



Final Report: Timiskaming Forest 2023 Independent Forest Audit: April 1, 2016 to March 31, 2023

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Prepared by

NorthWinds Environmental Services

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CONTENTS

1. Ex	cecut	ve Summary	2
2. Ta	able c	f Findings	4
3. Int	trodu	ction	5
3.1	Au	dit Process	5
3.2	Ма	nagement Unit Description	8
4. Au	ıdit F	indings	11
4.1	Co	mmitment	11
4.2 Cons		olic Consultation, and First Nations and Métis Community Involvement	
4.3	Foi	est Management Planning	12
4.4	Pla	n Assessment and Implementation	13
4.4	4.1	Harvest	13
4.4	4.2	Access	14
4.4	4.3	Renewal	15
4.5	Sys	stem Support	17
4.6	Мо	nitoring	18
4.6	6.1	Renewal	18
4.6	6.2	Access	18
4.6	6.3	District Compliance Planning and Monitoring	19
4.6	6.4	S.F.L Compliance Planning and Monitoring	19
4.7	Acl	nievement of Management Objectives and Forest Sustainability	20
4.8	Co	ntractual Obligations	21
4.9	Co	ncluding Statement	21
Appen	ıdix 1	. Findings	23
Appen	idix 2	. Management Objectives Table	49
		. Compliance with Contractual Obligations	
Appen	ıdix 4	. Audit Process	65
Appen	ıdix 5	List of Acronyms Used	74
Appen	dix 6	. Audit Team Members and Qualifications	76

1. EXECUTIVE SUMMARY

The Independent Forest Audit for the Timiskaming Forest covers a seven-year period from April 1, 2016 to March 31, 2023. Timiskaming Forest Alliance Inc. is the Sustainable Forest Licence holder for the Forest and Ministry of Natural Resources (M.N.R.F.) Kirkland Lake Work Centre is responsible for administrating and overseeing all forest management activities. The Forest is located within the M.N.R.F. Northeast Region.

Within scope of the audit are:

- Phase II implementation of the 2011-2021 Forest Management Plan (year 6 to year 10);
- Preparation of the 2021-2031 Forest Management Plan; and,
- Implementation of the 2021-2031 Forest Management Plan (year 1 and year 2).

With some exceptions, forest management activities in the Timiskaming Forest were conducted in accordance with the 2011 and 2021 Forest Management Plans. Public consultation, First Nation and Métis involvement and consultation were found to be lacking with respect to missing documentation in the final 2021 plan (2 findings) and reduced effectiveness of the engagement processes (1 finding).

Generally, the 2021-2031 Forest Management Plan met the requirements laid out in Ontario's 2020 Forest Management Planning Manual, with exceptions related to the text and tables not providing medium/long-term projections for Landscape Class Indicators (1 finding).

Most recommendations from the last Independent Forest Audit (2016) were addressed appropriately. However, a finding related to perched culverts made in the 2016 Independent Forest Audit was repeated in the 2023 audit, suggesting that actions implemented to improve culvert installations were not effective.

Annual Reports and Annual Work Schedule were prepared annually during the audit period and were generally compliant with Ontario's Forest Management Planning Manual. One exception was the 2020-2021 final year Annual Report for the Timiskaming 2011-2021 plan. Final year Annual Reports have additional requirements which involves assessments of objective achievements at the end of the 2011-2021

plan. The final year Annual Report does not provide an appropriate assessment of objective achievement for its forest diversity objectives (1 finding).

The audit team concludes that, with the critical exceptions noted, management of the Timiskaming Forest was generally in compliance with the legislation, regulations and policies that were in effect during the term covered by the audit, and the Forest was managed in compliance with the terms and conditions of the Sustainable Forest Licence held by Timiskaming Forest Alliance Inc (No. 542247).

The Forest is being managed consistently with the principles of sustainable forest management, as assessed through the Independent Forest Audit Process and Protocol. The critical exceptions to be addressed by Timiskaming Forest Alliance Inc and/or the Ministry of Natural Resources and Forestry are as follows:

- The effectiveness of the public, First Nation, and Metis consultation during 2021 2031 Forest Management Plan development was reduced.
- The 2020-2021 final year Annual Report for the Timiskaming Forest does not provide an appropriate assessment of objective achievement for its forest diversity objectives.



Stamped and signed by: Jeffrey Cameron, R.P.F., Lead Auditor

Date:

2. TABLE OF FINDINGS

Concluding statement

The audit team concludes that, with the critical exceptions noted below, management of the Timiskaming Forest was generally in compliance with the legislation, regulations and policies that were in effect during the term covered by the audit, and the Forest was managed in compliance with the terms and conditions of the Sustainable Forest Licence held by Timiskaming Forest Alliance Inc No. 542247. The forest is being managed consistently with the principles of sustainable forest management, as assessed through the Independent Forest Audit Process and Protocol. The critical exceptions are as follows:

- The effectiveness of the public, First Nation, and Métis consultation during 2021
 -2031 F.M.P. development was reduced.
- The 2020-2021 final year Annual Report for the Timiskaming Forest does not provide an appropriate assessment of objective achievement for its forest diversity objectives.

Findings

- #1: The final Forest Management Plan is incomplete with regard to several required public, Local Citizens' Committee, First Nation and Métis consultation documents.
- #2: The effectiveness of public, First Nations, and Métis consultation during the 2021 2031 Forest Management Plan development was reduced.
- #3: The 2021-2031 Forest Management Plan lacks a summary of three Issue Resolution requests made during the development of the plan and the resulting changes to the Final Plan.
- #4: The 2021-2031 Forest Management Plan text and tables do not provide medium-/long-term projections as required by the Forest Management Planning Manual for Landscape Class indicators.
- #5: Inadequate planning is resulting in large number of Forest Management Plan amendments.
- #6: Water crossing installations did not always follow the requirements in the approved Forest Management Plan.
- #7: The Sustainable Forest Licensee Free-to-Grow assessment results as they pertain to jack pine species composition are different from the Ministry of Natural Resources and Forestry district silviculture monitoring results.
- #8: Road density information for the Timiskaming Forest is not up-to-date and not reported in Annual Reports.

#9: No surveys were conducted to support the assessment of 2021-2031 Forest Management Plan Management Objective #16, Indicator 16.1 as it pertains to Local Citizen Committee's self-evaluation of its effectiveness in plan development.

#10: The approved Timiskaming Forest final year Annual Report does not provide an appropriate assessment of objective achievement for Objectives #1 to 8 of the 2011-2021 Forest Management Plan.

3. Introduction

3.1 AUDIT PROCESS

Independent Forest Audits (I.F.A.) are a requirement of the *Crown Forest Sustainability Act* (S.O. 1994, c. 25) (C.F.S.A.). Audits assess both licence holder and Ministry of Natural Resources and Forestry (M.N.R.F.) compliance with the Forest Management Planning Manual (F.M.P.M.) and the C.F.S.A. in conducting forest management planning, operations, monitoring and reporting activities. The audits also assess the effectiveness of forest management activities in meeting the objectives set out in the forest management plan (F.M.P.). The C.F.S.A. requires every forest management unit in Ontario to be evaluated every ten to twelve years by an independent audit team. The key source of direction for the I.F.A. comes from the Independent Forest Audit Process and Protocol (I.F.A.P.P.)¹.

I.F.A.s are governed by eight guiding principles as described in the 2022 I.F.A.P.P.:

- 1. Commitment;
- 2. Public consultation and First Nation and Métis involvement and consultation;
- 3. Forest management planning;
- Plan assessment and implementation;
- System support;
- 6. Monitoring;
- 7. Achievement of management objectives and forest sustainability; and,
- 8. Licence and contractual obligations.

The I.F.A.P.P. includes a set of audit protocols that are designed to provide a systematic review of the forest management and operational activities in Ontario forest management units. Findings arise from audit team observations of material non-conformances and the identification of situations in which there is a significant lack of effectiveness in forest management activities. Similarly, the audit team may highlight **best practices** in cases where an auditees' actions go above and beyond legal

¹ Ontario Ministry of Northern Development, Mines, Natural Resources and Forestry. 2022. Independent Forest Audit Process and Protocol. Copyright ©Queens Printer.

requirements and result in positive outcomes for forest and communities. The audit reports and action plans to address the findings are published at the Ontario Government website: https://www.ontario.ca/page/independent-forest-audits. Progress toward completion of I.F.A. action plans will be documented in annual reports available through the Natural Resources Information Portal: https://nrip.mnr.gov.on.ca/s/nrip-busline?language=en US.

On the Timiskaming Forest, the auditees include the licence holder known as the Timiskaming Forest Alliance Inc. (T.F.A.I.), Timmins Kirkland Lake District, Northeast Region M.N.R.F., and Corporate M.N.R.F. The 2023 I.F.A. for the Timiskaming Forest covered the seven-year period from April 1, 2016, to March 31, 2023. The audit was led by NorthWinds Environmental Services (N.W.E.S.), a forestry and environmental services firm based out of Thunder Bay, Ontario. The audit team members and their roles and qualifications are described in Appendix 6.

At the onset of the audit, the audit team conducted a forest management unit risk assessment to verify that the subset of optional audit protocols included in the I.F.A.P.P. will enable thorough review of management and operations of the Timiskaming Forest. The applicability of additional protocols based on potential issues identified during the preliminary document review and interviews was assessed, and additional protocols are identified in Table 1.

Table 1. Optional Protocols Requiring Inclusion in 2023 Timiskaming Forest I.F.A.

Principle & Criteria	Procedure	Description	Probability	Impact	Risk
2.2	1	F.M.P. standard public consultation process	M	М	Yes
2.3	1	Issue resolution	М	М	Yes
3.6.1	1	Determine draft and final F.M.P. submission dates and compare the terms of reference. Assess whether the times as specified in the F.M.P.M. were provided for review of the plans, preparation of the lists and to make the required alterations	M	M	Yes
3.6.1	2	Review the preliminary and final lists of required alterations compared to F.M.P.M.	М	M	Yes

		requirements, documentation related to addressing required alterations, and have discussions with reviewers and the plan author			
3.14.1	2	Determine the frequency of plan amendments, and assess whether reasons for the amendments are symptomatic of a gap in information or inadequate planning	M	M	Yes

The previous Timiskaming Forest I.F.A. was completed in 2016 and covers the seven-year period from April 1, 2009 to March 31, 2016. The audit team reviewed the previous I.F.A. report, the associated I.F.A. action plans and related status reports. The 2016 I.F.A. included 10 recommendations. A Management Unit action plan was prepared in response to seven of the ten recommendations made by the audit team. The remaining three recommendation were directed to corporate M.N.R.F. and were addressed in the 2016 Provincial I.F.A. Action Plan. The Timiskaming Status Report was completed on June 22, 2019. In summary, the status report identified the following for future tracking.

- Amendment and revision (track amount for 2021 F.M.P. and M.N.R.F. approval times);
- M.N.R.F. compliance reporting in Timmins District portion (continue to monitor progress); and,
- Free-to-Grow surveys to be completed on all outstanding Class Z areas.

Although the recommendations from the 2016 I.F.A were appropriately actioned (or work is on-going), one exception is the ongoing issues noted regarding perched culverts, identified in the 2016 I.F.A. and again in the 2023 I.F.A.

This audit solicited First Nation and Métis, stakeholder and public input through advertising in media outlets and social media and by issuing notices using the forest management planning mailing list. A thorough review of documentation and records associated with management of the Timiskaming Forest during the audit term was undertaken. The field audit was conducted from September 5 to September 8, 2023 with three days of ground visits by truck and one day of aerial survey by helicopter. The audit team visited a minimum sample of at least 10% of all activities taking place on the management unit during the audit period, including harvest related operations, a range of silvicultural treatments, road building and maintenance, water crossings and forestry aggregate pits. A summary of sample intensity is provided in table 8-2.

This report describes the audit team's findings in relation to the eight I.F.A. principles listed above. More details about the audit procedures, contents and team can be found in the following Appendices:

Appendix 1 - detailed audit findings;

Appendix 2 - review of the achievement of 2011-2021 F.M.P. objectives;

Appendix 3 – review of contractual obligations in the S.F.L.;

Appendix 4 - information on the audit process;

Appendix 5 - list of acronyms; and,

Appendix 6 - audit team members and their qualifications.

3.2 Management Unit Description

The forest is located within the M.N.R.F. Northeast Region and crosses four M.N.R.F. Districts (Figure 1), with Timmins-Kirkland Lake Work Centre leading the administration for all Crown Forest management activities within the Timiskaming Forest. The Timiskaming Forest is a co-operative Sustainable Forest Licence (S.F.L.) and has been managed by the Timiskaming Forest Alliance Inc. (T.F.A.I.) since 1998. T.F.A.I. shareholders are a consortium of forest-based industry partners, representing small independent logging operators, two First Nation communities and large forest-products producers. Together they assume all forest management planning and operational responsibilities, including forest renewal and maintenance, on Crown land for the Timiskaming Forest. T.F.A.I. has a contractual arrangement with a management company named First Resource Management Group Inc. (FRMG). FRMG acts as agent to the licensee for the purpose of managing the Timiskaming Forest on behalf of T.F.A.I.

The Timiskaming Forest has a complicated administrative history and was originally created through the amalgamation of the former Elk Lake, Watabeag and Timiskaming Crown management units. In 2006, the adjacent ShiningTree Forest was also amalgamated into the Forest - no boundary changes have happened since. The total managed area under licence now encompasses 1,288,873 ha of Crown land, of which Crown managed forests comprise 1,186,603 ha. Approximately 18% of the management unit area consists of patent land. The presence of private land presents challenges in both the management of the forest and the achievement of landscape-level objectives due to fragmentation of the land base by ownership type.

The Forest also has some challenging terrain, including numerous watercourses which intersect the landscape and considerably limit operability. Sensitive claybelt soils further restrict the timing of harvesting to winter operations in many areas. The main tree species present on the landscape in the northern portion of the unit include Boreal

species like trembling aspen, balsam poplar, black spruce, white spruce, tamarack, jack pine, white birch, and balsam fir. There are also areas representing Great Lakes – St. Lawrence mixedwood tree species including white pine, red pine, eastern white cedar, sugar maple, yellow birch, red maple and some hard maple scattered in the south-west portion of the management unit where suitable microclimates exist.

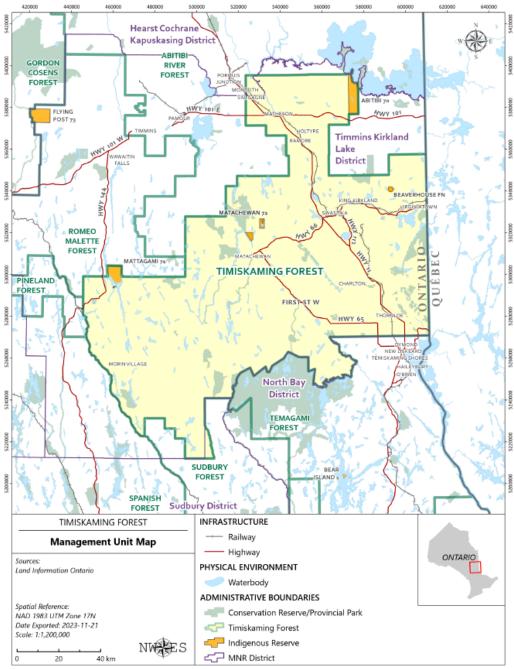


Figure 1. Map displaying the location of the Timiskaming Forest.

Nine First Nations and the local Métis community were consulted during the preparation of the 2021-2031 Timiskaming F.M.P.:

- 1. Atikmeksheng Anishnawbek;
- 2. Beaverhouse First Nation;
- 3. Matachewan First Nation;
- 4. Mattagami First Nation;
- 5. Sagamok Anishnawbek;
- 6. Temagami First Nation/Teme-Augama Anishnabai;
- 7. Timiskaming First Nation;
- Apitipi Anicinapek Nation Aki (formerly known as Wahgoshig);
- 9. Wahnapitae First Nation; and,
- 10. Metis Nation of Ontario Region 3.

The Timiskaming Forest planned harvest area has an annual average of 9,711 hectares in the phase 2 of the 2011-2021 F.M.P. and 10,274 hectares in the 2021-2031 F.M.P. The S.F.L. document states that the forest resources harvested are to go to the following processing facilities: Cheminis Lumber Inc. (Larder Lake), Interfor in Elk Lake (formally EACOM Timber Corporation), Liskeard Lumber Limited (Elk Lake), and Norbord Inc. (Cochrane), though some of these have changed since the original agreement was draft. Georgia-Pacific and EACOM mills currently represent large wood consumers on the Forest. The T.F.A.I. also regulates the flow of timber through its shareholders agreement and the S.F.L. can issue overlapping licenses.

G.P. Northwoods L.P and Rockshield Engineered Wood Products ULC are the only companies which have wood supply agreements with the Crown for fibre from the Timiskaming Forest. There is one wood supply commitment in Appendix E which requires the S.F.L. holder to make wood available to G.P. Northwoods L.P. Although not listed in Appendix E, Rockshield Engineered Wood Products ULC also holds a wood supply commitment which sources fibre from the Timiskaming Forest. In addition, other wood supply requirements and commitments to various companies are addressed through the T.F.A.I. shareholder's agreement or negotiated memorandum of agreement with respective commitment holders.

4. AUDIT FINDINGS

4.1 COMMITMENT

T.F.A.I.'s commitment to sustainable forest management is reflected in its policy statements (www.timfor.com) and in its adherence to legislation and policies. Since 2012, T.F.A.I. also holds a certificate under the Forest Stewardship Council's (F.S.C.®) National Forest Stewardship Standard of Canada on the Timiskaming Forest.

The M.N.R.F.'s commitment to sustainable forest management demonstrated through the adherence and implementation of Ontario's forest management policy framework, consistent with the requirements of the C.F.S.A. These policies are communicated to the resource users and the public through public consultation and engagement processes undertaken by M.N.R.F. M.N.R.F. maintains a public website where these commitments are available: https://www.ontario.ca/page/forestry.

4.2 Public Consultation, and First Nations and Métis Community Involvement and Consultation

Two Local Citizens' Committees (L.C.C.s) are involved in the management of the Timiskaming Forest: the Kirkland Lake L.C.C. and the Timmins L.C.C., with Kirkland Lake L.C.C. taking the lead in the management of the Timiskaming Forest. The members of both L.C.C.s are active, involved in forest management and represent well-balanced interests in terms of stakeholder groups. L.C.C. member interviews and meeting documents indicated that the meetings for both L.C.C.s were well-run and informative.

Timmins L.C.C. members interviewed expressed high satisfaction with the diversity and number of information sessions on different land use and resource management topics, including from other industries. Interviews with Kirkland Lake L.C.C. members suggest that the Committee's effectiveness could be also enhanced with additional information sessions or training, especially with improved understanding of the ecological principles that are foundational to Ontario's forest management guides. Some of the concerns brought forward by the L.C.C. members included limited consideration of traplines in harvest planning, concerns related to herbicide and its impacts on moose browse, overly large clearcuts, access management, and lack of buffers around main roadways.

The Indigenous community representatives interviewed were actively involved in forest management, complimented the T.F.A.I. for greatly improved communication starting 2022 and spoke of joint meetings held in communities and at the field with T.F.A.I.

forest management staff, shareholders and M.N.R.F. to discuss issues important for communities, such as herbicide reduction, harvest area size and location, access management, protection of community values and others. They noted that communities were generally satisfied with values protection measures for values they were able to share with T.F.A.I., with some exceptions where harvesting near the communities had resulted in harvest of most of the family trapline, access removals, and harvesting buffers to protect birch before an Area of Concern (A.O.C.) was put in place. One community representative is actively monitoring renewing stands included in the herbicide plan, providing input where herbicide could be delayed or avoided.

During the COVID-19 pandemic, the forest industry was deemed an essential service and the two final years of the 2021-2031 F.M.P. development were completed under COVID-19 restrictions. Planning team meetings, L.C.C. meetings and information forums moving to an online format. Whilst online meetings continued under Covid restrictions, many people struggled with following along the information presented. The First Nation community representatives at the planning team and L.C.C. voiced concerns regarding cancellation of information forums from Stage 3 and onward and their inability to consult with their community members due to state of emergency within the communities. Whilst the notices and links to the Natural Resource Information Portal were shared by M.N.R.F. for all stages, some people struggled to navigate the site and download maps in rural location due to poor internet connectivity.

In addition to already complicated consultation process under the Covid-19 restriction, the draft and final F.M.P. documentation made available for public consultation were incomplete. The deficiencies included an incomplete L.C.C. report and missing self-evaluation, incomplete records on desired forest and benefits meetings, gaps in objective assessments, missing information on issue resolutions and how public concerns were taken into consideration in plan development (**Findings #1, #3, #4 and #9**). This, in combination with already complicated consultation process under Covid-19 restrictions, led to an audit finding that the effectiveness of the public, First Nation, and Metis consultation during 2021 -2031 F.M.P. development was reduced (**Finding #2**).

4.3 FOREST MANAGEMENT PLANNING

The audit team reviewed the preparation of the 2021-2031 Timiskaming Forest Management Plan. The F.M.P. generally met the requirements laid out in Ontario's Forest Management Planning Manual, with exceptions noted that the F.M.P. text and tables did not provide medium/long-term projections for Landscape Class indicators and inadequate planning during development of the F.M.P., which is resulting in many F.M.P. amendments.

There was evidence in the Analysis Package that medium and long-term projections were measured for Landscape Classes during the development of the Long-Term

Management Direction (L.T.M.D.) for the plan, however, appropriate assessments and results are not provided in the F.M.P. text or F.M.P. Table 10. In addition, neither the plan text nor F.M.P. Table 10 reference the location where these results can be viewed in the Analysis Package. These are key documents normally reviewed by members of the public. Furthermore, the M.N.R.F. did not provide a required alteration related to Objective 2 indicator projection and assessments not meeting F.M.P.M. requirements. These issues led to **Finding #4.**

During the audit period, there have been a high number of F.M.P. amendments submitted for the Timiskaming Forest. This is concerning to all parties involved as amendments require significant administrative resources from both the S.F.L. and M.N.R.F. It can also be overwhelming for the L.C.C. and First Nation and Métis communities to keep up with constant changes to the F.M.P. The auditor believes that most of the amendments submitted during the audit period could have been addressed during the preparation of the F.M.P. through better operational planning. This issue is addressed in **Finding #5**.

The forest management unit risk assessment identified Principle and Criteria 3.6.1, procedure #1 and #2 as risks. The schedule of the draft and final F.M.P. submission was reviewed, and the auditor determined that no findings were warranted. The list of required alterations was also reviewed and although not all required alterations were addressed for the final plan submission, this was due to an agreement between T.F.A.I. and M.N.R.F. prior to final plan approval regarding some outstanding final plan items and actions that T.F.A.I. and M.N.R.F. have agreed to undertake. The agreement is documented in an e-mail. The auditors determined that no findings were warranted.

4.4 PLAN ASSESSMENT AND IMPLEMENTATION

4.4.1 Harvest

A representative sample of harvest areas were assessed during the field audit both on the ground and from the air.

Harvest levels on the Timiskaming Forest have been relatively high as compared to planned harvest levels due to strong local markets. 2021-2022 actual volumes in table 4-1 are higher then planned volumes due to the following.

- Good utilization and a high percent of cut-to-length operations,
- Bridging volumes being included in total volume (bridging is approved harvest from the previous F.M.P is not included in planned volumes)
- Likely scenario of higher volume stands being harvested in the early stage of F.M.P implementation.

The most common species on the forest are spruce (black and white), jack pine, poplar and birch. All of these species were reported with high utilization during the audit period. The main consumer of spruce-pine-fir on the forest were EACOM Timber Corporation (now known as Interfor) sawmills in Elk Lake, Nairn Centre, Ostrom and Timmins. The main consumer of poplar and birch on the forest is G.P. Northwoods L.P. in Englehart (composite).

Table 4-1: Planned harvest vs actual harvest in the Forest by area and volume during the period 2016-17 to 2020-21 and 2021-22 (no data available for 2022-23 operating year).

Harvest by Area and Volume	2011-2021 F.M.P. 2016 to 2021	2021-2031 F.M.P. 2021 to 2022
Planned Harvest Area	45,990 ha	10,228 ha
Actual Harvest Area	33,575 ha	8,147 ha
% of Actual to Planned Harvest Area	73%	80%
Planned Harvest Volume (All Species)	5,721,500m3	1,129,497m3
Actual Harvest Volume (All Species)	4,923,000m3	1,245,814m3
% of Actual to Planned Harvest Volume	86%	110%

Harvest operations implemented were consistent with the approved F.M.P. and associated Annual Work Schedules (A.W.S.). No issues were specifically identified during the field assessment. Area of concern boundaries and prescriptions were appropriately mapped and implemented as observed during the field audit. Harvest operations were effective in protecting known values on the forest. Residual forest requirements are being followed, including the retention of wildlife trees in clearcut harvest areas. No areas of rutting or other site disturbance were noted during the field audit.

4.4.2 Access

During the field audit, the audit team assessed a representative sample of access road construction and maintenance activities, including water crossing installations and forestry aggregate pits (FAPs). Road construction activities were conducted in conformance with the requirements of the F.M.P. and were within the corridors or operational road boundaries approved by the F.M.P. and associated A.W.S.s.

Some of the access issues noted were related to culvert installation or maintenance on the Forest, that were not completed in accordance with the F.M.P. This leads to potentially negative outcomes, including the impediment of fish passage. This was identified as an issue in the 2016 I.F.A. Specific issues noted included the following:

- Culverts were not always installed to a standard to prevent the impediment of fish migration or passage and the culvert becoming perched;
- Slopes of roads around culverts without sufficient erosion control, leading to sediment eroding into the water course and blocking the opening of the culvert and fish passage;
- Culverts need to be an appropriate length to ensure the proper road slope to prevent erosion for routine and emergency installations; and,
- Some culverts were too short and bank slopes were not to an angle of 2:1, or a stable angle of repose with erosion control measures applied.

These issues led to **Finding #6**.

4.4.3 Renewal

All renewal activities observed during the field audit were consistent with the locations in the approved F.M.P. and A.W.S.s and followed the Forest Operations Prescriptions (FOP) which was consistent with the Silvicultural Ground Rules (SGRs) in the approved plans.

During site visits, some sites treated with aerial chemical tending did not have desired results (i.e., competing poplar/birch remaining within the site after treatments). Through interviews and document review, it was found that poor results were from the 2020-2021 reporting year where Timberline chemical was used. This chemical is no longer being used by the S.F.L. and it was discussed with the S.F.L. silvicultural forester that these sites are planned to be re-treated in future years. With the use of herbicides being such a contentious issue, re-treatment via chemical tending is not a welcome practice by the L.C.C. and local First Nation and Métis communities.



Figure 2. Kimberly 145 – block was seeded and treated with Timberline chemical. The site will likely need second treatment of tending to meet desired future forest condition.

Table 4-2 to 4-4 represent annualized planned versus actual renewal activities which occurred on the Timiskaming Forest during the audit term. Although there are some differences between actual and planned renewal activities, the level of renewal is in line with actual harvest levels, which were slightly lower than planned levels.

One noted exception is natural regeneration for the 2021 to 2022 period, where actual natural regeneration is significantly higher than planned levels (planned level is 4,933 ha and actual level reported is 12,327 ha). Every 3-5 years, the S.F.L review areas in their silviculture tracking systems tagged with an "unknown" renewal treatment. Blocks that have received a renewal treatment are tagged as such (Natural, Plant, Seed). These "unknown" areas are either awaiting renewal treatment, may not have been treated yet due to a variety of logistical reasons, or may be sitting for a period before reassessing a prescription. In 2021, the S.F.L tagged many of the "unknown" to a natural treatment.

Table 4-2. Annualized planned vs actual regeneration in hectares on the Timiskaming Forest

Forest	Natural	Natural	Planting	Planting	Seeding	Seeding
Term	Planned	Actual	Planned	Actual	Planned	Actual

2011 F.M.P 2016 to 2021	4,436	2,171	2,968	2,684	1,224	745
2021 F.M.P. – 2021 to 2022	4,933	12,327	2412	3,057	1,123	406

Table 4-3. Annualized planned versus actual site preparation in hectares on the Timiskaming Forest.

Forest	Mechanical	Mechanical	Chemical	Chemical
Term	Planned	Actual	Planned	Actual
2011 F.M.P 2011 to				
2016	3,674	2,643	880	322
2021 F.M.P 2021 to				
2022	3,358	1,754	570	256

Table 4-4. Annualized planned vs actual tending in hectares on the Timiskaming Forest

Forest	Chemical	Chemical	Thinning	Thinning	Spacing	Spacing
Term	Planned	Actual	Planned	Actual	Planned	Actual
2011 F.M.P						
2016 to 2021	3,630	3,710	0	1	250	255
2021 F.M.P. –						
2021 to 2022	4,341	2,611	10	0	50	29

4.5 SYSTEM SUPPORT

Since the Timiskaming Forest has been certified to F.S.C. National Forest Stewardship Standard and S.F.I. Forest Management Standard, the system support principle was optional for the S.F.L. under the terms of the I.F.A.P.P. The auditors found that the S.F.L. staff were knowledgeable and maintained a good system of forest management records. One exception to this is the 2021-2031 Final F.M.P. documentation, that was lacking as it pertains to issue resolutions and associated changes to final F.M.P. (Finding #3), F.M.P. text and tables not providing medium/long term projections for landscape classes (Finding #4). In addition, the Timiskaming Forest road density information is not up to date (Finding #8), and the final year Annual Report does not provide appropriate assessment for objective achievement for forest diversity objectives (Finding #10).

The audit team found that Timmins Kirkland Lake M.N.R.F. District and M.N.R.F. Northeast Region documentation control was lacking as it pertains to public, L.C.C. and First Nation/Métis documentation in the final F.M.P. (**Findings #1, #3 and #9**). In addition, M.N.R.F.'s review process of the 2021-2031 F.M.P. and final year Annual Report did not confirm compliance with F.M.P.M. requirements (**Finding #1, #3, #4, #9 and #10**).

4.6 MONITORING

The audit team reviewed whether the monitoring program developed for the management unit, as well as associated reporting obligations, met the requirements of manuals, policies, procedures and the S.F.L.

4.6.1 Renewal

Generally, the auditor found that an effective program exists as it pertains to assessment of regeneration in accordance with F.M.P.M. requirements.

As it pertains to Free-to-Grow (F.T.G.) assessments overall, the S.F.L.'s renewal monitoring program is sufficient and performed in accordance with requirements outlined in F.M.P.'s being implemented. M.N.R.F.'s District Silviculture Monitoring program is also robust and providing feedback to the S.F.L. program. Although improvements and adjustments have been made by the S.F.L. because of M.N.R.F. feedback, Free-to-Grow (F.T.G.) results from the S.F.L. assessment program still differ from M.N.R.F. District's results. The differences are specifically related to jack pine species composition calls that should be addressed. This observation led to **Finding #7**.

4.6.2 Access

Roads and water crossings are inspected and reported through the Forest Operations Information Program, which is used by both T.F.A.I. and M.N.R.F. T.F.A.I. conducts an annual inspection program to ensure roads and water crossings are maintained and to identify where emergency repairs are necessary.

One selected audit field site was documented as a decommissioned bridge in the Annual Report, however, during the site assessment, it was explained that a large culvert had been installed by a third party. This culvert has washed out and was replaced by another culvert (also installed by the 3rd party) which was in place during the field visit. The installation is currently under legal proceedings due to the site damage that has resulted. The activities by the third party, following the bridge decommissioning are not within the scope of this I.F.A, however, the S.F.L and/or M.N.R.F may eventually be responsible for the outcome of any remedial work.

Evidence from site visits indicate that existing roads that are not drivable and regenerated are included as existing roads in the road layer/maps. In addition, the

S.F.L. is not providing road density results as required by the 2021 F.M.P. objective for the first year of the implementation. The indicator is the number of kilometres of "drivable" roads per square kilometre of Crown Forest. To assess this, the current road density should be provided in the submitted A.R. for 2021-2022, however, no evidence of an assessment to road density was found in that report. This led to Finding #8.

4.6.3 District Compliance Planning and Monitoring

Timmins and Kirkland Lake Annual Compliance Operations Plans (ACOPs) were prepared and in place during the audit period and met forestry inspection targets from 2016 to 2019. It was noted that during the 2020 to 2022 there was a reduction in the documentation and target achievement. The COVID-19 pandemic was occurring, and restrictions were in place that impacted how much field work (i.e. compliance inspections) could occur.

Annual Reports show a summary of completed inspections that are summarised in Table 4-5. The reduced documentation of target achievement is a result of M.N.R.F. restrictions on staff to meet planned targets.

Table 4-5. Summary of S.F.L and M.N.R.F inspections

Annual Report Year	S.F.L.	M.N.R.F. inspections
2016	135	32
2017	132	36
2018	153	26
2019	122	5
2020	171	13
2021	106	8
2022	No data available	No data available
Average	138	20

4.6.4 S.F.L Compliance Planning and Monitoring

A 10-year strategic compliance plan was in place for the 2011-2021 and the 2021-2031 Forest Management Plan as per the requirements of the F.M.P.M and Forest Compliance Handbook. Annual compliance monitoring plans were also included in each A.W.S.

The 10-year strategic compliance plans contained four broad objectives. These objectives and highlights of progress are as follows:

- Resource protection
- Overcoming historical compliance problems

- Continuous improvement
- Education and communications.

Table 4-5 show the summary of S.F.L inspections. The audit team concludes that progress towards these objectives is being made. S.F.L representatives made efforts throughout the audit term to assess and report on forest operations compliance conducting an average of 138 inspections per year.

4.7 ACHIEVEMENT OF MANAGEMENT OBJECTIVES AND FOREST SUSTAINABILITY

During the audit period, the 2011-2021 F.M.P. was completed and the audit team's assessment of objectives achievement for that plan is provided in Appendix #2. The 2011 F.M.P. had 28 objectives and 41 indicators. The assessments of objective achievement by the audit team could not be completed for objectives 1 to 8 because plan-end levels were not determined for the final year Annual Report. These objectives measure forest diversity (natural landscape pattern/distribution and habitat for animal life), which are critical to measuring forest sustainability on the forest (**Finding #10**).

The audit team assessed the achievement of the 2021-2031 Timiskaming F.M.P. objectives and indicators that could be measured at the time of the audit. The 2021-2031 F.M.P. has only been implemented for two years, therefore objectives and indicators to be measured at the year five- and final-year Annual Report could not be assessed at the time of the audit. The summary of objectives assessed during plan preparation are listed below.

Assessed During Plan Preparation (6 objectives and 61 indicators):

- Distribution of disturbance patches that more closely resembles the expected size, composition and age produced by wildfire (19 indicators);
- Balanced age class structure for all forest units resembling expected natural conditions (11 indicators);
- Forest conditions that are similar to the conditions moose prefer and would encounter in a natural forest ecosystem, and consider the provision of moose emphasis areas (4 indicators);
- Productive forest area lost by forest management activities (1 indicator);
- Investigate and implement opportunities to reduce the application of herbicides (2 indicators);
- Wood supply (21 indicators);
- Involvement in the F.M.P. planning process (2 indicators); and,
- Fire susceptibility through the development of Fire Management Zones (1 indicator).

For the 2021 F.M.P., the audit team was not able to assess the achievement of Objective 16, Indicator 16.1 because no survey was conducted to assess the L.C.C.'s effectiveness (**Finding #9**). In addition, the Analysis Package was reviewed to assess the medium/long term projections for landscape classes as the text and tables did not provide these projections as required by the F.M.P.M. (**Finding #4**). Overall, objective achievement documented in the Forest Management Plan demonstrated that most objectives and indicators have been maintained within desired levels and that there is movement toward achievement. Assessments made by the planning team are consistent with assessments made by the audit team. For management objectives that are not achieving the desired levels, the appropriate rationale is documented in the F.M.P. text.

4.8 CONTRACTUAL OBLIGATIONS

The S.F.L. agreement lays out contractual obligations (licence conditions) that must be met by the licence holder over the course of each audit period. The audit team concluded that T.F.A.I. is in compliance with the terms and conditions of the S.F.L. (Appendix 3).

The I.F.A.P.P. also requires auditors to assess the effectiveness of the actions developed to address the recommendations of the previous audit. The 2016 I.F.A. produced 10 recommendations. The required Action Plan and Action Plan Status Report were completed within the required timelines. Our assessment is that most recommendations were appropriately actioned (or work is on-going) with the exceptions of the ongoing issues noted regarding perched culverts, identified in the 2016 I.F.A. and again in the 2023 I.F.A.

As required by the F.M.P.M., the audit results were considered in the development of the 2021-2031 F.M.P. and other forest management activities.

4.9 Concluding Statement

The audit team concludes, with the critical exceptions noted below, that management of the Timiskaming Forest was generally in compliance with the legislation, regulations and policies that were in effect during the term covered by the audit, and the Forest was managed in compliance with the terms and conditions of the Sustainable Forest Licence held by Timiskaming Forest Alliance Inc No. 542247. The forest is being managed consistently with the principles of sustainable forest management, as assessed through the Independent Forest Audit Process and Protocol. The critical exceptions noted are as follows:

 The effectiveness of public, First Nation, and Métis consultation during 2021 -2031 F.M.P. development was reduced.



Principle 2: Public consultation, and First Nations and Métis community involvement and consultation

Audit Criterion 2.2: F.M.P. standard public consultation process **Procedure(s)**:

Review and assess whether the public consultation processes for the plan and any amendments met the public consultation requirements of the applicable Forest Management Planning Manual (F.M.P.M.) and whether the process was effective. Include the following:

- Assess whether opportunities to gather input from stakeholders (including information products), were provided at each stage of the planning process per the requirements of the applicable F.M.P.M.;
- Whether any comments were received from the public that address the understandability and usefulness of the information presented and how these comments were addressed by the planning team;
- Whether M.N.R.F., in conjunction with the plan author, responded to written comments and submissions (and verbal comments) as required by the applicable F.M.P.M.; and
- Consider how public input was addressed by M.N.R.F. and/or the plan author during the plan production or processing of any amendments.

Background information and summary of evidence:

The First Nation and Métis and public consultation records in the Supplementary Documentation and in the 2021 final F.M.P. and F.M.P. Summary are incomplete. The following issues with the Supplementary Documentation in the final plan were identified:

- 1. The summary of First Nation and Métis involvement report only includes records of consultation up to the Invitation to Participate (December 2017).
- 2. In several cases, the Summary of Public Consultation does not describe whether and how concerns were taken into consideration in the planning process.
- 3. There is no summary of the Issue Resolution process (e.g., type of issue, stage initiated, resolution).
- 4. There is no summary of each stage of consultation including the desired forest and benefits meeting (e.g., forum, dates, number of attendees, types of supplemental notices sent).
- 5. The L.C.C. Report is incomplete.

With the Final Plan and Plan Summary:

- 1. The 2021 F.M.P. does not include the L.C.C.'s general agreement or disagreement with the plan.
- 2. This statement and the summary of the L.C.C. report are also missing from the F.M.P. summary.

Discussion and Conclusion:

The publicly available F.M.P. includes limited information regarding public, First Nation, Métis and L.C.C. participation in forest management plan development, making it difficult to assess how the input and concerns from above listed parties were considered in the planning process. All of these requirements for documentation, as well ensuring the final F.M.P. completeness, are the responsibility of the M.N.R.F.

Finding #1: The final Forest Management Plan is incomplete regarding several required public, Local Citizens' Committee, First Nation and Métis consultation documents.

Principle 2: Public consultation, and First Nations and Métis community involvement and consultation

Audit Criterion 2.2: F.M.P. standard public consultation process **Procedure(s)**:

Review and assess whether the public consultation processes for the plan and any amendments met the public consultation requirements of the applicable F.M.P.M. and whether the process was effective. Include the following:

- Assess whether opportunities to gather input from stakeholders (including information products), were provided at each stage of the planning process per the requirements of the applicable F.M.P.M.;
- Whether any comments were received from the public that address the understandability and usefulness of the information presented and how these comments were addressed by the planning team;
- Whether M.N.R.F., in conjunction with the plan author, responded to written comments and submissions (and verbal comments) as required by the applicable F.M.P.M.; and
- Consider how public input was addressed by M.N.R.F. and/or the plan author during the plan production or processing of any amendments.

Background information and summary of evidence:

During Stage 3, the F.M.P. process continued under the Covid-19 restrictions with planning team and L.C.C. meetings moving online (March 2020). While participation in the meetings did not seem to significantly decrease, some L.C.C. members and all of the First Nation community representatives interviewed reported a reduced ability to follow the topics discussed at the meetings. The virtual platform had a learning curve for many people in the beginning of the lockdowns. Some members were only able to call in, which meant limited ability to follow along with the material presented on the screen.

The audit observations that relate to the reduced ability of the public, stakeholders, First Nations and Metis to be able to meaningfully participate during the lockdown can be summarised as follows:

 There were no in-person First Nation and Métis community consultations for the Stage 3 (forest operations). These events were scheduled but got cancelled due to Covid-19 lockdowns. A statement from a First Nation representative in the May 2020 L.C.C. meeting minutes: "It should be mentioned that the information centers have not been brought to the First Nation communities yet, as these meetings were scheduled after the public centers and were subsequently cancelled due to the pandemic. So in many

ways, to suggest that the F.M.P. is on track, is inaccurate. It is not business as usual as some people would like to suggest it is. It is important to make it known that many communities are on lock down and are unable to meet in any capacity at this time".

- All First Nation community representatives that participated in the audit stated
 that although they may have had representatives in the planning team or
 L.C.C., that person was not able to consult with the community members due
 to rapid isolation measures implemented within the communities and
 competing priorities that health and safety concerns brought.
- L.C.C. members and First Nation community representatives interviewed voiced concerns that sending out a link to the Natural Resource Information Portal (N.R.I.P.) page with consultation materials does not work for a people in rural areas with poor internet connectivity and for those with limited digital experience. For example, downloading a single forest operations map with a poor internet connection may take four hours. The N.R.I.P. site is also not easy to use for people who do not have forest management planning technical knowledge. This was confirmed during an auditor visit to a First Nation community where the community's lands and resource staff struggled to navigate through the N.R.I.P. site to find a map relevant to community values.
- There are many amendments and revisions (Finding #5) that the First Nation communities interviewed, citing limited resources and struggle to keep up with.
- Community participation in the operational planning stage provides more flexibility to the planning team to find opportunities to balance interests compared to the Annual Work Schedule stage. However, Covid-19 lockdowns forced cancellation of the planned Stage 3 information forums in First Nation communities. It was hoped that the Annual Work Schedule consultation would provide an opportunity to address any operations related concerns as well as being available for meetings through implementation.
 - There is an example, where it was successfully applied: In June 2021, Mattagami FN community members who felt they did not have an opportunity to provide feedback on their own about harvesting near the community voiced concerns over harvest road work and harvesting plans when work began on the road near the reserve. T.F.A.I. paused the work on the road and harvest block for nearly 1.5 years until a resolution was met.
 - However, there is also an example of an area near Matachewan First
 Nation where harvesting on Argyle block in 2022 was continuing despite
 community concerns regarding to the size of the clearcut and impact on

Indigenous trapper values. Changing the area of harvest once operations have started may cause hardship to the contractors.

Discussion and Conclusion:

Some L.C.C. members and most First Nation community representatives interviewed felt that the plan was rushed in terms of their ability to review and provide meaningful input into planned operations during the Covid-19 shutdowns. While M.N.R.F staff made efforts to reach out to the communities, these community concerns were largely related to the reduced capacity of First Nation communities as the pandemic response measures took significant community resources, ability to take the planning information to the First Nation community members in isolation, as well as in terms of accessing digital information either due to slow internet connectivity in rural areas or limited digital experience. This finding in combination with the issues related to the F.M.P. content provided for the public review (**Finding #1, Finding #3, Finding #4, Finding #5**, and **Finding #9**) leads to a conclusion that the public, First Nation, and Métis consultation was compromised during F.M.P. development.

Finding #2: The effectiveness of public, First Nations, and Métis consultation during the 2021-2031 Forest Management Plan development was reduced.

Principle 2: Public consultation, and First Nations and Métis community involvement and consultation

(Optional) Audit Criterion 2.3: Issue Resolution Procedure(s):

• how the issue was resolved, and if applicable, how it was reflected in the final F.M.P., the minor or major amendment or contingency plan.

Background information and summary of evidence:

There were three Issue Resolution requests during the stage four of the 2021 F.M.P., all of which resulted in changes to the final plan.

- A First Nation collective's Issue Resolution request included multiple concerns, including the use of herbicide, size of clearcuts, use of traditional knowledge in forest management, protecting birch stands, funding consultation, and revenue sharing among others. The Regional Director Decision (December 14, 2020) resulted in major changes to the final plan, including development of an Area of Concern for birch dominated stands and modifications and/or additions to the management objectives (F.M.P.-10);
- A trapper requested harvest deferrals from their trapline. This request was
 partially accommodated through deferral of operations and timing of operations
 (District Manager decision on November 23, 2020, and Regional Director
 review on January 12, 2021) that supported the District Manager decision; and,
- Gogama area residents requested harvest deferrals and increased buffer size to protect water source for the Community of Gogama, and tourism and recreational values, which were partially accommodated (Regional Director decision on January 6, 2021).

The 2020 F.M.P.M., Part B, s 6.1, requires the Supplementary Documentation of the F.M.P. to include a summary of Issue Resolution (e.g., type of issue, stage initiated, resolution). No such summary exists in the Supplementary Documentation, neither are these Issue Resolution topics discussed in the F.M.P. text. Changes to the final plan need to be also discussed under the List of Major Changes from Draft to Final Plan. While some of the changes to the Final Plan were mentioned, for most part, the information provided does not include enough detail for the public to develop an understanding how the concerns brought forward through the Issue Resolution process were taken into consideration in the Final Plan.

Discussion and Conclusion:

The information provided in the 2021 F.M.P. does not enable the public to develop an understanding of the nature of the issue resolution requests, and how stakeholder

and First Nation's community concerns were taken into consideration in the Final Plan.

Finding #3: The 2021-2031 Forest Management Plan lacks a summary of three Issue Resolution requests made during the development of the plan and the resulting changes to the Final Plan.

Principle 3: Forest Management Planning

Audit Criterion 3.4.5: Support for the Proposed Long-Term Management Direction, Determination of Sustainability and Primary Road Corridors and Preliminary Endorsement of Long-Term Management Direction' Checkpoints

Procedure(s): For the preliminary determination of sustainability, include consideration of the results of procedures 1, 2 and 3 above and assess:

• whether it provides for the collective achievement of management objectives and progress towards the desired forest and benefits

Background information and summary of evidence:

The audit team reviewed the assessment of objective achievements of the 2021-2031 Forest Management Plan (F.M.P.). Documents reviewed were the Analysis Package, F.M.P. Text and F.M.P. Table 10. The Forest Management Planning Manual (F.M.P.M.) indicates that 100-year projections for quantifiable objectives will be documented in the F.M.P. During the review and subsequent interviews with M.N.R.F. and S.F.L. holder, it was found that the 2021-2031 F.M.P. does not provide medium- (20 years) and long-term (100 years) projections in the F.M.P. text and F.M.P. Table 10 for Objective #2 indicators. These projections are provided in the Analysis Package in form of figures, but little discussion is provided regarding achievement and assessments. Objective #2 and associated indicators are outlined below.

<u>Management Objective 2</u>: To promote a balanced age class structure for all forest units resembling expected natural conditions.

Indicator

- 2.1 Area (ha) of immature and older pine (I.O.P.)
- 2.2 Area (ha) of immature and older hardwood and immature mixedwood (I.O.H.I.M.)
- 2.3 Area (ha) of mature and older mixedwood (M.O.M.)
- 2.4 Area (ha) of mature and older upland conifer (M.O.C.)
- 2.5 Area (ha) of mature and older lowland conifer (M.O.L.C.)
- 2.6 Area (ha) of Pine Conifer (P C.O.N.)
- 2.7 Area (ha) of Upland Conifer (U C.O.N.)
- 2.8 Area (ha) of Lowland Conifer (L C.O.N.)
- 2.9 Area (ha) of Young Forest (YOUNG)
- 2.10 Area (ha) of old growth (LATE)
- 2.11 Area (ha) of Red and White Pine

Short term projections (10 years or Targets) for the above noted indicators are documented in the F.M.P. text and F.M.P. Table 10. However, at Year 10 it is projected that indicators 2.2, 2.4, 2.7, 2.8, 2.9 and 2.11 are moving away from desirable levels. The F.M.P. text and tables do not provide a discussion related to the difference between the desirable level and the targets, whether progress is being made in the long term (moving towards) and the rationale for differences.

Discussion and Conclusion:

The F.M.P.M. required that when indicators are moving away in the short term, the F.M.P. must demonstrate that there is movement towards the desirable level in the medium or long term. In addition, if the desirable level is not achieved and/or maintained during the plan period, the following questions need to be answered:

- (i) Is the difference between the desirable level and the target substantial?
- (ii) Will progress be made towards achievement of the desirable level?
- (iii) What is the rationale for the difference?

Objective #2 is to "promote a balanced age class structure for all forest units resembling expected natural conditions". Objective #2 has Landscape Classes as its indicators (listed in background information and summary of finding). In accordance with the Boreal Landscape Guide, the Timiskaming Planning Team utilized Landscape Classes which have been developed in accordance with how forests function as habitat. The Landscape Classes are the fundamental coarse filter assessment units and represent groupings of forest units by development stage.

The audit team did find evidence in the Analysis Package that medium- and long-term projections were measured for landscape classes during the development of the L.T.M.D., however, appropriate assessments and results are not provided in the F.M.P. text or F.M.P. tables which are key documents normally reviewed by members of the public. In addition, neither the plan text nor F.M.P. Table 10 reference the location where these results can be viewed in the Analysis Package.

The M.N.R.F. did not provide a required alteration related to Objective 2 indicator projection and assessments not meeting F.M.P.M. requirements.

Finding #4: The 2021-2031 Forest Management Plan text and tables do not provide medium-/long-term projections as required by the Forest Management Planning Manual for Landscape Class indicators.

Principle 3: Forest Management Planning

(Optional) Audit Criterion 3.14.1(2): Amendment process and rationale **Procedure(s)**: Determine the frequency of plan amendments, and in consideration of information gained from procedure 1, assess whether reasons for the amendments are symptomatic of a gap in information or inadequate planning.

Background information and summary of evidence:

The audit team reviewed approved amendments prepared during the audit period and conducted interview with M.N.R.F., the L.C.C. and the S.F.L. The following was noted:

- For the period of April 1, 2016, to March 31, 2021 73 amendments;
 - 71 amendments were classified as administrative.
 - 2 amendments were classified as minor.
- For the period of April 1, 2021, to March 31, 2023 27 amendments;
 - o 24 amendments were classified as administrative.
 - 3 amendments were classified as minor.
- Most amendments submitted include more than one single change to the F.M.P.;
- Type of amendments (i.e. Operational Road boundaries (O.R.B.), road reclassification) indicate lack of information available at time of F.M.P. development;
- Amendments were consistent with L.T.M.D.;
- Documents and rationale for approved amendments were appropriate; and,
- Preparation and approval were done in accordance with F.M.P.M. requirements.

2011 F.M.P. amendment summary

From the 73 amendments, 58 were related to access and specifically O.R.B. changes, road reclassification or changes to road corridors. The remaining amendments (15) were related to other changes such as changes to harvest, Areas of Concern, errors or policy (i.e. Crown Land Use Policy Atlas changes).

2021 F.M.P. amendment summary

Over half of the 27 amendments are related to access:

- Road corridor addition or adjustments;
- Operational Road Boundary changes;
- Reclassification of roads (i.e., Branch to Primary); and,
- Addition of Aggregate Extraction Area.

Some amendments were a result of a meeting that occurred in February of 2021. At that meeting, an agreement was reached between T.F.A.I. and M.N.R.F. prior to final plan approval regarding some outstanding final plan items and actions that T.F.A.I. and M.N.R.F. have agreed to undertake. The agreement is documented in an e-mail. Some of the actions agreed to at that meeting involved 2021-2031 F.M.P. amendments.

Operational Road Boundary (O.R.B.) changes – These normally occurred due to alternative plan to access the harvest area not identified during F.M.P. preparation. The original access plan was either through difficult terrain or less feasible than newly discovered access. The F.M.P.M. indicates that O.R.B.s should provide flexibility in operational road location where necessary. This, in turn, may reduce the need for amendment during F.M.P. implementation.

Road reclassification and change to road corridors – These normally occurred due to new information that was not yet available at time of F.M.P. preparation. Reclassifications were mainly changes from Branch to Primary Roads and on one occasion, Operational to Primary Roads. Road corridor changes/addition were to address safety concerns or to better reflect the intended access route to planned harvest.

Discussion and Conclusion:

All parties involved (harvesters, S.F.L., M.N.R.F., L.C.C. and First Nation communities) are concerned with the frequency of F.M.P. amendments occurring for the Timiskaming Forest. Amendments require significant administrative resources from the S.F.L. and the M.N.R.F. and add uncertainty/delays to operations. In addition, it can be overwhelming for the L.C.C. and First Nation communities to keep up with changes to the F.M.P.

The auditor believes that most of the amendments submitted during the audit period, especially those involving operational boundary changes and road reclassifications could have been addressed during the preparation of the F.M.P. through better operational planning.

Finding #5: Inadequate operational planning is resulting in large number of Forest Management Plan amendments.

Principle 4: Plan Assessment and Implementation

Audit Criterion: 4.7 Access

Procedure(s): Determine whether the operations implemented were consistent with locations in the approved F.M.P., the Annual Work Schedule, approved standards or conditions on construction and removal, including the approved water crossing structure, Fisheries Act review, and conditions on crossings of other A.O.C.s, use management (maintenance, access control, any removal and decommissioning provisions).

Background information and summary of evidence:

Twenty-seven water crossings were viewed of which 10 were found to have installation or maintenance issues. Five crossings had issues with erosion (see example picture), one culvert was perched (see example picture), three culverts were perched and eroded (see example picture), one very large culvert and road washout with a huge amount of road building material washed downstream, banks scoured up and downstream, the path of the river had been altered to fit the culvert, crossing material was lodged in the flood plain (steel plates) within a known trout creek. One culvert was installed by a third party and is currently under legal proceedings. This installation is not within the scope of this audit but the SLF and/or MNRF may eventually be responsible for the outcome of any remedial work.

At two sites, culverts were installed in 2021 then reinstalled in 2023. The current installations are not within the scope of this audit. SFL installation documentation does not indicate issues with the initial decommissioning activity.

From a review of FOIP reports, 2 reports for operational issues for perched culverts resulted in an agreement to leave the culverts until forest management activities are complete then decommission the crossings.

Each time work in undertaken within a water course there is disturbance. Multiple disturbances in one water course or incorrect installations have negative effects on water quality and fish habitat.

Twenty-one F.O.I.P. reports identified issues with access activities. Ten of these reports were for issues with water crossings. One of these resulted in a "not in compliance" status. The remaining nine reports indicated corrective actions were agreed to and completed or future activity agreed to (e.g., perched culverts would be removed when forest management activities were completed).

Requirements in the MNRF D.F.O Protocol for the Review and Approval for Forestry Water Crossings (incorporated into the 2021-2031 F.M.P) describe that culverts should be installed to ensure that they are not, or will not become, perched and impede the free passage of fish. The 2011-2021 F.M.P also speaks to standards that must be followed in order to not impede fish passage. One of the conditions favourable for culvert installation include – no bedrock or large boulders that will prevent setting the pipe into the streambed.

During the field inspection perched culverts were found at water crossing installations. There was little to no natural channel material in the culverts. Scour protection was not in place. In some instances, slopes were eroding around the culvert and the water course was narrowing at both ends. At some locations erosion control measures were not applied along slopes of the road. Some culvert lengths were not appropriate for the site they were installed on. Some were too short, and some were too long.



#143 – Rip Rap directly on top of culvert. Not evident in photo, but this crossing was also perched.



#6782 – perched culvert with rip rap into watercourse



#P11-55 – road building material eroding into watercourse



#6739 - road building material eroding into watercourse

Discussion and Conclusion:

Twenty-seven water crossings were viewed during the field audit of which seven crossings were found to have issues. From a review of F.O.I.P. reports during the audit period there were twenty-one reports for issues with access activities. Ten of these reports were for issues with water crossings of which one resulted in a "not-in-compliance" status.

Water crossing standards described in Module 4 of the Implementation Toolkits for both F.M.P.s for this audit were based on the applicable water crossing protocols (2021-2031 F.M.P. – Protocol for the Review of Water Crossings Proposed through the Forest Management Planning Process (April 2005), DFO Habitat Management Program – Operational Statements developed for a number of routine projects, and 2021-2031 F.M.P. - Ministry of Natural Resources and Forestry/Fisheries and Oceans Canada Protocol for the Review and Approval of Forestry Water Crossings (2022)).

It was observed that culverts were installed that resulted in fish passage being impeded. The length of the culverts did not match the site conditions. A stable slope was not achieved, and road material was eroding into the watercourse.

Finding #6: Water crossing installations did not always follow the requirements in the approved Forest Management Plan.

Principle 6: Monitoring

Audit Criterion 6.3: Silviculture standards and assessment program **Procedure(s)**: Assess whether the management unit assessment program (S.F.L. and M.N.R.F. District) is sufficient and is being used to provide the required silviculture effectiveness monitoring information including whether it:

• compare M.N.R.F. District Silviculture Monitoring results (where they may exist) with those of the S.F.L.

Background information and summary of evidence:

Following review of Annual Reports and interviews with the M.N.R.F. and S.F.L., it was indicated that Free-to-Grow (F.T.G.) results from the S.F.L. assessment program differ from the M.N.R.F. District Silviculture Monitoring results. The M.N.R.F. assesses 10% of the S.F.L. program. The following was noted by the audit team.

- M.N.R.F. assessments are completed through ground surveys.
- S.F.L. assessments are predominantly done by helicopter (with some ground calibrations mainly for mix wood stands).
- M.N.R.F. provided F.T.G. assessment results from on the ground assessments for the year 2016 to 2019 and 2021 to 2022. No M.N.R.F. program in 2020;
- The S.F.L. is following the F.M.P.'s monitoring methodology outlined in Supplementary Documentation 6.1.7.-Monitoring Program for the Success of Silvicultural Activities:
- Differences between the M.N.R.F. and S.F.L.'s F.T.G. results were primarily associated with the jack pine (P.J.) species composition (Jack Pine Pure and Jack Pine Mixed forest units).
- Differences in species composition were especially apparent during the 2021 and 2022 programs, where the auditor observed two blocks where S.F.L. survey show Jack Pine species composition estimation was over 40% higher than M.N.R.F. assessments. There where also several other blocks having differences greater then 20%.
- SFL assessments showed Black Spruce composition was less then M.N.R.F. assessments; and,
- There were some noted differences in spruce forest units where S.F.L. did not consider Balsam Fir in species composition in 2021. This was corrected for the 2022 program and results were consistent between M.N.R.F. and S.F.L.

The audit team planned viewings of 4,287 ha of F.T.G. stands from the 2016-2023 period. As a result of the discrepancy noted above, the audit team selected a higher proportion of Jack Pine Pure and Jack Pine Mixed forest units for the field audit. All F.T.G. stands were viewed by the audit team using a helicopter. Key things to keep in mind regarding the I.F.A. site visits:

• The audit team did not conduct ground calibration prior to viewing the sites (i.e., on the ground assessments to calibrate aerial assumptions);

- The audit team randomly selected sites to visit with an increased focus on Jack Pine Pure (P.J.1) and Jack Pine Mixed (P.J.2) forest units.
- All sites were visited during a single day flight the audit assessment technique is not meant to be as accurate or detailed as a formal F.T.G. assessment as done by the S.F.L. forester - rather, it is a confirmation; and,
- Sites viewed during the field audit were reported as F.T.G. during the period of 2016 to 2022, therefore auditor needed to consider possible changes to the sites from when the actual F.T.G. assessment occurred.

The following are observations the auditor noted from the F.T.G. field visits:

- For most sites visited, the auditor believes that F.T.G. assessments results from Annual Reports were appropriate;
- The auditor did observe some instances where the black spruce composition should have been called higher than what was reported in the Annual Report;
- Most of the discrepancies observed by the auditor was between Jack Pine
 Pure and Jack Pine Mixed forest units (Jack Pine composition overestimated at
 the expense of Black Spruce); and,
- The auditor observed only one site where hardwood composition was underestimated and Jack Pine was over estimated.



Roadhouse 130: 2021 F.T.G. with Forest Unit called Jack Pine Pure (80% P.J.)



Sheard 124 (2 images): 2020 F.T.G. with Forest Unit called Jack Pine Pure (85% Jack Pine) – the audit team observed less Jack Pine then F.T.G. assessment indicated.

Discussion and Conclusion:

Based on the auditor's assessment, the S.F.L. F.T.G. assessment program is sufficient and producing appropriate results, however, when compared with M.N.R.F.'s F.T.G. monitoring program, the results are significantly different as it pertains to Jack Pine species composition.

M.N.R.F.'s District Silviculture Monitoring program is robust and providing useful feedback to the S.F.L. program. Although some improvements and adjustments have been made by the S.F.L. due to M.N.R.F. feedback, both programs are still producing different results in the Jack Pine species composition.

Finding #7: The Sustainable Forest Licensee Free-to-Grow assessment results as they pertain to jack pine species composition are different from the Ministry of Natural Resources and Forestry District silviculture monitoring results.

Principle 6: Monitoring

Audit Criterion 6.5: Annual Reports

Procedure(s): Examine whether the report assesses progress towards the objectives and targets identified in the F.M.P., explains significant deviations between the scheduled/planned activity levels versus actual activity levels and assesses the potential implications on future operations.

Background information and summary of evidence:

Both the 2011-2021 and the 2021-2031 F.M.P. have an objective to minimize the loss of productive forest. Road density is an indicator used to assess this objective where the intent is to limit the increase of permanent roads on the management unit. Both F.M.P.s indicate that levels should not exceed a 15% increase at plan end.

The objective for the 2011-2021 F.M.P. (Objective #10) was assessed in the enhanced Annual Report (Final year Annual Report) and the target was not achieved due to the increase in road density being greater then 15% (actual plan end of 17%).

F.M.P. Table 10 in the 2021-2031 F.M.P. has Objective #4, which is intended to minimize the loss of productive land. The timing of assessment is supposed to be annual (documented in the annual reports). The indicator is the kilometres of "drivable" roads per square kilometre of Crown forest. To measure this, current road density should be provided in the submitted A.R. for 2021-2022. Through review of the 2021-2022 A.R., no evidence of an assessment of road density was found.

During the field portion of the audit, some roads on the forest currently labelled as existing roads in the latest Annual Work Schedule (2023 A.W.S.) are regenerated and/or not drivable. Example of a regenerated road labelled as "existing" was in Kimberly 142.



Kimberly 142 – Operational road in a harvest block. The road is regenerated and no longer drivable but 2023 A.W.S. list it as an existing road.

The S.F.L. indicated to the auditor that they are currently working on updating roads information (i.e., drivability) for the Timiskaming Forest, however, results were not yet available.

Discussion and Conclusion:

As assessed in the 2011 F.M.P. enhanced A.R., there is evidence of an increase in roads density on the Timiskaming Forest that is greater than target levels.

Furthermore, the S.F.L. is not providing road density results as required by the 2021-2031 F.M.P. objective for the first year of the implementation. Finally, evidence from site visit indicates that existing roads that are not drivable are regenerated and should not be labelled as existing roads.

Finding 8: Road density information for the Timiskaming Forest is not up-todate and not reported in Annual Reports.

Principle 6: Monitoring

Audit Criterion: 6.4 Monitoring indicators of forest sustainability

Procedure(s): To review whether programs are in place to ensure that data will be available for reporting on the F.M.P. measurable indicators of forest sustainability.

- 1. Assess whether programs are in place and are being implemented to provide sufficient data for all indicators identified in the F.M.P.
- 2. Where surveys and field audits are used to collect and analyze information, assess whether the methodology used is relevant and appropriate to the desired data and whether it incorporates current knowledge and technology.
- 3. Assess whether the programs, as implemented, address the objectives, indicators and their associated assessment methodologies outlined in the text and tables of the approved F.M.P.

Background information and summary of evidence:

The F.M.P.M. identifies C.F.S.A. forest management objective categories, along with specific indicators to assess effectiveness in achieving management objectives. In the 'Social and Economic' category, this includes public involvement in forest management planning for which an associated indicator is "Local Citizen Committee's self-evaluation of its effectiveness in plan development" (Section 1.2.5.1, Developing Management Objectives, F.M.P.M. 2020).

2021 F.M.P. Management Objective 16: To engage First Nation and Métis communities and local communities in the development and implementation of the Forest Management Plan

- Indicator 16.1: Local citizens committee's self-evaluation of its effectiveness in plan development.
- Target: L.C.C.'s satisfaction in the participation of the F.M.P. development as documented in the self-evaluation.
- Timing of Assessment: Measured at L.T.M.D. and Draft Plan (according to F.M.P.-10)
 - o The F.M.P. text only calls for the measurement on Draft Plan

F.M.P. Table 10 and the F.M.P. text do not include assessment of this indicator. The Kirkland Lake L.C.C. report in the Supplementary Documentation is incomplete and does not include any information regarding the L.C.C. self-assessments. Kirkland Lake L.C.C. members interviewed do not recall doing self-assessments at the L.T.M.D. and draft plan stages.

Discussion and Conclusion:

The planning team was not able to assess the L.C.C.'s effectiveness in the participation of the F.M.P. development as should be documented in the L.C.C. self-evaluation of effectiveness. As such, the objective was not achieved. It is unclear how well the L.C.C. was able to fill its role as an advisory body to the planning team during the preparation of 2021-2031 F.M.P. from an L.C.C. member perspective.

Finding #9: No surveys were conducted to support the assessment of 2021-2031 Forest Management Plan Management Objective #16, Indicator 16.1 as it pertains to Local Citizens' Committee self-evaluation of its effectiveness in plan development.

Principle 7: Achievement of management objectives and forest sustainability **Audit Criterion 7.2:** Assessment of objective achievement

Procedure(s): List (in table format) and include in the audit report, objectives from the F.M.P. for which the assessment of objective achievement was performed in the latest relevant annual report and the auditor's assessment of the progress towards achieving each objective considering:

- F.M.P.M. requirements which include questions and examples;
- results from reviewing and assessing the annual report assessment of objective achievement including any differences and whether rationale for these differences between planned and actual results is reasonable;

Background information and summary of evidence:

The 2020-2021 enhanced Annual Report (A.R.) for the final year of the 2011-2021 F.M.P. was reviewed, as well as review of F.M.P. Table 9 of the 2011-2021 F.M.P., 2021 A.R. text and Table A.R.-16. Actual plan end levels were not determined for indicators associated with Objectives #1 to 8.

Objectives #1 to 8 are associated with forest diversity – natural landscape pattern/distribution and habitat for animal life. The values used in the assessment in table A.R.-16 are from the 2011-2021 plan preparation (Long Term Management Direction or L.T.M.D.).

The final year A.R. was reviewed by M.N.R.F. and a list of required alterations and comments/suggestions was provided to the S.F.L. following the review. The audit team reviewed the required alterations and comments/suggestions provided to the S.F.L. Although a comment regarding the inappropriate assessment of objective achievement was provided to the S.F.L., the comment was not listed as a required alteration, and therefore not addressed by the S.F.L. in the final year A.R. The final year A.R. was approved by M.N.R.F. without having Objective #1 to 8 assessed at plan end.

Discussion and Conclusion:

Following review of the 2020-2021 Year 10 enhanced Annual Report, the audit team concluded that several indicators cannot be thoroughly assessed in the absence of actual plan end levels. Actual plan end levels are needed to perform appropriate assessment of objective achievement for the Year 10 enhanced Annual Report to meet the 2020 F.M.P.M. requirement specific to discussing the following.

- What is the difference between the target and the actual level achieved, and does the difference have implications on sustainability?
- Has the target been achieved, or is progress being made on achievement of the target?
- Is the difference a result of inaccurate predictions because of modeling assumptions and inputs?
- Is the difference a result of unforeseen circumstances?
- Do the differences infer that the modeling assumptions require modification to better represent the local forest?
- Do the levels of objective achievement suggest a need to change objectives or make adjustments to the L.T.M.D.?

The Year 10 enhanced A.R. prepared by the S.F.L. and approved by the M.N.R.F. did not answer any of the questions listed above for Objectives #1 through 8, as required by the F.M.P.M. These objectives measure forest diversity (natural landscape pattern/distribution and habitat for animal life) which are critical to measuring forest sustainability.

Finding #10: The approved Timiskaming Forest final year Annual Report does not provide an appropriate assessment of objective achievement for Objectives #1 to 8 of the 2011-2021 Forest Management Plan.

APPENDIX 2. MANAGEMENT OBJECTIVES TABLE

Appendix 2 presents the auditor's assessment of objectives for the 2011-2021 Timiskaming Forest Management Plan. All activities to meet the F.M.P. objectives are considered regardless of if they fall outside of the scope period (April 1 2016 to March 31 2023) of the Timiskaming 2023 I.F.A.

The assessment of objectives achievement of the 2021-2031 Timiskaming Forest Management Plan where progress is being made towards meeting objectives is provided in a summary text located in section 4.7 of the report.

Objective and Indicator	Auditor	Auditor comments
	Assessment	
Objective 1: To provide for a distribution of disturbance patches that more closely resembles the expected size, composition and age produced by wildfire. • frequency in each disturbance patch size class • Young Forest Patch Size • Texture of the Mature and Older Forest Matrix	Not assessed	As indicated in Finding #10 , the actual F.M.P. end levels were not determined for the 2020-2021 Year 10 enhanced Annual Report. For this reason, the auditor cannot assess this objective.
Objective 2: To promote balanced age class structure for all forest units resembling expected natural conditions. • Area by forest type and age class and total amount of young forest (all FU)	Not assessed	As indicated in Finding #10 , the actual F.M.P. end levels were not determined for the 2020-2021 Year 10 enhanced Annual Report. For this reason, the auditor cannot assess this objective.
Objective 3: To ensure an appropriate proportion of the total area within a forest unit is sustained within the overmature successional stages as per the Old Growth Policy for Ontario's Crown Forests. • Amount and distribution of overmature forest	Not assessed	As indicated in Finding #10 , the actual F.M.P. end levels were not determined for the 2020-2021 Year 10 enhanced Annual Report. For this reason, the auditor cannot assess this objective.
Objective 4: To maintain on the unit and enhance where ecologically and economically feasible, the presence of transitional species such as Hard Maple and Yellow Birch on the management unit in order to ensure their continued presence. • Amount of area in the OH1 forest unit	Not assessed	As indicated in Finding #10 , the actual F.M.P. end levels were not determined for the 2020-2021 Year 10 enhanced Annual Report. For this reason, the auditor cannot assess this objective.

Objective 5: To maintain and enhance where ecologically and economically feasible, the presence of White Pine and Red Pine on the management unit in order to ensure their continued presence and in an effort to maintain current White Pine and Red Pine • Amount of area in the PWR forest unit grouping	Not assessed	As indicated in Finding #10 , the actual F.M.P. end levels were not determined for the 2020-2021 Year 10 enhanced Annual Report. For this reason, the auditor cannot assess this objective.
Objective 6: To provide suitable marten habitat on the Timiskaming Forest. • Area of preferred habitat for marten • Percent of area in suitable condition within cores • Arrange suitable habitat into core areas	Not assessed	As indicated in Finding #10 , the actual F.M.P. end levels were not determined for the 2020-2021 Year 10 enhanced Annual Report. For this reason, the auditor cannot assess this objective.
Objective 7: To ensure critical moose habitat is considered through the application of Moose habitat A.O.C. prescriptions designed to retain such habitat or enhance it habitat locally where appropriate as well as ensuring that spatial representation of critical habitats. • Area of preferred habitat for Late Winter Moose (LWM) habitat • Apply A.O.C. prescriptions that are supported through the establishment of silvicultural prescriptions consistent with Moose habitat management objectives	Not assessed	As indicated in Finding #10 , the actual F.M.P. end levels were not determined for the 2020-2021 Year 10 enhanced Annual Report. For this reason, the auditor cannot assess this objective.
Objective 8: To provide habitat for provincially featured and locally featured forest-dependent wildlife species on the Timiskaming Forest. • Area of habitat for forest-dependent provincially and locally featured species	Not assessed	As indicated in Finding #10 , the actual F.M.P. end levels were not determined for the 2020-2021 Year 10 enhanced Annual Report. For this reason, the auditor cannot assess this objective.

Objective 9: To ensure the protection of habitat required by the Endangered Species Act for identified species-at-risk inhabiting the Timiskaming Forest • Area of habitat for forest-dependent species at risk	Achieved	Desired levels and target are to retain habitat levels by being fully compliant with Area of Concern prescriptions. During the 10-year period, there were no reports of non-compliance for species at risk habitat. Area of Concern prescriptions for species at risk in the 2011 F.M.P. were followed. This objective was achieved.
Objective 10: To minimize productive forest area lost by forest management activities. • Kilometres of roads (as defined by the Forest Roads and Water Crossings Initiative) per square kilometre of Crown forest.	Not achieved	Finding #8 notes that the target and desired level was not achieved during the 2011-2021 period because the increase in road density was greater than 15% (17% as assessed at the end of the F.M.P. period). This objective was not achieved.
Objective 11: To enhance the growth, yield and commercial value of selected forest stands on the Timiskaming Forest while retaining the genetic diversity of those species artificially regenerated. • Plant tree seedlings (including tree improved stock) at levels required to maintain predictable and sustainable wood supply	Achieved	The desired level is to plant tree seedlings (including tree improved stocked) at levels required to maintain predictable and sustainable wood supply. The target is to plant an annual average between 5.0 and 5.5 million seedlings over a 10-year period. The year 10 Annual Report indicated a total of 45,524,200 trees have been planted on the Forest since 2011 (annual average of 4,552,420). The desirable level has been achieved. The current average over ten years is slightly below the minimum 5.0 million target, however, a robust tree planting program has been conducted each year on the forest especially given that only 68% of the available harvest area was harvested during the 10-year period. During the field visit, the auditors had to opportunity to visit two sites where an improved jack pine stock was planted. This objective was achieved.

Objective 12: To regenerate harvested area to standards set in the SGR's, using a combination of natural and artificial methods that will increase future harvest levels in a cost-effective manner and ensure long-term forest health. • Percent of harvested forest area assessed as free-growing.	Achieved	The desired level is to regenerate all harvest area according to Silvicultural Ground Rules and the target is to have greater than 80 percent of the area assessed as free-to-grow within 10 years of harvest. The Year 10 Annual Report indicates that both desired level and target have been achieved. More area was successfully regenerated during the 2011-2021 period than was harvested (i.e., 102% of the area harvested).
Objective 13: Investigate opportunities and economically viable alternatives to the aerial application of herbicides for the control of competing vegetation in regenerating harvest area. (Qualitative) • Establish a benchmark of historical use of herbicides on the Timiskaming Forest	Achieved	The Annual Report indicates that a Vegetation Management Strategy for the Timiskaming Forest was developed in 2012 and updated in 2014. This strategy provides an overview of the use of herbicides, and trends starting in 2010. The total volume of active ingredient (kg ai/L) has varied from year-to-year, but the trend shows a gradual reduction since 2010 and demonstrates continual reduction of chemical pesticide use. The decision process leading to the application of herbicides is also provided in this strategy. The total area treated, and the method of application is provided annually in the Annual Reports. The desirable level and target have been met and this objective was achieved.

Objective 14: To identify and mitigate management impacts on all known fish and wildlife habitat, recreational, commercial, non-timber forest resource, and other values on the Timiskaming Forest Management Unit • Compliance with prescriptions for the protection of natural resource features, land uses or values dependent on forest cover. • Compliance with prescriptions for the protection of resource-based tourism values.	Achieved	The desirable level and target are to have no non-compliances reported. For the 2011-2021 period, no non-compliance was reported for the protection of natural resource features, land uses or values dependent on forest cover, resource-based tourism values. This objective was achieved.
Objective 15: To protect known Cultural Heritage values and identify and evaluate areas where high potential exists for Cultural Heritage Values within the Timiskaming Forest. • Compliance with prescriptions for the protection of known Cultural Heritage values and demonstrate that information of all areas that have received a Stage 1-4 archeological assessment is being maintained.	Achieved	The desirable level and target are to have no non-compliances reported. For the 2011-2021 period, no non-compliance was reported related to Cultural Heritage values. Records of Archaeological Assessments are maintained by T.F.A.I. in specific block files. This objective was achieved.

Objective 16: To manage the forest resources of the Timiskaming Forest providing the maximum sustainable and predictable wood supply to T.F.A.I. shareholders and shareholder facilities.

- Long-term projected available harvest area by forest unit
- Long-term projected available harvest volume by species group
- Forecast harvest area by forest unit
- Forecast harvest volume by species group
- Planned harvest area by forest unit (5 years)
- Planned harvest volume by species group****
- Actual harvest area by forest unit
- Actual harvest volume by species group.****

Partially Achieved

Long-term projections, forecast and planned levels were assessed during plan development. The audit team assessed indicator associated with actual harvest area by forest units and actual harvest volume by species group.

The desired level is to achieve 100% of planned harvest area and achieve or exceed planned volumes. The target level is to achieve 90% of planned harvest area and achieve or exceed planned volumes.

In terms of harvest area by forest units, the desired level and target were not achieved. All forest units reported harvest below target levels of 90%. Overall, the Annual Report show 68% of planned harvest area was harvested, with marketability being the main challenge.

In terms of volume, the Spruce/Pine/Fir species group met both the desired level and target levels with 92% achievement. Like area by forest unit achievement, the species groups which contain other hardwood, cedar and Pw/Pr, are showing well below 90% achievement (61%, 12% and 8% respectively). The Annual Report indicated that this relates to access to markets. In addition, poplar and birch harvest levels are 73% achieved. This under achievement was expected given the challenges associate with the Forest Resource Inventory used for the 2011 Forest

Objective 17: To provide a maximum sustainable wood supply so that the communities depending upon the forest industry for employment and stability continue to benefit from forest management activities on the Timiskaming Forest. • Percent of forecast volume utilized by mill ****	Achieved	Management Plan. This inventory had an overestimation of hardwood volume. These issues are expected to be addressed with the new inventory used for the development of the 2021 F.M.P. Overall, this objective was achieved. The desired level is to achieve or exceed planned volume and the target is to achieve 90% of planned levels. All mill destinations except one, the EACOM Elk Lake facility, made movement towards the desirable level. The Elk Lake facility met 98% of its target. Open market deliveries have exceeded the targeted volume, and Cheminis (due to the mill being idled for the entire length of the F.M.P.) has not received volume. Overall, volume utilization is very high on the forest for this reason, the auditor believes this objective was achieved.
Objective 18: To identify areas for individuals to harvest fuelwood for personal use and provide commercial fuelwood opportunities (Qualitative) • Demonstrate that areas have been identified for personal use fuelwood and that approvals for the production of commercial fuelwood on the Timiskaming Forest are available annually.	Achieved	Fuelwood areas are portrayed on A.W.S. operational scale maps each year and available. This objective was achieved.

Objective 19: To promote and support the utilization of biofibre on the Timiskaming Forest in an ecological and sustainable manner • Actual utilization of biofibre as a percent of projected available volume	Achieved	The desired level is to achieve 100% utilization of projected available harvest volume. The target is to progressively move towards a 10% utilization of the projected available volume in the Phase I and Phase II plans. Biofibre utilization has achieved 178% of the planned biofibre volume to date. Note: this calculation is from annualized volumes presented in A.R8, therefore the desirable level and target and objective were achieved.
Objective 20: To undertake all forest management operations using sound environmental practices such that any negative environmental impacts are avoided or minimized. • Compliance with management practices that prevent, minimize or mitigate site damage.	Achieved	The desirable level and target are to have no non-compliances reported. No non-compliances related to site damage have occurred during the 2011-2021 period. This objective was achieved.
Objective 21: To identify and mitigate management impacts on all known fish and wildlife habitat, recreational, commercial, nontimber forest resource, and other values on the Timiskaming Forest Management Unit Compliance with prescriptions developed for the protection of water quality and fish habitat	Achieved	The desirable level and target are to have no non-compliances reported. No non-compliances were reported related to fish and wildlife habitat, recreational, commercial, non-timber forest resource, and other values during the 2011-2021 period. This objective was achieved.
Objective 22: To minimize productive forest area lost by forest management activities. • Managed Crown forest available for timber production.	Achieved	The desired level is to maintain the current available forest for timber production and the target is to ensure there is no decline by 5% over long term. Plan start levels were 902,225 ha and plan end levels were 903,479 ha. This objective was achieved.

Objective 23: Provide opportunities for local Aboriginal communities for increased participation in the forest management planning process • Opportunities for involvement provided to, and involvement of, Aboriginal communities in plan development.	Achieved	This objective is related to community participation during the development of the 2011-2021 F.M.P. Therefore, this was measured during the development of the 2011 forest management plan and was achieved following the final plan submission in 2011.
Objective 24: Improve the mutual exchange of information between the local Aboriginal communities and local forest industry on such matters as values protection, forest-based employment and economic opportunities • T.F.A.I. will meet annually (as a minimum) with each local First Nation to discuss and report on matters that are of interest to the community. This meeting will be in addition to any other regularly scheduled meetings	Achieved	The S.F.L. holder has met with several First Nation communities with interests in the Timiskaming Forest (outside Annual Work schedule Information Sessions) during plan implementation. Every community continued to be afforded the opportunity to meet annually. This objective was achieved.

Objective 25: T.F.A.I. to explore mentorship and extension services to interested local Aboriginal Communities/Entrepreneurs (Qualitative) • Demonstrate the continual involvement of T.F.A.I. in working with First Nation of the Timiskaming Forest.	Achieved	 Apitipi Anicinapek Nation (formerly Wahgoshig First Nation) provided tree planting services in 2014; Matachewan First Nation community member has provided thinning services every year of the 2011 F.M.P. up to 2019; Wahgoshig Resources Inc. signed an overlapping agreement with the S.F.L. to harvest specific blocks in the F.M.P.; and, The S.F.L. holder provided support for "Forest Management 101" sessions held by the M.N.R.F. for First Nation communities (Jan 26, 2015 in Beaverhouse Aboriginal Community, Feb 23, 2015 with Timiskaming First Nation and April 21, 2015 in Matachewan First Nation). This objective was achieved.
Objective 26: To engage the Local Citizens' Committee in the development and implementation of the forest management plan (Qualitative). • Local citizens committee's self-evaluation of its effectiveness in plan development.	Achieved	This objective was measured during the development of the 2011 F.M.P. It was achieved during 2011 final plan submission.

Objective 27: To coordinate forest management activities such that benefits to all Crown land users are maximized while conflicts resulting from forest operations are minimized (Qualitative) • Demonstrate the continual involvement in working with stakeholders of the Timiskaming Forest.	Achieved	The S.F.L. holder continues to hold annual meetings with various stakeholders on the forest to facilitate the review and coordination of upcoming annual schedule activities. These meetings have contributed to minimizing conflicts between stakeholders and scheduled forest management activities on the forest. In addition, the S.F.L. holder continues to actively participate in Local Citizen Committee (L.C.C.) meetings, providing updated information on current forest management activities. Since the onset of the 2011 F.M.P., L.C.C. members have been invited to participate in four field trips. This objective was achieved.
Objective 28: To undertake all forest management operations using sound environmental practices such that any negative environmental impacts are avoided or minimized • Non-compliance in forest operations inspections (% of inspections in noncompliance, by category, as determined by MNR)	Achieved	The desired level and target are to have no non-compliances reported during the 2011-2021 period. Non-compliances were issued in 2011, 2015 and 2017 (all associated with utilization and marketability issues). M.N.R.F. could not determine the negative environmental impacts of these non-compliance. Under this premise, the final year Annual Report determined this objective was not achieved. The auditor's assessment is that the issue (utilization and marketability) was minor in nature. In addition, during the I.F.A field visits, the auditor concluded that excellent utilization occurred for harvested area within scope of the Timiskaming I.F.A. (2016 to 2023) as there was good markets for most species harvested. Therefore, the auditor assesses this objective as achieved.

APPENDIX 3. COMPLIANCE WITH CONTRACTUAL OBLIGATIONS

Licence condition	Licence holder performance
Payment of Forestry Futures and Ontario Crown charges	All Forestry Futures charges and Ontario Crown charges have been paid.
Wood supply commitments, MOAs, sharing arrangements, special conditions	There is one wood supply commitment in Appendix E of the Timiskaming S.F.L. which requires the S.F.L. holder to make wood available to G.P. Northwoods L.P. Although not listed in Appendix E, Rockshield Engineered Wood Products ULC also holds a wood supply commitment on the forest. The S.F.L. is generally meeting its obligation in making wood available to its commitment holders on the Timiskaming Forest.
Preparation of F.M.P., A.W.S. and reports; abiding by the F.M.P. and all other requirements of the F.M.P.M. and C.F.S.A.	All required plans and reports were prepared to the required standards.
Conduct inventories, surveys, tests and studies; provision and collection of information in accordance with the F.I.M. and in the case of the Agreement in accordance with the Algonquin Forestry Authority Act	All required surveys are completed and the data is consistent with the F.I.M.
Wasteful practices not to be committed	No wasteful practices were identified during the audit.
Natural disturbance and salvage S.F.L. conditions must be followed	Not audited following risk assessment.
Protection of the licence area from pest damage, participation in pest control programs	Not audited following risk assessment.
Withdrawals from licence area	Not audited following risk assessment.
Action plan and progress towards the completion of actions as reported in annual reports or status reports prepared under previous versions of the I.F.A.P.P.	Action plan and status reports were prepared in accordance with contractual obligations and action items were observed to be effectively implemented by the audit team.

All forest renewal charges have been paid.
The S.F.L. completed F.R.T. eligible work in accordance with planned specifications and funding eligibility requirements.
A forest renewal trust charge analysis was completed each year and applicable rates were approved by M.N.R.F. A review of these analyses was conducted, and annual renewal rates set were appropriate to support planned renewal projects. The third-party F.R.T. specified procedure audit was conducted for the 2021-2022 fiscal year.
The requirements for meeting F.R.T. account minimum balances were met each year as were the process requirements to set forest renewal trust account charges.
S.F.L. complies with required standards and assessment programs.
The S.F.L. holder provides opportunities through active engagement, and agreements.
The approved F.M.P. has a 10-year strategic compliance plan. Annual compliance plans are prepared for the A.W.S.
The Licensee has a good internal compliance prevention/education program which it utilizes with its contractors. Timiskaming Forest is F.S.C. and S.F.I. certified which places an emphasis and sets targets on continued education of all workers in the Forest.

Timiskaming 2023 I.F.A.

Compliance inspections and reporting; compliance with compliance plan	The S.F.L. generally completes compliance inspections and reporting requirements in accordance with the	
	compliance plans.	
S.F.L. forestry operations on mining	No evidence of forest operation impacts	
claims	on mining claims.	

APPENDIX 4. AUDIT PROCESS

I.F.A.s are legally required under Ontario Regulation 319/20, made under the *Crown Forest Sustainability Act* (C.F.S.A.). The key source of direction for the I.F.A. comes from the Independent Forest Audit Process and Protocol (I.F.A.P.P.). I.F.A.s are governed by eight guiding principles as described in the 2022 I.F.A.P.P.:

- 1. Commitment,
- 2. Public consultation and First Nation and Métis involvement and consultation,
- 3. Forest management planning,
- 4. Plan assessment and implementation,
- 5. System support,
- 6. Monitoring,
- 7. Achievement of management objectives and forest sustainability, and
- 8. Licence and contractual obligations.

Findings arise from audit team observations of material non-conformances and the identification of situations in which there is a significant lack of effectiveness in forest management activities. Similarly, the audit team may highlight best practices for the cases where auditees' actions go above and beyond legal requirements and result in positive outcomes for forest and communities. The I.F.A. findings are addressed by the auditees (S.F.L. holder, District, Region and Corporate M.N.R.F.) in the I.F.A. action plans and results will be reported in annual reports.

The sections below provide a description of how the evidence was collected and reviewed.

The 2023 Timiskaming Forest I.F.A. covered a seven-year period from April 1, 2016 to March 31, 2023. The following forest management planning processes were subject to audit:

- Phase II implementation of 2011-2021 F.M.P. (Year 6 to Year 10);
- Preparation of 2021-2031 F.M.P.; and,
- Implementation of 2021-2031 F.M.P. (Year 1 and Year 2).

Risk Assessment

The I.F.A. for the Timiskaming Forest was started in May of 2023 with the risk assessment to determine which I.F.A.P.P. protocols are relevant for the Timiskaming Forest specific issues. All protocols selected can be found in the Table 8-1. As per the I.F.A.P.P., the risk assessment required the audit team to assess optional procedures for probability of occurrence, recognizing that severity has already been assessed as low in assigning the procedure to the optional category. Protocols subject of review in

Timiskaming 2023 I.F.A.

this Risk Assessment are outlined in Appendix A of the I.F.A.P.P. and marked as "Optional".

The decision to include the procedures in the audit sample was based on the following information:

- Part of F.M.P. consultation occurred within the pandemic restriction which created some challenges and concerns with public engagement.
- Three Issue resolution requests were made during development of the 2021-2031 F.M.P.
- Interviews with M.N.R.F. indicate that the planning process was rushed, and timelines were very tight. The F.M.P. was approved in March of 2021.
- Not all required alterations provided by M.N.R.F. following Draft plan review (2021-2031 F.M.P.) were addressed prior to plan approval. In addition, the M.N.R.F. and the S.F.L. have used F.M.P. amendments as a mechanism to resolve some of the required alterations not addressed prior to the approval of the F.M.P. The auditor reviewed the list of required alterations and there were over 700 submitted by the plan reviewers.
- Interviews and document review indicated there is a high frequency of amendments for the Timiskaming Forest (e.g., 26 amendments since March 31, 2021, and approximately 70 to 80 amendments from 2016 to 2021).
 Amendments after 2021 are in part due to some of the 2021-2031 F.M.P. required alterations submitted by the M.N.R.F. at draft plan not being addressed prior to plan approval.

Table 8-1. Procedures audited, by risk category.

Principle	Optional – Applicable (#)	Optional – Selected (#)	Mandatory – Audited (#) (100% Audited)	Comments
1. Commitment	2	0	0	
2. Public consultation and First Nations and Métis involvement	4	2	2	2.2 Procedure 1 2.3 Procedure 1
3. Forest management planning	31	3	43	3.6.1 Procedure 1 and 2 3.14.1 Procedure 2
4. Plan assessment and implementation	3	0	9	
5. System support	2	0	0	
6. Monitoring	10	0	9	
7. Achievement of management objectives and forest sustainability	0	0	14	
8. Contractual obligations	6	0	28	
Totals	58	5	105	

Audit plan and site selection

The audit plan outlined the protocols selected with the rationale, key contacts, and audit schedule. During the pre-audit meeting (July 19, 2023), this information, along with the independent site selection was also presented to the auditees.

Field sample sites were selected by the audit team following a 3-step approach that was designed to maintain the independence of the site selection but enable logistical efficiency of the field audit by soliciting input from forest managers:

 1st selection: Independent auditor sample included a minimum 20% off all harvest and silviculture operation types. The overlapping and/or nearby road construction, bridges and culvers were then selected to help with field logistics.

Timiskaming 2023 I.F.A.

- 2nd selection: netting down to a minimum of 10% using access/logistics considerations in the field audit, in collaboration with T.F.A.I. and M.N.R.F.
- 3rd selection: additional sites brought forward by stakeholders, First Nation and Métis communities, and public.

Sites were selected in accordance with the guidance provided in the I.F.A.P.P. (e.g., operating year, contractor, geography, forest management activity, species treated or renewed, and access) using GIS shapefiles provided by M.N.R.F. The field sample sites achieved a minimum 10% sample of the forest management activities that occurred during the audit period. Table 8-2 includes the detailed description of the audit sample. The audit team also inspected the application of Areas of Concern prescriptions, forestry aggregate pit management and rehabilitation and water crossing.

The audit team randomly samples 10% of the area representative of F.R.T. funded activities reported as carried out in the year of the F.R.T. specified procedures report, for the 2021-2022 year (see table 8-2). The sample for the 2021-2022 period reached the required 10% for all activities.

The field audit was conducted from September 5th to 8th, 2023, and included 3 days with 2 trucks, and one helicopter day. The field inspection included site-specific (intensive) and landscape-scale (extensive helicopter) examinations. The closing meeting was held on September 15th, 2023. At this meeting the draft findings were presented to the auditees and the draft Appendix 1 with more detailed description of audit findings was shared shortly after. The comments on audit findings received from T.F.A.I. and M.N.R.F. were taken into consideration when developing the audit report.

Table 8-2. Field audit site selection, including 10% of activities noted in the Specified Procedures Report for the 2021/22.

Activity	Proposed	Actual	Actual
	sample size -	sample size	sampling
	10%		intensity (%)
Harvest	4,228 ha	4706 ha	11.1%
Regen – Plant, Seed,	4,858 ha	4978 ha	10.2%
Careful Logging Around			
Advance Growth and			
Natural			
Site Preparation –	1,774 ha	3,776 ha	21.3%
Mechanical and Chemical			
Tending	2,159 ha	2,222 ha	10.3%
Free to Grow	4,286 ha	4,287 ha	10%
Water Crossings	31	31	10%
Forestry Aggregate Pits	52	59	11.3%
Roads (constructed and	166km	166km	10%
Decommissioned)			
Slash and Chip treatment	85km	85 km	10%
Wood Storage Yard	1	1	100
Forest Renewal Trust			
Funded activities – 2021-			
2022			
Regen – Plant, Seed,	375 ha	492 ha	13.1%
C.L.A.A.G., Natural			
Site Preparation –	201 ha	201 ha	10%
Mechanical and Chemical			
Tending	264 ha	757 ha	28.6%
Free to Grow	1032 ha	1042 ha	10%

Public Consultation

NorthWinds Environmental Services issued several notices advising the public that an Independent Forest Audit will be conducted on the Timiskaming Forest and inviting comments regarding matters relevant to the audit period. The public notice included the purpose of the audit, identification of the management unit being audited, the period of the audit, how the public may provide input and a notice (provided by M.N.R.F.) informing the collection and use of personal information for audit purposes. Notices were published in the Timmins Press newspaper and circulated to the local Ontario Federation of Anglers and Hunters representative, Kirkland Lake Northern News, and

circulated by the S.F.L. holder and M.N.R.F. for the region. A survey was created and posted on the N.W.E.S. website, and the link advertised with all public notices and social media posts (https://www.northwindsenv.ca/). The lead auditor also used the F.M.P./A.W.S. email lists to advertise the audit and solicit input.

One response was received via email and was followed up with an interview. The comment regarded desire for buffers by the roads leading to outfitter camp.

First Nation and Métis consultation

Email invitations to participate in the audit and follow up calls were made to all First Nation and Métis communities deemed to be within or adjacent to the Timiskaming Forest (as per the 2021 F.M.P.). Before conducting any interviews, the consultation auditor met with the Kirkland Lake District Resource Liaison Specialist regarding the contact information, engagement in forest management and methods for contacting First Nation communities within and adjacent of the Timiskaming Forest. Representatives from Matachewan First Nation and Apitipi Anicinapek Nation actively participated in the field audit. Virtual meetings were held with Beaverhouse First Nation and Brunswick House First Nation. An in-person meeting was held with Timiskaming First Nation.

A Matachewan First Nation representative attended all three days of the field audit. They brought up multiple concerns regarding forest management and accommodation of community concerns - many of these concerns were also recorded in the Issue Resolution letter from the First Nation's Collective (2020) and included the use of herbicide, the size of clearcuts, use of traditional knowledge in forest management, protecting birch stands, funding consultation, and revenue sharing among others. The community representative emphasised the limited ability to consult with their community members during the Covid-19 restrictions and referenced the resulting issues with harvesting near the community. Herbicide remains a contentious issue and they would like to see increased efforts to reduce to eliminate this practice from the Timiskaming Forest. They also spoke about some past issues with harvesting the buffers near birch stands but were satisfied with the communication with the Interfor representative and the A.O.C. developed in the 2021 F.M.P. to protect certain birch stands. They referenced past communication issues with T.F.A.I. but were satisfied with significantly increased communication efforts by T.F.A.I. and its shareholders since late 2021. They also spoke of member concerns related to the amount of residue left on clearcuts after the Cut-to-Length harvesting that makes it difficult for the community land users to walk on clearcuts, delays planting and increases fire risk.

A representative from Apitipi Anicinapek Nation who also attended the field audit was generally satisfied with the active communication with T.F.A.I. since late 2021. The Apitipi Anicinapek Nation concerns were mainly around the herbicide spray and its

unnecessary use in areas where the main crop species is not threatened by poplar competition or in areas where the competition is mostly made of pin cherry that does not respond well to herbicide. As a positive example, they led the audit team to see an area where the community had requested a stop on planned herbicide spray based on their field observations that planted jack pine was not threatened by competition. T.F.A.I. had accommodated this request and the block is being monitored.

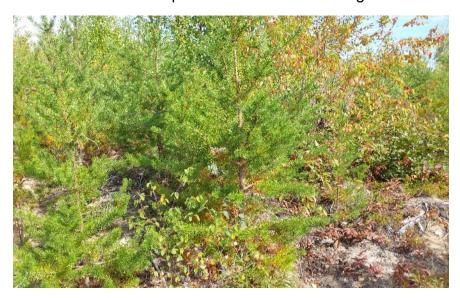


Figure 8-1. A field visit to the McCool 140. Apitipi Anicinapek Nation requested and received a halt on herbicide spray. Photo above display blocks where tending did not occur, and Jack Pine is not threatened by competition (i.e. some cherry and poplar)



Figure 8-2. A field visit to the McCool 140 (same block as figure 8-1). Apitipi Anicinapek Nation requested and received a halt on herbicide spray. Photo above display blocks where tending did not occur, and Jack Pine is not threatened by competition (i.e. some cherry and poplar)

The Beaverhouse First Nation representative was satisfied with the communication with T.F.A.I. in past few years, as well as with the protection of community values. They referenced participation in the First Nation collective issue resolution request and highlighted herbicide and the size of clearcuts as the main concerns.

Brunswick House First Nation was concerned over the long time that took for the T.F.A.I. to sign the data sharing agreement that dragged over from fall 2021 to summer/fall 2022. The community referenced a good working relationship with T.F.A.I. since then. Herbicide use remains a main concern.

Timiskaming First Nation representatives referenced the limited consultation funds available as a barrier to the effective consultation in Ontario forest management in general.

Kirkland Lake Local Citizens' Committee (L.C.C.) and Timmins L.C.C.

Two L.C.C.s are involved in the management of the Timiskaming Forest: Kirkland Lake L.C.C. and Timmins L.C.C. with Kirkland Lake L.C.C. taking a lead in the management of the Timiskaming Forest. The audit team interviewed five members from the Kirkland Lake L.C.C. and two members from the Timmins L.C.C. The members interviewed were knowledgeable and actively participated in forest management planning and implementation though attendance in L.C.C. meetings and relaying information to their communities where applicable. The former Kirkland Lake L.C.C. Chair was active participant in the 2021 F.M.P. planning process and up to Covid-19 restrictions diligently relayed information from the planning team to the L.C.C. by summarising information discussed. The Kirkland Lake L.C.C. new Chair demonstrated a solid understanding of technical aspects of forest management planning process thanks to a remarkable self-learning of forest management manuals and guides.

Overlapping Licensees, Contractors and Commitment Holders

Two representatives from Interfor, a shareholder in the T.F.A.I., attended the field audit fully or partially and were interviewed. During interview, most issues discussed were related to access.

- The amount of amendment is a concern to Interfor staff
- Small or inflexible Operational Road Boundary in the 2021 F.M.P. is a big reason for the number of amendments to the F.M.P.
- Would like for more flexible roads planning in the preparation of the F.M.P.s.
- The provincial roads funding program is very important to Interfor and it was expressed that this funding is critical to the Timiskaming Forest road infrastructure.

Ministry of Natural Resources and Forestry

M.N.R.F. District, Region and Divisional Support Branch staff participated in all aspects of the audit, including the field audit and interviews. Several follow up meetings were held with applicable M.N.R.F. staff to clarify draft audit findings and observations in the report. M.N.R.F participation contributed significantly to all aspects of the Timiskaming 2023 I.F.A final report.

Forestry Futures Trust Committee

Three members of the Forestry Futures Trust Committee participated in the field audit and two or more members attended the pre-audit, opening and closing meetings.

S.R.N.V.

APPENDIX 5. LIST OF ACRONYMS USED

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Simulated Range of Natural Variation

Timiskaming 2023 I.F.A.

S.F.I. Sustainable Forestry Initiative T.F.A.I. Timiskaming Forest Alliance Inc

APPENDIX 6. AUDIT TEAM MEMBERS AND QUALIFICATIONS

Name	Role	Responsibilities	Credentials
Jeffrey Cameron, R.P.F.	Lead Auditor	Key point of contact, leading meetings, coordination and communication; review of the following audit procedures: o forest management planning, monitoring and reporting (F.M.P., C.P., A.W.S., A.R.) o silviculture planning and implementation monitoring, o contractual obligations o determination of sustainability	Jeffrey Cameron is a Registered Professional Forester in Ontario. He has 12 years of experience in the forest industry in forest operations, silviculture, forest management planning, forest tenure, provincial government relations and Indigenous partnerships/capacity building.
Triin Hart, Ph.D.	Auditor	Review of the following audit procedures: Local Citizens' Committee First Nation and Metis consultation Public consultation Ecological values management planning and implementation Contractual obligations Socioeconomic impacts	Triin has 15 years' experience in natural resource management and forestry. Her areas of expertise include natural resource policy, landscape ecology, Species at Risk, development of natural landscape condition templates and analyses of ecological implications of planned management activities.
Connie Hunter	Auditor	Review of the following audit procedures: Forest compliance harvest operations planning, monitoring, and reporting, access planning, monitoring and reporting contractual obligations	Connie has 20 years of forestry experience in silviculture, compliance and health and safety. Connie is a certified forest compliance inspector and mentor.