

**MICHIPICOTEN FIRST NATION
COMPREHENSIVE COMMUNITY PLANNING STUDY 2012.....Presentation**

TO MEMBERS OF MICHIPICOTEN FIRST NATION

In 2009 Michipicoten First Nation, in partnership with Indian Affairs, commissioned First Nations Engineering to undertake a Comprehensive Community Planning Study, which expanded on a Capital Planning Study done more than ten years ago. The purpose of the study was to provide statistical and practical information on building towards the future of the First Nation, based on infrastructure and the lands available for social and economic development.

The study was conducted over a period of almost three years and was based on previous plans and studies conducted, available land and increased additions of land over the past decade, as well as predicted growths in on-reserve population or the potential for increased capacity within the community to address the needs of a growing population. Surveys were provided to our members and we had a good response which indicated some of your objectives.

Over the past year our numbers have increased by almost one third and the information provided is vital for all to understand our capacity for expansion on reserve, the needs of our community and the costs associated with building for an economic future.

I would like to thank our members for your commitment and participation in this process which will help us all make the right decisions while fully understanding our ability to meet our vision for the future.

Copies of the presentation provided by First Nations Engineering to Chief and Council and members on reserve will be made available at our Annual Membership Meeting and by mail as requested.

Chi Miigwetch,

Chief Joe Buckell

COMPREHENSIVE COMMUNITY PLANNING STUDY

MICHIPICOTEN FIRST NATION

PREPARED BY: FIRST NATIONS ENGINEERING SERVICES LTD.



COMPREHENSIVE COMMUNITY
PLANNING STUDY

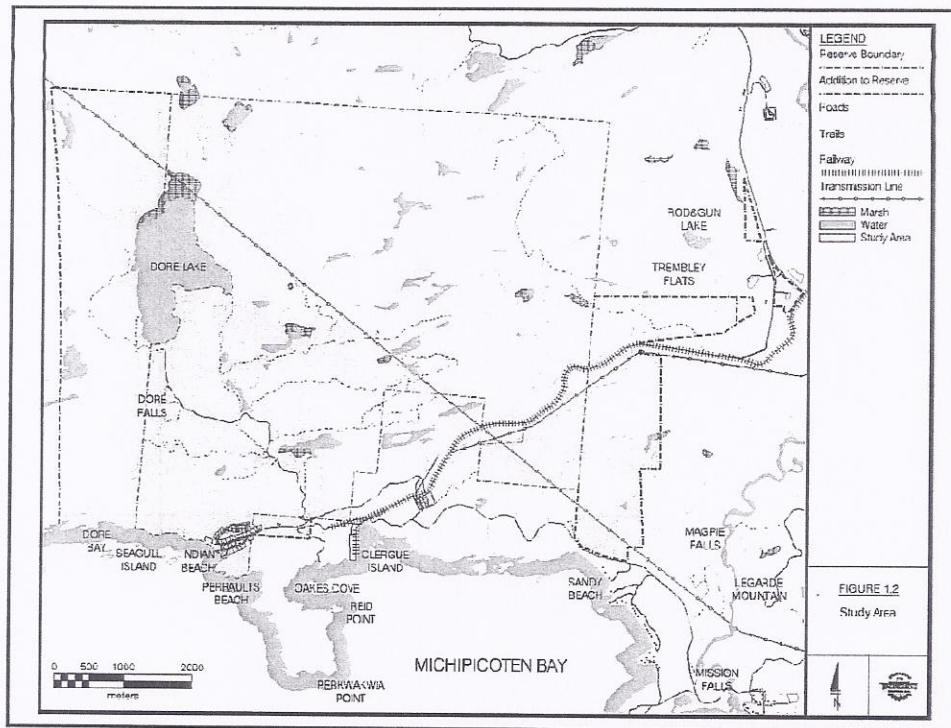
- Servicing alternatives are examined and appropriate recommendations made based upon the ability to meet the needs of the community.
- The CCPS examines alternatives for servicing the First Nation in the areas of:
 - Program requirements to meet existing and future needs
 - Residential and non-residential developments
 - Water treatment and distribution systems
 - Sewage collection, treatment, and disposal systems
 - Solid waste management programs
 - Roads & drainage requirements
 - Electrical power requirements
 - Community services
- Main objectives of the First Nation is to create a self sustainable community and provide off-reserve members the opportunity to relocate to the First Nation.

PROJECT BACKGROUND

- FNESL was retained by Michipicoten First Nation in December of 2009 to complete this study.
- A number of tasks were completed to get this study close to completion such as,
 - Review and compilation of existing studies and data
 - Development, distribution and tallying of a community questionnaire
 - Population projections and needs assessment
 - Residential lot layout alternative analysis and land use plan
 - A draft report was submitted to Project Team for review

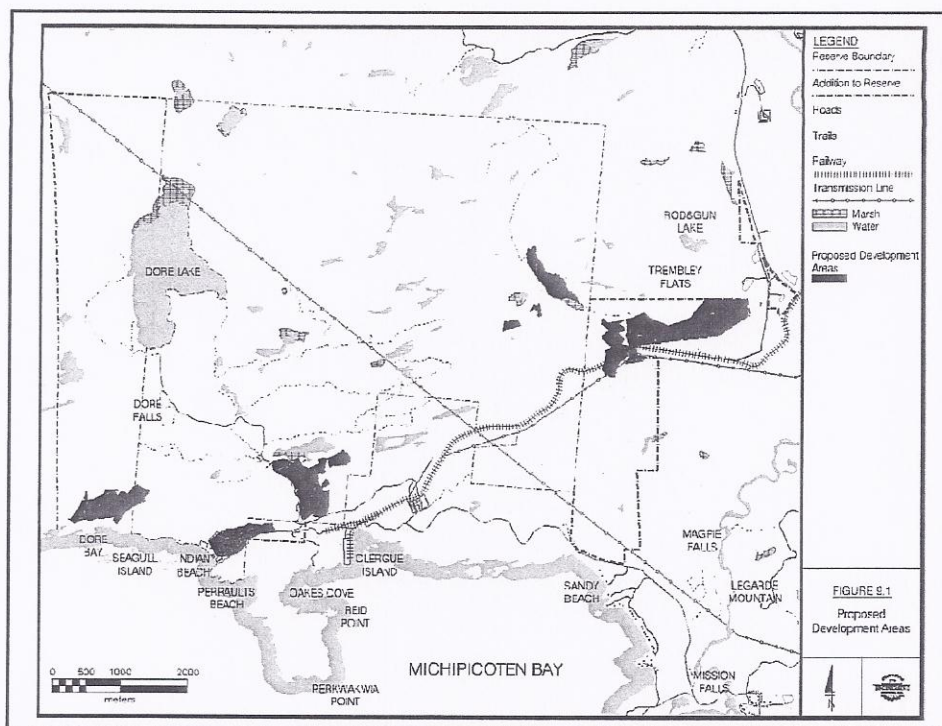
EXISTING COMMUNITY

- A total on-reserve population of 65 was determined, housed by 33 single unit dwellings and 10 – 2 bdrm apt units.
- Community is serviced with a communal water supply and individual septic tank and field bed systems.
- Community services include membership, education, family services, health promotion, library, economic development, and operation and maintenance.
- Study area included a total land base of 4,796 Hectares including the following parcels:
 - Gros Cap 49 (3492.5 Ha)
 - West Parcel ATR (836 Ha)
 - East Parcel ATR (441 Ha)
 - Parcels along Hwy#17 (14.6 Ha and 10.6 Ha)



BIOPHYSICAL TERRAIN ANALYSIS

- Existing mapping was collected from the Ministry of Natural Resources to determine landforms within Michipicoten territory, such as Geological and Surficial Conditions
- Our firm completed a slope analysis based on topographical data from Ontario Base Mapping
- Environmentally and culturally sensitive areas were identified on mapping to assist in ensuring future development does not significantly impact these areas.
- This mapping was overlaid and a development capability map was produced, with this information potential areas for future development were identified.



POPULATION PROJECTIONS

- Historical population growth was examined from data provided by Indian Registry Statistics (IRS), to determine a future growth rate
- Factors affecting the future growth rate were also examined and discussed within the report such as the number of non-members not accounted for in the IRS, lack of available housing and employment opportunities
- The analysis resulted in the following
 - 2009 community population of 65
 - Average annual growth rate of 1.9%
 - 2029 community population of 95

COMMUNITY OBJECTIVES

- A community questionnaire was distributed to collect input from community members and get direction on future development and priorities
- A total of 40 questionnaires were completed by off-reserve members, 18% of the respondents had resided on-reserve at some point in their life.
- Overall respondents would like to work towards a healthy community.
- Respondents would also like future economic developments to occur in a sustainable manner and for the environment to be protected

COMMUNITY NEEDS

- Based on existing services and a future population of 95 the following needs were identified:
 - 17 new homes will be required over the next 20 years
 - Water treatment plant expansion to provide a 20 year maximum day demand of 1.7 L/s with redundancy
 - Expansion of existing water storage
 - Wastewater servicing communal vs. individual
 - Approximately 15 acres of land would be required for 20 year waste disposal needs

COMMUNITY NEEDS

Michipicoten's 20 Year Land Requirements

Potential 20 Year Developments	Ha	Acres
Future Residential Development – 15 homes	6.1	15.0
20 Year Landfill Area requirements	6.1	15.0
Moss-Agate Extraction	30.4	75.0
Eco-Industrial Development	32.4	80.0
Dore Falls Project	29.5	73.0
Wind Generation	4.0	10.0
Tourism Resort and Deep Sea Marina	0.8	2.0
Total 20 Year Land Requirements:	109.3	270.0

Vision Statement

“To be an economic, independent, self-sustaining, self-governing First Nation where all Members share a strong cultural identity based on a profound understanding of who we are and on a clear sense of connection with our cultural origins. A community that lives in peace with all of creation, maintains a healthy balance between the individual and collective needs, and works productively with both Aboriginal and non-Aboriginal communities, based on a sense of mutual respect and equality.

Where Members rightfully come together and virtuously establish a strong sense of self-esteem, respect for each other and who work together for the well being of all. A First Nation in which the youth have a positive future and the Elders hand over a strong and thriving community to the next generation.”

COMMUNITY SERVICES

Objectives:

1. Work towards and maintain a self-sufficient community
2. Increase the Michipicoten First Nation on-reserve population
3. Work towards and maintain a healthy and safe community to raise families
4. Protect the natural beauty of the Michipicoten First Nation territory

COMMUNITY SERVICES

Goal	Resource Requirement
1. Work towards and maintain a self-sufficient community	
<ul style="list-style-type: none"> •Proceed with potential economic development projects •Support and assist with the development of small businesses by First Nation members •Support the creation of employment opportunities •Maintain the operation of the water treatment plant 	<ul style="list-style-type: none"> •Investment Strategic Plan/Business Plan •Environmental Policy •Capital Plan •Land Use Plan •Education Policy •Hiring Policy •Employment & Training Policy •Feasibility Studies •Office/Retail Space •Business Planning Assistance
2. Increase the Michipicoten First Nation on-Reserve population	
<ul style="list-style-type: none"> •Increase available housing within the First Nation 	<ul style="list-style-type: none"> •Housing Policy •Funding

COMMUNITY SERVICES

Goal	Resource Requirement
3. Work towards and maintain a healthy and safe community to raise families	
<ul style="list-style-type: none"> •Maintain community infrastructure •Manage Waste •Improve access to emergency services within the community •Improve access to health services •Coordination of volunteer fire services 	<ul style="list-style-type: none"> •Operations and Maintenance Policy •Waste Management Policy •Emergency Planning •Health Services Planning •Maintenance Management System •Health Services Planning
4. Protect the natural beauty of the Michipicoten First Nation territory	
<ul style="list-style-type: none"> •Ensure all future developments are done in an environmentally sustainable manner •Encourage the development of businesses that rely on the maintenance of the surrounding environment, such as ecotourism 	<ul style="list-style-type: none"> •Environmental Policy •Capital Plan •Land Use Plan

SUSTAINABLE DEVELOPMENT

- Michipicoten's total land base is fairly large however, the amount of land that has a high development capability is limited.
- Previous studies have been completed identifying potential economic developments and residential developments are required to serve the population growth
- With these considerations and discussion with the Project Team a 20 year land use plan was developed

FUTURE DEVELOPMENTS

- Criteria for residential development included being located close to the existing water services
- Non-residential developments in the plan included potential economic developments
 - Water Power Generation
 - Wind Generation
 - Eco-Industrial Park
 - Tourism Resort and Deep Sea Marina
 - Moss-Agate Extration

INFRASTRUCTURE SERVICING

- Three residential lot layouts were examined:
 - Alternative 1: ¼ acre sized lots with water and wastewater servicing
 - Alternative 2: 1 acre sized lots with water servicing and individual septic tank and field bed systems
 - Alternative 3: 1 acre sized lots with individual cistern systems and individual septic tank and field bed systems

INFRASTRUCTURE SERVICING

Cost Summary of Residential Servicing Alternatives

	Alt. 1	Alt. 2	Alt. 3
Capital Costs	\$9,550,200	\$5,012,700	\$5,128,200
O&M Costs	\$305,370	\$241,690	\$285,090
Life Cycle Costs	\$14,252,492	\$8,734,405	\$10,068,207

RECOMMENDATIONS

- The future residential development shall include the 1 acre lots with communal water servicing and individual septic tank and field bed systems.
- Expand existing water treatment plant to provide a design flow of 1.7 L/s with redundancy
- Expand water storage to a total volume of 319 m³
- Future Eco-Industrial Park to be serviced with individual septic systems and wells

RECOMMENDATIONS

- Fire Protection to include dedicated watermain and hydrant to apartment complex to avoid oversizing water storage
- Existing gravel roads to be upgraded to surface treatment
- Existing waste disposal site to be upgraded with precast concrete segregation depots and fencing
- Implementation of a recycling program

20 YEAR CAPITAL COST SUMMARY

PHASE I – YEAR 1 TO 5	
Water treatment plant expansion	\$2,600,000
Water storage expansion	\$774,000
Water servicing extension	\$69,000
Wastewater servicing	\$878,000
Fire Protection	\$607,000
Servicing of Eco-Industrial Park	\$1,754,000
Road Improvements	\$2,649,000
Solid Waste Management	\$185,000
Housing Construction	\$469,000
Non-residential Development	\$125,000
PHASE I CAPITAL COSTS	\$10,110,000

PHASE II – YEAR 6 TO 10	
Water servicing extension	\$130,000
Wastewater Servicing	\$253,000
Solid Waste Management	\$950,000
Housing Construction	\$625,000
Non-residential Development	\$11,138,000
PHASE II CAPITAL COSTS	\$13,096,000

PHASE III – YEAR 11 TO 15	
Water servicing extension	\$559,000
Wastewater Servicing	\$316,000
New Road Construction	\$70,000
Housing Construction	\$781,000
Non-residential Development	\$3,750,000
PHASE III CAPITAL COSTS	\$5,476,000

20 YEAR CAPITAL COSTS

PHASE IV – YEAR 16 TO 20	
Wastewater Servicing	\$316,000
Housing Construction	\$781,000
Non-residential Development	\$12,500,000
PHASE IV CAPITAL COSTS	\$13,597,000

TOTAL 20 YEAR CAPITAL COSTS SUMMARY \$42,279,000