



NUCLEAR WASTE MANAGEMENT ORGANIZATION SOCIÉTÉ DE GESTION DES DÉCHETS NUCLÉAIRES

Phase 1 Preliminary Community Well-Being Assessment

TOWNSHIP OF EAR FALLS, ONTARIO



APM-REP-06144-0024

OCTOBER 2013

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PRELIMINARY COMMUNITY WELL-BEING
ASSESSMENT:
EAR FALLS

October 2013



Prepared For:

Nuclear Waste Management Organization (NWMO)

Prepared By:

SENE Consultants



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NWMO Report: APM-REP-06144-0024

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1.0 INTRODUCTION

This Community Well-being (CWB) Assessment Report aims to provide a summary of the expected influences that the Adaptive Phased Management (APM) Project will have on the overall community well-being of Ear Falls, Ontario. The Report also seeks to answer some fundamental questions to assist the Nuclear Waste Management Organization (NWMO) and the community in understanding the suitability of Ear Falls 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.

Work has been completed to understand the overall community profile of Ear Falls, 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 a visioning exercise, engagement activities, community visits and tours, 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-being¹:

- Potential social, economic and cultural effects during the implementation phase of the project;

¹ NWMO 2010a.

- 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.

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 APM on well-being in 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 would 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 ASSUMPTIONS OF THE APM PROJECT – DRIVERS OF COMMUNITY WELL-BEING

The APM Project is currently still in early stages of design and for this reason 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 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 surrounds. 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 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 spending². Table 2.1 summarizes the estimated number of direct, on-site jobs throughout the life of the APM Project, which spans over 150 years.

Table 2.1 Potential Employment by Phase

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. October 2012. *Description of Canada's Repository for Used Nuclear Fuel and Centre of Expertise*. p 33.

² NWMO 2012.

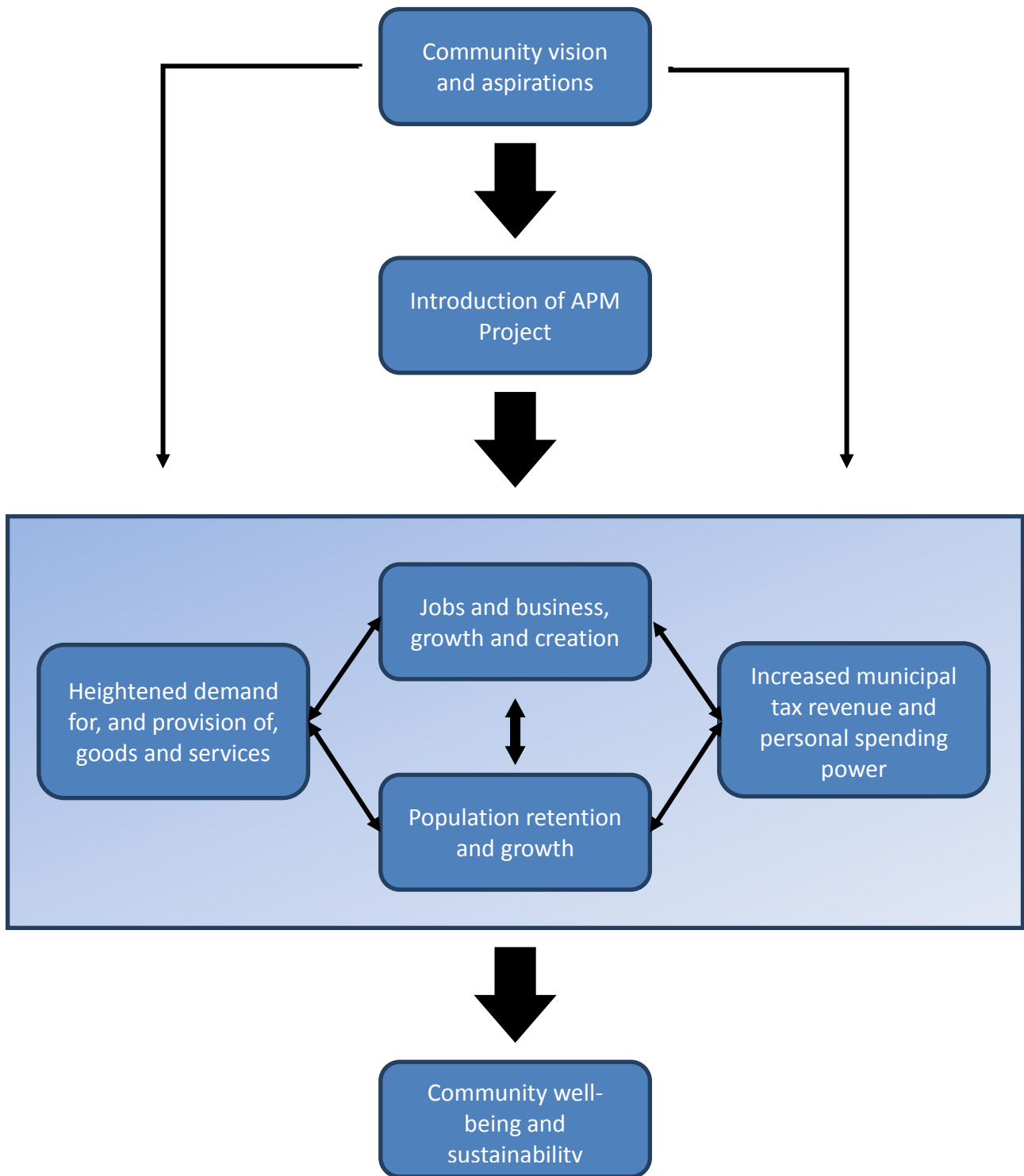
2. Realization of employment benefits within a community will depend on a variety of factors such as:
 - A. Preference for local hiring and sourcing from local businesses,
 - B. Training of local residents for positions in the project or in supporting services,
and
 - C. Planning to prepare for and leverage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

The 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 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 area. However, it will be up to the community to determine the nature and scope of how it wishes to grow in discussions with NWMO.

3. The NWMO is committed to working with communities and those in the surrounding area to optimize the benefits that will positively contribute to the overall well-being of and the surrounding area.

Figure 2.1 provides a graphical representation of the direct and indirect effects that may result from the siting of the APM Project. The figure illustrates how the project could be the impetus for growth in population, business activity and municipal finances.

Figure 2.1 Direct and Indirect Effects



3.0 VALUES AND ASPIRATIONS OF EAR FALLS

The Township of Ear Falls has expressed values, aspirations and desires for its community. These have been documented in the Community Profile and various other community reports including a strategic plan. Key themes are summarized below. The preliminary assessment, which is the topic of this report, is measured against these values and aspirations:

1. The community has expressed a desire to grow in terms of population, business activity, employment and career opportunities. Discussions with community leaders and residents suggest an ideal population size of 2,000 to 2,500, with many recognizing the existing infrastructure can service up to 5,000.
2. The community desires more local retail opportunities which come with a larger population.
3. The community desires a diversified and sustainable economy that leverages natural resources and safeguards the environment.
4. The community aspires to reverse the trend of out-migration of youth and skilled labour. Discussions with community leaders and residents suggest a variety of employment opportunities would bring back and retain youth in the community.

These values and aspirations are in line with the Township of Ear Falls Strategic Plan 2011,³ which states its vision as follows:

“[To] encourage and support the growth of Ear Falls in a manner that will result in a sustainable, complete community while maintaining that small town community character that makes the Township a desirable place to live, work and play”

The three high priority actions identified in the Strategic Plan are:

- Engage in further studies regarding nuclear waste management;
- Continue to improve communication between the staff, Council and the public; and
- Plan for a community of 5,000 people.

³ MERIDIAN Planning Consultants Inc. (Meridian) 2011.

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

As described in the Ear Falls Community Profile, the community of Ear Falls has several priorities and key issues, 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 resources drawn 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 4.1 summarizes the priorities and key issues as understood through desktop research, review of municipal documentation and discussions with community leaders and residents. Table 4.2 sets out the aspirations of the community that were articulated during a strategic planning exercise with community leaders and representatives.

Table 4.3 describes some of Ear Fall’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 the preliminary assessment of community well-being and the potential implications of the APM Project.

Table 4.1 Summary of Priorities and Key Issues

Asset Category	Overall Priorities and Key Issues
Human	Ear Falls is faced with declining local employment opportunities and consequently, an out-migration of the labour force, households and youth. The closure of major employers has triggered not only job loss but also a population decline as workers and their families leave in search of employment opportunities. Associated with these circumstances is a shrinking skills base, an increase in the proportion of retired people and their associated special health care needs.
Economic	There is a strong recognition that a healthy economy will help drive a healthy community. A number of economic development strategies have been developed both for the community and the broader region. Certainly the most recent regional economic development study underscores the fact that area communities need to act together to optimize opportunities. This cooperative approach to economic development also illustrates a regional culture of networking, joint problem solving and decision-making. Within Ear Falls, tourism is seen as an important economic opportunity, but there are concerns that most of the tourism dollars generated in the surrounding areas seem to be leaking away from the community.
Infrastructure	<p>The community has sufficient water, sewer and solid waste infrastructure to serve a community of 5,000 residents. Highway 105, a two-lane road is the only access to the community and it is thought that it may have to be upgraded if certain types of industries are to be attracted to Ear Falls.</p> <p>At the present time the municipal tax assessment base of the community is heavily skewed to residential uses and further growth in this area in itself is not sufficient to give the community long term fiscal stability. Commercial, and most importantly industrial development, are desired to balance the future financial needs of the community.</p> <p>Approximately 11% of the municipality’s housing stock is listed for sale. Turnover is best for properties priced below \$100,000. There is hope that as mining opportunities evolve in Ear Falls and the surrounding area that available housing stock will be absorbed and new housing developed.</p>
Social	Ear Falls is a community with a range of facilities and programs that contribute to the fostering of ties both within the community and between neighbouring communities such as Red Lake. Ear Falls shares a number of services and programs with Red Lake. Community services provide a social hub that supports the needs of its population across all age groups. Maximizing and fostering daycare, recreational and community opportunities for young people is a key priority to help retain youth and provide an attractive and stimulating environment for young families and the community as a whole. Funding constraints and declining population have affected the ability of the community to provide a full range of social services and programs. This has necessitated a number of youth to go to other centres such as Red Lake for sports and recreation purposes and also contributed to out-migration of families across all age categories.
Natural Environment	The abundance of wilderness and natural assets in the surrounding areas are important as they provide economic opportunities for local and regional businesses. A key priority for Ear Falls is to maintain and build its brand as an environmentally responsible wilderness tourist destination.

Table 4.2 Summary of Community Aspirations

Asset Category	Overall Community Aspirations
Human	Ear Falls aspires to grow to a community of 2,000 - 2,500 residents, attract new investment and retain existing businesses and residents. The community also wants to retain its youth population, serve its seniors and ensure that adequate local training and educational opportunities are available for all residents.
Economic	Ear Falls fully recognizes that economic growth is essential to its well-being. The community aspires to: capitalize on the abundance of natural resources; grow its commercial and industrial tax base; and retain more of the tourist dollars currently spent outside of the community. The community is actively pursuing opportunities to restart the Ear Falls Mill and reopen the Griffith Mine. The community also sees opportunity in the ongoing mining developments in the vicinity of Red Lake.
Infrastructure	Ear Falls has sufficient infrastructure to expand well beyond its current size and aspires to use this as an attraction to secure more residential, industrial and commercial growth. Associated with this aspiration for growth is the desire to improve and upgrade existing housing stock. The community is mindful of its upkeep and aesthetic with particular regard to tourism.
Social	Ear Falls recognizes the importance of recreational opportunities to its quality of life and social fabric. Implementation of initiatives and community programs for youth, adults and seniors are key priorities. Expanding recreational opportunities permit young residents to build skills through participation in sports and other activities. Maintaining social programs for adults and seniors fosters community well-being.
Natural Environment	The surrounding areas of Ear Falls are rich in natural attributes that support economic opportunities associated with tourism and resource development. Community members have expressed a need to capitalize on area natural resources but to do so in ways that have high regard for environmental stewardship.

Table 4.3 Summary of Community Capabilities

Asset Category	Community Capabilities and Capacities
Human	Ear Falls is a township imbued with strong Human Assets. Residents take pride in themselves, their healthcare, education levels, sense of community and quality of life. Many residents are completing secondary level education and more people are attaining higher education than in the past. The community is particularly passionate about its health care centre and feels protective of it. Residents have shown themselves to be resilient to economic challenges that have occurred in the past.
Economic	The community has a resiliency to economic swings, as there have been up and down cycles. Given the community’s history of forestry and mining cycles, it has the capacity to respond to new such developments as they arise. At present, household incomes in Ear Falls are higher than the Provincial average and this is attributable to the availability of high paying jobs in the mining industry particularly in Red Lake.
Infrastructure	Ear Falls has sufficient water and sewage treatment capacity to handle a community of 5,000 people and a landfill with a long remaining lifespan. There are currently 50 serviced residential lots available for development. The Township has land and water facilities to support air traffic but the land based airport will need to be upgraded to make is useable.
Social	<p>The community has a rich portfolio of programs and services to meet the needs of its population across demographic spectrum from youth to seniors, however, many of these confront funding challenges as well as falling participation rates given a general decline in community population. The latter is particularly true for youth programs.</p> <p>The community takes pride in its recreational programs as well as services and organizations that support the social life of the community. Many program leaders and volunteers are sourced from the community. Ear Falls also shares a number of services with Red Lake.</p>
Natural Environment	The natural resources in Ear Falls and its surrounding areas are a source of great pride and offer a broad range of economic opportunities. It is reputed to be one of the best hunting and fishing destinations in Ontario. Strong local expertise exists in the community and surrounding area to further develop the tourism industry.

5.0 COMMUNITY WELL-BEING ASSESSMENT

In this section, based on the foregoing discussion, implementation of the APM Project on the well-being of the community is examined through each of five different perspectives or “lenses”. These are referred to as “assets”.

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.

Ear Falls has experienced a decline in population since the mid 1980s. This has also been the trend in most small communities in Northern Ontario. Many of these towns have historically been dependent on resource-based industries and have all been susceptible to “boom-bust” cycles. Migration has occurred from northern communities to other centres that offer more diverse and reliable employment.

Ear Falls is no exception to this trend. Since the mid 1980s the population has declined by approximately 50%. More recently, the population has declined by approximately 11% since 1996, led by young adults and families seeking employment opportunities elsewhere. The loss of youth and an aging population has resulted in the downsizing of the work force.

Population decline is a primary issue of concern for the community. Ear Falls has expressed a desire to at least double its current population to over 2,000, by attracting former and new residents to the community, while retaining its current population.

Education levels have increased over time, indicating that despite a falling population, a large number of residents are completing secondary level education and more people are attaining a higher level of education. The closest secondary school is the Red Lake District High School, located 70 km north of Ear Falls in Red Lake.

With respect to health and safety facilities and services, the community appears to have adapted well with the level of services available to them. Some health care is immediately available in the community, with other needs being met elsewhere. There are a number of rotating medical staff and one full time resident doctor to service primary health care needs in Ear Falls. More specialized medical services, including the hospital which offers a full range of emergency services, are available in Red Lake. Emergency response services in Ear Falls currently meet the needs of the community and residents generally feel safe and secure in their community.

The APM Project has the potential to have a positive effect on the Human Assets of Ear Falls. The project will bring a large number of direct, indirect and induced jobs. These jobs are the backbone of population growth. The APM Project is a long term project, with a much longer lifespan than other resource-based developments typical of Northern Ontario. It has the potential to be a key driver for population retention and growth. While it is expected that some people involved in the construction and operations of the project will choose to reside in other (larger) communities, past economic modeling suggests that hundreds of jobs could be held by persons residing in Ear Falls⁴. These new jobs will bring spouses, partners and families, and so it can be expected that the population in Ear Falls could significantly increase. The increased population will be a major boost to Ear Falls and be a catalyst for spin-off growth and development, which is the priority aspiration for the town at the present time.

Skills and labour supply will likely diversify and expand with the increased population and as a result of the on-site and in-community job opportunities. The new local employment opportunities will also curtail Ear Falls' growing dependence on Red Lake mining operations. Indirect and induced jobs will also create opportunities for skills diversification and attract new residents with different levels of expertise. The APM Project will also attract a suite of highly educated workers, some of which will choose to reside in town or in neighboring communities. The project will provide opportunities for skilled workers and ongoing training, as well as opportunities for future generations to pursue education paths consistent with those career opportunities associated with the project. There are major positive educational benefits from the APM Project, as a result of an increased population which is anticipated to drive increased enrolment and expansion of educational programming opportunities and potential partnerships with post-secondary institutions. It is further anticipated that the APM Project will include an international Centre of Expertise and attract people from around the world.

⁴ AECOM 2010.

While the APM Project and the associated population increase will place increased demand on existing health and safety facilities and services, there is further potential to expand and improve the existing levels of service by attracting new specialized health care professionals to the area. The latter would provide the resources to better service and support all age groups in the community. Proper planning would need to take place to ensure that potential increased social issues (generally associated with any large project and associated growing population) are mitigated and that all age groups in the community are supported.

In summary, it can be expected that the APM Project would bring positive net benefits to the Human Assets of Ear Falls were the project to be implemented in the area. It would help the town realize its aspirations and goals, and it would drive development and expansion in other aspects of its community well-being.

Table 5.1 Human Assets

Criteria / Measures	Ideal CWB Condition	Current Ear Falls Profile	Possible Ear Falls Profile with APM Project	Observations
HUMAN ASSETS:				
Population Size and Demographics	Increase population to 2,500-5,000 Retention of youth and young families	Declining (Loss of ~50% since the mid 1980s)	Growth in population and diversity	<ul style="list-style-type: none"> Ear Falls has experienced out-migration with loss of key employers Aging population with limited opportunity to attract younger working population Community has expressed a strong desire to grow – at least double its current population and return to former days of prosperity APM Project offers potential to create jobs and attract and retain population Ear Falls would require assistance to plan for and manage growth
Skills and Labour Supply	Presence of a diverse, skilled workforce	Constrained opportunities for employment, growing dependency on Red Lake mining operations	Job creation and growth of a diverse, skilled workforce	<ul style="list-style-type: none"> Majority of past and current out-migration has been precipitated by residents seeking employment elsewhere Limited local employment opportunities, growing dependence on Red Lake mining operations APM Project would likely attract new skilled and diverse workforce and bring in new families Offers diverse career opportunities for local residents in direct and indirect jobs Ear Falls would require assistance to train and engage local workforce
Education	Access to education and training Increased enrolment and programming	Local high school 70 km away in Red Lake Constrained programming Elementary school at capacity	New and expanded school facilities due to increased enrolment New opportunities for education and training Broader range of programming	<ul style="list-style-type: none"> New and expanded education facilities and programs as the APM Project will attract young families to the area, increasing enrolment Wide range of new local employment/career opportunities associated with the APM Project which will stimulate career aspirations and interest in training and education Ear Falls would require planning and support to educate and train current workforce and future generations to take advantage of career opportunities Ear Falls may require investment from NWMO and government in 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	Available to meet some needs Special 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, specialty healthcare requires travel outside the community Emergency response is 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 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 Finances.

Over the last decade Ear Falls has experienced a number of local business closures and downsizings as a result of major job losses in resource sectors. The recent economic downturn in 2008 and 2009 resulted in the closure of the Ear Falls Sawmill and associated woodland operations as well as a decrease in the number of tourists visiting from the United States. More recently expansions at the gold mine in Red Lake have caused a considerable reduction in the unemployment rate.

For some, the lack of local employment opportunities has triggered out-migration of population and households as people look for jobs elsewhere. This is acutely felt by young people looking to enter the workforce and as a result out-migration is high within this demographic as they look to start their careers in other locations. The prospect of their return to the community is slim unless there is local and sustained job growth. This loss of population in general has dampened local expenditures for household goods and services and resulted in a decline in activity for local community retail and service businesses.

Household incomes remain high, despite the lack of in-community job opportunities. There are a number of residents who are employed in Red Lake and there is another contingent that works beyond the community in remote fly-in mining and forestry operations in northern Ontario, Manitoba and Alberta.

Ear Falls' tax base is largely dependent on residential assessment and is sufficient to cover operating expenditures but is strained to cover the added costs associated with long term liabilities. The community has aspirations to grow the tax base but without industrial and/or commercial investment and jobs this will be difficult. Ear Falls has sufficient water, sewage and

power infrastructure capacity to enable community expansion well beyond its current size. This unused capacity can also be used to attract new industry to the community.

Positioning the Township for growth is a central focus of Ear Falls' strategic plan. This sentiment was also expressed repeatedly during discussions with community residents and leaders. In addition to the pursuit of business the community also acknowledges that it needs to make youth retention a priority, ensure that serviced residential lots are available and ensure the provision of adequate training and educational opportunities. The Township also seeks to ensure that it can remain financially sustainable over the long term.

Tourism has long been a part of the local economic fabric, and while there are a number of tourism businesses in and around the community they too face challenges of their own. The weak US economy has reduced their market and further shrinkage has occurred as the age profile within this market has climbed to the point where long time patrons are no longer able to travel. Further pressures face the industry as younger age groups want a different tourism product and they are willing to look further afield to acquire it. Tourism outfitters operating many of the fly-in/out camps have minimal interaction with local businesses and the community generally. This has created some tension between the community and the operators. It is understood that more needs to be done to attract tourism dollars to the community. From an economic development perspective tourism is seen as an important industry sector going forward but there is a realization that tourism by itself is not sufficient to stabilize and grow the economic fortunes of the community.

Should the APM Project locate in Ear Falls, the net economic effects will be positive. A key attribute is the direct and indirect job creation and career opportunities it will bring to the community. Further induced employment will also occur in the community as a result of income spending by direct and indirect workers. The presence of long term, well-paying job opportunities will change the economic complexion of the community. Out-migration will slow as residents will be able to find work locally. In-migration will occur as Ear Falls will become an employment centre. Residents with jobs and money means household incomes will climb as will household expenditures. 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 will reverse the decline in existing businesses and also bring new business into the community thereby adding to the vitality and diversity of the local retail service fabric. This helps to address a key platform of the community's aspirations.

The economic buoyancy created among residents and local businesses will have positive implications for municipal finance. The assessment base will grow and it will be more equitably spread across industry, residential and commercial components. Although operating costs and capital requirements will rise given growth in the community and the associated increase in

demand for services, careful financial management should ensure that short and long term costs can be better covered by a stronger municipal revenue (tax) base.

Economic development in an expanding community is a much easier task than it is in one that is declining. The APM Project is of a scope, scale and longevity that businesses will be attracted to the community to take advantage of the opportunities for the supply of goods and services to the project itself and the population it has brought into the community. Were the APM Project to be located in the area, Ear Falls will need to be proactive in looking at where new businesses can locate and the services that they will require for long term operation.

The effect of the APM Project on tourism has some potential to be negative. There are concerns among camp operators that the project may influence the saleability of their businesses. Additionally, in the short term, initial concerns about safety of the facility and potential impact on the environment may make the area less attractive to clientele, who have historically frequented the area, until a greater understanding of the project has developed among them.

Conversely, the population that migrates to the community to take advantage of jobs and the visitors who come to the community to study the facility may present a whole new market for local tourism operators although this was not widely expressed by tour operators in the area. Given concerns in the tourism sector around negative perceptions due to the project there is a need for collaboration between community and industry representatives and government officials to address concerns and explore opportunities for project-related business.

Relative to current circumstances the APM Project appears to present Ear Falls with the potential for economic growth; however, growth would need to be carefully planned for and managed if the community is to realize its full potential. The community would need support to ensure that it is “*project ready*”. In order for Ear Falls to optimize project benefits, it would be helpful to support education and training of the labour force, municipality and residents and provide advice to businesses on project opportunities.

Table 5.2 Economic Assets

Criteria / Measures	Ideal CWB Condition	Current Ear Falls Profile	Possible Ear Falls Profile with APM Project	Observations
ECONOMIC ASSETS:				
Employment	Increasing employment opportunities for residents	Dependency on public service employment and Goldcorp mine in Red Lake.	Growth in the number of and diversity of employment opportunities in the community	<ul style="list-style-type: none"> Business closures have resulted in a decline in local job opportunities for residents and a greater dependency on public employers and mining operations in Red Lake. 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 of job and career opportunities is prevalent. APM Project would offer a diverse range of employment opportunities and careers for both community and regional residents. Community 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	Household incomes are higher than Provincial average Household incomes have fluctuated over time. Presently a disparity exists between those employed outside the community (e.g. Red Lake, Fort McMurray) and those employed within Ear Falls	Employment growth and diversity will contribute to increased household incomes and wealth creation	<ul style="list-style-type: none"> Employment diversity and growth directly influences household income. APM Project would create a diverse range of local jobs and as a result this will stimulate growth in household income and wealth creation. Some residents may require assistance and counseling regarding wealth and debt management. Community may require assistance to help residents realize employment opportunities and manage their finances.
Business Activity	Business growth and increasing business diversity	Dependency on public service employment and Goldcorp mine in Red Lake Limited retail or service oriented business	Growth in business activity leading to the growth in the number and diversity of businesses	<ul style="list-style-type: none"> Decline in business activity has had a ripple affect across the community causing job loss and population decline. 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. Ear Falls may require assistance to plan, implement and manage economic development.
Tourism	Stability or growth in area tourism	A seasonal industry highly dependent on natural resources that is facing change Broad market circumstances have affected the industry Leakage of tourist dollars away from community	Potential deterioration in tourism as a result of negative perceptions and project concerns Potential concerns project may affect saleability of tourism businesses Potential that the APM Project may not be compatible with aspirations and visions of some tourism camp operators and their clientele	<ul style="list-style-type: none"> Area tourism is strongly dependent on American market base which is being negatively impacted by economic circumstances. Traditional market segment is aging and their pursuit of conventional tourist product is waning; younger population seeking a different tourist product and willing to look further abroad to find it. The APM Project may not be compatible with the aspirations and visions of camp operators and their clientele. APM 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. Ear Falls and tourism organizations may require assistance to manage the presence of APM 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 is limited	Businesses will want to locate in the community to take advantage of the business opportunities directly and indirectly created by the APM the 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. Planning is ongoing to reopen a local mine and mine expansions are occurring in Red Lake. APM would provide a catalyst for economic development through its own presence and creation of associated business opportunities. Ear Falls may need assistance to plan and implement a strategy that will fully realize the economic development opportunities presented by the APM.
Governance and Municipal Finances	Community is financially sustainable over short and long term	Able to cover annual operating costs Fiscal prudence required to cover long term capital debt	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 and vacant properties have left the community with a weak revenue base. APM by its presence would elevate the revenues available to the municipality. Ear Falls may need assistance to understand the fiscal implications of the APM and to how best to 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 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 Ear Falls in terms of its Physical well-being.

The ebb and flow of economic conditions in Ear Falls over the last few decades have had an effect on the community's Physical Assets. During the time of economic prosperity in the 1980s the housing stock in the community grew to accommodate an influx of workers and new households. As economic fortunes declined, however, people left the community and their houses were put up for sale. Many fell vacant and were taken over by the municipality. A large number of trailer homes were removed and the area was redeveloped for municipal offices and services. In recent times, Goldcorp, the mining operation in Red Lake, built ten houses in Ear Falls for its employees. Some of these homes have not sold, however, due to their relatively high price compared to other available housing stock. At present, approximately 11% of the existing housing stock in the community is for sale. There are also 50 serviced lots available for residential development.

Ear Falls has sufficient water and sewage treatment capacity to handle a community of 5,000 people and a landfill with a long remaining lifespan. Ear Falls is served by Highway 105 which crosses through the settlement area. Regional bus service for the community is provided by Greyhound. The Township has land and water facilities to support air traffic but the land-based airport is currently unstaffed and will need to be upgraded to make it useable. Three float plane services are also available from Lac Seul.

During the Griffith mine era, Ear Falls was serviced by a rail spur off the main CPR line which is located approximately 90 km south. When the mine closed, the Ear Falls rail line was removed and the land for the right-of-way was sold. Currently, the plans to re-develop the Griffith mine are on hold.

The APM Project has the potential to create net positive benefits on the Physical Assets of Ear Falls. The APM Project would see the in-migration of individuals and families who would absorb the available housing stock. It would also create a demand for a mix of housing types and tenure arrangements to further accommodate the rental and ownership needs of individuals and families. The absorption of new and existing homes will reinforce property prices, increase tax rolls and remove properties from tax arrears.

Although there is a strong upside for housing related to the APM Project there is also a potential downside that needs to be carefully managed. If demand strongly outstrips supply price escalation will occur and the complement of affordable housing may be very low. A further note of caution with respect to housing is that supply limitations particularly during the construction phase may see a strong uptake of motel rooms by workers with the consequence that tourists and travelers might be displaced. Over the course of the undertaking attention will need to be carefully focused on maintaining an equitable housing supply/demand balance as well as protection of tourist/traveler accommodations and other related services to prevent unwanted consequences in that industry.

The water and sewage treatment and landfill capacities available in the community can support growth that may occur as a result of the APM Project. These facilities have the capability to accommodate a population of 5,000. Further, the APM could provide impetus to reopen and upgrade the airport.

The community and the NWMO would need to work cooperatively to effectively plan, build, operate and manage each of the Physical Asset components should the project be implemented in the area.

Table 5.3 Infrastructure

Criteria / Measures	Ideal CWB Condition	Current Ear Falls Profile	Possible Ear Falls Profile with APM Project	Observations
PHYSICAL ASSETS:				
Housing	Sufficient housing stock to meet all needs and incomes Average house values increase over time in line with household incomes	Affordable and a variety of properties available 11% of housing stock currently for sale 50 serviced lots available for development	Strong absorption of available housing and stimulus to housing prices New housing development Potential shortage of supply if development does not keep pace with demand	➔
Municipal Infrastructure and Services	Infrastructure assets are in good condition, well maintained and adequately sized to meet the short and long term needs of the community	The water system, sewage treatment plant and landfill are in good condition and have surplus capacity.	Increased demand for infrastructure and services Enhanced opportunities for new and renewed infrastructure	➔
Transportation Infrastructure and Services	A strong complement of transportation facilities and services to meet the needs of the residents and businesses within the community	Two lane regional highway & unused airport.	Rehabilitation of airport and possible road improvements	➔
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 Ear Falls in terms of its Social well-being.

Recreational facilities and programs are generally a major source of pride for communities in Northern Ontario and serve as a social hub and focal point. They also provide opportunities to foster young talent in sports and recreation and have other countless benefits for the social, physical and emotional well-being of the population. Ear Falls is no exception as the recreational facilities and programs are important to all age groups in the community and are integral to the well-being of its social fabric. Whispering Pines Senior Center and the Legion are important focal points for programming for seniors and retired member of the community.

Despite the wide range of available facilities and programs, Ear Falls is currently facing reductions in participation due to declining population and decreasing funding. Youth sports, particularly hockey and figure skating, are important activities to the local community and families. Reductions in these services have caused a shortened ice season and this circumstance has prompted a number of youth to travel to Red Lake for hockey. As out-migration and population decline continue, participation rates will decrease as will the tax base to support recreation facilities and programs. Based on community discussions, sustaining these facilities and programs is increasingly challenging.

The social services and organizations in the community also have a similar profile. They are a source of pride and provide a range of services to Ear Falls. They involve a number of volunteers and serve to bolster the well-being of the community. As with the recreational facilities and programs, it can be expected that with declining participation, sustaining the human resources needed to operate social services and organizations will be difficult.

Residents have a strong sense of pride in its history, community and natural environment. The community is hopeful about its future in the face of a declining population. It is actively pursuing economic ventures to help boost its economy and grow its population. Work conducted by the community to date to explore the potential to re-open the Griffith Mine is a case in point. The Ear Falls' community character also seems to be changing as it evolves into a 'bedroom' community with a significant portion of its workforce outworking in Red Lake and elsewhere.

Irrespective of the above, there are members of the community particularly among tourism camp operators who do not have aspirations to see the community grow and dramatically change its ways and means. They have built their businesses around the aura of wilderness, hunting and fishing. Among these interests, there is concern and uncertainty about how the APM Project could affect them.

The APM Project could have positive benefit on the Social Assets of Ear Falls if it were to be implemented in the area. With respect to community recreational facilities and programs and also 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 Ear Falls to upgrade and expand its recreational and social programs. Based on discussions with the community, many believe the project would 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 an ability to support its adult and senior populations. This speaks to the character of Ear Falls as a proud community. Counter to this however, there is concern among a segment of those interviewed that the APM Project may not be in the best interests of the community. Based on these countervailing views the overall effect of the APM Project on the Social Assets of the community is somewhat uncertain at this time.

Table 5.4 Social Assets

Criteria Measures /	Ideal CWB Condition	Current Ear Falls Profile	Possible Ear Falls 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	Has a good complement of facilities but with declining population it is becoming less viable to operate some facilities and programs	<p>Increased demand for and patronage of recreation programs</p> <p>Enhanced opportunities for new and renewed facilities</p>	<ul style="list-style-type: none"> The decline in population has caused some attrition in recreational programming as the required complements of participants and volunteers are not available. It is not cost effective for the community to try and continue with these services. The financial circumstances of the municipality do not permit major capital investments in infrastructure; therefore, facilities are not maintained and upgraded to the degree they might be if funds were readily available. The community contains good infrastructure for the current population and has capacity to serve a larger population. APM would bring population into the community and this population may place demands on existing facilities and services and may create demand for new facilities and services as well. Ear Falls may need assistance to plan, develop, and operate the recreational facilities and services needed in light of the APM.
Social Services and Organizations	A range of services, organizations and media outlets are present to support the social fabric and needs of the community	<p>Has some organizations and services present; active seniors centre, core contingent of volunteers</p> <p>Community lacks services for non-active elderly</p> <p>Shared local newspaper with Red Lake</p>	<p>Increased demand for and use of social services and organizations</p> <p>Enhanced opportunities for new services and organizations</p> <p>Enhanced opportunities for existing and new media outlets</p>	<ul style="list-style-type: none"> Ear Falls has some organizations, driven in large part by a group of volunteers that supply social services to the community. The volunteers are often stretched thin, by participating in many events and organizations over the course of the year; however, declining population prohibits further recruitment of new volunteers. APM 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. Population growth will bring a larger base from which to draw volunteers and may inject new energy in services and organizations. Ear Falls may need assistance to plan, develop, and operate the services and organizations needed in light of the APM.
Community Character	<p>Strong sense of community identity</p> <p>Cohesive community</p> <p>Stability of population</p>	<p>Strong sense of pride in history, community and natural environment</p> <p>Changing character due to out-migration and shift to a 'bedroom' community</p>	<p>Increased youth retention and resources to strengthen pride in place</p> <p>Some potential that the APM Project may not be compatible with the aspirations of some community members as well as tourism camp operators</p>	<ul style="list-style-type: none"> Ear Falls has a strong sense of community pride. Sense of place includes a strong connection to natural environment. Character changes due to out-migration and the evolution into a 'bedroom community' as increasing numbers work in Red Lake or in other locales outside of Ear Falls. There is some potential that the APM Project may not be compatible with the aspirations of some community members including tourism camp operators The APM Project could bring employment autonomy, growth and stability.
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.

In the heart of Ontario’s ‘sunset country’, the Natural Environment is highly valued and strongly contributes to the sense of place and quality of life for the community of Ear Falls. Additionally, the tourism industry is strongly associated with the wilderness qualities of the environment.

There are two provincial parks and two conservation reserves in the Ear Falls area. Pakwash Provincial Park offers visitors regular facilities; in particular, the 1.5 km stretch of sand beach is a very popular park destination. Visitation to this park has been increasing in recent years, attracting local, regional and international visitors.

A number of natural areas and features of significance are also present in the Ear Falls area; these provide both active and passive recreational opportunities for locals and visitors. Ear Falls is known as the ‘bald eagle capital of North America’ with the largest returning nesting population of bald eagles in North America. The high potential for historical sites along the English River and tributaries in the Ear Falls area adds to its mystique. Ear Falls is reported to be one of the best fishing and hunting areas in Ontario.

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. In principle, 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 of the project. 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 construction and operation phase 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 net negative environmental effects are likely during the construction and operation phase of the used fuel repository itself.

The project contains some flexibility with respect to on-site building designs and energy use to be consistent with 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 5.5 Natural Environment

Criteria / Measures	Ideal CWB Condition	Current Ear Falls Profile	Possible Ear Falls Profile with APM Project	Observations
NATURAL ASSETS:				
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 Potential for negative effects on usage and visitation	<ul style="list-style-type: none"> Provincial parks have been attracting an increasing number of visitors and are a sense of pride for the community. Potential for increased demand on conservation reserves and provincial parks. Effective mitigation and environmental protection measures will ensure that the overall environmental integrity of the area is maintained
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"> As with any large scale project, the APM Project has the potential to have a negative effect on the area's natural areas and features of significance. 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 fit for the community of Ear Falls. It has the potential to enable some aspirations of the community and through this, foster well-being for a part of the community. Based on discussions with residents, it is understood that for some, the APM Project could foster community well-being by providing economic growth, stabilizing and growing the population.

Ear Falls is well suited to take on additional growth. It has a desire to grow and it has available housing stock, and a basic complement of municipal and transportation infrastructure and educational facilities though the elementary school is currently at capacity. Its residents are familiar with large resource-development projects and possess some of the skills that would be required for the implementation and operation of the APM Project.

It is recognized that some residents including tourism operators are very sensitive to the APM Project. There are concerns regarding negative market effects and the saleability of existing tourism businesses as a result of potential negative perceptions associated with the project. Although there may be some positive implications for the tourist industry as a result of increased population and visitation, this was not raised during discussions with community residents.

Table 5.6 Overall CWB Implications

Criteria / Measures	CWB is Enhanced When ...	Current Ear Falls Profile	Possible Ear Falls Profile with APM Project	Observations and Implications
OVERALL CWB IMPLICATIONS:				
Human	Population growth occurs and youth are retained in the community	Declining	Enhanced	<ul style="list-style-type: none"> APM would bring population growth, which is the 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 and new facilities could be developed.
Economic	Employment opportunities are available and tax base increases to fund community services and facilities	Declining	Enhanced	<ul style="list-style-type: none"> There will be increased employment opportunities and a more diverse range of jobs would be available. Increased funding through a wider tax base would provide the financial resources for Ear Falls to fund its infrastructure projects, educational developments, community and recreational facilities and programs and social services and organizations. Tourism camp operators in particular feel their businesses could be compromised through negative perceptions associated with the project Overall, the increase in jobs associated with the APM Project would be a catalyst for Ear Falls 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 the infrastructure and services would also provide increased funding to improve and enhance existing services.
Social	Opportunities exist for recreation and social networking. Community is cohesive, and community character is enhanced.	Declining	Uncertain	<ul style="list-style-type: none"> The community would see benefit to its Social Assets through increased participation and funding to its recreational facilities and programs as well as its social services and organizations. Interest in the project is positive for some residents For other residents including tourism camp operators the project may not be compatible with their goals and aspirations.
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 net negative environmental effects are likely during the construction, operation and decommissioning phases of the used fuel repository itself
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 addressed⁵. The table which follows draws on information outlined in the previous discussion to understand the potential to foster well-being in Ear Falls against these original factors. The table summarizes preliminary findings about the implications of the APM Project, were it to be implemented in the community, on various factors of well-being. 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 chapter.

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. Ear Falls realizes that it would be essential to develop relationships with all of the foregoing to support the implementation of the project.

⁵ NWMO 2010a.

Table 6.1 Summary Table of Criteria to Assess Factors Beyond Safety

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, but the community is eager 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 environment 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 net negative environmental effects are likely during the construction and operation phase of the used fuel repository itself
	Local and regional economy and employment	Enhanced	<ul style="list-style-type: none"> Significant employment and population growth would occur in Ear Falls and surrounding communities – hundreds of new jobs might be created in Ear Falls. With these jobs comes the potential to double the current population of Ear Falls. New opportunities would be created for local businesses to serve the project and growing population. Decreased dependence on Red Lake for employment and other services.
	Community administration and cohesion around decision-making processes	Uncertain	<ul style="list-style-type: none"> Some local leadership has demonstrated interest in the project while for others uncertainties remain as to suitability of the project for Ear Falls. Going forward it is expected that local leadership will engage the community in decision-making with respect to the APM Project.
	Balanced growth and healthy, livable communities	Uncertain	<ul style="list-style-type: none"> Ear Falls has aspirations to grow its population and economy as platforms for its strategic plan. The APM Project generally appears to be a fit with community goals and aspirations; however, for some members of the community including tourism camp operators the project may not be compatible with their wants and wishes.
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, however engagement of surrounding communities is at a preliminary stage and further dialogue would 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 environment will be enhanced through project activities and investments in the community.
	Sustainable natural environments	Maintained	<ul style="list-style-type: none"> Some natural areas may be negatively influenced during the construction phase of the project. Further dialogue and effective mitigation and environmental protection measures would 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	To Be Determined	<ul style="list-style-type: none"> Engagement of surrounding communities is not yet initiated and dialogue would be required to explore decision making issues and capacities.
	Balanced growth and healthy, livable communities	To Be Determined	<ul style="list-style-type: none"> Engagement of surrounding communities is not yet initiated and dialogue would be required to explore decision making issues and capacities.
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 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 infrastructure to be adapted to implement the project	Yes	<ul style="list-style-type: none"> There are no major infrastructure limitations in Ear Falls or the surrounding region to impede project implementation. Ear Falls 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 deficiencies in certain infrastructure such as: schools, recreational facilities, housing, etc.
Potential for physical and social infrastructure to adapt to changes resulting from the project	Potential for social infrastructure to be adapted to implement the project	Yes	<ul style="list-style-type: none"> The community of Ear Falls 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, Ear Falls would require assistance in terms of planning, and human and financial resources. Further studies would be required to explore the specifics of these requirements.

Table 6.1 Summary Table of Criteria to Assess Factors Beyond Safety (Cont'd)

Factors Beyond Safety	Evaluation Factors to be Considered	Indication	Discussion Based on Preliminary Assessment
Potential to avoid or minimize effects of the transportation of used nuclear fuel from existing storage facilities to the repository site	The availability of transportation routes (road, rail, water) and the adequacy of associated infrastructure and potential to put such routes in place	To Be Determined	<ul style="list-style-type: none"> The single point of access is currently Highway 105. Ear Falls 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. Project transportation will need to address community, logistical and regulatory matters across multiple provinces and multiple jurisdictions including; Ontario, Quebec and New Brunswick. Engagement of surrounding communities would be required to understand and address questions and concerns.
	The availability of suitable safe connections and intermodal transfer points, if required, and potential to put them in place	To Be Determined	<ul style="list-style-type: none"> Engagement of surrounding communities and those on potential transportation routes would be required to understand and address questions and concerns.
	The NWMO resources (fuel, people) and associated carbon footprint required to transport used fuel to the site	1,590 – 3,010 tonnes of equivalent carbon dioxide emission is expected to be produced per year	<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 Ear Falls, approximately 3,010 tonnes of equivalent carbon dioxide emissions are expected to be produced per year. In a scenario of transport by mostly rail mode approximately 1,590 tonnes of equivalent carbon dioxide emissions are expected.
	The potential for effects on communities along the transportation routes and at intermodal transfer points	To Be Determined	<ul style="list-style-type: none"> There is a robust safety case for the safe and secure transport of used nuclear fuel. However, engagement of surrounding communities and those on potential transportation routes would be required to understand and address questions and concerns.

7.0 RELATIONSHIP BUILDING AND ENGAGEMENT SUMMARY SECTION

At the present time, based on the engagement program and activities, Ear Falls appears to show some support for the APM Project.

7.1 OVERVIEW OF ENGAGEMENT

NWMO has engaged with Ear Falls leadership, community members, initiated dialogue in surrounding communities and First Nations/Aboriginal organizations⁶ 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;
- Preparation of written materials;
- Informal tours and visits with local residents;
- Attendance at Family Safety Night;
- ‘Ask the NWMO’ columns in regional newspapers;
- Meetings with nearby First Nations;
- Attendance at regional meetings, conferences [e.g. Northwestern Ontario Municipal Association (NOMA)];
- NWMO Mobile Transportation Exhibit; and
- Nuclear waste management facility tours.

Initial discussions with a cross-section of community leaders, briefings and conversations with community groups, and conversations with residents during open houses suggest there is 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 Councilors);
2. Members of the Nuclear Waste Community Committee;
3. Local business owners/operators;
4. Local service providers (e.g. emergency services, social services, education);
5. Community groups (e.g. clubs, associations);
6. Surrounding community leaders; and
7. Residents.

⁶ NWMO 2010b.

Based on discussions with the above, there appears to be potential to sustain interest in the local community. For many, there also appears to be interest to continue and move forward with the siting process. However, for some residents including tourism camp operators the project may not be compatible with their goals and aspirations.

At this stage there has been limited engagement with surrounding communities, including Aboriginal peoples, and this would need to evolve moving forward.

7.2 SUMMARY OF ISSUES AND QUESTIONS RAISED

This section summarizes the key challenges, issues and comments as heard from the community and other persons engaged.

7.2.1 Key Challenges, Issues and Opportunities

The key priority for Ear Falls, as identified through the various engagement activities, is to create economic growth. Growth is necessary to address its most important challenges: a declining population; a lack of in-community employment opportunities; an increasing dependency on Red Lake for employment, social services and recreation opportunities; a tax base dependent on residential assessments; a lack of retail and commercial services; and decreasing social and recreational programming. Although tourism certainly has a strong area presence, it plays a limited role in the local community economy. The APM Project is regarded by some in the community as a potential means to ensure the long term viability of the community. Other mining and resource opportunities could also provide benefit.

7.2.2 Summary of Key Interests/Questions

In Ear Falls, some of the people engaged in discussion were positive about the APM Project. Many were neutral and were interested in learning more and some were opposed to the project.

Several key interests were recurring and identify the areas which the community is most interested in learning more about. The *core* key interests expressed included:

- Health, safety, and environmental risk in and around the site and along the transportation route;
- Economic benefits and opportunities for growth; and
- Potential for negative perceptions of the area.

Health, Safety and Environmental Risk in and around the Site and along the Transportation Route

At this stage some community members are confident that the project will be safely implemented. Questions were raised in an effort to understand more about the health and safety risks in and around the site. Many of the questions focused on the potential for accidents and malfunctions during transportation and the ability of emergency services to respond should incidents occur. Questions about environmental risks include potential for long term (100 years plus) contamination of lakes and groundwater, and the potential for degradation of wildlife and fish either as a direct result of the project or indirectly due to an increased demand on hunting and fishing resources.

Economic Benefit and Opportunities for Growth

For some, the project is seen as a positive means to provide long term economic stability for the community. Questions focused on what type of employment opportunities would be available and how many workers would be required for each phase.

Potential for Negative Perception

The potential for the APM Project to create negative perceptions of the area was a concern expressed predominately from those associated with tourism businesses. Concerns were raised that negative perceptions might affect market perceptions and the saleability of tourism businesses.

In addition to the core key interests, a *secondary* key interest was the APM process and project description details. Residents are interested in actively learning more about the APM process and project. Recurring comments or questions included:

- More detailed understanding of the indirect and induced employment and business opportunities;
- Clarification on the APM process and specifically the Feasibility Study;
- More details regarding how and where the specific site might be located; and
- Ability to retrieve the waste if technological advancements in the future enables reprocessing or recycling of waste.

7.2.3 Ongoing Engagement

Going forward, engagement with surrounding communities will need to develop. Ear Falls anticipates 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 COMMUNITY WELL-BEING – SUMMARY FINDINGS

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 process⁷. The discussion which follows addresses and elaborates on a subset of these questions related to community well-being in the context of Ear Falls.

The preceding discussion has looked at implementation of the APM Project in Ear Falls and the implications this might have on the community well-being of Ear Falls. Additionally, key issues and concerns identified through engagement activities have been highlighted. Through desktop research, dialogue with community members and leaders and on-going analysis, it is understood that Ear Falls has some interest in hosting the APM Project in the area to realize growth and development opportunities within the community and surrounding areas.

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

There is potential for sustained interest in the local community. This is evidenced through discussions with some community leaders and residents who have shown interest in learning more about the project and continuing in the siting process.

At this time the potential for sustained interest in the surrounding communities is unknown. Engagement and discussions will need to take place before the interest in surrounding communities can be determined.

There is potential for the APM Project to foster the well-being of Ear Falls. The project is understood to enable some community priorities and aspirations and is seen by some leaders and residents to be a potential catalyst for the socio-economic growth and development they desire. On the other hand, there are some individuals who do not believe that the project is aligned with their interests or those of the community. For some areas (tourism and community character), it is unknown what the effects of the APM Project will be.

⁷ NWMO 2011.

There is potential for the APM Project to foster well-being in the surrounding communities. Discussions need to take place and be ongoing to gauge interest in the benefits offered by the project and assess the implications of it 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 proceeding 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 which should be reserved for other uses or preservation. The remaining areas, if any, 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 acknowledges, respects and honours 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 peoples (NWMO, 2010b).
2. Project implementation (including engineering, logistics and/or community well-being) must align with specific community aspirations:
 - a. An acceptable area and regional project implementation plan must be identified which aligns ultimate project configuration with area 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 and area needs to be enhanced and sustained throughout this process, including multiple election cycles.
 - b. The potential effects of the project on the community would be substantial and the community and area will need substantial support to maintain and foster additional interest and to take an active role in discussions of how the project should be implemented.

- c. Opposition groups, largely from outside of the community, may actively seek to influence community decision-making and community leaders will need to respond to these pressures. Ear Falls will require substantial 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 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 host 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 would 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
- Golder Associates (Golder) 2011. *Initial Screening for Siting a Deep Geological Repository for Canada's Used Nuclear Fuel. Township of Ear Falls, Ontario*. Prepared for NWMO. April.
- Meridian Planning Consultants Inc. (Meridian) 2011. *Strategic Plan Township of Ear Falls*. December.
- Nuclear Waste Management Organization (NWMO) 2012. *Description of Canada's Repository for Used Nuclear Fuel and Centre of Expertise*. Fall 2012. Available online at <http://www.nwmo.ca/brochures>.
- Nuclear Waste Management Organization (NWMO) 2011. *Preliminary Assessment of Potential Suitability – Feasibility Studies. Draft for Discussion with Communities Involved in the Site Selection Process*. November.
- Nuclear Waste Management Organization (NWMO) 2010a. *Moving Forward Together: Process for Selecting a Site for Canada's Deep Geological Repository for Used Nuclear Fuel*. May. Available online at: <http://www.nwmo.ca/sitingprocess>.
- Nuclear Waste Management Organization (NWMO) 2010b. *NWMO Aboriginal Policy*. Available online at: http://www.nwmo.ca/uploads_managed/MediaFiles/1513_nwmo_aboriginalpolicy-2010en.pdf