



FORESTRY FUTURES TRUST ONTARIO

Forestry Futures Trust Committee

2017/18 Annual Report

Forestry Futures Trust Committee

1294 Balmoral Street, Suite 2003
Thunder Bay, ON P7B 5Z5

Telephone: (807) 343-8503

Fax: (807) 343-8113

Email: admin@forestryfutures.com

Website: www.forestryfutures.ca

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INDEPENDENT FOREST OBSERVATIONS - 2018

On the matter of Independent Forest Audit Effectiveness:

In 2017 a project was undertaken on behalf of FFTC by FFTC contract staff Peter Street on the effectiveness of the independent forest audit process on 40 forests over the period 2009-2013. The intent of the review was to determine i) if IFAs have been effective in improving forest management in Ontario, and ii) if so, are there changes that can be made to further increase their efficacy. The review concluded that IFAs have made and continue to make an important and valuable contribution to improving forest management in Ontario, providing useful guidance to both MNRF and SFL staff, and in general the recommendations are acted upon effectively and in a timely manner. The report's 15 suggestions focused on, among other things, improvements in training, consultation, and more timely public dissemination of audit results. The resulting report can be found on the FFTC website at <http://www.forestryfutures.ca>.

On the Matter of FFTC's Involvement in the Enhanced Forest Resources Inventory (eFRI) Program

MNRF's eFRI program transitioned from its first 10-year to its second 10-year cycle in 2017-2018. That first cycle initially focused on the mechanics of the adoption of a shorter provincial forest inventory coverage cycle; latterly, it became absorbed with the need to improve the quality of Ontario's forest inventory with the adoption of the notion of "best in class". The transition was also marked by staff turnover with the new management team needing to focus on the management of actually implementing "best in class". FFTC's role in this initiative is to provide spending oversight to the project and to encourage adoption of a broadly-focused communication strategy. Early interaction with the new management team is encouraging.

On the Matter of the Knowledge Transfer and Tool Development (KTTD) Program

In conjunction with MNRF's Natural Resources Information Section FFTC administers the KTTD program which is designed to identify/create new information/tools and facilitate their transfer to forest practitioners in Ontario. The first round of KTTD projects were wrapped up in March of 2018; presentations of Round 1 projects are available on the FFTC website at <http://www.forestryfutures.ca>. The second round of cutting-edge projects was initialized in 2018 and for the most part the 17 approved projects are designed around remote sensing methodology, including LiDAR and satellite imagery, to allow more accurate and less expensive forms of inventory in support of enhanced management in Ontario's forests. Of particular interest to FFTC is a project designed to involve all forest practitioners in improved accuracy and handling of forest data collection attributes.

On the Matter of Forest Tenure Transformation

In early 2018 Nawiinginokiima Forest Management Corporation (NPMC) was finally granted three of its eventual four sustainable forest licenses (SFLs). This undertaking allowed FFTC to exit its role as overseer of Crown revenues generated from those three forests. MNRF is currently considering a second Local Forest Management Corporation (LFMC) in northeastern Ontario for which FFTC will likely assume a similar oversight role as the corporation works to come of age. On another front the Minister issued the

Province's first enhanced sustainable forest license (eSFL) to Ondaadiziwiin of Sioux Lookout; front end funding for Ondaadiziwiin creation was provided via FFTC. Three additional eSFL corporations are currently under development in Northern Ontario. Problems in eSFL corporation development can arise from unrealistic expectations on the part of some players at the table, and from the removal from the table of some industry players due to uncontrollable market forces. MNRF has become more sophisticated in dealing with some potential issues up-front. Strategically there is a benefit in remembering the old adage "If it's not broke don't fix it".

R A Riley
2018

WHO WE ARE & WHAT WE DO

Forestry Futures Trust

The Forestry Futures Trust (FFT) was established under the authority of the *Crown Forest Sustainability Act* (1994), Part V. Section 51 of this Act states that the Minister may appoint a Forestry Futures Trust Committee (FFTC) to provide advice on the following matters:

1. *The funding of silvicultural expenses in Crown forests where forest resources have been killed or damaged by fire or natural causes.*
2. *The funding of silvicultural expenses on land that is subject to a forest resource license, if the licensee becomes insolvent.*
3. *The funding of intensive stand management and pest control in respect of forest resources in Crown forests.*
4. *Such other purposes as may be specified by the Minister.*

Source: Crown Forest Sustainability Act, Part V, Section 51(3)

Other purposes specified by the Minister for which Trust fund is currently used include:

- Independent Forest Audit Program
- Forest Tenure Modernization
 - Enhanced Sustainable Forest License - design and development
 - Local Forest Management Corporation – design and development
 - Forest Management Component - FMC
- Enhanced Forest Resource Inventory production and delivery
- Forest Genetic Resource Management Program

The Trust fund is managed by the Trustee, RBC Investor Services Trust. Funds are allocated to successful applicants under the direction of the

Forestry Futures Trust Committee Chair, supported by decisions made through consensus by the Forestry Futures Trust Committee. The Committee members are appointed by the Minister for a three-year term, which may be renewed at the discretion of the Minister. The Trust is funded by harvest volume charges on Crown timber.

Forestry Futures Trust Committee

CHAIR



Ray Riley, P Eng., R.P.F. (Hon) (member since February 2016). Ray holds degrees in geology from Acadia and Queens and has been a member of the Professional Engineers Ontario

for over 40 years. He comes to the FFTC after 30 years with the Ontario government culminating as Assistant Deputy Minister of Operations for Ontario's Ministry of Natural Resources. Subsequent to his career in government, he was active as a consultant for some 25 years focusing on natural resource management for the Forest Industry, First Nations, Ontario, and Canada.

MEMBERS



Mike Barker, (member since 1999) enjoyed a 56-year career in natural resource management, holding positions such as District Manager within the Ministry of

Natural Resources, and Assistant Deputy Minister for the Ministry of Northern Development and Mines. He now runs his own consulting firm.



Herb Bax, R.P.F. (member since 2012) is a forestry consultant with over 35 years of experience. He is past president of the OPFA and has served on numerous international committees and

boards. Herb's work as an environmental and forest auditor across Canada and the US brings an international perspective to the Committee.



Bill Baker, (member since February 2016) had a 30-plus career in natural resource management primarily as a senior manager with the Ontario Ministry of Natural Resources. Bill has worked throughout Ontario but has spent much of his career in Thunder Bay. After retiring in 2010, Bill shifted direction and spent time as a board member of the Northwestern Ontario Community Care Access Center.



James Harrison, (member since February 2016) holds a Forestry Degree (1975) from Lakehead University. His 39-year career with industry included positions with Kimberly-Clark of Canada and Greenmantle Forest Inc. James sits as the FFTC representative on the Provincial Forest Inventory Advisory Committee.



Dr. Sandy Smith, (member since January 2017) is a Professor in the Faculty of Forestry at the University of Toronto, having served as Dean (2010-2012) and supervised over 50 graduate students. She specializes in forest health and urban forests, specifically natural controls to address invasive species. She is a Fellow of the Royal Entomological Society and serves on the Boards of Tree Canada, Toronto Parks and Trees Foundation, and the Ontario Invasive Plant Council.

Our Support Team

Assisting the Committee is a small team reporting to the Chair:

- Peter Street, R.P.F., Independent Forest Audit Coordinator
- Shelley Vescio, R.P.F., Silviculture, Genetics and eFRI Program Coordinator
- Anastasia Frisby, Office Administrator, Programs Support
- Claire Riddell, Financial Information

FFT Secretariat – Ministry of Natural Resources and Forestry

Since its inception in 1995 and supported by consensus-generated decision making, the FFTC has enjoyed a productive working relationship with Ministry of Natural Resources and Forestry (MNRF) staff. As the Committee's mandate expanded over the decade, the lines of communication and the number of Ministry contacts correspondingly increased. In this regard, the Secretariat functions are provided by Peter Henry and Rhonda Hancherow of Forest Guides and Silviculture Section, Diane Black and CJ McLarty of Forest Tenure and Economics Branch. Key staff are listed below by program area.

- *Independent Forest Audit Program* – Linda Touzin, R.P.F., Denis Gagnon, R.P.F.
- *Enhanced Forest Resource Inventory Program* – Joe Kapron, R.P.F. (retired October 2018), Michelle Colley, Ian Sinclair, R.P.F. and Geordie Robere-McGugan, R.P.F.
- *Forest Management Component* – Betty Vankerkhof, R.P.F.
- *Tenure Modernization* – Kevin Coombs, R.P.F. and Chad Anderson, R.P.F.
- *Forest Genetic Resource Management* – Betty Vankerkhof, R.P.F. and Ken Elliott, R.P.F.

The MNRF's FFT Secretariat continues to fulfil its role while honouring the principle of committee independence, on all matters related to funding allocations for projects. The FFTC thanks Chris Walsh - Director Forest Branch; David Hayhurst - Director Operations Branch, Faye Johnston - Director Forest Tenure and Economics, Monique Rolf von den Baumen-Clark - Director Integration Branch, Marty Blake – Director Science and Research Branch and Wayne Barnes – Director of Business Development Branch for their continued support.

State of the Trust

The Forestry Futures Trust fund is in a healthy position and has fully recovered from the economic difficulties that previously affected the sector. The fiscal financials, which provide the details, are available through our website, www.forestryfutures.ca once tabled in the Provincial Legislature.



Forestry Futures Trust Committee 2018

Committee Operations Budget 2017/18

Available Funds	
Received from the <i>Forestry Futures Trust Fund</i>	\$534,944.00
2016/17 unspent balance	\$161,055.78
TOTAL Funds Available	\$695,999.78
Expenditures	
Meetings/Travel	84,234.54\$
Committee Honorariums	\$93,526.42
Professional Fees/Contract Staff	\$142,628.23
Administration and Support	\$84,234.54
Supplies (Communication/Consumables)	\$12,839.22
Equipment / Signage	\$7,036.75
Overhead	\$51,104.64
TOTAL Expenses	\$471,557.54

OUR PROGRAMS

Silviculture Program

The Silviculture Program funds silviculture needs resulting from forces of natural depletion such as fire, wind, insects, disease, flooding, as well as, remediation on the forest land base due to poor past forestry practices. Funding requests are received in five categories: 1. Stand Improvement – intensive stand management; 2. Remediation - stand rehabilitation after natural disturbances; 3. Pest Control; 4. Insolvency; and, 5. Other, as designated by the Minister. Details on each category can be found on the FFTC website.

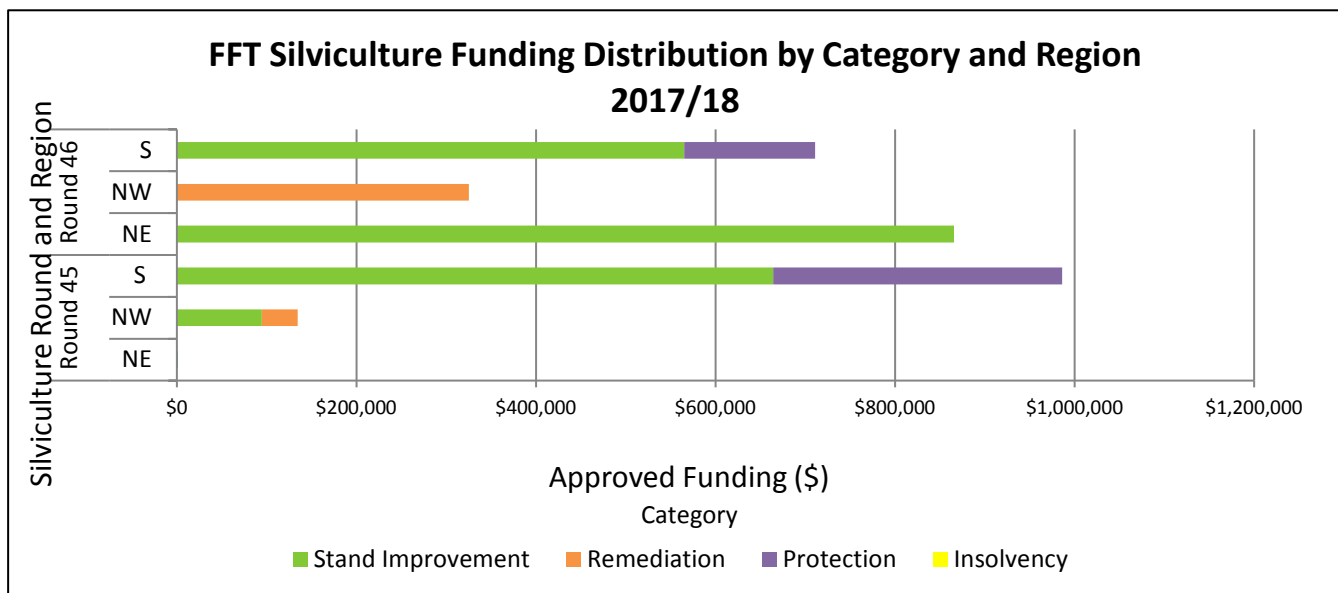
The Committee extended invitations to apply for project funding for Rounds 45 and 46 of the FFT Silviculture Program. In 2017/18, \$3 million was approved in project funding, with \$1.1 M and \$1.9 M allotted to Rounds 45 and 46, respectively. Funds are distributed as reimbursements only after work has been completed.

The chart below illustrates the amount of funding approved under each round for projects submitted under the five silviculture categories for each of the South, Northwest and Northeast regions in 2017/18.

Among regions, the Northeast received 29% of the funding while the Northwest Region obtained 15% and the South Region, 56%. Among categories, 11 Stand Improvement projects received 73% of approved funds, two Remediation projects were awarded 12% and two Protection projects acquired 15%. No submissions for Insolvency or Other projects were received for consideration in 2017/18.



Note: Lists of New, Ongoing and Completed FFT Silviculture Program projects can be found on the FFTC website www.forestryfutures.ca



FFT Silviculture Field Visit

762-2-R29 – Dungannon/Mayo Blowdown Rehabilitation

This site was included in the Bancroft Minden Forest Audit. The area was part of a one-year project that rehabilitated 78 hectares of forest that was damaged by a 2009 tornado.

Mechanical and chemical site preparation preceded the 2010 planting of nearly 2,000 seedlings per hectares. The site was ideally suited to growing red pine which has allowed the trees to thrive. This rehabilitation success is very visible to those who use this well-

traveled primary road that bisects this plantation



Bancroft Minden Forest IFA field portion 2017

Forest Genetic Resource Management Program

On January 26, 2017, the MNRF specified a renewed five-year purpose for the Forestry Futures Trust by funding the Forest Genetic Resource Management (FGRM) Program. Funding of activities within this Program benefit Crown forests.

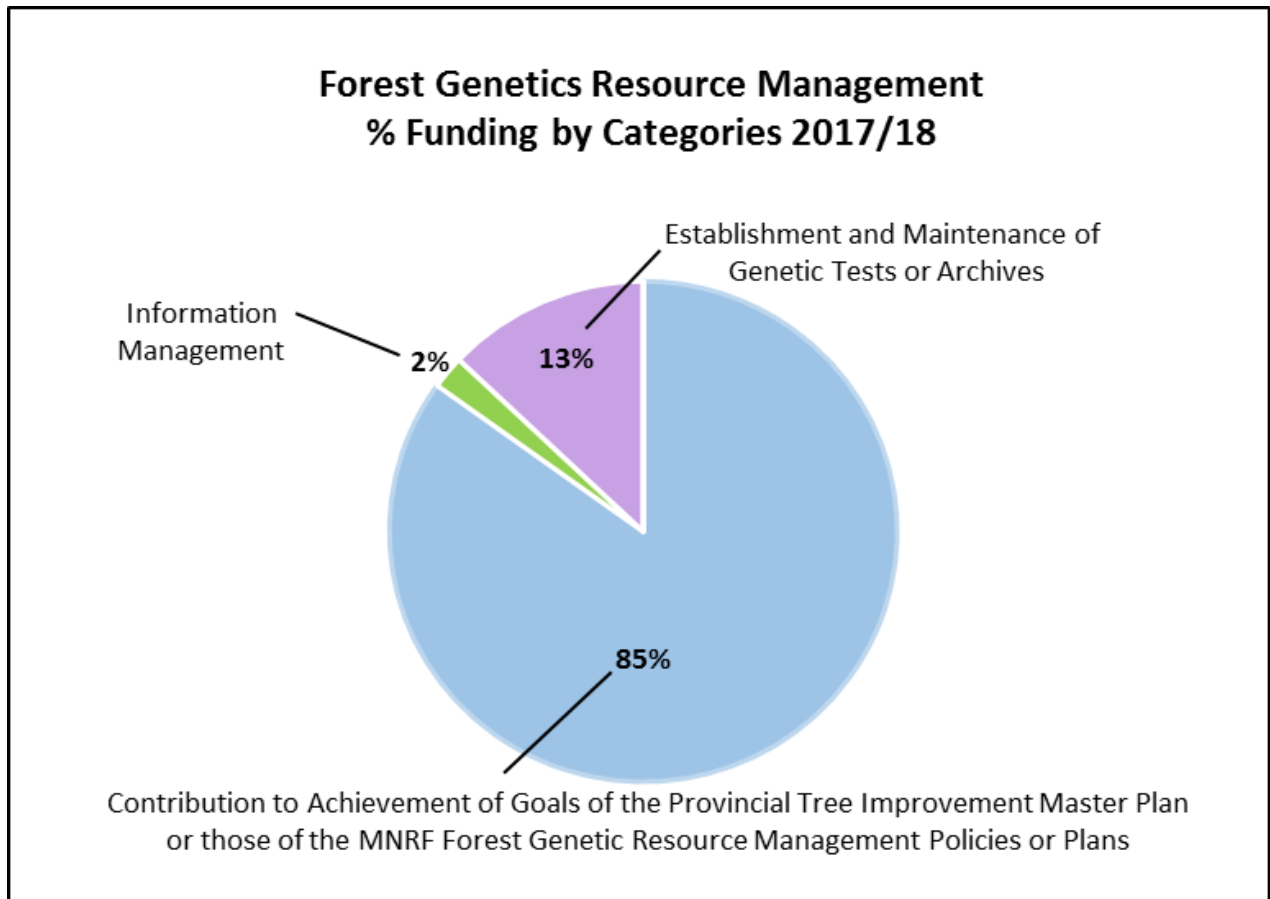
Annual funding for this purpose is not to exceed \$675,000 per annum, providing \$375,000 in core funding and eligibility for \$300,000 in project funding (through competitive project submissions) for five fiscal years ending March 31, 2022. The FGRM program is financed from the Forestry Futures Trust base charge.

The three regional associations, Superior Woods Tree Improvement Association (SWTIA), Northeast Seed Management Association (NeSMA) and Forest Gene Conservation Association (FGCA), each received funding to support projects under seven categories.

The three provincial associations directed the majority of funding (85%) toward activities that contributed to the

achievement of the Province's Tree Improvement Master Plan goals or toward those of its FGRM policies or plans. The establishment and maintenance of genetic tests or archives accounted for 13% of association spending, while 2% was used for information management. In 2017/18, no funding was applied to forest gene conservation projects or forest genetic research.

FGRM Approved Categories	
1	Contribution to achievement of goals of the Provincial Tree Improvement Master Plan or MNRF forest genetic resource management policies or plans
2	Information Management supporting forest genetic resources
3	Establishment and maintenance of genetic tests or archives
4	Forest gene conservation projects
5	Forest genetic research



Genetics Field Trips and workshop

FFTC staff-SWTIA Genetics Field Trip

Paul Charrette, Tree Improvement Specialist with SWTIA, provided a tour on May 25, 2017 for FFTC staff of multiple tree improvement projects at the Kreikmann property outside of Kakabeka Falls and at the former Thunder Bay Forest Nursery. The tour was educational and provided beneficial information for staff.



FFTC staff at Kakabeka seed orchard

Seed Transfer Technical Workshop

A two-day workshop was held by the MNRF on August 30-31, 2017 with the purpose of obtaining technical input to inform the development of updates to Ontario's seed zone/transfer policy. Presentations provided information on approaches to seed zones and seed transfer in Quebec, the US Pacific NW, and Ontario, gene conservation, climate change, and seed transfer approaches. These talks set the stage for discussions of where the province was in policy development and what its vision forward should be. In attendance were representatives and scientists from the three FGRM Associations, tree nurseries, SFLs, FFTC, Forests Ontario, Lakehead University, Upper Thames River Conservation Authority, Natural Resources Canada, and US Forest Service.

Northwest Ontario Genetics Field Trip

A two-day genetics field trip held on October 11-12, 2017, provided a tour of the PRT Nursery in Dryden and showcased a number of tree improvement sites in the Dryden and Thunder Bay areas. First- and second-generation clonal orchards, family tests, provenance tests, and other tree improvement projects were visited. Organized by Paul Charrette of SWTIA and Holly Aggas of Domtar, attendees included representatives from MNRF, Domtar, Dryden Forest Management Company, Resolute Forest Products, Lakehead University, KBM and the FFTC.



Dr Pengxin at Kreikmann property



Thunder Bay 25th Side Road Tree Farm



Dryden newly established second generation seed orchard



SWTIA staff in the Dryden white spruce family test

Independent Forest Audit Program

The Forestry Futures Trust Committee (FFTC) has traditionally implemented the annual Independent Forest Audit (IFA) Program for the MNRF. FFTC responsibilities have included: the allocation of funds to cover the cost of the audits; contract management of and communication with the audit firms and key audit participants; attending audit meetings and field examinations; ensuring the audit program is implemented according to the IFA process and protocol; reviewing all draft reports and ensuring final reports are of the highest quality. The Committee also provides recommendations to MNRF concerning revisions to the audit program and IFA process and protocol, coordinates auditor orientation sessions with MNRF, and makes recommendations to the Minister of Natural Resources and Forestry as required or appropriate. In 2017, the FFTC withdrew from its responsibility to select the Audit Firms. The function for the selection of the Audit Firms is now conducted by MNRF and Ontario Shared Services.

Twelve (12) Independent Forest Audits were completed in 2017. All 12 audits used a “Risk-Based Approach” to identify optional protocols that needed to be further investigated. In general, this process worked well and only one Audit Firm requested additional funding to cover the costs of further investigating the large area on the forest that had not met “Free-To-Grow” requirements. Another change in 2017 that is noteworthy is that the Auditors no longer make “recommendations” in their reports. Instead, “findings” of non-conformance or ineffectiveness are made. These findings are then analyzed by the auditees to determine the “root cause” or a causal factor of the non-conformance. The auditees will then identify what actions are required to address or eliminate the non-conformance in their Action Plans.

Audits were assigned as follows:

Arbex Forest Resources Consultants Ltd.: Black Spruce, Crossroute, Northshore and Sapawe forests

Arborvitae Environmental Services Ltd.: Algonquin Park, Martel, Nagagami and Pineland forests

KBM: Abitibi River and Bancroft-Minden forests

Merin Forest Management: Lac Seul and Ogoki forests

The 12 audits were awarded at a total cost of \$1,263,755.28, including HST.

The final reports of the 2017 Independent Forest Audits have not yet been tabled in the Ontario Legislature and as such remain confidential. Therefore, we are unable to report the specific findings. The results of the audits are similar to previous years in that they identify areas for improvement but also best practices that are taking place across the forest audited landscape. The details of these audits will be publically available on <https://www.ontario.ca/page/independent-forest-audits> once tabled in the Legislature.



Algonquin Park Forest IFA field portion 2017

Tenure Modernization Programs

Forest Management Component Program

When Sustainable Forest Licenses (SFLs) are returned to the Crown due to bankruptcy or insolvency, MNRF assumes responsibility for all forest management activities on that management unit. Forest Management expenditures incurred by the Crown to do this work are funded from additional revenue paid to the Forestry Futures Trust from the Crown Stumpage system. The additional funds are generated by a management fee charged for each cubic metre of wood harvested on the area. This has been termed the 'Forest Management Component (FMC)'.

FMC accounts are open for the Big Pic, Kenogami, Armstrong, Whiskey Jack, Lac Seul, Magpie, Pic River, Ogoki, and Sapawe forests.

Enhanced Sustainable Forest License

The Enhanced Sustainable Forest License (eSFL) program was established in late 2011, as an outcome of the Ministry's tenure modernization initiative, with an allocation of the remaining funds (\$1.8 M) from the SFL Conversion program. In 2012, the Committee developed an application process and the first application was submitted in April of 2013.

The Committee received and approved an ESFL application on the Crossroute and Sapawe Forest in 2018.

The Lac Seul eSFL was signed and fully implemented at a local ceremony March 12, 2017. It is the first eSFL in the province. Two previously approved ESFL projects remained active throughout 2016. Active projects in 2016:

- ESFL-004-2014, Northeast Superior (Martel and Magpie) Forest
- ESFL-005-2014, French-Severn Forest

The Kenogami Forest project (ESFL-001-2013) remained open, however, no progress was reported in the 2017-2018 fiscal year.



Bancroft Minden Forest – IFA field portion 2017



Pineland Forest – IFA field portion 2017



Northshore Forest – IFA field portion 2017

Local Forest Management Corporation Conversion Program

In August 2012, the MNRF added the Local Forest Management Corporation (LFMC) Conversion Program to the Forestry Futures Trust Fund. The purpose is to provide funding to support the start-up and establishment of Ontario LFMCs. The Trust serves as an interim mechanism to capture redirected Crown stumpage charges to fund start-up and establishment costs including required forest management activities on the proposed LFMC land area until such time as the Sustainable Forest Licenses are issued to the LFMC.

The first LFMC, Nawiinginokiima Forest Management Corporation (NFMF) was established in May 2012. NFMF has been issued the SFLs for Big Pic, Pic River in June 2017 and White River forests in January 2018.

For more information follow the links on the MNRF website: www.ontario.ca/page/forest-tenure-modernization or visit the NFMF website: www.nfmforestry.ca



Lac Seul Forest IFA field portion 2017



Nagagami Forest – IFA field portion 2017



Lac Seul –IFA field portion 2017



Bancroft Minden Forest – IFA Field portion 2017

Enhanced Forest Resource Inventory Program

The Enhanced Forest Resources Inventory (eFRI) Program is designed to develop a new Forest Resource Inventory utilizing current technologies within the provincial "Area of Undertaking" as defined by the Timber Class Environmental Assessment. Funds for this program come from harvest volume charges paid by the Sustainable Forest Licensees for Crown timber. These funds are administered from a separate account within the Forestry Futures Trust.

The FFTC administers the eFRI program funding, in partnership with the MNRF. The eFRI is a MNRF program designed by MNRF, with work contracted to qualified firms through the government procurement process. The FFTC has the lead on designing and co-delivering the knowledge transfer and tool development (KTTD) component of the eFRI.

The 2017/18 fiscal was the 11th year of the eFRI program that built on an earlier forest inventory program. MNRF program accomplishments for 2017/18 are outlined in the table below.

Forest	# Plots installed and measured	Approximate Area Interpreted in 2017-18
Abitibi River Forest Phase 1	3717 (complete)	~ 591 km ² (complete)
Bancroft-Minden Forest/Water - Central		~ 640 km ² (complete)
Bancroft-Minden Forest/Water - East		~ 550 km ² (complete)
Bancroft-Minden Forest/Water - West		~ 640 km ² (complete)
Berens River Block		~ 8395 km ² (complete)
Far North Central		~ 6718 km ² (89% complete)
Far North East		~ 6646 km ² (97% complete)
Far North West		~ 503 km ² (4% complete)
Kenora Forest		~ 5273 km ² (complete)
Lake Superior Provincial Park		~ 988 km ² (complete)
Lakehead Forest Stocking		~379,920 ha (complete)
Martel Forest		~ 1431 km ² (complete)
Moose Cree Forest	1076 (87% complete)	~ 4022 km ² (42% complete)
Nagagami Forest		~ 1510 km ² (complete)
Ottawa Valley Forest		~ 1415 km ² (complete)
Permanent Forest Inventory Ground Plots	200 (complete)	
Permanent Forest Inventory Ground Plots/NFI	16 (complete)	
Permanent Forest Inventory Photo Plots - Classification	90 (complete)	
Pukaskwa National Park		~ 1396 km ² (complete)
Temagami Field Sampling	900 (complete)	
Temagami Forest	200 (complete)	
Temagami Imagery		~ 6340 km ² (complete)
Temagami SkyForest Processing		~ 6340 km ² (complete)
Whiskey Jack Forest		~ 43 km ² (complete)
Woodland Caribou Provincial Park		~ 3543 km ² (complete)

Knowledge Transfer and Tool Development (KTTD) Component of eFRI

An eFRI KTTD Symposium was held on November 1 and 2, 2017 at which Round 1 projects were presented to a wide range of audience that included representatives from industry, government, and academia. The Symposium was well attended with 83 people participating in person and about 300 visitors tuning in daily to the live broadcast. All presentations and broadcasts can be found at www.forestryfutures.ca under Symposiums and Workshops.

The FFTC invited applications for Round 2 of the KTTD program in December 2017. Of the 20 applications received, 16 were approved for funding without condition. Three applications were returned for revision; two were combined and approved as one submission and the third was rejected. The 17 approved projects and their categories as small-scale (<\$25,000) or large-scale (>\$25,000) projects are listed below. Total value of Round 2 funding was \$1.2 M.

Researcher	KTTD Project Title	Year of Completion	Funding Level
Svetlana Zeran, Bancroft-Minden Forest Company	Using the eFRI to Predict Hardwood Selection Stands in the Bancroft Minden Forest	2018/19	<\$25,000
Adam Anderson Resource, Innovations Inc.	Seasonal Operability Predictor Tool for Forest Operations	2018/19	<\$25,000
Robert Mackereth, MNRF	Modeling Post-Fire Residual Shoreline Forest Pattern	2018/19	<\$25,000
Dr. Kevin Lim, Lim Geomatics Inc.	FRIHub: A Discovery Portal for FRI Data and Products	2018/19	<\$25,000
Dr. Kevin Lim, Lim Geomatics Inc.	ITESTA - Individual Tree Extraction and Species Typing Analysis	2018/19	<\$25,000
Craig Robinson, ArborData Consulting Ltd	Next Generation eFRI Ground Data Collection App	2018/19	<\$25,000
Laird Van Damme, KBM Resources Group	Development of an Enhanced Operational Forest Inventory Based on Multispectral Imagery and 3D Point Data.	2018/19	<\$25,000
Dr. Nicholas Coops, University of British Columbia	eFRI Accuracy Assessment and Change Update Approaches	2019/20	>\$25,000
Margaret Penner, Forest Analysis Ltd.	Scoping an Enhanced Growth and Yield Program: Strengths, Weaknesses, and Opportunities	2018/19	>\$25,000
Arnold Rudy, KBM Resources Group	An Analysis of Machine Learning Methodologies for Determining Stand Level Attributes.	2019/20	>\$25,000
Alexander Bilyk, Overstory Consultants	Enhancing Forest Inventory with Terrestrial LiDAR	2018/19	>\$25,000
Dana Collins, Canadian Institute of Forestry	Exploring the Innovation Potential of Single Photon LiDAR for Ontario's eFRI	2019/20	>\$25,000
Keith Hautala, Confederation College	A Review, Enhancement, and Accuracy Assessment of Wetland Features Within the eFRI	2019/20	>\$25,000

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Philip Green, First Resource Management Group Inc.	Validation of eFRI and SkyForest™	2018/19	>\$25,000
Maurice LeBlanc, Global Surface Intelligence Ltd.	Post-Harvest Surveys from Satellite Capture and Machine Learning	2018/19	>\$25,000
Maurice LeBlanc, Global Surface Intelligence Ltd.	Forest Health Monitoring from Satellite Capture and Machine Learning	2019/20	>\$25,000
Maurice LeBlanc, Global Surface Intelligence Ltd.	Species Composition Determined from Satellite Images and Machine Learning	2018/19	>\$25,000

