



To: Jennie Weller  
Environmental Assessment and Permissions Branch  
Sent via email: [jennie.Weller@ontario.ca](mailto:jennie.Weller@ontario.ca)

**Re: Proposed EAA exemption for Ontario forestry, ERO # 019-0961**

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February 18, 2020

Thank-you for the opportunity to submit comments on this subject proposal. Please accept the following comments on behalf of Wildlands League.

We would also welcome an opportunity to brief you, your team, and/or management with respect to our Logging Scars project, which you will find heavily referenced in these comments.

Any questions can be directed to the undersigned.

Sincerely,

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**Wildlands League.** Wildlands League is a leading conservation group representing approximately 30,000 supporters in Ontario. We've been working in the public interest since 1968, beginning with a campaign to protect Algonquin Park from development. We are a team of policy experts, strategists and communicators protecting Canada's natural world. We have extensive knowledge and expertise of forestry and other land uses in Ontario and a history of working with governments (provincial, federal, Indigenous and municipal), communities, scientists, the public and resource industries on progressive conservation initiatives. Throughout our 50+ year history we have provided expert policy advice to improve forestry in Ontario and to ensure Ontario meets its commitments around sustainability, biodiversity conservation, public consultation and respecting Indigenous rights.

**Recent Logging Scars Study.** A recent example of high relevance to this discussion is our 2 year Boreal Logging Scars study. In its recently published report, we detail how the widespread, unchecked use of full tree clearcut logging in Ontario has resulted in unreported and extensive deforestation and its associated negative impact on carbon storage. This work functions as an independent review of the critical sustainability criteria of loss of productive forest, across five separate sampled forest management units. The full report is submitted as an attachment and a component piece of these comments. Please note the link to our Boreal Logging Scars publication ([loggingscars.ca](http://loggingscars.ca)), is attached in this manner due to its size. Note also that the document is in two chapters: the Summary, as well as the Supporting Material.

A further corresponding thematic review of all available forest management documentation was also undertaken during the Logging Scars study. Although currently unpublished, specific findings from this accompanying oversight review are also referenced in the comments that follow. A summary of these findings is also attached for reference.

**A wake-up call from Ontario's logged forests.** The findings published in the Logging Scars report are highly relevant to this current discussion. They specifically offer an independent snapshot of the range of liabilities that exist behind the current forest management policy regime - and provides a sober perspective on the liabilities of the current proposal for the current regime to also deliver all of Ontario's Environmental Assessment Act oversight.

The Logging Scars report is based on a recent two year study that investigated forest loss from industry in 27 sample clearcuts across a large region of Ontario's managed forest, and five forest management units. The study also reviewed forest management documentation for each of these forests.

Critically, the study found that 10 - 24% of the areas logged remained essentially barren 20-30 years after being clearcut, due to lasting industrial footprint of logging infrastructure. Considered over 30 years, such impacts are estimated to have deforested 650,000 ha of productive forest across Ontario. This is a significant resource loss which has remained largely unseen, unreported and thus unmitigated.

In the study's accompanying documentation research review, we found that the five forest management units within the study area have all substantially under-estimated these productive forest losses compared to the actual and measured impacts from sampled clearcuts. One management unit did not appear to estimate any area losses at all; and the other four estimated a range of only 0.5 - 5% compared to the area logged.

The stark contrast between the 0 - 5% forest loss estimates and the 10 - 24% forest loss measured in the study showcases the substantial oversight gap that this policy regime has produced under the current management structure.

These reported estimates feed into all of the cascading decisions within the current forest management policy regime, and importantly determine the "sustainable harvest levels" allowed in each forest. This magnitude of oversight error can thus be expected to carry significant decision-making liabilities at the expense of long-term forest health, contrary to the purpose of the CFSA, and the mandate of the undertaking.

Three overall conclusions from the study are critical to considering the efficacy of the current policy regime for protecting Ontario's forests:

- (a) substantial productive forest losses are a product of the current undertaking,
- (b) productive forest losses remain effectively undocumented, and
- (c) key sustainability decisions, such as harvest level targets, are being based upon a flawed understanding of the real state of Ontario's forests.

*Summary of Wildlands League concerns stemming from this proposal:*

1. **CFSA and the EAA are different legislative tools, with distinct purposes and delivery provisions.** To the extent that they are allowed to operate unconstrained towards these ends, these two bodies of regulatory oversight are not redundant.
2. **The EAA provides unique tools not replicated by CFSA.** Exempting this undertaking completely would remove specific EAA tools that CFSA does not provide. These eliminations have not been reasonably discussed in this proposal. These include public review and appeal opportunities.
3. **The subject proposal relies on the history of a policy regime absent any independent performance assessment.** Other than various OMNRF self-reflective reviews, there has been a paucity of independent performance assessment of the sustainability success of the current forest management regime to-date. It seems incumbent upon the MOECP to ensure this essential step is undertaken before considering entirely relying upon it to deliver both the EAA and CFSA legislative mandates, as currently proposed.
4. **Existing “defacto exemption” through administrative Declaration Orders has already demonstrated significant liabilities imparted by exemption.** The ongoing Declaration Order tool has already operated as a defacto exemption, and has induced demonstrable oversight liabilities to Ontario, contrary to the purposes of both the EAA and the CFSA:
  - a. **Oversight liability versus actual in-forest performance.** One set of these liabilities has been highlighted in the Wildlands League “Logging Scars” attachments, which showcase how an essential lack of independent EAA assessment oversight has allowed the evolution of a highly ineffective management regime, relative to the primary sustainability risks that it should be centred on. Abandoning the EAA oversight can be expected to exacerbate such oversight and environmental performance liabilities further.
  - b. **Lack of responsiveness to changing priorities and context.** Another related, and similarly critical liability is the lack of assessment evolution of this undertaking in response to changing policy priorities and context. A critical example of this latter liability is the essential lack of responsiveness to the onset of climate change; a topic which was absent during the original hearings that formed the basis for this CFSA regime. Another example is species at risk, notably woodland caribou pressures from increasingly impacted ranges. Abandoning all EAA oversight as proposed can be

expected to exacerbate the undesirable existing oversight and environmental performance liabilities further.

5. **Claims that conditions of the Declaration Order have been fully met are questionable.** Such a position would necessitate taking a strictly administrative - and not a performance-based perspective - relative to either the purposes of the EAA or the CFSA.
6. **The conditionally permitted Full-tree clearcut logging has never been adequately studied.** Particularly, and by way of a key example, Condition 50 associated with permitting Full-Tree clearcut logging has only ever been partially fulfilled, and has ignored the most impactful of the forest productivity losses conveyed by that system since the original condition was established. The loss of productive forest land precipitated by this logging system has been documented in the attached Logging Scars report for a large part of NW Ontario.

*Wildlands League Summary recommendations:*

**An EAA exemption at this time cannot be supported with available evidence.** Because (a) a substantial period of time has elapsed since the original hearings; (b) the de facto Declaration-Order exemptions of the undertaking have stifled responsive assessment oversight; (c) many significant contextual changes have emerged such as our current climate emergency, and vastly enhanced monitoring and geospatial management tools; and (d) the efficacy of the current undertaking - in sustainability performance terms - has never truly been independently or transparently reviewed in the time since the original Ontario Timber hearings, and our recent Logging Scars findings provide ample evidence of a litany of significant failures with this system. Based on these facts, Wildlands League recommends that the Minister should not exempt this undertaking from the EAA.

**Instead, we recommend that the Ministry initiate a transparent re-assessment of this class undertaking, towards establishing an efficient, performance-centred, and reflexive assessment and oversight tool for forestry in Ontario.**

*Wildlands League detailed concerns with the Proposal as presented:*

- 1. CFSA and the EAA are different legislative tools, with distinct purposes and delivery provisions.** To the extent that they are allowed to operate unconstrained towards these ends, these two bodies of regulatory oversight are not redundant.

The EA proposal would remove Environmental Assessment Act requirements and leave only Ministry of Natural Resources and Forestry (MNR) policies, regulations and guidelines in place to safeguard environmental protections. This is an effort to remove purported duplication between the EA Act and the MNR requirements. Similar to the concurrent confusion between the ESA and the CFSA, this proposal confuses the purposes of two very different regimes.

The purpose the EAA is “the betterment of the people of the whole or any part of Ontario by providing for the protection, conservation and wise management in Ontario of the environment” principally through assessing risks of undertakings. Meanwhile, the purposes of the CFSA “are to provide for the sustainability of Crown forests and, in accordance with that objective, to manage Crown forests to meet social, economic and environmental needs of present and future generations.”

On the one hand there is a focus on the protection and conservation of the environment, and on the other hand, sustainability as defined by long-term forest health. Most importantly, the CFSA has no specific mandate for identifying and assessing environmental risks over time. While the current arrangement of declaration orders has short-circuited this critical mandate of the EAA to date, there is a far stronger case to be made for re-assessing the environmental risks of this undertaking in a modern context, than to finalize a sector-wide exemption altogether.

- 2. The EAA provides unique tools not replicated by CFSA.** Exempting this undertaking completely would remove specific EAA tools that CFSA does not provide. These eliminations have not been reasonably discussed in this proposal. These include public review and appeal opportunities.

For example, the EAA provides an avenue of appeal to MOECP, for parties to request an independent Environmental Assessment for forestry activities or atypical contexts that push the contemplated bounds of the class undertaking as originally contemplated and approved.

Similarly, the current 5 year review by the OMNR of the undertaking, and reporting to the MOECP is also an existing oversight provided by the EAA, where members of the public

have an opportunity to consider and comment upon issues of performance, or changing context - and thereby providing at least a nominal opportunity for the system to consider and respond to such dynamic feedback.

Instead, the subject proposal indicates, that “If forest management activities are exempt from the EA Act, the following would be the primary source of direction for forest management in Ontario: MNR’s forest policy framework, including the CFSA regulated forest manuals supporting forest policy, programs and procedures.” Importantly, no opportunities for public feedback or consultation would be included under the proposed regime.

The proposal further assumes a history of protection of environment, even though no reasonable performance review has ever been undertaken, then simply projects this belief forward as being capable of meeting the ongoing purpose of the EAA: “MNR would be responsible for continuing with forest management in a way that is protective of the environment.”

3. **The subject proposal relies on the history of a policy regime absent any independent performance assessment.** Other than various OMNR self-reflective reviews, there has been a paucity of independent performance assessment of the sustainability success of the current forest management regime to-date. It seems incumbent on the MOEC to ensure this essential step is undertaken before considering entirely relying upon it to deliver both the EAA and CFSA legislative mandates, as currently proposed.

This is a critical concern, but one that Wildlands League is currently uniquely positioned to help answer. And our answer is this:

**CFSA’s substantially failed oversight of Ontario’s public forest capital is not a sound track record to base further regulatory streamlining upon.** This is not a rhetorical position. It is a statement of alarm, from an independent organization with 50 years of experience in engaging forestry issues in Ontario.

**Logging Scars Loss of Productive Forest Study.** It is also based on the results of our recent detailed two year study that investigated forest loss from industry in 27 sample clearcuts across a large region of Ontario’s managed forest, and five forest management units. The report: *Boreal Logging Scars, An extensive and persistent logging footprint in typical clearcuts of northwestern Ontario, Canada*<sup>1</sup> is attached (by link), as a key

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<sup>1</sup> This publication is available at [loggingscars.ca](http://loggingscars.ca) and also constitutes a formal part of this submission, in its entirety.

measurable indicator of the sustainability performance gap that the current regime has left in our public forests.

Quantifying forest loss as a key sustainability metric [managing is an activity; quantifying is a metric]. It can easily be argued that a fundamental prerequisite for the sustainable and wise management of Ontario's public forest resource is first a deep and accurate understanding of the extent of that forest. Only from a sound understanding of the managed forest can follow a sound understanding of logging activity impacts: the losses sustained by it from industrial logging, and the relative success of renewal, for example.

Unfortunately, based on the findings of this study, the CFSA-centred policy regime as implemented to date has failed to manage, or even reasonably recognize the actual magnitude of industry-driven productive forest loss in this large region of NW Ontario. Instead, it has been effectively blind to one of the most recognizable sustainability risks to the undertaking that it was intended to oversee.

**Review of oversight in 5 Forest Management Units.** But measuring real impacts was not the entire purpose of our Logging Scars study. A document review of all available forest management documentation for the five forest management units within the +/- 35,000km<sup>2</sup> Logging Scars study area in NW Ontario was also undertaken, tracing the oversight and management of roads and landings within the existing system.

A preliminary summary of these aspects of the Logging Scars study is also attached - provided ahead of publication as sober commentary to the current state of sustainability oversight in Ontario.

Contained in this research summary of forest management oversight are findings of:

- (a) **Poorly implemented voluntary measures** - important road and landing impact management tools are advanced only as voluntary management measures, with unsurprisingly poor uptake across the studied forests;
- (b) **Aspatial accounting fails to track road and landing impacts** - a system of aspatial reporting is relied upon, without any distinct reporting categories for loss of productive forest to logging infrastructure, and therefore does not reflect the reality of deforestation impacts;
- (c) **Dramatic under-estimating of the forest losses in forest management planning** - an overall dramatic under-estimating of the forest losses was found in forest management planning, including one forest management unit that did not even advance such estimates;



- (d) **Significantly flawed strategic modeling** - these under-estimates are fed into strategic modeling which then consistently results in an over-estimating of available harvest levels, and a corresponding increase in liabilities over time;
- (e) **Insufficient modeling oversight** - a generally lacklustre, and inconsistent oversight over the rigour of this strategic modeling was found in the available Independent Forest Audits;
- (f) **Systemic avoidance of annual reporting requirements** - a systemic avoidance of specific annual reporting requirements to discuss relative progress on reclaiming productive forest lost to roads and landings was found;
- (g) **Poor quality spatial data products undermine oversight** - inconsistent, and poor quality forest management geospatial data products were found, with conditions that significantly undermine the ability of the OMNRF to adequately oversee the sustainability of the undertaking; and
- (h) **Specific scheme to track roads and landings in Inventory patently ineffective** - an untenable direction for the digital tracking of roads and landings impacts in the forest resource inventory was found, that essentially hides these impacts from reasonable spatial oversight within Ontario's Forest Resource Inventory.

In our opinion these findings substantially challenge the central supporting rationale for the subject proposal - to strip elements of existing regulatory oversight based merely on the decades of experience under this regime.

What it is keenly missing is a comprehensive and candid assessment of the sustainability performance of this undertaking - as partly demonstrated through the Logging Scars study through its exploration of the forest loss theme. Without it, further sustainability risks, including diminished future harvests, loss of sustainability market-share, exacerbated pressures on endangered species and foregone climate change mitigation are predictable outcomes. These paths - that the current proposal further drives towards - patently do not represent the protection, conservation, nor wise management of Ontario's environment.

4. **Existing “de facto exemption” through administrative Declaration Orders has already demonstrated significant liabilities imparted by exemption.** The ongoing Declaration Order tool has already operated as a de facto exemption of the undertaking to

the EAA, and has induced demonstrable oversight liabilities to Ontario, contrary to the purposes of both the EAA and the CFSA:

- a. **Oversight liability versus actual in-forest performance.** One set of these liabilities has been highlighted in the Wildlands League “Logging Scars” attachments, which showcase how an essential lack of independent EAA assessment oversight has allowed the administrative evolution of a highly ineffective management regime, relative to the primary sustainability risks that its performance should be centred on.

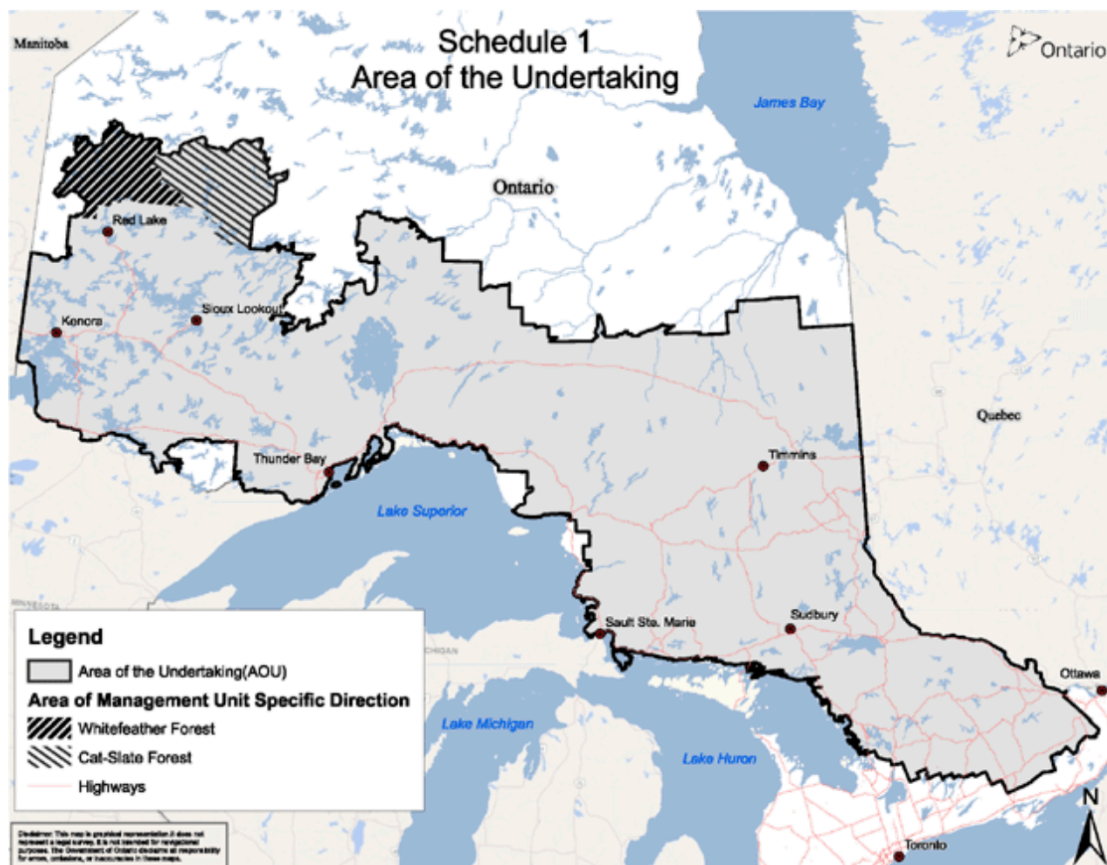
The Timber Class EA Hearings that precipitated the current regime were a robust process, but one that has essentially been frozen in time, in terms of assessment and feedback, thanks largely to the exemption by Declaration Order approach currently employed, where administrative requirements are slowly being checked off, without the benefit of considering performance.

Additionally, it is clear that the hearing origins of the current Declaration Order have been stretched to the point of abuse. For example, the evolution of the Undertaking with additions of sizeable additional areas of geography to the original Area of the Undertaking, through the use of additional Declaration Order direction, pushes the reasonable limits of that historical assessment for exempting additional activity and context without further assessment. In this manner, this significant activity change has come to this point without commensurate environmental assessment, nor performance review of the system being further extended:

*“The proposed changes would exempt forestry activities covered by the current Declaration Order under the Environmental Assessment Act (EA Act) in the geographic areas listed in Declaration Order MNR-75.”*

At this time, the regime would benefit tremendously from a renewed assessment, and full consideration under the EAA as a permanent Class of activity, with ongoing assessment and review provisions that can better reflect and adapt to feedback and changing circumstances.

By stark contrast, abandoning all EAA oversight as proposed can be expected to exacerbate the undesirable existing oversight and environmental performance liabilities further.



*The evolving Area of the Undertaking - amendments without assessment.*

- b. Lack of responsiveness to changing priorities and context.** Another related, and similarly critical liability is the lack of assessment evolution of this undertaking in response to changing policy priorities and context. A critical example of this latter liability is the essential lack of responsiveness to the onset of climate change since the original hearings that formed the basis for this CFSA regime. It is irresponsible and dangerous to base current and future regulations upon a historical framework in which climate change - our most pressing challenge today - was never even considered. Another example is species at risk, notably woodland caribou pressures from increasingly impacted ranges. Abandoning all EAA oversight as proposed can be expected to exacerbate the undesirable existing oversight and environmental performance liabilities further.
- 5. Claims that conditions of the Declaration Order have been fully met are questionable.** Such a position would necessitate taking a strictly administrative - and not a performance-based perspective - relative to either the purposes of the EAA or the CFSA.

Wildlands League has had a long-standing concern that the conditions permitting the Declaration Orders granted for 'MNRs Class Environmental Assessment of Forest Management on Crown Lands' have a troubling administration-over-efficacy history.

The subject EAA proposal asserts that the 61 conditions of Declaration Order-75 have been met or have "contributed" to MNRF's existing forest management framework:

*"Declaration Order MNR-75 currently contains 61 conditions, including:*

- forest management planning conditions to be included in the Forest Management Planning Manual (e.g., consultation, issues resolution)*
- **non-planning conditions** (e.g., monitoring, reporting, training, science, committees)*

***The planning conditions in this declaration order have all been met** and incorporated into MNRF's existing manuals, policies, procedures or guidelines. MNRF's implementation of conditions with respecting monitoring and reporting have also contributed to the development of its forest management policy framework. Accordingly, the conditions would no longer be imposed under the EA Act." <sup>2</sup>*

**No specific evidence supporting EAA approval conditions is provided.** It is worth noting above, that non-planning conditions are distinguished from those that have apparently been "met". Presumably, this reflects the less-than-administrative nature of the non-planning conditions - and the more difficult burden to demonstrate that they have been satisfied. It is therefore even more surprising to see no clear evidence provided to assert that these conditions have been met, or will be effectively met going forward. The default assertion appears to rest somehow on a generic trust in MNRF's experience in monitoring and reporting.

This is not evidence that can be relied upon to base a legislative exemption upon.

**Efficacy assessment is the appropriate approach to evaluating whether conditions are "met".** Many of these conditions can only be assessed by examining their actual performance in supporting the mandate of the undertaking - at any review moment, and on merit. For example, Condition 18: Monitoring of Operations, can truly only be assessed for its merits by examining the actual monitoring and reporting efficacy for various aspects of those operations. To this point, we provide a thorough example of such an assessment for the monitoring and reporting of productive forest loss from roads and landings - see the attached Summary of Logging Scars Forest Management Documentation Review, which traces these tools across five sampled forests from the perspective of the performance of

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<sup>2</sup> ERO # 019-0961, *emphasis added*.

the undertaking in practice. Similarly, the technology and data provisions of the existing forest management framework, presumably “meeting” Condition 52: Data Systems and Analytical Methodologies; and Condition 47: Inventory, Information and Management Systems also substantially failed to meet our reasonable expectations for oversight over the productive forest loss theme. These performance assessments are by no means comprehensive across the system, or even as rigorous as the undertaking deserves. They are however important evidence on the sustainability oversight gap evident in the existing forest management system.

**Parallel proposals are concurrently making cases to diminish the oversight conditions attached to this EAA approval.** Other surviving conditions of this Class Environmental Assessment approval are the subjects of separately proposed cuts that consistently have the predictable effect of reducing the intentional oversight attached to the approval. For example, another proposal (ERO # 019-1006) to this subject proposal has been concurrently advanced, to substantially streamline Independent Forest Audit oversight - which is also a specific condition of the current EAA approval: Condition 36. This proposal includes reducing audit frequency by at least half. Despite its unhelpfully narrowed scope over the years, this program is one of the most important oversight tools of the current regime, particularly given the ineffectiveness of other monitoring and reporting provisions. Essentially arguing that these EAA approval conditions have been “met”, while advancing a concurrent proposal to specifically diminish the tool is disingenuous to say the very least.

**No rationale, nor discussion has been provided for those conditions that logically cannot be met by the CFSA-driven policy and management regime.** Some of these conditions, such as Condition 26: Requests for Individual Environmental Assessments, simply cannot be met by the existing CFSA-based regime, absent the EAA. Other examples include Condition 57: Five-Year EA Reports, and the multi-party ability to seek amendments to the EAA Approval included in Condition 59, Condition 60, and Condition 61: Amendments to this Order. It is disturbing to us that mechanisms afforded currently under the EAA oversight are being proposed to be entirely removed, absent any discussion of the implications of those removals to the undertaking, or stakeholders engaged in it.

**Finally, there exist conditions of the current EAA approval where OMNRF progress cannot be reasonably considered to have fully “met” the purpose of the condition.** One key un-met condition is Condition 45: Scientific Studies and Information Sharing Related to Climate Change, which has not delivered beyond some high-level science support. It is worth noting that the magnitude of foregone climate mitigation from the loss of productive forest estimated from the measured clearcuts in the Logging Scars study are growing exponentially, as these barren areas fall farther behind the carbon performance of the renewing forest.

Another, related example of this is Condition 50: Full-tree Harvest and Full-tree Chipping Studies. As this pertains most directly to the recent Logging Scars research, we address this condition more specifically in the section below.

- 6. Long-term forest productivity losses from full-tree clearcut logging have not been adequately studied.** For example, the use of Full Tree Harvesting was introduced with significant forest productivity concerns in the original Environmental Assessment. At the conclusion of that hearing, the Board approved the undertaking, with various terms and conditions. One of those (originally term and condition #101) was established to specifically enable the full-tree harvesting logging system: "OMNR shall design and implement a study pertaining to the effects of full-tree harvest and full-tree chipping on long-term forest productivity."

This condition was imposed over outstanding concerns by the Board, based on evidence heard, over the potential of this FTH system to negatively impact the long-term productivity of the forests where it was deployed. FTH was an emerging logging system at the time,<sup>3</sup> perceived by industry to have significant economic advantages.<sup>4</sup>

These long-term research obligations (currently residing in Condition 50 of DO-75) have yet to be fully satisfied, and instead have thus far been narrowly-scoped at the expense of a system-wide look at forest productivity. In response to this term and condition, OMNR established a specific focused research project examining biomass removals and site nutrient status for nine black spruce stands under varying logging intensities, including FTH.<sup>5</sup>

While that study has continued to produce valuable data, on those specific nutrient exchanges,<sup>6</sup> it is ultimately a plot-based study with specific research interest in what occurs within the renewing cutblocks - a selective slice of forest productivity that excludes significant areas impacted by logging equipment. The anticipated spatial and successional

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<sup>3</sup> Canadian Pulp and Paper Association (CPPA), (1992) *Statistics on the use of logging methods in Canada in 1990. Survey of Member Companies*.

<sup>4</sup> Pulkki R. (2008a) *Cut-to-length, Tree Length or Full Tree Harvesting?* <<http://www.borealforest.org/world/innova/compare.htm>.> Accessed 31 Oct. 2008. Pulkki R. (2008b) *Forest Harvesting Home Page*. <<http://flash.lakeheadu.ca/~repulkki/logging.html>.> Accessed 31 Oct. 2008.

<sup>5</sup> Morris D and Duckert D (1999) *Studying the impacts of harvest intensity on site productivity of Ontario's black spruce ecosystems*

<sup>6</sup> Morris D, Kwiaton M, and Duckert D. (2014) *Black spruce growth response to varying levels of biomass harvest intensity across a range of soil types: 15-year results*. Canadian Journal of Forest Research. (Apr. 2014) NRC Research Press.

effects amounting to significant loss of productive forest from FTH logging<sup>7</sup> have not yet been included in OMNR's forest productivity study, nor have comparable research plots been reported for these impacted areas.

**Logging Scars estimates.** Though unstudied by the Ministry, the areas impacted by logging equipment within FTH cuts have recently been independently identified by Wildlands League. Our study quantified and field-verified that a range of 10 - 24% of logged areas remain essentially barren and deforested at least 30 years after logging. These findings are documented in the attached Logging Scars report for a large part of NW Ontario. The productivity liability posed by these systemic impacts is estimated at 650,000 ha of impacted forest area, across Ontario after only 30 years.

**In skirting these spatial impacts, OMNR has failed to completely assess the predictable and highly significant long-term forest productivity losses arising from the use of the FTH system.**

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<sup>7</sup> Archibald D, Wiltshire W, Morris D, and Batchelor B, (1997) *Forest management guidelines for the protection of the physical environment*. Queen's Printer for Ontario, Toronto, Ontario. 42 p.

## Summary of Logging Scars Forest Management Documentation Review

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**The Document Review.** What follows is a summary of selected findings from a recent review of five forest management units in NW Ontario. The full review has not yet been published. The review was specifically centred on tracing and assessing the relative and collective oversight, tracking and management of roads and landings - the Logging Scars - in the sampled forests.

**Our overall conclusion is that the apparent blind spot for the impacts of forestry infrastructure evidenced in these logging scars is long-standing, and woven throughout multiple aspects of the forest management regime in Ontario.**

The theme of productive forest loss is not absent from the various documents supporting the forest management regime in Ontario. Yet, after three decades of the clearcut logging that is a source of known (if poorly understood) productive forest loss, the management direction and oversight tools provided remain surprisingly unfocused and inconsistently implemented.

Most surprising to the author has been the fact that nowhere does Ontario's management scheme specifically and quantifiably address this known problem of loss of productive forest to roads and landings - as the long-term spatial problem that it is to our public forests.

Instead, forest management in Ontario, from the Crown Forest Sustainability Act all the way through its regulated manuals, data management, forest auditing, modeling and planning collectively seem to share a discernible blind-spot for the impact of logging infrastructure on Crown forests. This blind-spot essentially lumps the 10-24% of this clearcut landscape (the range of footprint area found in the Logging Scars study) into the same basket as the renewing forest stands surrounding them, when it is evident to any observer that these areas have been substantially altered in contrast to the renewing forests around them.

The cost of this blindness has been a steadily growing impairment within Ontario's managed forests - an impairment that the system does not seem to take any structured stock of. Whether considering sustainability, carbon management, or simply future economics, these impacts are substantial. And, as the area of Ontario's logging scars continues to expand, their aggregate liability has been growing too, each year that these impacts are ignored or notionally minimized by the prevailing approach.



**Five Layers of Oversight:** The set of direction provided by OMNRF under the CFSA scheme can be described as five layers of oversight activity:

- (1) Management Direction
- (2) Forest Management Planning
- (3) Independent Forest Audits
- (4) Annual Reporting
- (5) Data Management

## ANALYSIS OF THE LAYERS OF OVERSIGHT

### (1) Management Direction

REQUIREMENTS: Some limited direction regarding the management of logging infrastructure land losses is provided to industry by OMNRF, through the Stand and Site Guide (a regulated manual of the Crown Forest Sustainability Act). Four basic directions encompass this direction:

#### **general guidance**

- (a) “minimize” the amount of land being converted to roads and landings,
- (b) manage unwanted waste wood to “recover” productive forest space,

#### **voluntary “best practices”**

- (c) quantify and monitor these impacts,
- (d) aim to keep the overall productive forest loss to below 4% of the area logged.

ANALYSIS: Unfortunately, in practice this guidance is largely aspirational, and patently non-prescriptive. The guidance to “minimize” the amount of land being converted to roads and landings is the central aspiration. Recent findings from the Logging Scars report measuring these losses indicates a very significant footprint of 10 - 24% of the area clearcut in these forests. As the Guide also suggests a best practice of producing less than a 4% footprint, it is clear that neither the guidance, nor the best practice have even approached the desired result.

Further, site visits of 20 - 30 year old landing areas across the five units demonstrates that guidance to manage roadside wood waste through burning and other means to increase regeneration area has also not resulted in the desired outcomes. According to the various Independent Forest Audits, this is through a combination of poor implementation effort, monitoring, and ever-lagging backlogs - and likely also due to an apparent lack of overall efficacy of such practices, probably due to underlying compaction and other concurrent untreated impacts.

Finally, key oversight tools as merely suggested as “best practices”, with only a voluntary consideration required by industry. This includes such basic tools as (a) the quantification and monitoring of landings and roads, and (b) the setting of targets to manage their spatial impacts against. This voluntary approach has contributed to the evident failure of oversight and impact management.

## **(2) Forest Management Planning**

**REQUIREMENT: Forest / non-forest area for planning.** Table FMP-1 is a foundational description of the forest area for each FMU. It specifically describes how much “production forest” is available.

**ANALYSIS: Table FMP-1 ineffectual for documenting operational loss of productive forest.** Forest Management Table FMP-1: Management Unit Land Summary. Table FMP-1 provides the principal accounting of forest area in a management plan for each FMU. It contains three separate aspatial (area only, with non-specified locations) accounting categories:

*Forest Stands: All existing forest stands and areas which have been successfully regenerated.*

*Below Regeneration Standards: Area of productive forest stands that have received regeneration treatments such as natural regeneration, seeding or planting but do not yet meet the regeneration standards in an approved forest management plan. Includes both natural disturbances and harvested area.*

*Recent Disturbance: Areas of stand replacing natural (e.g., fire, insect, blow down, etc.) or artificial (e.g., harvest) disturbance which have not received a silvicultural treatment for regeneration such as natural regeneration, seeding or planting.*

Unfortunately, this scheme for reporting the status of production forest as currently employed is ineffectual for documenting the loss of productive forest from logging infrastructure. This is because the vast majority of forest stands that are substantially impaired by roads and landings can currently be found in any of these three reporting categories within the production forest. The only apparent exception is when primary roads are spatially transferred out of this production forest category, with an accompanying spatial assignment to non-forest in the Forest Resource Inventory, as distinct polygons, where they are typically lumped into a catch-all “unclassified” non-forest category (given the systemic nature and magnitude of these impacts, it is further surprising that a unique spatial category does not appear to exist in the system).

There are three primary reasons that this scheme is incapable of reasonably tracking the significant management challenge posed by logging scars:

1. **no differentiation between natural and industrial disturbance** in any of the FMP-1 categories. This also surprising given the baseline forest condition where an unlogged virgin forest under natural dynamics rotates through all three categories independent of industrial activity, and
2. **poor renewal standards** - Ontario's renewal "stocking" standards are low enough that forest stand polygons in the FRI which host significant barren area from logging scars can still be considered renewed, and placed back in "Forest Stands" category. The majority of the sampled clearcuts in this study are in this circumstance: considered "free-to-grow" renewed, despite having 10-24% of their logged area in a barren condition 20-30 years post-logging, and a
3. **systemic reluctance to document roads and landings spatially in the Inventory** - roads are extremely rarely included in the inventory spatially, landing areas even less so, while the forest resource inventory routinely separates stand nuances of far less substantive relevance.

**REQUIREMENT: Conversion assumption required in strategic forest modeling.** Strategic analysis will incorporate "conversion rates of harvested areas to non-forested land (e.g., roads and landings)."<sup>8</sup>

**ANALYSIS:** Back in 2007, the Wildlands League embarked on a study of Ontario's harvest level determination tool, the Sustainable Forest Management Model (SFMM), to test its utility in determining sustainable harvest levels.<sup>9</sup> Among other sustainability criteria, Wildlands examined the conversion (or loss of productive forest) estimates required in SFMM in its research, asking the question: "Has the planning process adequately considered the amount of conversion of forest to non-forest that will ensue with the construction of roads and landings for accessing and transporting timber?" Based on the conclusions from research by the Ontario Forest Research Institute at that time,<sup>10</sup> Wildlands considered the use of at least 4% forest area lost as a prudent allowance for inclusion in the SFMM model. From that research, none of the sampled forest management units included that level of allowance, with 5 of the 7 units examined having "inadequate" and the other two "questionable" allowances somewhat under 4%.

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<sup>8</sup> OMNR (2004) *Forest Management Planning Manual* (emphasis added)

<sup>9</sup> Wildlands League (2007). *Ontario's Harvest Levels: Science or Wishful Thinking?*

<sup>10</sup> Colombo S, Parker W, Luckai N, Dang Q, and Cai T. (2005) *The Effects of Forest Management on Carbon Storage in Ontario's Forests. (Climate change research report; CCRR-03)* Ontario. Ministry of Natural Resources. Applied Research and Development. Queen's Printer for Ontario. ISBN 0-7794-9085-1

Now, after this more detailed spatial research into the extent and persistence of these features - the recent Logging Scars study - we have come to an even more sobering realization of the gaps between the nominal estimates used in forest modeling (0-5% overall within the 5 forest management units of the Logging Scars study), and the far larger footprints measured within sampled clearcuts of this landscape, which demonstrated footprints ranging overall from 10-24% of the area logged, several decades later. See table below.

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Forest Management Unit	Avg. <u>Estimated</u> Loss	Avg. <u>Measured</u> Loss
<b>Black Spruce Forest</b>	<b>0.75%</b>	<b>13.4%</b>
<b>Caribou Forest</b>	<b>n/a</b>	<b>13.8%</b>
<b>English River Forest</b>	<b>0.5%</b>	<b>14.3%</b>
<b>Lac Seul Forest</b>	<b>1.5%</b>	<b>13.4%</b>
<b>Lake Nipigon Forest</b>	<b>3.6%</b>	<b>14.7%</b>
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average overall	1.3%	14.2%

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*Table. Comparison of estimated productive forest loss to measured loss in sampled clearcuts*

If estimates of infrastructure impacts have been severely under-estimated for 20-30 years, what confidence can we place in the "sustainable" harvest levels that this model has output? The truth is: we can't. And these numbers are the basis for the doubled harvest emphasis in the proposed Forest Strategy. The reality is that, with systemically under-estimated inputs such as these, the model has been pretending that these barren areas have been renewing forest for many years now. The multiple liabilities of proceeding on this basis should be patently self-evident - certainly to any evidence-first policy initiative. This aspect of Ontario's modeling needs far more scrutiny.

Further, in Ontario, these outputs are relied upon for many aspects of forest management, as well as other policy and decision-support. For example carbon researchers,<sup>11</sup> have relied on SFMM to predict Ontario's forest C budgets using SFMM model outputs to link forest management plans to an American carbon model.

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<sup>11</sup> *Colombo et al (2007)*

### (3) Independent Audits

**REQUIREMENT: Independent Forest Audits are required to review FMP modeling assumptions** (above). Auditor to assess whether modelling assumptions are reasonable and based on the best available information.<sup>12</sup>

**ANALYSIS:** With one exception, little audit documentation of this requirement could be found in the available IFAs. The distance between audits, the ongoing problem of audit follow-up, and poor OMNR research or direction to support these modeling inputs also all contribute to an increasingly ineffective level of oversight over such an important sustainability metric. Far more audit oversight is needed. It should be noted that the concurrent proposal (ERO 019-1006) to reduce the frequency of Independent Forest Audits risks further oversight liability.

### (4) Annual Reporting

**REQUIREMENT: Annual Report “discussions” required:**

*“discuss the progress towards completing the recovery of productive land (e.g., slash piles, chipper piles, landings, and roads decommissioned), and any related concerns”.*<sup>13</sup>

**ANALYSIS: A review of all available annual reports for the 5 forests.** During the background research for the Logging Scars project, a review of all available Annual Reports for the 5 subject Forest Management Units was undertaken. The state of the required “discussion” of “progress towards completing the recovery of landings” across the 28 available annual reports for the five forests in the study area can be essentially captured on a page:

- **Missing Annual Reports (ARs).** To begin with, two required annual reports could not be located on the Ministry download site.
- **Half of all ARs didn’t mention landings.** A full half of the reports that were available contained zero instances of the keyword “landing(s)” at all.
- **One forest has never mentioned landings in an AR.** One of the five FMUs reviewed failed to provide a single instance of the keyword “landing(s)” in available ARs from all years.

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<sup>12</sup> OMNRF (2019) *Independent Forest Audit Protocol*.

<sup>13</sup> OMNRF (2017) *Forest Management Planning Manual*, *emphasis added*

- **Discussions inadequate, fail to chart progress.** What few instances were found, generally combined "roads and landings" in a phrase, while providing no specific discussion of landings. As a discussion would likely require the use of the term more than once, this trend does not suggest a robust consideration of these risks. In fact, given the often repeated paragraphs year-year, the bulk of the mentions of the search term "landing(s)" can essentially be duplicated in the examples reproduced below.

*Black Spruce Forest:*

*"3.1.3 Road Decommissioning. Decommissioning of roads and landings is a requirement of the current FMP to reduce the loss of productive land, to improve woodland caribou habitat and to prevent access into protected areas. Road decommissioning generally occurs when all forestry operations are completed in an area and road access is no longer required."*

Notes: Only reiterates that it is a requirement. No comparable description of decommissioning of landings, no further details provided, nor relative progress within the unit, nor further mention at all.

*Caribou Forest:*

Notes: Search term "landing(s)" entirely unresponsive in all available Annual Reports. 2014-15 AR not available.

*English River Forest:*

*"Section 4.1.1 Figure 1, presents the average area harvested for each FMP term since 1994. This harvest area is inclusive of roads and landings within the harvest blocks."*

*The primary method of road rehabilitation/decommissioning that is utilized is the double helix pattern down the roads using a skidder with a trencher implement as well as pushing nearby slash debris onto the road where it is readily available and feasible to do so. This facilitates returning the roads and landings to future forest cover."*

Notes: No further details provided, nor relative progress within the unit, nor further mention at all.

*Lac Seul Forest:*

*"There were 4,876 ha of area identified for potential mechanical SIP in the 2016-2017 AWS with 2,121 ha actually being completed in the 2016-2017 reporting period. The shortfall of 2,755 ha occurred primarily due to the areas initially proposed in the AWS being identified in gross cutover ha, and had yet to be reduced by roads, landings, natural regeneration, no SIP renewal prescriptions and untreatable areas, that typically occur within the proposed cutovers."*

Notes: This reference flags the understanding of the impacts of infrastructure, the specific areas logged, and reflects the low priority found across the study area for quantifying the area impacted. Also, in contrast to the harvested stand around them, it appears here that landings are simply not considered for mechanical site preparation. No further details provided, nor relative progress within the unit, nor further mention at all.

*Lake Nipigon Forest:*

*“2.1.4.4 Assessment of Regeneration Success. In 2015/16 there was 3,032 hectares of regenerated area assessed for Free-To-Grow (FTG) status on the Lake Nipigon East portion of the Lake Nipigon Forest. Of this area approximately 46 hectares was not FTG. The majority of the area not FTG was roads, roadsides and landings that needed more time to ingress. The remaining area not FTG did not meet standards for stocking and require additional time to ingress.”*

Notes: No further mention of landings. Because the 46 ha singled-out here is only a fraction of the roads and landings created to harvest the 3,032ha, this discussion demonstrates how combining the low-bar of Ontario FTG renewal standards, within a coarse - stand polygon approach to spatial management can actually hide large areas of suppressed renewal, such as the logging scars described for the Lake Nipigon FMU samples in the recent Logging Scars study, where this non-renewing infrastructure was found to occupy 14.7% of the area logged in 8 sampled clearcuts, all approaching 30 years in age since logging.

Annual report “discussions” of road impacts were similarly sparse, and also substantially failed to adequately characterize “progress” as required. But it was clear from this review that landings are the loss of productive forest impact most invisible to forest management oversight in Ontario.

**REQUIREMENT: Annual reporting of roads and landings required.** “enter the forest unavailable for regeneration (e.g. roads and landings) for the applicable term,” in the annual report tables, at Table AR-10.<sup>14</sup>

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<sup>14</sup> OMNR (2009) Forest Management Planning Manual

ANALYSIS: Table AR-10 does not provide any specific reporting space for roads or landing losses. If it did, it is also not described where this aspatial number would come from, or how it would be performance-tracked over time, as roads and landings are not usually distinguished from background forest stand polygons spatially. Overall, the aspatial reporting tables at the heart of much of the current management planning and reporting have not served the undertaking well, is highly susceptible to input variability without documentation, and the year-year operational progress cannot be understood in a meaningful way. With dramatic improvements to geospatial technology since the original Timber Class EA hearings, these requirements should now be spatially explicit, with performance attributes that can be readily geospatially analyzed and reported.

## **(5) Forest Management Data**

The overall quality of key forest management digital geospatial data encountered by Wildlands League in its Logging Scars study has been notably poor. This introduces significant uncertainty, that severely limits the ability to assess or oversee the sustainability of logging practices. Uncertainty extends also to external reliance on provincial data. The effects of uncertainty extend to external stakeholders who rely on provincial data. Data implications also extend beyond the scale of the forest management unit, or the province's oversight. For example, federally, the Canadian Forest Service relies upon roads and forest resource inventory data where available to validate forest conversion estimates from remote sensing.<sup>15</sup> They also flag the lack of uncertainty metrics in provincial inventories as an added challenge to their responsibilities in rolling up data from across the country. Similarly, this study is also testimony to the research challenges imposed from incomplete, and inaccurate data, where substantial additional remote sensing became necessary to establish the completeness and accuracy of the linear road network data, and to verify clearcut onset history against dates held in the FRI data.

For overseeing the loss of productive forest as a key sustainability indicator, neither OMNR's incomplete linear data, nor the practice of lumping roads and landings into the background forest stands of the forest inventory have proven adequate to the job of overseeing the significant impacts of these ongoing logging scars.

**REQUIREMENT: Road construction geospatial data to be submitted to OMNRF.**<sup>16</sup>

**ANALYSIS: Logging Roads Linear Data.** For example, the high number of undocumented roads (almost 1/3 of visible roads were not included in the provincial road segment data) found in the sampled clearcuts contributes a substantial oversight liability to Ontario's forest

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<sup>15</sup> *Canada NIR 2017, Annex 3.5.2.4*

<sup>16</sup> *OMNRF (2017) Forest Information Manual*



management.<sup>17</sup> Similarly, road segment accuracy relative to the FRI air photo datum ranged from 0-55m from true, and averaged 16m off of true in tests performed during the Logging Scars project. These liabilities go substantially beyond the public liability aspects of road access management already slowly being addressed over the past 20 years.<sup>18</sup> It extends to the ability of managers to distinguish and understand the ongoing level of sustainability performance of abandoned infrastructure as forest, against the baseline of the surrounding stands, and in real spatial terms as a proportion of the stands logged.

**FRI stand history tracking.** Another similar example (data submission also required through FIM) encountered lies in the tabular data in the Forest Resource Inventory, which currently allows the over-writing of stand establishment dates with each incremental intervention. Including a thinning date, for example, seems to overwrite the very important date of original stand establishment effectively undermining the documentation of a complete stand history within the time of a single rotation. Tracking species composition from first forest conversion through a second rotation would be similarly daunting, without significant additional forensic research. Ontario's stand inventory is further challenged by poor spatial accuracy of stand polygons relative to historical cuts, and other documented challenges such as the regular and serious misclassification of species composition.<sup>19</sup>

Any long-term documentation of the changing character of a forest stand over time is daunting in this data environment, and further imperilled by periodic changes to key variables such as "forest units" (e.g. Lac Seul AR 2017-18, Lake Nipigon AR 2003-04), from miskeyed data entry (Lac Seul AR 2013-14, 2017-18), and/or from data gaps induced by shifts in industry data custodians from tenure amalgamation, turnover and/or bankruptcy (e.g. Lake Nipigon IFA 2011). All of these challenges undermine the ability to track stand change over time - thus impairing any ongoing assessment of sustainability.

**REQUIREMENT: Roads and landings incorporation/reflection into the Forest Resource Inventory.** OMNR description of approach to track area losses:

*"The actual area of non-forest or non-productive forest (roads, landings, slash/debris piles, grass, brush, etc.) created through forest management operations is either spatially incorporated into the inventory, or otherwise reflected in the inventory attributes. Larger and more permanent features (e.g., primary roads) are normally represented as polygons in the inventory while the effects (if any) of smaller and less permanent features (e.g., slash/debris piles) are reflected in the stand description (e.g., stocking)".<sup>20</sup>*

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<sup>17</sup> Wildlands League (2019) *Boreal Logging Scars: An extensive and persistent logging footprint in typical clearcuts of northwestern Ontario, Canada*. [loggingscars.ca](http://loggingscars.ca)

<sup>18</sup> e.g. OMNR (2003) *Forest Roads and Water Crossing Initiative Task Team Report*

<sup>19</sup> e.g. Thompson et al. (2007)

<sup>20</sup> OMNR (2010) *Stand and Site Guide*, emphasis added

**ANALYSIS: The vast majority of impacts of roads and landings go essentially unincorporated spatially in the forest inventory, and are not usefully “reflected”, in any other manner.**

The FRI has the capacity to (and regularly does) spatially parse fairly subtle vegetation distinctions between various stand types. It also readily spatially excludes features such as wetlands, water, rocky and other non-treed feature types. It even treats some large roads (such as highways, or primary logging haul roads) as their own non-forest polygons in the inventory.

All logging infrastructure that has the ability to persist on the landscape for 20-30 years in a highly visible manner should reasonably be understood distinctly from the renewing forest around it. At 10-24% of the clearcut area logged, these areas are not incidental, nor insignificant. Once properly delineated, their impacts can then better be tracked and managed.

Yet, the vast majority of highly visible logging scars - evident to even an untrained observer as essentially barren 30 years after logging, are untraceable in this data representation of Ontario's public forest. Instead, they are dominantly assumed to belong to the host polygon stand that contains them. The direction is to somehow “reflect” these impacts in the attributes of the host forest stand, with the possible example of doing this using the “stocking” attribute. Without detailing all of the challenges that this repurposing of this metric bring to the data management of the host stand, this approach utterly fails to provide a user with any ability to understand the relative rehabilitation progress on a road or landing, relative to the performance of the surrounding renewal or the performance of the stand overall. Where the road and landing impacts have no recognized spatial domain in the inventory, the current situation in the study area leaves these substantial sustainability risks essentially invisible to FRI users.