programs. However, overall employment levels within the community have remained relatively stable. On the positive side the presence of two major employers in the community, Canadian National Railway and Olav Haavaldsrud Timber Company Limited continue to provide employment opportunities. Increased forestry activities in the general area are creating new employment opportunities. Counterpoint to this however has been a decline in other sectors that have forced residents to leave the community to find work elsewhere in Northern Ontario and beyond. This is particularly prevalent amongst the younger generation. It is hoped that the APM Project will provide desired stable employment and career opportunities for local people. Hornepayne may require assistance to ensure local residents are able to realize project direct and indirect employment opportunities.

The APM Project will give the community a significant boost in population with the concurrent expansion of retail and services, and new demands for education and community services.

Household incomes remain stable in Hornepayne due in part to business and employment stability at CN Rail and recent growth at the Olav Haavaldsrud Timber Company. The APM Project will further create local jobs and stimulate growth in household income and wealth creation. As such, Hornepayne may require assistance to help residents realize employment opportunities, and some residents may benefit from assistance and counselling regarding wealth and debt management.

Tourism has long been a secondary part of the local economy. The tourism industry in Hornepayne is largely dependent on the American market, which is in decline. There are some fly-in, fly-out outfitters in the area surrounding Hornepayne; however since 2010 there has been little local tourism accommodation available to residents and visitors to Hornepayne. There is some concern that the APM Project may adversely affect tourism through negative perceptions of the area. Conversely, there is also the potential for new visitors to the area who come to learn more about the project. Hornepayne and tourism organizations may require assistance to manage the presence of APM project constraints and opportunities.

The community has an active Economic Development Corporation, looking to attract new businesses to the area, but it will require assistance to ensure economic benefits from the project are optimized. There is the potential for the APM Project to improve business development opportunities through its own presence and the creation of associated business opportunities. Hornepayne may need assistance to plan and implement a strategy that will fully realize the economic development opportunities presented by the APM Project.

Municipal fiscal circumstances are currently challenging. Business closures, out-migration and vacant properties have left the community with a weak revenue base. The community is fiscally challenged to cover long term capital needs. The APM Project will increase municipal revenues. Optimizing benefits may require assistance from the NWMO in terms of effective planning and delivery. The APM Project will also allow Hornepayne to develop a more balanced tax base to ensure the maintenance of community infrastructure and services. The community may need assistance to deal with the fiscal implications of the APM Project and to how best manage its finances.

Should the APM Project locate in Hornepayne, the net economic effects are expected to be positive: jobs and business opportunities will be created and incomes will grow. The presence of long term and stable job opportunities will change the economic complexion of the community. Out-migration of youth will slow and in-migration will occur as Hornepayne becomes an employment centre. More households and greater expenditures open up market opportunities for local businesses to service the expanding needs of a growing and more affluent population. These conditions align with the community's aspirations for economic growth.

Table 6: Implications for Economic Assets

Criteria / Measures	Ideal CWB Condition	Current Hornepayne Profile	Possible Hornepayne Profile with APM Project	Observations
ECONOMIC ASSETS:				
Employment	Increasing employment for residents	Stable employment opportunities through major employers	Growth in the number of and diversity of employment opportunities in the community	<ul style="list-style-type: none"> Relatively stable employment levels given continued presence of CN Rail and Olav Haavaldsrud Timber Company Limited. Business closures outside these two employers have resulted in a decline in local job opportunities for residents in recent years. Increased forestry activities are creating new employment opportunities. Many residents have left the community to seek employment elsewhere; some residents seek to remain in the community but work in other locations across northern Ontario and further afield. Out-migration of youth in search for job and career opportunities is prevalent. APM Project would offer a diverse range of employment opportunities and careers for both community and area residents. Hornepayne may require assistance to ensure local residents are able to realize project direct and indirect employment opportunities.
Income	Household income growth and diminished need for social assistance	Rebounding household incomes	Growth in employment and as a result growth in household incomes and wealth creation	<ul style="list-style-type: none"> There is evidence that average household incomes are rebounding as a result of employment for the remaining workforce. APM Project would create local jobs and as a result this will stimulate growth in household income and wealth creation. Some residents may benefit from assistance and counselling regarding wealth and debt management. Hornepayne may require assistance to help residents realize employment opportunities and manage their finances.
Business Activity	Business growth and increasing business diversity	Many businesses in decline Downsizing and closures have been commonplace	Growth in business activity leading to growth in the number and diversity of businesses	<ul style="list-style-type: none"> Decline in business activities have had a ripple affect across the community causing job loss and population decline. Relatively stable employment levels given continued presence of CN Rail and Olav Haavaldsrud Timber Company Limited. APM Project would create local direct and indirect jobs and stimulate business activity across the community. By reversing the population decline and raising incomes, local market opportunities would present themselves and these in turn will stimulate business growth and diversity. Hornepayne may require assistance to plan, implement and manage economic development.
Tourism	Stability or growth in area tourism	An industry facing challenges and change Social and economic circumstances have affected the market	Potential deterioration in tourism as a result of negative perceptions and project concerns Potential increase in tourism with niche market	<ul style="list-style-type: none"> Area tourism is a small component of the local economy and there is limited tourist accommodation within the community. Area tourism is strongly dependent on American market base which is being negatively impacted by wider economic circumstances. APM Project may result in some negative perceptions of the area, but may also provide new markets for local tourist industry through population in-migrating to realize employment opportunities and visitors coming to area to learn about and see project. Hornepayne and tourism organizations may require assistance to manage the presence of APM Project constraints and opportunities.
Economic Development Services	An active, economic development organization that has demonstrated success in attracting businesses to the community	The Town has an economic development committee but tangible success has been hard to come by	Businesses will want to locate in the community to take advantage of the business opportunities directly and indirectly created by the APM project	<ul style="list-style-type: none"> Economic development has been difficult given the overall economy and the ongoing local attrition in businesses and jobs. APM Project would provide a catalyst for economic development through its own presence and creation of associated business opportunities. Hornepayne may need assistance to plan and implement a strategy that will fully realize the economic development opportunities presented by the APM Project.
Governance and Municipal Finances	Community is financially sustainable over short and long term	Declining financial position Declining tax base	An enhanced tax base with solid contributions from industrial and commercial properties Sufficient revenues to cover operating and capital requirements	<ul style="list-style-type: none"> Business attrition, vacant properties and tax arrears have left the community with a weak revenue base. Hard and soft services need to be operated and maintained and in some cases upgraded or replaced. The community is fiscally challenged to cover long term capital needs. APM Project by its presence would elevate revenues available to the Township. Hornepayne may need assistance to understand the fiscal implications of the APM Project and to how best manage its finances to ensure upside potentials are fully realized and downside risks are minimized.
Declining-Negative				
Neutral-Stable				
Increasing-Enhanced-Positive				
Uncertain				

5.3 IMPLICATIONS FOR INFRASTRUCTURE

The Infrastructure or Physical Assets within a community is understood to include the basic infrastructure needed to support well-being and the tools or equipment that people use to function more productively. Infrastructure is a basic public good and improved access to it increases community well-being and quality of life. In this analysis, the specific indicators examined included:

- Housing;
- Municipal Infrastructure and Services; and,
- Transportation Infrastructure.

It should be noted that while these indicators are a subset of those included in the Community Profile, these are the key indicators that are thought to be most important to Hornepayne in terms of its Physical well-being. Table 7 summarizes observations with respect to the APM Project for the physical assets of Hornepayne.

As there is development potential in Hornepayne, the APM Project would create a demand for a mix of housing types. The APM Project would see the in-migration of individuals and families who will absorb available housing stock. A supply/demand balance of housing would need to be maintained and ensure a strong supply of affordable housing. Hornepayne may need assistance to plan, develop and maintain a sustainable housing portfolio.

Basic municipal infrastructure is in place in Hornepayne, although some facilities may need upgrading or replacing. Housing stock appears to be in a good state of repair and there is potential for growth – including 68 vacant lots, most of which are serviced. A new water treatment facility was completed in 2007 with a capacity to serve 3,000 residents. The APM Project may place increased demands on existing infrastructure and may necessitate facility replacements in some cases; however, the project would generate municipal revenues that can be applied to facility operation and maintenance, upgrading, and replacement.

Hornepayne is situated on the CN main line and is a critical staffing centre, which handles over 20 trains per day. Passenger rail service is also available in the community. The Hornepayne Municipal Airport is currently unmanned, but appears to only require modest maintenance and possible upgrading. The APM Project would increase road, rail, and airport usage and this may necessitate upgrading and expansions. As such, Hornepayne and relevant authorities may require assistance to create a multimodal transportation plan.

Hornepayne has available housing for the time being but will need to develop and service land to handle the influx of workers during the construction and operation phases. Additionally, the influx of workers may place increased demand on the entire municipal infrastructure. The community and the NWMO would need to work cooperatively to effectively plan, build, operate and manage each of the physical asset components were the project to be implemented in the area.

Overall, the changes in community well-being related to the physical assets of Hornepayne as a result of the APM Project appear to be positive. The APM Project has the potential to create increased demand for housing and municipal services but also additional revenue sources for them. With respect to housing, there will be demand for a range of housing stock and there may be some project related price escalation which needs to be managed.

Table 7: Implications for Infrastructure

Criteria / Measures	Ideal CWB Condition	Current Hornepayne Profile	Possible Hornepayne Profile with APM Project	Observations
INFRASTRUCTURE OR PHYSICAL ASSETS:				
Housing	<p>Sufficient housing stock to meet all needs and incomes</p> <p>Average house values increase over time in line with household incomes</p>	<p>A large number of properties are on the market</p> <p>House prices have been declining given the out-migration of population and the discounted selling of properties in tax arrears</p>	<p>Strong absorption of available housing and stimulus to housing prices</p> <p>New housing development</p> <p>Potential shortage of supply if development does not keep pace with demand</p>	<p>→</p> <ul style="list-style-type: none"> There is development potential within the Township. APM Project would see the in-migration of individuals and families who will absorb the available housing stock. As vacancy rates fall and housing supply becomes constricted, housing prices might increase. APM Project would create a demand for a mix of housing types and tenure arrangements. A supply/demand balance of housing would need to be maintained to prevent excessive price escalation and ensure there is a strong supply of affordable housing. Hornepayne may need assistance to plan, develop and maintain a sustainable housing portfolio.
Municipal Infrastructure and Services	<p>Infrastructure assets are in good condition, well maintained and adequately sized to meet the short and long term needs of the community</p>	<p>The water system and landfill are in good condition and have surplus capacity</p>	<p>Increased demand for infrastructure and services</p> <p>Enhanced opportunities for new and renewed infrastructure</p>	<p>→</p> <ul style="list-style-type: none"> Hornepayne has a wastewater treatment system that may need replacement or upgrading. A new water treatment plant was completed in 2007 with a designed capacity of 3,000 residents. APM Project may place increased demands on existing infrastructure and may necessitate facility replacement in some cases. APM Project would generate municipal revenues directly and indirectly that can be applied to facility operation and maintenance, upgrading and replacement. Hornepayne may need assistance to plan, operate, maintain, and build new as required to meet service demands associated with the APM Project.
Transportation Infrastructure and Services	<p>A strong complement of transportation facilities and services to meet the needs of the residents and businesses within the community</p>	<p>Situated on the main East-West CN line</p> <p>Has unmanned airport</p> <p>100 km from TransCanada Highway</p>	<p>Upgrading / rehabilitation of rail yard and airport</p> <p>Road upgrading</p>	<p>→</p> <ul style="list-style-type: none"> Hornepayne has strong transportation linkages particularly for rail (CN Rail), which operates up to 26 trains daily. Passenger rail service is available. Hornepayne Municipal Airport is currently unmanned but appears to only require modest maintenance and possibly upgrading. APM Project would increase road, rail and airport usage and this may necessitate upgrading and expansions. Hornepayne and relevant authorities may require assistance to create a multimodal transportation plan to design, build, operate and manage transportation facilities and services needed by the APM Project.
Declining-Negative		←		
Neutral-Stable		■		
Increasing-Enhanced-Positive		→		
Uncertain		△		

5.4 IMPLICATIONS FOR SOCIAL ASSETS

For the purpose of this analysis, the Social Assets within a community are understood to include the social and community activities in which people participate and the resources that they draw upon in pursuit of their well-being. These activities and resources create networks within and between communities, enhance cohesion and generate trusting relationships and community pride. In this analysis, the specific indicators examined included:

- Community Recreational Facilities and Programs;
- Social Services and Organizations; and,
- Community Character.

It should be noted that while these indicators are a subset of those included in the Community Profile, these are the key indicators that are thought to be most important to Hornepayne in terms of its Social well-being.

Table 8 summarizes observations with respect to the APM Project for the social assets of Hornepayne.

Hornepayne is a resilient community in which people pull together to meet its needs, but there was a major blow to the community when the Hornepayne Town Centre mall closed. The result though, was to see the community re-double efforts to stabilize itself. Hornepayne currently has a number of recreational facilities and programs such as minor hockey, adult hockey, figure skating and intra-mural sports; however the decline in population has led to program reductions and facility closures in recent years such as the closure of the public pool. The financial circumstances of the Township do not permit continued investments in some services and associated infrastructure. The APM Project will bring an increased population to the community, thereby boosting participation and involvement. As such, this population may place demands on existing facilities, services, and organizations and may create the need for new facilities and services. It will also lead to the reopening of facilities and programs. This transition may require planning assistance.

Hornepayne has a strong sense of pride associated with its history and natural environment. Outdoor activities such as cross country skiing, snowmobiling, hunting and fishing are popular activities. The community is a quiet and safe community for families and has some organizations that supply social services to the community. Although the APM Project could double the existing population, there is a desire to preserve the community character and to ensure this is maintained, Hornepayne would need planning assistance.

The APM Project will make more demands on community and social services, but the increased population will also provide the tax base and volunteer base to meet needs. Overall, given that the APM Project may double the population of Hornepayne, NWMO will need to work with the community to ensure a measured increase in population so that old and new residents can adjust to each other and to maintain the strong sense of community identity.

The APM Project would have a net positive benefit on the Social Assets of the community were it to be implemented in the area. With respect to the community recreational facilities and programs and also the social services and organizations, the increased population associated with the APM Project would be expected to increase demand on these resources. However, this increased population would also be expected to

heighten participation rates, and create a larger base of human resources for volunteers. Increased funding and participation would allow Hornepayne to upgrade and expand its recreational and social programs. Based on discussions with the community, the project would be expected to have a positive influence on the dynamics of the community by providing a more stable population base through the retention of younger families and youth and by providing the ability to support its middle aged and senior populations. This speaks to the character of Hornepayne as a tight knit and proud community.

Table 8: Implications for Social Assets

Criteria / Measures	Ideal CWB Condition	Current Hornepayne Profile	Possible Hornepayne Profile with APM Project	Observations
SOCIAL ASSETS:				
Community Recreational Facilities and Programs	A strong complement of recreational facilities and programs to meet the needs of the residents	Recent facility closures Population decline is making it less viable to operate some facilities and programs	Increased demand for and patronage of recreation programs Enhanced opportunities for new and renewed facilities	<ul style="list-style-type: none"> The decline in population has caused changes in recreational programming; the community is now too small to support many cultural programs. A number of recreational programs and facilities have closed in recent years. The financial circumstances of the Township do not permit continued investments in some services and associated infrastructure. Therefore, facilities are not maintained and upgraded to the degree they might be if more funds were readily available. APM Project would bring population into the community and this population may place demands on existing facilities and services and may create the need for new facilities and services as well. Hornepayne may need assistance to plan, develop and operate the recreational facilities and services needed in light of the APM Project.
Social Services and Organizations	A wide range of services, organizations and media outlets present to support the social fabric and needs of the community	Has some organizations and services present Some organizations have declining membership	Increased demand for and use of social services and organizations Enhanced opportunities for new services and organizations	<ul style="list-style-type: none"> Hornepayne has some organizations that supply social services to the community. APM Project would bring population in to the community and this population may place demands on existing services and organizations and may create a need for new services and organizations as well as new funding and participation to help grow services and organizations. Hornepayne would need assistance to plan, develop and resource the services and organizations needed in light of the APM Project.
Community Character	Strong sense of community identity Cohesive community Stability of population	Strong sense of pride in history, community and natural environment Cohesive community Changing migrating patterns	Increased youth retention and resources to strengthen pride in place	<ul style="list-style-type: none"> Hornepayne has a strong sense of pride associated with the surrounding natural environment. Hornepayne is felt to be a safe, quiet and friendly community for new and existing families. The community is cohesive. Population dynamics in flux due to out-migration of youth seeking employment opportunities. The APM Project would bring growth and stability. To ensure community character is maintained, Hornepayne would need assistance to plan for and accommodate population associated with the APM Project.
Declining-Negative				
Neutral-Stable				
Increasing-Enhanced-Positive				
Uncertain				

5.5 IMPLICATIONS FOR NATURAL ENVIRONMENT

For the purpose of this analysis, the Natural Environment within a community is understood to include a wide range of natural assets from intangible public goods (e.g., air quality and biodiversity) to resources that are “used” by people (e.g., water, trees, land and wildlife). In this analysis, the specific indicators examined included:

- Parks and Protected Areas; and,
- Natural Areas/Features of Significance.

As would be the case with any large project, natural areas, may be negatively influenced during the construction phase of the project (e.g. noise, dust). While it is expected that effective mitigation and environmental protection measures will be in place to ensure that the overall environmental integrity of the area is maintained, at this point, further studies are required to understand the extent and scale of any effects due to changes in the atmospheric, subsurface, aquatic and terrestrial environments during normal construction activity. It has been shown that no significant negative environmental effects will likely arise during the operations phase from the used fuel repository itself.

Table 9 summarizes observations with respect to the APM Project for the natural assets of Hornepayne.

The natural environment is a source of pride for the community of Hornepayne and its residents. Hornepayne and area residents regularly use the surrounding area for recreational activities. Fishing and hunting are important in the community as are the snowmobile and ATV trails. These natural features will likely be attractive to many of the new APM Project employees.

There are some parks and open spaces in the area, including Nagagamisis Provincial Park, Hearst Forest and, further away, the Chapleau Crown Game Preserve. Increased population will result in increased visitor numbers and also potential for increased demand and heightened pressure on natural areas. Growth of nature based and eco-tourism is also desired by the community. There may be a need for the Township, aided by NWMO, to ensure that sensitive areas are protected, and the carrying capacity of the areas is not exceeded. Further environmental studies would be needed to understand the scale and extent of any environmental effects. With proper planning and dialogue, resources would remain protected and increased demand managed.

Initial studies on the potential environmental effects associated with the project suggest that the APM Project is unlikely to have any significant negative effect on the natural environment which makes up the parks and protected areas near the community. There is the potential that visitation to the Provincial Park may experience some decline with the presence of the facility and any associated negative perceptions. However, there are many examples of Provincial Parks that are situated close to or nearby to nuclear facilities (e.g. Darlington, MacGregor Point and Inverhuron Provincial Parks) where visitation has not been affected. It is expected that through working with park managers and clearly communicating with the public, any negative perception effects can be mitigated, if not even leveraged to take advantage of increased population growth and visitation associated with the project. Further study is required to better understand and predict the potential effects of the project on visitor perception and use of the area.

As would be the case with any large project, natural areas, might be affected during the various phases of the project. Effective mitigation and environmental protection measures will ensure that the overall environmental integrity of the area is maintained. It is understood at this point in time that no significant negative environmental effects are likely during the construction, operation and decommissioning phases of the used fuel repository taking into account mitigation that will be applied.

The Project contains some flexibility with respect to on-site building designs and energy use to be consistent with broad environmental and social values. For example, the ability to use renewable sources of electric power, where feasible, coupled with energy-efficient building designs might limit the overall carbon footprint of the project.

Table 9: Implications for Natural Assets

Criteria / Measures	Ideal CWB Condition	Current Hornepayne Profile	Possible Hornepayne Profile with APM Project	Observations and Implications
NATURAL ENVIRONMENT:				
Parks and Protected Areas	Conservation reserves and parks are supported and maintained and also remain available for use	Reserves and parks are available for passive and active recreational use Park use has been increasing over time	Potential for increased demand	<ul style="list-style-type: none"> ▪ Nagagamisis Provincial Park and other natural areas including numerous lakes attract visitors and are a sense of pride for the community. ▪ Potential for increased demand on conservation reserves and provincial parks. ▪ With proper planning and dialogue, resources would remain protected and increased demand managed.
Natural Areas / Features of Significance	Areas and features are protected and contribute to pride of place	Residents are proud of natural areas and use features for passive and active recreation	Potential for increased demand and degradation of features	<ul style="list-style-type: none"> ▪ Hornepayne is situated in an area of natural features, the most prominent of which are the Nagagamisis Provincial Park and Hearst Forest. ▪ Effective mitigation and environmental protection measures will ensure that the overall environmental integrity of the area is maintained. ▪ It is understood at this point in time that no net negative environmental effects are likely during the construction and operation phase of the used fuel repository itself.
Declining-Negative				
Neutral-Stable				
Environment – Integrity Maintained				
Increasing-Enhanced-Positive				
Uncertain				

5.6 COMMUNITY WELL-BEING SUMMARY

Based on the foregoing discussion, the APM Project has the potential to be a very good fit for the community of Hornepayne. The APM Project has the potential to enable the aspirations of the community to be achieved and through this, foster well-being as Hornepayne defines it. Based on discussions with the community, it is understood that the APM Project would provide economic growth, stability and growth of the population. Table 10 is a summary for all five asset categories.











The introduction of the APM Project to a relatively remote Northern Ontario community such as Hornepayne will create significant change. Positive changes could include:






- Employment and business opportunities (direct and indirect)
- Population growth due to in-migration of workers will result in greater utilization and more resources for local community assets (infrastructure, housing, facilities and services)
- Utilization of available, serviced land
- Ability to retain youth/young families in the community
- Improved education and training, development of a skilled work force
- Enhanced self-sufficiency for individuals, families and the community as whole
- Improved tax base/municipal revenues

It is recognized that some tourist operators may be concerned about the effect of the APM Project. However, others can see positive implications for the tourist industry as a result of increased population and tourism visitation to the area.

Some natural areas may be affected by the APM Project. Effective mitigation and environmental protection measures will ensure that the overall environmental integrity of the area is maintained.

Table 10: Overall Community Well-Being Implications

Criteria / Measures	CWB is Enhanced When ...	Current Hornepayne Profile		Possible Hornepayne Profile with APM Project		Observations and Implications
OVERALL CWB IMPLICATIONS:						
Human Assets	Population growth occurs and youth are retained in the community	Declining		Enhanced		<ul style="list-style-type: none"> APM Project would bring population growth, which is a key priority and aspiration for the community. Youth would be retained through increased employment opportunities and new residents would be attracted to the area. Educational and healthcare resources would be enhanced.
Economic Assets	Employment opportunities are available and tax base increases to fund community services and facilities	Stable		Enhanced		<ul style="list-style-type: none"> There will be increased employment opportunities and a more diverse range of jobs. Increased funding through a wider tax base would provide additional financial resources for Hornepayne to help fund its infrastructure projects, educational developments, community and recreational facilities and programs and social services and organizations. The increased jobs from the APM Project would be the catalyst for Hornepayne to enhance its community well-being.
Infrastructure	Infrastructure is maintained or improved to meet the needs of the community	Stable		Enhanced		<ul style="list-style-type: none"> The APM Project, while placing increased demands on some of the infrastructure and services, would overall provide increased funding to improve and enhance existing services.
Social Assets	Opportunities exist for recreation and social networking. Community is cohesive, and community character is enhanced.	Stable		Enhanced		<ul style="list-style-type: none"> The community would see an overall benefit to its Social Assets through increased participation and funding to its recreational facilities and programs as well as its social services and organizations. With proper planning and communication, no serious social divisions would be expected to occur in the community. Interest in the Project appears to be very positive and the community is largely cohesive on this issue.
Natural Environment	Natural areas, parks and conservation reserves are preserved and maintained for use and enjoyment	Positive		Environment – Integrity Maintained		<ul style="list-style-type: none"> Some natural areas might be affected by the APM Project. Effective mitigation and environmental protection measures will ensure that the overall environmental integrity of the area is maintained. It is understood at this point in time that no significant negative environmental effects are likely during the construction, operation and decommissioning phases of the used fuel repository.

Legend	
Declining – Negative	
Neutral – Stable	
Environment – Integrity Maintained	
Increasing – Enhanced – Positive	
Uncertain	

6.0 CRITERIA TO ASSESS FACTORS BEYOND SAFETY - SUMMARY

The previous discussion has taken a holistic approach to the assessment, taking into account the aspirations of the community and the implications of the project for community well-being. The NWMO has acknowledged that the process of assessment of community well-being needs to be collaborative and reflective of the community. Before initiating the siting process, and beginning to engage interested communities in the assessment process to understand their aspirations, the NWMO identified five evaluation factors, which, at a minimum would need to be addressed⁹.

Table 11 draws on information outlined in the previous discussion to understand the potential to foster well-being in Hornepayne against these original factors. It summarizes preliminary findings about the implications of the APM Project, were it to be implemented in the community, on various factors of well-being. For many evaluation factors, four measures are used: maintained, enhanced, diminished or uncertain. For other evaluation factors, two measures are used: Yes, or No. The overall conclusion using these evaluation factors and the understanding that has emerged to date is consistent with that outlined in the previous sections.

Over the course of discussions and conversations, the community identified a number of other important areas for consideration. The community expressed a strong desire to better understand how to engage neighbouring communities, communities on transportation routes and in particular area Aboriginal communities. Hornepayne realizes that it would be essential to develop relationships with all of the foregoing to support the implementation of the project.

⁹ NWMO. 2010. *Moving Forward Together: Process for Selecting a Site for Canada's Deep Geological Repository for Used Nuclear Fuel*. Available online at: <http://www.nwmo.ca/sitingprocess>.

Table 11: Summary Table of Criteria to Assess Factors Beyond Safety – Hornepayne

Factors Beyond Safety	Evaluation Factors to be Considered	Potential Effect of APM Project	Discussion Based on Preliminary Assessment
Potential social, economic and cultural effects during the implementation phase of the project, including factors identified by Aboriginal Traditional Knowledge	Health and safety of residents and the community	Maintained	<ul style="list-style-type: none"> There is a strong safety case and the community wants to learn more about safety and health considerations to enhance their confidence in the safety of the project.
	Sustainable built environments	Enhanced	<ul style="list-style-type: none"> Community infrastructure and built fabric will be enhanced through project activities and investments in the community.
	Sustainable natural environments	Maintained	<ul style="list-style-type: none"> Some natural areas might be affected by the APM Project. Effective mitigation and environmental protection measures will ensure that the overall environmental integrity of the area is maintained. It is understood at this point in time that no significant negative environmental effects are likely during the construction, operation and decommissioning phases of the used fuel repository.
	Local and regional economy and employment	Enhanced	<ul style="list-style-type: none"> Significant employment and population growth would occur in Hornepayne and surrounding communities – hundreds of new jobs might be created in Hornepayne. With these jobs comes the potential to double the current population of Hornepayne. New opportunities would be created for local businesses to serve the project and growing population.
	Community administration and decision-making processes	Enhanced	<ul style="list-style-type: none"> Local leadership has demonstrated interest in the project and going forward it is expected that local leadership will ensure residents have opportunities to learn more and engage in community decision making.
	Balanced growth and healthy, livable communities	Enhanced	<ul style="list-style-type: none"> Hornepayne has aspirations to grow its population and economy as platforms for its strategic plan. The APM Project generally appears to be a fit with primary community goals and aspirations for economic development and growth.
Potential for enhancement of the community’s and region’s long term sustainability through implementation of the project, including factors identified by Aboriginal Traditional Knowledge	Health and safety of residents and the community	Maintained	<ul style="list-style-type: none"> There is a strong safety case. Engagement of surrounding communities is beginning and further dialogue will be required to understand and address questions and concerns about safety and health considerations related to the repository and transportation of used nuclear fuel.
	Sustainable built environments	Enhanced	<ul style="list-style-type: none"> Infrastructure and built fabric will be enhanced through project activities and investments in the community and surrounding areas.
	Sustainable natural environments	Maintained	<ul style="list-style-type: none"> Some natural areas may be affected during the construction, operation and decommissioning phases of the project. Effective mitigation and environmental protection measures will be required to ensure that the overall environmental integrity of the area is maintained.
	Local and regional economy and employment	Enhanced	<ul style="list-style-type: none"> Substantial employment and economic development opportunities would extend to the surrounding region.
	Community administration and decision-making processes	Enhanced	<ul style="list-style-type: none"> Engagement of surrounding communities has been initiated and is coordinated and ongoing. Surrounding community leadership has demonstrated interest in the project and going forward it is expected they will be able to make informed and effective decisions.
	Balanced growth and healthy, livable communities	Enhanced	<ul style="list-style-type: none"> Engagement of surrounding communities has been initiated and is coordinated and ongoing. Surrounding area communities are collectively seeking economic development and growth in the region. The APM Project generally appears to be in alignment with these aspirations.
Potential to avoid ecologically sensitive areas and locally significant features, including factors identified by Aboriginal Traditional Knowledge	Ability to avoid ecologically sensitive areas and locally significant features	Yes	<ul style="list-style-type: none"> The region contains potentially suitable sites for the project thus providing flexibility in selecting specific sites that can avoid ecologically sensitive areas and local significant features.
Potential for physical and social infrastructure to adapt to changes resulting from the project	Potential for physical infrastructure to be adapted to implement the project	Yes	<ul style="list-style-type: none"> There are few infrastructure limitations in Hornepayne or the surrounding region to impede project implementation. Hornepayne and the surrounding areas are highway accessible, have social and economic support services, and capacity to absorb the anticipated growth in population and economic activity. Some investments would be required to accommodate specific infrastructure deficiencies.
	Potential for social infrastructure to be adapted to implement the project	Yes	<ul style="list-style-type: none"> The community of Hornepayne appears to have the necessary core of social infrastructure in place to plan and adapt to changes resulting from the project.
	The NWMO resources required to put in place physical and social infrastructure needed to support the project	To Be Determined	<ul style="list-style-type: none"> In all likelihood, Hornepayne would require assistance in terms of planning, and human and financial resources. Further studies will be required to explore the specifics of these requirements.

Factors Beyond Safety	Evaluation Factors to be Considered	Potential Effect of APM Project	Discussion Based on Preliminary Assessment
<p>Potential to avoid or minimize effects of the transportation of used nuclear fuel from existing storage facilities to the repository site</p>	<p>The availability of transportation routes (road, rail, water) and the adequacy of associated infrastructure and potential to put such routes in place</p>	<p>To Be Determined</p>	<ul style="list-style-type: none"> ▪ Hornepayne is located on the main CN Rail line and is accessed by Highway 631. ▪ Hornepayne also has the infrastructure in place to provide access through its airport should renovations and other resources enable it to reopen. ▪ The community and region have access to multiple modes of transportation. ▪ However, engagement of surrounding communities will be required to help build understanding and address questions and concerns.
	<p>The availability of suitable safe connections and intermodal transfer points, if required, and potential to put them in place</p>	<p>To Be Determined</p>	<ul style="list-style-type: none"> ▪ Engagement of surrounding communities and those on potential transportation routes will be required to help build understanding and address questions and concerns.
	<p>The NWMO resources (fuel, people) and associated carbon footprint required to transport used fuel to the site</p>	<p>900 – 1,760 tonnes of equivalent carbon dioxide emission is expected to be produced per year</p>	<ul style="list-style-type: none"> ▪ In a scenario of all road transport of 4.6 million fuel bundles from the interim storage sites to an APM facility near Hornepayne, approximately 1,760 tonnes of equivalent carbon dioxide emissions are expected to be produced per year. ▪ In a scenario of transport by mostly rail mode approximately 900 tonnes of equivalent carbon dioxide emissions are expected.
	<p>The potential for effects on communities along the transportation routes and at intermodal transfer points</p>	<p>To Be Determined</p>	<ul style="list-style-type: none"> ▪ There is a robust technical safety case for the safe and secure transport of used nuclear fuel. However, engagement of surrounding communities and those on potential transportation routes will be required to understand and address questions and concerns.

7.0 RELATIONSHIP BUILDING AND ENGAGEMENT SUMMARY

7.1 OVERVIEW OF ENGAGEMENT

NWMO has engaged with Hornepayne leadership, community members, surrounding communities and First Nations/Aboriginal organizations through a variety of means, including:

- Several community open houses
- Regular attendance at the Community Liaison Committee meetings
- Both informal and structured interviews with community members
- Facilitating the Community Liaison Committee web page and newsletters
- Discussions with school groups
- Preparation of written materials
- Informal tours and visits with local residents
- Attendance at the Hornepayne Fishing Derby
- 'Ask the NWMO' columns in regional newspapers
- Meetings with nearby First Nations and Métis
- Attendance at regional meetings, conferences (e.g., with Northeast Superior Regional Chiefs' Forum, Northeast Superior Mayors' Group, and Federation of Northern Ontario Municipalities)
- NWMO Mobile Transportation Exhibit
- Nuclear waste management facility tours

Initial discussions with a cross-section of community leaders, briefings and conversations with community members, and conversations with residents during open houses suggest there is some interest in the community to continue to learn about the project and consider hosting the project in the area. To this end, opportunities for preliminary discussions were sought with:

1. Local political leaders (e.g., Mayor and Councillors)
2. Members of the Nuclear Waste Community Liaison Committee
3. Local business owners/operators
4. Local service providers (e.g. emergency services, social services, education)
5. Surrounding community leaders
6. Residents
7. First Nations and Métis Communities in the vicinity

Based on these discussions, there appears to be growing potential in the local community to sustain interest. There also appears to be strong and growing interest to continue and move forward with the siting process.

Through the Northeast Superior Mayors' Group, Hornepayne has taken steps to engage its neighbours, including Aboriginal peoples, and has begun to set the foundation for further constructive consideration of the project and opportunity to work collaboratively to explore the project and interest in the broader area. These steps have elicited positive interest from some surrounding communities and discussions are coordinated and ongoing.

7.2 SUMMARY OF ISSUES AND QUESTIONS RAISED

7.2.1 KEY CHALLENGES, ISSUES AND OPPORTUNITIES

The key challenge for Hornepayne, as identified through the various engagement activities, is to create and stimulate economic development. Growth is necessary to address the community's most important challenges: a declining and aging population; out-migration; declining school enrolment levels; declining economic activity; lack of local employment opportunities; tax base dependent on residential assessments; lack of retail and commercial services; and decreasing social and recreational programming.

The tourism industry is also experiencing decline for various reasons – the most notable is a dependency on American clientele who are similarly experiencing difficult economic times. As a result of recent market trends and global economic occurrences, American clientele have had to reduce travel expenditures, resulting in a decline to Hornepayne's tourism industry. While tourism has a role in the local economy, it will not be an answer to ensuring the community's long-term sustainability.

The APM Project, however, is recognized as a potential means to ensure the long-term viability of Hornepayne. This can be accomplished by decreasing dependency on resource-based industries (i.e., forestry), which result in a cyclical economy.

7.2.2 SUMMARY OF KEY INTERESTS/QUESTIONS

In Hornepayne, the majority of the persons engaged were interested in learning more, were supportive of their community being involved in the siting process and look forward to next steps. Several key interests were recurring and identify the areas about which the community is most interested in learning more. The core key interests expressed include:

- Economic benefit and opportunities for growth;
- Health, safety and environmental risks in and around the site; and
- Transportation.

Economic Benefit and Opportunities for Growth

The APM Project is viewed as a positive means to provide long-term economic stability for Hornepayne. A number of questions were raised regarding the longevity of employment opportunities. Other questions focused on the number and type of employment opportunities that would be provided and the level of education required to secure these new jobs.

Health, Safety and Environmental Risks in and Around the Site

Questions were raised in an effort to understand more about the potential health and safety risks in and around the site. Given the nature of the waste, many questions focused on the risk of radiation exposure and what preventative measures would be taken during the construction and operation phases.

There is also interest in learning more about environmental health and safety of the APM Project associated with extreme events including earthquakes and degradation of the natural environment and effects on natural resources (i.e., fish and wildlife).

Transportation

Questions were raised in an effort to understand more about the health and safety risks of transporting nuclear waste. Given the nature of the waste (i.e., used nuclear fuel), many of the transportation questions focused on the mode of transportation to be used and the potential health and safety risks to communities en route.

In addition to these core interests and concerns, two ***secondary*** key interests were also expressed and include:

- NWMO Process and Project Description Details; and
- Consultation.

NWMO Process and Project Description Details

Residents are interested in and actively learning more about the site selection process and APM project. Recurring comments or questions include:

- More details regarding how and where the specific site might be located;
- Timing and phasing of the project;
- Rate of integration of new residents into the community;
- Number of communities in the site selection process;
- Influence of host community's location and potential isolation from market places; and
- Ways of disseminating information, including to First Nation communities.

Consultation

The consultation activities to date – open houses, facility tours, CLC meetings, and newsletters – have engaged and informed residents. The transportation exhibit also provided an up close “hands-on” experience. The majority of residents are interested in continuing to learn more about the process and project.

Some community members commented critically on previous experience with the site selection process for Atomic Energy of Canada Limited's proposed concept for used nuclear fuel management in the 1990s. Residents were positive about the NWMO process, which ensures the host community is fully informed and makes the ultimate decision.

As in most other communities, residents display feelings of skepticism and distrust with senior government agencies. This reinforces the importance of the open and transparent NWMO site selection process.

7.2.3 ONGOING ENGAGEMENT

Going forward, engagement with surrounding communities will continue to develop. Hornepayne is looking forward to ongoing engagement with the NWMO to learn more about the project and to work with the NWMO in a long-term partnership that will optimize well-being in the community and surrounding area.

8.0 KEY QUESTIONS IN THE SITE SELECTION PROCESS – SUMMARY

At the outset of the site selection process, the NWMO framed four key questions respectively addressing safety, the well-being of the community, the well-being of surrounding area communities and the potential to foster sustained interest in exploring this project through subsequent steps in the site selection process¹⁰: The discussion which follows addresses and elaborates on a subset of these questions related to community well-being in the context of Hornepayne.

The preceding sections have looked at implementation of the APM Project in Hornepayne and the implications this might have on community well-being. Additionally, key issues and concerns identified through engagement activities have been highlighted. Through desktop research, dialogues with community members and leaders and ongoing analysis, it is understood that Hornepayne has great interest in further exploration of potentially hosting the APM Project to realize growth and development opportunities within the community and surrounding areas.

The community of Hornepayne understands that this siting process, in partnership with the NWMO, will assist their community over time to get the information they require to reflect upon their willingness to continue in the site selection process and decide whether or not they are interested in continuing to the next phase of studies.

There is a high potential for sustained interest in the local community. This is evidenced by strong community leadership to continue participation in the site selection process. There is also a strong commitment to moving forward as there is no indication at this time that Hornepayne could not remain committed throughout the subsequent steps.

There is high potential for sustained interest in the surrounding communities as Hornepayne has demonstrated a proactive approach to engaging its neighbours including members of the Northeast Superior Mayors' Group.¹¹ Several members of the Northeast Superior Chiefs Forum (Hornepayne and Constance Lake First Nations) have also been engaged as part of the 'learn more' process. Hornepayne has also taken steps to set the foundation for further constructive consideration of the project and its opportunities with communities in the surrounding area, including Aboriginal peoples. Further discussions will be required to gain an understanding of the potential interest in surrounding communities.

There appears to be high potential for the APM Project to foster well-being in Hornepayne. The project is understood to be compatible with community aspirations, including the desire to see growth and stability. There is also an expectation that the APM Project will assist Hornepayne in achieving its goals. In addition, the project is seen by residents and leaders as an opportunity for sustainable growth and the development they desire.

¹⁰ NWMO. November 2011. *Preliminary Assessment of Potential Suitability – Feasibility Studies*. Draft for Discussion with Communities Involved in the Site Selection Process.

¹¹ Other Northeast Superior Mayors' Group member communities (White River, Manitouwadge, and Wawa) are also participating in the NWMO's 'learn more' process.

There is potential for the APM Project to foster well-being in the communities surrounding Hornepayne. Preliminary discussions with residents and officials of the surrounding communities have revealed an interest in the potential economic development benefits offered by the project. However, further discussions will be required to assess the implications of the project for surrounding area communities. This project will be implemented through a long-term partnership involving the community, neighbouring communities and Aboriginal peoples in the area and the NWMO. Only through engagement, dialogue and collaboration will the NWMO ensure that needs are addressed at each stage of the process, and identify the specifics of how a partnership arrangement could work.

There are some uncertainties associated with the analysis due to the preliminary nature of the work at this stage.

These uncertainties and challenges include:

1. Specific land areas that are socially acceptable would need to be identified:
 - a. Community input is required to identify areas that they wish to reserve for other uses or preservation. The remaining areas must overlap with potentially suitable siting areas identified through scientific and technical studies.
 - b. Further engagement with potentially affected Aboriginal communities is required, including Aboriginal Traditional Knowledge holders in the area. The NWMO has stated that they acknowledge, respect and honour that Aboriginal peoples - Indian, Inuit and Métis peoples of Canada - have unique status and rights as recognized and affirmed in s.35 of the Constitution Act (1982). The NWMO is committed to respecting the Aboriginal rights and treaties of Aboriginal peoples¹².
2. Project implementation (including engineering, logistics and/or community well-being) must align with specific community aspirations:
 - a. An acceptable community and regional project implementation plan must be identified which aligns ultimate project configuration with community expectations.
 - b. Effective implementation of project planning at a broader level, involving the surrounding communities and potentially affected Aboriginal peoples, will be important in successful implementation of the project.
3. Interest in the community for further learning about the project needs to be sustained:
 - a. The site selection process spans several years and interest and conversation in the community needs to be sustained throughout this process, including multiple election cycles.
 - b. The potential effects of the project on the community would be substantial and the community will need support to further explore their interest and take an active role in discussions of how the project should be implemented.

¹² NWMO. 2010. *NWMO Aboriginal Policy*.

http://www.nwmo.ca/uploads_managed/MediaFiles/1513_nwmo_aboriginalpolicy-2010en.pdf

- c. Opposition groups, largely from outside of the area, may actively seek to influence community decision-making and community leaders will need to respond to these pressures. Hornepayne will require support to prepare for the next phases of the siting process if they are to proceed.
4. Transportation routes and mode(s) need to be designed and configured taking into account social values.
- a. Transportation will be spatially extensive from current interim storage sites to the repository. Regulatory matters along routes in several Provinces including, New Brunswick, Quebec, and Ontario, would need to be addressed. Social questions and concerns would also need to be heard and taken into account.
5. Environment and Safety evaluations need to be aligned with community input.
- a. This requires regard for input from the community and surrounding communities.
 - b. This requires engagement by the NWMO and input from the host community and surrounding communities. This may require capacity building to enable this input, which could include Aboriginal Traditional Knowledge.
 - c. Input from transportation route communities will also need to be incorporated.

9.0 REFERENCES

- AECOM. 2010. *A Preliminary Assessment of Illustrative Generic Community Economic Benefits from Hosting the APM Project*. Available online at: http://www.nwmo.ca/uploads_managed/MediaFiles/1497_nwmosr-2010-09_preliminary_ass.pdf
- Corporation of the Township of Hornepayne. 2010. *Strategic Plan for Municipal Council Township of Hornepayne for the Term 2010-2014*.
- DPRA Canada. October 2013. *Community Profile, Hornepayne Ontario – Draft*.
- Hornepayne Community Adjustment Committee. July 2011. *Strategic Plan for the Community of Hornepayne*.
- NWMO. 2012. *Description of Canada’s Repository for Used Nuclear Fuel and Centre of Expertise*.
- NWMO. November 2011. *Preliminary Assessment of Potential Suitability – Feasibility Studies. Draft for Discussion with Communities Involved in the Site Selection Process*.
- NWMO. 2010. *NWMO Aboriginal Policy*.
http://www.nwmo.ca/uploads_managed/MediaFiles/1513_nwmo_aboriginalpolicy-2010en.pdf
- NWMO. May 2010. *Moving Forward Together: Process for Selecting a Site for Canada’s Deep Geological Repository for Used Nuclear Fuel*. Available online at: <http://www.nwmo.ca/sitingprocess>.