

Current and Future Opportunities for Agricultural Development in Northeast Ontario: A Regional Development Perspective



18 November 2011

Current and Future Opportunities for Agricultural Development in Northeast Ontario: A Regional Development Perspective

NeCN Agriculture Study: Report 1 of 2

Prepared by:

Wayne Caldwell, PhD, MCIP, RPP

Eric Marr, MSc (candidate)

School of Environmental Design and Rural Development

University of Guelph

November, 2011

Prepared for the Northeast Community Network (NeCN)

Acknowledgements

We would like to extend our gratitude to the many people and organizations that made this research happen. First, we would like to thank the members of the Northeast Community Network, with specific appreciation for the support and input from the NeCN Agriculture Steering Committee members:

- **Ellen Sinclair** (Chairperson): Venture Centre / Le Centre de développement CFDC
- **Laurier Guillemette** (Vice-Chairperson): Councillor, Town of Kapuskasing
- **Mike Milinkovich**: Mayor, Township of Black River-Matheson
- **Denis Bérubé**: North Claybelt CFDC
- **Andre Robichaud**: Kapuskasing Economic Development Corporation
- **Brenda Camirand**: City of Timmins Economic Development Corporation
- **Daniel Sigouin**: Town of Hearst Economic Development Corporation
- **Eli Vuksanovich**: Mountjoy Independent Farmers' Market, Timmins
- **James Bernardi**: Smooth Rock Falls Economic Development Corporation
- **John Caron**: Hawk Feather Farm, Timmins
- **Rheal Cousineau**: Farmer and business owner, Cochrane
- **Michael Shea**: Councillor, Town of Iroquois Falls
- **Gilles Matko**: Nord-Aski CFDC
- **Darrel Becker**: Farmer, Township of Black River-Matheson
- **George Hughes**: Northern College, Timmins

A special thank you to Ellen Sinclair and Mike Milinkovich for the great work they have done in the role of Chair for the committee and their guidance through the project's duration.

We would also like to thank Steven Blier and Adrien Veilleux of the Nord-Aski CFDC for their time on the NeCN Agriculture Steering Committee and their contributions to the project.

It is imperative that we acknowledge the contributions from the many interview participants for their hospitality and input to the project. Particularly, we want to extend our appreciation to the farmers who took the time in such a busy time of year to share their experiences with us. This project could not have happened without you.

We would like to acknowledge the funding from the Ontario Ministry of Agriculture, Food, and Rural Affairs (OMAFRA) through the University of Guelph Partnership agreement that contributed to this research.

Last but certainly not least we would like to thank our other research team members Jennifer Ball and Kate Procter for their thoughtful contributions, insights, and new ideas which they have presented throughout the project.

Executive Summary

Cochrane District in Northeastern Ontario has a long history of agriculture which continues to have an important presence in the area. However, this sector faces several obstacles, such as aging farm operators with limited succession planning. Therefore, action must be taken in order to ensure the sustainability of current farming operations as well as take advantage of the vast agricultural opportunities present in the area. With this in mind, this study undertook to identify the strengths, weaknesses, opportunities, and threats inherent for agriculture in this part of Cochrane District as well as present strategic actions which could be undertaken in order to expand agriculture in the area.

In order to achieve this goal, several research methods were utilized, such as reviewing existing literature and data along with interviews undertaken in the region. Through this work it was identified that the southern part of Cochrane District has soil classifications and climate appropriate for several agricultural products and that obstacles tend to lie in socio-economic factors rather than agroclimatic considerations. While the climate of the area is not ideal for all crops and farming practices utilized in southern Ontario, it was identified that the right selection of crop varieties and adapted farming practices improved the feasibility of a range of products with satisfactory yields.

The final intention of this research was the creation of a range of strategic actions which may be undertaken in order to expand agriculture in the area. These actions were created based on interview findings, NeCN Agriculture Steering Committee feedback, and other research. The listing of actions include such ideas as increasing sales of local products; promotion of products and opportunities outside of the area; increased funding for infrastructure; expansion and better use of local capacity; more consideration and recognition from higher levels of government; facilitate linkages between stakeholders and potential markets; and explore unconventional agricultural opportunities. These 23 actions provide, in some detail, ideas that may be pursued in order to create a vibrant agricultural community in this area of Cochrane District with a range of scales and agricultural models.

The following comprises the first of two reports that make up this study. Report 1 presents background on the NeCN catchment area as well as the results of the fieldwork presented in the form of a Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis. The Appendices of Report 1 also presents a range of technical information relating to the area. Report 2 contains the Actions which have been developed which may help expand agriculture in the area with specific Implementation Strategies being presented in the Report 2 Appendix.

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Introduction

Agriculture has a long history in Cochrane District based upon the favourable soils of the Northern Clay Belt. However, since a peak in the mid-1900's this industry has experienced a decline with an economic shift towards other resource-based industries such as forestry and mining. Today, agriculture in the area is comparably limited and existing operations are threatened by an aging farmer population and limited uptake in the new generations. It is in the interest of municipalities and the community as a whole for agriculture to be revitalized in order to re-introduce diversification into a local economy dependent on industries subject to *boom-bust cycles*, along with the other community benefits that agriculture would provide.

With this in mind, the Northeast Community Network (NeCN) in Southern Cochrane District has partnered with Professor Wayne Caldwell of the School of Environmental Design and Rural Development at the University of Guelph to conduct a study on the opportunities for expanding agriculture within this region. This research will evaluate the current state of agriculture in the area including a Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis relating to the expansion of agriculture. This will be followed by action strategies for municipalities to consider undertaking in order to expand agriculture in their area. The overall goal of the study is to work with municipalities to identify *actionable* strategies with tangible elements which they may institute in the short and long term in order to achieve this goal.

Why Agriculture?

The rationale behind pursuing an expansion of agriculture in this region is somewhat complex and deeply rooted in culture and history. While the primary motivator is certainly economic development and the use of an underutilized resource in agricultural land for diversification of the local economy, there are additional motivators. Indeed, the fieldwork identified several additional interests or concerns that help to explain this community's interest in pursuing agriculture, particularly agriculture which produces food products.

One key issue that arose through the fieldwork is that of food security as a lens for justifying the pursuit of agricultural expansion. Indeed, due to the remoteness of the NeCN communities there are questions about food self sufficiency, especially in light of future concerns relating to peak oil or climate change.

Another key element which is less tangible, but clearly came through during the fieldwork is the historical roots of agriculture in the area and the cultural value of this industry. While less so today, agriculture was once a major sector in the NeCN catchment area and many respondents had long held ties to their operations, having been passed down through

generations. There was a clear sentiment that past generations had come to the area as pioneers and established farms on difficult terrain and that this history should be preserved.

It was also perceived that while the term was never used, people in the area valued farmland as part of their *cultural landscape* and not just as an underutilized resource. Interviewees often spoke positively of the Timiskaming District landscape and reminisced of a time when a vibrant agricultural community existed in the NeCN catchment area. There was frequent mention of *tag alders* reclaiming abandoned land with a sentiment that went deeper than a lost economic opportunity to potentially losing an element of their culture and history.

An additional intangible element is that of societal factors relating to agriculture. Even those outside the agricultural community with whom we spoke often indicated an inherent value of agriculture in the area for societal reasons. For instance, farmers create strong, tight knit communities in rural areas with strong, and literal, ties to the land. However, there was a clear disappointment present during the fieldwork that this sector was gradually disappearing. This sentiment was particularly true in the agriculture community with one dairy farmer in particular mentioning that for social reasons he felt a decreasing interest in farming as more operations move out of the area.

Therefore, while the value of agriculture is most often framed in economic terms it is important to recognize that this sector has additional importance to the community which is more difficult to quantify, though every bit as important.

Purpose and Methodology

Study Purpose

The communities situated within Cochrane District in Northeast Ontario are economically reliant on mining and forestry. These industries face a number of challenges associated with what is often referred to as “boom and bust cycles”. As a result, the communities within Cochrane District would greatly benefit from diversification of their local economy, with one option being agricultural expansion.

While agriculture is not a significant economic contributor at present, the existence of favourable soil classifications and adequate crop heat units suggest that expansion of this sector would be feasible. Increasing agricultural land prices in Southern Ontario and forecasts associated with climate change point to the potential for enhanced agricultural opportunities in the fertile lands of Northeast Ontario.

Therefore, this study will utilize a variety of methods to evaluate the current state of agriculture in the Southern portion of Cochrane District while at the same time identifying strengths, weaknesses, opportunities, and threats relating to the expansion of this sector within the region. The primary goal of the report is to build from this foundation to provide actions and corresponding implementation strategies which the member communities of the Northeast Community Network (NeCN) may consider adopting in pursuit of their goals.

Objectives

The objectives of the study can be broken down into 6 segments as follows:

1. To evaluate the opportunities for agricultural development in Northeast Ontario from a Regional Development perspective.
2. To work with the existing agricultural community to identify opportunities and challenges regarding the role of agriculture in regional economic development.
3. To work with local municipalities and regional development organizations to profile and promote agricultural development as a regional development tool.
4. To develop a case study approach of the Northeast Community Network as a means to identify broader regional opportunities.

5. To evaluate the potential for an expanded agricultural sector resulting from predicted climate change scenarios.
6. Identification of strategic directions that achieve the goal of agricultural development.

The results of these objectives can be found in one of two reports. The first report is entitled *Current and Future Opportunities for Agricultural Development in Northeastern Ontario: A Regional Development Perspective* which contains objectives 1, 2, 3, and 5. The second report is entitled *Strategic Directions for Agricultural Development in Northeastern Ontario* which contains objectives 4 and 6.

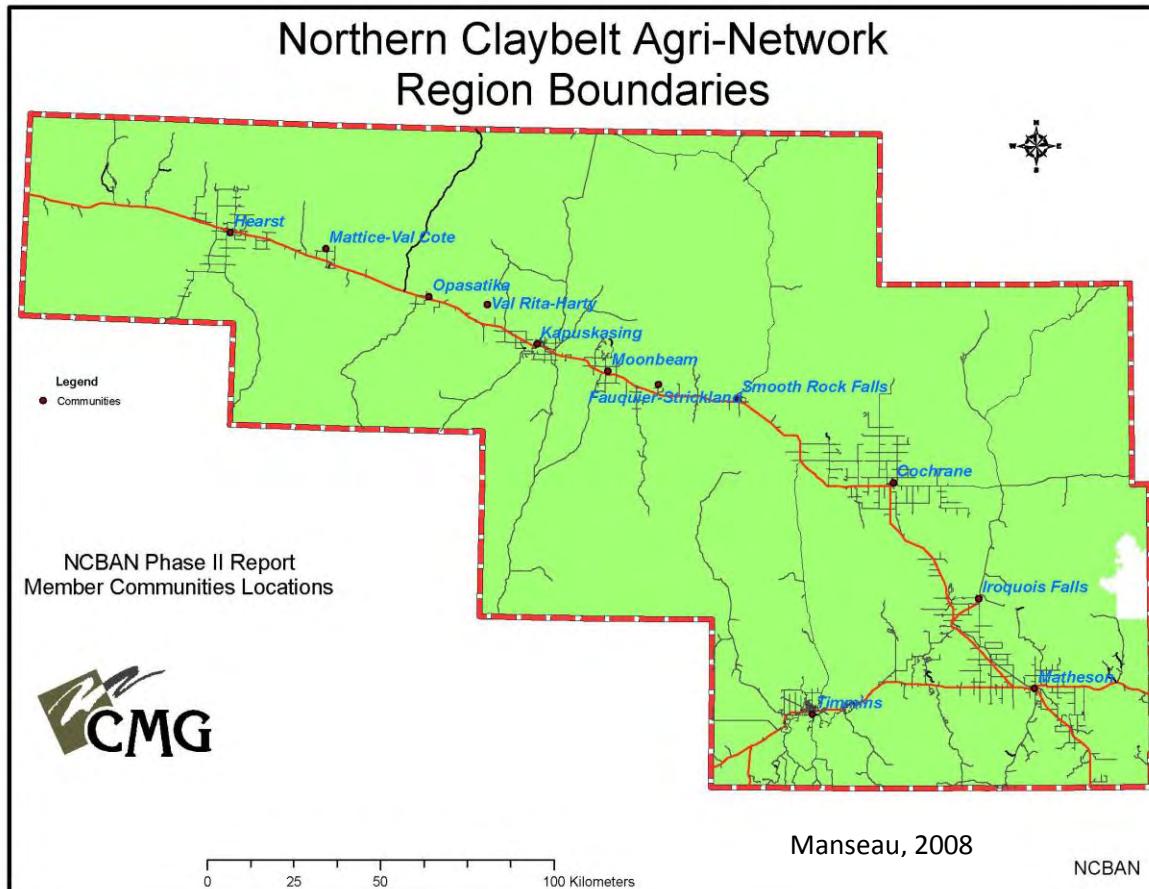
Methodology

The methodology for this project has been undertaken in several phases. First, secondary research and literature was reviewed to avoid duplication as well as obtain technical and statistical information pertaining to the area. Next, in-person interviews were undertaken in the NeCN catchment area with various stakeholders related to the agricultural sector of the region. Furthermore, strategic action ideas were developed by the researchers in cooperation with the NeCN Agriculture Study Steering Committee which were used to develop individual implementation strategies.

Study Area

The study area for this report encompasses the boundaries of 12 municipalities and 2 First Nation communities in the South of Cochrane District. While not formally recognized as a political jurisdiction, this area is referred to as the Northeast Community Network (NeCN) catchment area. A map representing the area of study can be found in Figure 1.

Figure 1



It is important to note that because this study area is not a recognized jurisdiction, it is sometimes difficult to find data pertaining exclusively to it; particularly when referring to Statistics Canada information. In these cases data was consolidated based on the Census Subdivision level to create a single NeCN catchment area dataset.

In other cases this was not possible and the closest level of measurement was found at the Cochrane District level. For instance, the Census of Agriculture divides Cochrane District into only two lower units; Timmins and the rest. Therefore, in discussions of agriculture it is generally at the Cochrane District level. Nevertheless, as most (if not all) of Cochrane District's agricultural land falls within the NeCN catchment area as well as most of the District's population it can be considered an accurate proxy.

Review of Existing Research and Data

Throughout the NeCN Agriculture Study existing research and data was utilized to avoid duplication of effort as well as obtain pre-existing data. While several reports were reviewed, two research projects in particular were utilized as good information sources for which the

NeCN Agriculture Study would build off of. First, the *Cochrane District Agricultural Economic Impact Study* prepared by Harry Cummings and Associates in 2009 was used as a source of information specifically pertaining to the agricultural situation of Cochrane District. Another source, generally referred to as the *NCBAN Study*, was prepared by Commerce Management Group for the Northern Claybelt Agri Network and was completed in 2009. This study was used primarily for its thorough look at soil information as well as the available farm land base along with a significant amount of GIS information pertaining specifically to the NeCN Catchment Area.

Along with a review of existing research reports, existing data sources were also utilized for demographic and technical information. For instance, socio-economic and agricultural data was obtained from Statistics Canada in the form of Census of Population and Census of Agriculture findings. As well, soil information was obtained from the Canada Land Inventory and climate information was obtained from the Ontario Ministry of Agriculture, Food, and Rural Affairs (OMAFRA).

Fieldwork

Primary research was undertaken within the NeCN Catchment Area over the period of May 10 – June 17, 2011. This was predominantly undertaken in the form of semi-structured interviews with stakeholders associated with the agriculture sector in the region; a specific breakdown of interviewees is presented in Table 1. The interviews were semi-structured in nature where interviewees were guided towards answering a list of prepared questions however were also encouraged to present their own relevant experiences or ideas outside the interview questions. This allowed for the flexibility to avoid questions irrelevant for an individual's operation, as well as expand ideas, issues, or opportunities not previously considered in the drafting of the interview questions. In essence, the interview questions evolved as the situation of agriculture in the NeCN area became clearer.

The list of interview contacts began as a list prepared by members of the NeCN Agriculture Study Steering Committee and included contacts from across the area. An attempt was made to speak with each stakeholder included on the list however in some cases individuals could not be contacted or declined to participate. In addition to this base list interview participants were asked to recommend any additional contacts that should be included in the study as a form of *snowball sampling*. This process did result in some new contacts being added to the original list. In addition to the interviews, there was also opportunity to visit two key research institutions and speak with employees or researchers at the Kapuskasing Beef Research Farm and the New Liskeard Agriculture Research Station (NLARS). Furthermore, there was an opportunity to attend and participate in a consultation

session on the topic of forestry, agriculture, and food for Timmins' strategic planning process on June 14, 2011.

Interview participant category	Number of participants
Agricultural producers	27
Farming operations visited	21
Agricultural suppliers	1
Agricultural processors	1
Food stores/Farmers' Markets	5
NLARS Researchers	2
Kapuskasing Beef Research Farm Employees	2
Community Futures representatives	4
Economic Development Corporation reps	6
Other municipal employees	1
Representatives of Municipal government	4
NGO/not for profits	5
OMAFRA Representatives	2
Others involved in agriculture or food	1

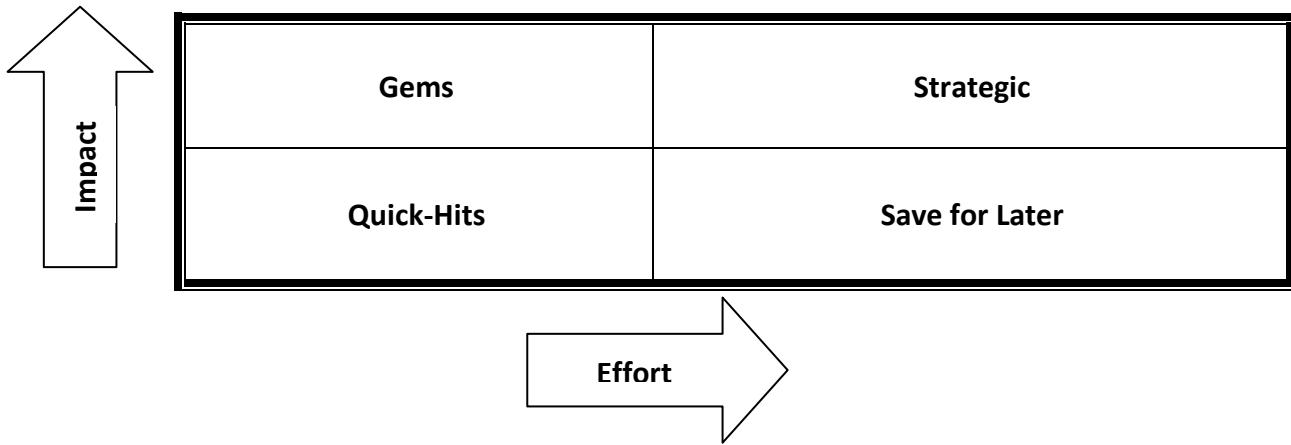
Continued Steering Committee Feedback

From the outset of the study it was identified that the NeCN Agriculture Steering Committee should play a continuing role in providing feedback and guidance for the project. To date, the Steering Committee has had one face-to-face meeting where the group was provided the opportunity to comment on the project's directions and deliverables as well as some of the early findings of the SWOT analysis. Also within this session, the Steering Committee was asked to provide a list of 3-5 potential actions that they felt would contribute to agricultural development in the NeCN area.

These action ideas were then compiled, summarized, and added to an existing list of strategic actions arising from the fieldwork. In follow up to this exercise, the Steering Committee was asked to provide feedback by prioritizing 5 actions that they felt were of key importance and 5 which they felt were of lesser importance for agriculture in the NeCN catchment area. The results of this exercise were then used in a meeting with other members of the *Prospering with a Stable or Declining Population* research team to develop implementation strategies for each action, and with particular emphasis paid to those deemed most valuable by the Steering Committee.

Finally, on November 4, 2011 the Steering Committee met with researchers Eric Marr and Wayne Caldwell along with contributor Jennifer Ball to present the final report. During the

afternoon of this full-day event a session was held to prioritize the 23 actions presented in Report 2. This session saw the committee divided into four groups each provided with 5 or 6 actions to consider which should be pursued, but not necessarily completed, by November 2012. These actions were prioritized on a quadrant based on effort and impact with 4 categories: *Gems*, *Strategic*, *Quick-hits*, and *Save for Later*. These are presented in the following Figure. The results of this exercise are presented in Report 2.



After categorizing each action each of the four groups were asked to produce workplans for each of the items they prioritized as *Gems* and *Strategic*. The results of this exercise are presented at the end of Report 2.

Agriculture in Cochrane District

Cochrane District¹ has a long history of agriculture production which played a key role in the initial settling and development of the area. However, as of today agriculture has declined significantly in overall production and economic significance for the area with many formerly productive operations being abandoned. Indeed, the level of improved (cleared) farmland in the area peaked in 1951 with 50,400 hectares at which time it steadily declined to only 14,421 hectares in 2006 (Manseau, 2008).

The reason for this steep decline in agriculture is difficult to pinpoint. The fieldwork for this study identified several observations from respondents, including an increase in competition from international markets or a cultural and economic shift in the region away

¹ In the case of agriculture, data cannot be extracted below the county/district level. Therefore, we must use information pertaining to Cochrane District overall. Nevertheless, since most (if not all) agriculture in Cochrane District occurs within the NeCN catchment area it can be considered an accurate proxy measure.

from agriculture towards more profitable ventures in mining and forestry. Regardless of the reason for the decline, it would seem that it has not been the result of incompatible soil or climate conditions thereby suggesting that agriculture could return under the right socio-economic conditions.

This section will present the current state of the agriculture sector within Cochrane District. It will conclude with a preliminary look at the opportunities that exist within the area for a revitalisation of the agricultural sector, particularly in regard to available land and viable crops. A summary of the data can be found in Appendix 3.

Economic Value of Agriculture

In economic terms we can state that while the value of agriculture in Cochrane District is low when compared to areas in Southern Ontario, it does have a significant contribution to the economy of this area. During the last Census of Agriculture it was found that in 2005 farmers in Cochrane District reported total gross farm receipts of \$11,195,641 and a total farm capital of \$86,321,292 (StatCan, 2011). According to figures from the Ontario Ministry of Agriculture, Food, and Rural Affairs (OMAFRA) for 2009 the main contributors to farm cash receipts are dairy with approximately \$2 million; cattle and calves with \$940 thousand; and floriculture, nursery and sod with approximately \$600 thousand (OMAFRA, 2010). Thus, as mentioned, the contribution of agriculture within Cochrane District relative to other areas of the province is quite limited but nevertheless presents an important contribution to the local economy.

Farmland Coverage and Crop/Livestock Production

In 2006 Cochrane District reported 30,447 hectares of farmland from 184 farms of which 11,508 hectares were used for crops (OMAFRA, 2010). Overall, the major farm production in the District include: hay/fodder production, beef production, dairy production, and a range of other animal production activities including horses, sheep, goats, bison, and deer/elk (Cummings, 2009).

As of the 2006 Census of Agriculture the main crop was found to be hay with 10,167 hectares followed by barley (551 ha); oats (395 ha); and mixed grains (158 ha) (OMAFRA, 2010). Estimates² from OMAFRA for 2010 provide a similar breakdown, but smaller coverage, with hay being the main crop with 18,500 acres harvested followed by mixed grains (900 acres); barley (800 acres); and oats (700 acres) (OMAFRA, 2011a).

In addition to the coverage of field crops it is important to look at yield information. Generally, numbers from OMAFRA indicate that yields in the area are significantly lower than in other areas of the province. For instance, in 2010 barley in Cochrane District was estimated to have a yield of 43 bushels per acre whereas in the province overall the yield was 65.6 bushels

per acre (OMAFRA, 2011b). Similarly, hay was estimated to have a yield of 1.3 tons per acre in Cochrane District compared to 2.7 tons per acre at the provincial level (OMAFRA, 2011c).

However, a reduction in yields when compared to the province overall is not uniform for crops in Cochrane District. Indeed, estimates from 2010 indicate that oats actually had a higher yield at 72 bushels per acre when compared to the provincial yield of 70 bushels per acre (OMAFRA, 2011h). Similarly, mixed grains had a higher yield in Cochrane District with 75 bushels per acre compared to 70 bushels per acre in the province overall (OMAFRA, 2011e).

In terms of livestock numbers, the 2006 Census of Agriculture found that Cochrane District contained 6,069 total cattle and calves (OMAFRA, 2010). An update from OMAFRA for 2010 estimates² that Cochrane District contains 300 dairy cows and 2,300 beef cows (OMAFRA, 2011f). As for dairy production, in 2010 Cochrane District had 5 milk producers shipping 2,598 kilolitres of milk representing a decrease from 2006 where 7 milk producers shipped 3,026 kilolitres (OMAFRA, 2011d, 2011g). Other livestock present in the Census numbers include poultry with 1,515 total hens and chickens and 129 total turkeys as well as 234 total sheep and lambs (OMAFRA, 2010).



It is worthwhile to note that the fieldwork undertaken within Cochrane District identified additional information on agriculture not captured within the data from the Census of Agriculture or OMAFRA. Indeed, there were a variety of products not identified by these sources that were being produced by farmers in the area. For instance, a few operations were producing vegetables for local consumption either through the local farmers markets, a food box/community supported agriculture model, or for sale in local food retailers. Additionally, there were some field crops not captured within this data such as wheat and canola which interviews found to be viable products.

Farms and Farm Operators

As of the 2006 Census of Agriculture, Cochrane District contains 184 farms with an average size of 165 hectares, considerably larger than Ontario overall where the average farm size is 94 hectares (StatCan, 2011). The distribution of farm sizes was further broken down as: 41 farms reporting under 53 hectares; 76 farms between 53 and 161 hectares; and 67 farms over 162 hectares (OMAFRA, 2010). Further still, there is considerable variation in farm size across the District where farms in the Timmins area tend to be smaller (e.g. less than 200 acres). Farms in Timmins have also become progressively smaller in size over the last 10 years while farms in other parts of the District have become progressively larger (Cummings, 2009).

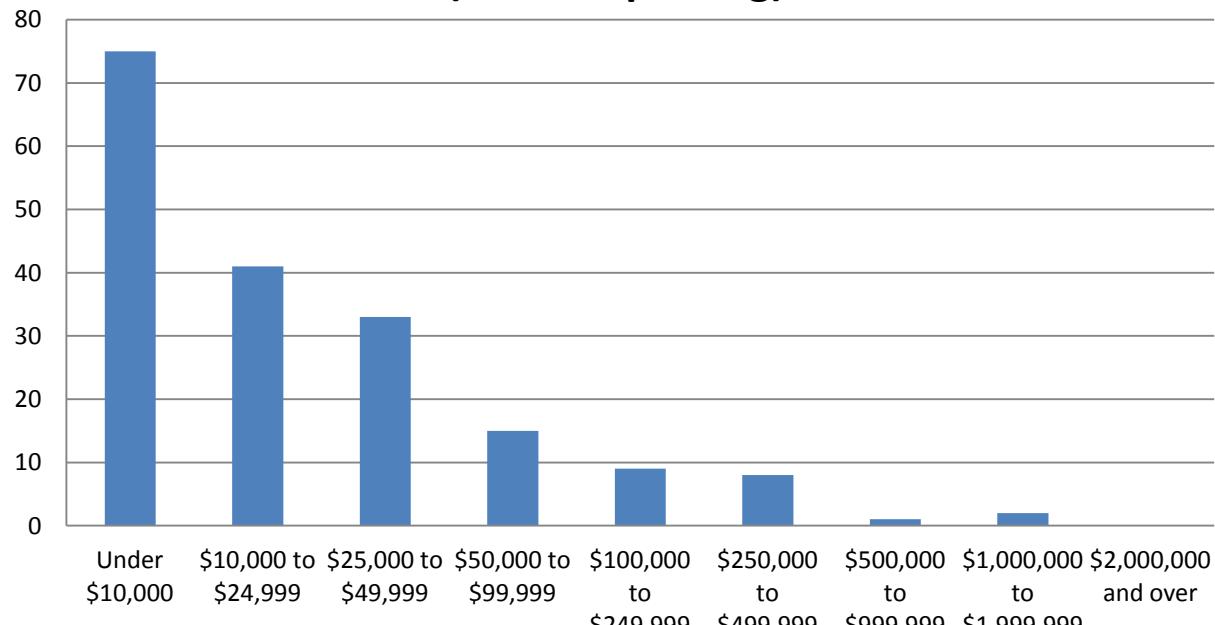
² OMAFRA provides the following warning when using these estimates: "Please note that the figures above are estimates primarily derived from a probability survey conducted by Statistics Canada, in conjunction with other administrative data sources. The probability survey is designed to produce accurate field crop area and yield information for the province as a whole. However, the accuracy of county and district estimates may suffer, particularly when the level of farming activity in a given area is relatively small. Thus, a measure of caution is advised when using sub-provincial estimates."

When observing the finances of the farming operations in Cochrane District we find that their profitability is limited. Indeed, as Figure 2 indicates, the majority of farms reporting in 2006 had total gross farm receipts under \$10,000 (OMAFRA, 2010). This helps to explain why such a large proportion of farmers in Cochrane District work off farm having risen from 39 per cent in 1995 to 56 per cent in 2005 (Cummings, 2009).

In regards to farm capital value it is found that a significant proportion of farms (as of 2006) had relatively low value with 50 (27%) reporting under \$200,000 (OMAFRA, 2010). This data corresponds with findings from the fieldwork which identified several explanatory factors, including a low value of land and limited on-farm infrastructure such as barns or machinery. Nevertheless, the majority of farms (83 or 45%) still reported a capital value in the range of \$200,000 to \$499,999 and several indicated values in the upper cohorts with 41 farms reporting in the range of \$500,000 to \$999,999 and 10 farms reporting over \$1,000,000 (OMAFRA, 2010).

Figure 2

Total Gross Farm Receipts (farms reporting)



Source: 2006 Census of Agriculture

When observing the characteristics of Cochrane District's 270 farm operators it is found that this demographic has a high average age at 55.1 years (StatCan, 2011). This figure is even higher than the provincial average of 52.6 years. However, more concerning than the age of farm operators is the limited succession planning and few younger people taking interest in farming identified in the fieldwork. Indeed, several interviewees nearing retirement identified that they had no plan for their operations once they could no longer farm. In many cases aging

farmers had no interested children to pass the farm on to and no intention (or little expectation) of selling the operation. This suggests that as farmers age in Cochrane District, many operations will be left unutilized once their current operators retire.

An additional point important for consideration but not captured within the previous data is the wide range of agricultural models currently being used within Cochrane District. Indeed, results from the fieldwork identified several categories that most operations could fit into. This may be summarized in the following table:

	Small scale				Large Scale
Local Market	Vegetable production for CSA/Farmers Market	Vegetable production for food retailers (greenhouses)	Livestock production for sale at farm gate/farmers market	Livestock production for sale at food retailers	
Export Market			Livestock production for export (i.e. cow/calf)		Cash cropping

Agricultural Opportunities in the NeCN Catchment Area

While in its current form agriculture is quite limited in Cochrane District there is significant opportunity for its expansion. Some key opportunities include the availability of farmland, the production of different crop varieties, and the shift to different agricultural models.

In terms of available farmland, it is difficult to accurately say how much agriculturally viable land is available in the area. However, the NCBAN study (2008) identified three measures that can help provide an idea of the vast acreage available for use specifically within the NeCN catchment area:

- 1) Quantifying the study area's agricultural lands employing the MPAC data sets reveals a total farm base of 50,755 hectares. Assuming the introduction of vacant land and single residences holding an acreage value in excess of 30 acres, the total farm potential within

the study area can be estimated at 384,880 hectares for a total potential private lands farm base of 435,635 or 1,076,018 acres (Manseau, 2008).

- 2) Qualifying the soil class of study area's farm base, employing the CLI soil classification polygons, reveal that 53.26% of the land base falls under Class 3 and 17.51% falls under class 4. Assuming the introduction of vacant lands and single residences holding an acreage value in excess of 30 acres, an estimated 308,658 hectares of class 3 soil and an estimated 204,785 hectares of class 4 soils could be added to the current farm lands (Manseau, 2008).
- 3) Quantifying the study area's agricultural lands employing the Census data sets reveal a total lands in crop and improved pasture volume of 14,421 hectares. Assuming the reintroduction of historical improved farmlands from its peak in 1951 (50,400 hectares), the study area's current level farmland can be increased by 35,979 hectares (Manseau, 2008).

Regardless of the method utilized to calculate the available land base, it is clear that there is considerable opportunity to expand agricultural production within the region.

Another opportunity exists within viable products not captured within the data from the Census of Agriculture or OMAFRA. Indeed, the fieldwork identified a range of vegetables which were found to be viable under the right farming practices. Further, field crops such as canola were found to be growing quite well in the area with acceptable yields. This list will be expanded elsewhere in this report.

An additional key opportunity which exists in the region is the use of alternative agriculture models. For instance, there may be an opportunity for more local production and sales through farmers markets or a Community Support Agriculture (CSA) approach. At the same time, there may be opportunities for large scale cash crop production through partnerships with major producers from other areas who can supply the necessary inputs and expertise. Once again, these opportunities will be expanded upon elsewhere in the report.

SWOT Analysis

A Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis is a method of evaluation based on the achievement of a desired outcome. In the case of the NeCN Agriculture Study the desired outcome can be described broadly as the expansion of the agricultural sector within the NeCN catchment area. Therefore, the SWOT analysis works to identify the strengths, weaknesses, opportunities, and threats relating to the achievement of this goal.

The following SWOT analysis was created based predominantly on the findings from the interview process undertaken within the region. It also contains some observations from researchers as well as input from the NeCN Agriculture Study Steering Committee. It should be noted that some elements could be identified as fitting within more than one category, for instance in some cases a weaknesses might even be a strength (or vice-versa) depending on one's viewpoint or how it is addressed.

Strengths

Low cost of land/lower taxes

When compared to Southern Ontario the cost of land in the NeCN catchment area is much lower. Interviews indicated a range of approximately \$100 - \$500 per acre for agriculturally viable land in the NeCN catchment area. This is compared to Southern Ontario where the cost of land is more in the range of \$7000 - \$10,000 per acre. As well, interviews indicated that the cost of municipal taxes were also considerably less in the area when compared to other parts of the province.

Plenty of privately owned or cleared land unutilized



Even from straight observation, it is clear that there is a considerable amount of land that was once cleared for agricultural use that has since been left vacant. The previously completed NCBAN study found that in 2008 the total potential private lands farm base was 435,635 hectares of which only 14,421 hectares were in use. As well, it was found that historically 50,400 hectares were in use in 1951 leaving a significant amount of land once cleared and not currently in use.

Certain products do grow well

- Livestock: cattle, sheep, goats, bison, elk, horses
- Crops: oats, barley, hay, wheat, canola
- Vegetables: cabbage, cauliflower, potatoes, carrots, turnips, other roots, and more
- Fruits: Strawberries, raspberries, blueberries
- Certain ornamental species
- Biomass products (willows, poplars, grasses)

Throughout the interviews a wide range of crops were found to be quite viable in the NeCN catchment area from an environmental perspective. Whereas crops popular in Southern Ontario such as corn and soybeans are currently not viable in the area's climate, other crops such as oats have actually been found by area farmers to have better production and higher nutrient content.

Presence of ambitious/entrepreneurial people

Throughout the interview process numerous ambitious, entrepreneurial, and creative people were met. These individuals were involved in several interesting and useful projects such as: unique branding, niche market production, fostering and providing local markets, among many others. These individuals will prove useful in the ongoing development of agriculture in the region. Particularly as the unique circumstances of the NeCN catchment area will require new and creative solutions.



Good soil quality

The soils in the NeCN area have been found to be of good quality. Interviews indicated that farmers were generally impressed with the soil quality and found it to not be a problem in most cases. As well, even with climate considered, CLI classifications identify large areas of class 3 and 4 soils which are viable for agricultural production.

Weaknesses

Distance to market

Interviews with producers almost uniformly found that the distance to large markets was a major obstacle to profitability. Particularly when attempting an agriculture model based upon

exports to markets in the south, such as cash crops or cow-calf operations, the long distances are a considerable obstacle. With a rising cost of fuel the added cost of transportation reduces the margins of producers and thereby provides a competitive disadvantage for area producers. This is further compounded by the need of most producers to ship their outputs to the New Liskeard area or even further in some cases.

Limited infrastructure, suppliers, product handling, and other services

The NeCN catchment area has limited agriculture infrastructure and product handling such as the lack of a grain elevator and rail depot as well as limited storage for grains or vegetables. The area also has a limited number of agricultural product suppliers and it was indicated by almost every producer interviewed that they must obtain all feed; seed; fertilizer; chemicals; machinery and parts; and other associated products from southern suppliers. This represents an added cost and significant inconvenience to area farmers.

It also represents a weakness from an economic development perspective as resources are leaked out of the area into Timiskaming District with limited opportunity to capture the corresponding benefits of increased agriculture production in the area. As it stands now it does not appear that these services will return through market devices, nevertheless it is possible that they would arise on their own following an increase in farming in the area.

There are also limitations in the area in terms of access to other agricultural services such as veterinarians. However, at the moment this was not considered to be a major obstacle due to the generally high cost of utilizing veterinary services and the low value of livestock. It was also frequently indicated that veterinarian services did exist in some form for most livestock farmers and that the concern was more about the ability to attract new veterinarians with impending retirements.

Limited on-farm infrastructure

There appears to be limited on-farm infrastructure in the NeCN catchment area such as housing for livestock and machinery for cash cropping. Indeed, it was frequently indicated that housing was especially necessary for wintering livestock in the area due to the climate and prevalence of grass fed herds. Farmers often cited that they did not winter their cattle specifically due to their lack of housing facilities. Although it should be noted that at least one farmer was successfully wintering cattle outdoors however it required grain finishing to reach slaughter weight.

Another weakness was found to be limited machinery at the scale required for cash crop production. It was often stated that farmers in the area utilized small or outdated machinery due to the high cost of replacement. It was also mentioned that farmers in the area did not make full use of their potential acreage due to the relatively small size of their machinery, the limited windows available for planting/harvesting, and their limited time due to off farm employment.

Short growing season, frequent risk of frosts

The NeCN catchment area suffers from a shortened growing season due to the comparably unfavourable climate of the area. The limited Crop Heat Units of the area are also coupled with a frequent risk of frosts whereas the area only has an average of 100 frost free days in the growing season. As well, farmers indicated that it was not uncommon to have late frosts in the spring and early frosts in the fall or even experiencing a frost each month of the summer in some years.

This produces some limitations on crop choices with crops popular in the south, such as corn and soybeans, being unsuitable. In some cases it can also reduce the yields of some crops that are viable for the area. However, it should be noted that while some yields are lower than in the south in other cases they have been found to be quite comparable. As well, the cooler climate can be beneficial for some crops, such as oats or grasses. Further still, it was indicated that with some crops, such as vegetables, frost hardy varieties do exist and are quite viable along with mitigating actions that can be taken such as row covers or cold frames.

Limited extension, outreach, and knowledge transfer services

A common weakness mentioned through the interview process was the lack of extension, outreach, and knowledge transfer services. The Ontario Ministry of Agriculture, Food, and Rural Affairs (OMAFRA) do not have a representative based in Cochrane District and the unit responsible is based fairly far in New Liskeard; this represents a huge geographic area which is under their responsibility.

As well, several farmers mentioned their lack of access, or unfamiliarity, with computers and the internet thereby reducing their ability to expand their knowledge using that medium. It was further indicated that while research institutions exist in both New Liskeard and Kapuskasing their mandate and resources limited their ability to perform outreach or knowledge transfer services to the surrounding community.

Limited drainage

Almost without exception, interviewees in the NeCN catchment area mentioned the necessity for drainage infrastructure for the success of agriculture in the area. Tiling was stated to extend the growing season by allowing farmers to plant earlier and harvest later, which is significant when considering the already constricting growing season that the climate allows. As well, it was perceived by area farmers that drainage would get the cold water out of the fields earlier in the spring allowing for a suitable seeding temperature to be reached earlier.

However, few farmers actually had any tiling installed on their acreage. The main reason for this appeared to be the high cost of installation alongside difficulties with obtaining grants or loans for the project. It was also indicated that, like so many suppliers and services, the nearest tile drainage installers are in the New Liskeard area. It was further stated by NeCN catchment area farmers that it has been difficult to get these businesses to come to the area without large and expensive projects. This makes it particularly difficult for smaller operations or those wishing to gradually tile their acreage.

Limited access to farm financing

A common issue faced by farmers in the NeCN catchment area was found to be difficulty obtaining loans and financing. This presents an important limitation for expanding operations as well as necessary investments required for upkeep and improvements (e.g. housing facilities, tiling, and machinery). It was indicated that banking institutions within the NeCN catchment area were lacking agricultural specialists making it difficult to obtain financial support within the special conditions of agriculture. Another consideration is the lack of a Farm Credit Canada office in the area along with a perceived disinterest from this organization in working with farmers in the NeCN catchment area.

One possible reason for the difficulty in obtaining loans and financing faced by NeCN area farmers may be the lack of equity that these operations hold. For instance, due to much higher land prices in Southern Ontario the inherent value of farming operations may provide adequate collateral whereas the very low land prices in the NeCN catchment area will not. Nevertheless, it should be noted that farmers across the province are experiencing similar difficulties with obtaining financing apparently as a result of a shift of focus to cash-flow from banking institutions.

Limited farming culture

While a difficult concept to provide evidence on, a common issue raised by interviewees is the lack of a farming culture in the NeCN catchment area. Indeed, it is commonly perceived that those external to the area do not see its agricultural potential and rather see it as a community

based on mining and forestry. Similarly, the dominant culture of the area would seem to reinforce this expectation where local residents see their own communities as based on mining and forestry with little expectations from agriculture.

This presents a few implications for agriculture in the area. For one, it appears to limit the knowledge base of farming in the area and provide a barrier for attracting new farmers from the community. It also presents limitations in succession planning where few farmers in the area expected their operation to be passed on to their children when they retired and it was often stated that farming ‘skipped generations’ in the region.

Some available agricultural land is inaccessible

While it is difficult to say how much, it would appear that it is relevant to consider that some viable land in the NeCN catchment area may not be accessible for agricultural use. This may be due to physical reasons such as lacking road access or only being accessible through clay roads that are seasonably unusable. At the same time there is a less tangible consideration that may exist based upon convenience and personal preference. For instance, while farmland exists for kilometres outside community centres they may not be within the preferred range of commuting for services (i.e. health, education), entertainment, employment, groceries and other supplies; especially in the long winters that the area faces. This range from a community centre will vary greatly from person to person and is therefore impossible to estimate at this point. Nevertheless, it is an important consideration that in some cases people may be unwilling to utilize perfectly viable agricultural land for completely non-agricultural reasons.

Similarly, it was noted that ownership of viable land is often divided among a large number of landowners thereby creating an issue for potential buyers trying to purchase a larger land base.

Opportunities

Climate change

While difficult to predict, there is an expectation that climate change will bring opportunities for the NeCN catchment area in the form of improved climate conditions. Indeed, several projections indicate that while much of the earth will lose agricultural productivity, Northeast Ontario will gain. This is largely based on an increased growing season resulting from warming temperatures.

While difficult to attribute to climate change, it was widely recognized through the interview process that recent years have seen warming temperatures in the NeCN catchment area. This included a particularly positive growing season in 2010 and much milder winters in recent

years. Whether or not these can be expected to continue or were merely weather anomalies remains to be seen.

Popularity of niche markets

Across Ontario (and beyond) there appears to be increasing popularity for niche markets such as grass-fed, organic, or locally produced food. This provides several opportunities for agriculture in the NeCN catchment area. For instance, due to the increased cost of acquiring pesticides and fertilizers, organic production may be an opportunity to avoid these increased

costs. As well, organic fertilizers located nearby, such as the Spanish River Carbonatite mine near Sudbury, may offer opportunities to utilize this local resource for niche market production.



Another increasingly popular niche market is the local food movement. This may provide opportunities for the NeCN catchment area in fostering farmer's markets and producers focused on selling locally. Particularly due to the long distances to market and the high cost of

transportation this may be a good method of overcoming these inherent barriers. As well, existing operations have demonstrated that a market does exist for local production and by using specific varieties and farming practices many products are quite viable.

A further opportunity may exist in the niche market of grass-fed livestock products. Due to the high cost of grain and the area's ability to produce quality hay and pastures an opportunity would exist to utilize the area's advantage for grass-fed beef production. There is already at least one group in the area currently working towards this goal with some apparent success. However, there are still questions from some farmers as to whether there is an adequate market for grass-fed beef, particularly due to the different taste of the meat, resulting from a lack of marbling. As well, it is generally found that in order to finish grass-fed animals housing facilities are required, which are often lacking in the area.

Cooperatives for inputs and outputs

There is an opportunity for producers in the NeCN catchment area to band together to overcome the obstacles that they face. For instance, the obstacles to obtaining supplies and equipment may warrant a cooperative effort from area farmers. In a few instances this was already being undertaken on a small scale where a larger operator would pick up supplies for smaller operators on trips to New Liskeard. As well, in at least one case farmers were cooperating to obtain and share machinery that they could not otherwise afford on their own. With more coordination these ideas could be expanded.

Another opportunity may exist for farmers to cooperate on selling their outputs. This may be in the form of cooperating on distribution and transportation to ensure efficiency and share costs. It may also be in the form of cooperating on a storefront or other outlet to sell their production directly to consumers. This may be an opportunity to overcome the difficulties associated with small farmers selling their products to retailers.

Land/infrastructure improvements

Throughout the interview process it was frequently indicated that land and infrastructure improvements were essential to the success of agriculture in the area. This may include tile drainage, livestock housing facilities, available abattoirs, grain elevators, a rail depot, road access, kilns/dryers, among other agriculturally associated infrastructure. There are different ways that these opportunities could be supported, including funding, encouraging, or even coordinating their establishment.

Advancements in agriculture science

Agricultural science is consistently advancing with new varieties being developed which are more suitable for the conditions of the NeCN catchment area. One farmer in particular reminisced about a time when corn was considered unviable for the Waterloo area whereas today corn is being produced in the New Liskeard area. Similarly, new varieties of canola have been developed which are quite viable in the conditions of the NeCN catchment area. Therefore, it can be expected that as agricultural science advances new varieties and techniques will continuously improve the agriculture productivity of the NeCN catchment area.

Marketing

There are two key means by which marketing would be an opportunity for agricultural expansion in the NeCN catchment area. First, marketing the advantages and opportunities to external audiences, such as Southern Ontario, would be very useful. For instance, it would seem that many in the South are entirely unaware of the potential of Northern Ontario for agricultural production and have numerous presuppositions which are inaccurate and could be dispelled through some form of a marketing campaign. This could be coupled with an attraction campaign intending to bring new farmers to the area.

Another opportunity for marketing would be directed internally. This would improve the knowledge and expectations of NeCN catchment area residents in regard to agriculture in their area. More specifically however, it could be used to promote the consumption of local products.

Improvements in technology and farming practices

Agricultural technology and farming practices are consistently being developed to improve yields and productivity. While purely speculative at this stage, we may expect that agriculture in the NeCN catchment area will become increasingly viable as new technologies and farming practices are adopted by area farmers. It should be noted that this opportunity rests on the assumption that farmers in the area are made aware of advancements which may be an opportunity for NeCN support.

Greenhouses

There may be an opportunity for greenhouse production to overcome the drawbacks related to climate and seasonal availability. During the interview process it was found that the current viability of greenhouses may be limited, especially in light of high energy costs, competition with cheap imports, and availability of markets. A particular opportunity may be available for making use of waste heat generated by natural gas pipeline booster stations or CoGen plants located in the area. It was identified that a greenhouse was once connected to a booster station in the Ramore area but has since been closed.



Opportunity for organic production or those requiring isolation

An interesting prospect for agriculture in the NeCN catchment area is the fact that most land has not had chemical fertilizers or pesticides applied for quite some time, if ever before. This may be considered a strength by those looking for soil for organic production. Another possible strength, although perhaps not widely applicable, is the opportunity for avoiding cross pollination or other contaminations which may be useful for those attempting to produce specific crop varieties or conduct crop research in relative isolation.

Agricultural production not for human consumption

An opportunity may exist in the area for agricultural production that is not intended for human consumption. Opportunities may exist for biomass production for use in CoGen plants located within the area or nearby. Similarly, there may be an opportunity for an ethanol or methanol distillery for industrial purposes. Further still, opportunities may exist to utilize agricultural products for the manufacture of chemicals for industrial or pharmaceutical use. Assuming these

pursuits would be viable in the area, this would overcome some inherent issues such as the long distances to major markets and corresponding spoilage.

Another opportunity for non-food based agricultural activities is recreation and agri-tourism. For instance, the interview process identified that the NeCN catchment area had a significant number of horses. While often overlooked in discussions of agriculture, horses do provide a source of economic development through recreational purposes as well as consuming local inputs of hay and grain.

Make use of Northern specific products

An opportunity may exist to make use of products which benefit from Northern conditions, or are located exclusively in the area. For instance, fruits such as wild blueberries may provide an opportunity to make use of a product unique to the area through cultivation or foraging. Further, a market may exist for other non-timber forest products such as herbs, seeds, medicinal plants, game animals, mushrooms, or other berries.

Access to Northern markets

It is often assumed that export markets are only available south of the NeCN catchment area, however another market may exist in shipping northwards. It was identified in the interview process that northern communities and remote First Nations groups were often underserved in terms of fresh/affordable produce and meat. The NeCN catchment area would actually have a comparative advantage in supplying these groups due to their proximity and existing infrastructure, such as the Polar Bear Express allowing products to be shipped to communities along the James Bay coast.

Threats

Aging farmers, limited succession planning

A major issue identified throughout the interview process was the age of farmers in the area and the limited succession planning they often had. Farmers across Ontario are recognized as an aging group with the 2006 Census of Agriculture indicating that they are generally older in the NeCN catchment area; which was reaffirmed through the interview process. More concerning was the finding that many farm operators did not expect to pass their operation on to children or other family and had no plan for the operation following their retirement thereby creating questions for the future of existing farms in the area.

Competition for labour

A common issue for the agriculture industry in the NeCN catchment area is the competition for labour with other, often higher paying, industries such as mining and forestry. This creates issues for producers and processors who stated that they often had trouble finding labour for their operations. It also creates an obstacle for attracting new farmers from the area as the long hours and comparably lower wage can be difficult to justify against occupations with high wages, stable working hours, pensions, time off, and benefits. While this is an issue for farming anywhere, it seems to be particularly prevalent in the NeCN catchment area, possibly due to the limited farming culture of the region.



Value of commodities

The relatively low value of commodities is an issue for farming across Ontario, and beyond. For instance, while beef is on the rise at the moment farmers still indicated that the value was too low to be profitable, particularly considering the consistent rise of input costs. Similarly, while commodity prices are also fairly high right now there is question about their sustainability. This is a particular risk for farmers in the NeCN catchment area who have fewer options for crops when compared to others in the province. For instance, while canola is quite profitable right now if it were to drop farmers could not switch to other valuable products such as corn or soybeans as they could in the South.

Nonetheless, there is an alternative that the value of commodities may also be an opportunity. As mentioned, agricultural commodity prices are on the rise and due to factors such as population growth, climate change, and competition with biofuels for agricultural lands we may actually be entering a phase of permanently high commodity prices.

Wildlife

One issue somewhat unique to agriculture in the NeCN catchment area is threats from wildlife. Indeed, many farm operators identified that they have had trouble from wolves attacking livestock. Similar problems were reported regarding bears and Sandhill Cranes destroying crop fields. While not a major issue, it is certainly one that must be considered as it does pose a threat to profits and yields for farmers in the region.



Perceived indifference from other levels of government

A common perception held by interview participants was that the federal and provincial governments were indifferent to, or even opposed, the expansion of agriculture in the North. This can present threats in two key ways. For one, when attempting to work with other levels of government to expand this sector it may be difficult to establish a good working relationship. As well, assuming that this perception is accurate, it may prove difficult to obtain much needed support from the federal or provincial governments.

Perception of a limited market for local production

Many producers in the area identified their scepticism regarding an adequate demand for local products in the NeCN catchment area. Nevertheless, those that geared their operations towards local markets appeared to be quite successful. In fact, one operator mentioned his initial scepticism and abrupt change of heart following the great success he had selling beef locally. This common scepticism could pose a threat to efforts attempting to expand local production/consumption in the area.

Future energy supplies

A significant threat may be posed by the rising cost of energy and the realities of a future with limited fossil fuel availability. The most profound implications for this threat are based on increased transportation costs or difficulty importing supplies and exporting production. Another aspect is a potential shift in the agricultural sector where large scale production becomes less viable. In fact, it was even mentioned that perhaps the current model of agriculture production in the NeCN catchment area, where there are mostly small scale producers, may actually be the future of agriculture in all of Ontario. While this threat is speculative at the moment, it is certainly worth noting in considering the direction for agriculture in the region.

Shifts in political priorities

While impossible to predict and surely an issue for agriculture anywhere it is important to consider that shifts in political priorities can have profound consequences for agriculture. For instance, changes in political parties or priorities can impact funding provided to agricultural operations or program availability. As well, a significant threat may be seen in the future of biomass which is currently largely reliant on a political priority of shifting away from fossil fuels, particularly coal power, which could change with a new government.

Conclusion

In its current state the NeCN catchment area presents only a shadow of its former vibrancy and future potential. Indeed, the limitations imposed on agriculture in this area are often not inherent but rather the result of changing circumstances. For instance, the climate and soil conditions do not impose as much of a limitation as one might expect, and instead most weaknesses and threats are human generated and thereby subject to change.

In general the inherent opportunities for agriculture in the NeCN catchment area are widely recognized by those with knowledge of the region. Indeed, the recent *Growth Plan for Northern Ontario* considers agriculture and food as an area of focus for future growth in the region. This plan provides recognition of a range of agricultural directions for the North as well as needs that must be addressed for it to be successful.

When observing the overall state of agriculture in the NeCN catchment area it is clear that while significant challenges do exist the area holds numerous strengths and opportunities for agriculture. This is made clear in the preceding SWOT analysis which indicates considerable opportunity for the agriculture of this area if the necessary conditions and support can be met. Therefore, the NeCN can help overcome some of these obstacles and reinforce existing strengths and opportunities.

With this in mind, the focus of Report 2: *Strategic Directions for Agricultural Development in Northeastern Ontario* will be on creating actions that may support the goal of expanded agriculture in the region along with implementation strategies that will help make these actions happen in the short and long term.

Growth Plan for Northern Ontario – 2011

2.3.3 Agriculture, Aquaculture and Food Processing

1. Efforts by the Province, industry and, where appropriate, other partners, to grow and diversify the agriculture, aquaculture and food processing sector should include:

- a) undertaking and disseminating research focused on northern climatic and environmental conditions
- b) identify opportunities for developing the bioeconomy within this sector, including innovative uses of agriculture/food processing, biomass, and collaboration among producers, processors, the forest industry, biorefineries and the biopharmaceutical industry
- c) identify land improvement and environmental sustainability needs
- d) expanding production in the North to contribute to a sustainable local food source for Northern Ontario residents
- e) exploring opportunities for complementary economic activities on agricultural land, as appropriate
- f) supporting buy-local initiatives that increase consumer awareness of Ontario-produced foods and encourage Ontarians to buy locally, including Northern Ontario products
- g) marketing and branding that showcases environmental stewardship, innovation and food safety
- h) supporting development of production, processing and distribution systems.

https://www.places togrow.ca/index.php?option=com_content&task=view&id=53&Itemid=65

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Photo Credits: Each photograph included in this report was taken within the NeCN catchment area by one of the researchers.

Appendices

Current and Future Opportunities for Agricultural
Development in Northeast Ontario: A Regional
Development Perspective

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Appendix 1: Community Profile

The NeCN Agriculture Study was undertaken within the Northeast Community Network (NeCN) catchment area. This area contains 12 municipalities along the Highway 11 corridor as well as 2 First Nations Groups and 3 Community Futures Development Corporations. The following list presents these member groups:

1. Constance Lake First Nation
2. Municipality of Mattice-Val Côté
3. Town of Hearst
4. Township of Opasatika
5. Municipality of Val Rita-Harty
6. Town of Kapuskasing
7. Municipality of Moonbeam
8. Township of Fauquier-Strickland
9. Town of Smooth Rock Falls
10. Town of Cochrane
11. Town of Iroquois Falls
12. Township of Black River-Matheson
13. City of Timmins
14. Nord-Aski R.E.D.C. CFDC
15. North Claybelt CFDC
16. Venture Centre CFDC
17. Wahgoshig First Nation

The following community profile will attempt to amalgamate the socio-economic information for the 12 municipalities and Constance Lake First Nation¹ using Census of Canada data from 2006.

General Characteristics

As of 2006, the NeCN catchment area contained a population of 75,993, representing a decline of 4 per cent from 79,212 in 2001. The area covers 8046 square kilometres and thereby holds a population density of 9.4 persons per km. Within the area it is found that considerable variation exists in population size, area covered, and population density as presented in the following table sorted by population.

¹ Census Data was not available for Wahgoshig First Nation at the time of compilation

	Population in 2006	Proportion of total NeCN Population	Land area (square km)
NeCN Catchment Area	75993	100.0%	8046.0528
City of Timmins	42997	56.6%	2961.5782
Town of Kapuskasing	8509	11.2%	83.9842
Town of Hearst	5620	7.4%	98.666
Town of Cochrane	5487	7.2%	538.7636
Town of Iroquois Falls	4729	6.2%	599.4293
Township of Black River-Matheson	2619	3.4%	1161.6661
Town of Smooth Rock Falls	1473	1.9%	199.7903
Municipality of Moonbeam	1298	1.7%	235.1724
Municipality of Val Rita-Harty	939	1.2%	382.6434
Municipality of Mattice-Val Côté	772	1.0%	414.6369
Constance Lake First Nation	702	0.9%	26.2014
Township of Fauquier-Strickland	568	0.7%	1013.5379
Township of Opasatika	280	0.4%	329.9831

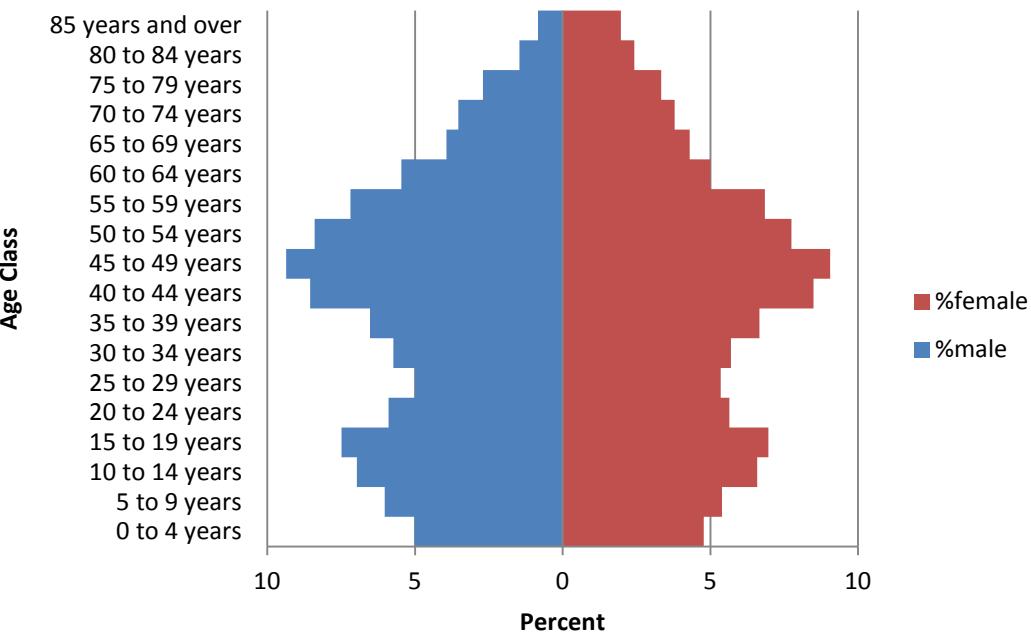
Source: Statcan. (2011)

These characteristics can also be compared to the Cochrane District Census Division in which it is found. In comparison, it is found that the NeCN catchment area contains most of Cochrane District's 82,503 residents however very little of its vast area of 141,247.30 square kilometres.

Age Characteristics

Much like other parts of rural and Northern Ontario, the NeCN catchment area has a high proportion of older adults. We can observe this in the following population pyramid where there is limited youth, and then a particular decline in the prime working age population of 20-40 year olds. We also find that the largest proportion of residents fall within the 'Baby Boomer' 40 to 60 year age cohort.

Population Pyramid for NeCN Catchment Area - 2006



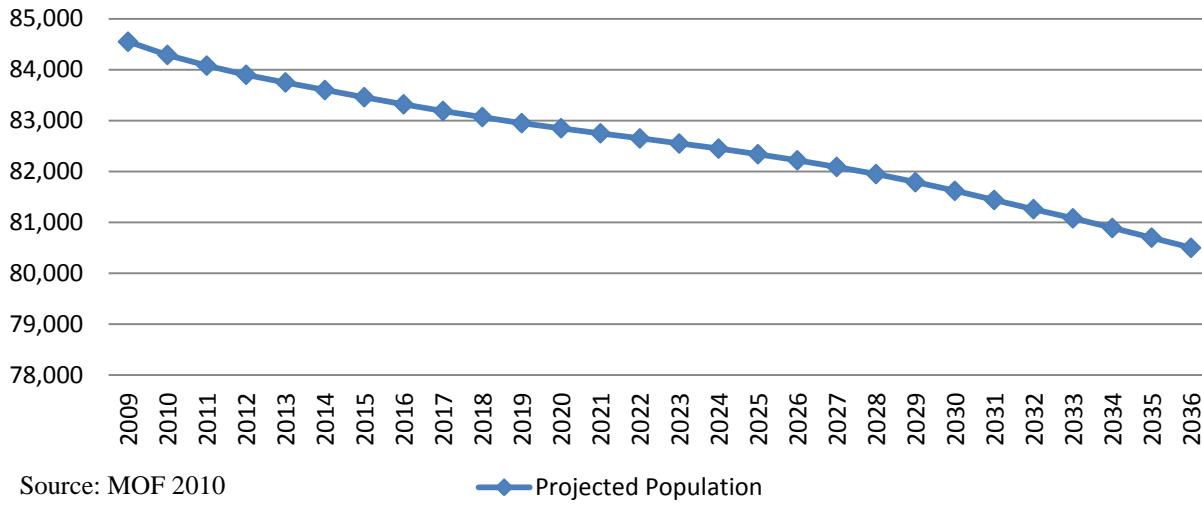
Source: Statistics Canada

Population/Age Projections

The Ontario Ministry of Finance prepares population projections for Ontario with current data projected out to 2036. This data is provided only at the Census Division level and therefore we cannot amalgamate the projections for the NeCN catchment area. Nevertheless, given the large proportion of the population of Cochrane District located in this area we can presume that the population of the NeCN catchment area will follow a similar trend.

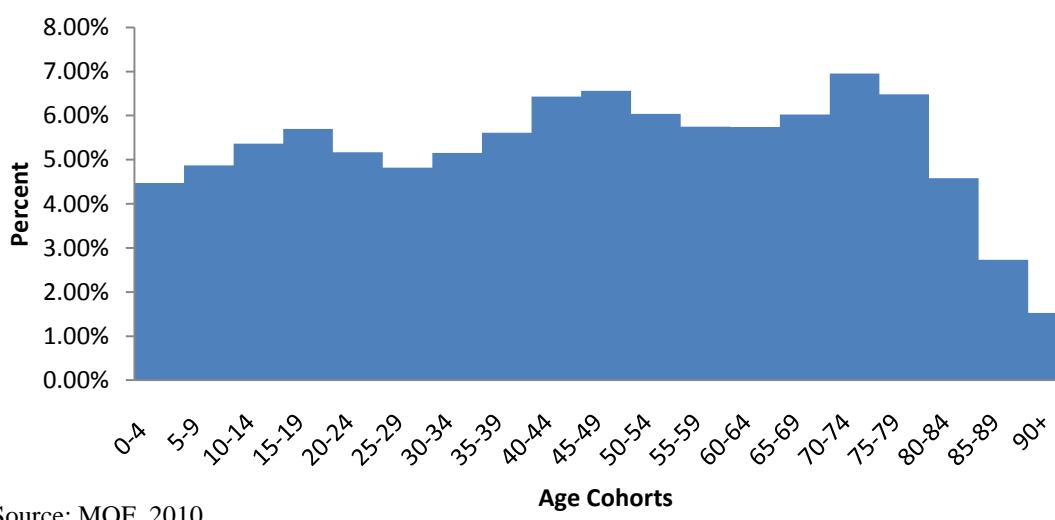
In terms of total population, it is projected that the population of Cochrane District will decline into the future. Ministry of Finance projections indicate an expectation that the population will have increased to 84,550 in 2009 but will steadily decline to below 2006 levels by 2036.

Cochrane District Projected Total Population (2009-2036)



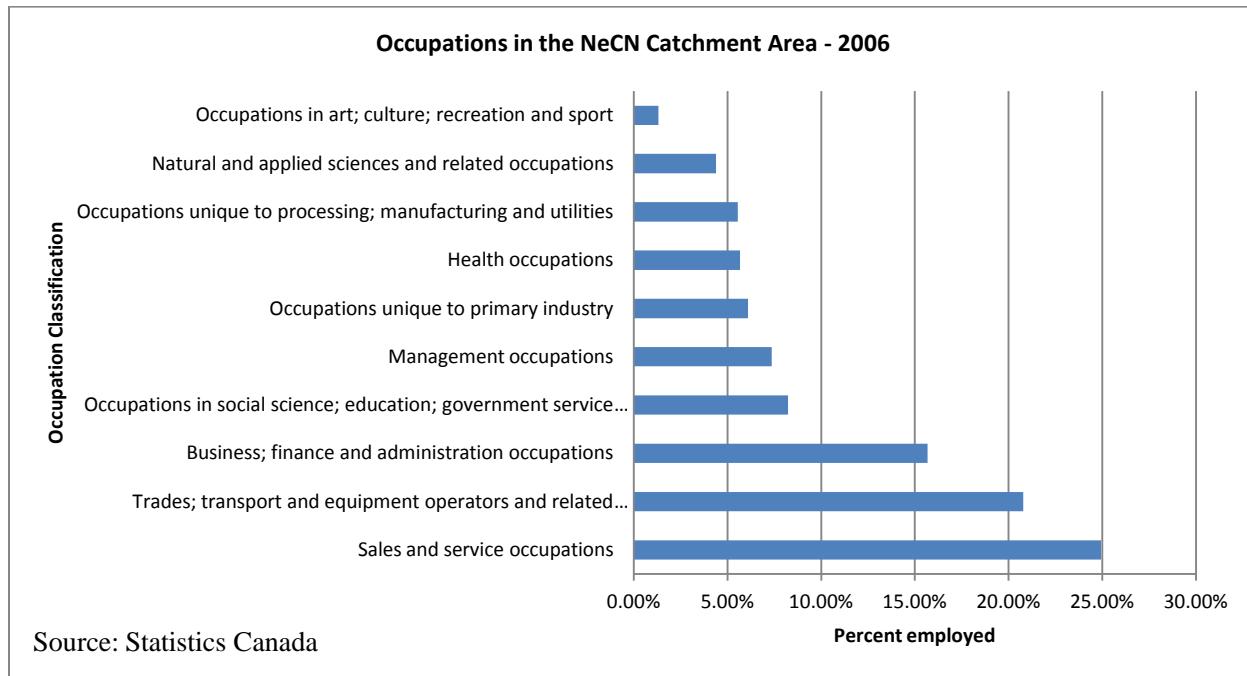
In terms of age distribution, it is projected that the population pyramid will 'fill out' by 2036 with a less clear indent in the younger cohorts. However, this will be parallel with a considerable increase in the eldest cohorts.

Cochrane District Population Projection - 2036



Occupations

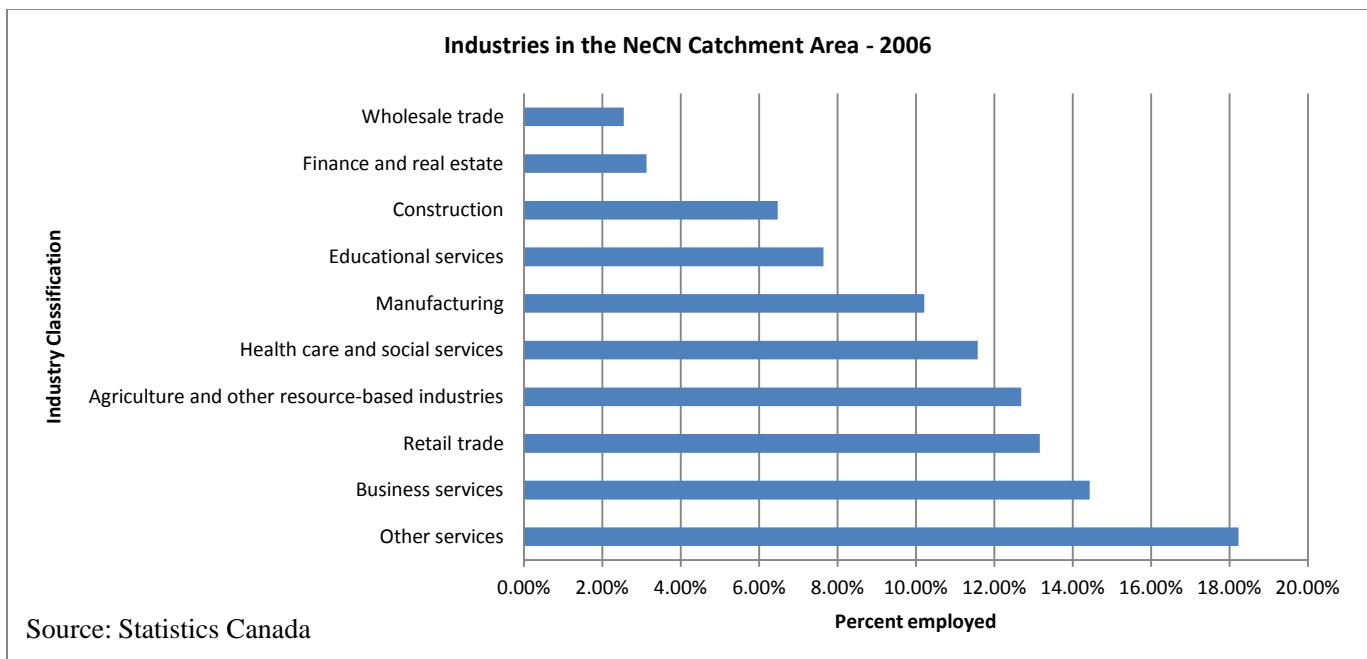
As of 2006 the NeCN catchment area contained a total experienced labour force 15 years and over of 38,100. Of these it was found that sales and service sector occupations made up the largest proportion in the NeCN catchment area with 25 per cent. This was followed by trades, transport, and equipment operators and related occupations (21%) and business, finance, and administration occupations (16%).



Industries

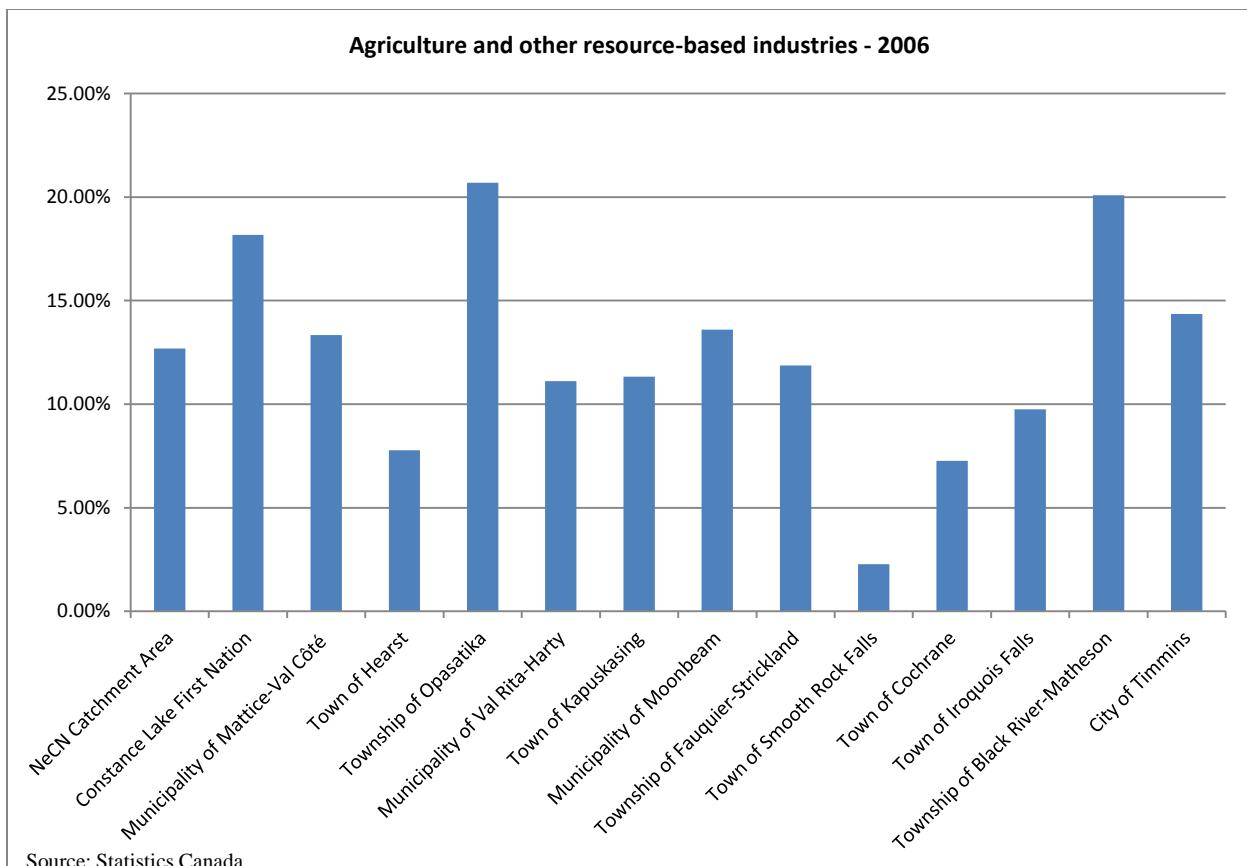
As of 2006 Other Services was the industry in the NeCN catchment area that employed the largest proportion of residents. Statistics Canada states that Other Services contains such industries as repair and maintenance; personal and laundry services; religious, grant-making, civic, and professional and similar organizations; and those employed in private households (Statcan, 2004).

The proceeding industries with the highest employment were found to be business services (14%); retail trade (13%); and agriculture and other resource-based industries (13%). The breakdown is presented in for following graph.



However, much like any other variables, it should be noted that there are significant differences between the municipalities located within the NeCN catchment area. For instance, when comparing agriculture and other resource-based industries it is found that some municipalities have significant proportions such as Opasatika (21%)², Black River-Matheson (20%), Constance Lake First Nation (18%), and Timmins (14%). In contrast, other municipalities have very small proportions of their population employed in this industry classification, such as Hearst (8%), Cochrane (7%), and Smooth Rock Falls (2%).

² A word of caution is provided for these numbers by one of our Steering Committee members: “The number quoted for municipalities having a high proportion of agricultural base, such as Opasatika at 21%, could be just a spike in the 2006 census as the town had 15-20 employed at the local mushroom farm from a total population of 280 at that time. This is no longer the case today.”



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Appendix 2: Climate

In comparison with the rest of Canada, the NeCN catchment area is not particularly far North. Indeed, the Town of Hearst is the community representing the furthest North point of the study area and has a latitude almost identical to Lethbridge in Southern Alberta. While there is limited agriculture activity occurring North of Hearst, there is substantial agricultural production North of Lethbridge.

Nevertheless, there is much more to climate than merely latitude as can be seen in the large climactic variances between the NeCN catchment area and Southern Alberta. Instead, a multitude of other factors impact the climate of a given area including elevation, prevailing winds, distance to large water bodies, soil types, and even the direction faced by slopes (Brown, 1997). Therefore, for the purposes of agriculture, the most effective means of evaluating climactic conditions is the Crop Heat Unit (CHU) system.

Crop Heat Units (CHU)

The Crop Heat Unit (CHU) measurement is an indexing system designed to help farmers select the most appropriate crop hybrids and varieties for the conditions of their area. The CHU rating of an area is determined by the total accumulated crop heat units for the frost-free growing season in the various areas of the province (Brown, 1997). While originally designed for selecting corn varieties the CHU system can also be used in the selection of other warm season crop varieties. The measurements provided by the CHU system also provide a means of comparing the climactic conditions of different areas of the province.

Not surprisingly, the CHU value of an area is based upon temperature. Specifically, Crop Heat Units are determined using daily minimum and maximum air temperatures accumulated over the growing season (Brown, 1997).

CHU and CHU-M1

The Crop Heat Unit measurement system has recently been revised in accordance with changing farming practices and crop varieties. The new Crop Heat Unit measurement took effect in 2009 and has been named CHU-M1. This has created a situation in which different numbers are used to explain the conditions of a single geographic area causing some confusion. This section will briefly explain the difference between the two measurement systems.

The first main difference between the measurement systems is that the CHU measurement system utilizes daily minimum and maximum air temperatures for the period of 1961 to 1990 while CHU-M1 has been updated with data from 1971 to 2000 (OMAFRA, 2011).

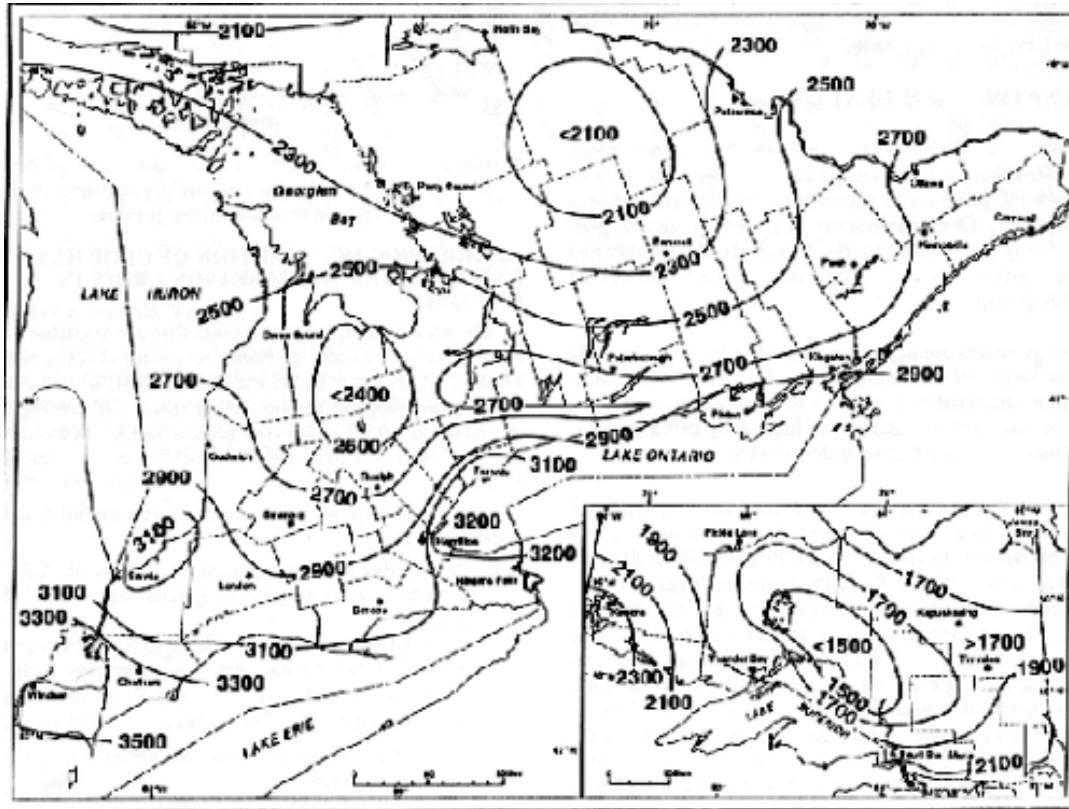
The second important difference between the two methods is the way that the growing season is determined. Under the original CHU measure the growing season is triggered by “the last day of three consecutive days, with daily mean air temperatures equal to or greater than 12.8 °C (55 °F)” (Brown, 1997). However, under the new CHU-M1 measure the start of the growing season is always assumed to be May 1st anywhere across the province (OMAFRA, 2011). The result of which has been a marked increase in crop heat units across the province under the CHU-M1 measurement.

Crop Heat Units in the NeCN Catchment Area

The proportion of crop heat units in the NeCN catchment area will vary depending on the measurement method utilized (CHU or CHU-M1). Presumably the new CHU-M1 results will be the most appropriate for use going forward however given that the older CHU results are still frequently used both will be provided in this section.

Under the older CHU measurement system the NeCN catchment area falls within the 1700-1900 range (see Figure 1). Specifically, findings from the Kapuskasing test site indicated a CHU score of 1720 (Brown, 1997).

Figure 1: Crop Heat Units for Ontario based upon CHU measurement system



Source: (Brown & Bootsma, 1997)

Under the new CHU-M1 measurement the proportion of crop heat units in the NeCN catchment area are found to be within the range of 2100-2300 (see Figure 2). Unfortunately, more specific measurements are not available for this method.

Figure 2: Crop Heat Units for Ontario using the CHU-M1 measurement system

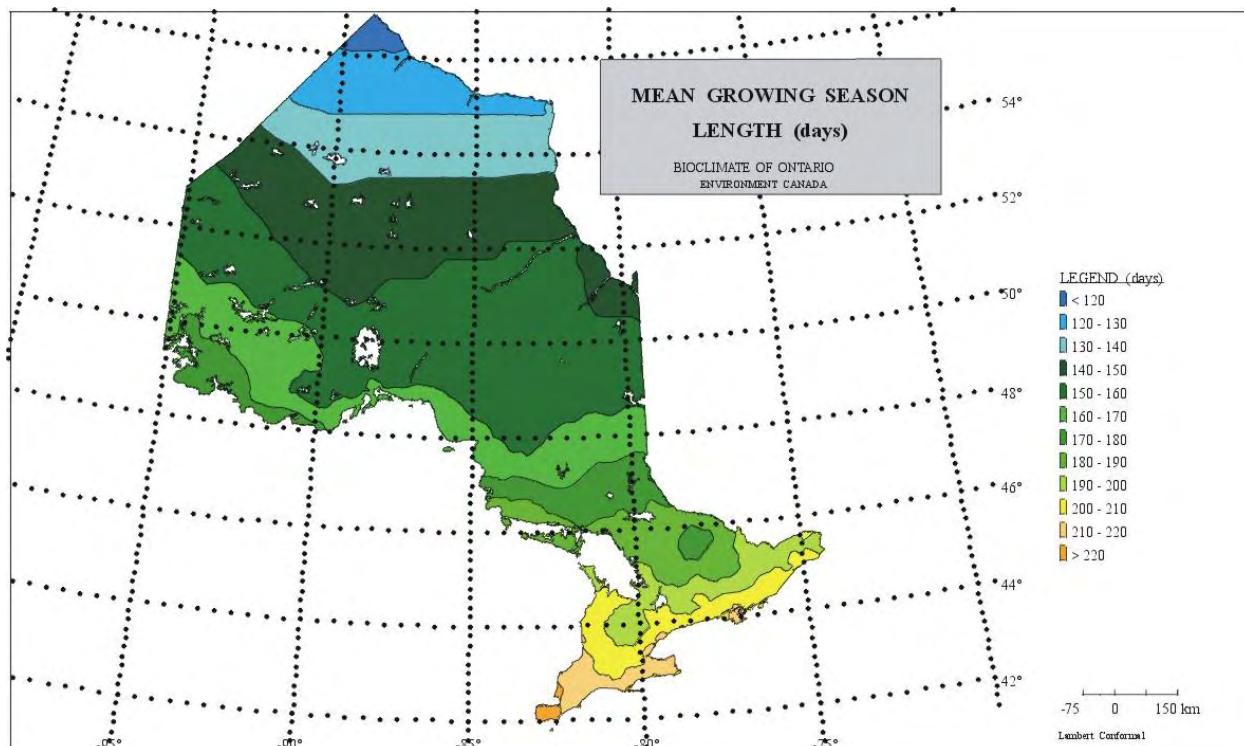


Source: (OMAFRA, 2011b)

Growing Season in the NeCN Catchment Area

In addition to Crop Heat Units the measure of Growing Season Length can be used to compare climate conditions within Ontario. For the NeCN catchment area the mean growing season length has been found to be 150-160 days (Figure 3).

Figure 3: Mean Growing Season Length (days)



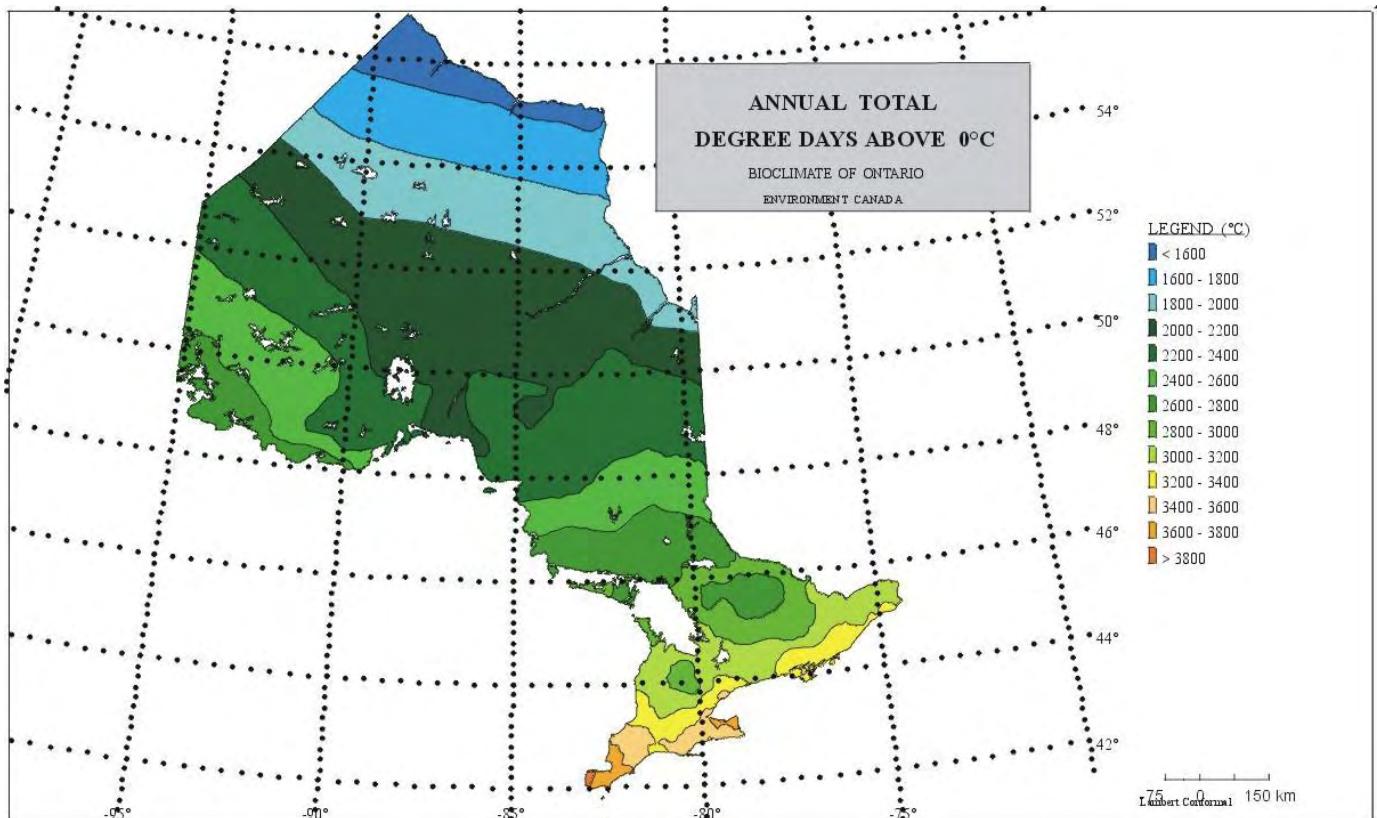
Source: (Environmental Information Office, 2000)

Growing Degree Days

A more specific measure for evaluating the climate of a given area is the Growing Degree Days measurement. Growing degree days are calculated based on the assumption that development of plants and insects during the growing season will only occur once air temperature exceeds some minimum developmental threshold or base temperature (OMAFRA, 2011c). The Ontario Ministry of Agriculture, Food, and Rural Affairs (OMAFRA) uses a season start date of April 1 and uses three base temperatures: 3, 5 and 10 degrees Celsius (OMAFRA, 2011c). Other sources use 0 degrees, instead of 3, as the lowest base measure.

Under the 0 degree Celsius base temperature, the NeCN catchment area is found to have between 2200 and 2400 annual total growing degree days (Figure 4).

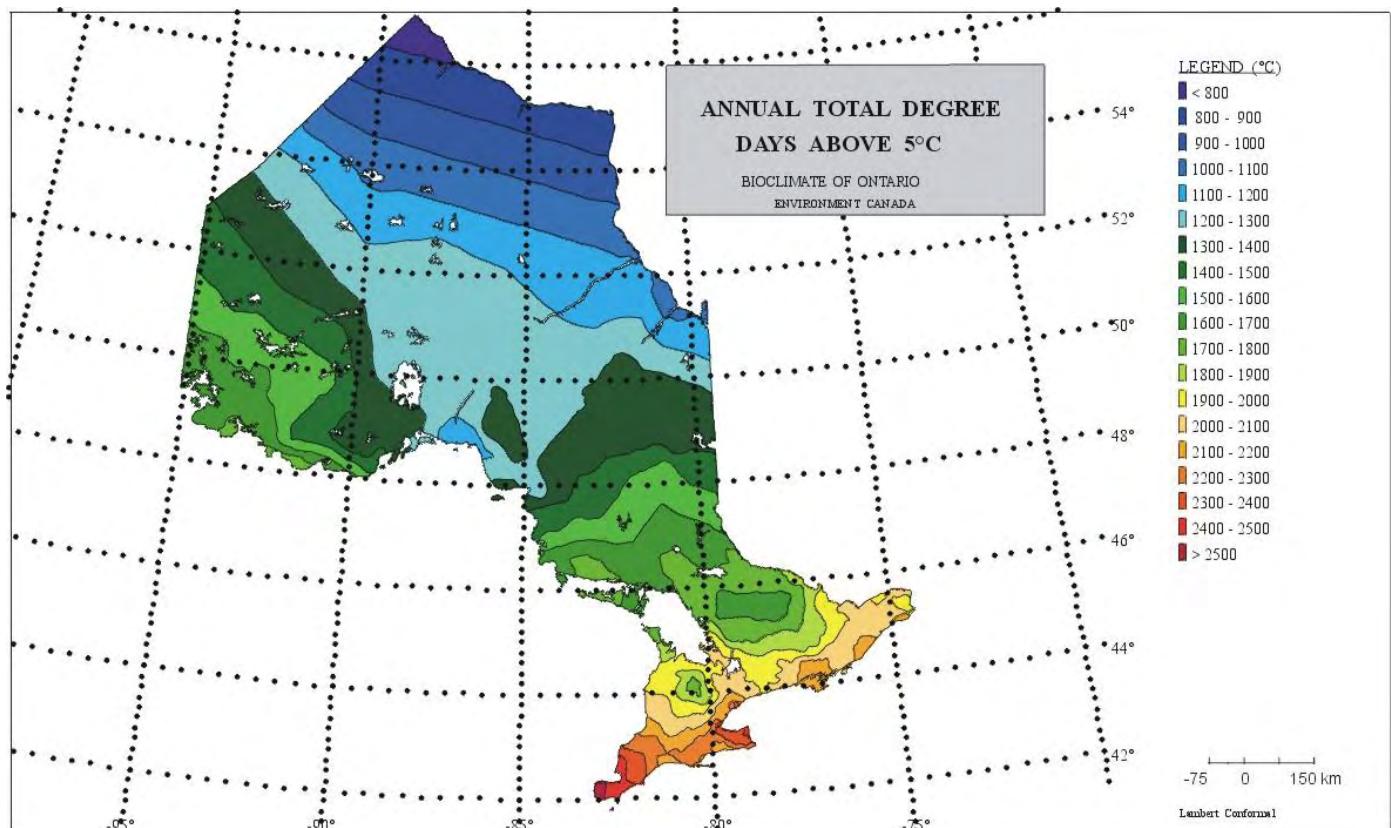
Figure 4: Annual Total Degree Days Above 0°C



Source: (Environmental Information Office, 2000)

When using 5 degrees Celsius as the base temperature it is found that the NeCN catchment area has between approximately 1300 and 1400 annual total growing degree days (Figure 5).

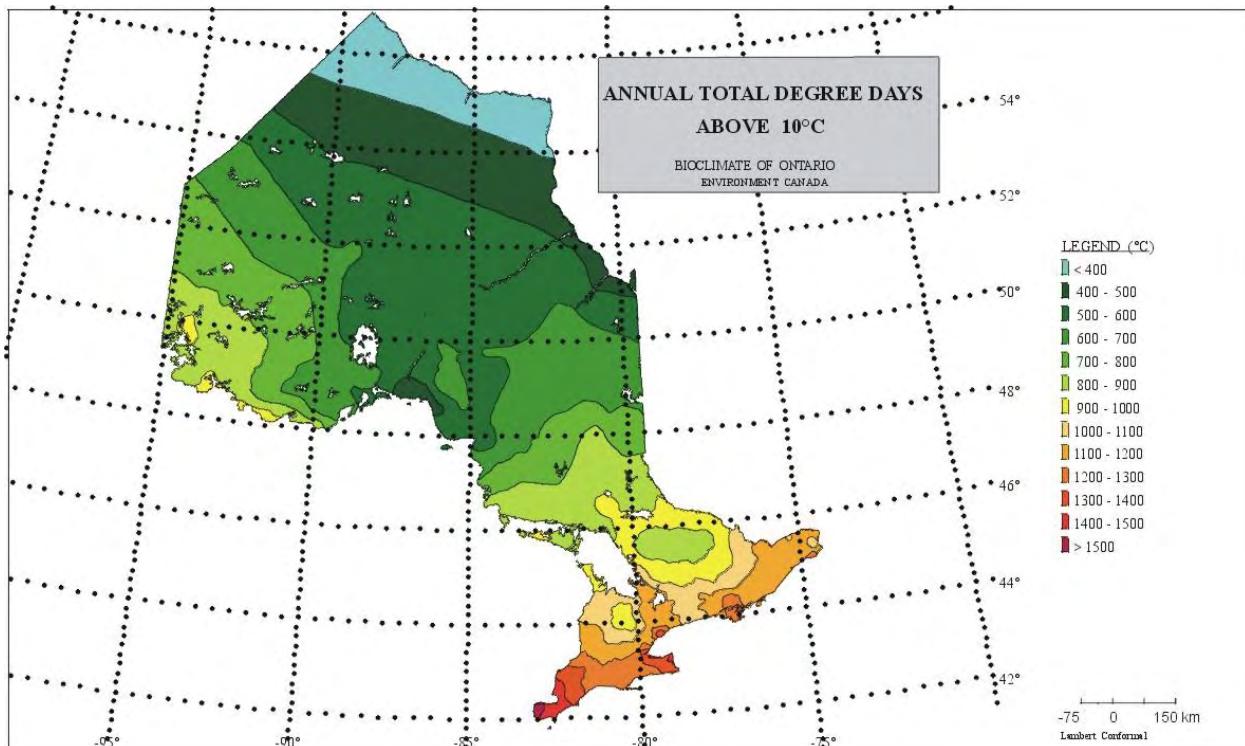
Figure 5: Annual Total Degree Days Above 5°C



Source: (Environmental Information Office, 2000)

Utilizing 10 degrees Celsius as the base temperature it is found that the NeCN catchment area has between 600 and 700 annual total growing degree days (Figure 6).

Figure 6: Annual Total Degree Days Above 10°C

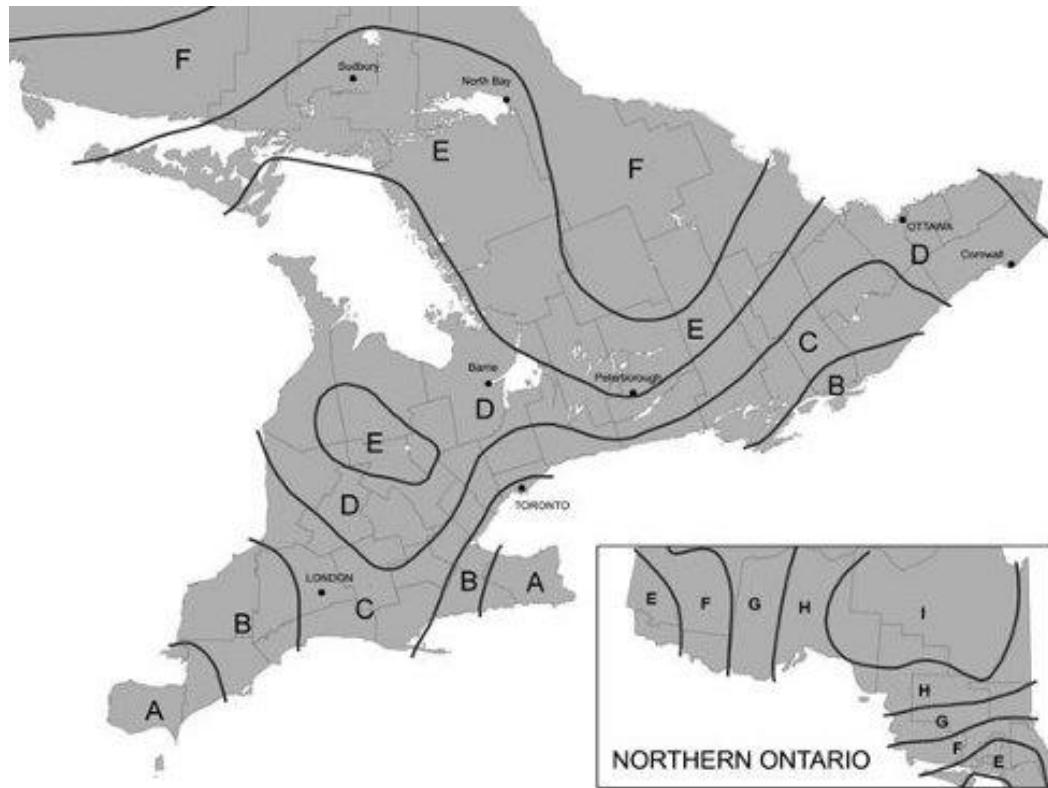


Source: (Environmental Information Office, 2000)

Climate Zones

The Ontario Ministry of Agriculture, Food, and Rural Affairs (OMAFRA) has produced a range of *Climate Zones* based on the average frost-free period over the period of 1976-2005 (OMAFRA, 2011a). The NeCN catchment area falls within *Zone I* representing an average frost free period of 90-100 days, an average date of last spring frost of June 7th and an average date of first fall frost on September 9th (OMAFRA, 2011a).

Figure 7: Climate Zone Map of Ontario (1976-2005)



Source: (OMAFRA, 2011a)

Climate Normals

The Following table presents various climate related data for select communities within the NeCN catchment area.

Climate Normals for Select Areas in Cochrane District (1971-2000).

		Temperature				Precipitation		
Weather Station	Month or Year	Daily Average (° C)	Standard Deviation	Daily Maximum (° C)	Daily Minimum (° C)	Rainfall (mm)	Snowfall (cm)	Total Precipitation (mm)
Cochrane (a)	January	-18.4	2.6	-12.1	-24.7	0.7	71.6	72.3
	July	16.8	1.1	24	9.5	90.1	0	90.1
	Year	0.6	3.5	6.9	-5.7	583.2	296.8	880
Iroquois Falls (b)	January	-17.9	2.9	-11	-24.7	2.7	46.7	49.4
	July	17.2	1.1	24.1	10.2	93.3	0	93.3
	Year	NA	NA	NA	NA	561.2	214.8	776
Timmins (c)	January	-17.5	3	-11	-23.9	2.9	61.7	53.9
	July	17.4	1.1	24.2	10.5	91.5	0	91.5
	Year	1.3	1	7.5	-4.9	558.1	313.4	831.3
Kapuskasing (d)	January	-18.7	2.9	-12.4	-24.9	0.7	60.8	54.6
	July	17.2	1.1	23.9	10.5	100.5	0	100.5
	Year	0.7	1	6.9	-5.4	544.6	313	831.8

(a) Cochrane: Latitude = 49° 4' N; Longitude = 81° 2' W; Elevation = 275 m.

(b) Iroquois Falls: Latitude = 48° 45' N; Longitude = 80° 40' W; Elevation = 259 m.

(c) Timmins: Latitude = 48° 34' N; Longitude = 81° 22' W; Elevation = 295 m.

(d) Kapuskasing A: Latitude = 49° 24' N; Longitude = 82° 28' W; Elevation = 226 m.

NA: not available

Source: (Cummings, 2009) citing data from Environment Canada (2008)

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Appendix 3: Soils and Available Land

Soils in the NeCN Catchment Area

This section will provide information on the soil quality and classifications present within the NeCN catchment area. It should be noted at the forefront that this data is not exact, particularly within this area where sources often provided cautions regarding the scale and age of the information. Nevertheless, the soil data can be considered approximations for use in comparisons with other areas or formulating a general idea of the conditions of the area.

Much of the information from this section comes from the previously completed *NCBAN Land Inventory & Soil Classification Update & Analysis* which utilized the same study area as this study. This previous study produced an excellent source for exploring the conditions of the NeCN Catchment area at the following webpage:

<http://www.cgis.com/cpal/Default.aspx?Map=NCBAN>. This source is particularly useful as it provides for place specific information as opposed to the generalities of area wide figures. This is particularly true given the pocketed nature of quality soils in the region which is not captured in the compilation numbers. Instead, this source allows for navigation to specific areas of interest in a user-friendly format.

Nevertheless, there is still a place for compilations to supplement mapping which the following sub-sections will provide.

Canada Land Inventory (CLI) Soil Classifications

The Canada Land Inventory (CLI) may be used for determining the soil capabilities of an area in regards to agricultural production. Soils in a given area are grouped into 7 classes and 13 subclasses according to the potential of each soil for the production of field crops (AAFC, 2008). Generally, soils classed as 1,2,3, or 4 are considered capable of sustained use for cultivated field crops, those in classes 5 and 6 only for perennial forage crops and those in class 7 for neither (AAFC, 2008). The CLI classification also attributes a range of sub-classifications for soil capabilities providing additional details of an area's soil quality.

CLI Classifications in Cochrane District

The following table demonstrates the CLI classification for Cochrane District based on acreage and excluding classifications not considered agriculturally viable (5 and higher). It can be observed that most of the District's viable land is classified as either 3 or 4.

Canada Land Inventory Class Acreages			
CLI Class	2	3	4
Total Acreage	3,130	1,422,380	1,785,610
Source: (Rowse, 2011)			

In terms of sub-classifications, the following table provides further insights into the quality of soils in the District. It should be noted that this refers to all CLI classifications in the District and not just the agriculturally viable lands.

CLI Limitations (all classes of mapped soils)			
CLI Sub-Class	C	W	R
Total Acreage	2,048,200	2,016,880	622,090
Source: (Rowse, 2011)			

The definitions according to AAFC (2008) for the CLI sub-classifications are as follows:

'c' - Adverse Climate - this subclass denotes a significant adverse climate for crop production as 'median' climate which is defined as one with sufficiently high growing-season temperatures to bring crops to maturity.

'w' - Excess Water - this subclass includes soils where excess water other than brought about by inundation is a limitation to agricultural use. Excess water may result from inadequate soil drainage, a high water table, seepage or from runoff from surrounding areas.

'r' - Consolidated Bedrock - this subclass includes soils where the presence of bedrock near the surface restricts their agricultural use. Consolidated bedrock at depths greater than 3 feet from the surface is not considered as a limitation except on irrigated lands where a greater depth of soil is desirable.

CLI Classifications in the NeCN Catchment Area

As the scale of the area decreases as does the accuracy of the CLI information. Nevertheless, the NCBAN (2008) report has provided values pertaining specifically to the study area.³ The following table summarizes these findings:

³ The report provides the following explanation for the differing values at each scale: In general but not always, the areas delineated at 1:50,000 are smaller than the corresponding areas mapped at 1:250,000. The differences are likely due to generalizations in the polygon boundaries and also in the inclusions which contribute to the areas. This comparison reinforces the need for a follow-up site inspection to confirm any results obtained from the database analysis.

	CLI Class 3 soil area (ha)		CLI Class 4 area (ha)		Total (Class 3 + 4) ha	
Map sheet	1:50000 scale	1:250000 scale	1:50000 scale	1:250000 scale	1:50000 scale	1:250000 scale
42a	198,344	231,734	360,113	426,445	558,457	658,180
42g	377,518	464,523	362,806	324,209	740,324	788,732
42h	315,441	377,391	353,793	416,013	669,234	793,404

Source: (Manseau, 2008)

Available Agricultural Land in the NeCN Catchment Area

There are a variety of ways that can be used to estimate the availability of agricultural land in the NeCN catchment area. For instance, according to data from the 2006 Census of Agriculture only 3 per cent of Cochrane District's acreage classed by the CLI as 2, 3, or 4 was being farmed (Rowse, 2011). However, simplistic figures such as this provide only an idea of the vast amount of land available, but not practicalities such as accessibility or Crown Land coverage which are particularly relevant for this area.

Therefore, the previously completed NCBAN report provides the most appropriate information for estimating available agricultural land within the NeCN Catchment area. This report provides several different methods and varying estimates which will be summarized in this section.

Estimates for the NeCN Catchment Area Overall

The NCBAN study presents the following estimates⁴ of available agricultural land within the same boundaries as the NeCN Catchment area:

- 1) Quantifying the study area's agricultural lands employing the MPAC data sets reveals a total farm base of 50,755 hectares. Assuming the introduction of vacant land and single residences holding an acreage value in excess of 30 acres, the total farm potential within the study area can be estimated at 384,880 hectares for a total potential private lands farm base of 435,635 hectares or 1,076,018 acres (Manseau, 2008).

⁴ The NCBAN study provides the following words of caution when using the estimates: Of the available information, no single soil classification methodology can accurately interpret the soils data in the study area with any measure of reliability. MPAC, by its own admission, states that its soil classification data is suspect and is dated circa 1970. Furthermore, MPAC states that any decisions made employing its data set must be confirmed by field testing for accuracy. Additionally, the CLI based approached, at the 1:250,000 scales provides for a broad interpretation of the regional land base yet is too coarse a tool for examining soils classification at the parcel level (Manseau, 2008).

- 2) Qualifying the soil class of study area's farm base, employing the MPAC soil classification data fields, reveal that 48.88% of the land base falls under Class 3 and 19.13% falls under class 4 (Manseau, 2008).
- 3) Qualifying the soil class of study area's farm base, employing the CLI soil classification polygons, reveal that 53.26% of the land base falls under Class 3 and 17.51% falls under class 4. Assuming the introduction of vacant lands and single residences holding an acreage value in excess of 30 acres, an estimated 308,658 hectares of class 3 soil and an estimated 204,785 hectares of class 4 soils could be added to the current farm lands (Manseau, 2008).
- 4) Quantifying the study area's agricultural lands employing the Census data sets reveal a total lands in crop and improved pasture volume of 14,421 hectares. Assuming the reintroduction of historical improved farmlands from its peak in 1951 (50,400 hectares), the study area's current level farmland can be increased by 35,979 hectares (Manseau, 2008).

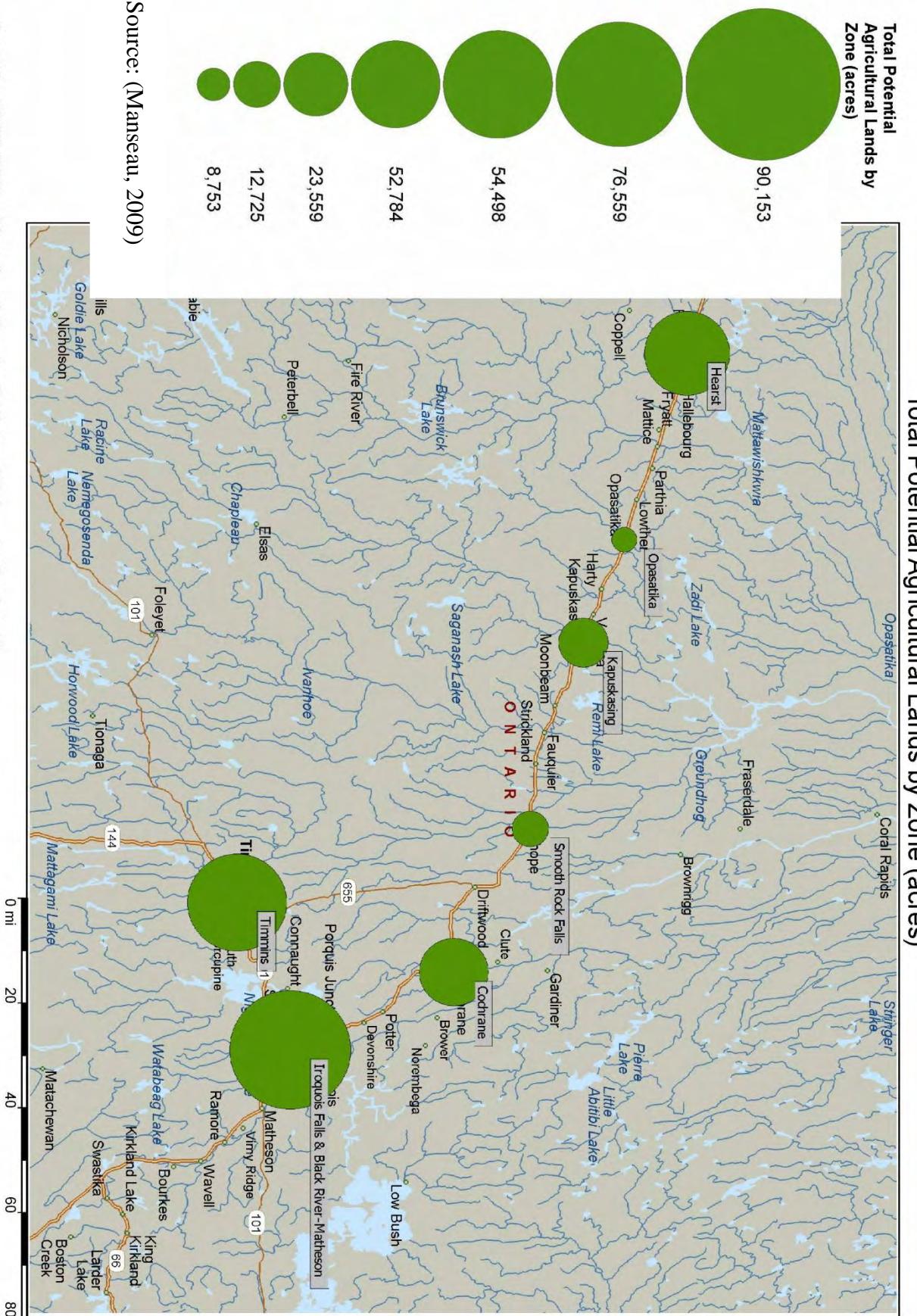
These estimates are summarized in the following table:

Estimates of Available Agricultural Land from NCBAN Study (2008)					
Data Source	Current Farm Base (hectares)	Available Farm Base (hectares)	Total Farm Base (hectares)	Class 3 Land	Class 4 Land
MPAC	50,755	384,880	435,635	48.88%	19.13%
CLI	NA	513,443	NA	53.26%	17.51%
Census	14,421	35,979	50,400	NA	NA

Source:

Available Agricultural Land Estimates in NeCN Catchment Area Municipalities

The following map presents estimates of available agricultural land for seven 'zones' representing municipalities and their surrounding areas from the NCBAN report (2009).



Source: (Manseau, 2009)

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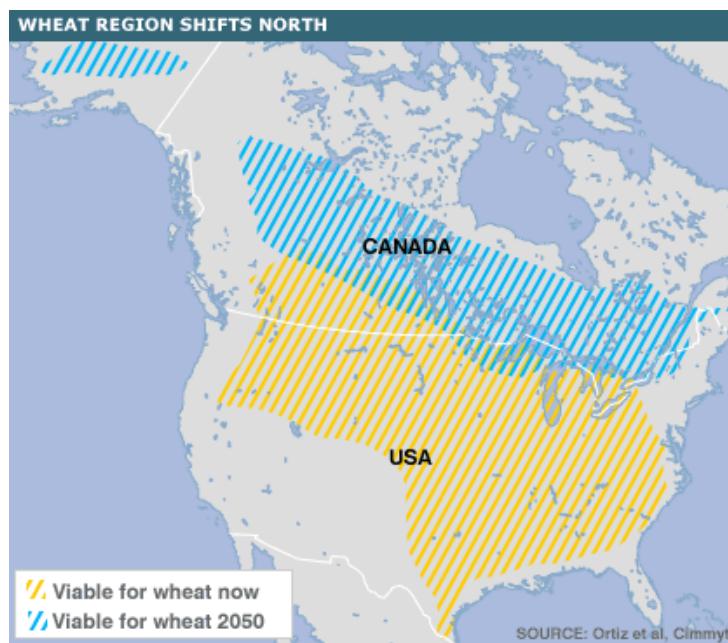
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Appendix 4: Climate Change

When considering the implications for the environment, society, and security it is difficult to discuss the opportunities relating to climate change. Indeed, within the realm of agriculture, projections tend to indicate that large swaths of the world's best agricultural land will lose considerable productivity in the years to come. This has serious implications for global food security.

Nevertheless, at the same time that these currently productive lands are lost others are expected to emerge. Within the North American context, productivity is expected to shift northwards thereby bringing significant changes to the conditions of Northeast Ontario. For instance, one projection from Ortiz, et al (2008) indicates that the prime climate for wheat production will shift north. This has clear implications for currently productive areas in Asia and the United States where major wheat producing areas will lose significant productivity (Ortiz et al., 2008). It also has implications for the NeCN catchment area, as this projection expects that by 2050 the limit at which wheat can be grown will shift from its current position at 55°N to 65°N with the prime growing areas shifting with it (see Figure 1). This means that unless alternative cultivars are created to meet these changing conditions, areas such as the NeCN Catchment area will not only be able to grow wheat with high productivity, it will be expected to do so in order to mitigate global scarcities.

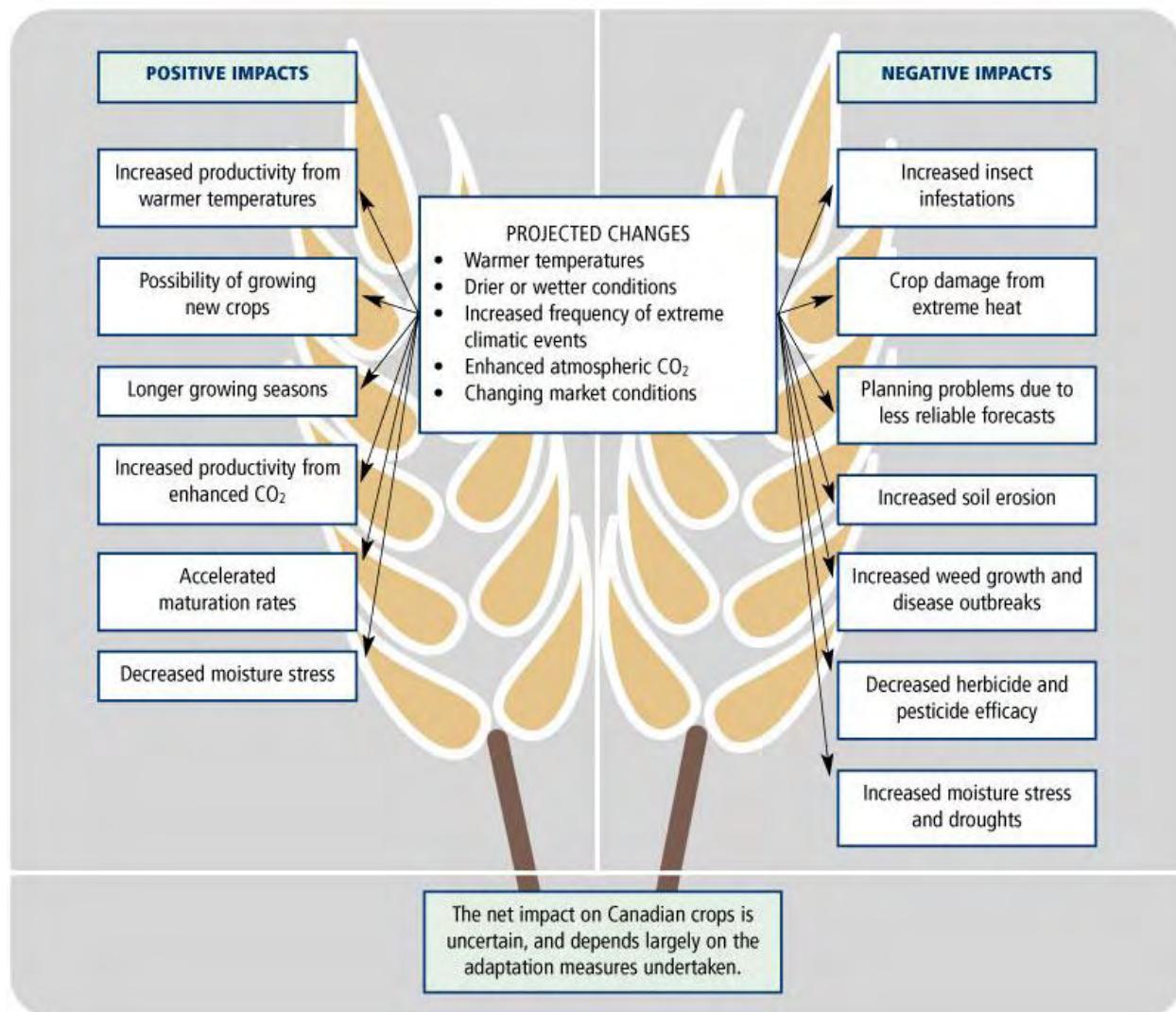
Figure 1: Current and future wheat growing areas in North America



Source: (BBC, 2006)

It is important to keep in mind that many projections are based largely, or exclusively, on the assumption of increasing temperatures resulting in higher yields and increases in viable crop varieties. However, this is not necessarily the entire story. Indeed, there are numerous other variables that must be considered in the relation between climate change and agricultural production. These are often difficult, if not impossible, to predict at this stage nevertheless they are important to note. Some of these impacts are summarized in Figure 2.

Figure 2: Potential impacts of climate change on agricultural crops in Canada



Source: (NRCAN, 2007)

A more thorough look at the climate change implications for Northeast Ontario is presented by Cummings (2009), which is presented in the following excerpt:

Excerpt taken from: (Cummings, 2009)

3.3 Climate Change

Climate change including global warming is now widely recognized as a major environmental issue with economic, health and safety, security, and other dimensions (United Nations Environment Programme, 2009). Agri-food is an economic sector which could be especially sensitive to long-term climatic change.

In a climate change model used by Colombo et al. (2007) the average summer temperature in most of northeastern Ontario is expected to increase by 1 to 2°C by 2011. The same scenario predicts that average summer temperatures in the southern part of northeastern Ontario will increase by 3 to 4°C starting around 2071. With respect to precipitation, between 2011 and 2040, warm season precipitation will decrease by up to 10% in the area north of Hearst and Kapuskasing. However, beginning by 2041, most of northeastern Ontario will receive the same or slightly more precipitation as it did from 1971-2000 (p.15).

With respect to the cold season, the same climate change scenario noted above predicts that the average winter temperature in the southern part of northeastern Ontario will be 4 to 5°C warmer by 2071. With respect to precipitation, snowfall in northeastern Ontario has historically been greatest in the snowbelt to the lee of Lake Superior, between Wawa and Sault Ste. Marie. Cold season precipitation in this area is projected to increase by up to 20% by 2071. While snowfall in Montreal River and areas near White River, Hearst, and James Bay will increase, large parts of the northeast will receive significantly less snow than has been the historical norm. For example, the corridor running north from Espanola and Mattawa to Moosonee will get up to 20% less cold season precipitation by 2011 (p.15).

Climate change is expected to have major implications for the length of the growing season, the variety of crops grown, as well as grain yields in northern Ontario. In examining climate change scenarios for Canada, Qian et al. (2005) predict that the number of frost-free days is expected to increase by 30-45 days in northern Ontario by the middle of the century. The predicted changes for the frost dates indicate an earlier ending of frosts in spring and a later starting of frosts and killing frosts in the fall.

CHU ratings in some parts of northern Ontario will be altered as a result of the expected climate change. For example, in the area around Fort Frances and Thunder Bay the CHU rating will increase by almost 400 units between 2010 and 2039 and almost 800 units between 2040 and 2069 (Bootsma, 2002). According to Bootsma et al (2001), grain corn yields could potentially increase by 0.64 tonnes per hectare with each increase of 100 CHU.

In conducting a regional assessment of the implications of climatic change on land resource potential for crop production in Ontario, Smit et al. (1989) reported the following long-term effects for northern Ontario:

- Grain corn yields would increase to such an extent that it would be feasible to obtain a high return to investment on well-drained loamy soils, and on lands that have a low drought tolerance. On lands where artificial land drainage has lessened the limitations imposed by excessive moisture conditions yields would be sufficient to obtain a modest return (p.166). In northern Ontario, grain corn would become an economically viable crop on about 70% of the land base that is cleared and available for agriculture (p.168).

- The longer growing season and warmer temperatures in northern Ontario would create new opportunities for soybeans. Land which is well-drained would be especially well-suited for soybeans, and a modest return to investment could be expected on those lands where moisture imposes moderate limitations on crop production (p. 168). In northern Ontario soybeans would be a profitable crop on approximately 58% of the regional resource base (p.170).
- Considerable increases in barley yields could be expected throughout the region although lands suffering from excessive moisture would continue to be economically unsuitable for the small grains (p.167).
- Opportunities for hay production are expected to be smaller than the effects on other field crops in northern Ontario (p.168).

However, with the introduction of new crop varieties over the last 20 years and improved soil management practices there has already been a substantial increase in production for certain crops in northern Ontario. For example, in the last 10 years alone (1996 to 2006) the area in corn production in northern Ontario increased from 2,261 acres to 5,932 acres while the area in soybean production increased from 94 acres to 4,385 acres; the area in wheat production increased from 5,416 acres to 21,264 acres; and the area in alfalfa production increased from 66,908 acres to 103,232 acres (Statistics Canada, 1996 and 2006).

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Appendix 5: Agriculture in the NeCN Catchment Area

Number of Cattle by County (estimates) - Cochrane District

	Bulls (>1 yr.)	Dairy cows	Dairy heifers (>1 yr.)	Beef cows	Beef heifers for breeding (>1 yr.)	Beef heifers for slaughter (>1 yr.)	Steers (>1 yr.)	Calves (<1 yr.)
2010	150	300	200	2,300	350	200	200	1,600

Source: (OMAFRA, 2011c)

Dairy Production in Cochrane District

	Milk Shipments to Milk Processing Plants in Ontario (kilolitres)	Number of Milk Producers (as of July)
2006	3,026	7
2007	3,099	7
2008	2,618	6
2009	2,801	6
2010	2,598	5

Source: (OMAFRA, 2011b, 2011d)

Area and Production Estimates for Cochrane District (2010)

	Acres seeded	Acres harvested	Yield (bushels/acre)	Production ('000 bushels)	Production ('000 tonnes)
Winter Wheat	-	-	-	-	-
Oats	800	700	72	50	0.8
Barley	800	800	43	34	0.7
Mixed Grain	1,000	900	75	68	1.2
Grain Corn	-	-	-	-	-
Soybeans	-	-	-	-	-
White Beans	-	-	-	-	-
Fodder Corn	-	-	-	-	-
Hay	19,000	18,500	1.3 ¹	24.1	21.9
Tobacco	-	-	-	-	-
Spring Wheat	-	-	-	-	-
Canola	-	-	-	-	-
Coloured Beans	-	-	-	-	-

¹ Tons/acre

Source: (OMAFRA, 2011a)

Census of Agriculture (2006) Summary for Cochrane District

Farm and farm operator statistics

Total population in 2006	82,503
Total number of operators	270
Average age of operators	55.1
Total male operators	190
Total female operators	85

Farms (number)

Total number of farms	184
Reporting under 53 hectares	41
Reporting 53 to 161 hectares	76
Reporting 162 hectares and over	67

Land statistics

Land area (km ²)	141,247
Total area of farms (hectares)	30,447
Average area of farms (hectares)	165

Greenhouse Area (square metres)

Total area under glass or plastic	70,314
-----------------------------------	--------

Farm finance statistics

Total gross farm receipts (excluding forest products sold) (dollars)	11,195,641
Total farm capital (market value in dollars)	86,321,292

Total Gross Farm Receipts (farms reporting)

Under \$10,000	75
\$10,000 to \$24,999	41
\$25,000 to \$49,999	33
\$50,000 to \$99,999	15
\$100,000 to \$249,999	9
\$250,000 to \$499,999	8
\$500,000 to \$999,999	1
\$1,000,000 to \$1,999,999	2
\$2,000,000 and over	0

Hired Farm Labour (weeks)

Year round	1,735
Seasonal	1,407
Total	3,142

Farm Capital Value (farms reporting)	
Under \$200,000	50
\$200,000 to \$499,999	83
\$500,000 to \$999,999	41
\$1,000,000 and over	10

Farms by Industry Group (number of farms)	
Dairy cattle and milk production	7
Beef cattle ranching and farming	42
Hog and pig farming	1
Sheep and goat farming	1
Poultry and egg production	1
Other animal production	21
Oilseed and grain farming	1
Vegetable and melon farming	6
Fruit and tree nut farming	2
Greenhouse, nursery and floriculture	9
Other crop farming	93

Farm Cash Receipts for Main Commodities, 2009 (millions)	
Total	5.70
Dairy	2.00
Cattle and Calves	0.94
Floriculture, Nursery and Sod	0.60
Hay and Clover	0.33
Potatoes	0.12
Forest Products	0.12

Crop and horticulture statistics (hectares)	
Land in crops	11,508
Summerfallow land	40
Tame or seeded pasture	2,907
Natural land for pasture	5,653
Christmas trees, woodland & wetland	8,287
All other land	2,052
Total area of farms	30,447

Major Field Crops (hectares)	
Winter wheat	0
Oats for grain	395
Barley for grain	551
Mixed grains	158

Corn for grain	0
Corn for silage	0
Hay	10,167
Soybeans	0
Dry white beans	0
Other dry beans	0
Potatoes	18

Livestock statistics (number)

Total cattle and calves	6,069
Dairy cows	x
Beef cows	x
Steers	140
Total pigs	x
Total sheep and lambs	234

Poultry Inventories (number)

Total hens and chickens	1,515
Total turkeys	129

x Supressed Data

Sources: 2006 Census of Agriculture and Strategic Policy Branch, OMAFRA

http://www.omafra.gov.on.ca/english/stats/county/northern_ontario.pdf

Updated: December 2010

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OMAFRA. (2011a, May 04). Area and Production Estimates by County Retrieved July, 2011, from <http://www.omafra.gov.on.ca/english/stats/crops/ctyoats10.htm>

OMAFRA. (2011b, January 31). Milk Shipments by County of Origin to Milk Processing Plants in Ontario, 2006 - 2010 (kilolitres) Retrieved July, 2011, from <http://www.omafra.gov.on.ca/english/stats/dairy/shipment.htm>

OMAFRA. (2011c, May 11). Number of Cattle by County, July 2010 Retrieved July, 2011, from <http://www.omafra.gov.on.ca/english/stats/livestock/ctycattle10.htm>

OMAFRA. (2011d, January 31). Number of Milk Producers by County in Ontario, as of July, 2006 - 2010 Retrieved July, 2011, from <http://www.omafra.gov.on.ca/english/stats/dairy/producers.htm>

Appendix 6: Terms of Reference



ONTARIO AGRICULTURAL COLLEGE
School of Environmental Design and Rural Development
Capacity Development and Extension • Landscape Architecture • Rural Planning and Development

Terms of Reference

Prospering with a Stable or Declining Population: Best Community Economic Development and Planning Practices for Rural Communities

Northeast Ontario Case Study

The Issue

The communities situated within Cochrane District in Northeast Ontario are economically reliant on mining and forestry. These industries face a number of challenges associated with what is often referred to as “boom and bust cycles”.

As a result, the communities within Cochrane District would greatly benefit from diversification of the local economy, with one option being agricultural expansion. While agriculture is not a significant economic contributor at present, the existence of favourable soil classifications and crop heat units suggest that expansion of this sector would be feasible. Increasing agricultural land prices in Southern Ontario and forecasts associated with climate change point to the potential for enhanced agricultural opportunities in the fertile lands of Northeastern Ontario.

Objectives and Deliverables

There are six objectives for this project each with distinct deliverables building upon previous work:

1. To evaluate the opportunities for agricultural development in Northeast Ontario from a Regional Development perspective.
 - a. Analysis of Canada Land Inventory (CLI)
 - b. Preparation of climactic maps and crop heat unit availability
 - c. Identification of suitable crops with consideration of environmental conditions (Identifying potential profitability and rates of return)
 - d. Report of opportunities

2. To work with the existing agricultural community to identify opportunities and challenges regarding the role of agriculture in regional economic development.
 - a. Interviews with existing farmers and government representatives
 - b. Evaluation of challenges and opportunities inherent to the area
 - c. Identify opportunities and challenges related to suitable crops (e.g. infrastructure, government legislation/regulations, etc.)
 - d. Report of findings
3. To work with local municipalities and regional development organizations to profile and promote agricultural development as a regional development tool.
 - a. Meetings and interviews with local municipalities and regional development organizations to present economic benefits of agricultural development and hear obstacles faced by these groups
 - b. Profile of present status of agricultural operations as well as the cost, availability, and condition of land in the region
 - c. Report of findings
4. To develop a case study approach of the Northeast Community Network as a means to identify broader regional opportunities.
 - a. Examination of the Northeast Community Network in its history and current operations to identify lessons learned for regional development organizations elsewhere
(this will probably be limited to gathering this information solely for the purpose of enhancing other deliverables related to this project)
5. To evaluate the potential for an expanded agricultural sector resulting from predicted climate change scenarios.
 - a. Adapt existing climate change scenarios to the Northeast Ontario context
 - b. Evaluate changes, and in turn, opportunities and challenges for agriculture in the region according to these scenarios (this will include the identification of crops that are currently productive in the north and new and future opportunities)
 - c. Report of findings
6. Identification of strategic directions that achieve the goal of agricultural development.
 - a. Report of strategic directions that may put the project findings into action
 - b. Two single day workshops with councillors (afternoon) and general public (evening) regarding best practices for economic development and implementing study findings. (there may be a user-fee attached to this).

Methodology

The research will proceed over 1 year as follows:

1. A local steering committee will be established. This committee will provide advice and recommendations to the research team. A media event will be planned in consultation with the local steering committee.
2. Analysis will proceed using a case study approach. A Strengths, Weaknesses, Opportunities, and Threats analysis approach will be used through interviews with:
 - a. Local leaders such as politicians, community economic development officials, and community futures experts
 - b. Farmers with active agricultural enterprises in the area
 - c. Key staff at a provincial and federal level
3. Research will be conducted to identify the key aspects of an agricultural development strategy. These practices will be applied to immigration strategies, market strategies, and strategies for the stimulation of regional economic development. This will provide a key local deliverable to the community.
4. The community will work in cooperation with the researchers to implement the strategy at a local level.

Assumptions

- The field work will be undertaken within the Northeast Community Network (NeCN) catchment area
- The University of Guelph graduate student will spend a minimum of 6-8 weeks in the community

Timeline

Project commences: April 1, 2011

Graduate student (Eric Marr) available full-time: May 1, 2011 – August 31, 2011

Expected completion of all deliverables: April 1, 2012

Percent of Effort

Objectives and Deliverables	% of Effort
1. To evaluate the opportunities for agricultural development in Northeast Ontario from a Regional Development perspective.	15
2. To work with the existing agricultural community to identify opportunities and challenges regarding the role of agriculture in regional economic development.	15

3. To work with local municipalities and regional development organizations to profile and promote agricultural development as a regional development tool.	15
4. To develop a case study approach of the Northeast Community Network as a means to identify broader regional opportunities.	5
5. To evaluate the potential for an expanded agricultural sector resulting from predicted climate change scenarios.	10
6. Identification of strategic directions that achieve the goal of agricultural development.	40

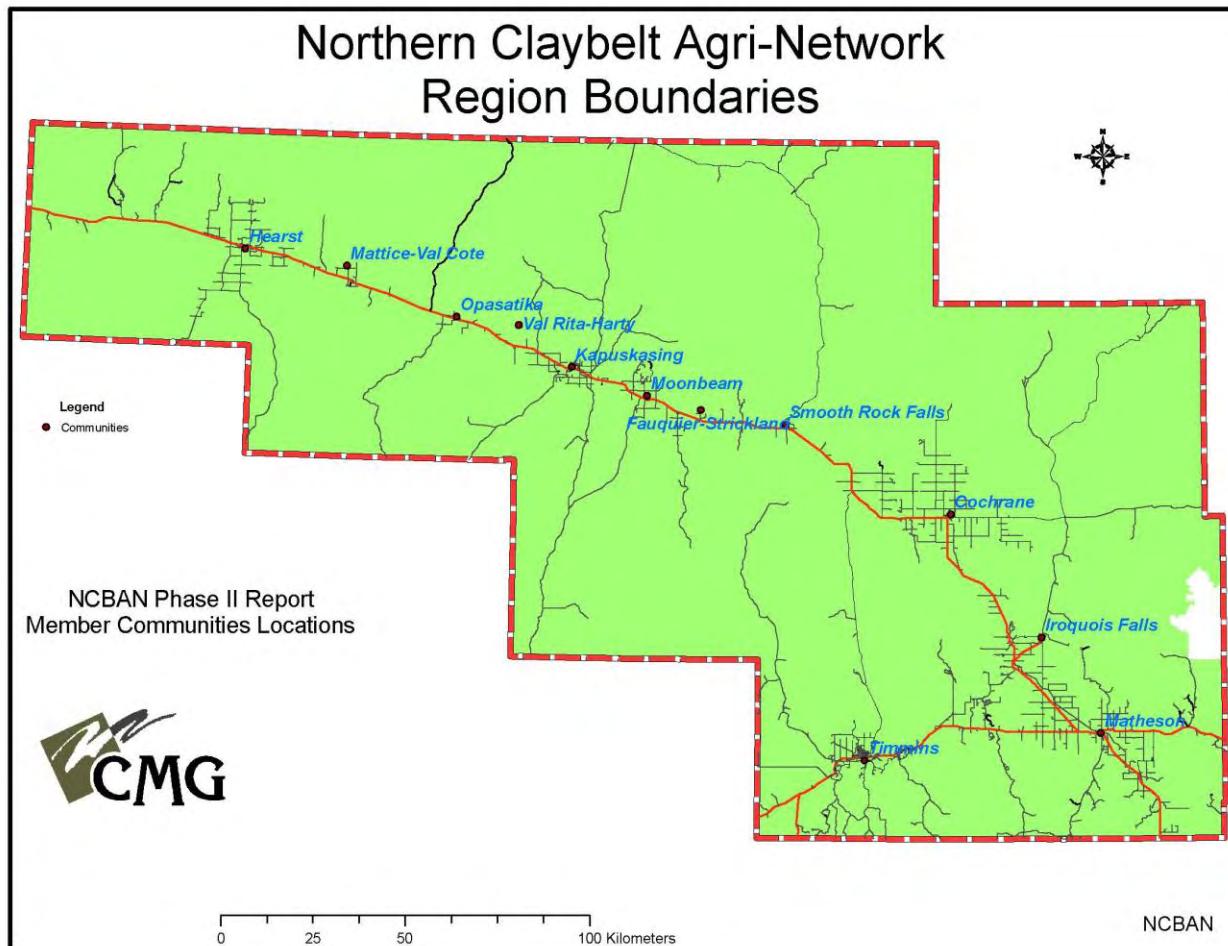
To address these objectives two main reports will be produced:

Report 1: Current and Future Opportunities for Agricultural Development in Northeastern Ontario: A Regional Development Perspective (Objectives 1, 2, 3 and 5)

Report 2: Strategic Directions for Agricultural Development in Northeastern Ontario (Objective 6 and 3)

Appendix 7: Study Area

The following map was excerpt from the NCBAN study (2009) and presents the boundaries of the NeCN catchment area:



Appendix 8: Viable Crops

This Appendix will present information on viable crops within the NeCN catchment area. The intention is to look at crops that are suitable for the climate and soil conditions of the area as well as attempting to present information on the economic viability of various products. This has been undertaken using available data as well as observations from existing farmers in the area.

It should be noted that information relevant for this topic tends to be sparse in the area. Therefore, we have included data from other jurisdictions or areas of the province. It is important to keep in mind that this information may not translate directly into the context of the NeCN catchment area. It is also imperative that readers remember that agriculture is widely variable in terms of level of production, cost of production, and the value of the final commodities. Therefore, it is very difficult to predict what crops may be viable going forward as seasonal variations and market fluctuations can, and do, change dramatically from year-to-year.

Crop	Average Yield for Cochrane District (2003 - 2010) (bushels/acre)	Current Crop Prices (14 October 2011) \$/tonne	Average Crop Price (1981 - 2009) \$/bu	Sample Cost of Production (2011) \$/acre
Oats Oats only	67	240.15 (8)	3.41 (9)	138.97 2.14
Oats and straw				243.95 (1)
Winter Wheat Conventional	-	237.1 (10)	6.32 (10)	143.52 3.91
Wheat only				280.65 (2)
Wheat and straw				308.6 (2)
No-Till Wheat only				271.9 (1)
Wheat and straw				243 (2)
Hard Red Winter Wheat Conventional	304.5 (11)			270.95 (2)
Wheat only				294.35 (3)
No-Till Wheat only				322.3 (3)
Wheat and straw				256.65 (3)
Barley Barley only	50	210 (12)	2.75	126.31 2.75
Barley and straw				246.3 (4)
Mixed Grain	58			274.25 (4)
Canola Spring Canola	-	508.68 (13)	300.00 6.80	121.76 2.21
Winter Canola				285.4 (3)
Rye	-		119.03 3.02	310.4 (6)
Hay		1.6 (tons/acre)	82.15	74.51 (\$/ton)
				260.7 (7)

Notes

- (1) Values are samples provided by OMAFRA's Field Crop Budgets for 2011. These values are estimated specifically for Northern Ontario however do not include storage or land rental costs.
- (2) Values are samples provided by OMAFRA's Field Crop Budgets for 2011. These values are estimated based on Southern Ontario conditions. The totals do not include costs relating to land rent or fungicide.
- (3) Values are samples provided by OMAFRA's Field Crop Budgets for 2011. These values are estimated based on Southern Ontario conditions. The totals do not include costs relating to land rent, herbicide, or fungicide.
- (4) Values are samples provided by OMAFRA's Field Crop Budgets for 2011. These values are estimated based on areas with a CHU value of less than 2800. They do not include costs for land rent, storage, or fungicide.
- (5) Values are samples provided by OMAFRA's Field Crop Budgets for 2011. These values are estimated based on Southern Ontario conditions. The total also does not include costs for storage, land rent, insecticide, herbicide, fungicide, or technology use agreement costs.
- (6) Values are samples provided by OMAFRA's Field Crop Budgets for 2011. These values are estimated based on Southern Ontario conditions. The total also does not include costs for storage, land rent, or fungicide.
- (7) Values are samples provided by OMAFRA's Field Crop Budgets for 2011. These values are estimated based on an assumption of 2 cuts per season. This value does not include nitrogen credits or costs for land rent or twine.
- (8) Oats, Chicago Board of Trade Nearby Futures, Canadian dollars
- (9) Oats, Chicago Board of Trade Nearby Futures, United States dollars
- (10) Wheat, Soft Red Winter (SRW), Chicago Board of Trade Nearby Futures, United States dollars
- (11) Wheat, United States No. 1 Hard Winter Ordinary (HWO), Gulf free on board (FOB), Canadian dollars
- (12) Barley, No. 1 Canada Western (CW), Lethbridge/Alberta Cash, Canadian dollars
- (13) Canola, No. 1 Canada, PAR Region Saskatchewan Cash, Canadian dollars

Sources

- Field Crop Prices, by Crop Year, Ontario, 1981-2009: <http://www.omafra.gov.on.ca/english/stats/crops/index.html>
- Area and Production Estimates by County (2003-2010): <http://www.omafra.gov.on.ca/english/factsheets/publications3.htm>
- 2011 Field Crop Budgets: <http://www.omafra.gov.on.ca/english/factsheets/publications3.htm>
- Agriculture and Agri-Food Canada - Weekly Price Summary: http://www.agr.gc.ca/mad-dam/index_e.php?3=1.php&s2=pri

Market Gardens

Experience in Timmins

It is very difficult to quantify the value and cost of production of small scale operations geared towards local markets. However, a discussion with John Caron, a small scale producer in Timmins selling predominantly off farm or at the local markets provided some insights. Based largely on the 2011 season, he found that several crops grew well and included the following listing:

- beans (green and yellow)
- green onions
- lettuce (just about any type except for iceberg variety)
- swiss chard
- root crops (potatoes, turnips, rutabaga, carrots)
- summer squash (zucchini, spaghetti)

However, he noted that in this particular season, brassicas (cabbage, broccoli, cauliflower, radish) did poorly due to insect damage. Similarly, he found that garlic and corn did not do well due to unfavourable weather.

In terms of economic viability, John believes that garlic, onions, beans, potatoes and carrots are his most marketable vegetable products. Although, in his experience poultry is actually the most popular and profitable of his products but due to the supply management of that particular industry he is limited to 300 birds.

Overall, John believes that he could make a living off of market gardening; however he would need to cover a much larger acreage that he does not have the time or energy to undertake.

Information from Alberta

The following table presents findings from the Alberta Ministry of Agriculture and Rural Development with estimated values for market garden crops within the province. It is important to remember that these are specific to Alberta and will vary considerably even within that province. Therefore, for the context of the NeCN catchment area it should be used as a sample only and not presumed to be transferrable.

Crop	Yield (tonnes/acre)	Production Costs (dollars/acre)	Revenues (dollars/acre)
Asparagus	1-2	1,971	3,704
Beans	3.5 - 4.5	896	2,041
Beets	9.5 - 10.5	2,225	5,022
Broccoli	1.75 - 2.5	2,506	3,483
Cabbage	700 - 800 cases	3,078	4,698
Carrots	9 - 15	3,640	8,424
Cauliflower	5.5 - 7.5	2,209	2,840
Celery	750 - 850 cases	6,199	8,689
Corn	1,000 doz.	1,253	3,429
Cucumbers			
– slicers	13.5 - 14.5	6,923	10,184
– picklers	6.5 - 7.5	2,268	4,039
Lettuce	750 - 850 cases	4,239	6,086
Onions – dry	13 - 15	4,293	6,475
Parsnip	5.5 - 7.5	3,521	5,368
Potatoes	9.5 - 11.5	1,372	2,516
Pumpkin	13.5 - 15.5	3,397	4,703
Rutabaga	11- 13	1,161	2,743
Zucchini	16.5 - 17.5	7,576	10,519

Source: [http://www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/agdex1152](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/agdex1152)

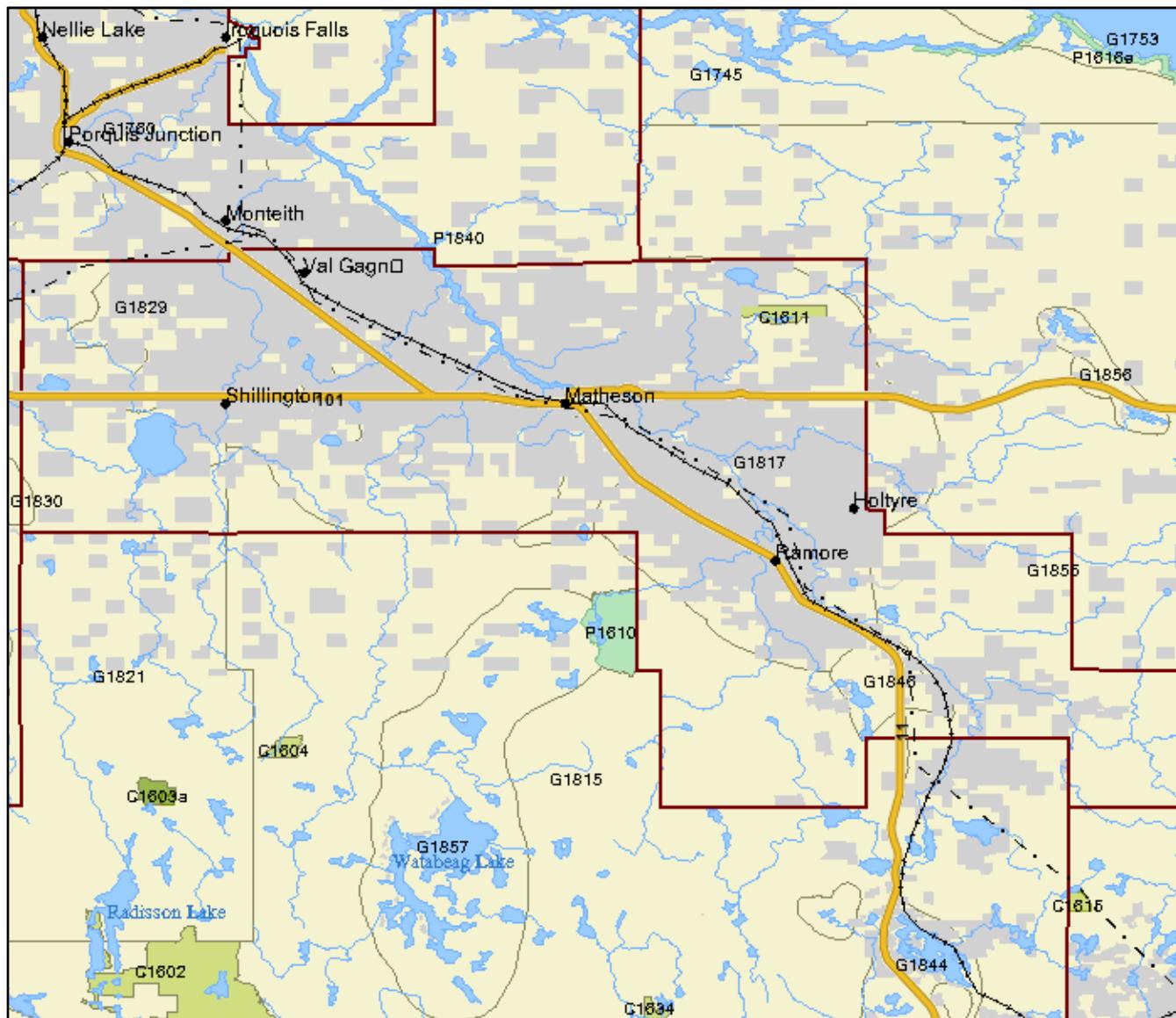
The preceding yield, cost and revenue figures are averages for all regions in Alberta. Yields will vary according to local growing conditions, revenues will vary according to markets and the marketing channel used. Production costs don't include operating and ownership costs of equipment. The numbers presented are estimates and should be used as guidelines only.

Appendix 9: Crown Land Maps

The following maps were created using the Ministry of Natural Resources' *Ontario Crown Land Use Policy Atlas*. Each map represents a different community within the NeCN catchment area. The maps present a variety of land uses however the most useful is crown land which carries important considerations for the options for using the land as well as the potential land available for agricultural use. While in most practical exercises the scale of these maps will be too high to be useful, they do present a useful look at which communities have the most available private land and where it tends to be located. As well, it should be noted that the *Ontario Crown Land Use Policy Atlas* is navigable and can be accessed by the general public for more specific evaluations of available land.

One will find when observing the maps that the two most common classifications are Private Land shown in purple  and General Use Area – Crown Land shown in yellow 

Black River-Matheson



Map centre: 48° 27' 46.3" N, 80° 26' 43.8" W

Map created: May 31, 2011



0

8

16

24

32 km

Scale: 1:470,000



Legend

- Primary Land Use**
- Provincial Park
- Recommended Provincial Park
- Conservation Reserve
- Recommended Conservation Reserve
- Forest Reserve
- Wilderness Area
- Enhanced Management Area
- General Use Area
- Provincial Wildlife Area
- Private Land
- Indian Reserve
- Other Federal Land
- National Park
- Overlay Area
- Lake / River

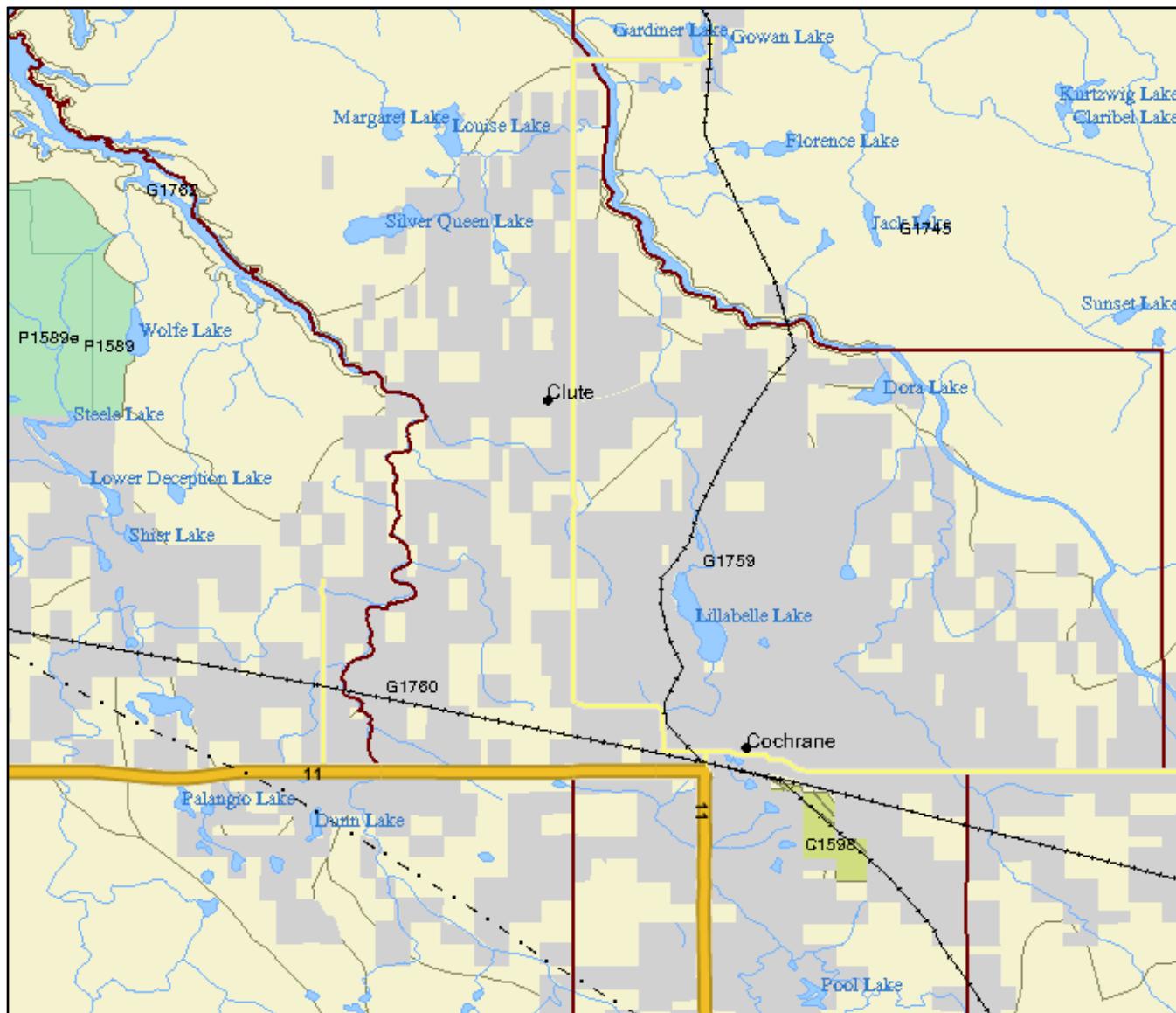
- Lower or Single Tier Municipality
- Highways
- Railway
- Power Line
- Ontario Boundary

- Small Crown Parcel

This map should not be relied on as a precise indicator of routes or locations, nor as a guide to navigation. The Ontario Ministry of Natural Resources (OMNR) shall not be liable in any way for the use of, or reliance upon, this map or any information on this map.

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Cochrane



Map centre: 49° 08' 45.4" N, 81° 04' 01.3" W

Map created: May 31, 2011



N

0 4 8 12 16 km

Scale: 1:246,608



Legend

- Primary Land Use**
- Provincial Park
- Recommended Provincial Park
- Conservation Reserve
- Recommended Conservation Reserve
- Forest Reserve
- Wilderness Area
- Enhanced Management Area
- General Use Area
- Provincial Wildlife Area

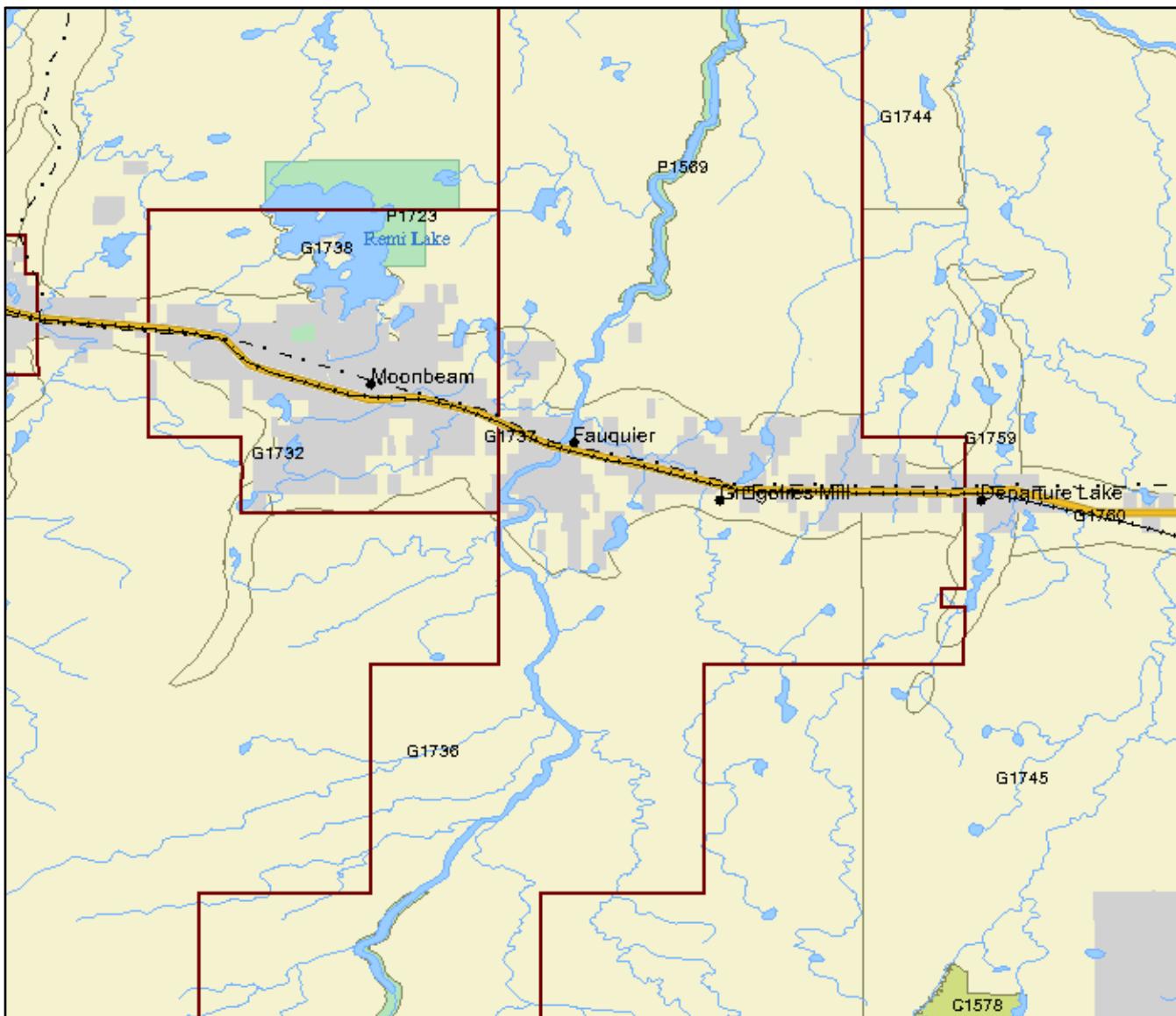
- Private Land
- Indian Reserve
- Other Federal Land
- National Park
- Overlay Area

- Lower or Single Tier Municipality
- Arterial Roads
- Highways
- Railway
- Power Line
- Ontario Boundary
- Small Crown Parcel

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Fauquier-Strickland



Map centre: 49° 16' 33.2" N, 82° 01' 15.8" W

Map created: May 31, 2011



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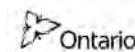
8

16

24

32 km

Scale: 1:422,500



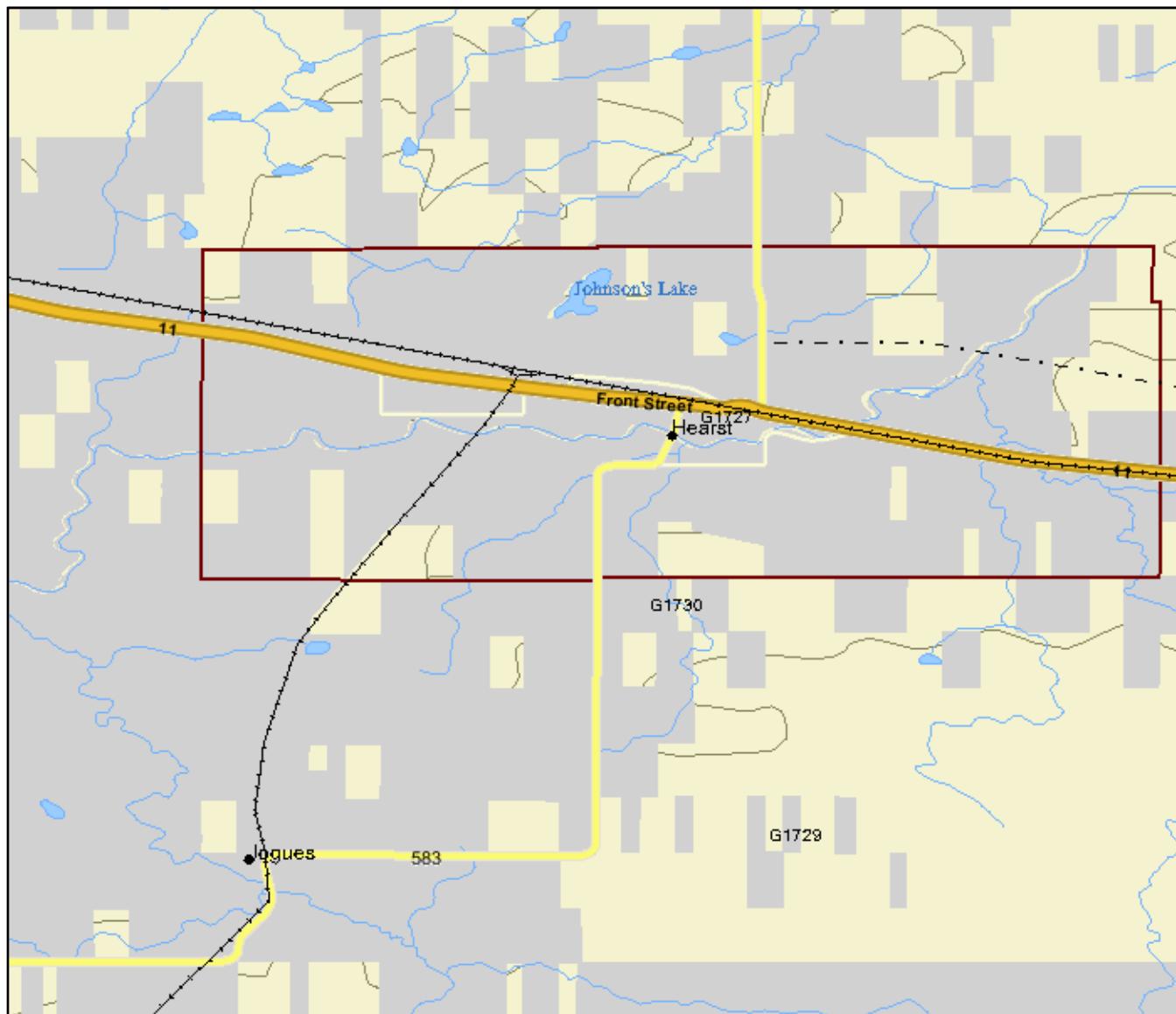
Legend

- Primary Land Use
 - Provincial Park
 - Recommended Provincial Park
 - Conservation Reserve
 - Recommended Conservation Reserve
 - Forest Reserve
 - Wilderness Area
 - Enhanced Management Area
 - General Use Area
 - Provincial Wildlife Area
- Private Land
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- Railway
- Power Line
- Ontario Boundary
- Small Crown Parcel

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Hearst



Map centre: 49° 40' 05.9" N, 83° 40' 53.3" W

Map created: May 31, 2011



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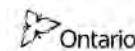
2

4

6

8 km

Scale: 1:144,642



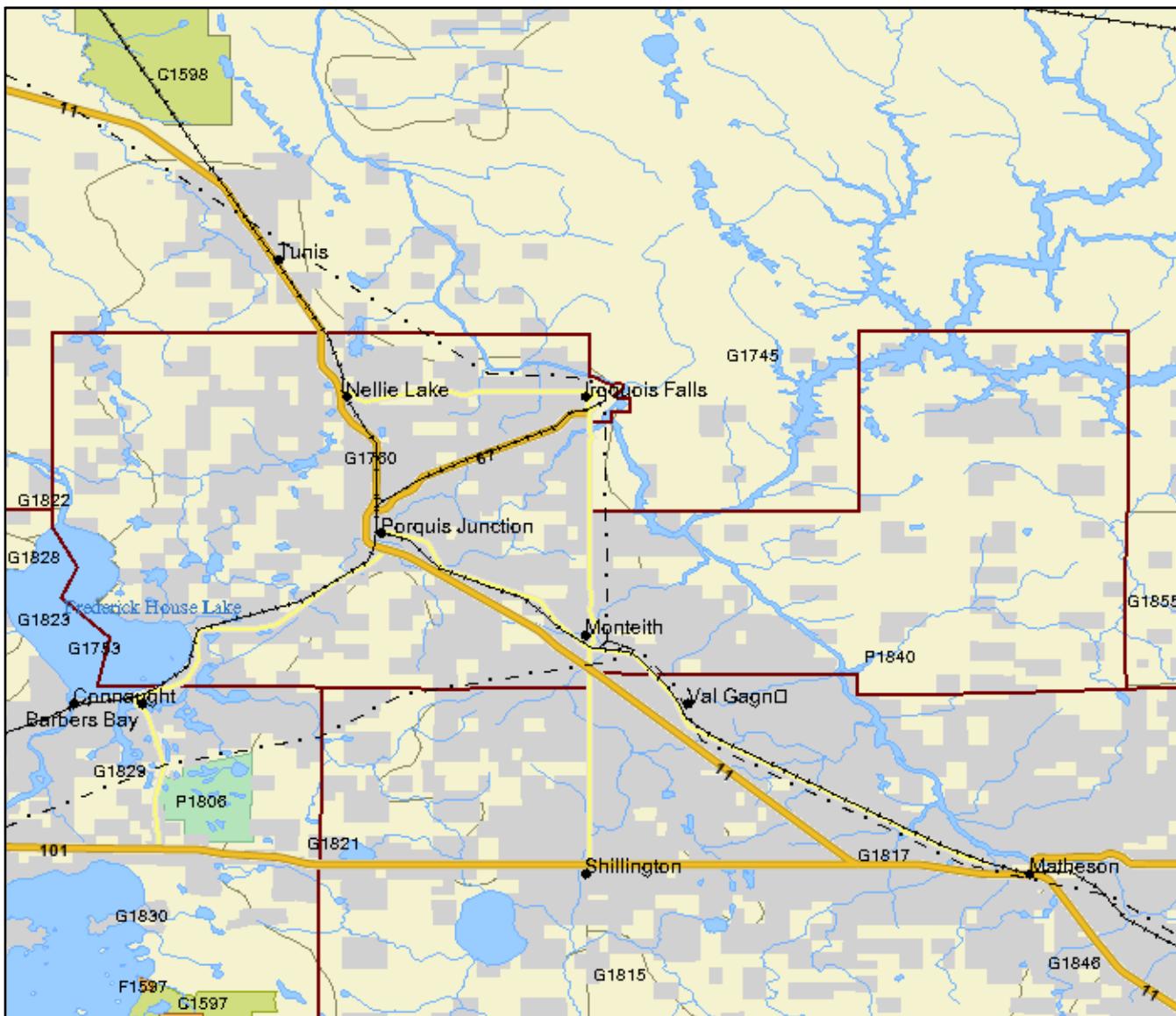
Legend

- Primary Land Use**
 - Provincial Park
 - Recommended Provincial Park
 - Conservation Reserve
 - Recommended Conservation Reserve
 - Forest Reserve
 - Wilderness Area
 - Enhanced Management Area
 - General Use Area
 - Provincial Wildlife Area
- Private Land
- Indian Reserve
- Other Federal Land
- National Park
- Overlay Area
- Lower or Single Tier Municipality**
- Collector Roads
- Arterial Roads
- Highways
- Railway
- Power Line
- Ontario Boundary

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Iroquois Falls



Map centre: 48° 42' 34.6" N, 80° 40' 42.4" W

Map created: May 31, 2011



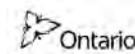
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6

12

24 km

Scale: 1:360,000



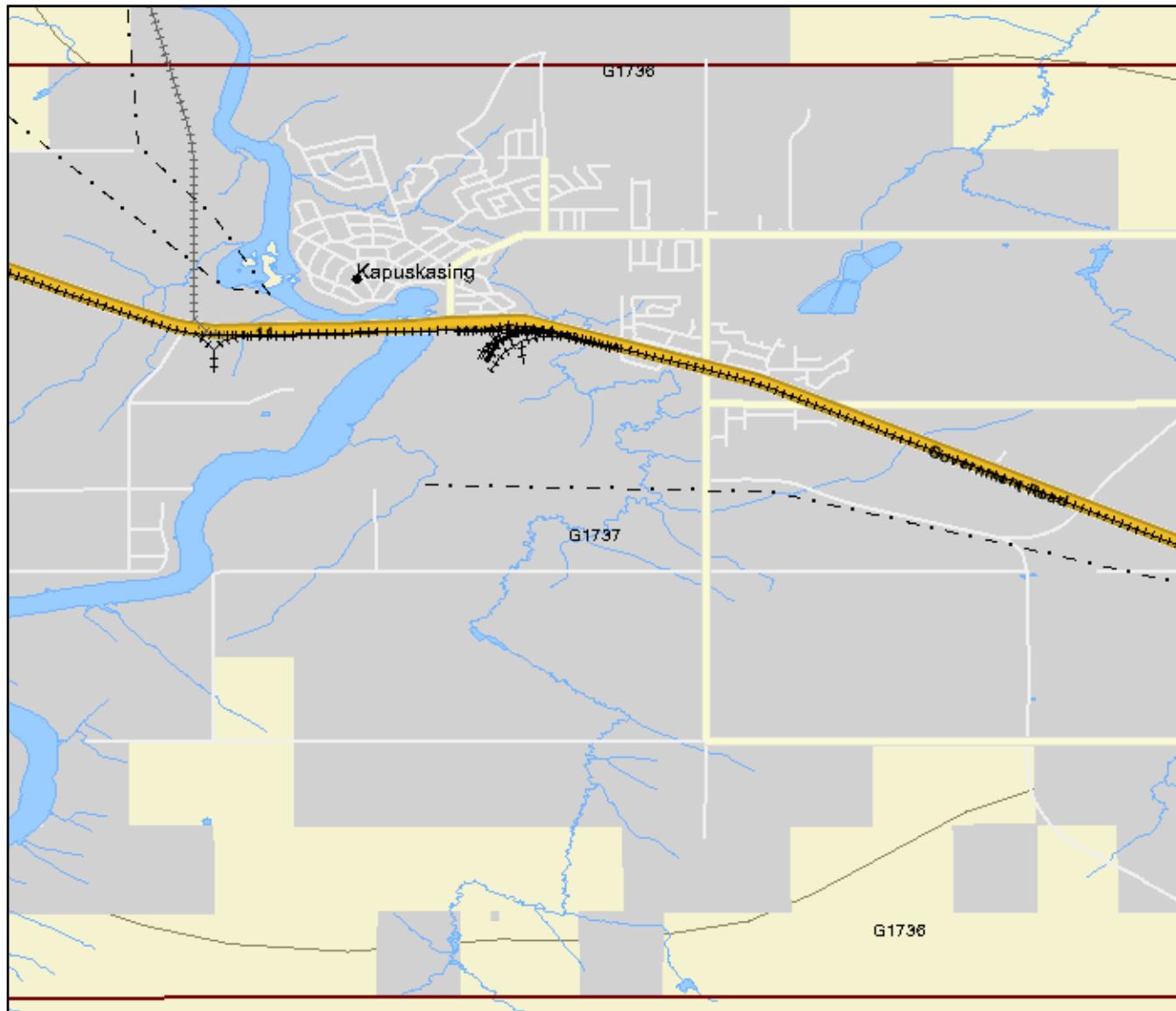
Legend

- Primary Land Use
 - Provincial Park
 - Recommended Provincial Park
 - Conservation Reserve
 - Recommended Conservation Reserve
 - Forest Reserve
 - Wilderness Area
 - Enhanced Management Area
 - General Use Area
 - Provincial Wildlife Area
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- Lower or Single Tier Municipality
- Arterial Roads
- Highways
- Railway
- Power Line
- Ontario Boundary
- Small Crown Parcel

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Kapusasing



Map centre: 49° 23' 48.7" N, 82° 24' 45.7" W

Map created: May 31, 2011



0

1

2

3

4 km

Scale: 1:62,843



Legend

Primary Land Use

- Provincial Park
- Recommended Provincial Park
- Conservation Reserve
- Recommended Conservation Reserve
- Forest Reserve
- Wilderness Area
- Enhanced Management Area
- General Use Area
- Provincial Wildlife Area

Private Land

- Indian Reserve
- Other Federal Land
- National Park
- Overlay Area
- Lake / River

Lower or Single Tier Municipality

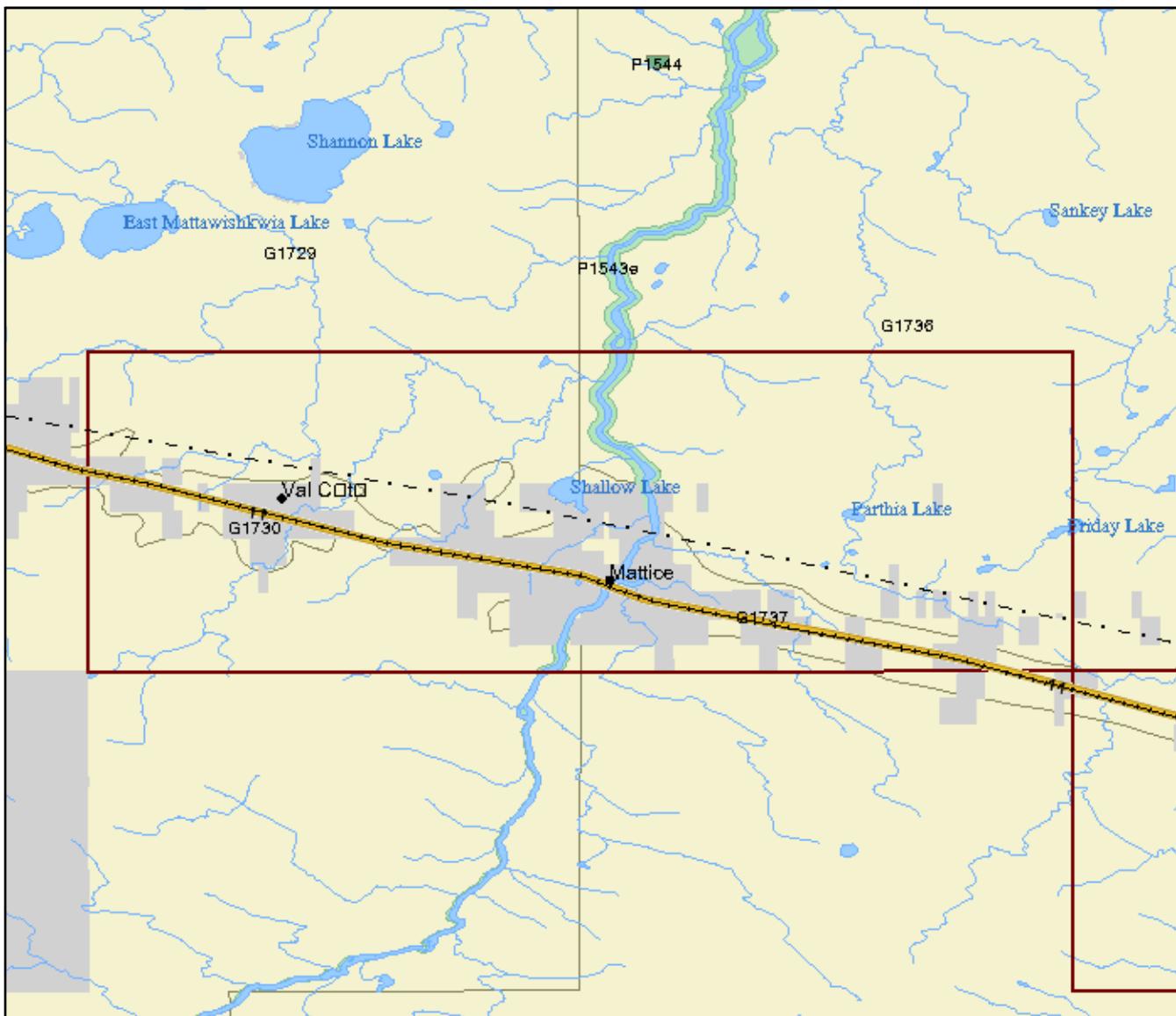
- Local Roads
- Collector Roads
- Arterial Roads
- Highways
- Railway
- Power Line

Ontario Boundary

This map should not be relied on as a precise indicator of routes or locations, nor as a guide to navigation. The Ontario Ministry of Natural Resources (OMNR) shall not be liable in any way for the use of, or reliance upon, this map or any information on this map.

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Mattice-Val Côté



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Map created: May 31, 2011



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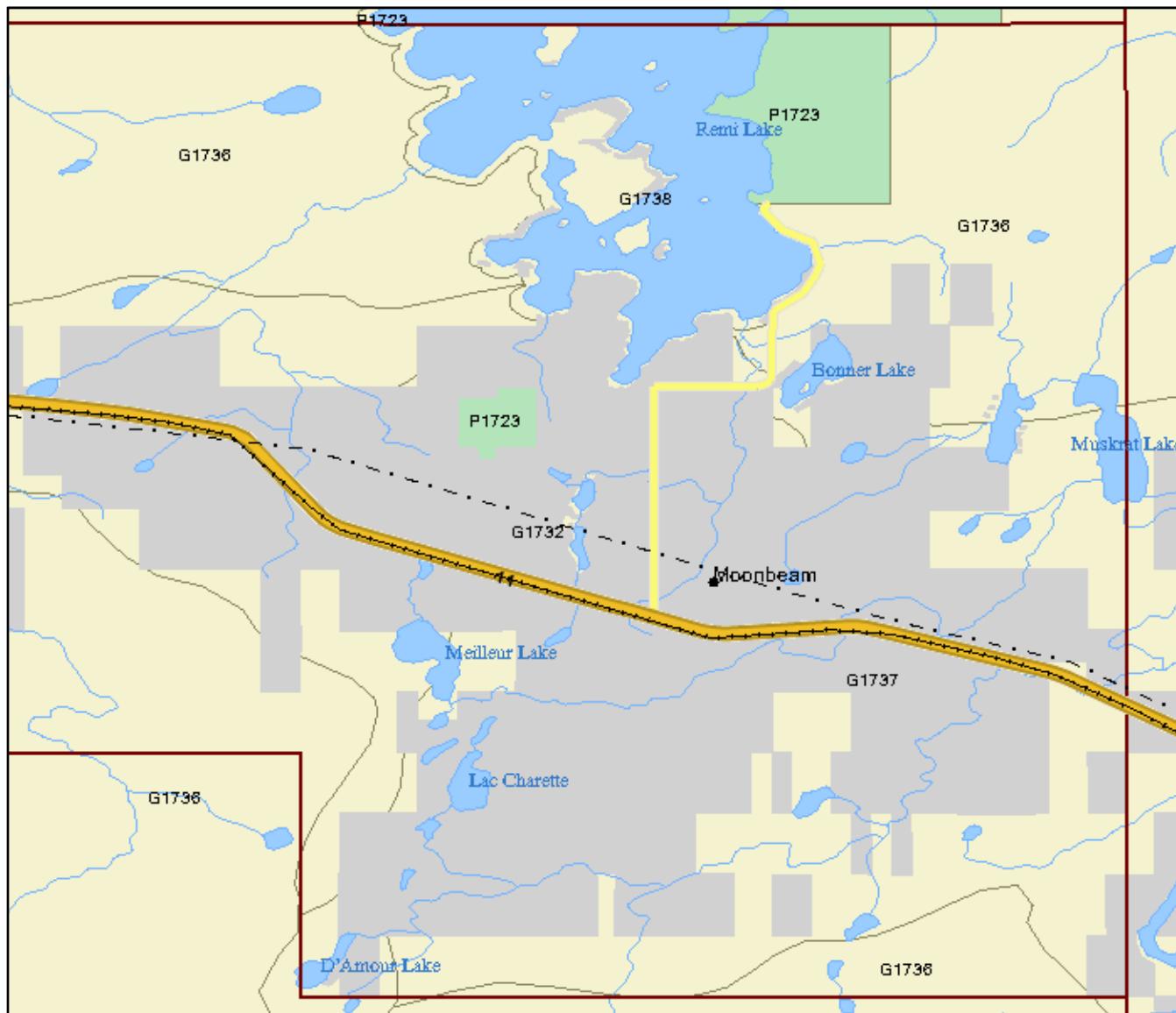
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 - Recommended Provincial Park
 - Conservation Reserve
 - Recommended Conservation Reserve
 - Forest Reserve
 - Wilderness Area
 - Enhanced Management Area
 - General Use Area
 - Provincial Wildlife Area
- Private Land
- Indian Reserve
- Other Federal Land
- National Park
- Overlay Area
- Lower or Single Tier Municipality
- Arterial Roads
- Highways
- Railway
- Power Line
- Ontario Boundary
- Small Crown Parcel

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Moonbeam



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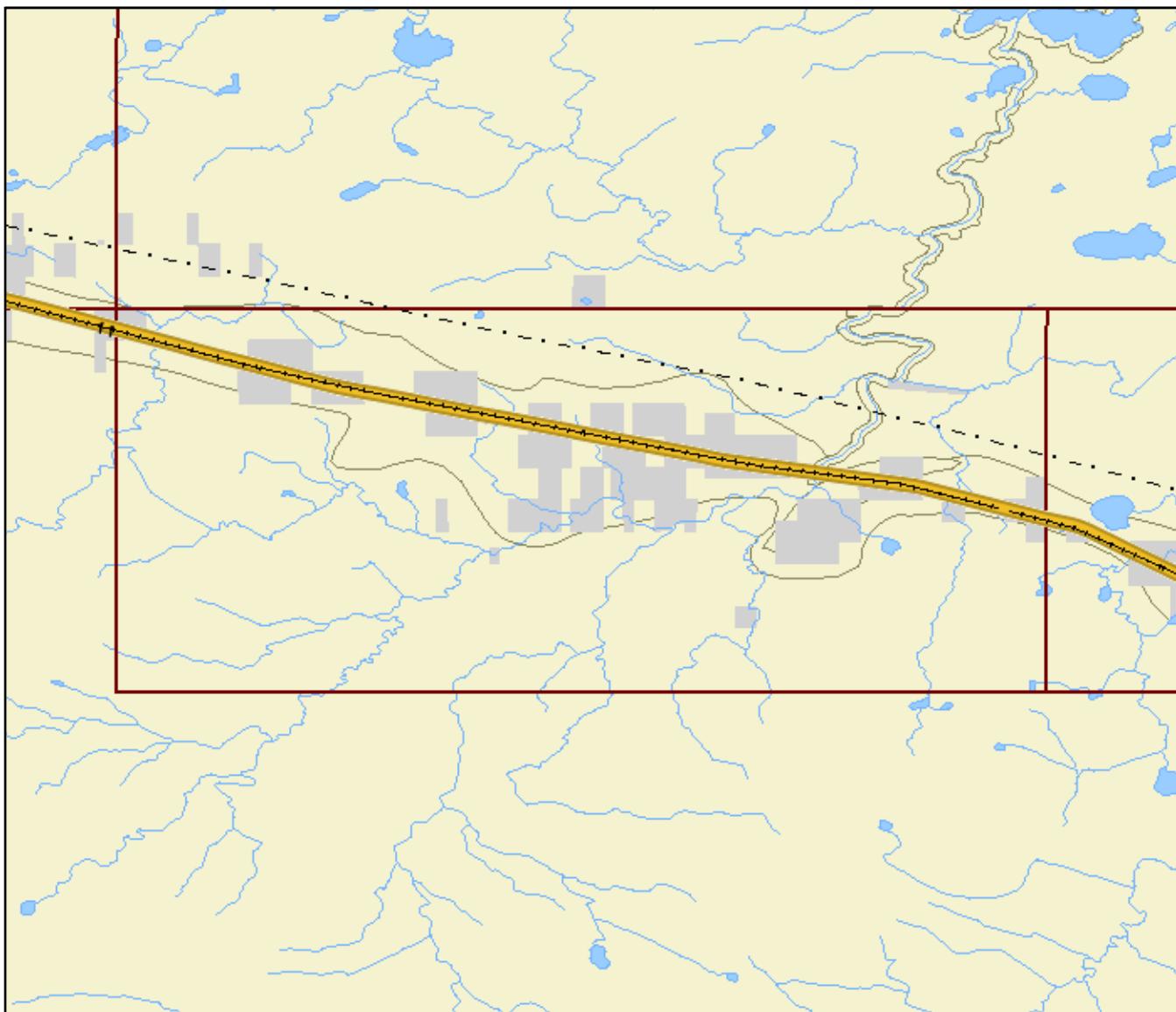
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- Other Federal Land
- National Park
- Overlay Area
- Lower or Single Tier Municipality
- Collector Roads
- Arterial Roads
- Highways
- Railway
- Power Line
- Ontario Boundary

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Opasatika



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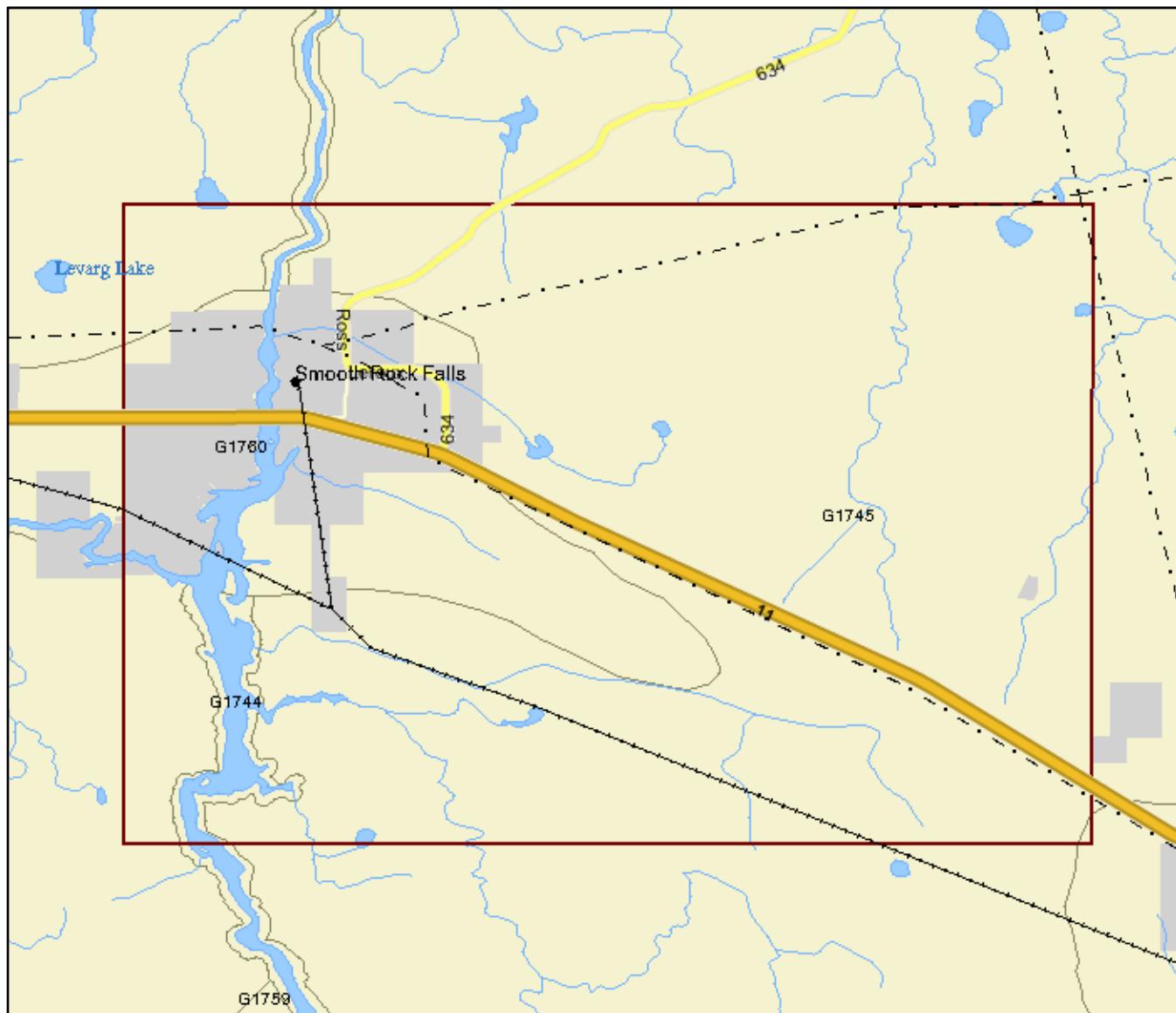
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 - General Use Area
 - Provincial Wildlife Area
- Private Land
- Indian Reserve
- Other Federal Land
- National Park
- Overlay Area
- Lower or Single Tier Municipality
- Arterial Roads
- Highways
- Railway
- Power Line
- Ontario Boundary
- Small Crown Parcel

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Smooth Rock Falls



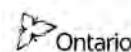
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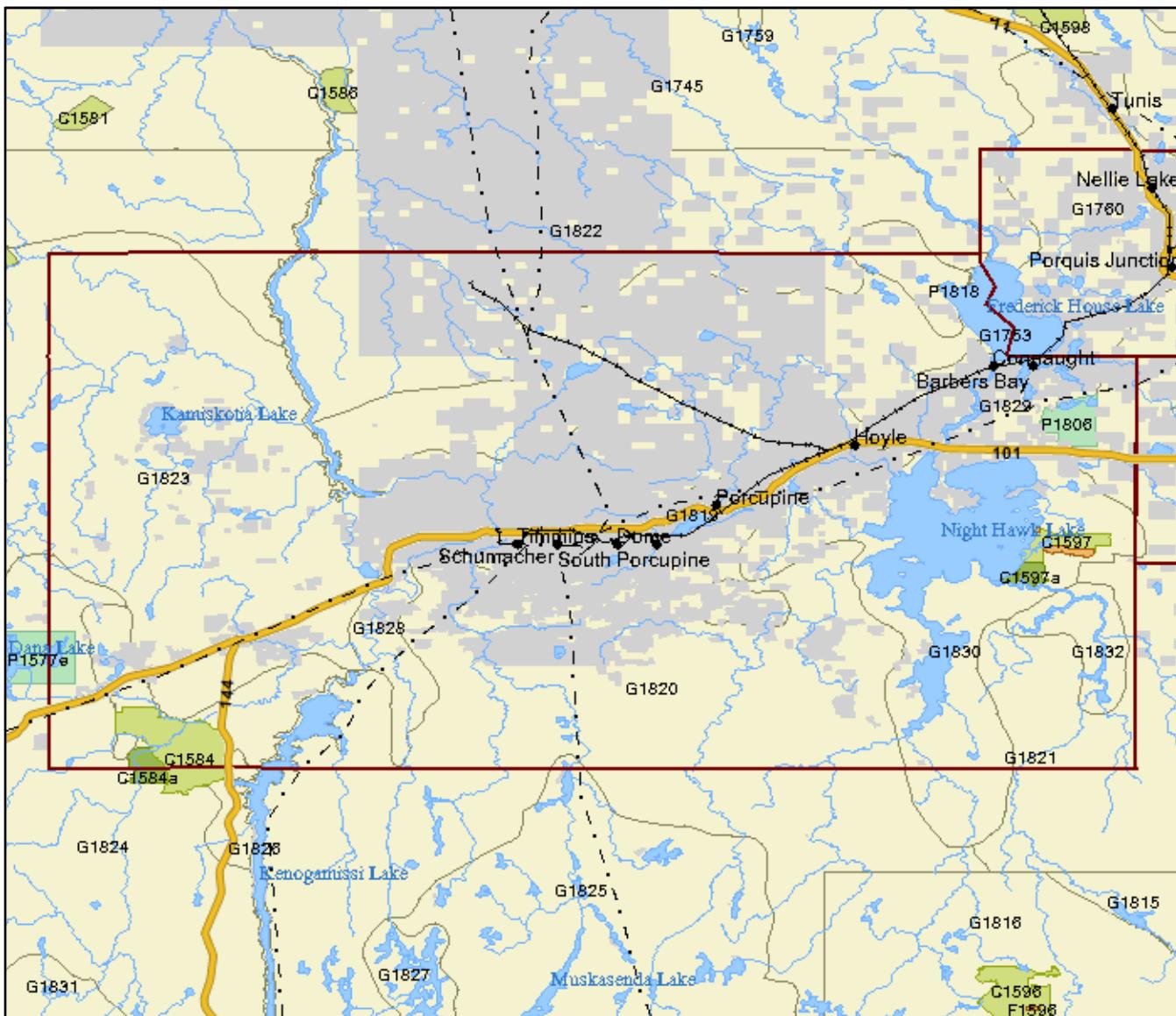
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 - Provincial Park
 - Recommended Provincial Park
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- Private Land
- Indian Reserve
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- National Park
- Overlay Area
- Lower or Single Tier Municipality
- Collector Roads
- Arterial Roads
- Highways
- Railway
- Power Line
- Ontario Boundary

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Timmins



Map centre: 48° 29' 33.4" N, 81° 16' 05.1" W

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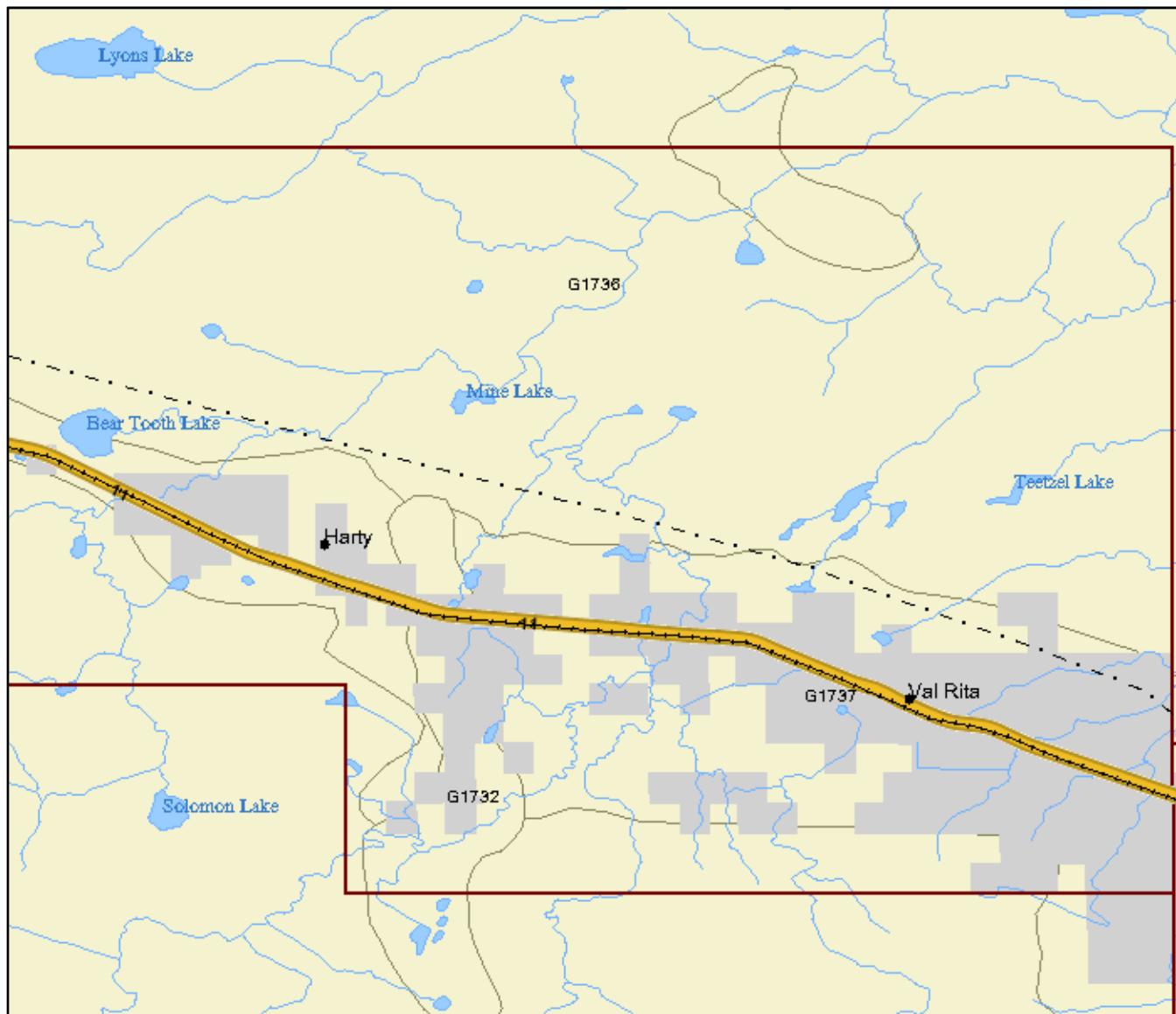
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-  Recommended Conservation Reserve
-  Forest Reserve
-  Wilderness Area
-  Enhanced Management Area
-  General Use Area
-  Provincial Wildlife Area

-  Private Land
-  Indian Reserve
-  Other Federal Land
-  National Park
-  Overlay Area
-  Lake / River
-  Lower or Single Tier Municipality
-  Highways
-  Railway
-  Power Line
-  Ontario Boundary
-  Small Crown Parcel

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Val Rita-Harty



Map centre: 49° 29' 28.0" N, 82° 37' 02.4" W

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 - Provincial Park
 - Recommended Provincial Park
 - Conservation Reserve
 - Recommended Conservation Reserve
 - Forest Reserve
 - Wilderness Area
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 - General Use Area
 - Provincial Wildlife Area

- Private Land
- Indian Reserve
- Other Federal Land
- National Park
- Overlay Area
- Lower or Single Tier Municipality
- Collector Roads
- Arterial Roads
- Highways
- Railway
- Power Line
- Ontario Boundary

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Strategic Directions for Agricultural Development in Northeastern Ontario



18 November 2011

Northeast Community Network (NeCN) Agriculture Study: Report 2

Strategic Directions for Agricultural Development in Northeastern Ontario

NeCN Agriculture Study: Report 2 of 2

Prepared by:

Wayne Caldwell, PhD, MCIP, RPP

Eric Marr, MSc (candidate)

School of Environmental Design and Rural Development

University of Guelph

November, 2011

Prepared for the Northeast Community Network (NeCN)

Acknowledgements

We would like to extend our gratitude to the many people and organizations that made this research happen. First, we would like to thank the members of the Northeast Community Network, with specific appreciation for the support and input from the NeCN Agriculture Steering Committee members:

- **Ellen Sinclair** (Chairperson): Venture Centre / Le Centre de développement CFDC
- **Laurier Guillemette** (Vice-Chairperson): Councillor, Town of Kapuskasing
- **Mike Milinkovich**: Mayor, Township of Black River-Matheson
- **Denis Bérubé**: North Claybelt CFDC
- **Andre Robichaud**: Kapuskasing Economic Development Corporation
- **Brenda Camirand**: City of Timmins Economic Development Corporation
- **Daniel Sigouin**: Town of Hearst Economic Development Corporation
- **Eli Vuksanovich**: Mountjoy Independent Farmers' Market, Timmins
- **James Bernardi**: Smooth Rock Falls Economic Development Corporation
- **John Caron**: Hawk Feather Farm, Timmins
- **Rheal Cousineau**: Farmer and business owner, Cochrane
- **Michael Shea**: Councillor, Town of Iroquois Falls
- **Gilles Matko**: Nord-Aski CFDC
- **Darrel Becker**: Farmer, Township of Black River-Matheson
- **George Hughes**: Northern College, Timmins

A special thank you to Ellen Sinclair and Mike Milinkovich for the great work they have done in the role of Chair for the committee and their guidance through the project's duration.

We would also like to thank Steven Blier and Adrien Veilleux of the Nord-Aski CFDC for their time on the NeCN Agriculture Steering Committee and their contributions to the project.

It is imperative that we acknowledge the contributions from the many interview participants for their hospitality and input to the project. Particularly, we want to extend our appreciation to the farmers who took the time in such a busy time of year to share their experiences with us. This project could not have happened without you.

We would like to acknowledge the funding from the Ontario Ministry of Agriculture, Food, and Rural Affairs (OMAFRA) through the University of Guelph Partnership agreement that contributed to this research.

Last but certainly not least we would like to thank our other research team members Jennifer Ball and Kate Procter for their thoughtful contributions, insights, and new ideas which they have presented throughout the project.

Executive Summary

Cochrane District in Northeastern Ontario has a long history of agriculture which continues to have an important presence in the area. However, this sector faces several obstacles, such as aging farm operators with limited succession planning. Therefore, action must be taken in order to ensure the sustainability of current farming operations as well as take advantage of the vast agricultural opportunities present in the area. With this in mind, this study undertook to identify the strengths, weaknesses, opportunities, and threats inherent for agriculture in this part of Cochrane District as well as present strategic actions which could be undertaken in order to expand agriculture in the area.

In order to achieve this goal, several research methods were utilized, such as reviewing existing literature and data along with interviews undertaken in the region. Through this work it was identified that the southern part of Cochrane District has soil classifications and climate appropriate for several agricultural products and that obstacles tend to lie in socio-economic factors rather than agroclimatic considerations. While the climate of the area is not ideal for all crops and farming practices utilized in southern Ontario, it was identified that the right selection of crop varieties and adapted farming practices improved the feasibility of a range of products with satisfactory yields.

The final intention of this research was the creation of a range of strategic actions which may be undertaken in order to expand agriculture in the area. These actions were created based on interview findings, NeCN Agriculture Steering Committee feedback, and other research. The listing of actions include such ideas as increasing sales of local products; promotion of products and opportunities outside of the area; increased funding for infrastructure; expansion and better use of local capacity; more consideration and recognition from higher levels of government; facilitate linkages between stakeholders and potential markets; and explore unconventional agricultural opportunities. These 23 actions provide, in some detail, ideas that may be pursued in order to create a vibrant agricultural community in this area of Cochrane District with a range of scales and agricultural models.

The following comprises the second of two reports that make up this study. This report contains the Actions which have been developed which may help expand agriculture in the NeCN catchment area with specific Implementation Strategies being presented in the Report 2 Appendix. Report 1 presents background on the NeCN catchment area as well as the results of the fieldwork presented in the form of a Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis. The Appendices of Report 1 also presents a range of technical information relating to the area.

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Introduction

Agriculture has a long history in Cochrane District based upon the favourable soils of the Northern Clay Belt. However, since a peak in the mid-1900's this industry has experienced a decline with an economic shift towards other resource-based industries such as forestry and mining. Today, agriculture in the area is comparably limited and existing operations are threatened by an aging farmer population and limited uptake in the new generations. It is in the interest of municipalities and the community as a whole for agriculture to be revitalized in order to re-introduce diversification into a local economy dependent on industries subject to *boom-bust cycles*, along with the other community benefits that agriculture would provide.

With this in mind, the Northeast Community Network (NeCN) in Southern Cochrane District has partnered with Professor Wayne Caldwell of the School of Environmental Design and Rural Development at the University of Guelph to conduct a study on the opportunities for expanding agriculture within this region. This research will evaluate the current state of agriculture in the area including a Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis relating to the expansion of agriculture. This will be followed by action strategies for municipalities to consider undertaking in order to expand agriculture in their area. The overall goal of the study is to work with municipalities to identify *actionable* strategies with tangible elements which they may institute in the short and long term in order to achieve this goal.

Why Agriculture?

The rationale behind pursuing an expansion of agriculture in this region is somewhat complex and deeply rooted in culture and history. While the primary motivator is certainly economic development and the use of an underutilized resource in agricultural land for diversification of the local economy, there are additional motivators. Indeed, the fieldwork identified several additional interests or concerns that help to explain this community's interest in pursuing agriculture, particularly agriculture which produces food products.

One key issue that arose through the fieldwork is that of food security as a lens for justifying the pursuit of agricultural expansion. Indeed, due to the remoteness of the NeCN communities there are questions about food self sufficiency, especially in light of future concerns relating to peak oil or climate change.

Another key element which is less tangible, but clearly came through during the fieldwork is the historical roots of agriculture in the area and the cultural value of this industry. While less so today, agriculture was once a major sector in the NeCN catchment area and many respondents had long held ties to their operations, having been passed down through

generations. There was a clear sentiment that past generations had come to the area as pioneers and established farms on difficult terrain and that this history should be preserved.

It was also perceived that while the term was never used, people in the area valued farmland as part of their *cultural landscape* and not just as an underutilized resource. Interviewees often spoke positively of the Timiskaming District landscape and reminisced of a time when a vibrant agricultural community existed in the NeCN catchment area. There was frequent mention of *tag alders* reclaiming abandoned land with a sentiment that went deeper than a lost economic opportunity to potentially losing an element of their culture and history.

An additional intangible element is that of societal factors relating to agriculture. Even those outside the agricultural community with whom we spoke with often indicated an inherent value of agriculture in the area for societal reasons. For instance, farmers create strong, tight knit communities in rural areas with strong, and literal, ties to the land. However, there was a clear disappointment present during the fieldwork that this sector was gradually disappearing. This sentiment was particularly true in the agriculture community with one dairy farmer in particular mentioning that for social reasons he felt a decreasing interest in farming as more operations move out of the area.

Therefore, while the value of agriculture is most often framed in economic terms it is important to recognize that this sector has additional importance to the community which is more difficult to quantify, though every bit as important.

Purpose and Methodology

Study Purpose

The communities situated within Cochrane District in Northeast Ontario are economically reliant on mining and forestry. These industries face a number of challenges associated with what is often referred to as “boom and bust cycles”. As a result, the communities within Cochrane District would greatly benefit from diversification of their local economy, with one option being agricultural expansion.

While agriculture is not a significant economic contributor at present, the existence of favourable soil classifications and adequate crop heat units suggest that expansion of this sector would be feasible. Increasing agricultural land prices in Southern Ontario and forecasts associated with climate change point to the potential for enhanced agricultural opportunities in the fertile lands of Northeast Ontario.

Therefore, this study will utilize a variety of methods to evaluate the current state of agriculture in the Southern portion of Cochrane District while at the same time identifying strengths, weaknesses, opportunities, and threats relating to the expansion of this sector within the region. The primary goal of the report is to build from this foundation to provide actions and corresponding implementation strategies which the member communities of the Northeast Community Network (NeCN) may consider adopting in pursuit of their goals.

Objectives

The objectives of the study can be broken down into 6 segments as follows:

1. To evaluate the opportunities for agricultural development in Northeast Ontario from a Regional Development perspective.
2. To work with the existing agricultural community to identify opportunities and challenges regarding the role of agriculture in regional economic development.
3. To work with local municipalities and regional development organizations to profile and promote agricultural development as a regional development tool.
4. To develop a case study approach of the Northeast Community Network as a means to identify broader regional opportunities.

5. To evaluate the potential for an expanded agricultural sector resulting from predicted climate change scenarios.
6. Identification of strategic directions that achieve the goal of agricultural development.

The results of these objectives can be found in one of two reports. The first report is entitled *Current and Future Opportunities for Agricultural Development in Northeastern Ontario: A Regional Development Perspective* which contains objectives 1, 2, 3, and 5. The second report is entitled *Strategic Directions for Agricultural Development in Northeastern Ontario* which contains objectives 4 and 6.

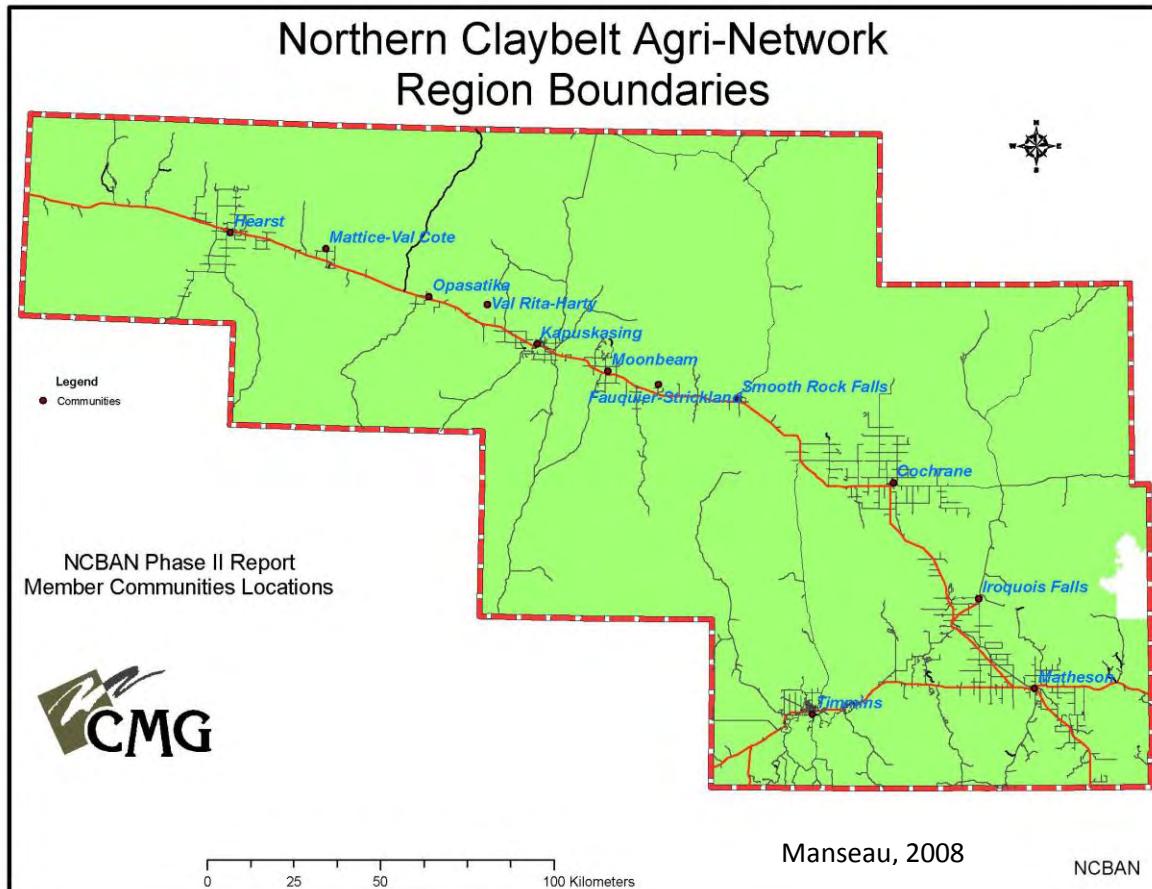
Methodology

The methodology for this project has been undertaken in several phases. First, secondary research and literature was reviewed to avoid duplication as well as obtain technical and statistical information pertaining to the area. Next, in-person interviews were undertaken in the NeCN area with various stakeholders related to the agricultural sector of the region. Furthermore, strategic action ideas were developed by the researchers in cooperation with the NeCN Agriculture Study Steering Committee which were used to develop individual implementation strategies.

Study Area

The study area for this report encompasses the boundaries of 12 municipalities and 2 First Nation communities in the South of Cochrane District. While not formally recognized as a political jurisdiction, this area is referred to as the Northeast Community Network (NeCN) catchment area. A map representing the area of study can be found in Figure 1.

Figure 1



It is important to note that because this study area is not a recognized jurisdiction, it is sometimes difficult to find data pertaining exclusively to it; particularly when referring to Statistics Canada information. In these cases data was consolidated based on the Census Subdivision level to create a single NeCN catchment area dataset.

In other cases this was not possible and the closest level of measurement was found at the Cochrane District level. For instance, the Census of Agriculture divides Cochrane District into only two lower units; Timmins and the rest. Therefore, in discussions of agriculture it is generally at the Cochrane District level. Nevertheless, as most (if not all) of Cochrane District's agricultural land falls within the NeCN catchment area as well as most of the District's population it can be considered an accurate proxy.

Review of Existing Research and Data

Throughout the NeCN Agriculture Study existing research and data was utilized to avoid duplication of effort as well as obtain pre-existing data. While several reports were reviewed, two research projects in particular were utilized as good information sources for which the NeCN Agriculture Study would build off of. First, the *Cochrane District Agricultural Economic*

Impact Study prepared by Harry Cummings and Associates in 2009 was used as a source of information specifically pertaining to the agricultural situation of Cochrane District. Another source, generally referred to as the *NCBAN Study*, was prepared by Commerce Management Group for the Northern Claybelt Agri Network and was completed in 2009. This study was used primarily for its thorough look at soil information as well as the available farm land base along with a significant amount of GIS information pertaining specifically to the NeCN Catchment Area.

Along with a review of existing research reports, existing data sources were also utilized for demographic and technical information. For instance, socio-economic and agricultural data was obtained from Statistics Canada in the form of Census of Population and Census of Agriculture findings. As well, soil information was obtained from the Canada Land Inventory and climate information was obtained from the Ontario Ministry of Agriculture, Food, and Rural Affairs (OMAFRA).

Fieldwork

Primary research was undertaken within the NeCN Catchment Area over the period of May 10 – June 17, 2011. This was predominantly undertaken in the form of semi-structured interviews with stakeholders associated with the agriculture sector in the region; a specific breakdown of interviewees is presented in Table 1. The interviews were semi-structured in nature where interviewees were guided towards answering a list of prepared questions however were also encouraged to present their own relevant experiences or ideas outside the interview questions. This allowed for more flexibility to avoid questions irrelevant for an individual's operation, as well as expand ideas, issues, or opportunities not previously considered in the drafting of the interview questions. In essence, the interview questions evolved as the situation of agriculture in the NeCN area became clearer.

The list of interview contacts began as a list prepared by members of the NeCN Agriculture Study Steering Committee and included contacts from across the area. An attempt was made to speak with each stakeholder included on the list however in some cases individuals could not be contacted or declined to participate. In addition to this base list interview participants were asked to recommend any additional contacts that should be included in the study as a form of *snowball sampling*. This process did result in some new contacts being added to the original list. In addition to the interviews, there was also opportunity to visit two key research institutions and speak with employees or researchers at the Kapuskasing Beef Research Farm and the New Liskeard Agriculture Research Station (NLARS). Furthermore, there was an opportunity to attend and participate in a consultation session on the topic of forestry, agriculture, and food for Timmins' strategic planning process on June 14, 2011.

Table 1

Interview participant category	Number of participants
Agricultural producers	27
Farming operations visited	21
Agricultural suppliers	1
Agricultural processors	1
Food stores/Farmers' Markets	5
NLARS Researchers	2
Kapuskasing Beef Research Farm Employees	2
Community Futures representatives	4
Economic Development Corporation reps	6
Other municipal employees	1
Representatives of Municipal government	4
NGO/not for profits	5
OMAFRA Representatives	2
Others involved in agriculture or food	1

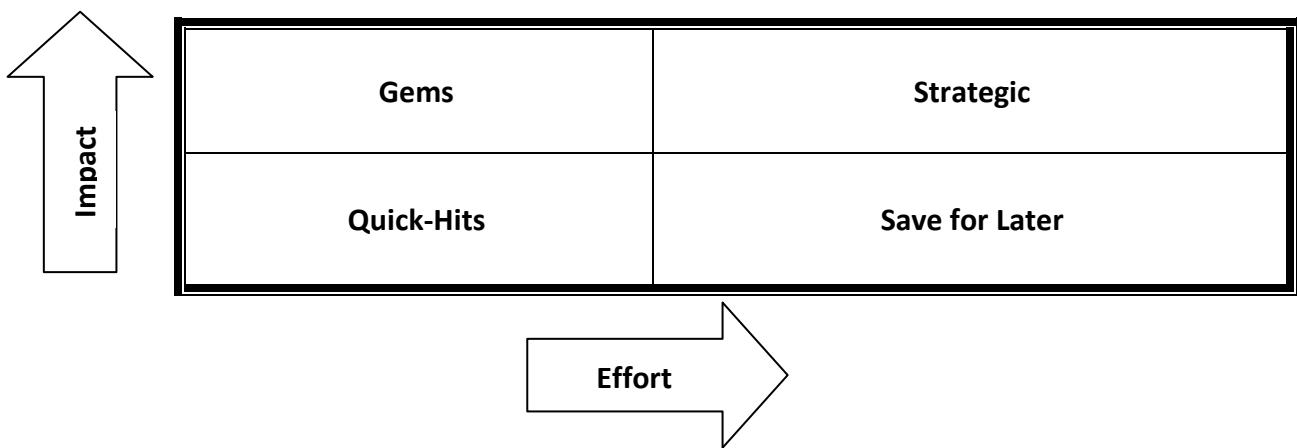
Continued Steering Committee Feedback

From the outset of the study it was identified that the NeCN Agriculture Steering Committee should play a continuing role in providing feedback and guidance for the project. To date, the Steering Committee has had one face-to-face meeting where the group was provided the opportunity to comment on the project's directions and deliverables as well as some of the early findings of the SWOT analysis. Also within this session, the Steering Committee was asked to provide a list of 3-5 potential actions that they felt would contribute to agricultural development in the NeCN area.

These action ideas were then compiled, summarized, and added to an existing list of strategic actions arising from the fieldwork. In follow up to this exercise, the Steering Committee was asked to provide feedback by prioritizing 5 actions that they felt were of key importance and 5 which they felt were of lesser importance for agriculture in the NeCN area. The results of this exercise were then used in a meeting with other members of the *Prospering with a Stable or Declining Population* research team to come up with implementation strategies for each action, and with particular emphasis paid to those deemed most valuable by the Steering Committee.

Finally, on November 4, 2011 the Steering Committee met with researchers Eric Marr and Wayne Caldwell along with contributor Jennifer Ball to present the final report. During the afternoon of this full-day event a session was held to prioritize the 23 actions presented in Report 2. This session saw the committee divided into four groups each provided with 5 or 6

actions to consider which should be pursued, but not necessarily completed, by November 2012. These actions were prioritized on a quadrant based on effort and impact with 4 categories: *Gems*, *Strategic*, *Quick-hits*, and *Save for Later*; these are presented in the following Figure. Participants were also asked to consider which actions should be pursued within a one year timeframe as well as additional criteria such as capacity; relative cost; barriers; impact; and leadership. The results of this exercise are presented later in this report.



After categorizing each action each of the four groups were asked to produce workplans for each of the items they prioritized as *Gems* and *Strategic*. The results of this exercise are presented at the end of this report in Appendix 1.

Overview of Report 1

The first of the two reports encompassing this study was entitled *Current and Future Opportunities for Agricultural Development in Northeastern Ontario: A Regional Development Perspective*. This Report presented a range of background information on agriculture in the area, including a look at its current state; the climate and soil conditions; availability of land; a community profile; and climate change projections. The report also included an analysis of the fieldwork in the form of a Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis. The key findings from this will be presented here along with a summary provided in Table 2.

Table 2: SWOT Analysis Summary

Strengths	Weaknesses	Opportunities	Threats
<ul style="list-style-type: none">• Low cost of land/lower taxes• Plenty of privately owned or cleared land unutilized• Certain products do grow well• Presence of ambitious/entrepreneurial people• Good soil quality	<ul style="list-style-type: none">• Distance to market• Limited infrastructure, suppliers, product handling, and other services• Limited on-farm infrastructure• Short growing season, frequent risk of frosts• Limited extension, outreach, and knowledge transfer services• Limited drainage• Limited access to farm financing• Limited farming culture• Some available agricultural land is inaccessible	<ul style="list-style-type: none">• Climate change• Popularity of niche markets• Cooperatives for inputs and outputs• Land/infrastructure improvements• Advancements in agriculture science• Marketing• Improvements in technology and farming practices• Greenhouses• Opportunity for organic production or those requiring isolation• Agricultural production not for human consumption• Make use of Northern specific products• Access to Northern markets	<ul style="list-style-type: none">• Aging farmers, limited succession planning• Competition for labour• Wildlife• Value of commodities• Perceived indifference from other levels of government• Perception of a limited market for local production• Future energy supplies• Shifts in political priorities

Summary of Key Findings

This section will summarize the key findings from Report 1. An overarching finding from this report is that agriculture is quite viable in the NeCN catchment area from a climate/soils perspective. Indeed, while crops commonly grown in the South of Ontario, such as corn and soybeans, are not currently viable many other products are; particularly with adapted farming practices.

Key strengths and opportunities that have particularly shone through in the area include the abundant affordable agricultural land that the area contains as well as the opportunity to market this to external audiences. Indeed, this land provides a great resource for the area however there appears to be little interest in its uptake from the local population. Therefore, a key opportunity exists to market this to existing or prospective farmers in the south who are currently subject to obstacles with obtaining land. Similarly, an opportunity exists to market specifically to Mennonite or Amish communities that may be interested in settling in the area.

Another key opportunity for the area is internal promotion of production. While the NeCN catchment area does not have a large population it may be expected that its population presents a sufficient market for selling the wide range of products currently being produced within its boundaries.

Nevertheless, some key weaknesses and threats have also become apparent through the course of this study. Indeed, the long distances to market, limited infrastructure, and somewhat limited crop choice all present challenges to agriculture, particularly in the model that exists elsewhere in the province. Further, the limited farming culture in the new generation and the aging farming community also puts existing farming operations and long-acquired farming knowledge at risk. While not *deal-breakers* by any means, these are issues that must be kept in mind as the goal of agricultural expansion is pursued.

Actions Identified by NeCN Steering Committee and Fieldwork

As described in the earlier section of this report entitled *Continued Steering Committee Feedback* on November 4, 2011 the NeCN Agriculture Study participated in a prioritization exercise by designating the 23 actions as either *Gems* (high impact-low effort); *Strategic* (high impact – high effort); *Quick Hits* (low effort-low impact); or *Save for Later* (high effort-low impact). The following section describes each action and groups them in the categories resulting from this exercise.

Gems

Dedicated resources for implementing an agriculture strategy in the NeCN catchment area

Issue: In some cases good ideas are never implemented due to resource constraints such as personnel or finances. At the same time, there are sometimes adequate resources which are not tied to a project or objective thereby causing confusion over *who* will be responsible.

Recommended General Direction: Dedicate human and financial resources to the revitalization of agriculture in the NeCN catchment area.

Specific Actions:

- Specific allocation of duties and responsibilities to NeCN members
- Dedication of financial resources
- Personnel specifically responsible for agricultural development in the NeCN catchment area

See Appendix for more details

Promote available land to Mennonite communities in Southern Ontario

Issue: Presently, the NeCN catchment area lacks many of the amenities and much of the infrastructure expected for commercial agriculture. However, an opportunity may exist for groups such as Old Order Mennonites or the Amish who may not be hindered due to differing expectations and farming practices.

Recommended General Direction: Undertake a promotional campaign targeted at Mennonite and Amish groups in Southern Ontario raising awareness of Cochrane District as an option for settlement.

Specific Actions:

- Promotional package for distribution within Mennonite and Amish communities in Southern Ontario
- Continued discussions with community leaders and research into viability
- Settlement service and single point of contact within NeCN catchment area
- Tour of region specifically for Mennonite or Amish groups

See Appendix for more details

Promotion and marketing of agricultural potential of NeCN catchment area to external audiences

Issue: In past years the abundant viable farmland in the NeCN catchment area has not seen adequate uptake from local residents. This coincides with low availability, high land costs, and many interested prospective farmers in the South of the province.

Recommended General Direction: Undertake a marketing campaign promoting the agricultural opportunities and considerable potential that the NeCN catchment area offers targeted at those in Southern Ontario and beyond.



Specific Actions:

- Marketing campaign promoting the availability of land and viability of agriculture in Cochrane District
- Website including information on agricultural opportunities and viability
- Information on non-agricultural characteristics and benefits
- Organize farm tours to area
- Support for each stage of the settlement process
- Purchasing options on land
- Advertise outside of Ontario or Canada

See Appendix for more details

Liaison with farmers to inform and support funding applications

Issue: Throughout the fieldwork there appeared to be some confusion as to what funding was available for infrastructure improvements, among other opportunities. This coincided with an apparent discomfort with paperwork and a lack or unfamiliarity with computers and the internet.

Recommended General Direction: Provide a regular update on funding opportunities as well as face-to-face support in the completion of funding applications.

Specific Actions:

- Compilation and distribution of a list of available funding sources
- Increased awareness of existing support services for the completion of funding applications
- New support service to help with the completion of funding applications

See Appendix for more details

Partnership with nearby First Nation communities as well as other communities present along the James Bay Coast

Issue: First Nation and remote communities in Northeast Ontario are often lacking in fresh and affordable food products. At the same time, NeCN catchment area farmers have the ability to produce quality meats and vegetables but often lack a market or find it difficult to compete when shipping to markets in the south.

Recommended General Direction: Establish linkages between NeCN catchment area farmers and nearby First Nation and remote communities to meet the needs of both groups.

Specific Actions:

- Mediate linkages between NeCN catchment area farmers and First Nation and remote communities
- Applications for funding
- Support area farmers in navigating distribution channels necessary for accessing these communities
- Establish produce depots within the NeCN catchment area

See Appendix for more details

Financial support for tile drainage projects

Issue: Almost without exception, farmers interviewed during the fieldwork identified that tile drainage was essential for agriculture in the NeCN catchment area. However, actual tile drainage coverage was found to be quite limited and farmers indicated that the installation of tile drainage systems was often prohibitively expensive.

Recommended General Direction: Promote or create available funding specifically for tiling of farmland in the area.

Specific Actions:

- Compile, confirm, and distribute a listing of existing funding opportunities
- Promote benefits of tile drainage internally
- New funding opportunities for tile drainage projects in the region

See Appendix for more details

Strategic

Encouraging a locally owned chain of co-ops or grocery stores selling local food

Issue: Agricultural producers have indicated that due to long distances and time limitations (short market hours and full time jobs) farmer's markets are not sufficient to sell their products or encourage them to produce more. Agricultural producers have also found it difficult to sell within retail stores.



Recommended General Direction: Encourage a stable, year-round outlet for local agricultural products to reduce time constraints imposed by seasonal farmer's markets and overcome the difficulties of selling to supermarkets.

Specific Actions:

- Provision of indoor space for farmer's markets
- Attempt to overcome obstacle of selling to supermarkets
- Promote ideas and opportunities for local farmers to come together to create outlet stores under a co-operative model
- Promote the opportunity for a privately owned business specializing in local agriculture products

See Appendix for more details

Inclusion of agriculture and food into school curriculum

Issue: During the fieldwork it was sometimes mentioned that agriculture was not considered to be a major part of the history or culture of NeCN catchment area residents. This situation may contribute to the limited interest in farming apparent in the younger generations of the NeCN catchment areas as well as the limited value that agriculture is perceived to have within the area. Furthermore, across the province there is concern over the health of youth and dietary choices.



Recommended General Direction: Promote an increased presence of agriculture and food in school activities and the taught curriculum.

Specific Actions:

- Fieldtrips to area farms from local schools
- Increase awareness of local food and its benefits
- Request inclusion of agriculture and food in school curriculum

See Appendix for more details

Create opportunities for cooperation between existing stakeholders

Issue: There are many individuals and groups within the NeCN catchment area currently pursuing similar interests but operating independently. At the same time, it was sometimes stated that the agricultural sector does not have a cooperative attitude in the NeCN catchment area.

Recommended General Direction: Promote improved cooperation within the NeCN catchment area's agricultural community.

Specific Actions:

- Establish a forum for farmers to come together and discuss their shared issues and means to resolve them
- Mediate disputes or disagreements within farming community
- Promote champions and role models within the community

See Appendix for more details

Financial support for on-farm infrastructure

Issue: Farmers within the NeCN catchment area could greatly benefit from investments in on-farm infrastructure in order to increase their efficiency, effectiveness, and competitiveness. However, most cannot afford the high costs of obtaining or installing this infrastructure.

Recommended General Direction: Encourage the increased use of existing funding programs and new funding opportunities within the NeCN catchment area in order to invest in on-farm infrastructure.



Specific Actions:

- Increased awareness of existing funding opportunities
- Apply for region-wide funding
- Lobby provincial and federal governments for dedicated funding programs
- Creation of new funding opportunities through local bodies

See Appendix for more details

Support and encourage energy production through agricultural operations

Issue: There are some limitations on what products the NeCN catchment area can grow as well as questions raised about the yields necessary for competitiveness. Therefore an alternative has been raised that energy production could be pursued either as a supplement to traditional agriculture or as an alternative venture.

Recommended General Direction: Encourage the opportunities for energy production on agricultural operations and support the necessary infrastructure.

Specific Actions:

- Promote opportunities for energy production through agriculture operations
- Support the infrastructure necessary for energy producing agriculture

See Appendix for more details

Promotion and marketing of local products to residents of the NeCN catchment area

Issue: While there are a variety of agricultural products produced within the NeCN catchment area farmers often have difficulty reaching local consumers.

Recommended General Direction: Pursue an integrated marketing and promotion campaign resulting in increased production and consumption of locally produced agriculture products.

Specific Actions:

- Awareness campaign within NeCN catchment area
- Use of local food by institutions and events
- Creation of a local agriculture network
- Local brand
- Partnership with High School/College courses
- Encourage and support local food in retail stores

See Appendix for more details



Encouraging and supporting off-farm infrastructure

Issue: A lack of off-farm infrastructure within the NeCN catchment area is widely recognized as a major hindrance to agricultural expansion. This includes suppliers for machinery as well as inputs such as fertilizer, feed, seeds and other agriculture needs. It also includes the lack of a grain elevator or rail depot. It was identified that abattoir services are lacking or inadequate and would benefit from support. Further, a limited distribution network was identified as an obstacle for transportation to markets.



Recommended General Direction: Encourage and support investments in off-farm infrastructure to help keep existing operations viable and attract new operators.

Specific Actions:

- Promote business opportunities to private sector
- Raise awareness of existing off-farm infrastructure and support their development
- Mediate and foster the creation of co-operatives for off-farm infrastructure developments
- Support the development of new off-farm infrastructure initiatives

See Appendix for more details

Support existing and beginning farmers with acquiring loans and financing

Issue: A common issue for farmers found to exist within the NeCN catchment area is limited access to loans and financing. There is limited access to agricultural specialists in area banks and no Farm Credit Canada office located within the region.

Recommended General Direction: Support improved access to loans and financing for NeCN catchment area farmers at reasonable interest rates.

Specific Actions:

- Compilation and distribution of a list of available funding sources
- Discussions with area banks and Farm Credit Canada
- Creation of new funding opportunities for area farmers

See Appendix for more details

More involvement with New Liskeard Agriculture Research Station (NLARS) and the Kapuskasing Beef Research Farm

Issue: These two research stations are a great asset for the NeCN catchment area. However, they do not presently appear to be providing as much value to the community as they could.

Recommended General Direction: Request and encourage better use of local research stations by undertaking Northern specific research and disseminating findings to the agricultural community.



Specific Actions:

- Lobby for changes in research station mandates
- Establish scholarship or research funding
- Facilitate linkages with international partners and private investors

See Appendix for more details

Quick-Hits

Consideration of small scale farmers/operations and northern conditions in formulation and enforcement of regulations

Issue: It is commonly stated that small farmers in the NeCN catchment area are unfairly subjected to rules and regulations designed for large scale operators. This is frequently cited in the area of food safety regulations that can create high costs for small farmers and abattoirs with limited financial support to adhere to them. It can also limit the ability to sell at local markets or to larger retailers.



Recommended General Direction: Request special consideration for small scale farmers/agribusinesses and northern conditions in the design and enforcement of regulations which impact agriculture.

Specific Actions:

- Lobby provincial and federal governments for specific consideration of the conditions of northern farmers and small scale operations in the formulation of policies and regulation
- Meet with Members of Parliament and Provincial Parliament representing the area

See Appendix for more details

Save for Later

Support for new farmers

Issue: It is essential for agricultural expansion in the NeCN catchment area to have new farmers start up in the area. However a significant obstacle is acquiring the loans and financing necessary to start such operations. As well, farmers new to the area will require information on viable crops, farming practices, and settlement support.

Recommended General Direction: Support new farmers in accessing the finances necessary to take up farming in the area as well as help newcomers settle in the region.

Specific Actions:

- Mentorship program
- New farmer network
- Compilation and distribution of information on funding support for new farmers
- Information on farming in the NeCN catchment area
- Settlement support services for prospective and new farmers
- Creation of funding opportunities for new farmers

See Appendix for more details

Evaluate and disseminate opportunities for non-food producing agriculture

Issue: Due to the somewhat limited choice in crop production within the NeCN catchment area along with long distances to markets and associated spoilage, there may be an alternative in non-food producing agriculture.

Recommended General Direction: Evaluate the viability of agriculture for industrial purposes and disseminate opportunities.

Specific Actions:

- Undertake specific research on opportunities for non-food producing agriculture
- Promote opportunities for non-food producing agriculture

See Appendix for more details

Better compensation for wildlife damage

Issue: While not a major issue for agricultural operations in the area, wildlife damage is a common problem that most farmers do contend with. Farmers also often perceived that existing compensation mechanisms were insufficient.

Recommended General Direction: Request for more sufficient wildlife damage compensation considering the conditions of Northeast Ontario.

Specific Actions:

- Request new or expanded wildlife damage compensation programs

See Appendix for more details

Services/subsidies comparable to Quebec to even playing field

Issue: There is a widely held perception among NeCN catchment area farmers that farmers on the Quebec side of the border have a competitive advantage resulting from an increased number of service and subsidies from their provincial government.

Recommended General Direction: Request improved services and subsidies comparable to Quebec for agricultural operators in Northeast Ontario.

Specific Actions:

- Request services and subsidies equivalent to Quebec's for Northeast Ontario farmers
- Make use of the situation in Quebec in arguments for improved services and support

See Appendix for more details

Recognition of agricultural value and potential in the NeCN area from other levels of government

Issue: There is a common perception in the NeCN catchment area that agriculture in the region is not valued, or even discouraged, by other levels of government.

Recommended General Direction: Request formal recognition and support for the agricultural sector of the NeCN catchment area.

Specific Actions:

- Meet with the Minister of Agriculture, Food, and Rural Affairs for Ontario
- Request improved soil and climate data
- Request improved accuracy of estimates for agricultural production

See Appendix for more details

Evaluate and promote the potential of unconventional agricultural opportunities.

Issue: Questions have been raised regarding the competitiveness of the NeCN catchment area for traditional agricultural operations. Therefore opportunities to make use of the area's assets and competitive advantages may be available.

Recommended General Direction: Evaluate the potential of unconventional or non-traditional agricultural ventures and promote opportunities.

Specific Actions:

- Evaluate opportunities for unconventional and non-traditional agriculture
- Promote opportunities for unconventional and non-traditional agriculture

See Appendix for more details

Create and promote opportunities for learning within the agriculture community

Issue: The NeCN catchment area contains few opportunities for learning within the agricultural community such as limited extension and outreach services.

Recommended General Direction: Create and promote opportunities for learning within the agricultural community through the use of peer-learning, extension, and outreach.

Specific Actions:

- Promote existing opportunities for learning
- Request increased involvement of research stations in outreach and information distribution
- Support the creation of a peer-to-peer learning network
- Request a dedicated OMAFRA extension office located within Cochrane District

See Appendix for more details

Summary Table of Categorized Actions

<p>Gems</p> <ul style="list-style-type: none"> • Dedicated resources for implementing an agriculture strategy in the NeCN catchment area • Promote available land to Mennonite communities in Southern Ontario • Promotion and marketing of agricultural potential of the NeCN catchment area to external audiences • Liaison with farmers to inform and support funding applications • Partnership with nearby First Nation communities as well as other communities present along the James Bay Coast • Financial support for tile drainage projects 	<p>Strategic</p> <ul style="list-style-type: none"> • Encouraging a locally owned chain of co-ops or grocery stores selling local food • Inclusion of agriculture and food into the school curriculum • More involvement with New Liskeard Agriculture Research Station (NLARS) and the Kapuskasing Beef Research Farm • Create opportunities for cooperation between exiting stakeholders • Financial support for on-farm infrastructure • Promotion and marketing of local products to residents of the NeCN catchment area • Encouraging and supporting off-farm infrastructure • Support and encourage energy production through agricultural operations • Support existing and beginning farmers with acquiring loans and financing
<p>Quick-Hits</p> <ul style="list-style-type: none"> • Consideration of small scale farmers/operations and northern conditions in formulation and enforcement of regulations 	<p>Save for Later</p> <ul style="list-style-type: none"> • Support for new farmers • Evaluate and disseminate opportunities for non-food producing agriculture • Better compensation for wildlife damage • Services/subsidies comparable to Quebec to even playing field • Recognition of agricultural value and potential in the NeCN catchment area from other levels of government • Evaluate and promote the potential of unconventional agricultural opportunities • Create and promote opportunities for learning within the agricultural community

Conclusion

To conclude, this report has presented possible actions which could be pursued in order to achieve the goal of an expanded agricultural sector in the NeCN catchment area. These actions were created through community consultation and prioritized by the representatives of the NeCN Agriculture Study Steering Committee. Within Appendix 2 of this report Implementation Strategies relating to these actions can be found. These will present a starting point to ignite action towards the goal of agricultural expansion as well as provide guidance towards its pursuit.

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Photo Credits: Each photograph included in this report was taken within the NeCN catchment area by one of the researchers.

Appendix 1: Workplan Creation Exercise Results

As described earlier in this report, on November 4, 2011 a full-session was held with the NeCN Agriculture Steering Committee to prioritize the 23 strategic actions resulting from this study. In addition to prioritizing these actions, participants were asked to create workplans for each item that their group identified as the highest priorities for pursuing within the next year. These preliminary workplans are intended to provide a starting point for the committee to create more detailed workplans in order to work towards accomplishing the goal of agricultural expansion in the NeCN catchment area.

The following presents the results of this exercise based upon worksheets filled out by the NeCN agriculture committee members participating in the session.

High Priority
The Action: Dedicated resources for implementing an agriculture strategy in the NeCN catchment area
Who should take responsibility?
<ul style="list-style-type: none">• NeCN
When? (timeframe, start date)
<ul style="list-style-type: none">• Begin within next year
Length of project (expected completion time)
<ul style="list-style-type: none">• Complete within next year
Other resources required
<ul style="list-style-type: none">• Dedicated NeCN staff• Steering committee involvement
Relative Priority: High

The Action: Liaison with farmers to inform and support funding applications

Who should take responsibility?

- BEC
- NeCN
- Local farm organizations

When? (timeframe, start date)

- Within first quarter of 2012

Length of project (expected completion time)

- 2 years

Other resources required

- Involvement from financial institutions; CFDC's; and OMAFRA

Relative Priority: High

The Action: Promote available land to Mennonite communities in Southern Ontario

Who should take responsibility?

- Politicians
- Economic Development
- Request support from Mennonite community members

When? (timeframe, start date)

- After land inventory completed

Length of project (expected completion time)

- Ongoing

Other resources required

- Land inventory
- Attraction strategy
- Marketing tools

Relative Priority: High

The Action: Promotion and marketing of local products to residents of the NeCN catchment area

Who should take responsibility?

- OMAFRA
- Foodland Ontario
- NeCN

When? (timeframe, start date)

- Within one year (then re-examine)

Length of project (expected completion time)

- 1 year

Other resources required

- Coordinator
- IT expertise
- College involvement

Relative Priority: High

The Action: Financial support for tile drainage projects

Who should take responsibility?

- Coordinator
- EDC's
- BEC's

When? (timeframe, start date)

- Already started
- When coordinator in place

Length of project (expected completion time)

- Ongoing

Other resources required

- Personnel:
 - Coordinator
 - Intern (to gather tile drainage information): Summer student?
- Now:
 - Information gathering
 - Communication plan
 - Dissemination to farmers
- Later:
 - Lobbying for funding
 - EDC working with farmers to access funding

Relative Priority: High

The Action: Financial support for on-farm infrastructure

Who should take responsibility?

- NeCN as a whole

When? (timeframe, start date)

- Within the year: timing is particularly good due to government change

Length of project (expected completion time)

- 6 months to 1 year

Additional Resources Required

- Involvement from CFDC's; EDC's; local agriculture groups; and farmers

Relative Priority: High

The Action: More involvement with New Liskeard Agriculture Research Station (NLARS) and the Kapuskasing Beef Research Farm

Who should take responsibility?

- NeCN and NEOMA should be involved in efforts to save the research stations
- Should approach this from a regional focus and make the case that continuing agricultural research is strategic for developing agriculture in the area. Should also consider diversifying mandate – NeCN using the dedicated resources

When? (timeframe, start date)

- Political action – immediate
- Once the continuation of the facilities are confirmed

Length of project (expected completion time)

- Once the local agenda is identified this will only require continued support (need to keep data available)

Other resources required

- Political level: NeCN executive (resource to be tapped into) and human resources

Relative Priority: High

The Action: Partnership with nearby First Nation communities as well as other communities present along the James Bay Coast

Who should take responsibility?

- EDC (Brenda) and CFDC (Ellen)

When? (timeframe, start date)

- ASAP – hiring a coordinator in process

Length of project (expected completion time)

- Ongoing

Other resources required

- Speak to coordinator of TADAP and steering committee to gauge interest
- Invite TADAP coordinator to steering committee
- Invitation to sit in on meeting (if committee approves)
- Discussion by steering committee having intentional representation of First Nations on committee

Relative Priority: High

The Action: Promotion and marketing of agricultural potential of NeCN catchment area to external audiences

Who should take responsibility?

- EDC's: need one to take the lead

When? (timeframe, start date)

- Starting now

Length of project (expected completion time)

- Different phases, but ongoing

Other resources required

- Consulting resources
- Dedicated staff: Existing staff to make funding applications, etc.

Relative Priority: High

Medium Priority

The Action: Inclusion of agriculture and food into school curriculum

Who should take responsibility?

- Schools
- Local leaders
- Public Health Unit
- Volunteers

When? (timeframe, start date)

- Begin programs ASAP
- Pursue curriculum inclusion later

Length of project (expected completion time)

- Ongoing

Other resources required

- Volunteers
- Community gardens

Relative Priority: Medium

The Action: Encouraging a locally owned chain of co-ops or grocery stores selling local food

Who should take responsibility?

Local non-governmental organizations (i.e. AGRIVA)

When? (timeframe, start date)

- Already starting in some places
- Should be pursued now

Length of project (expected completion time)

- Ongoing

Other resources required

- Municipal government and CFDC involvement (i.e. support indoor selling facilities and creation of a facilitator position)

Relative Priority: Medium

The Action: Encouraging and supporting off-farm infrastructure

Who should take responsibility?

- NeCN
- EDO's
- OMAFRA
- FedNor
- Co-Ops
- NOHFC

When? (timeframe, start date)

- Within one year

Length of project (expected completion time)

- 1 year

Other resources required

- Catalogue of existing infrastructure
- Intern

Relative Priority: Medium

The Action: Create opportunities for cooperation between existing stakeholders

Who should take responsibility?

- Dedicated resource (personnel)
- In absence of a dedicated resource, a designated EDC

When? (timeframe, start date)

- 1-3 years away

Length of project (expected completion time)

- Ongoing

Other resources required

- Involvement from EDC's; CFDC's; government agencies

Relative Priority: Medium

Low Priority

The Action: Support and encourage energy production through agricultural operations

Who should take responsibility?

- Municipalities (Hearst and Kapuskasing already involved)

When? (timeframe, start date)

- Sometime in 2012

Length of project (expected completion time)

- 4-5 years

Other resources required

- Seminars
- Involvement from Nipissing University; Northern Ontario Value Added Initiative (Peter A. Åsman); University of Guelph

Relative Priority: Low

Implementation Strategies

Report 2: Appendix 2

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Implementation Strategies

The following section will build upon the *Actions* identified earlier in Report 2. The intention is to provide an appropriate level of detail as to how these actions could be implemented. It is important to note that thorough and comprehensive research into each of these actions was beyond the purview of this report. Thus, the following implementation strategies should not be taken as end-all solutions but rather as starting points for further considerations and, in some cases, further research.

It will be noted that each Implementation Strategy is broken down into Short Term and Long Term actions. The intention is to provide ideas for what could be done today, or in the near future, and what could be viewed as a goal to be worked towards.

As well, wherever possible sections include case studies from within the NeCN catchment area as well as examples from outside this region. These often provide an excellent source of models, contacts, and general expectations when pursuing these actions.

How to Use This Section

This section of the report is not intended to be read through cover-to-cover and instead should be viewed as a reference relating to a wide range of possible actions for expanding agriculture within the NeCN catchment area. It is suggested that those using this document make use of the Table of Contents to go directly to their areas of interest as reading this section in its entirety would presumably be overwhelming and therefore ineffective.

It should also be noted that every action throughout this appendix is not expected to be adopted by the NeCN. Instead, each action provides an implementation strategy containing a list of options that should be considered. Indeed, the priorities of the NeCN will have to be considered within their own resources and community needs in order to determine which options are most appropriate for their own goals, priorities, and situations.

General Recommendations

There are a few general or overarching recommendations that cut across the various Implementation Strategies within this report. These include:

- **Website:** The creation of an integrated website for housing the various outcomes of the implementation strategies and presenting a single point for accessing information on a wide range of topics.

- **Personnel:** New or existing personnel should be allocated the responsibility of seeing actions deemed valuable through to fruition. All too often good ideas are never implemented simply because there is confusion or miscommunication over *who* will make it happen. The NeCN should take steps to avoid this issue.
- **Use Existing Resources:** The fieldwork for this project identified many energetic, innovative, and passionate people and groups within the NeCN catchment area. Going forward, these individuals and groups should be utilized as role models and champions for making actions happen.
- **Communication:** The fieldwork also found that many people were unaware of programs and services that are presently offered within the area. Indeed, it is important to note that in some cases the solution to a problem will not necessarily be the creation of a new program or service but rather better communication of existing programs and services.
- **Foster Cooperation:** It is also important to keep in mind that in some solutions the NeCN would only be required as a liaison or mediator. In these cases, existing individuals or groups can come together to play a hands-on role while the NeCN fosters cooperation and communication between them. These will be most effective as it requires little hands-on work or finances from the NeCN.
- **Regular Newsletter:** Many farmers in the area do not have, or are uncomfortable with, computers. Therefore, it would be worthwhile to distribute a paper copy of a newsletter on a regular basis (i.e. monthly, quarterly). This newsletter can be used to help foster a sense of community within the NeCN catchment area's agriculture sector. More importantly, it can be used to raise awareness of: events; improved farming practices or crop varieties; funding opportunities and deadlines; success stories or innovative ideas; among other topics. There may even be an opportunity to get a regular contribution from the regional OMAFRA office and/or one of the research stations discussing what they are working on and practical findings. The NeCN may also consider partnering with the Ontario Federation of Agriculture (OFA) to deliver this newsletter and/or make use of municipal tax mailouts to deliver the message.

Dedicated Resources for Implementation

Strategic Action: Dedicated resources for implementing an agriculture strategy in the NeCN catchment area

Recommended General Direction: Dedicate human and financial resources to the revitalization of agriculture in the NeCN catchment area.

Dedicated human and financial resources will be required in order to successfully implement the strategies necessary to revitalize the agricultural sector in the NeCN catchment area.

Objectives:

- I. New or existing personnel responsible for implementation of strategies.
- II. Allocation of financial resources allocated through the NeCN.

Implementation Strategy:

Specific actions in support of recommended general direction

Short term:

- **Specific allocation of duties and responsibilities to NeCN members**
 - a. In order to accomplish the goals of the NeCN it will be essential that responsibilities be clearly defined and provided to specific individuals. All too often there is confusion and miscommunication as to who will implement a strategy or oversee a project.
 - b. Therefore, those that are responsible for overseeing an implementation strategy should be clearly defined presumably on a volunteer basis.
- **Dedication of financial resources**
 - a. It will be important to provide financial resources for the completion of the projects and strategies necessary for achieving the NeCN goals. While some implementation strategies will require person-hours rather than funding, many of the implementation strategies will require funding to be successful.
 - b. It will also be important to note the funding opportunities provided by external sources and other levels of government which can be used for achieving these agriculturally related goals. In many cases the role of the NeCN will not necessarily be funding directly, but rather applying for funding and managing its distribution.

Long Term:

- **Personnel specifically responsible for agricultural development in the NeCN catchment area**
 - a. In time, it would be beneficial for the NeCN to hire a community economic development specialist with the specific role of overseeing projects and implementing strategies.
 - b. This role would report directly to the NeCN Board of Directors, or a Steering Committee, and be responsible specifically for achieving the goals set out by the NeCN organization.
 - c. There may be an opportunity to apply for grant funding to create such a position, such as through the Ontario Trillium Foundation or the Northern Ontario Heritage Fund Corporation (NOHFC).

Why do this?

In order to successfully implement the strategies contained within this report dedicated resources will be necessary. Indeed, in every case personnel (new or existing) will be required to undertake the work necessary to achieve the goals and in many cases, financial resources will be required as well.

Outcomes and Impacts

Outcomes:

- New or existing personnel specifically tasked with seeing implementation strategies through to fruition.
- Financial resources dedicated to projects aimed at revitalizing agricultural sector in NeCN catchment area.

Impacts:

- Achievement of goals and successful completion of projects.

Promotion to Mennonite Communities

Strategic Action: Promote available land to Mennonite communities in Southern Ontario

Recommended General Direction: Undertake a promotional campaign targeted at Mennonite and Amish groups in Southern Ontario raising awareness of Cochrane District as an option for settlement.

There may be a role for the NeCN in promoting the area to Old Order Mennonite and Amish communities in Southern Ontario as well as work with Mennonite settlement services to find obstacles to settlement in the area and opportunities to overcome them.

Objectives:

- I. Promotional package available for Mennonite and Amish groups in Southern Ontario.
- II. Settlement liaison based in the NeCN catchment area.

Implementation Strategy:

Specific actions in support of recommended general direction

Short term:

- **Promotional package for distribution within Mennonite and Amish communities in Southern Ontario**
 - a. A promotional package should be created highlighting the agricultural opportunities within the NeCN catchment area with particular emphasis on the availability, viability, and affordability of land within the area.
 - b. The promotional package should also include information on the way of life and values which communities in Northeast Ontario share. It should also include information on the availability of services within the area.
 - c. It would be worthwhile to include success stories of other Mennonite groups which have settled in nearby regions such as in Desbarats, near Sault Ste Marie and in Timiskaming.
 - d. This information package should be distributed to Mennonite and Amish leaders, such as Bishops, in Southern Ontario. It will also be important to follow up with these individuals, ideally in person, to form a personal relationship.
- **Continued discussions with community leaders and research into viability**
 - a. It will be important to continue discussions with community leaders to find obstacles to settlement in the area and how they might be addressed. As well, there is a significant number of sects within the overarching Mennonite or Amish terms with some more suited to the region than others.
 - b. For instance, Lyndsay Mollins Koene of the Mennonite Central Committee of Ontario states that while in appearance some Mennonite groups would seem to live traditional lives, in terms of dress or use of buggies, they may also make use of electricity and modern farm equipment in their agricultural operations.
 - c. Therefore, it will be important to establish and continue discussions with Mennonite or

Amish leadership to discuss individual community needs and expectations while keeping in mind that these will not necessarily be shared by every group.

Long Term:

- **Settlement service and single point of contact within NeCN catchment area**
 - a. In order to help facilitate the settlement of a Mennonite or Amish community a single point of contact should be created or appointed. This can allow for relationship building between the NeCN and Mennonite or Amish communities in the south. It can also improve efficiency and avoid complications resulting from each NeCN municipality attempting to work independently; particularly with a group with limited communication methods.
 - b. In parallel, a form of settlement service should be created to work with Mennonite or Amish communities in meeting their community expectations and help them find available land. For instance, consultations may indicate that the community expects to be within a one day buggy ride from a settlement providing supplies. Surely a representative from the NeCN would be most appropriate to help identify appropriate areas with available farmland.
 - c. This settlement service should also support these newcomers once they settle in the area in meeting their unique needs. There has already been at least one recent attempt to establish an Old Order Mennonite community in Cochrane District; however this group did not remain. This unfortunate situation may be overcome with the availability of a service offering support to these groups and helping them overcome any obstacles they encounter, before they decide to move elsewhere.
- **Tour of region specifically for Mennonite or Amish groups**
 - a. Another means to raise awareness of the opportunities within the NeCN catchment area would be a tour of the region and the opportunity to visit some good examples of operating farms.
 - b. It can be expected that this would be the best way to clearly present the agricultural potential to the Mennonite or Amish communities as well as demonstrate the way of life that can be expected by settlers in the region.

Why do this?

Old Order Mennonite and Amish communities sometimes move their groups away from urbanizing areas in search of places more in keeping with their way of life. Mennonites are also good farmers who may not be hindered by the long distances to external markets or the lack of machinery providers. From an agricultural sense they would be ideally suited to the conditions of the NeCN catchment area and would provide an excellent starting point for agricultural expansion.

Socially they also would appear to be well suited to the relatively remote location of the NeCN catchment area from the large centres of Southern Ontario. However there has been some indication that there are some elements that they seek in communities before they would consider moving to them.

Outcomes and Impacts

Outcomes:

- Promotion package created and distributed to Mennonite and Amish community leadership in Southern Ontario
- Settlement service and point of contact for those interested in settling in the area to help meet community needs.

Impacts:

- Increased awareness of the availability of land and opportunities in the NeCN catchment area within Mennonite and Amish communities and leadership.
- Means for NeCN representatives to work with Mennonite or Amish leadership to overcome barriers to settlement and help facilitate the process where appropriate.

Relevant Examples

Additional sources

- Mennonite Central Committee of Ontario: <http://ontario.mcc.org/lowgerman>

External Promotion of Agricultural Potential

Strategic Action: Promotion and marketing of agricultural potential of NeCN area to external audiences

Recommended General Direction: Undertake a marketing campaign promoting the agricultural opportunities and considerable potential that the NeCN catchment area offers targeted at those in Southern Ontario and beyond.

The NeCN catchment area has considerable agricultural potential which should be promoted and marketed outside the region. In particular, there are current and potential farmers in southern Ontario that are not aware of the benefits and potential of agriculture in Cochrane District who may consider moving to the area.

Objectives:

- I. Marketing campaign in Southern Ontario promoting the opportunities and benefits of agriculture in Cochrane District.
- II. Website providing information on Cochrane District, including information on agriculture practices, lifestyle, available land, among other practicalities.

Implementation Strategy:

Specific actions in support of recommended general direction

Short term:

- **Marketing campaign promoting the availability of land and viability of agriculture in Cochrane District**
 - a. A key method of promoting Cochrane District is the use of agricultural periodicals such as *Better Farming* and *Ontario Farmer*. An option for doing so would be to retain a journalist to write an article (or series) on success stories in the area.
 - b. Another important aspect will be having a presence at fairs, farm shows, and other agricultural events. For instance, a booth at the Royal Agricultural Winter Fair would provide considerable exposure for Cochrane District and an opportunity to reach a large audience and easily dispel myths.
- **Website including information on agricultural opportunities and viability**
 - a. A key aspect of the promotion campaign should be a dedicated website providing a range of information on Cochrane District. Within this, information should be provided on the agricultural potential of Cochrane District and the benefits of farming in the region, such as the low cost of land. Similarly, information should be provided on viable crops and, ideally, necessary farming practices for the North which newcomers presumably would not know.
 - b. In addition to general information on agricultural opportunities, it would be ideal to include a means to find land for sale. This may include linkages with real estate offices in the area, local contacts with knowledge of land for sale, or even a place for those selling land in the area to advertise.

- **Information on non-agricultural characteristics and benefits**
 - a. It will be important to provide information on non-agricultural benefits within Cochrane District when attempting to attract newcomers. Indeed, Northeast Ontario is very different from Southern Ontario and anyone considering moving will require information on these communities in order to meet their lifestyle expectations. For instance, if one is interested in moving to Cochrane District but also expects city-style amenities, adjacent to Timmins will be the best choice. However this would not be apparent to anyone who has not visited Northeast Ontario and is accustomed to Southern Ontario distances.
 - b. It will also be important to promote the non-agricultural opportunities within Cochrane District when attempting to attract newcomers. For instance, the promotion website should present the opportunities for recreation and lifestyle choice offered by the broad range of landscapes and very different communities within the area. It should also raise awareness that there are small to medium sized settlements within the NeCN catchment area which are much the same as in Southern Ontario.
 - c. A good example for how this might be approached can be found in the PARC example described earlier in this section.
- **Organize farm tours to area**
 - a. Another means to spread the word about the benefits and opportunities for agriculture in Cochrane District would be to organize farm tours.
 - b. There is a wide range of groups who already participate in tours and may be interested in this opportunity. Such as: the Junior Farmers' Association of Ontario, Ecological Farmers of Ontario, Ontario Dairy Goat Cooperative, and more.
 - c. This would likely require some funding be put forward to offset the costs of transportation and accommodations although there is an assumption that a participation fee will be applied.

Long Term:

- **Support for each stage of the settlement process**
 - a. In time, it would be beneficial for a website and personnel to be available to support prospective newcomers through each aspect of their settlement process.
 - b. This would begin with background information on the area for those unfamiliar with the area and its realities.
 - c. Information on agricultural opportunities (i.e. available land, viable crops, climate, soils).
 - d. Information on lifestyle, recreation opportunities (i.e. outdoor opportunities, family friendly environment, strong community ties).
 - e. Information on community characteristics. For instance, it would be useful to provide some means of matching lifestyle expectations to community characteristics (i.e. if one likes cities they should leave near Timmins, if someone seeks a more secluded environment they may fit best elsewhere). Similarly, if prospective newcomers need certain institutions (for a specific religion for instance) it would be useful to be able to provide where these are located and thereby what communities best fit the needs of these newcomers.
 - f. Information and support in finding housing/land availability: It would be ideal to have a contact person support individuals in their search for available farmland and housing as well as information on listings wherever possible.
 - g. Support in integrating with the community: The movement of a newcomer to the area should not be the end of their support. If an individual or family has difficulty integrating,

- they may not remain in the area. Therefore, ongoing integration support would be worthwhile.
- h. Similarly, if these newcomers' farming operation fails they will not remain in the community. Therefore, it would be beneficial to provide on-going support in growing the agricultural operation, including information on necessary farming practices, business counselling, etc. This may be accomplished through the counselling and funding application support provided by the Community Futures Development Corporations as well as through a network of local groups and a mentorship program.
- **Purchasing options on land**
 - a. A fairly hands-on option for the NeCN may be to participate in option to purchase agreements with landowners in the area. Essentially, this means that the organization will *purchase* the option (but not obligation) to buy a set piece of land for a relatively small lump sum put forward with the option remaining in place for a specified time period.
 - b. This would provide a very strong method for marketing the available land in the area, as it would be much more effective to say 'this land is available for purchase today at this price' than merely stating that land is generally available in the area.
 - c. This option also provides an opportunity to sell particularly good land that landowners may be interested in selling but are not actively advertising. This could be accomplished through consultation with landowners in the area.
 - **Advertise outside of Ontario or Canada**
 - a. While the beginning of this campaign should begin in Ontario there may be opportunities to expand the campaign to other parts of Canada and internationally.
 - b. For instance, due to the high proportion of French speakers in the NeCN catchment area, there may be an opportunity to undertake a marketing campaign in Quebec or New Brunswick in order to take advantage of this local asset.
 - c. Another opportunity may be a marketing campaign in Europe, where land is very costly and difficult to obtain. In particular, Scotland and the Scandinavian countries may provide a particularly good opportunity due to their similar climate.
 - d. Steinbach, Manitoba has been quite successful in this regard and may provide a good example for the NeCN.

Why do this?

The NeCN catchment area contains a substantial amount of viable farmland currently being unused. As well, while some products are not currently viable, such as soybeans and corn, many other products are. This presents a great opportunity for encouraging new farmers to come to the area with their capital and agricultural knowledge. An obvious source for these newcomers is southern Ontario. This is particularly true given the very high cost of land in southern Ontario and the very low cost in the Northeast. As well, there are many in the new generation in southern Ontario who strive to become farmers but who cannot afford the start-up costs.

For these groups the North would be very attractive, however many likely have not considered this option either due to a lack of exposure or inaccurate assumptions of the viability of

agriculture in this area. Thus, a marketing campaign could increase awareness, dispel myths, and promote opportunities.

Outcomes and Impacts

Outcomes:

- Marketing campaign making use of agricultural magazines, fairs, farm shows, and other events.
- Website providing information on opportunities for agriculture in the area and benefits. The website should also provide information on viable crops and necessary farming practices for the North.

Impacts:

- Increased use of agricultural land in the region.
- New farmers to replace those nearing retirement.
- Revitalization of farming culture and the agricultural community in the region.
- Influx of farming knowledge from the south mixed with local knowledge of farming in the north.
- Capital, machinery, and other investment necessary for farming in the area.

Relevant Examples

External:

Parkland Agricultural Resource Cooperative (PARC) - <http://www.parklandmanitoba.ca/index.php>

The Parkland Agricultural Resource Cooperative (PARC) is a cooperative organization of 9 municipalities in the Parkland region of Manitoba. The communities are focused on developing value-added opportunities for the abundance of raw resources available in the region. The group uses a balanced approach by promoting opportunities through an economic and agricultural lens while also promoting lifestyle and community benefits.

The PARC organization promotes this area of Manitoba through a comprehensive look at the advantages and opportunities within the region. This includes information on local assets and opportunities as well as promotional handouts and electronic brochures. Areas of promotion include lifestyle, community, economy, history, climate, geography, and of course agriculture. The website includes a wealth of information for prospective newcomers within a number of categories.

The group also participates in the development of a number of projects, including: a bio-industrial park; ethanol plant; canola crusher and bio-diesel plant; among others. At the same time, the group provides information on additional opportunities recognized within the region.

Additional sources

- Steinbach, Manitoba: http://www.steinbach.ca/steinbach_life/im_new_to_steinbach/
- “Benchmarking Rural Ontario Community Attractiveness to Newcomers”: <http://ruralontarioinstitute.ca/blog/post/New-Tool-for-Rural-Ontario-Communities-Under-Development.aspx>

Support Funding Applications

Strategic Action: Liaison with farmers to inform and support funding applications

Recommended General Direction: Provide a regular update on funding opportunities as well as face-to-face support in the completion of funding applications.

Some of those within the broader agricultural sector within the NeCN catchment area have been found to be unaware of funding opportunities or uncomfortable with computers or paperwork. Therefore, there would be a role for the NeCN in informing these individuals about opportunities for funding as well as providing support with completing applications.

Objectives:

- I. A regularly updated list of funding opportunities available to farmers and the broader agriculture sector (i.e. processors, suppliers).
- II. Information on available support for completing applications.
- III. Potentially, a dedicated support service to help those involved in this sector with the completion of funding applications.

Implementation Strategy:

Specific actions in support of recommended general direction

Short term:

- **Compilation and distribution of a list of available funding sources**
 - a. In order to raise awareness of funding sources and increase the chance of acceptance within the area, a regularly updated listing of funding sources should be compiled and distributed both online and within a newsletter.
 - b. The listing should include opportunities from the various agencies which may be applicable, but not necessarily obvious. For instance, opportunities from OMAFRA, AAFC, NOHFC, MNDMF, should all be included. However, opportunities for loans or grants from other organizations, such as the Community Futures Development Corporation, should also be included.
- **Increased awareness of existing support services for the completion of funding applications**
 - a. In order to increase the success of applications from the agricultural community within the NeCN catchment area, support should be provided in the completion of applications. For instance, farmers are often adverse to paperwork or are unfamiliar with language expected from those considering applications. This is an expertise already present within the NeCN.
 - b. This support service is largely available within the NeCN catchment area already as offered through the various Community Futures Development Corporations and Economic Development Corporations; however the fieldwork found that few were aware of such services. Therefore, it would be valuable to raise awareness of these opportunities within this sector.

- c. Inclusion in a newsletter/mail out may be adequate to achieve this goal. As well, making use of word-of-mouth may also be appropriate, particular by starting with existing organizations such as the Ontario Soil and Crop Improvement Association (OSCIA), AGRIVA, the Cochrane Federation of Agriculture, among others.

Long Term:

- **New support service to help with the completion of funding applications**
 - a. If the existing support services offered by the Community Futures Development Corporation and Economic Development Corporation are found to be inadequate a dedicated service may be warranted to help support applications.
 - b. Presumably this will not be necessary however it is something to keep in mind.

Why do this?

Throughout the fieldwork there appeared to be some confusion as to what funding was available for infrastructure improvements, among other opportunities. It may be worthwhile to provide information to local farmers about the availability of funding through various organizations and levels of government.

Another issue appeared to be discomfort with paperwork and a lack or unfamiliarity with computers and the internet. Therefore, it may be beneficial to provide face-to-face support for farmers, and other associated businesses, looking for funding opportunities and preparing applications.

Outcomes and Impacts

Outcomes:

- Regularly updated list of funding sources through various organizations distributed to those in the agricultural sector.
- Raise awareness of existing support services available through the CFDC's or local EDC's.
- Creation of a new support service to help those in the agriculture sector complete applications in order to increase their likelihood of approval.

Impacts:

- More funding for agriculture sector in the area.
- Increase in necessary investments within farming operations.
- Make better use of existing services and funding in order to (hopefully) avoid the need for the creation of new services or funding sources.

Relevant Examples

External:

Innovation Centre for Entrepreneurs - St. Thomas, Ontario - <http://www.iceinnovation.ca/>

The Innovation Centre for Entrepreneurs (ICE) is a multi-sector business incubator located in St. Thomas, Ontario. This mixed use facility provides a variety of services to help new and upcoming businesses such as manufacturing suites, modular executive office suites, laboratory facilities, a business centre, as well as onsite conference and meeting rooms.

The organization also works with clients to build a program with coaching and entrepreneurial training; business plan review and development support; and seminars, forums, and various educational tools. The organization also provides ongoing monitoring and support as clients build their businesses.

The ICE facility is a recent development founded by the Elgin Business Resource Centre (Community Futures Development Corporation), the St. Thomas Economic Development Corporation, Elgin County, and the Federal Economic Development Agency for Southern Ontario. While not strictly agricultural, this facility does provide services relevant for this sector.

Additional sources

- **Programs and Services for Ontario Farmers (OMAFRA):**
<http://www.omafra.gov.on.ca/english/busdev/facts/progserv.htm>
- **Funding Programs and Support (OMAFRA):**
<http://www.omafra.gov.on.ca/english/food/industry/funding-prog-index.htm>

First Nations and Remote Communities

Strategic Action: Partnership with nearby First Nation communities as well as other communities present along the James Bay Coast

Recommended General Direction: Establish linkages between NeCN catchment area farmers and nearby First Nation and remote communities to meet the needs of both groups.

An opportunity exists to partner with nearby First Nation and remote communities in Northeast Ontario in order to provide an outlet for agricultural production while providing access to fresh food often lacking in these communities.

Objectives:

- I. Mediate a partnership between NeCN catchment area food producers and nearby First Nation and Remote communities.
- II. Help NeCN catchment area farmers navigate the distribution channels necessary for accessing these communities.

Implementation Strategy:

Specific actions in support of recommended general direction

Short term:

- **Mediate linkages between NeCN catchment area farmers and First Nation and remote communities**
 - a. There is a role for the NeCN in establishing contacts within the NeCN catchment area farming community and appropriate contacts in First Nation and remote communities. A good starting point may be contacting Aboriginal Affairs and Northern Development Canada; the Ontario Ministry of Aboriginal Affairs; and the Ontario Ministry of Northern Development, Mines, and Forestry.
 - b. There would also be a role for the NeCN in raising awareness of this opportunity within either of these groups in order to increase the momentum for its establishment.
- **Applications for funding**
 - a. The NeCN can play a role in supporting funding applications from groups within the NeCN catchment area attempting to achieve this goal.
 - b. As well, there may be an opportunity to request funding support for this project particularly through the lens of northern development and improving the health and well-being of First Nation and remote northern communities.
- **Support area farmers in navigating distribution channel necessary for accessing these communities**
 - a. A role exists for the NeCN in helping facilitate the creation of a co-operative of area farmers participating in this project. It will be impossible to manage this objective with each farmer working independently therefore the creation of a co-operative will be essential.

- b. In conjunction, a role exists for the NeCN in helping this group navigate the distribution channels necessary for accessing First Nation or remote communities. For instance, the NeCN could play a role in discussions with Ontario Northland Railway and local airlines servicing fly-in communities to establish agreements for accessing these communities.

Long Term:

- **Establish produce depots within the NeCN catchment area**
 - a. Once a co-operative is established within the NeCN catchment area agriculture community, it would be worthwhile to consider a partnership with this group in the establishment of produce depots within the area.
 - b. This would allow for farmers in the area to consolidate their produce and allow for more efficient and manageable distribution. Such a system would be very beneficial for supplying First Nation or remote communities in the area.
 - c. It has been proposed that in time a model be considered where three produce depots are established in the NeCN catchment area, spaced along the Highway 11 corridor with one in the South, in the centre, and one in the west. This would then be managed centrally by the co-op.

Why do this?

First Nation and remote communities in Northeast Ontario are often lacking in fresh and affordable food products. At the same time, NeCN catchment area farmers have the ability to produce quality meats and vegetables but often lack a market or find it difficult to compete when shipping to markets in the south. Therefore, an opportunity exists to link these two groups thereby providing an outlet for agricultural production from the NeCN catchment area while providing access to fresh food often lacking in First Nation or remote communities.

Outcomes and Impacts

Outcomes:

- Partnership between NeCN catchment area farmers and nearby First Nation and remote communities.
- Distribution channel for food products utilizing existing infrastructure, such as the Polar Bear Express between Cochrane and Moosonee.
- Partnership between nearby mining camps, such as in the *Ring of Fire* development, and area producers.

Impacts:

- Market for NeCN catchment area farmers utilizing their competitive advantages.
- Improved access to fresh, quality, and affordable foods in First Nation and remote communities.

Relevant Examples

External:

Nutrition North Canada - <http://www.nutritionnorthcanada.ca/index-eng.asp>

Nutrition North Canada is a program offered through Aboriginal and Northern Affairs Canada with the mandate of providing nutritious, perishable foods to Canadians living in isolated northern communities. One aspect of the program is the provision of funding directly to retailers, wholesalers, processors and distributors who have applied, met the program's requirements and entered into agreements with the department of Indian and Northern Affairs.

In Northwest Ontario this program has supported collaboration between Nishnawbe Aski Nation (NAN) and Quality Market and True North Community Co-Operative based in Thunder Bay. Under this 12 week long agreement 26 Co-Operative Community Supported Agriculture (CCSA) boxes are sent by air and road to 7 remote NAN First Nations who have qualified for the full subsidy under Nutrition North Canada.

Additional sources

- Iroquois Cranberry Growers: <http://www.iroquoiscranberries.com/>
- Kagiwosa Manomin (Wild rice producer in Northwest Ontario):
<http://www.canadianwildrice.com/>
- Indian Agricultural Program of Ontario (IAPO): <http://www.indianag.on.ca/>

Tile Drainage

Strategic Action: Financial support for tile drainage projects

Recommended General Direction: Promote or create available funding specifically for tiling of farmland in the area.

During the fieldwork almost every farmer mentioned the need for tile drainage for successful agriculture in the area. However, it was also identified that installing tile drainage was costly and unaffordable for most farmers.

Objectives:

- I. Dissemination of information on existing programs which would be available for tile drainage projects.
- II. Inform farmers of benefits of tiling as a long term investment as well as opportunities for funding application support from Community Futures Development Corporations and Economic Development Corporations existing in the region.
- III. New funding programs specifically for tile drainage projects through the use of grants, cost-sharing, or manageable loans.

Implementation Strategy:

Specific actions in support of recommended general direction

Short term:

- **Compile, confirm, and distribute a listing of existing funding opportunities**
 - a. The first step for helping farmers gain access to tile drainage funding should be the compilation of funding opportunities that currently exist. This listing should include sources that are not necessarily explicitly targeted at tile drainage installation, but that would still apply to these projects. For instance, funding support from the Community Futures Development Corporations may be applicable for tile drainage projects yet farmers would likely not be aware.
 - b. This should be followed up by contacting the federal and provincial ministries responsible to ensure that the funds are still available and that a tile drainage application would indeed be considered.
 - c. The compiled and confirmed listing of funding sources should then be distributed to farmers in the area and updated on a regular basis.
 - d. Furthermore, support to farmers should be provided for completing and submitting applications. This could be the role of Community Futures Development Corporations in the area or Economic Development Corporations. Most importantly, the availability of this support should be disseminated to farmers in the area.
- **Promote benefits of tile drainage internally**
 - a. The benefits of tile drainage in terms of increased productivity and efficiency should be promoted within the NeCN catchment area. Farmers should be informed, potentially in the

same handout as the listing of funding sources, about the benefits of investing in tile drainage; even if they are long term.

Long Term:

- **New funding opportunities for tile drainage projects in the region**
 - a. Assuming that the needs of area farmers are still not met after being made aware of existing programs, the provincial and federal governments should be lobbied for new funding programs.
 - b. One method to do so would be to present the benefits of investing in these projects as well as data demonstrating the improved efficiency and productivity.
 - c. These other levels of government should also be approached through the lens of Northern development and the opportunities that improved agriculture could bring.
 - d. Further still, the long term investment opportunity within these Northern communities is important for leveraging.

Why do this?

Almost without exception, farmers interviewed during the fieldwork identified that tile drainage was essential for agriculture in the NeCN catchment area. This was found to provide increased yields by extending the growing season and improving field quality. This was also identified as being particularly important in this area with such a short growing season where even seemingly small increases can make a significant difference.

However, farmers also indicated that the installation of tile drainage systems was often prohibitively expensive. This indication provides a few important considerations. For one, farmers may not be aware of existing programs to support their tiling projects. Farmers also may not be fully aware of the benefits of tiling, particularly as a long-term investment, or are unwilling due to their age. Alternatively, the existing funding sources are inadequate to meet the needs of area farmers.

Outcomes and Impacts

Outcomes:

- Handout detailing available funding sources as well as benefits of tile drainage investment.
- Support for tile drainage funding applications.
- New funding sources to fill gap between farmer needs and presently available funding sources.

Impacts:

- Increased productivity and efficiency of area farms resulting in increased profits.
- Increased yields and outputs.
- Increased value of farmland in the area.

Relevant Examples

External:

Tile Loan Program – OMAFRA - <http://www.omafra.gov.on.ca/english/engineer/facts/07-061.htm>

The Tile Loan Program is administered by the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA). This program is delivered through municipalities in Ontario who accept and approve applications and who are also responsible for inspecting work and collecting payments.

Landowners are eligible for loans of up to 75% of the value of the work. The loans are provided for 10 year terms with annual repayment at competitive interest rates.

Applications for the program are submitted to the municipal council for approval. Once accepted the landowner must have a licensed tile drainage contractor undertake the work. The municipality is then responsible for inspection and preparation of monthly loan documents and loan payments to OMAFRA. As well, the municipality is responsible for collecting payments with defaulted payments treated the same as unpaid taxes.

Additional sources

- **Land Improvement Contractors of Ontario: <http://www.drainage.org/>**

Local Co-Op or Grocery Stores

Strategic Action: Encouraging a locally owned chain of co-ops or grocery stores selling local food

Recommended General Direction: Encourage a stable, year-round outlet for local agricultural products to reduce time constraints imposed by seasonal farmer's markets and overcome the difficulties of selling to supermarkets.

A more stable outlet for agricultural products should be encouraged to help local farmers sell their production. This could be created in the form of a co-op where farmers come together to create their own outlet stores or in the form of a private business specializing in local agricultural products.

Objectives:

- I. Encourage farmers to come together to overcome their similar obstacles in the form of a co-operative model.
- II. Promote the opportunities associated with available agricultural products, consumer demand, and the role of a private business in bridging the gap.
- III. Provide loans, business counselling, and liaison support to foster these ideas.

Implementation Strategy:

Specific actions in support of recommended general direction

Short term:

- **Provision of indoor space for farmer's markets**
 - a. A first step in encouraging this model could be the provision of space for an indoor farmer's market. This could be in any number of facilities, such as a local arena. The goal would be to extend the season for farmer's markets; overcome the obstacle of poor weather; and allow for a more stable environment for selling products, particularly for meat which needs consistent cooling.
- **Attempt to overcome obstacle of selling to supermarkets**
 - a. Before attempting to create new storefronts, it would be worthwhile to attempt to work with existing supermarkets to overcome the obstacles of selling local products.
 - b. This may begin with a market study to determine where a market for local products exists and what products consumers are seeking. This would be followed by consultations with supermarkets to understand purchasing policies and see where obstacles exist.
 - c. The next step would be to identify potential candidate stores as well as inventory farmers that might be able to contribute.
 - d. The next stage would be to inventory products that might contribute. For instance, meat, preserves, honey, and local baking could all be supplied year round while most fresh vegetables would be seasonal.
 - e. Following this, existing grocery stores would need to be approached that have the capacity to handle local produce. This would include a sales pitch using the local, Northern grown

- lens and ideally making use of an overarching brand.
- f. Finally, the NeCN would provide a facilitation role in helping farmers work with existing retailers to get their products on the shelves.
 - **Promote ideas and opportunities for local farmers to come together to create outlet stores under a co-operative model**
 - a. The NeCN would not have a role in owning/operating storefronts in the region. However, it can play a role in providing information and fostering ideas within the farming community. It can also act as a liaison between farmers interested in making such a model work within the area.
 - b. A first step in facilitating this approach could be a workshop, or a series, to gauge interest and identify champions who could potentially form a volunteer committee.
 - c. The Community Futures Development Corporations in particular would have a role in providing business counselling to this potential co-operative as well as support for funding applications and even the provision of manageable loans.

Long Term:

- **Promote the opportunity for a privately owned business specializing in local agriculture products**
 - a. From a business perspective, there is probably not a strong enough demand for local products within the relatively small population of the NeCN catchment area to justify a dedicated storefront. Particularly as the addition of another level in the supply-chain would presumably result in increased prices. However, assuming that interest in local products continues to grow this may become a viable venture in the near future.
 - b. There may be a role for the NeCN in promoting this business opportunity, assuming the market does not recognize it first. There would also be a role for the area's Community Futures Development Corporations in providing business counselling and start-up loans.

Why do this?

As mentioned in the previous section, the NeCN catchment area produces a wide range of agricultural products. At the same time there appears to be an increasing demand for local products and a rising interest across the province in local food. Nevertheless, farmers frequently mentioned the difficulties associated with accessing markets. For instance, farmer's markets have seasonal and infrequent hours while also taking up valuable time from farmers who often work fulltime off farm. The existing alternative is retail supermarkets, which are difficult to access for local farmers due to purchasing policies. The result, according to the fieldwork, is that area farmers often do not meet their potential production capacity due to the lack of a stable outlet for their products. Therefore, an alternative model would not only provide a stable outlet for existing outputs but encourage area farmers to increase their production levels.

Outcomes and Impacts

Outcomes:

- A group of small stores spread throughout the area selling local agricultural products owned by area farmers under a co-operative model; or a group of stores selling local agricultural products owned by private business.
- NeCN acting as liaison or mediator to provide information, counselling, and potentially loans to help achieve the desired outcomes.

Impacts:

- More consistent outlet for local farmers to sell their production.
- Fewer constraints in selling outputs resulting in increased production.
- Increased earnings for local farmers.
- Consistency and convenience for local consumers.

Relevant Examples

Internal:

Miky's Smoke House - <http://www.mikyssmokehouse.ca/>

Miky's Smoke House is an abattoir and seller of local meat based in Hearst. Through a variety of channels, Miky's Smoke House produces, packs, ships, and markets local meat across Northeast Ontario. For instance, Miky's Smoke House participates in local events, fundraising exercises, sells to a few local retailers, and sells directly from their storefront *La maison des viandes*.

The Miky's Smoke House storefront *La maison des viandes* sells a wide range of meat products, much of which is locally grown and processed. Products include highland and Angus beef which they produce themselves within the boundaries of Hearst. However, the storefront also sells pork, beef, and elk which they purchase from area farmers, process at their abattoir, and proceed to sell at their storefront.

La maison des viandes storefront was initially set up due to difficulties in selling to supermarkets and a declining availability of smaller stores in the area. While a fairly recent venture, this store has actually been found to be quite successful. Guylaine Tremblay, one of the owners, indicates that a market does appear to exist in Hearst for local meat products and by selling directly with only one full-time employee they have been able to keep a larger percentage of the sales.

External:

True North Community Co-operative - <http://www.facebook.com/TrueNorthCommunityCooperative>

The True North Community Co-operative is a non-profit, community-based co-operative based in Thunder Bay. The goal of the co-operative is to provide an opportunity for regional producers to market their agriculture and craft products at a fair price to local consumers.

The Co-operative is run by a volunteer board of directors by and from the membership. Anyone can shop from the storefront however there is a small annual fee to become a member at \$15 for an individual; \$25 for a producer; and \$40 for an organization. With membership comes 5% off all goods sold through the co-op as well as a single vote at their annual general meeting. Most importantly, for producers, membership provides the opportunity to sell their goods through the co-op and receive marketing through the storefront.

Presently, the Co-operative has approximately 40 producer members selling agricultural products and handicrafts. However, the co-operative provides more than just an outlet for selling products as it also helps foster a sense of togetherness, encourage networking, and share knowledge and resources throughout the Thunder Bay area.

Additional sources

- **Eat Local Sudbury:** <http://www.eatlocalsudbury.com/>
- **Ontario Co-operative Association:** <http://www.ontario.coop/>
- **Ottawa Valley Food Co-op:** <http://www.ottawavalleyfood.org/>
- **Eastern Ontario Local Food Co-op:** <http://www.easternontariolocalfood.org/>

Agriculture in Schools

Strategic Action: Inclusion of agriculture and food into school curriculum

Recommended General Direction: Promote an increased presence of agriculture and food in school activities and the taught curriculum.

There may be an opportunity to increase the presence of agriculture within NeCN catchment area schools in order to improve the social value of agriculture in the area, raise awareness of agriculture as a career choice, and increase knowledge of the benefits of eating healthy, local foods.

Objectives:

- I. Raise awareness of agriculture and farmers through fieldtrips and farm tours.
- II. Increase awareness of locally grown food and its value through school activities.
- III. Request inclusion of agriculture and food into the taught curriculum.

Implementation Strategy:

Specific actions in support of recommended general direction

Short term:

- **Fieldtrips to area farms from local schools**
 - a. During the fieldwork a few farmers mentioned the opportunity to have tours or farm visits on their operations. In at least one case the farmer had done farm tours with students in the past.
 - b. This would be a great opportunity to expose students to farming in the NeCN catchment area and to where their food comes from.
- **Increase awareness of local food and its benefits**
 - a. There may be an opportunity to increase awareness and value of local food within NeCN catchment area schools.
 - b. For instance, there may be a place for promoting local foods through the lens of environmental and health benefits. This may be done in courses through trips to farmer's markets, or other assignments. It might also be done by clubs formed by students with interest in this topic.
 - c. There may also be an opportunity for small gardens being planted through the schools to teach students about the availability of local products and their ability to grow it themselves. This might even be undertaken through the lens of school science classes.

Long Term:

- **Request inclusion of agriculture and food in school curriculum**
 - a. While difficult to make the case of a dedicated course for agriculture within the existing curriculum, there may be a place for agriculture to be included in a range of courses already being taught at various levels.

- b. Indeed, courses such as science, health, history, and careers could all contain some element of agriculture.
- c. Therefore, there may be a role for the NeCN to request that agriculture be included within the school curriculum through these existing courses where appropriate.

Why do this?

During the fieldwork it was sometimes mentioned that agriculture was not considered to be a major part of the history or culture of NeCN catchment area residents. This situation may contribute to the limited interest in farming apparent in the younger generations of the NeCN catchment areas as well as the limited value that agriculture is perceived to have within the area. Therefore, there may be an opportunity to raise awareness and provide exposure to agriculture within the area to increase its value within the minds of the next generation and potentially raise interest in its uptake as a career choice.

Outcomes and Impacts

Outcomes:

- Fieldtrips to farming operations from area schools.
- Importance and value of agriculture incorporated into school curriculum.
- Raise awareness of local food and its benefits.

Impacts:

- Improved societal value of agriculture amongst later generations in the NeCN catchment area.
- Increased knowledge of farming as a career option for NeCN catchment area residents.
- Increased value of local food and interest in farmer's markets.

Relevant Examples

External:

Lambton Kent Agriculture In The Classroom - <http://www.lkaitc.org/>

The Lambton Kent Agriculture In The Classroom (LKAITC) committee is a non-profit organization run by volunteers. Its mission is to deliver agricultural education to local school children and does so through a variety of programs located in Lambton County and Chatham-Kent in Southwest Ontario. The group provides three key programs to students in this area: Harvest Days, Spring Days, and Healthy Eating Clubs.

The *Harvest Days* program is a fast-paced educational, activity-based learning event offered to grade 3 students in Chatham-Kent each fall. The program teaches students about the agricultural products available in Chatham-Kent through four stations each providing classroom resources. In 2010, there were 766 participants in the *Harvest Days* program.

The *Spring Days* program is a hands-on learning opportunity for grade 4 students in Lambton County offered each spring. The program includes four modules: Simple Machines; Living with Farm Animals; Turning Rocks into Food; and Farm Foods for Healthy Living. There were 294 participants in the *Spring Days* program in 2010.

Finally, the *Healthy Eating Clubs* are a partnership between local community volunteer organizations, service groups and other agricultural stakeholders who promote healthy eating habits by encouraging students to try new foods, along with raising awareness of where their food comes from. The program is geared to elementary students in grades 6, 7 and 8 in the Lambton-Kent District School Board and connects health curriculums with local food and its production.

Cooperation Between Existing Stakeholders

Strategic Action: Create opportunities for cooperation between existing stakeholders

Recommended General Direction: Promote improved cooperation within the NeCN catchment area's agricultural community.

There is considerable opportunity for the agricultural community within the NeCN catchment area to come together to overcome their shared issues.

Objectives:

- I. Mediation of disputes or disagreements within the agricultural community.
- II. Foster the pursuit of agricultural cooperatives in overcoming the shared obstacles of this community.

Implementation Strategy:

Specific actions in support of recommended general direction

Short term:

- **Establish a forum for farmers to come together and discuss their shared issues and means to resolve them**
 - a. It would be beneficial to create a means by which farmers could come together and share their issues and brainstorm methods for overcoming them. Indeed, the fieldwork often found that many farmers in a given area shared the same issue but did not cooperate to overcome them.
 - b. Therefore a forum, ideally in person but potentially also online, would be valuable for farmers to identify shared issues and develop solutions that would meet their needs and capabilities.
 - c. In some cases simple awareness that others share the same issues would be enough to jumpstart an attempt to overcome them. As well, some solutions, at least at the individual scale, may be as simple as sharing knowledge, ideas, or machinery with those nearby.
- **Mediate disputes or disagreements within farming community**
 - a. While the fieldwork frequently found that farmers in the area shared issues, it also identified a certain level of distrust or unnecessary competition within some areas.
 - b. Therefore, there is a role more generally for the NeCN to participate in community led endeavours to ensure they do not falter due to personal disagreements or disputes.
- **Promote champions and role models within the community**
 - a. During the fieldwork it was sometimes possible to identify individuals or groups who were particularly active in attempting to overcome certain obstacles.
 - b. These individuals or groups should be particularly supported as champions for leading community lead initiatives and aided, wherever possible, in attempts to raise awareness, interest, and even funding as their projects progress.

Why do this?

There is an opportunity for stakeholders to come together on their own to overcome some obstacles and create opportunities for themselves. While in many cases farmers do cooperate with their neighbours, for instance by sharing machinery or know-how it has been stated that this group does not always have a collaborative spirit. Therefore, this warrants intervention from the NeCN in some instances to provide impartial mediation or jumpstart pursuits.

Outcomes and Impacts

Outcomes:

- Forum/workshops for agricultural community to share issues and ideas.
- Impartial mediation for disputes that occur within co-ops and projects.

Impacts:

- Community generated and implemented solutions to their shared problems.
- Improved cooperation within the agricultural community leading to a cultural shift towards more collaboration in the future.

Relevant Examples

External:

Coopérative d'Utilisation de Matériel Agricole (CUMA) - <http://www.usaskstudies.coop/pdf-files/CUMA%20final.pdf>

The Coopérative d'Utilisation de Matériel Agricole (CUMA) model is a co-operative model for sharing farm machinery within an agricultural community. Translating into English as a “co-operative for the use of farm implements” this model originates in France and has been adopted in some parts of Canada, particularly in Quebec.

There are many benefits to members of CUMA groups. For instance, the use of shared machinery allows for the purchase of the most up-to-date equipment, which is larger and more efficient than what an individual producer could purchase alone.

The financing for CUMA's is generally the result of members' investment shares; traditional sources of debt financing; and members' fees. As well, the groups are typically governed by the general assembly made up of the membership; the board of directors; the branch manager; and the equipment manager.

Additional sources

- “Farm Machinery Co-operatives: An Idea Worth Sharing” - <http://www.usaskstudies.coop/pdf-files/Idea%20Worth%20Sharing.pdf>
- “The CUMA farm machinery co-operatives” - <http://www.usaskstudies.coop/pdf-files/CUMA%20final.pdf>

- **Coopérative d'utilisation de matériel agricole (CUMA): MAPAQ -**
<http://www.mapaq.gouv.qc.ca/fr/Regions/bassaintlaurent/CUMACUMO/CUMA/Pages/CUMA.aspx>
- **Centre for the Study of Co-operatives – University of Saskatchewan:** <http://usaskstudies.coop/>

On-Farm Infrastructure

Strategic Action: Financial support for on-farm infrastructure

Recommended General Direction: Encourage the increased use of existing funding programs and new funding opportunities within the NeCN catchment area in order to invest in on-farm infrastructure.

Farmers within the NeCN catchment area could greatly benefit from investments in on-farm infrastructure in order to increase their efficiency, effectiveness, and competitiveness. However, most cannot afford the high costs of obtaining or installing this infrastructure.

Objectives:

- I. Increased awareness of existing support programs within the agriculture community.
- II. New funding programs dedicated to improvements in on-farm infrastructure.

Implementation Strategy:

Specific actions in support of recommended general direction

Short term:

- **Increased awareness of existing funding opportunities**
 - a. As mentioned in the *Support Funding Applications* implementation strategy, the issue may not always be a lack of funding opportunities but rather a lacking awareness of existing opportunities.
 - b. For instance, funding for infrastructure can be obtained through the Environmental Farm Plan program; the Food Safety and Traceability Initiative (FSTI); among others.
 - c. Therefore, a list of existing funding opportunities should be provided in electronic and newsletter format with support provided in completing these applications.
 - d. It will also be important to coordinate with existing organizations in the area which are highly knowledgeable on these opportunities or even deliver them; such as the Ontario Soil and Crop Improvement Association (OSCIA).
- **Apply for region-wide funding**
 - a. There may be an opportunity for the NeCN organization to request block grants which can be redistributed for on-farm infrastructure investments.
- **Lobby provincial and federal governments for dedicated funding programs**
 - a. Dedication funding programs for on-farm infrastructure should be requested from the federal and provincial governments.
 - b. The case should be made that these investments are essential for success in Northern conditions (i.e. livestock housing, greenhouses) along with the long term economic opportunities that these investments could provide for this area.
 - c. There should also be attempts made to leverage the Northern/remote community angle. As well, there may be opportunity to leverage the opportunity for improved community health, particularly through the lens of local food improvements.

Long Term:

- **Creation of new funding opportunities through local bodies**
 - a. If other attempts to increase the investment in on-farm infrastructure prove insufficient there may be a role for the NeCN and its member municipalities to provide funding directly.
 - b. This funding could be delivered in the form of cost-sharing or low-interest loans for farm improvements.

Why do this?

Throughout the fieldwork it was found that many farmers in the NeCN catchment area lacked the necessary on-farm infrastructure in order to be an effective, efficient, and competitive operation. These same operations also had limited financial resources and could not afford these necessary investments in infrastructure such as livestock housing, cement pads, weight scales, storage, row-covers, greenhouses, machinery, among others. Therefore, it would be highly beneficial for this group to receive more funding support for these investments either through better use of existing programs or new dedicated programs.

Outcomes and Impacts

Outcomes:

- Regularly updated list of funding sources through various organizations distributed to those in the agricultural sector.
- New funding sources provided specifically for on-farm infrastructure investments.

Impacts:

- Increased awareness, and better use of existing funding opportunities.
- Improved effectiveness, efficiency, and competitiveness of NeCN catchment area farms.
- More investment into the long-term viability of NeCN catchment area farming operations.

Relevant Examples

Internal:

Enterprises North Job Creation - Northern Ontario Heritage Fund Corporation-

http://www.mndmf.gov.on.ca/nohfc/programs/enterprises_north_job_creation_e.asp

The Northern Ontario Heritage Fund Corporation (NOHFC) provides several funding opportunities for businesses in Northern Ontario. One such opportunity is the Enterprises North Job Creation program. This program provides financial assistance to private sector businesses under the auspices of job creation.

This program offers support to new and existing businesses in a variety of sectors, including agriculture. Eligible uses for the funds include capital construction cost as well as the purchase of new or used equipment.

The funds are provided in the form of repayable loans with projects normally receiving funding based on the number of full time equivalent jobs created in the North. Maximum contribution to any one project will generally not exceed 50 per cent of eligible costs up to \$1 million.

Additional sources

- **Environmental Cost-Share Opportunities for Ontario Farmers - (OSCIA):**
http://www.ontariosoilcrop.org/en/programs/cost_share_opportunities.htm
- **Growing Forward in Ontario - OMAFRA:**
<http://www.omafra.gov.on.ca/english/about/growingforward/gfontario.htm#best>

Energy Production

Strategic Action: Support and encourage energy production through agricultural operations

Recommended General Direction: Encourage the opportunities for energy production on agricultural operations and support the necessary infrastructure.

An option exists in the NeCN catchment area for producing energy on agricultural operations such as through biomass, solar, and ethanol production.

Objectives:

- I. Promote the opportunities for energy production through agricultural operations.
- II. Support the necessary infrastructure for energy producing agriculture industries.

Implementation Strategy:

Specific actions in support of recommended general direction

Short term:

- **Promote opportunities for energy production through agriculture operations**
 - a. Information does currently exist to demonstrate the viability of energy producing agriculture within the NeCN catchment area. In particular, the NCBAN study provided considerable information on bio-mass and how this option might be pursued.
 - b. As well, programs are currently in place for solar power generation on (less productive) agricultural lands.
 - c. Therefore, this existing information could be promoted to NeCN catchment area farmers and to private sector partners as a potentially viable business opportunity.
 - d. However, before the NeCN gets too involved in promoting these opportunities it is important to conduct other studies or to encourage private entities to conduct their own viability studies considering the existing questions around this option.

Long Term:

- **Support the infrastructure necessary for energy producing agriculture**
 - a. Once there is sufficient confidence in the future of energy production on agricultural operations, there may be a role for the NeCN in supporting the infrastructure necessary for its success.
 - b. For instance, there will presumably be a need for increased grid capacity; distilleries; pelletizers; transport infrastructure (such as a rail depot); among others depending on the method pursued.

Why do this?

There may be opportunity for increased energy production in the NeCN catchment area through agricultural operations. For instance, the production of bio-mass, solar, and ethanol may all potentially be viable routes. An option for the NeCN could be to promote these

opportunities to area farmers and private sector partners as a business opportunity. The NeCN could also play a role in supporting the infrastructure necessary to support any such ventures.

However, it is important to note that questions do remain surrounding the long-term viability of this approach. For instance, solar power expansion has recently been impeded by insufficient grid capacity, and particularly in the North. As well, the future of bio-mass and ethanol are also debated, particularly due to their reliance on political stances that are subject to change. Further, questions still remain regarding distances to major energy markets in the South and the viability of transporting low density, low value fuels (in the case of bio-mass) long distances with rising fuel prices.

Outcomes and Impacts

Outcomes:

- Increased interest from farmers and the private sector in energy producing agricultural operations.
- Improved viability of the energy producing agriculture sector through the availability of essential infrastructure.

Impacts:

- More profitable ventures for NeCN catchment area farmers.
- Increased diversification of agricultural production in the area and more options for area farmers.
- Potentially, the creation of a niche utilizing the competitive advantages of the NeCN catchment area.

Relevant Examples

Additional sources

- **Northern Energy Program (NOHFC):** http://www.mndmf.gov.on.ca/nohfc/programs/northern_energy_e.asp
- **Photovoltaic potential and solar resource maps of Canada (NRCan):** <https://glfc.cfsnet.nfis.org/mapserver/pv/index.php?NEK=e>
- **Solar Energy (OMAFRA):** http://www.omafra.gov.on.ca/english/engineer/ge_bib/solar.htm
- **Biofuels (OMAFRA):** http://www.omafra.gov.on.ca/english/engineer/ge_bib/biofuel.htm
- **Biomass Combustion (OMAFRA):** http://www.omafra.gov.on.ca/english/engineer/ge_bib/biomass.htm
- **Feed-in Tariff Program - Ontario Power Generation:** <http://fit.powerauthority.on.ca/what-feed-tariff-program>
- **MicroFit – Ontario Power Generation:** <http://microfit.powerauthority.on.ca/>
- **Ontario Field-scale Agricultural Biomass Research Program (OSCAR):** http://www.ontariosoilcrop.org/en/programs/biomass_research_program.htm
- **Biorefining Research Initiative - Lakehead University:** <http://lubri.lakeheadu.ca/index.php>

Internal Promotion of Products

Strategic Action: Promotion and marketing of local agriculture products to residents of the NeCN catchment area

Recommended General Direction: Pursue an integrated marketing and promotion campaign resulting in increased production and consumption of locally produced agriculture products.

Through the use of a promotion and marketing campaign awareness will be raised within the NeCN catchment area regarding the availability of local agriculture products and the benefits relating to their consumption.

Objectives:

- I. Educate the residents of the NeCN catchment area about the health, economic, and community benefits of consuming local products.
- II. Provide an integrated marketing tool for local producers in order to raise awareness on their location and product availability.
- III. Increase the sales of value added products in the NeCN catchment area through the use of the local food movement.

Implementation Strategy:

Specific actions in support of recommended general direction

Short term:

- Awareness campaign within NeCN catchment area
 - a. A market survey should be conducted and find consumer demands/desires and to determine where are they, what they want, what will they pay.
 - b. Local media within the area should be utilized to gain profile of local agriculture. This may also help bolster the already growing local food movement.
 - c. Production of a 'local food map' and farmer inventory to encourage awareness and help local consumers in finding farmers and available products. Local food maps may also be used as a form of *agritourism*, for instance by promoting pick-your-own berries which have been successful in the area in the past.
 - d. Production of a website or partnership with existing website to promote the benefits of buying locally as well as availability. This would include a directory of farmers and retailers in the area who sell local products as well as the range of products available (including seasonality where appropriate).
 - e. Use role models and success stories to shift views and expectations and reinforce with consumers and producers alike that local food is present in the area with considerable variety and high quality.
 - f. The Porcupine Health Unit should be included in the local food campaign to provide information and legitimacy for promotion of the health benefits of local food consumption. The health unit should also be encouraged to promote local food within its own campaigns, such as the supermarket tours which could also visit farmer's markets and the Good Food Box program making use of local food whenever possible.

- **Use of local food by institutions and events**
 - a. Institutions should be encouraged to make use of local food wherever possible. This may include long term care facilities, hospitals, and institutions under the control of local authorities.
 - b. Events in the area should also be encouraged to make use of local food wherever possible. This may include festivals, fairs, carnivals, or other regular events throughout the region.
- **Creation of a local agriculture network**
 - a. There are several groups operating relatively independently within the NeCN catchment area each with the goal of encouraging the consumption of local agricultural products. This includes groups such as AGRIVA in Hearst; Taste of Timmins; the Northern Agriculture Steering Committee in Kapuskasing; and numerous individuals interested in this goal. A network should be established to link these interested parties to allow for information sharing, avoid overlap and duplication of effort, and encourage cooperation towards achieving their overarching goal.
 - b. This may be achieved in person through the use of a coordinated workshop or digitally through a website, forum, and directory.

Long Term:

- **Local brand**
 - a. A local brand should be created to supplement branding exercises already existing in the NeCN catchment area. This would act as a secondary branding attempt to complement existing brands within the area, rather than replace them. It would allow for a clear indication of products produced within the NeCN catchment area and act as a means to unite farmers in the area behind a single brand.
 - b. The existing efforts from AGRIVA may provide an opportunity for cooperation in order to expand this brand across the region.
- **Partnership with High School/College courses**
 - a. A potential opportunity may exist to partner with high school or college level co-op programs or business/marketing courses to help with developing or expanding the marketing campaign. This would be a means of promoting local agriculture products to the new generation while also obtaining help at a low cost. For students, this provides real world experience with a project that provides benefits to their community.
- **Encourage and support local food in retail stores**
 - a. One method to encourage and support the presence of local food in retail stores would be the creation of a single-desk for marketing and coordination between producers and distributors. Rather than each farmer attempting to sell their own products independently it would be beneficial for a single source to mediate, allowing for a single source for farmers to contact when trying to sell goods as well as for grocery stores seeking local products.
 - b. This would also allow for an ongoing relationship between this single desk and grocery stores as well as with farmers to overcome complications between seeking contacts and trying to purchase from numerous farmers independently.

Why do this?

The NeCN catchment area produces a wide variety of products which could be consumed locally. As well, with a population of approximately 76,000 and the inclusion of the major centre of Timmins there is an available market for these products. The issue arises in bridging this gap between production and consumption. During the fieldwork producers often mentioned difficulty reaching markets as well as a perception that a market did not exist. Nevertheless, the interest in local food has been increasing rapidly across the province and seems to be catching on within this area as well; especially in Timmins. Therefore, there is a role for the NeCN to help foster this interest in local food on the consumption side, while also providing general marketing and coordinated promotion for the area's products.

Outcomes and Impacts

Outcomes:

- Overarching local brand for products produced within the NeCN catchment area.
- Expanded farmers markets with more opportunity to sell local goods.
- Local food map of available products.
- Directory of producers and available products.
- Linkages between groups and individuals interested in expanding local food consumption.
- Marketing campaign to increase awareness of local food availability, as well as benefits.

Impacts:

- Help facilitate an outlet for local agriculture products, especially for small scale operations.
- More demand from consumers resulting in increased presence of local products in retail food stores.
- Increased production from area producers to meet growing demand resulting in more income for area producers.
- Healthier and more environmentally sound purchasing habits from area residents.
- Increased social/cultural value of agriculture from residents of the NeCN catchment area.

Relevant Examples

Internal:

AGRIVA - <http://www.agriva.ca/>

AGRIVA is a volunteer run sub-committee of the Hearst Economic Development Corporation. Its primary interest is in local food by expanding production and consumption. This includes providing an outlet for area producers in the farmer's markets operated by AGRIVA as well as capacity building exercises. For instance, the group participates in garden information and outreach to residents of Hearst as well as recently undertaking an education and information sharing campaign.

A key aspect of the group is raising awareness of existing products and producers as well as promoting the benefits of consuming local products. The group's website includes information resources for producers and consumers as well as a directory of agriculturally related groups and individuals in the Hearst area.

The group is currently in the process of undertaking a branding exercise for locally produced goods which may be appropriate for a partnership with the NeCN for application beyond the boundaries of Hearst.

The mission statement of the group is as follows: *"A group which has the mandate to support responsible and sustainable development for companies and organizations aiming at community and regional agriculture and/or production of value-added products. Community education and promotion of these products are also important aspects of this mission."*

External:

Huron Perth Farm to Table (HPFTT) - <http://huronperthfarmtotable.ca/>

Huron Perth Farm to Table is a network of community organizations with shared concerns about access to local, healthy food and the overall decline in agricultural-related activities in Huron and Perth Counties. Its roles are to educate consumers about food, nutrition and agricultural issues, create new markets for local farmers, enhance food security and increase public access to nutritious food.

The network includes representatives from the Huron and Perth Federation of Agriculture, the County of Huron (Planning & Development, and the Health Unit), the Perth District Health Unit, the Ontario Ministry of Agriculture, Food & Rural Affairs, the Huron Business Development Corporation, Huron and Perth Tourism groups, producers, and community members.

To date, HPFTT has helped launch a number of new farmers markets; created a virtual hub as a point of communication and collaboration for food groups in the Huron-Perth area; increased consumer awareness through education and promotion of local food (including a Buy Local Buy Fresh Map); and expanded the area's good food box program. This project is still ongoing with a variety of objectives expected to be initiated in the near future in its second phase.

Additional sources

- **Golden Beef:** Northern Ontario branding initiative based on grass-fed and hormone/antibiotic free beef - <http://goldenbeef.ca/>
- **Ontario North East (ONE) Meats:** Local abattoir/branding initiative based in the Town of Cochrane.
- **Taste of Timmins:** Individual initiated website promoting local food in and around Timmins including information on events, farmers markets, benefits of local consumption, and information on local producers - <http://www.tasteoftimmins.com/>
- **Ontario Market Investment Fund (OMIF):**
<http://www.omafra.gov.on.ca/english/food/industry/omif-program.htm>
- **Broader Public Sector Investment Fund:** <http://bpsinvestmentfund.ca/>
- **Aim for 8 Fruit and Vegetable Voucher Program - Chatham-Kent Public Health:**
<http://ckphu.com/2011/01/aim-for-8-fruit-vegetable-program/>
- **Public Health and Land Use Planning:** http://www.opha.on.ca/resources/docs/CAP_PHLUP-Report-Apr2011.pdf
- **Food Security Research Network – Lakehead University:** <http://www.foodsecurityresearch.ca/>

Off-Farm Infrastructure

Strategic Action: Encouraging and supporting off-farm infrastructure

Recommended General Direction: Encourage and support investments in off-farm infrastructure to help keep existing operations viable and attract new operators.

A lack of off-farm infrastructure within the NeCN catchment area is widely recognized as a major hindrance to agricultural expansion. Therefore, investments in off-farm infrastructure may be a means to revitalize the agricultural sector in the area.

Objectives:

- I. Facilitate and encourage opportunities for off-farm infrastructure investments through private means or co-operative models.
- II. Support off-farm infrastructure investments through funding applications or the provision of low interest loans.

Implementation Strategy:

Specific actions in support of recommended general direction

Short term:

- **Promote business opportunities to private sector**
 - a. The agricultural sector in the NeCN catchment area can be expected to grow in the future and thereby presents an opportunity for private sector investment as an underserved market.
 - b. Therefore, this opportunity should be promoted to those in the private sector by demonstrating the opportunities for growth in the agricultural sector and their opportunity to serve this emerging market through off-farm infrastructure investments.
- **Raise awareness of existing off-farm infrastructure and support their development**
 - a. Existing off-farm infrastructure should be supported before any considerations around establishing new entities.
 - b. Through the fieldwork it was sometimes found that infrastructure did exist, however awareness was low or they did not meet the needs of the agricultural community. For instance, in the case of abattoirs, there is currently an operation in Ramore as well as one in Hearst. However, it was stated by farmers that knew of these operations that due to scale or variety of services (freezing for instance) these were sometimes inadequate to meet their needs.
 - c. Similarly, in the case of farm supplies the Hearst Castle Co-Op could expand their selection of products to better meet the agriculture sector in that area. As well, it was mentioned that machinery dealers exist in the NeCN catchment area (with specific mention of Timmins) which currently cater to the mining or forestry sector but could carry farm machinery.
 - d. Therefore, an opportunity exists to better utilize this existing off-farm infrastructure by raising awareness of its presence within the agricultural sector.
 - e. As well, an opportunity exists to help support the expansion of existing operations either in

terms of scale or variety of services. This could be achieved through support for applications to external funding sources or through the direct provision of low-interest loans or grants in exchange for certain agriculturally related services being provided.

- **Mediate and foster the creation of co-operatives for off-farm infrastructure developments**
 - a. In some cases a co-operative model may be appropriate for the local agricultural community to come together to overcome an issue of lacking off-farm infrastructure.
 - b. In these cases, the NeCN may play a role in bringing interested parties together and playing the role of a neutral mediator to overcome disputes and push the concept towards implementation.
 - c. The NeCN may also aid in the identification and completion of funding applications where their expertise would prove useful.

Long Term:

- **Support the development of new off-farm infrastructure initiatives**
 - a. In some cases existing off-farm infrastructure will not be sufficient to meet the needs of the agricultural sector.
 - b. In these cases, new developments will be necessary and should be supported by the NeCN.
 - c. One means for this support will be financial, for instance through the provision of financial support for new operations.
 - d. The NeCN might also consider partnerships with co-operatives or private sector entities. In these arrangements, the NeCN could steer the operation towards meeting community needs as well as apply for external funding support while not taking on full ownership of the operation.

Why do this?

A common issue presented by farmers in the NeCN area is the lack of off-farm infrastructure in the area. This includes suppliers for machinery as well as inputs such as fertilizer, feed, seeds and other agriculture needs. It also includes the lack of a grain elevator or rail depot. It was also identified that abattoir services are lacking or inadequate and would benefit from support. Further, a limited distribution network was identified as an obstacle for transportation to markets. Therefore, the NeCN could play a role in supporting and facilitating the creation of such infrastructure.

However, it should be noted that questions remain about the cause-and-effect associated with such infrastructure. For instance, would off-farm infrastructure result through market mechanisms if agriculture is expanded in the area, or will the presence of off-farm infrastructure result in expanded agriculture? While it is difficult to say for certain which position is correct, opportunities for investment in off-farm infrastructure should be pursued wherever possible.

Outcomes and Impacts

Outcomes:

- New off-farm infrastructure established in NeCN catchment area through private or co-operative models.
- More business opportunities within the NeCN catchment area.

Impacts:

- Maintain existing farmers and attract new operators.
- Increased availability of services and supplies resulting in increased attractiveness of the area as a farming community.
- More benefits of agricultural sector captured by local economy.

Relevant Examples

Additional sources

- FCC AgriSpirit Fund: http://www.fcc-fac.ca/en/AboutUs/Responsibility/agrispiritfund_e.asp
- Infrastructure and Community Development Program (NOHFC):
http://www.mndmf.gov.on.ca/nohfc/programs/infrastructure_and_community_development_e.asp
- Community Economic Development Program – FedNor: <http://www.ic.gc.ca/eic/site/fednor-fedor.nsf/eng/fn03440.html>
- Rural Economic Development (RED) Program – OMAFRA:
<http://www.omafra.gov.on.ca/english/rural/red/index.html>
- Community Development Program - Canada's Rural Partnership (CRP):
<http://www.rural.gc.ca/RURAL/display-afficher.do?id=1299516906622&lang=eng>

Support with Loans and Financing

Strategic Action: Support existing and beginning farmers with acquiring loans and financing

Recommended General Direction: Support improved access to loans and financing for NeCN catchment area farmers at reasonable interest rates.

A common issue for farmers found to exist within the NeCN catchment area is limited access to loans and financing. There is limited access to agricultural specialists in area banks and no Farm Credit Canada office located within the region.

Objectives:

- I. Increased awareness of existing grant and loan opportunities from organizations such as OMAFRA, NOHFC, and the various CFDC's located within the area.
- II. Potentially, new loan programs provided by the NeCN with low interest rates.

Implementation Strategy:

Specific actions in support of recommended general direction

Short term:

- **Compilation and distribution of a list of available funding sources**
 - a. In order to raise awareness of funding sources and increase the chance of acceptance within the area, a regularly updated listing of funding sources should be compiled and distributed both online and within a newsletter.
 - b. The listing should include opportunities from the various agencies which may be applicable, but not necessarily obvious. For instance, opportunities from OMAFRA, AAFC, NOHFC, MNDMF, should all be included. However, opportunities for loans or grants from other organizations, such as the Community Futures Development Corporation, should also be included.
- **Discussions with area banks and Farm Credit Canada**
 - a. It would be worthwhile to discuss the obstacles to agricultural specialists based in the NeCN catchment area.
 - b. However, it should be recognized that this is not an issue unique to the NeCN catchment area and there are larger issues and changes at play which the NeCN would have little say in.

Long Term:

- **Creation of new funding opportunities for area farmers**
 - a. If attempts to increase the awareness of existing opportunities for area farmers prove insufficient there may be a role for the NeCN and its member municipalities to provide funding directly.
 - b. This funding could be delivered in the form of low-interest loans for farmers in the area.

Why do this?

A common issue found to exist within the NeCN catchment area is limited access to loans and financing for agricultural operations. There may be several reasons for this, including a lack of agriculture specialists within the area banks; potentially a lack of interest based on assumptions of agricultural sustainability in the area; as well as limited equity based on the low cost of land in the area.

However, it is important to note that this issue exists for farmers across Ontario and is not unique to the NeCN catchment area. Indeed, when dealing with agricultural operations banks across the province are predominantly interested in cash-flow, which is difficult for many farmers. Instead, the one unique issue for the NeCN catchment area appears to be the lack of a local Farm Credit Canada office.

Outcomes and Impacts

Outcomes:

- Improved access to loans and financing for farmers in the NeCN catchment area.
- Increased awareness of existing funding sources.
- Potentially, new loan and financing opportunities provided by the NeCN.

Impacts:

- More new farmers with the financial capacity to purchase or establish agricultural operations in the area.
- Expansion and improvement of existing farms to improve productivity, efficiency, and competitiveness.

Relevant Examples

Additional sources

- **Ontario Feeder Cattle Co-Operative Program:**
<http://www.cattle.guelph.on.ca/programs/LoanProgram.asp>

Involvement from Research Stations

Strategic Action: More involvement with New Liskeard Agriculture Research Station (NLARS) and the Kapuskasing Beef Research Farm

Recommended General Direction: Request and encourage better use of local research stations by undertaking Northern specific research and disseminating findings to the agricultural community.

The presence of the New Liskeard Agriculture Research Station (NLARS) and the Kapuskasing Beef Research Farm provide an excellent opportunity for improving agriculture within the NeCN catchment area. However, these opportunities are not being adequately utilized in their present forms.

Objectives:

- I. More local input at agriculture research stations in Northeast Ontario
- II. Better dissemination of research findings from research stations in Northeast Ontario

Implementation Strategy:

Specific actions in support of recommended general direction

Short term:

- **Lobby for changes in research station mandates**
 - a. The Kapuskasing Beef Research Farm is operated by Agriculture and Agri-Food Canada and the New Liskeard Agriculture Research Station is operated indirectly through the Government of Ontario through the University of Guelph. In each case there is opportunity to lobby governments for changes to the stations' mandates.
 - b. By demonstrating the unique conditions of Northeast Ontario and corresponding research needs a case can be made for more Northern specific research.
 - c. At the same time, the case can be made that more involvement with the local community in terms of identifying research needs and disseminating research findings provides an opportunity for improving the quality and practicality of research.
 - d. There is an opportunity to leverage the Northern development lens when lobbying for changes; however another timely lens is climate change adaptation research which is highly relevant for Northern agriculture.

Long Term:

- **Establish scholarship or research funding**
 - a. Another means to direct research towards more useful, Northern specific topics is through the establishment of a scholarship or research funding.
 - b. In both cases, the research stations are operating far under their potential capacity and have space for additional research. For instance, at the time of our visit the Kapuskasing Beef Research Farm had at least 80 tiled acres sitting vacant as they had no researchers making use of it.
 - c. Therefore, there may be an opportunity to directly fund students at the Masters or PhD

- level interested in undertaking research at these stations on topics specific to Northeast Ontario.
- d. As an example, at the University of Guelph funding opportunities exist which are cost shared between the Ontario government and an external source. They can be designed to attract applicants interested in specific topics with the funding source receiving a copy of results at completion. Certainly at the Masters level, it can be expected that in some years interested applicants can be found for a scholarship totalling a few thousand dollars.
- **Facilitate linkages with international partners and private investors**
 - a. There are possibilities for linking the Northeast Ontario stations with international institutions undertaking similar work. For instance, the viable products for Northeast Ontario are very similar in Northern Europe, such as Scotland and the Scandinavian countries.
 - b. Another opportunity to leverage funding may be to establish linkages between the existing research stations and private investors interested in particular research.

Why do this?

The presence of the New Liskeard Agriculture Research Station (NLARS) and the Kapuskasing Beef Research Farm provide excellent assets which are clearly underutilized in their present forms. Each station has been scaled back over the years to the point where they now provide little benefit for the communities in which they are located. Indeed, in both cases little work is being done on Northern specific agriculture either in farming practices or cultivars. Further still, the findings that do come out of these research stations are generally not disseminated to the local agricultural communities. While the NeCN does not have any direct involvement with either station, there may be a role for this group in requesting a change in mandate at these stations.

Outcomes and Impacts

Outcomes:

- Opportunity for more local input at the stations representing agricultural community needs and interests.
- Dissemination of research findings through workshops, presentations, among other outreach.

Impacts:

- Improved knowledge of improved and modern farming practices and crop varieties within the NeCN catchment area's agriculture community.
- More relevant information coming out of research stations to support and improve the agriculture operations of Northeast Ontario.

Relevant Examples

Internal:

Kapuskasing Beef Research Farm – <http://www4.agr.gc.ca/AAFC-AAC/display-afficher.do?id=1180631304122&lang=eng>

The Kapuskasing Beef Research Farm is operated by Agriculture and Agri-Food Canada through its Dairy and Swine Research and Development Centre in Sherbrooke, Quebec. While formerly an experimental farm evaluating a range of agriculture products, today the institution concentrates almost exclusively on beef cattle.

This long standing research station has been operating for more than 95 years, however in recent years has seen a scaling back and near closure. Today, the operation has 15 employees, 800 cultivated acres, and approximately 250 butcher cattle. While producing good work in the field of beef cattle research, particularly with an emphasis on grass-feeding, it does not have the range of research it once did. Instead, it has been described as a station undertaking research in the North rather than one undertaking Northern specific research.

As well, aside from occasionally offering tours, the research station does not provide the outreach or community involvement that it once did.

External:

New Liskeard Agriculture Research Station (NLARS) -
http://www.uoguelph.ca/research/omafra/Research_stations/crop_research.shtml

The New Liskeard Agriculture Research Station (NLARS) manages approximately 680 acres along with an additional 120 rented acres in and near New Liskeard. Research programs focusing on agronomy, beef, and horticulture are all carried out at this station.

NLARS was previously operated by the Ontario Ministry of Agriculture, Food, and Rural Affairs (OMAFRA) however today is operated by the University of Guelph. This station has only a few employees left after experiencing downsizing, similar to the Kapuskasing Beef Research Farm. This limited capacity has resulted in limited capabilities for disseminating the important research findings that this station produces.

Additional examples

- **The Ag Business Centre – University of Guelph, Ridgetown Campus:**
<http://www.ridgetownc.uoguelph.ca/abc/index.cfm>

Special Consideration in Regulations

Strategic Action: Consideration of small scale farmers/operations and northern conditions in formulation and enforcement of regulations

Recommended General Direction: Request special consideration for small scale farmers/agri-businesses and northern conditions in the design and enforcement of regulations which impact agriculture.

It is often stated that small scale farmers and related agri-businesses are unfairly subject to regulations designed for large operations. Further, it is perceived that the special conditions of Northern Ontario are not considered within the formulation and enforcement of these regulations.

Objectives:

- I. Lobby upper levels of government by requesting that the northern and small-scale agriculture conditions have specific consideration in agriculture regulations.
- II. Meet with local Members of Parliament and Members of Provincial Parliament to request that the voice of the northern agriculture sector be heard when considering agriculture policy and regulations.

Implementation Strategy:

Specific actions in support of recommended general direction

Short term:

- **Lobby provincial and federal governments for specific consideration of the conditions of northern farmers and small scale operations in the formulation of policies and regulation**
 - a. By meeting with representatives from OMAFRA, AAFC, and other relevant agencies there should be requests put forward for more specific consideration of the conditions for small scale and northern agriculture operations.
 - b. A comprehensive case should be put forward detailing the opportunities for agriculture in the north and the limitations imposed by some policies and regulations.
 - c. An opportunity exists to request a role for *northern proofing* of policies and regulations that affect agriculture, similar to the way designated offices are responsible for *rural proofing* policies that affect rural areas.
 - d. In some cases it may also be appropriate to request special financial assistance for agricultural operations meeting new regulations, particularly when those costs are prohibitively expensive for small scale operations.
- **Meet with Members of Parliament and Provincial Parliament representing the area**
 - a. The provincial and federal representatives for the NeCN catchment area should be met with.
 - b. These individuals should be presented with the case for the specific consideration for northern and small scale farmers including the opportunities for agriculture in the north and how these are limited by some policies and regulations.
 - c. A request should be made to these individuals to raise these special conditions and issues

whenever an agricultural policy or regulation will have unconsidered impacts on northern or small scale agricultural operations.

Why do this?

It is commonly stated that small scale farmers in the NeCN catchment area are unfairly subjected to rules and regulations designed for large scale operators. This is frequently cited in the area of food safety regulations that can create high costs for small scale farmers and abattoirs with limited financial support to adhere to them. Similarly, the limits on selling poultry have been seen to inhibit small scale farmers. These rules and regulations can sometimes also limit the ability to sell at local markets or to larger retailers.

Outcomes and Impacts

Outcomes:

- Lobby provincial and federal governments for specific consideration of northern agricultural conditions and small scale operations when formulating policy and regulations.
- Meeting with local MP's and MPP's to present the case for special considerations for northern farmers and small scale operations in the formulation of agriculture policy and regulations.

Impacts:

- Policy and regulatory decisions with more consideration and recognition of the unique conditions for farmers in northern Ontario as well as small scale farmers across the province.

Support for new farmers

Strategic Action: Support for new farmers

Recommended General Direction: Support new farmers in accessing the finances necessary to take up farming in the area as well as help newcomers settle in the region.

The future of agriculture in the NeCN catchment area will rely on an uptake in farming from new farmers. However, it is difficult for those interested to obtain the high start-up costs associated with agriculture. As well, it will be difficult for those interested in moving to the area as a farmer to identify opportunities and adapt to the agricultural and social realities of the region.

Objectives:

- I. Support new farmers in identifying and obtaining funding for start-up costs.
- II. Settlement support for those interested in moving to the area and for newcomers.

Implementation Strategy:

Specific actions in support of recommended general direction

Short term:

- **Mentorship program**
 - a. The establishment of a mentorship program linking new farmers with established mentors would be an excellent opportunity to aid new farmers, particularly in regards to Northern specific crops and farming practices.
 - b. A program currently exists in Ontario known as FarmLINK. This organization could be used as a model, or partner for achieving this goal. For instance, a similar program could be created which is specific to the NeCN catchment area, or awareness could be raised regarding this existing program in order to increase participation.
- **New farmer network**
 - a. An opportunity exists to establish a network of new farmers to share their experiences and support each other in overcoming their similar obstacles
 - b. This network could also include role models from the area which may be included in workshops, presentations, or other in-person events to help spread knowledge and ideas while also establishing the personal connections necessary to create a vibrant agricultural community.
- **Compilation and distribution of information on funding support for new farmers**
 - a. As mentioned, accessing the necessary start up costs for new farmers is a major obstacle. Therefore, it would be beneficial for a list to be compiled and regularly updated which provides information on available funding opportunities, such as those offered through NOHFC and the CFDC's present in the area.
 - b. This could be distributed online, via a paper newsletter, and posted to the integrated website described earlier. As well, it can be included as a sub-section in the listing of general

- funding opportunities proposed in the *Support Funding Applications* implementation strategy.
- c. Further, support should be provided for the completion of these applications as proposed, also in the *Support Funding Applications* implementation strategy section.
 - **Information on farming in the NeCN catchment area**
 - a. As presented in the *Additional Sources* section of this implementation strategy, there is a wide range of general information sources available for new farmers. However, there are limited resources available for the conditions specific to Northeast Ontario. Therefore, it would be beneficial to raise awareness of these existing information sources while also providing information on specific crop varieties and necessary farming practices specific to Northeast Ontario. The best means to do so would presumably be online through the single window website described throughout this report.
 - b. There are a variety of sources from which this information can be obtained. Some include: local farmers; the local chapters of the Ontario Soil and Crop Improvement Association (OSCIA) and Cochrane Federation of Agriculture; the research stations located in the area; and the OMAFRA representatives for the region.
 - **Settlement support services for prospective and new farmers**
 - a. Particularly for those interested in moving to the area from elsewhere in Ontario, or abroad, settlement support will be essential both before and after they move to the area.
 - b. Once awareness is raised it will be important to provide a means for those interested in the area to identify available farmland and help match prospective farmers with sellers. This may be achieved through online postings or a single point-of-contact to help those interested identify available acreage within their means or expectations (both agriculturally and socially).
 - c. Another important, though often overlooked, aspect of attracting new farmers will be supporting them in identifying communities that meet their personal needs and expectations. Indeed, there is more to decisions to move than agricultural availability. For instance, young people from southern Ontario may expect certain recreational opportunities or need schools for young families. It would be highly beneficial to have a method (such as a navigable online map) showing where these services are located.
 - d. A final point is that newcomers will need to be supported in integrating once they move to the area. In this regard, the mentorship and new farmer networks will be vital. As well, it will be useful to have a point-of-contact for newcomers looking for help. This will be important to keep in mind as it is in no one's interest to see these newcomers leave or their newly founded operations fail.

Long Term:

- **Creation of funding opportunities for new farmers**
 - a. If attempts to increase the awareness of opportunities for new farmers prove insufficient there may be a role for the NeCN and its member municipalities to provide funding directly.
 - b. This funding could be delivered in the form of cost-sharing or low-interest loans for farm improvements.

Why do this?

It is essential for agricultural expansion in the NeCN catchment area to have new farmers start up in the area. Particularly due to the affordability, it may be reasonable to expect that it would be an attractive option for young people elsewhere in Ontario (or beyond) wishing to farm but cannot afford to do so. However a significant obstacle is acquiring the loans and financing necessary to start such operations. Therefore an opportunity exists to support new farmers in this regard.

As well, there may be a role in settlement and information support for new farmers. For instance, settlement support would be necessary to help individuals with little knowledge of this very different area find available land; suitable communities for lifestyle expectations; adapt farming practices; among other practicalities. Therefore, some sort of coordinated mentoring service or information package may be appropriate.

Outcomes and Impacts

Outcomes:

- A mentorship program linking established farmers in the area with new farmers to help maintain local knowledge and aid newcomers.
- Settlement support service to help prospective and existing newcomers with finding available land, finding appropriate communities based on lifestyle, adapting farming practices, and other practicalities.
- Provision of information on funding opportunities for new or young farmers.

Impacts:

- More local youth taking up farming in the area.
- Increase in new farmers moving to the area from other parts of Ontario and beyond.
- Improved success rate of newly established farming operations.

Relevant Examples

External:

FarmLINK- <http://www.farmlink.net/>

The FarmLINK program matches new farmers who are looking for land or mentorship with farm owners who have land available or expertise to share. Through an interactive map and search function, FarmLINK provides new farmers with an opportunity to seek out mentors or available farmland within their geography. At present, there are no participants in Northeast Ontario.

New or prospective farmers can also post a short profile detailing their agricultural interests and mentorship needs. Prospective farmers can also post regarding the type of farm they are seeking as well as its location. As of August 2011, there were almost 300 profiles posted with a range of farming interests.

Additional sources

- FarmStart: <http://www.farmstart.ca/>
- Starting a Farm in Ontario - Business Information Bundle for New Farmers (OMAFRA):
<http://www.omafra.gov.on.ca/english/busdev/newentrant/sec8.htm>
- Young and Beginning Farmers – AAFC: <http://www4.agr.gc.ca/AAFC-AAC/display-afficher.do?id=1270648589471&lang=eng>
- The New Farmer - Canadian Farm Business Management Council:
<http://www.farmcentre.com/Features/TheNewFarmer/>
- Northern Ontario Young Entrepreneur Program - NOHFC:
http://www.mndmf.gov.on.ca/nohfc/programs/northern_ontario_young_entrepreneur_e.asp
- Northern Ontario Entrepreneur Program – NOHFC:
http://www.mndmf.gov.on.ca/nohfc/programs/northern_ontario_entrepreneur_e.asp
- Canadian Young Farmers' Forum: <http://www.cyff.ca/>
- Young Farmers – Farm Credit Canada (FCC): <http://www.fcc-fac.ca/en/learningcentre/YoungFarmers/index.asp>
- Canadian 4-H Council: <http://www.4-h-canada.ca/english/>
- Beginning Farmer Group: <http://www.beginningfarmer.ca/index.html>

Non-food producing agriculture

Strategic Action: Evaluate and disseminate opportunities for non-food producing agriculture

Recommended General Direction: Evaluate the viability of agriculture for industrial purposes and dissemination of opportunities.

There may be an opportunity for agricultural production within the NeCN catchment area which is not intended for human consumption but rather for industrial purposes.

Objectives:

- I. Evaluate opportunities for non-food producing agriculture in the NeCN catchment area.
- II. Distribute findings and promote opportunities for non-food producing agriculture to the private sector.

Implementation Strategy:

Specific actions in support of recommended general direction

Short term:

- **Undertake specific research on opportunities for non-food producing agriculture**
 - a. The idea of non-food producing agriculture as an option for the NeCN catchment area is undeveloped. Therefore, if there is interest in pursuing this option specific research will be needed to evaluate its potential and feasibility.
 - b. There may be a role for the NeCN in commissioning this research directly. Alternatively, there may be an opportunity to promote the early conceptualization to private organizations or academics to pursue on their own.

Long Term:

- **Promote opportunities for non-food producing agriculture**
 - a. At present there are too many questions around this concept to suggest it can be promoted as an opportunity. Therefore, once adequate research has been completed, it would be possible to promote the opportunities to the private sector.

Why do this?

Similar to bio-mass or bio-gas producing agriculture, the NeCN catchment area may be an ideal place for other forms of agriculture which do not produce food as an output.

For instance, there was some discussion that while potatoes grew fairly well within the conditions of the area, they did not always reach the level of quality expected by consumers. Therefore, an option may exist for industrial uses for potatoes in distilleries or other operations where the output is not intended for human consumption. In this case, potatoes have a variety of purposes aside from human consumption including: paper and board; industrial and bio-applications; pharmaceuticals and cosmetics; and animal and pet feed.

Outcomes and Impacts

Outcomes:

- Further research on opportunities for non-food agriculture in the NeCN catchment area.
- Eventual promotion of opportunities in the NeCN catchment area.

Impacts:

- Creation of niche products based on NeCN catchment area strengths.
- New opportunities for farming and processing alike with value added production.

Relevant Examples

Additional sources

- “Potato starch – a versatile commodity”:
[http://www.agrocourier.com/bcsweb/cscms_de.nsf/id/Potato_Starch_Agro/\\$file/potato_starch.pdf](http://www.agrocourier.com/bcsweb/cscms_de.nsf/id/Potato_Starch_Agro/$file/potato_starch.pdf)

Wildlife Damage

Strategic Action: Better compensation for wildlife damage

Recommended General Direction: Request for more sufficient wildlife damage compensation considering the conditions of Northeast Ontario.

While not a major issue for agricultural operations in the area, wildlife damage is a common problem that most farmers do contend with. Farmers also often perceived that existing compensation mechanisms were insufficient.

Objectives:

- I. New or expanded wildlife compensation programs.

Implementation Strategy:

Specific actions in support of recommended general direction

Short term:

- **Request new or expanded wildlife damage compensation programs**
 - a. While compensation programs do exist for calves lost due to wildlife, this has been deemed by some farmers to be insufficient. For instance, one farmer mentioned that compensation would be more fair if it covered the cost of wintering a now calf-less cow rather than attempting to return some lost value for the calf.
 - b. As well, Sandhill Crane flocks were frequently mentioned as doing considerable damage to grain fields, for which there is (apparently) no compensation program. This is an area where a new or expanded program could cover.
 - c. Therefore, it would be worthwhile for the NeCN to request changes to existing compensation programs or request new programs to meet the unique needs of this area's farmers.

Why do this?

Wildlife damage has been frequently cited as an obstacle by area farmers. Specifically wolves for cattle farmers, bears damaging oat fields, and cranes destroying grain fields. While farmers with calves lost to wolves do receive some compensation other damage, such as from cranes, do not.

Outcomes and Impacts

Outcomes:

- New or expanded compensation program for wildlife damage to agricultural production.

Impacts:

- Fewer discouraged agricultural producers.
- More adequate compensation programs for the context of the Northeast.

Relevant Examples**Additional sources**

- **Ontario Wildlife Damage Compensation Program (OMAFRA):**
<http://www.omafra.gov.on.ca/english/livestock/predation.htm>

Services/Subsidies Comparable to Quebec

Strategic Action: Services/subsidies comparable to Quebec to even playing field

Recommended General Direction: Request improved services and subsidies comparable to Quebec for agricultural operators in Northeast Ontario.

There is a widely held perception among NeCN catchment area farmers that farmers on the Quebec side of the border have a competitive advantage resulting from an increased number of service and subsidies from their provincial government.

Objectives:

- I. Request that the Ontario government provide equivalent services/subsidies as Quebec for farmers in Northeast Ontario to maintain competitiveness.

Implementation Strategy:

Specific actions in support of recommended general direction

Short term:

- **Request services and subsidies equivalent to Quebec's for Northeast Ontario farmers**
 - a. Farmers in the NeCN catchment area often mentioned unequal support provided to farmers in Northwest Quebec when compared to their own situation.
 - b. While some of this sentiment may be the result of perception rather than reality it would be worth exploring further with the case put forward to the Ontario government regarding the opportunities the area could hold if it could be made competitive with its Quebec counterparts.
- **Make use of the situation in Quebec in arguments for improved services and support**
 - a. When observing the agricultural situation in Northwest Quebec in comparison to that of Northeast Ontario it is clear that those on the Quebec side have been particularly successful in farming within the conditions of the Northern Claybelt.
 - b. Given the almost identical physical conditions, a commonly heard argument is that the Quebec side benefits from increased provincial support.
 - c. Therefore, the situation of Northwest Quebec should be utilized by the NeCN when making the case for improved support from the Ontario government. Indeed, it provides an example of what the NeCN catchment area could be if provided with the right support and services as well as undermining arguments that physical conditions make agriculture in the area unviable.

Why do this?

Particularly due to the proximity to the Quebec border, farmers in the region frequently cited unequal benefits provided to Quebec farmers. There were a range of added government provided benefits presented, such as stronger outreach and information services and a

wintering subsidy for cattle farmers. There is a perception that these benefits put Northeast Ontario farmers at a competitive disadvantage, such as driving down the price of outputs. Therefore, there may be a role to lobby the Ontario government for similar benefits for Ontario farmers.

Outcomes and Impacts

Outcomes:

- Improved services and subsidies for farmers in Northeast Ontario.

Impacts:

- More competitive agriculture sector in the NeCN catchment area.
- More equality for farmers on either side of the Ontario-Quebec border.

Recognition of Agricultural Value and Potential

Strategic Action: Recognition of agricultural value and potential in the NeCN catchment area from other levels of government

Recommended General Direction: Request formal recognition and support for the agricultural sector of the NeCN catchment area.

The value and potential of agriculture in the NeCN catchment area should be formally recognized by other levels of government. This recognition should be carried through into actions to support farming in the region.

Objectives:

- I. Meet with the relevant Ministers from the federal and provincial governments.
- II. Obtain better information on soil and climate conditions in the area.

Implementation Strategy:

Specific actions in support of recommended general direction

Short term:

- **Meet with the Minister of Agriculture, Food, and Rural Affairs for Ontario**
 - a. A meeting should be requested with the Minister of Agriculture, Food, and Rural Affairs for Ontario in order to present the needs, opportunities, and value of agriculture in the NeCN catchment area and request recognition and support.
 - b. The approach to this meeting should be positive and non-confrontational with recognition that Ontario is a large province with many agriculturally productive areas throughout. Therefore, limited attention should not be perceived as neglect or disinterest.
 - c. There is also an opportunity to make use of the *Growth Plan for Northern Ontario* during this meeting. Indeed, the *Growth Plan* includes agriculture as an area of focus for economic growth in Northern Ontario. It would be valuable to follow up to inquire as to *how* this growth will be achieved.
 - d. An opportunity to set up this meeting may be presented at the annual Rural Ontario Municipal Association (ROMA) conference.
 - e. It may also be useful to include visuals of the stark divide between the agricultural coverage on the Ontario and Quebec sides of the border in Northeast Ontario; such as near the Quebec town of La Reine. Due to the similar climate and soils it would appear that the key differences are political.
- **Request improved soil and climate data**
 - a. The existing information on soils in the NeCN catchment area is outdated or unspecific in most cases. It would be very beneficial for future considerations of agriculture in the area to have updated soil maps with improved quality at a lower scale. These are being created by OMAFRA for the province however to date improved soil maps have not been created for Cochrane District.
 - b. Climate information, specifically in regard to crop heat units, are not very accurate within the context of the NeCN catchment area. Indeed, it has been found that climate information

- on this area is quite limited and will require specific study.
- c. In both cases OMAFRA plays a role in obtaining and distributing information. Therefore, it would be beneficial to formally request that this information be obtained or improved for Cochrane District.
 - **Request improved accuracy of estimates for agricultural production**
 - a. The research for this report found that estimates for yearly production of agriculture prepared by OMAFRA were significantly underestimated. For instance, estimates from OMAFRA indicate no presence of wheat or canola in Cochrane District, which the fieldwork found to be inaccurate. As well, numbers for livestock (particularly sheep) are well below the numbers presented in interviews and observed throughout the fieldwork.
 - b. While there is a disclaimer that comes along with these numbers relating to possible inaccuracy at this level, this may still pose an issue if decisions are being made based off of this data.
 - c. Therefore, the NeCN may wish to include a request for improved estimate numbers for their District during their discussions with OMAFRA representatives.

Why do this?

There is a common perception in the NeCN catchment area that agriculture in the region is not valued, or even discouraged, by other levels of government. Therefore, the value and potential of agriculture in the NeCN catchment area should be formally recognized by the federal and provincial governments and this consideration should be carried forward into future agriculture policies. It should also lead to actions from these levels to support agriculture such as funding opportunities and the presence of an OMAFRA representative for the region.

Outcomes and Impacts

Outcomes:

- Meeting with relevant Ministers from other levels of government; specifically OMAFRA.
- Better information on agricultural conditions in the NeCN catchment area.

Impacts:

- Formal recognition and increased awareness of the opportunities for agriculture within the NeCN catchment area.
- More support from other levels of government for agriculture within this region.
- Better soil and climate information to help make the case for extended agriculture in the area.

Relevant Examples

Additional sources

- **Growth Plan for Northern Ontario:**
https://www.placestogrow.ca/index.php?option=com_content&task=view&id=53&Itemid=65

Unconventional Agriculture

Strategic Action: Evaluate and promote the potential of unconventional agricultural opportunities.

Recommended General Direction: Evaluate the potential of unconventional or non-traditional agricultural ventures and promote opportunities.

An opportunity might exist for unconventional, or non-traditional, forms of agriculture in the NeCN catchment area. For instance, agri-tourism; non-forest timber products; and freeze dried berries might all build off of the inherent strengths of the region.

Objectives:

- I. Evaluate potential opportunities for unconventional or non-traditional agriculture.
- II. Promote opportunities once they have been identified and evaluated.

Implementation Strategy:

Specific actions in support of recommended general direction

Short term:

- **Evaluate opportunities for unconventional and non-traditional agriculture**
 - a. At present, it is difficult to say what the opportunities are within the NeCN catchment area for unconventional and non-traditional agriculture. Therefore, specific and targeted studies will be necessary if this is deemed to be an area of interest.
 - b. There is speculation that freeze dried products or non-timber forest products may benefit from the area's inherent strengths, however their commercial viability is also in question.
 - c. Similarly, there may be potential for using horses as an agritourism tool making use of this existing resource. However, at this stage it is difficult to speak to the viability of this.

Long Term:

- **Promote opportunities for unconventional and non-traditional agriculture**
 - a. Assuming that studies identify that this form of agriculture is viable in the area, the NeCN may play a role in promoting it to those within the area or businesses elsewhere.

Why do this?

By building off its inherent strengths there may be an opportunity for the NeCN catchment area to pursue unconventional or non-traditional agricultural ventures. For instance, it has frequently been mentioned that this area has a considerable number of horses. This resource could be utilized as a form of agritourism. Another potential opportunity rests with non-forest timber products which may be an opportunity to make use of the area's vast forests. Further still, it has been speculated that due to the relatively cool temperatures of the area there may be an inherent opportunity to pursue freeze dried products, such as berries which have been found to grow relatively well in the area.

Outcomes and Impacts

Outcomes:

- Specific studies to evaluate the potential opportunities for unconventional and non-traditional agriculture in the area.
- Eventual promotion of opportunities.

Impacts:

- New opportunities for agriculture in the area building off of inherent strengths.

Relevant Examples

Additional sources

- **Economic Impact of the Ontario Horse Industry (OMAFRA):** <http://www.omafra.gov.on.ca/english/livestock/horses/facts/ecimpact.htm>
- **Sandaraska Park Equestrian Camping:** <http://www.sandaraskapark.ca/equestrian-camping>
- **Non-Timber Forest Products – British Columbia:** <http://www.for.gov.bc.ca/hre/ntfp/>
- **Non-Timber Forest Products Network of Canada:** <http://ntfpnetwork.ca/>
- **Non-timber forest products (NRCAN):** <http://canadaforests.nrcan.gc.ca/article/borealntfp>

Opportunities for Learning

Strategic Action: Create and promote opportunities for learning within the agriculture community

Recommended General Direction: Create and promote opportunities for learning within the agricultural community through the use of peer-learning, extension, and outreach.

The NeCN catchment area contains few opportunities for learning within the agricultural community such as limited extension and outreach services.

Objectives:

- I. Create or foster the growth of a peer-learning network for the NeCN catchment area agricultural community.
- II. Request more involvement from formal extension services and an eventual return to a dedicated representative for Cochrane District.
- III. Request increased involvement from research stations within the area in regards to outreach and information distribution.

Implementation Strategy:

Specific actions in support of recommended general direction

Short term:

- **Promote existing opportunities for learning**
 - a. While it is responsible for a large area with limited personnel, it is important to remember that the Northern Ontario Regional Office in New Liskeard is responsible for providing extension/outreach services to Cochrane District. However, interviews with farmers during the fieldwork seemed to indicate little awareness of this offer. Therefore, the existing of this office and the services it provides should be better promoted to the NeCN catchment area's agricultural community.
 - b. As well, the Kapuskasing Beef Research Farm does provide some outreach and tours to area farmers which could be better promoted. Indeed, it may be expected that an increased uptake of these existing opportunities could help justify the creation of new ones.
 - c. Further, OMAFRA personnel indicated that they do make use of online opportunities for extension and outreach, such as broadcasting presentations via WebEx. However, there seemed to be little awareness of this within the agricultural community.
 - d. One idea, particularly considering the limited awareness and potential discomfort with computers and internet, is to create a combined in-person networking event with a particularly relevant WebEx presentation projected for the group.
- **Request increased involvement of research stations in outreach and information distribution**
 - a. The presence of NLARS and the Kapuskasing Beef Research Farm in the region provide great assets for learning which are currently being underutilized.
 - b. Therefore, a request should be made in each case to have each institution more engaged in the agriculture community to share their expertise and the important findings that they produce.

- **Support the creation of a peer-to-peer learning network**
 - a. It would be beneficial for farmers across the NeCN catchment area to have a means for sharing information/ideas and requesting advice from peers in their own area.
 - b. This could take the form of a mixed online and in-person network with a forum hosted on the NeCN website along with in-person workshops and networking opportunities.
 - c. This would also be an opportunity to involve guests from the research stations or OMAFRA to reach a large audience with limited time and resources.
 - d. Further, it is an opportunity for role models in the area to share their experiences, knowledge, and ideas to others in the area.

Long Term:

- **Request a dedicated OMAFRA extension office located within Cochrane District**
 - a. While contrary to current trends of centralization, it would be worthwhile to request a dedicated OMAFRA office be returned to Cochrane District with staff responsible for extension and outreach exclusively for the area.
- **Support creation of formal agricultural learning opportunities through Contact North**
 - a. Due to the large geography of the area it may be possible to make use of the existing resource of Contact North to create formal, online learning opportunities for area residents on topics related to agriculture and agri-business.

Why do this?

In the past, the Ontario Ministry of Agriculture, Food, and Rural Affairs (OMAFRA) had two extension offices in Cochrane District; the North Cochrane office in Kapuskasing and the South Cochrane office in Matheson. However, today the area is served by the Northern Ontario Regional Office in New Liskeard. This office serves a very large geography creating a situation where staff is responsible for very long distances and therefore those in the NeCN catchment area perceive that they are underserved.

Similarly, the New Liskeard Agriculture Research Station (NLARS) and Kapuskasing Beef Research Farm used to play a larger role in community outreach and knowledge distribution. However, today their mandates and resources allow for very little of this to occur.

Overall, there is limited opportunity for learning within the agriculture community within the NeCN catchment area. During the fieldwork it was identified that this also creates a situation where farmers are sometimes unaware of advancements in agricultural practices, varieties, etc.

Outcomes and Impacts

Outcomes:

- Creation of a peer-to-peer learning network for farmers in the NeCN catchment area.
- Better awareness and increased use of existing learning opportunities and extension services.
- Increased involvement of research stations in outreach and information sharing.
- Dedicated extension service for Cochrane District from OMAFRA.

Impacts:

- Improved knowledge within the NeCN catchment area farming community in regards to advancements in farming practices, varieties, funding opportunities, among other relevant information.
- Opportunity for farmers to request help or advice from a range of sources including peers dealing with similar conditions or issues as well as professional extension staff.
- More effective, efficient, and profitable agricultural operations within the NeCN catchment area.

Relevant Examples**Additional sources**

- **Agricultural Information Contact Centre (OMAFRA):**
<http://www.omafra.gov.on.ca/english/realign/aicc.htm>
- **Farm Advisory Services - Canadian Farm Business Management Council:**
<http://www.farmcentre.com/FarmAdvisors/>
- **The Ag Business Centre:** <http://www.ridgetownc.uoguelph.ca/abc/index.cfm>
- **Season Extension Techniques for Vegetable Crops (OMAFRA):**
http://www.omafra.gov.on.ca/english/crops/hort/Season_Extension.htm