



MacGregor Industrial Park

Feasibility Study

July 2018

Prepared by:
McSWEENEY
inspiring economic sustainability™



MUNICIPALITY OF
SHUNIAH INC. 1873
A Superior Living Experience

Municipality of Shuniah

MacGregor Industrial Park Feasibility Study

July 2018

Prepared by:



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MACGREGOR INDUSTRIAL PARK FEASIBILITY STUDY



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1. INTRODUCTION

Shuniah is a municipal township bordering on the City of Thunder Bay to the west, and the shores of Lake Superior and Black Bay to the south. The area of the Municipality of Shuniah covers 55,374 hectares with the Trans-Canada Highway (Highway 17/11) bisecting through the municipality. With a population of 2,923, the township is part of Thunder Bay's Census Metropolitan Area, and consists of the communities of Amethyst Harbour, Ancliff, Bowker, Loon, Mackenzie, Navilus, Pass Lake, Pearl, Silver Harbour and Wild Goose. Shuniah, named after the Ojibwa word "zhooniyaa" for "money" or "silver" was settled largely due to silver mining potential identified in the mid-19th century.

The Official Plan sets out the intention of the Municipality, which is to encourage the growth and development of industrial uses consistent with the natural resource base of the Municipality and that Shuniah can offer prospective users large tracts of land with excellent highway access and no adjacent incompatible uses. The Municipality of Shuniah through its Strategic Plan, has also identified the need to explore expansion of its industrial sector.

The Municipality owns 2,130 acres (862 hectares) of undeveloped lands in the northwestern part of the community that it intends to see developed as industrial land. The Municipality engaged McSweeney & Associates to conduct a location and market analysis as part of a business plan to determine the feasibility of developing these lands for an industrial park.

In the Thunder Bay area, the industrial land market can be described as follows:

- Industrial land is in extremely low demand, with any new industrial land consumed generally used for small warehousing and distribution, often as an addition to an existing industrial use;
- The most significant supply competition are industrial areas in Oliver Paipoonge (including Rubin Industrial Park) – which offer lands that are easy and inexpensive to develop (compared to Shuniah) at a very low price (well below the actual cost of servicing), and market momentum,

Challenges that the MacGregor Industrial Park will face:

- There is essentially no demand for the existing available industrial lands in Thunder Bay and area in even prime locations;
- Shuniah (and particularly the location of this site) is not perceived as a business or industrial area. This will impact market acceptance;
- The land is difficult to develop due to its undulating terrain and wetlands throughout.



2. BACKGROUND AND MARKET RESEARCH

2.1. Economic Context and Market Trends Evaluation

2.1.1. Economic Context

A Snapshot of THE MUNICIPALITY OF SHUNIAH

Location

Shuniah is a municipal township bordering the city of Thunder Bay, Ontario, Canada on the east and consists of the communities of Amethyst Harbour, Ancliff, Bowker, Loon, Mackenzie, Navilus, Pass Lake, Pearl, Silver Harbour and Wild Goose.

Serving today primarily as a rural bedroom community to Thunder Bay, Shuniah is also a popular cottaging locale with 40 kilometres of Lake Superior's northern shoreline.



MARKET ACCESS

60km	.....	Thunder Bay
642km	.....	Sault Ste. Marie
743km	.....	Winnipeg
1338km	.....	Toronto
1400km	.....	Ottawa

POPULATION

2,923*

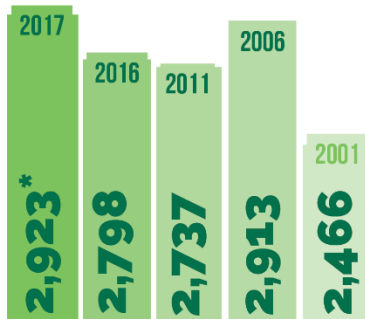
**ONTARIO POPULATION
14,125,923**

*2017 estimate

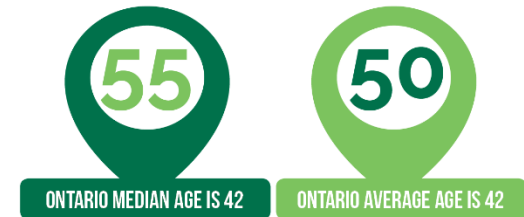


DEMOGRAPHICS

CENSUS POPULATION



MEDIAN & AVERAGE AGE



POPULATION BY GENDER



AGE PROFILE



5%

1 Year Mobility

Residents that had moved within the previous year

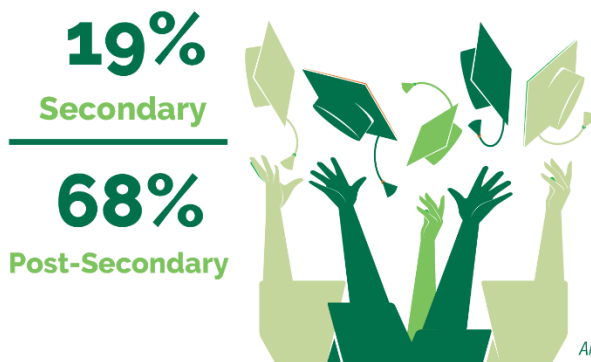


29%

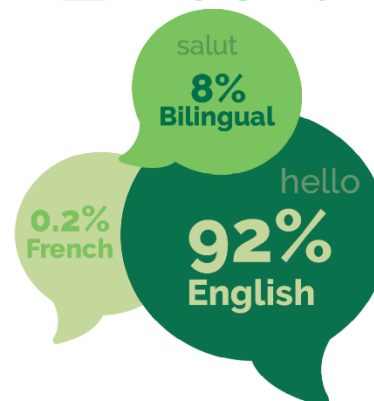
5 Year Mobility

Residents that had moved within the previous 5 years

HIGHEST EDUCATION LEVEL



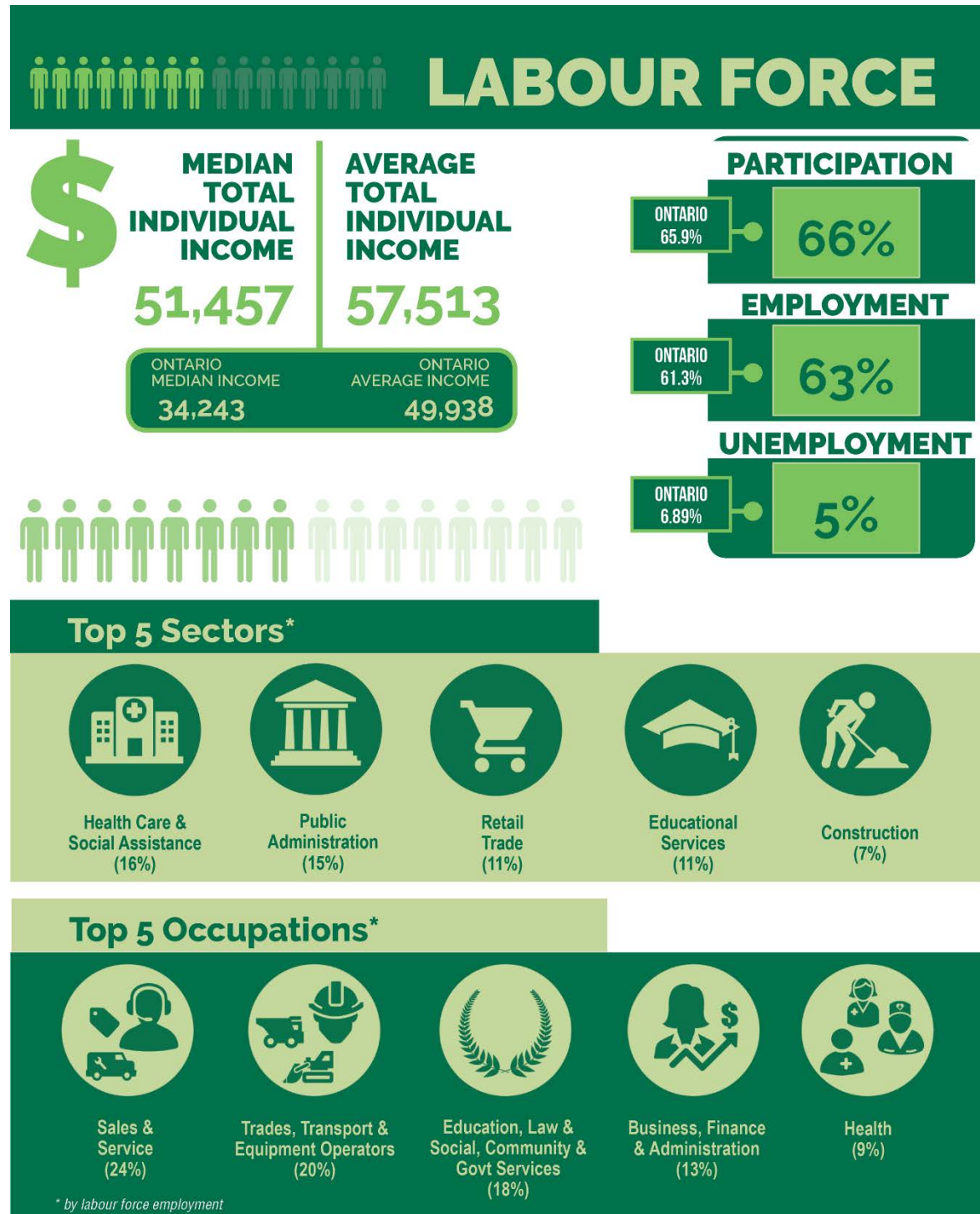
LANGUAGE



All data sourced from Manifold SuperDemographics unless otherwise specified.



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All data sourced from Manifold SuperDemographics unless otherwise specified.



2.1.2. Market Trends Evaluation

- Rising oil prices and the investment recovery emerging in Alberta's energy sector should assist Ontario's interprovincial export volumes that have slipped 2.25% since the oil price correction in 2014.
- Ontario's growth in retail & wholesale trade and tourism-related industries was supplemented by a solid increase in transportation and warehousing, which is expected to continue.
- Ontario has produced considerable job creation in technology-oriented occupations in natural and applied sciences (e.g., engineers, information systems and computer software specialists).
- Northern Ontario's forestry industry has been hard hit by protectionist U.S. tariffs.

2.2. Regional Sector Opportunity and Needs/Gap Analysis

2.2.1. Regional Sector Opportunities

Forestry is unlikely to represent a regional growth sector opportunity in the foreseeable future due to U.S. protectionist policies.

A decision by Noront Resources to build its planned ferrochrome smelter in the Thunder Bay area does represent an opportunity for a significant "shot in the arm" of the Thunder Bay economy, which would have the potential to positively impact Shuniah. It should be noted however, that Ring of Fire development has been much slower in progressing to development than anybody has expected or hoped for. Significant challenges still exist to be addressed before the Ring of Fire can become "a reality".

Based on the economic base analysis of the regional economy (includes data from Municipality of Shuniah, City of Thunder Bay and the Municipality of Oliver Paipoonge), the industries best positioned to take their place in Shuniah's local economy are:

- Support activities for road transportation;
- Mining and support activities for mining;
- Residential building construction; and
- Other heavy and civil engineering construction.

2.2.2. Investment Readiness

An investment readiness review determines investment barriers and identifies any disparity between where Shuniah envisions itself and its current state of investment readiness by identifying gaps. An informal assessment was made on the following tools and activities to best determine Shuniah's level of investment readiness.



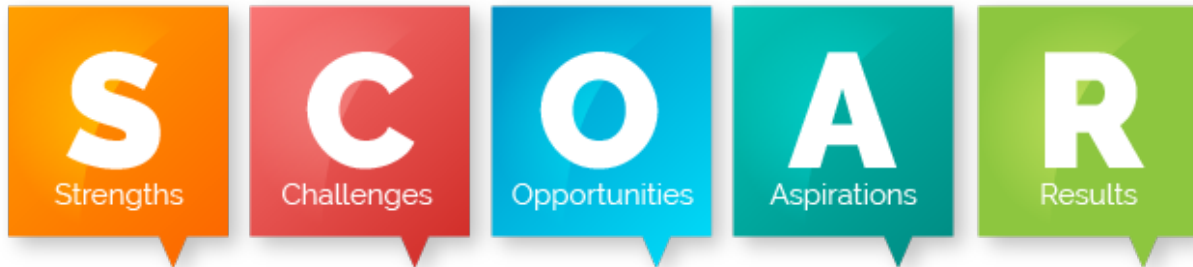
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TOOLS AND ASSETS	GAPS	RECOMMENDATIONS
Web presence	Currently the municipality's site is missing key information that investors require to make an informed decision about the community.	Create an economic development section on the Shuniah site and provide all the information required by an investor.
Community/Economic profile	A Community Profile is currently being completed.	Add Community Profile to the website.
Availability and inventory of Industrial and commercial land and buildings	Shuniah has no effectively available industrial or commercial land or buildings, and therefore no inventory listing these assets.	Shuniah needs to plan to make commercial and industrial land and ideally buildings available for businesses. Subsequently, create an inventory of available industrial and commercial land and buildings.
Infrastructure to support businesses	Not available.	This will be available in the Community Profile.
Investment Marketing Tools	Not available.	Only required once the basics of investment readiness is completed.
Land use planning and development approval transparency, timeliness, process	Not available.	Document the required development processes, costs, and time required.
State of maturity and resourcing of the economic development organization	Shuniah's economic development office is in its infancy and has only recently hired their first economic development officer.	Continue to develop economic development and investment readiness of the Municipality.
Location inquiries	There is no formal lead handling process in place. Generally handled on a per inquiry basis.	Develop a lead handling process for business location inquiries.
Investment monitoring and tracking	Not currently being undertaken.	Once there is information available on the opportunities available there is a need to begin monitoring and tracking.

Because Shuniah is in the beginning stages of its Economic Development program and efforts, it has not yet developed the core tools and assets required to attract business investment to the community, including having land ready for development. To further understand areas where the community can improve its overall level of investment readiness the Municipality is encouraged to undertake a detailed Investment Readiness Assessment and an investment readiness training and coaching exercise.



2.2.3. SCOAR™ Analysis



To understand the current situation in Shuniah, McSweeney & Associates utilized a **SCOAR™ (Strengths, Challenges, Opportunities, Aspirations, Results) Analysis** in lieu of the more limited and more negative SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis.

Based on discussions with key stakeholders, background document reviews and economic analysis, the Shuniah SCOAR™ Analysis results are as follows:



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- On the Trans-Canada Highway with both eastbound and westbound access to/from the Trans-Canada highway with connections to the US Interstate system
- CPR main rail line passes through Shuniah near the MacGregor Industrial Park
- Proximity to Thunder Bay - largest urban municipality in northern Ontario - transportation hub featuring one of Canada's largest port facilities, both major railways
- international airport
- Available workforce
- Good access to the US border crossing
- Low operating costs (taxes, etc.)
- Broadband infrastructure could be available at site
- Currently zoned Heavy Industrial
- Clean site without any remediation required
- Land owned by Shuniah
- Have a current Strategic Plan (2016-2020)



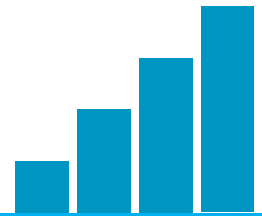
- Unserved land
- Difficult and expensive to service the site
- Terrain isn't easily developable for traditional type industrial uses
- Highway access restrictions (MTO) based on potential use
- Competition from Thunder Bay and area weakens the ability to attract industrial
- Lack of brand awareness
- Lack of demand for industrial land in the region
- Building costs are expensive
- Broadband isn't found everywhere
- Existing vacant buildings lease/sell at a substantially lower cost than building new, which will therefore typically be absorbed before new construction is required
- There is a significant amount of vacant space currently available
- Only one aquifer for water access
- Manufacturing in decline
- Not ready for investment
- No current long-term financial strategy for services
- Large industrial project could utilize the potential MacGregor Industrial Park come up very rarely



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- Develop smaller lots for rural industrial business locations
- The Ring of Fire may spur development in the area, especially if Noront selects Thunder Bay as the location for its ferrochrome smelter
- Become investment ready
- Opportunity to develop MacGregor Industrial Park for a large heavy industrial use



- Shuniah becomes investment ready
- One or two businesses per year move to, or start up, in Shuniah



- To attract one new business to Shuniah (or business startup) per year
- That industrial (and commercial) development provides an enhanced tax base to balance residential growth



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2.2.4. Needs/Gap Analysis

A Needs/Gap Analysis Model, developed and used exclusively by McSweeney & Associates, takes a bottom-up approach to understanding the competitiveness and readiness of a specific community or economic region in relation to a particular economic and/or community activity.

Shuniah's Needs/Gap Analysis was completed by:

- Undertaking a detailed quantitative analysis (stats, data, document review and SCOAR analysis).
- Undertaking a qualitative analysis using information obtained through interviews with Shuniah's partners and stakeholders.
- Analysing the information collected above in the McSweeney & Associates Needs/Gap Analysis Model.

There currently appears to be a number of gaps that are impacting Shuniah's ability to successfully attract investment into the area. Many of the gaps can be categorized within one primary community asset – **Place**.

Is Shuniah a place where business wants to invest and can invest?

The gaps relating to **Place** include:

- Available shovel ready/ developable land and/or buildings to capitalize on business investment opportunities.
- Available infrastructure.
- An actual demand for industrial lands in the region.
- Brand awareness of Shuniah for industrial/commercial investment.

To be successful in its economic development efforts, Shuniah will need to ensure that the identified “Place” gaps are addressed before undertaking any Investment Attraction actions.



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2.3. MacGregor Industrial Park Best Uses

The best uses for the MacGregor Industrial Park are as follows:

- Small rural industrial uses not requiring large flat lots;
- Uses which do not generate significant traffic;
- Uses which do not require municipal water and wastewater services;
- Potentially a very large industrial use that would use very large quantities of natural gas or electricity, or both.

Further details on recommended permitted uses may be found in 3.2 Preferred Planning Approaches.

2.4. Market and Location Analysis for Industrial Park

2.4.1. Market Analysis

Shuniah Land Supply

Shuniah has a very limited supply of industrial land as identified in the Municipality's Official Plan and the supply is situated in the following locations:

1. Along Highway 527 near the intersection of that highway with Highway 11/17.
2. The undeveloped MacGregor Industrial Park, which is zoned Heavy Industrial.

There are no other designated industrial lands within the Municipality.



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Competing Land Supply in Thunder Bay and Oliver Paipooonge

The following map illustrates the location of the land supply competing with Shuniah's location.

Figure 1: Industrial Land Supply in Oliver Paipooonge and Thunder Bay



OLIVER PAIPOONGE

1. Kakabeka Falls
2. Murillo
3. Rubin Industrial Park
4. Rosslyn
5. Cooper Road
6. Haniak Road

THUNDER BAY

7. Airport (lease only)
8. Walsh Street
9. Innova Business Park
10. Intercity
11. Keefer Terminal
12. Mission Island
13. Fort William First Nation (off reserve, lease only)

A summary of the industrial land supply market in which the Shuniah lands will compete may be described as follows:

- The most significant competition to Shuniah's industrial land is Oliver Paipooonge's industrial lands. One area of note is the Rubin Industrial Park, which offers flat lands that are easy to develop, have a supply available for sale at very low costs, and market momentum and acceptance.
- There is limited available serviced industrial land in Thunder Bay, which is significantly more expensive to purchase and to operate (higher taxes), and many parcels are brownfields.
- Oliver Paipooonge offers low cost lands that are easy to develop in comparison to the MacGregor Industrial Park.
- Thunder Bay would attract industrial uses with needs that are different from those that would locate in Shuniah. However, the MacGregor Industrial Park clients are very likely to be businesses that could be attracted from Thunder Bay or possibly Oliver Paipooonge. Thunder Bay lands in close proximity to the airport are only available for lease.



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Oliver Paipoonge

Industrial lands in Oliver Paipoonge are clustered in three locations across the Municipality.

- The Kakabeka Falls area.
- The Rosslyn area, and along Cooper Road and Haniak Road.
- Murillo has two locations. One of which is the Rubin Industrial Park, with 11 lots of which 3 remain available. Hydro, phone/internet and natural gas are available. Private water and wastewater services are to be installed by the purchaser.

Thunder Bay

The City of Thunder Bay currently has the following industrial areas with full municipal services:

- **Innova Business Park** is 71 prime acres of Municipally owned land located within the City of Thunder Bay. Lots range from small single-use to large multi-use for commercial and light industrial enterprises.
- **Fort Williams First Nations Business Park** is approximately 1100 acres (700 developable acres) of industrial land for sale and/or lease. Lot sizes are subdivided into 45-acre sites, with access to rail, natural gas, the seaway, the Trans-Canada Highway, and Highway 61 South. These lands are off reserve and are only being offered through a leasing agreement.
- **Harbour Business Park**, a 111-acre industrial park on the waterfront, is owned by the Thunder Bay Port Authority offering serviced sites ranging up to 6 acres on the waterfront.
- **Intercity Site** is 30 acres of waterfront property with an operational elevator terminal that is currently available for development. With rail access, 61 metre dock at seaway depth with a grain terminal offering a 173,000 tonne storage capacity.
- **Thunder Bay Airport** offers 180 acres of serviced land in close proximity to the airport and is zoned to permit commercial, aviation and light industrial uses. It is highly visible to Highway 61. It offers approximately 42 acres of commercial, 70 acres of light industrial, and 67 acres for aviation related industry. These lands are only offered through a leasing agreement.

Historic Demand Analysis

Historically, the Thunder Bay and area industrial market has been closely tied to the forestry and mining sector. In more recent years it has become more diversified. In general, and over the past decade, there has been a very low demand for industrial lands.

Recent development of industrial lands in both Thunder Bay and Oliver Paipoonge have been primarily for distribution and warehousing uses, largely related to existing



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businesses. Oliver Paipoonge has averaged one industrial development annually between 2013-2017, and some of these are expansions of existing developments.

Market Analysis Summary

Generally, the Thunder Bay and area market is and has been a very soft market for industrial development. There has been very limited industrial investment and those have typically been for distribution and warehouse uses. There has been an average of one industrial building permit issued annually between 2013-2017 in Oliver Paipoonge, typically for an expansion of existing uses.

2.4.2. Location Analysis

Property Location - General Property Description

The "MacGregor Industrial Park" property is located on the north side of, and is visible from the four lane Highway 11/17, the Trans Canada Highway, and is east of Thunder Bay.

The parcel of land is approximately 2,130 acres and is somewhat rectangular in shape, consisting of a number of lots. There is approximately 2 km of frontage along Highway 11/17. The property has a gravel road with access from both east and westbound lanes of the highway, and runs more or less parallel to the highway, easterly from its entrance off the highway for less than one kilometre before entering the adjacent property to the east.

The land that has never been previously utilized for any form of development, and as such would be a greenfield development. The property is forested, with little soil cover over bedrock and has several hills, valleys and different elevations running throughout the property.

Large tracts of land (perhaps as much as 40% or more) on the property are low lying lands depicted by the Lakehead Region Conservation Authority as being "Approximate Regulated Area" which would impact development.



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Property Characteristics

Official Plan

The current Official Plan (O.P.) 2006 contains the following Industrial policy statement:

It is the Township's intention to encourage the growth and development of industrial uses consistent with the natural resource base of the Township. Shuniah can offer prospective users large tracts of land with excellent highway access and no adjacent incompatible uses.

The O.P. Section 4.2.3 Industrial Development states:

New industrial development may be permitted in the "Rural" area through the process of rezoning. This type of development will be limited to those uses which require extensive amounts of space, serve the needs of the rural area, or are considered incompatible uses in the more developed areas of the Township.

The industrial uses of land in the "Rural" designation shall be for manufacturing, processing, servicing and/or storing of goods and raw materials. Limited retail sales of products manufactured on the same premises may be permitted as a complementary use. Industrial uses shall have frontage on a maintained municipal or provincial roadway subject to the Ontario Ministry of Transportation. In addition, buffering and setbacks may be required as a condition of site plan approval from Council.

The subject property is largely designated as rural in Shuniah's Official Plan Schedule A, which permits industrial development, but there are significant portions of the site designated as Hazard Lands, upon which buildings and structures are not permitted. Northern portions of the site are also protected Mineral Aggregate Resource areas on Schedule C of the Official Plan.



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Zoning

The subject property was rezoned in 2017 from Rural to Heavy Industrial (HI). Current permitted uses in an H1 zone are:

- asphalt plant, open storage;
- bulk fuel storage and distribution;
- heavy industrial use;
- public utility;
- industrial centre;
- transportation or truck operation, truck depot;
- salvage yard, automobile scrap yard or wrecking yard;
- service, repair shop, commercial garage;
- waste disposal facility; and
- buildings, structures, and/or uses accessory, subordinate, and exclusively devoted to a permitted use, which shall not include a dwelling unit.

Review of Area Infrastructure Plans

The details of this review are included in the section on Area Infrastructure.

First Nations Land Claims

Municipal staff are not aware of any current land claim issues with respect to this property.

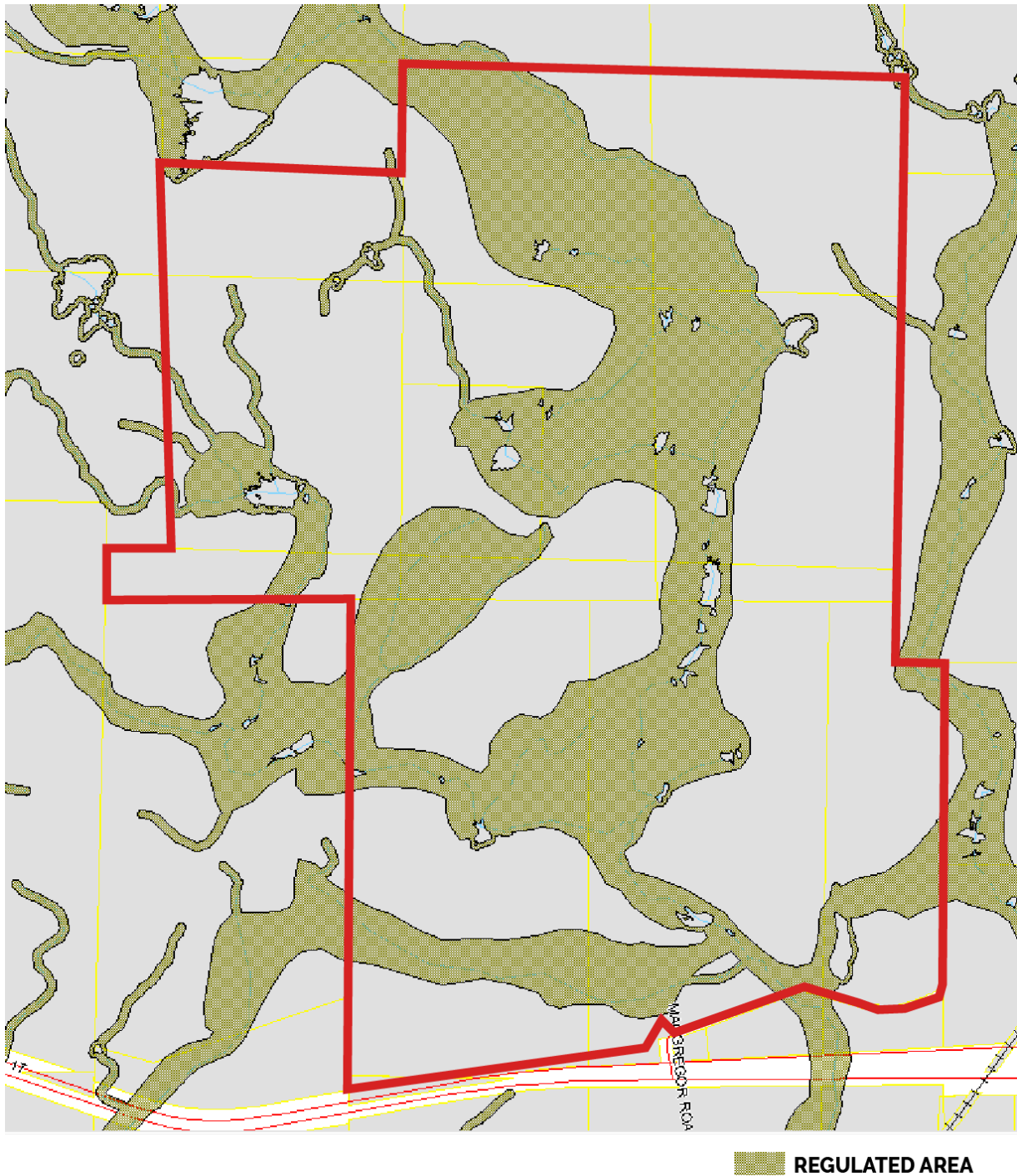
Environmental Information

As noted earlier in this report, a very substantial portion of the subject site is designated as Hazard Lands in the Official Plan. The Lakehead Region Conservation Authority indicates "Approximate Regulated Area" through large swaths of the subject site (as shown in the following figure). A more exact delineation of regulated areas would require further environmental, hydro-geological and possibly other studies. However, both currently limit the development capacity of the site.



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Figure 2: Approximate Regulated Area (typically Hazard Lands)



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Site Conditions Impacting Development

The subject site is not well suited to industrial development due to a number of factors including surface bedrock and uneven terrain interspersed with low lying areas containing still water or slow moving waterways that are designated as Hazard Lands. There are no "flat" areas for even the smallest of industrial lots of an acre or two. Northern portions of the site are also protected Mineral Aggregate Resource areas in the Official Plan.

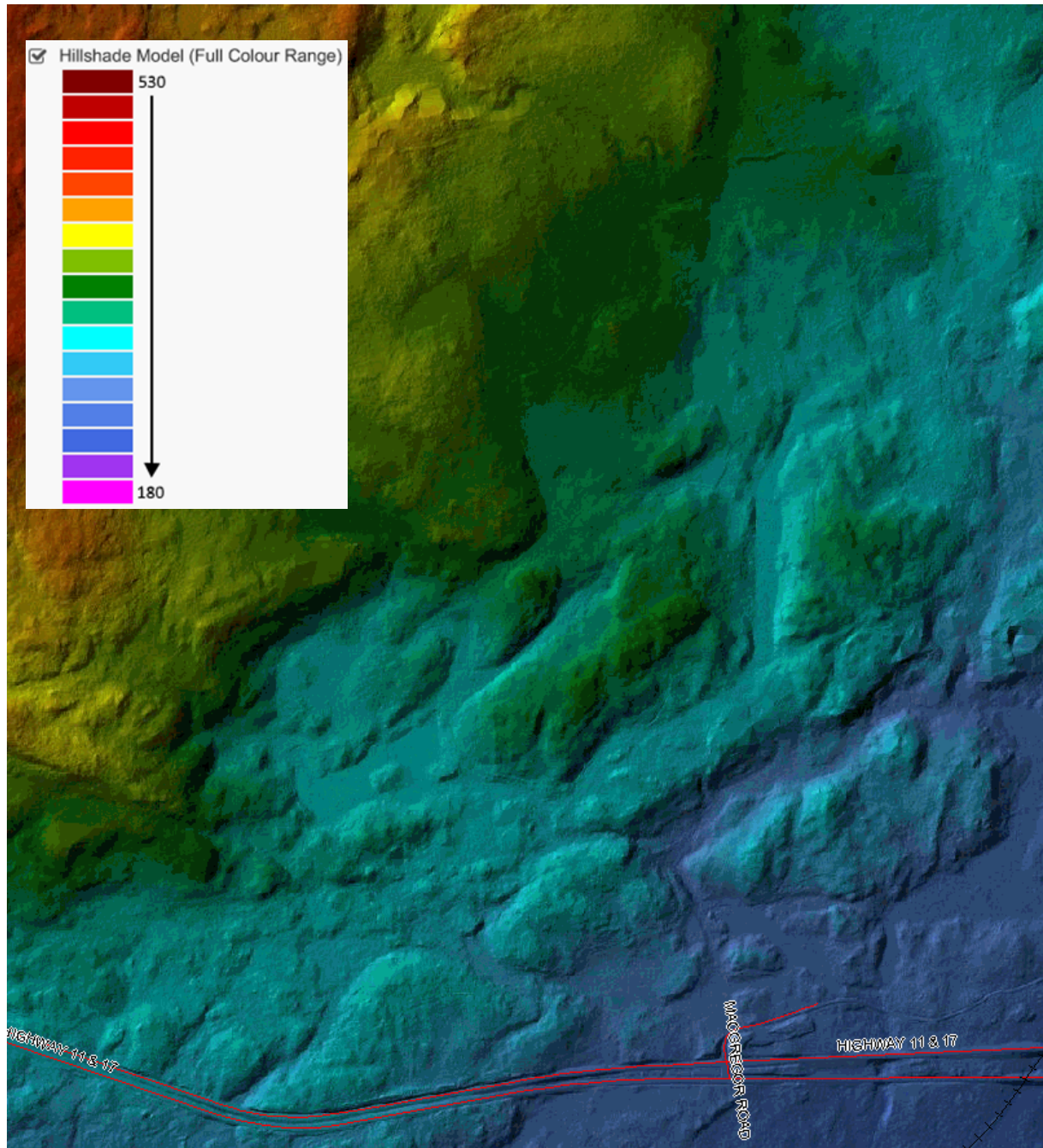
Elevations range from a low of 265 metres above sea level (Lake Superior is 183 metres above sea level) to a high of 400 metres above sea level. Some elevations are quite steep, and most of the surface area has more slope than traditionally acceptable for an industrial park. The "flattest" areas are the low lying wet/swampy areas designated Hazard Lands.

The following diagram illustrates the nature of relief of the subject site.



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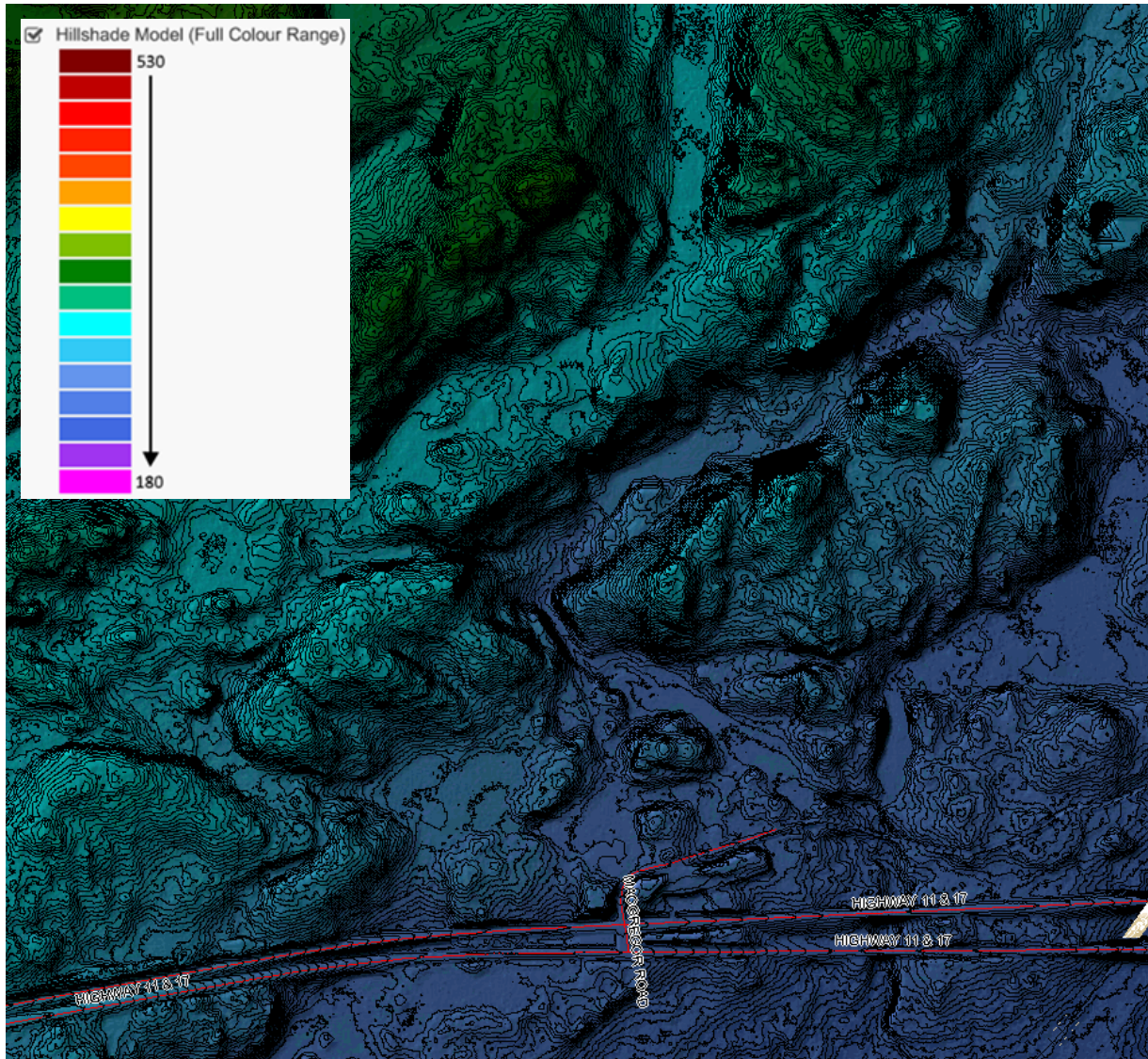
Figure 3: Hillshade Relief of MacGregor Industrial Park (Metres above sea level)



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A more detailed view of the southern portion of the site, with 1 metre contour lines, reveals the extent of the relief.

Figure 4: Hillshade Relief of Southern Lots & 1 M Contour Intervals



The implications of this hilly and rocky terrain on development are severe. To create relatively flat areas to construct upon, either buildings or yards, would require relatively expensive cut and/or fill operations on each and every potential site. Furthermore, with few exceptions, to access lands not designated as Hazard Lands requires the crossing of one or more Hazard Lands containing a water course. Approvals could prove time-consuming and expensive.



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A further consideration is that the terrain does not offer the opportunity of a traditional efficient industrial subdivision layout with multiple adjacent lots on both sides of a road. At best, a series of sites could be created connected by a road following a path of least resistance in terms of water and hazard land crossings. The cost of servicing on a per lot or acre basis would be much higher as a result.

Site Linkages

There is direct access to the site via MacGregor Road, which has direct right turn access from a dedicated right turn lane of the westbound lane of Highway 11/17. It also has an uncontrolled intersection left turn access from a dedicated left turn lane of the eastbound lane of Highway 11/17. This is the only permitted road access there will be to the site.

The Canadian Pacific Railway (CPR) main line passes near (but not across) the southeast corner of the property.

Comparative Advantages and Disadvantages of the Site

The advantages of this site in comparison to other industrial areas or sites in the Thunder Bay area include:

- Very large sites available;
- Virtually unlimited quantities of very high quality electric power by accessing the Ontario Hydro 230 kV transmission line that passes through the site;
- Virtually unlimited quantities of natural gas available by accessing the Trans-Canada transmission pipeline that passes through the northwestern portion of the site;
- Potential for a rail spur off the CPR mainline;
- There are no "neighbours" that can be disturbed as the site is isolated from any other developments; and
- While the terrain and Hazard Lands pose limitations, there are relatively few large greenfield sites that offer such close proximity to the gas, power and rail requirements of heavy industry.

The disadvantages of this site in comparison to other industrial areas or sites in the Thunder Bay area include:

- Very hilly, rocky terrain interspersed with low lying Hazard lands, whereas competing lands in Oliver Paipoonge are quite flat, offering easier and less expensive site preparation work in advance of the construction of buildings;
- The land is very difficult to develop due to terrain, and would be expensive to service as an industrial park on "cost/net sellable acre" basis;
- The cost of accessing natural gas via the Trans-Canada transmission pipeline and power via the Hydro One 230 kV transmission line is very expensive for all developments and would be affordable for only the very largest consumers;



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- The cost of providing natural gas service to this rural industrial park of potential small industries is not economically viable;
- Water and sewer service is not viable;
- From the market perspective, this is not an "established" industrial area as are parts of Oliver Paipoonge, and there are no industry supporting services nearby.
- This site is inferior compared to locations on the west side of Thunder Bay in terms of highway access to the United States border;
- As a result of the preceding disadvantages, land sale values would be extremely low, in a soft market where land sale values are very low.

Physical Limitations on Development

In addition to the already noted development limitations, the site is crossed by a high voltage Ontario Hydro transmission corridor.



3. DEVELOPMENT AND LANDS NEEDS ANALYSIS

3.1. Industrial Land Needs Analysis

We have noted several challenges to the MacGregor Industrial Park:

- Overall, industrial land consumption in the Thunder Bay area is at a very slow pace, with perhaps one or two industrial property projects per year in the area;
- There is ample and competing land supply on flat land that is inexpensive to develop;
- Competing serviced land supply is currently available at prices that are a fraction of the costs of servicing land;
- There may be relatively little demand from businesses wanting to locate on the east side of Thunder Bay unless there is a specific business reason to do so.

We estimate that Shuniah could at best, expect to sell on average, one property every few years if properties were available with access to road, hydro, gas, and fibreoptic services, provided the price was discounted to account for the additional costs of development on the hilly, rocky terrain.

3.2. Development Scenarios

There are essentially two possibilities for development of the MacGregor Industrial Park:

1. The first, and more likely scenario, is development of the industrial park for small rural industrial uses;
2. The second scenario, of which there is a very slim chance of occurrence, is the development of a major heavy industry on the site.

Given the size of the site, these two development scenarios are not mutually exclusive of each other.

A major heavy industrial development is rarely developed in Ontario and is even more rare in Northern Ontario. The currently contemplated Noront ferrochrome smelter is one of those extremely rare exceptions. While the MacGregor Industrial Park has limitations with respect to terrain and Hazard Lands, assuming those can be overcome, the site offers relatively close access to large quantities of reliable power, large quantities of natural gas, as well as close access to CPR main line railway.

With respect to development of a rural industrial park for either heavy industry or rural industrial development, there are no changes required to the Official Plan.



MACGREGOR INDUSTRIAL PARK FEASIBILITY STUDY



It is recommended that the following uses be added to the existing permitted uses of the Heavy Industrial zone in the MacGregor Industrial Park:

- Auction centre
- Building contractor's shop or yard
- Building supply outlet
- Bulk storage tank (including fuel) or bulk materials storage
- Crematorium
- Custom workshop
- Dry cleaning plant
- Emergency service
- Equipment rental, sales, and service including equipment used in agricultural, construction and mining industries
- Industrial uses that may be categorized as being medium or light (in addition to heavy)
- Manufacturing, welding, machining, fabrication; assembly and processing of materials and operations
- Printing plants
- Medical marijuana production facility
- Merchandise service shop
- Recycling depot
- Vehicular and equipment body (and mechanical) repair shop
- Wholesale establishment

A number of other uses were considered but were eliminated because of the potential to generate higher levels of traffic than the above noted uses. The following uses should be deleted as a permitted use because of the tendency to generate higher levels of truck traffic which may not be acceptable to MTO:

- Transportation or truck operation
- Truck Depot

In addition, no uses should be permitted that would draw large volumes of water from the single water aquifer serving the area.

There is one other minor change (or interpretation) recommended to the Bylaw 2038-00 zoning provisions with respect to this property:

- That the "minimum of 10% of the total lot area shall be provided and maintained as landscaped area" requirement be considered to have been met if a minimum of 10% of the lot area is left in its natural forested state.



MACGREGOR INDUSTRIAL PARK FEASIBILITY STUDY

3.3. Map and Description of Defined Area Infrastructure

The following map indicates the location of the CPR main line (black line) and the Trans-Canada natural gas pipeline (dark blue line) in relationship to the MacGregor Industrial Park (white line).

Figure 5: Location of Natural Gas Pipeline and Railway



MACGREGOR INDUSTRIAL PARK FEASIBILITY STUDY

The following map indicates the location of the Hydro One 230 kV transmission lines (red lines), 115 kV transmission lines (yellow lines), and 25kV local distribution lines (purple lines) in relationship to the MacGregor Industrial Park (white line). The Lakehead Transformer Station is also indicated.

Figure 6: Hydro One Transmission & Distribution Lines



MACGREGOR INDUSTRIAL PARK FEASIBILITY STUDY

The following map indicates the location of the Tbaytel fibre optic lines (turquoise lines), and the proposed routing of new fibre optic cabling (light blue lines) in relationship to the MacGregor Industrial Park (white line). The Lakehead Interconnect Centre is also indicated with the turquoise pin.

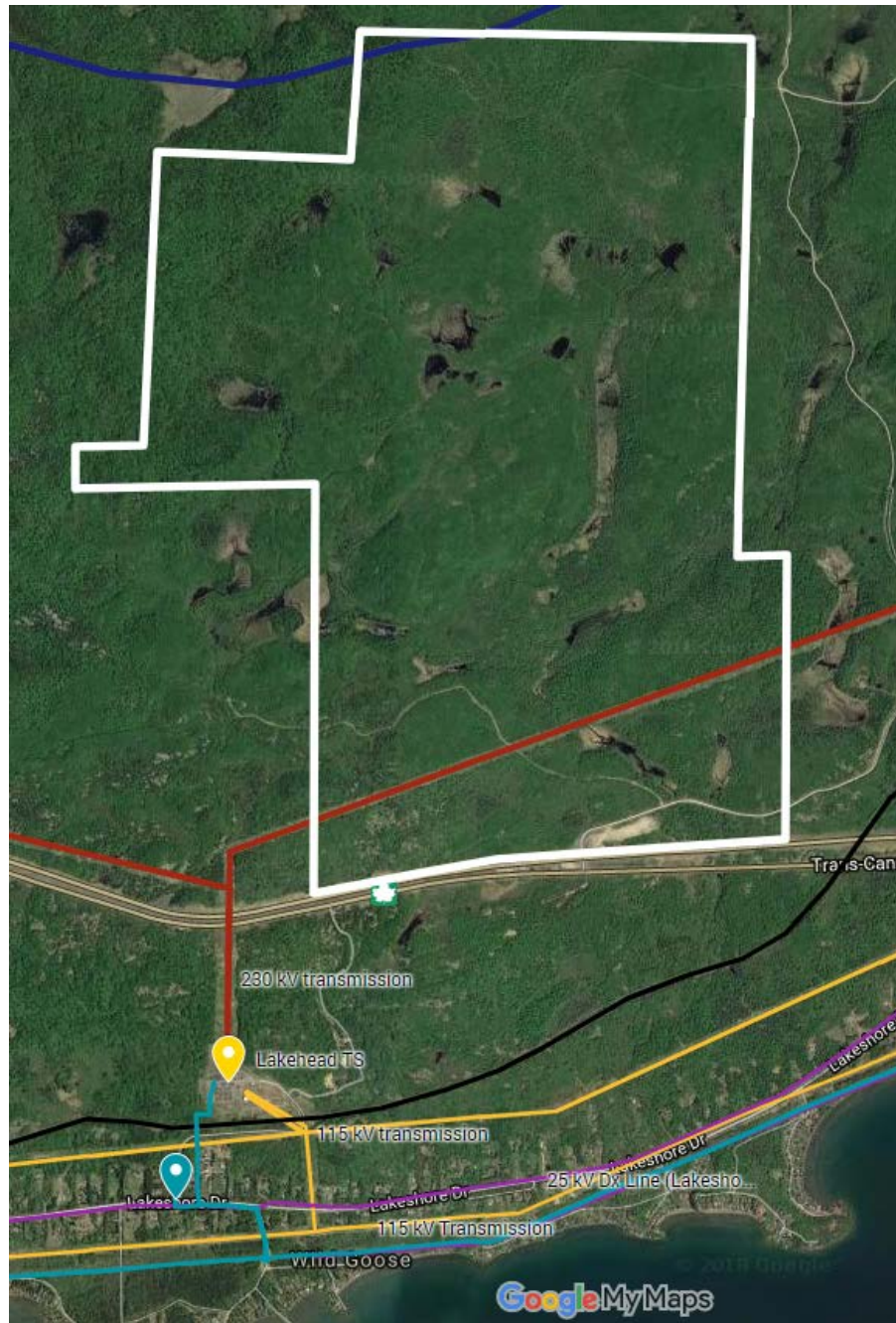
Figure 7: Location of Existing & Proposed Fibre Optic Service



MACGREGOR INDUSTRIAL PARK FEASIBILITY STUDY

The following map displays all of the existing services highlighted in the previous maps.

Figure 8: All Existing Infrastructure Services in Relation to MacGregor Industrial Park



3.4. Subdivision Infrastructure Servicing and Design

There are no further planning or known environmental issues that have not been previously described in this report.

There are no known planned transportation improvements, as Highway 11/17 was recently widened to four lanes, with turn lanes installed to access MacGregor Road.

There are no immediate utility infrastructure improvements plans in the area.

Further property acquisition is not recommended at this time. Should there be an interest expressed by a user that requires rail access, additional lands could be acquired to permit access to the CPR main line.

3.4.1. Servicing the Park with Water and Wastewater

The Municipality of Shuniah is not serviced with municipal water or wastewater services. The closest water plant is just west of the Shuniah municipal boundary and is owned by the City of Thunder Bay. To bring water service to the MacGregor Industrial Park requires a water main of at least 7 km in length.

Servicing the MacGregor Industrial Park with piped water and wastewater services is not economically viable, and would not be cost-recoverable from land sales.

It is recommended that any development in MacGregor Industrial Park be on private services.

3.4.2. Servicing the Park with Electric Power

There are four possible scenarios for servicing the MacGregor Industrial Park with electrical power, with the first scenario being the feasible. Subdivision servicing would be in addition to any cost noted below.

1. Extend a power line from the west side of Highway 527, along the north side of Highway 11/17 to the MacGregor Industrial Park. The estimated cost of this 4.5 km line is in the order of \$1.0 million.
2. Extend a power line from Lakeshore Drive area north to the MacGregor Industrial Park boundary. Land easements would be required, and there is no road to service the power line. Boring under Highway 11/17 would also be required. No cost estimates are available.
3. Extend a power line from Lakeshore Drive through the Lakehead Transformer Station property and along the high voltage transmission corridor. This may involve several underground transitions to avoid conflicts with the overhead transmission lines. Boring under Highway 11/17 would also be required. No cost estimates are available.



MACGREGOR INDUSTRIAL PARK FEASIBILITY STUDY



4. For a very large electric energy consumer, the 230 kV transmission line could be tapped into.

Northwestern Ontario's main power transmission corridor cuts across the southern part of the site. There is currently a 230 kV transmission line in this corridor, with an additional 230kV transmission line ("East-West Tie") begin proposed in this same corridor¹.

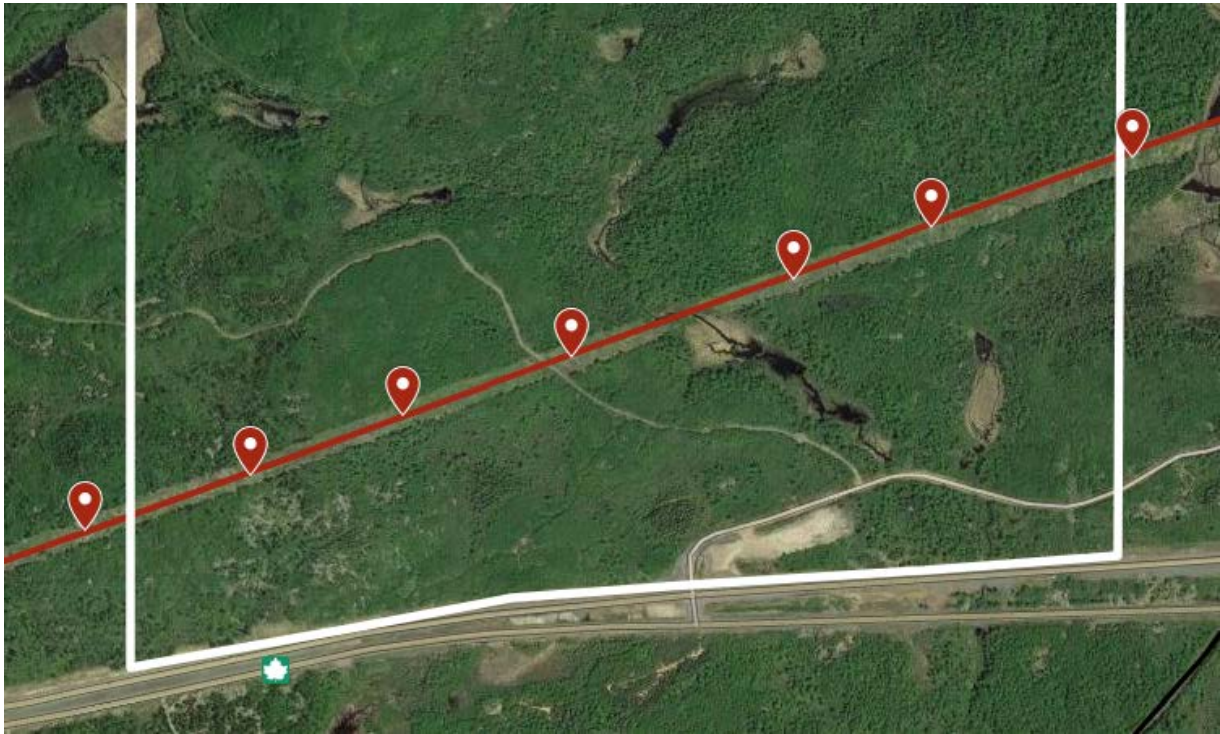
For a very large power consumer (e.g. Noront's proposed ferrochrome smelter), a direct connection to a 230 kV transmission line is possible, and would likely result in the cheapest (and most reliable) long term electrical energy solution. Such a connection does take substantially longer to achieve the required approvals than does a connection to a lower voltage distribution line.

Transmission line connections require approvals from Ontario's Independent Electricity System Operator as well as others, with a typical approvals timeframe of 2-3 years. A large power consumer could tap into this line at one of the several transmission towers located in the MacGregor Industrial Park as shown on the following map. Such a connection and the approvals process is very expensive, and not viable for small or medium sized energy consumers.

¹ The Hydro One transmission system map for Northern Ontario may be found [here](#). More on the East-West Tie transmission project can be found [here](#), with a map of the proposed East-West Tie alignment being indicated [here](#).



Figure 9: Location of 230 kV Transmission Line Towers



3.4.3. Servicing the Park with Natural Gas

Union Gas has indicated a lack of capacity to service the MacGregor Industrial Park with natural gas for heating or process purposes, other than by tapping into the Trans-Canada Pipeline at the northern edge of the site.

The installation of a tap on the transmission pipeline is very expensive, and is only viable for one or more very heavy gas consumers. The cost of tapping into the pipeline would be in the \$1.0 M to \$2.0+ M range. This cost would be reduced for very large gas users as the costs would be offset by long term gas consumption.

Furthermore, the extension of a gas pipeline into the service area of MacGregor Industrial Park would be at an additional cost and would require year-round road access to be maintained by the municipality.

3.4.4. Servicing the Park with Fibre Optic

Servicing the MacGregor Industrial Park with fibre optic cable would provide the capacity for telephone, digital television, mobility, internet, business security and business voice/data services.

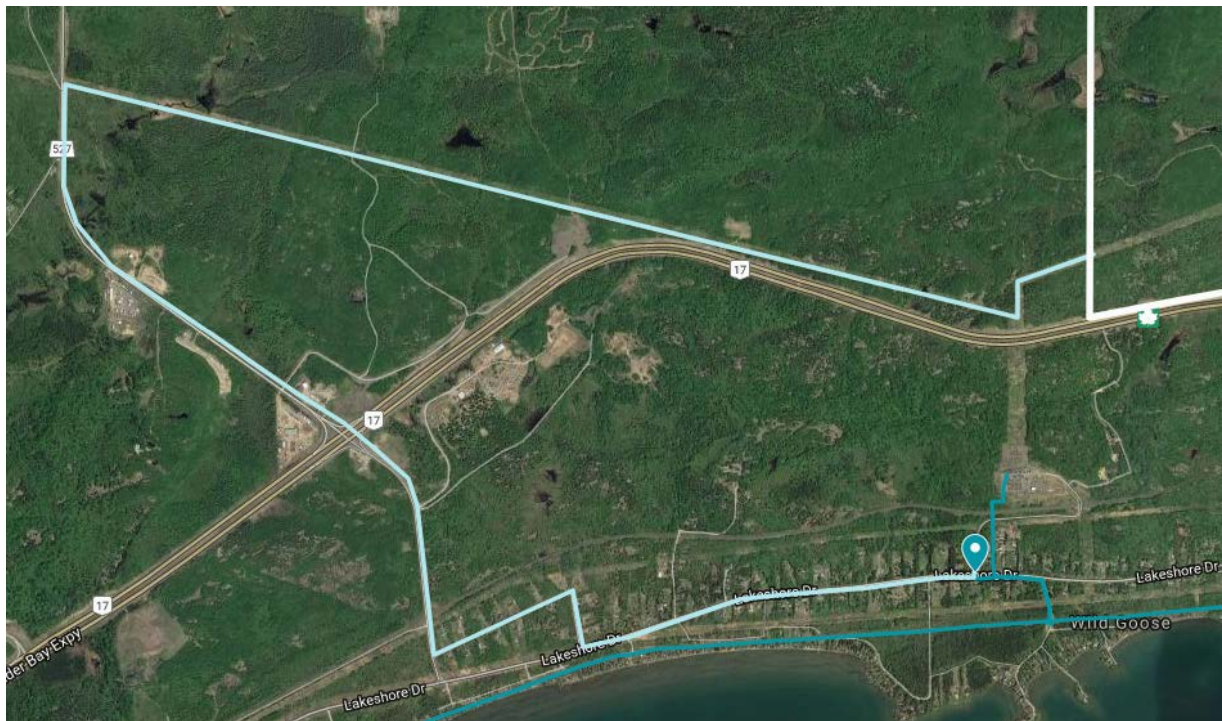


MACGREGOR INDUSTRIAL PARK FEASIBILITY STUDY

Tbaytel is the incumbent local exchange carrier for the City of the Thunder Bay and a number of surrounding Municipalities. Tbaytel has indicated two major scenarios as possibilities.

The first and most likely scenario, is an extension of the existing of the Lakeshore fibre facilities with multi-strand cable to a splitter/distribution location into the development area from which distribution could occur. This non-geographically redundant approach is typical to fibre optic installations and would cost approximately \$350,000. This scenario is illustrated on the map below.

Figure 10: Potential Fibre Optic Extension to Park



Should there be one or more industrial users that require a diverse/redundant access, a second route would be found to bring service to the MacGregor Industrial Park. A second route is likely to be more expensive than the first access.



MACGREGOR INDUSTRIAL PARK FEASIBILITY STUDY



3.4.5. Conclusions: Industrial Park Servicing

Should the MacGregor Industrial Park be developed, the following infrastructure services are recommended:

- Gravel rural industrial subdivision road;
- Three phase hydro-electric power; and
- Fibre optic cable to provide telecommunications services.

3.4.6. Conceptual Road and Lotting Layout

As noted earlier, the MacGregor Industrial Park land does not lend itself to traditional industrial subdivision design.

The objectives attempted to be achieved in the following road and lotting layout include:

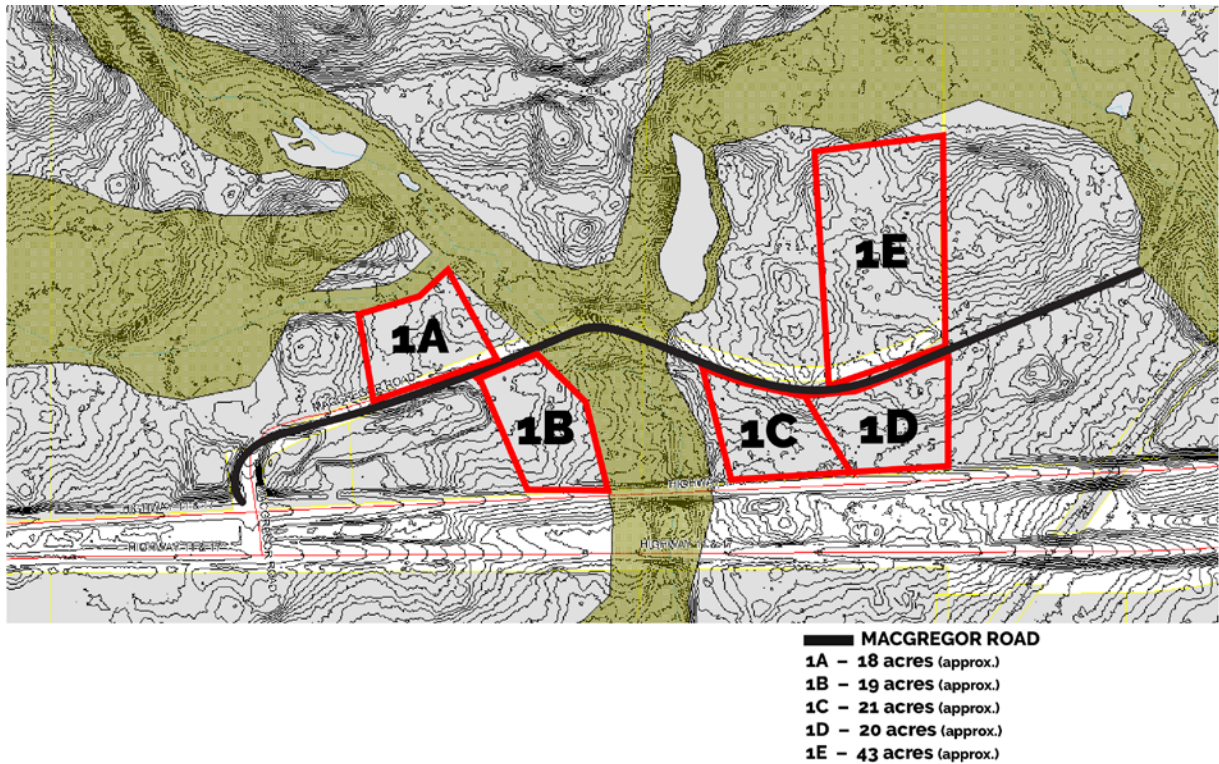
- Seek out the flattest, and therefore most developable potential lots;
- Minimize the length of any roads to be constructed;
- Avoid crossing hazard lands;
- Minimize the length of infrastructure services to service potential lots.

The following lotting plan would be recommended as "Phase 1" of MacGregor Industrial Park. It provides for the subdivision of five (or more) lots of relatively flat lands with immediate access to the existing MacGregor Road, thereby minimizing road construction requirements. Lot sizes range from approximately 18 to 43 acres in size.



MACGREGOR INDUSTRIAL PARK FEASIBILITY STUDY

Figure 11: Potential Phase 1: Lotting Plan East MacGregor Road

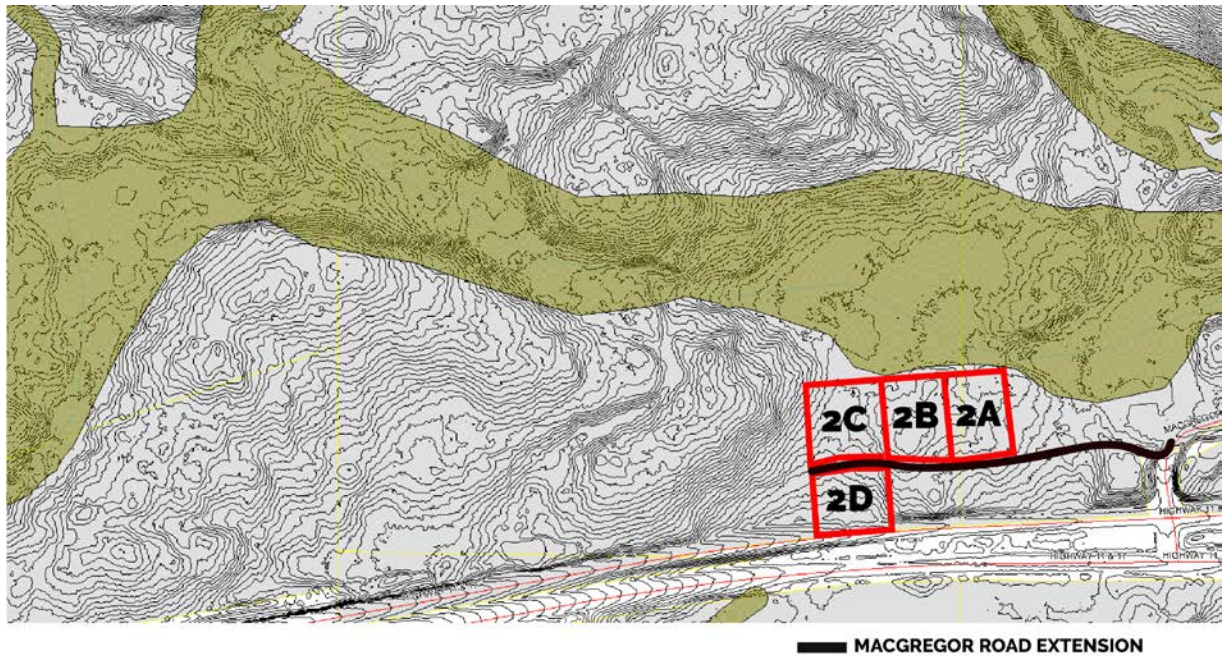


The following lotting plan would be recommended as "Phase 2" of MacGregor Industrial Park. It provides for the subdivision of approximately 32 acres into four (or more) lots of approximately 8 acres in size on relatively flat lands from a westward extension of MacGregor Road.



MACGREGOR INDUSTRIAL PARK FEASIBILITY STUDY

Figure 12: Potential Phase 2: Lotting Plan West MacGregor Road



MACGREGOR INDUSTRIAL PARK FEASIBILITY STUDY

3.5. Required Studies, Reports, Permitting

As all Official Plan and Zoning items have been addressed in earlier sections of the report, when the property moves to the physical development stage there are several land use planning studies, reports and permits that may be required. The need for these planning requirements will be greatly impacted by the scope, size and potential impact on the immediate and surrounding area.

Typically, if a development proposes to create more than two subdivided lots then a subdivision agreement is the normal planning tool used to encourage best land-use control and ensure best land-use planning principals and techniques are used. If a subdivision is envisioned (whether for residential, commercial or industrial uses), the following studies, reports and permits **may be required** and are largely dependant on the comments received during pre-consultation and circulation to both internal and external departments and agencies and the detailed analysis required by the municipality:

Engineering	Planning/Design	Environmental
Grade Control and Drainage Plan	Landscape Plan	Phase 1 Environmental Site Assessment
Site Servicing Plan	Concept Plan Showing Ultimate Use of Lands	Phase 2 Environmental Site Assessment
Composite Utility Plan	Minimum Distance Separation (MDS)	Record of Site Condition
Community Transportation Study and/or Transportation Impact Study	Agrology and Soil Capability Study	Tree Conservation Report
Roadway Modification Plan	Cultural Heritage Impact Statement	Mine Hazard Study/Abandoned Pit or Quarry Study
Servicing Options Report	Archeological Resource Assessment	Assessment of Landform Features
Hydrogeological and Terrain Analysis		Mineral Resource Impact Assessment
Reasonable Use Study		Environmental Impact Statement
Hydraulic Watermain Analysis		
Stormwater Management Report/Brief		
Geotechnical Study/Slope Stability Study		
Groundwater Impact Study		
Wellhead Protection Plan		
Erosion and Sediment Control Plan		
Noise/Vibration Study		



4. COMPETITIVENESS AND FINANCIAL ASSESSMENT

4.1. Site Competitiveness

Site advantages (although not necessarily competitive advantages or unique over other industrial areas) include:

- Physical proximity to Thunder Bay's population base, with direct road connections to the site from populated areas (for non-commercial traffic).
- The site is on the Trans-Canada Highway (Highway 17) with access from both the east and west.
- The site is a greenfield site, unencumbered by development difficulties associated with brownfield sites. Other industrial areas outside of Thunder Bay are generally greenfield sites, whereas industrial areas within Thunder Bay are often a mix of greenfield and brownfield sites.
- The site offers prospective users large tracts of land without adjacent neighbours that could be negatively affected by noise, conflicting activities or uses, dust, etc..

Site disadvantages in comparison to other industrial areas include:

- Brokers, developers, and businesses would not perceive Shuniah to be a location for business or as an industrial area. The site will be viewed as somewhat east of the current industrial development areas of Thunder Bay and Oliver Paipoonge. This could negatively influence early market acceptance (until building development begins). Other new industrial areas that are effectively extensions of existing industrial areas will more easily gain market acceptance.
- There is only one aquifer available for any and all industry in the industrial park therefore the any potential industry that uses large amounts of water would be considered an incompatible use.
- Shuniah does not currently have a "track record" of industrial development or working with the industrial development community.

4.2. Cost/Benefit Analysis of Developing the Industrial Park

4.2.1. Estimation of Servicing Costs and Other Expenses

The estimated costs of recommended servicing of the MacGregor Industrial Park are as follows:

- Electric Power: \$1.0 million, plus subdivision servicing cost
- Road improvements/building: Phase 1, \$15,000; Phase 2, \$37,500
- Fibre optic cable to provide telecommunications services: \$350,000



MACGREGOR INDUSTRIAL PARK FEASIBILITY STUDY



4.2.2. Revenue Forecasts/Projections

Revenue forecasts are predicated on a few variables:

- The estimated rate of sales;
- The average estimated number of acres per sale; and
- The price/acre or hectare of land sold.

As noted earlier in this report, the Thunder Bay area market for industrial land is very soft, with Oliver-Paipoonge offering relatively flat land at very competitive prices, and yet only experiencing an average of one industrial project per year. Typically the projects are an expansion of an existing development.

Optimistically, it is estimated that a competitively priced MacGregor Industrial Park could experience one sale approximately every three years. Given the topography of the land, substantially more land is required for each development to allow for filling and grade drop-offs. This further deflates the value per acre that can be achieved if 50-100% more land is required than would be typical on flat land.

Considering current market conditions, and the location of the MacGregor Industrial Park, and assuming road improvements with fibre optic and electric power service will be required, it is estimated:

- Three sales per 10 year period, averaging 4-5 acres each sale at an estimated \$5,000 per acre sale price yielding approximately \$60,000 to \$75,000 over a 10 year period.

While the lot sizes are potentially larger than the 4-5 acres indicated, especially in Phase 1, it is unlikely that large acreage parcels can be sold at \$5,000/acre. It is expected that each lot may yield \$20-\$25,000 in total sale value, even though the lot sizes may be significantly more than 4 or 5 acres.

4.2.3. Estimate Property Assessment/Municipal Taxes

Typical industrial developments in Shuniah have assessments of approximately \$130,000. Assuming the current industrial tax rate of 0.17005038, a typical industrial development would generate approximately \$2,200 in municipal taxes.

4.2.4. Financial Proforma Analysis (Cost/Benefit Analysis)

The preceding development costs, sales revenues as well as estimated tax revenues as previously outlined were used in preparing a detailed a financial proforma for the MacGregor Industrial Park.

The results of the analysis may be summarized as follows:



MACGREGOR INDUSTRIAL PARK FEASIBILITY STUDY

20 Year Project Summary:

	Total Sales Revenues	\$112,500
	Total Tax Revenue (no inflation)	\$106,800
	Total Development Costs	-\$1,740,000
	Total Sales – Total Costs	-\$1,662,500
	Total Sales – Total Costs + Tax Revenues	-\$1,520,700

In the 20-year scenario, the following assumptions and conclusions can be drawn:

- 5 property sales averaging \$22,500 per sale;
- Only Phase 1 is required to support 5 property sales;
- No external funding of development costs;
- Typical municipal tax revenues;
- Development costs as outlined in this report;
- Development costs for Phase 1 exceed the sales and municipal tax revenues by \$1.55 M.
- **This project is NOT financially viable, and this conclusion does not change with alternate interest rates, sales rates and/or sales values. Costs exceed total sales and tax revenues by more than \$1.5 M.**

The major issues affecting the financial viability of developing the MacGregor Industrial Park are:

- The lack of demand for industrial land in the Thunder Bay market;
- The very low cost of industrial land in the Thunder Bay market;
- The topography of the MacGregor lands makes development difficult and expensive, thereby negatively impacting potential land values;
- Oliver-Paipoonge is offering fat land that is easier to develop and at a very low cost;
- The high cost to extend services to the MacGregor Industrial Park, resulting in a very high upfront cash flow requirement exceeding \$1.7 M.

4.2.5. Fiscal Impact Analysis

The annual municipal tax revenues have been estimated and included in the financial analysis.

The annual all-season municipal maintenance costs of the rural (gravel) MacGregor Road is \$2000, which has not been included in the financial analysis.



4.3. Development Scenarios

4.3.1. Public-Private Sector Development Options

In some industrial land markets with the potential of profitable industrial land development, the private sector is actively engaged in industrial land development and sales. In the Thunder Bay market, industrial land values cannot support the costs of servicing land.

There is no scenario evident in which the private sector would likely make an investment in industrial land, and therefore no public-private investment/development options are available.

4.3.2. Potential Development Phasing

"Phase 1 East" of MacGregor Industrial Park could be developed by servicing (power and fibre optic) the existing MacGregor Road. Phase 1 would provide approximately 120 acres of land that could be divided in five or more lots on relatively flat lands. Lot sizes range from approximately 18 to 43 acres in size.

"Phase 2 West" MacGregor Industrial Park would be developed by extending MacGregor Road (and services) in a westerly direction. This phase provides for the subdivision of approximately 32 acres in four (or more) lots of approximately 8 acres in size on relatively flat land.

4.3.3. Conclusion: Development of MacGregor Industrial Park

In conclusion, there is extremely limited demand for industrial land in the Thunder Bay market at this time, and there appears to be an ample supply available, should land be required. If demand for industrial lands picks up, other lands could be brought on stream that are superior in most respects to the MacGregor Industrial Park lands.

Furthermore, servicing of the MacGregor Industrial Park is not financially viable, would result in lots that would be difficult to develop for industrial uses, and would therefore be less desirable than competing locations. Development of the MacGregor Industrial Park is not recommended.

There are however, likely to be other parcels of land suitable for industrial development in Shuniah that offer less challenging topography and easier and less expensive access to power, fibreoptic and roads.



MACGREGOR INDUSTRIAL PARK FEASIBILITY STUDY



There is a slim long-term possibility of the MacGregor Industrial Park being developed for a major heavy industrial development, which is rare in Ontario and is even more rare in Northern Ontario. The Noront ferrochrome smelter currently being contemplated is one of those extremely rare exceptions.

While the MacGregor Industrial Park has limitations with respect to terrain and Hazard Lands for a typical rural industrial park, it is assumed these limitations can be overcome for a very large project. The site offers direct on-site access to large quantities of reliable power, large quantities of natural gas, direct access to the Trans-Canada highway, as well as close access to CPR main line railway.



5. IMPLEMENTATION PLAN TO DEVELOP AND MARKET THE INDUSTRIAL PARK

5.1. Next Steps Action Plan

As the development of the MacGregor Industrial Park as a rural industrial subdivision is not recommended, there are no next steps for this scenario.

However, we do recommend the preparation of minimal marketing materials to raise awareness of the site's potential for development of a heavy industrial use.

5.2. Value Proposition

The Value Proposition for development of the MacGregor Industrial Park for the development of very large heavy industry follows:

- MacGregor Industrial Park offers a very large site (1,000 acres plus), in a location where heavy industrial development is currently zoned and welcomed, and there are no "neighbours" to disturb or object;
- Development of heavy industry on this municipally-owned site is welcomed and will be facilitated by the municipality;
- The Trans-Canada natural gas pipeline, which can provide very large volumes of natural gas passes through the northern portion of the site;
- Hydro One's 230 kV transmission lines pass through the southern portion of the site, and very large electricity consumers can tap into these lines from a number of locations for very reliable electrical energy supply;
- The CPR main line across Canada passes very close to the southeastern corner of the site;
- Direct east and westbound access to the Trans-Canada Highway 11/17 from the site;
- Easily serviceable with fibreoptic cable.

The above attributes are rarely found in a site owned by a single motivated property owner.



MACGREGOR INDUSTRIAL PARK FEASIBILITY STUDY



5.3. Investment Attraction/Marketing Plan

It is recommended that at least a minimal marketing effort be made as soon as possible to provide exposure of the MacGregor Industrial Park for the potential development of large heavy industry.

It is recommended that:

- A "MacGregor Industrial Park Sales Sheet" be developed which highlights the location and the preceding Value Proposition of the site for heavy industrial use.
- That the MacGregor Industrial Park Sales Sheet be provided to Ontario Ministry of Economic Development, Job Creation and Trade, as well as to major industrial property brokers in Ontario.

