Unlocking the potential for Cat Lake First Nation: SUSTAINABLE ECOLOGICAL AND ECONOMICAL MASTER PLAN

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Kindred Spirits

"Forests are not inherited from our parents but borrowed from our children"





" the decisions we make today should result in a sustainable world seven generations into the future."

Nation to Nation

Natural Resources Institute Finland (LUKE), world leading Forest Research organization by the Government of Finland with NordBEST, is honoured to work for Cat Lake First Nation.

- An MoU is in place between Canada and Finland for forestry sector cooperation
- An MoU is in place between Cat Lake First Nation and LUKE for the same





CAT LAKE FIRST NATION

Fundamental respect between the two northern peoples, Cat Lake First Nation and the Finns is the basis for everything!

NordBEST:

Nordic BioEconomy Solutions and Technologies

- Boutique consultancy, based in Thunder Bay
- Associates and representatives for a number of Finnish organizations in Canada including LUKE, Forest Key and 73Health
- Trusted and respected on both sides of the Atlantic, grizzled business veterans
- Project managers, solution providers, integrators, full value chain multidisciplinary experts

Pasi Pinta





Ari Elo

Guiding materials and principles:



Ministry of Natural Resources and Forestry Policy Division - Crown Forests and Lands Policy Branch





Cat Lake Forest Management, Bioeconomy Roadmap & Feasibility Development

PROGRESS REPORT – July 9, 2024



=Hybrid solution

Alignment: long-term forest management directions





UTILIZE THE POTENTIAL OF FIBER AND BIOMASS -SAWMILLING CLT PULP REDUCE THE THREAT AND IMPACT OF WILDFIRES



DEVELOP WELLNESS TOURISM IN WILD NATURE



CREATE NEW EMPLOYMENT OPPORTUNITIES



REPLACE "IMPORTED" ENERGY BY FOREST ENERGY AND DE-CARBONIZATION OF ENERGY SYSTEM



ADAPTATION TO CHANGING CLIMATE





First Things first: assessing the forest

Deep analysis of the forest for base information to guide an appropriate and sustainable management plan to maximize the value for the Cat Lake community now and for generations to come.

Combination of expertise and supercomputing power...



LUMI – fastest supercomputer in Europe, top 5 in the world



...Results in the determination of multiple key parameters such as:

• Average tree age, height, growing stock, area, total wood volume, species analysis, density etc. etc.



Examples of Findings:

Cat Lake Forest total area is approximately 1.4 million hectares. Although it has never been commercially harvested, the trees are relatively young because of frequent forest fires. The map shows fires just between 2020 and 2023.



A new way to manage the land

The right hybrid solution that combines world leading best forestry practices from Finland with those of Canadian/Ontario and First Nations Traditional knowledge results in multiple benefits:

- New infrastructure is built to give year-round road access for the community to the resource and the outside world
- Trees are harvested as decided by the community
- Harvesting no longer means automatically clear cutting. Habitat is preserved for wildlife and traditional uses of the land, including sanctioned tourism.
- Fuel load in the forest is reduced which reduces the likelihood and impact of fires. The resulting residuals are also used for community energy. This also fights climate change.
- Community capacity is built to fulfill the requirements of a new forest management license type

Misi-zhaaga'iganiing

Multifactor considerations for infrastructure development, example with year-round road access options

Bizhiw-zaaga'igan

Various road routing options

586m.

Trout Lake

Swain Post

Casummit Lake

Shakopaatikoong

Central Patricia Pickle Crow Pickle Lake

Oshki-Mishkeegogamang / New Osnaburgh

Rat Rapids

Osnaburgh

Lake St.

loseph

•Gete-Mishkeegogamang / Old Osnaburgh

Have your forest and cut it too: Continuous Cover Forestry

Clear cuts are not the only way to utilize forest resources. The continuous cover approach removes fuel from the forests reducing the likelihood and intensity of fires while also retaining the forest as some trees are taken out and the remaining ones grow quicker and stronger. Habitat is preserved



Planning the operations for 10 years out and longer



Developing the winning formula: Ecological and Economical Master Plan



Priorities:

- Overall community well being
- Full value chain development, economic benefits
- Balancing forest use with conservation

Ecological and Economical Master Plan: A project roadmap for the community

- Full value chain recommendations, partnership and Joint Venture development
 - Hybrid Forest Resource Management
 - Next generation approach to logging
 - Residual wood use
 - Energy, biochar production
 - Next generation fuels
 - Value add products and services
 - Lumber
 - Value added wood products, housing
 - Regeneration
 - Wind and solar energy
 - Education, training, capacity building
 - Remote Health Diagnostics





Vibrant local economy from the surrounding forest







Regeneration: Seedling production



Towards community energy independence!



Recognition of potential "heating clusters"



Great biomass heating opportunity: Lawrence Wesley Education Centre (heated by oil)



Education, training and building community capacity





Remote Health Diagnostics









Meegwech, Kiitos, Thank you!

Questions?

