Feb. 1, 2021

To: Planning Team-Bancroft Minden Forest

c/o
MNRF Contact
Corinne Arthur, R.P.F.
Regional Planning Forester
705-313-3274
corinne.arthur@ontario.ca

SUBMITTED BY EMAIL

RE: Submission to the review of Proposed Operations 2021-2031 for Bancroft Minden Forest.

Dear Ms. Arthur,

Please accept these written comments to the public review of proposed operations for Bancroft-Minden Forest 2021-2031 on behalf of the Catchacoma Forest Stewardship Committee (CFSC). The CFSC was established in March 2020 to advocate for a moratorium on logging within the Catchacoma Forest - a 660 ha stand of predominantly eastern-hemlock dominated forest on crown land within the management unit of BMFC. The Catchacoma Forest is located at the north end of Catchacoma Lake, bordering on Kawartha Highlands Provincial Park to the east, Highway 507 to the west and stretching north to Pencil Lake.

CFSC request for a moratorium on logging is based on the significant conservation values identified for the Catchacoma Forest in surveys performed by Ancient Forest Exploration & Research (AFER) a non-profit organization dedicated to the identification and conservation of old growth forests in Ontario. These studies were directed by our member, Dr. Peter Quinby, certified ecologist, in 2019-2020. All of the AFER reports on the Catchacoma Forest can be accessed at https://www.peterborougholdgrowth.ca/.

CFSC's overall recommendation is that additional field studies are required to evaluate the conservation values of the Catchacoma Forest. Logging operations should be suspended until such studies can be completed. This, and all the following recommendations apply to blocks 2749, 3710 and 1711 within the Draft FMP Map 1714.

Summary of specific recommendations for the 2021-2031 proposed operations:

1. **The MNRF undertake field studies to assess the presence of early onset old and old-growth hemlock forest based on indicators identified in the Old Growth Policy for Ontario's Crown Forests. Until these are completed, apply the precautionary principle and remove the Catchacoma Forest from proposed operations.**
2. **The MNRF undertake field surveys to identify wildlife values within the Catchacoma Forest, prioritizing potential SARs with associated Areas of Concern prescriptions, such as Blanding's turtle and Cerulean warbler. Proposed operations should be suspended until such surveys are completed.**

3. **Proposed operations around the central-west wetland in the Catchacoma Forest be suspended until a full wetland evaluation is completed.**
4. **The MNRF and BMFC engage with the CFSC and other stakeholders to identify and map the hiking trails within the Catchacoma Forest prior to any future operations.**

In this document we outline the conservation values of the Catchacoma Forest, CFSC advocacy to date, and identify specific issues in the proposed operations as background to our recommendations..

Conservation Values in the Catchacoma Forest

AFER's field studies document the presence of old growth and mature eastern hemlock forest across the Catchacoma Forest landscape in significantly greater abundance than FRI data indicates. The results of old growth inventories of 36 plots can be found in 2 reports-- from site visits in 2019 and a Rapid Assessment of Old-growth Characteristics in the Catchacoma Forest from August 2020. In the absence of MNRF produced ground inventories, AFER's research represents the best current data on the status of old growth in the Catchacoma Forest.

Mature and old growth eastern hemlock forests have ecological value because of their rarity on the landscape due to historic decline. AFER has produced a research report that documents that old growth eastern hemlock is among the rarest forest types in Canada. Hemlock has declined by almost 75% in the landscape adjacent to and west of Algonquin Park (Leadbitter et al. 2002) and has been virtually eliminated in many parts of southern Ontario where it was once a dominant tree and a common forest type (Suffling et al. 2003).

AFER has also produced a report of documented observations of wildlife/suitable wildlife habitat in the Catchacoma Forest including for ten species-at-risk. Despite many of these observations deriving from a report produced for the MNRF in 2008, no thorough field surveys for wildlife values and species-at-risk have been documented by MNRF for the Catchacoma Forest.

The Forest also has significant potential for low-impact recreation and further ecological research and education, particularly due to its accessibility from highway 507.

The value of mature and old growth trees in carbon storage and sequestration is also a concern of the CFSC. There is abundant evidence that mature and old trees store and sequester more carbon than younger trees (See for example Stephenson, 2014 and Moomaw, 2019).

The latest IPCC report (5th Assessment) on Land Use and Climate Change (January 2020) acknowledges that leaving intact forest ecosystems has more immediate impacts on climate mitigation than reforestation. The primary message from the Fifth Assessment Report is that "*the scientific case for urgent action on climate change is clearer than ever. We have very little time before the window of opportunity to stay within 2°C closes forever but we still have that opportunity*". With this acknowledged urgency it is incumbent on all land-based planning to identify the most immediate and cost-effective practices for keeping carbon locked up over the next decade. In the case of the BMF, it means leaving mature and old-growth trees and forests intact.

The CFSC believes that the conservation values of the Catchacoma Forest are put at risk by logging activity, no matter the silviculture system applied. Even selection logging can significantly reduce the average age, biodiversity and ecological integrity of forests, and we have already observed recent hemlock stumps (from 2020 logging) that were over 200 yrs of age. The Catchacoma Forest is not prone to fire disturbance, instead wind is the main natural disturbance, and presumably continues unabated. While the Catchacoma forest landscape may not be "pristine" due to past partial logging, in the context of the rarity of mature and old growth hemlock forests and the pervasiveness of historical logging throughout southern Ontario, AFER's studies document relatively high integrity and potential for old-growth forest restoration there. Potential SARs and other wildlife values are also put at risk through decreased canopy cover and erosion and compaction from logging roads and skidder trails.

Advocacy efforts of the CFSC

Our efforts to date have centred on requests to the Bancroft Minden Forest Company (BMFC) and the MNRF to recognize and follow-up on the AFER research in the Forest. To that effect we have held meetings with both BMFC and MNRF representatives, in February and November 2020. We also conducted a further survey in the Catchacoma Forest in the summer of 2020.

We have held public hikes in the Catchacoma Forest to raise awareness of the conservation values at risk by past, current and projected logging. These guided site visits have engaged support from other groups including the Catchacoma Cottagers Association, Peterborough Land Trust, Peterborough Naturalists, the Land Between, Ontario Nature, MPP Dave Smith, Curve Lake First Nation, Alderville First Nation, Trent University and Peterborough Youth Leadership in Sustainability. All of these groups have expressed support for our cause of further investigation of the ecology of the Catchacoma Forest. We have also had expressions of support from local residents and the Municipality of Trent Lakes for increased protection of and support for low impact recreation in the block, such as hiking and cross-country ski trails, while maintaining the existing snowmobile and ATV access towards the northeast via the existing Rathburn Trail.

The CFSC has also reached out to the Ministry of Environment, Conservation and Parks (MECP) to pursue avenues for protection or conservation status--but this has so far proved un-fruitful. In the absence of provincial efforts to acknowledge the conservation values of the Catchacoma Forest, we are now contracting independent environmental assessors to do the work to get conservation values on the record. The lead ecologist for AFER and a member of CFSC, Dr. Peter Quinby, has taken steps to advance our goals by developing a business plan as required for a land use permit to pursue community-led management for conservation, research, education and recreation in the Catchacoma Forest.

The CFSC believes that this vision for management of the Catchacoma Forest aligns with the current "Made-in-Ontario Environment Plan" (2018) which prioritizes the addition of new protected and conservation areas in the province. We also draw on the goal of protecting 17% of land by 2020, 25% by 2025 and 30% by 2030, as Canada's federal government committed to under the UN AICHI protocols. The recent Office of the Auditor General of Ontario reports show that Ontario is far behind other provinces in meeting any of these goals (https://www.auditor.on.ca/en/content/annualreports/arreports/en20/ENV_conservingthenaturalenvironment_en20.pdf See pgs 6-8)

All of the above is provided as context for this submission of recommendations to the proposed operations for the FMP for 2021-2031. While we recognize that the FMP process is not the primary means for identifying new conservation areas, it does have some capacity in that regard insomuch as it is overseen by the MNRF, which has a mandate for conservation and protection of ecological values. Through this process, a decision could be made NOT to log within the Catchacoma Forest and to obtain the required timber volume from another area (contingency) with less value for conservation, education, research and recreation.

The following comments highlight issues specific to the proposed operations that will compromise or eliminate the conservation values associated with the Catchacoma Forest.

Issues and Recommendations with the Proposed Operations for 2021-31 in Catchacoma Forest

ISSUE #`1: Discrepancies in Inventories for Old-growth Hemlock

a) Discrepancies between 1987-2003 FRI data and 2007 FRI data

AFER's selection of the Catchacoma Forest for old growth field surveys was based on FRI data from 1987-2003 that indicated mature and late seral states. A 2012 report (Clark & Nitschke) on High Conservation Values in the Bancroft-Minden Forest prepared for BMFC identified the Catchacoma area as "Mature and Old Growth Bancroft Minden Forest (See map on pg. 56 of report). A seral stage landscape map published in the Bancroft Minden Forest FMP 2011 indicates a large swath of the western part of the forest to be in the "late" seral stage (ie: old growth) and the remainder to be in the "mature" stage (Figure 1--all referenced Figures and Tables can be found in Appendix). AFER's mapping of the 1987-2003 FRI data also revealed maturity--approximately 550 ha of potential old growth hemlock (see Figure 2). AFER also created a map using 2007 FRI data to compare results. The 2007 FRI data indicated substantially less old growth hemlock forest (>155 yrs] of approximately 19 ha (see Figure 3). This discrepancy between data is partly what prompted the field survey in Catchacoma, to begin to verify the age of the forest.

Problems with verifying, comparing and transitioning between FRI data are also noted in the 2015 status report to the 2011 Independent Audit for Bancroft Minden Action Plan, which states in Recommendation #2: *The Bancroft-Minden Forest Company, with the assistance of the Ontario Ministry of Natural Resources and Forestry, shall develop a transition strategy for implementing the forthcoming forest resource inventory, considering the implications on operations, planning and administration of the sustainable forest license.*

Action(s) required:
1. Acquire a complete copy of the new FRI.
2. Consult with Regional Analysts to determine the best approach for comparative analysis between the new and old FRIs.
3. Prepare an assessment report of the implications on operations, planning and administration of the SFL.
4. Based on the results of the report, prepare a transition strategy and implement as appropriate.

Progress to date: 1. The new inventory has not been delivered as of this date. Work on this recommendation has not begun. Action is not complete, further tracking is required.

To our knowledge, this recommendation has yet to be fulfilled by BMFC or MNRF. AFERs field results in the Catchacoma Forest can contribute to achieving this recommendation in terms of developing an approach to a comparative analysis between FRI data. AFERs results thus far indicate significant discrepancies between the 2007 FRI data and on the ground age assessments

b) Results of Field Age Surveys

The initial field surveys performed by AFER in 2019 found that the 2007 data are likely inaccurate and under-represent the size of the Catchacoma old-growth forest. For example, a plot surveyed in an area aged at 134 yrs in the 2007 FRI found an average age of 177 and maximum age of 349 out of 14 trees cored.

Additional field surveys by AFER in Summer 2020 also indicate a higher instance of eastern hemlock trees within the early onset and old-growth ages than indicated by 2007 FRI data. This field survey also found evidence of old growth features not quantified by FRI data, such as downed woody debris and snags. This "Rapid Assessment of Old-growth Characteristics in the Catchacoma Forest" used 34 plots randomly distributed throughout the 662 ha study area to sample within 32 forest stands. This survey found that:

- approximately half of the sample plots were located in "early OGF stage" forests based on tree age only with minimal dead wood; 140+ years),
- approximately half were in "late OGF stage" forests based on field assessment of dead wood (snags and logs) as well as tree age based on dbh and ages of tree cores, and
- 20 plots were dominated by hemlock; 5 plots were co-dominated by hemlock - other codominant spp: Pw, Or, Mh, Mr; 9 plots dominated by six other tree spp. including Aw, Ab, Pr, Po, Mh, Or.

In addition, AFER used this data to compare stand ages using tree cores with both 1987 FRI data and 2007 FRI data (See Table 1). This comparison found **tree core ages to be on average 58 years older relative to 2007 FRI ages and 16 years older relative to 1987 FRI ages**. All of AFER's studies indicated that FRI data cannot be relied on to accurately assess the age of the Catchacoma Forest.

c) Proposed Operations Rely on 2007 FRI data

The Draft FMP maps for BMFC do not include an age composition analysis, however the CFSC was provided a landscape map of the Catchacoma Forest by BMFC manager (Figure 4). This map relies solely on 2007 FRI data to produce age results for the Catchacoma Forest, similar to that of AFERs 2007 FRI map. Given the results of AFERs field studies, this age data should not be considered the best information, and should be verified through further field inventories.

Recommendation: The MNRF undertake field surveys within the Catchacoma Forest to assess the presence of old growth and nearing old growth hemlock forest based on indicators identified in the Old Growth Policy for Ontario's Crown Forests. Until these are completed, apply the precautionary principle and remove all proposed operations from the Catchachacoma Forest.

ISSUE #2: Lack of surveys of Species-at-risk (SARs) Values and Application of Related Areas of Concern (AOCs)

While the AFER studies to date have not included field inventories for SARs and other wildlife, they did produce a research report compiling observations of wildlife, SARs and potential SARs habitat data derived from a variety of sources. This inventory indicates potential habitat and observations for a minimum of 10 SARs, including Blanding's Turtle, Cerulean warbler, Hognose snake, 5-lined skink, Eastern Wood Peewee, Wood thrush, Canada warbler and Rusty blackbird. Many of these SARs have associated AOC prescription within the BMF forest, described in FMP-11 from the Draft FMP Tables. In addition, the report cites observations of Algonquin Wolf which also has associated AOC prescriptions.

The CFSC has requested documentation of any MNRF surveys for SARs and other wildlife values within the Catchacoma Forest. According to the Wildlife and Forestry Values Map provided in the Draft FMP Maps there appears to be no identified wildlife/SARs values other than "Moose Aquatic Feeding Zones". A letter from MNRF biologist Alison Smith (sent to CFSC on January 22, 2020 by email) seems to confirm that no field surveys specific to the Catchacoma Forest with regards to wildlife values have been performed. Ms. Smith states that "*The data included in the [AFER] report is not sufficient to support the application of AOCs or Conditions on Regular Operations*", however she does suggest that, in the case of Cerulean warbler, "*a targeted spring survey would be of value, and will be considered during Bancroft District MNRF values collection work planning*." (Letter dated Jan 22, 2020).

The CFSC supports the recommendation for targeted and timely Cerulean warbler surveys on the part of MNRF within the Catchacoma Forest. The CFSC requests to be informed when and how these surveys will be conducted. We also recommend that Blanding's turtle should be prioritized as well as wolf dens and gathering locations.

Prioritizing SARs inventories in the Catchacoma Forest is also in line with Recommendation #3 in the 2011 Independent Audit for Bancroft Minden Status Report (2015), which states on p.5:

Ontario Ministry of Natural Resources and Forestry Bancroft District must implement a surge in species at risk inventory focused on getting ahead of active operations to provide forestry operations enough time to effectively plan their operations.

Action(s) required:
1. Work with the SFL to prioritize blocks for species at risk assessment based on probability for the species to occur, and timing of planned harvest.
2. Create a work plan to guide assessment activity.
3. Secure sufficient resources to implement the work plan.

Further to this, Independent Audit 2011-2017 (Published in 2018--shared by email correspondence from Jennifer Card in pdf form) found that:

- *Adequate information is not always available for AOC planning, particularly in relation to Blanding's/Wood turtle, American Ginseng, and recreational values.(from Finding #4 p. 19)*
- *as per direction provided in the previous IFA (Recommendation #3), the MNRF was required to implement a "surge" in SAR inventories in order to get ahead of the current*

planning and operations schedule. Although this surge occurred, it appears that SAR inventories are once again occurring just prior to, and after tree marking is being completed in the field. And in some instances, it does not get completed at all" (from Finding #4 p. 19)

- *The MNRF is not currently providing SAR AOCs in a timely manner, which would allow for AOCs to be properly identified prior to harvest. This is a result of limited resources within the MNRF, combined with the fact that BMFC does not notify the MNRF of which blocks are about to be marked so that these could become priorities for the field inventories (from Finding #4, p. 20)*

Recommendation: The MNRF undertake field surveys to identify wildlife values and SAR AOCs within the Catchacoma Forest, prioritizing SARs and wildlife identified by AFER with associated AOC and CRO prescriptions . Proposed operations should be suspended until such a "surge" of surveys are completed.

ISSUE #3: Lack of Protection for Wetland Areas within the Catchacoma Forest

The Catchacoma Forest includes a wetland complex at its centre-west that feeds into Pencil Creek, which feeds Catchacoma Lake. This wetland is identified in the Draft FMP map for Catchacoma as open muskeg and brush and alder (see Figure 5).

Many of the waterways (including Pencil Creek) have proposed "modified" operations around them (indicated by thick orange lines) in Figure 5, however the central wetland does not appear to have any CRO or other modifications applied to it. The CFSC is concerned about the potential ecological impacts of proposed regular, bridging and contingency harvest around this wetland. While this wetland is currently unevaluated, we believe it represents a regionally, if not provincially, significant wetland, particularly due to a high potential for Blanding's turtle overwintering and nesting habitat. If this wetland were evaluated as provincially significant it would require an AOC consisting of a 120m modified management zone (MMZ), according to the "Conditions on Regular Operations in Water AOCs' (from Section 4.2.2.2 of Proposed FMP text).

The CFSC is exploring options to have this central wetland evaluated by contracting a certified OWES technician. We propose that MNRF aid in this undertaking.

Recommendation: proposed operations around the central wetland (identified as open muskeg, brush and alder) be suspended until a full wetland evaluation is completed.

ISSUE #4: Identification of Hiking Trails in the Catchacoma Forest

The CFSC submission to the proposed long-term management direction (LTMD) described our concerns about the impact of current and future logging on the recreational use of hiking trails in the Catchacoma Forest. The response letter issued from Suzy Shalla (received by email on November 4, 2020) included the following statement regarding trails:

Trails and their protection will be addressed through the next phase of public consultation (operational planning)..Conditions on Regular Operations (CROs) in the current 2011 FMP (see section 4.2.2.14) states that designated trails e.g.) those identified in the Ontario Government Land Information Ontario Database will be returned to their original condition or found state as a

minimum after completion of operations. All other trails will be taken into consideration under the Good Neighbor Policy (see section 4.2.2.2.15) which recognizes the interests of other stakeholders and strives to ensure existing access is not unduly affected. Both of these CROs for trails will be carried forward into the 2021 FMP during operational planning.

On the "Resource Based Tourism" map available in the Draft FMP Maps no hiking trails are identified for the Catchacoma Forest. The CFSC has begun work to map existing hiking trails (as well as hiking trails that have already been altered by 2020 logging) in order to facilitate the "Good Neighbour Policy" and associated CROs.

Recommendation: The MNRF and BMFC engage with the CFSC and other stakeholders to identify and map the hiking trails within the Catchacoma Forest prior to any future operations.

The CFSC thanks you in advance for the Planning Team's consideration of these issues and recommendations. We are available to meet to discuss with the PT at your convenience to answer any questions.

Sincerely,

Catchacoma Forest Stewardship Committee:

Katie Krelove, Ontario Campaigner with the Wilderness Committee
Peter Quinby, PhD, Certified Ecologist, founder and director of AFER
Cameron Douglas, Highschool Teacher, Youth Leadership in Sustainability.
Peter Currier, local cottage owner
Linda Briden, logal cottage owner
Marie Windover, local resident, board member of Kawartha Land Trust
Ted Spence, PhD, Board member of the Catchacoma Cottagers Association and of the Cavendish Community Ratepayers Assoc., local cottage owner
Ron Waters, local cottage owner
Rob Rowe, local cottage owner
Patrick Levasseur, PhD Candidate, Environmental and Life Sciences, Trent University

Appendix: Figures and Tables

Figure 1. **Catchacoma Seral Ages Map** in BMFC FMP 2011- accessed through https://nrip.mnr.gov.on.ca/s/fmp-online?language=en_US). Light pink/beige indicates "late" seral stage also known as old-growth forest and dark green indicates mature forest

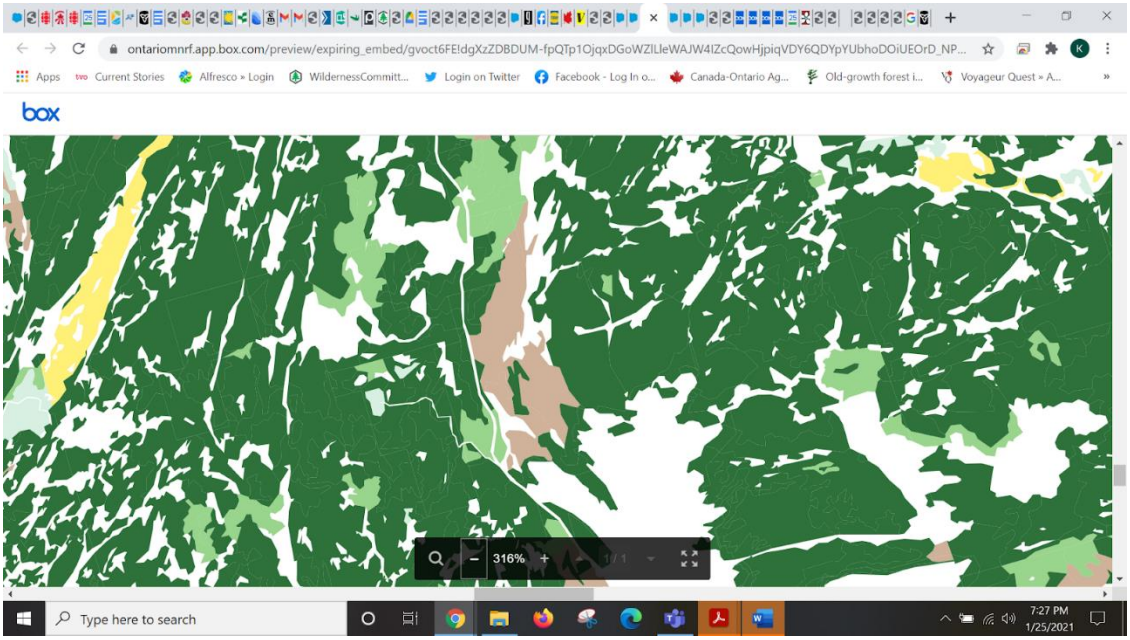

Figure 2 Catchacoma Forestcomposition map Produced by AFER using Forest Resource Inventory (FRI) data for the period 1987-2003 (LIO 2019) were analyzed using ESRI ArcMap 10.7 GIS software.

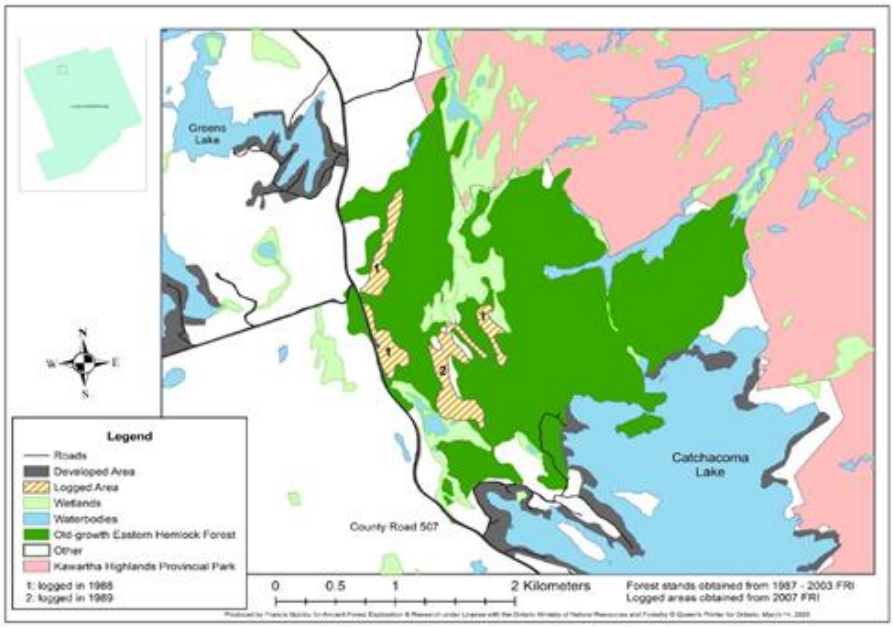

Figure 3 : Stand composition for the Catchacoma Forest produced by AFER using 2007 FRI data

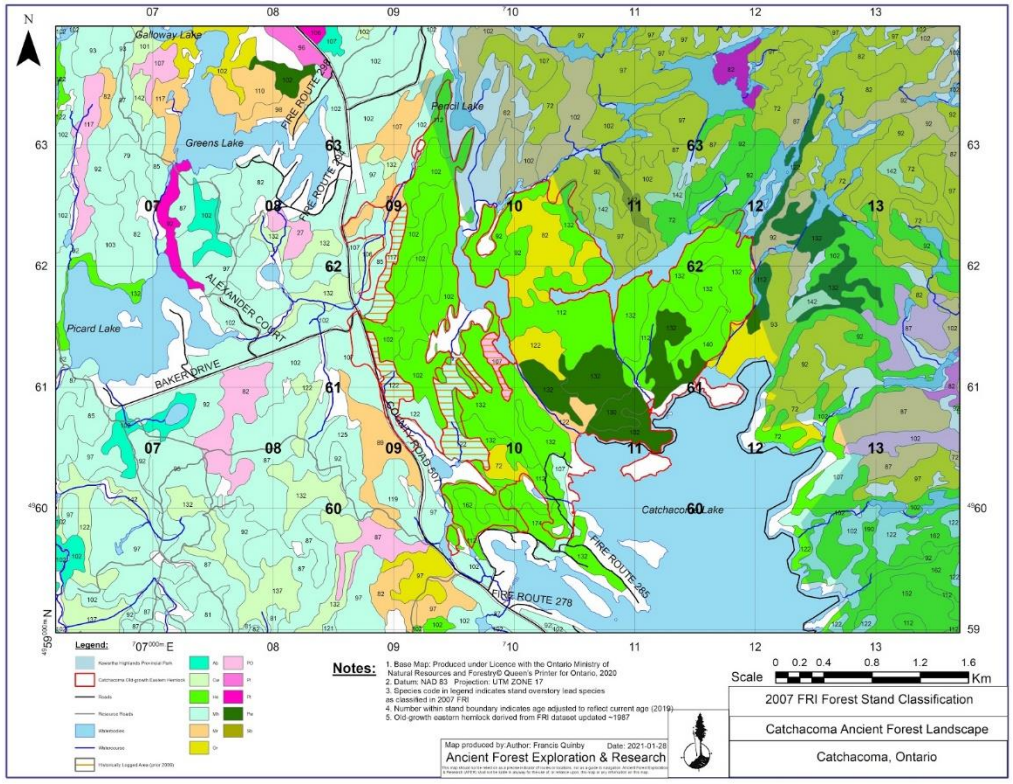

Figure 4: BMFC produced stand composition of the Catchacoma Forest (sent in email correspondence on Nov. 5, 2020, indicating 2007 FRI data was used)

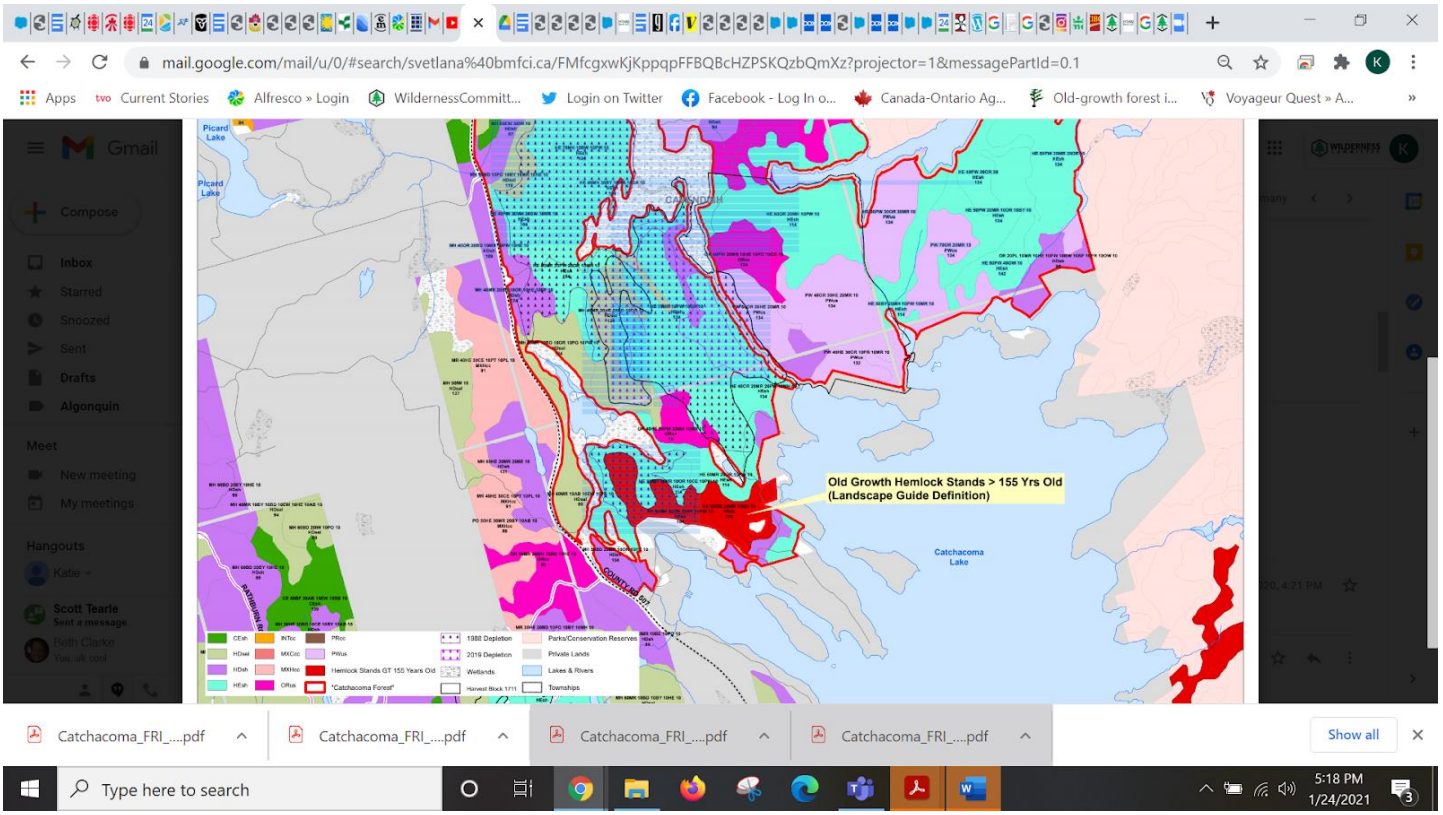

Figure 5: Proposed 2021-2031 Operations in the Catchacoma Forest (From Draft FMP Map: Operations1714.00 pdf)

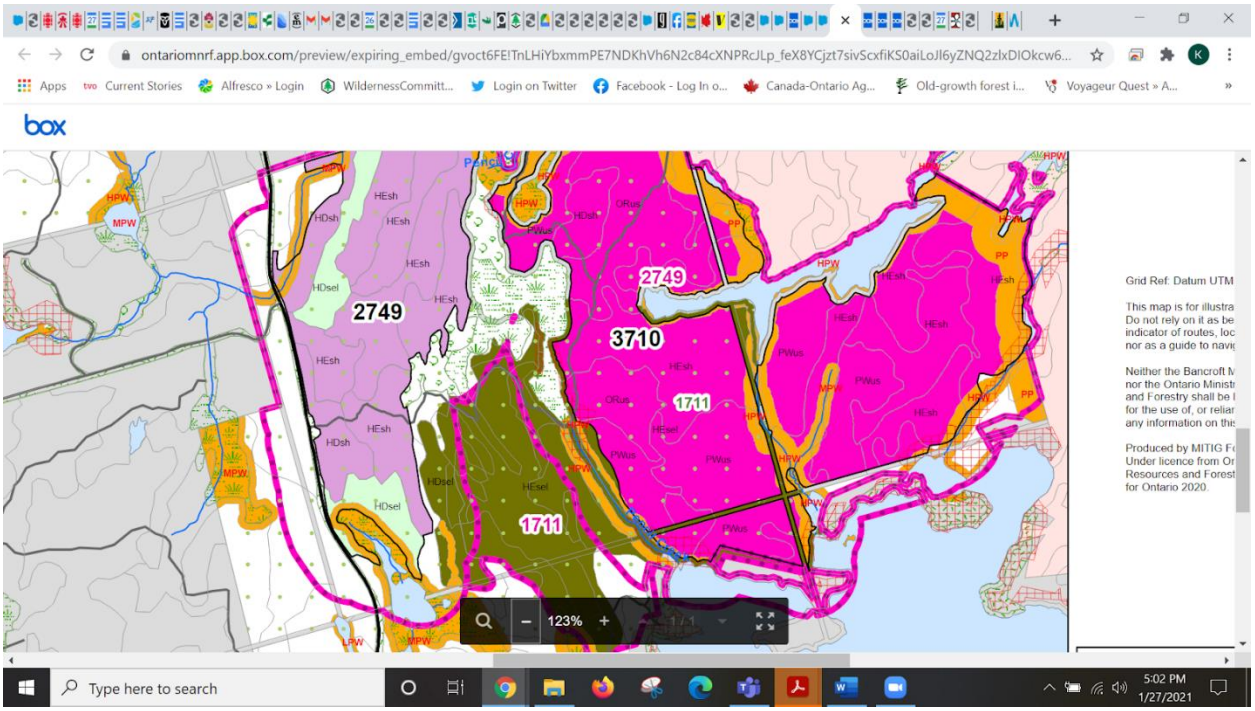

Table 1. Comparing Stand Ages Using Tree Cores, 1987 FRI Data and 2007 FRI Data for the Catchacoma Ancient Forest Landscape (Ancient Forest Exploration & Research; pquinby@ancientforest.org; JAN20-2021)

Sample Plot Location (easting/northing)	Super canopy Trees	Stand Age - Tree Cores 2020 (yrs)	Stand Age - 1987 FRI Stands 2020 (yrs)	Stand Age - 2007 FRI Stands 2020 (yrs)	1987 FRI Stand # (on map)	2007 FRI Stand # (on map)
17 T 709118 4962215	no	224	108	103	28	32
17 T 710224 4960191	no	224	177	113	73	114
17 T 709045 4962164	no	217	177	103	26	29
17 T 711438 4961800	Pw	212	148	133	54	138
17 T 709246 4961315	Pw	208	177	103	26	10
17 T 711631 4961762	Pw	204	148	133	54	141
17 T 708926 4962121	Mh	202	142	86	51	27
17 T 710435 4961346	no	199	143	113	45	103
17 T 710144 4960525	He	189	177	133	73	89
17 T 709994 4959922	Pw	189	177	113	106	78
17 T 709959 4960299	Or, Mr	189	188	73	107	108
17 T 709336 4962036	no	180	177	103	26	19
17 T 710295 4961371	Pw	175	143	123	45	102
17 T 710363 4961195	Pw	174	143	133	45	93
17 T 711109 4961615	Pw	165	148	133	54	94
17 T 709668 4960816	no	165	177	133	73	101

17 T 708902 4961463	no	164	177	103	26	14
17 T 710150 4961168	Pw	164	143	133	45	92
17 T 711243 4961676	no	149	148	113	54	130
17 T 709828 4961243	no	140	177	103	73	10
17 T 710392 4960791	Pw	133	143	133	45	92
17 T 711894 4961701	Pw	124	148	133	54	137
17 T 709770 4959965	no	124	177	163	106	113
17 T 709039 4961016	no	120	177	123	26	13
	MEAN (yrs)	**176**	**160**	**118**		
	DIFFERENCE (relative to tree core ages; yrs)		**16**	**58**		

NOTES: 1 - *Definitions*: Bd - basswood; Bf - balsam fir; Bw - white birch; By - yellow birch; Ce - white cedar; Ew - American elm; He - eastern hemlock; Iw - ironwood; Mh - sugar maple; Mr - red maple; Or - red oak; Ow - white oak; Pr - red pine; Pt - trembling aspen; Pw - white pine; Sb - black spruce. *Numbers* are relative abundance (%). *FRI* = forest resource inventory mapping (Ontario government).