
To: Mark Pulisfer
CC: Julie Towers

EAC Feedback on Proposed Policy Direction and Revisions to the Forest Management Guide and Pre-Treatment Assessment Process

August 30, 2019

Dear Mark,

Thank you for the opportunity to provide input into DLF's proposed changes to the Forest Management Guide (FMG) and Pre-Treatment Assessment (PTA) process. The up-front engagement with stakeholders ahead of releasing the proposed changes is a welcome improvement on DLF's past stakeholder engagement practices. The hope is that this will ultimately lead to better outcomes as we move forward together with implementing the Lahey Report recommendations and advancing Ecological Forestry in Nova Scotia. Keeping that goal in mind, the Ecology Action Centre (EAC) has several concerns with the proposed changes to the FMGs and PTA process, in addition to some concerns with DLF's steps on addressing the Lahey Report overall.

Under a Triad approach to forest management, in the matrix lands where the FMG's being discussed will be applied, harvesting practices are to be aligned with the principles of ecological forestry. The Lahey Report was clear that the path to ecological forestry lies in implementing multi-aged silviculture on most of the matrix. In section 14.3 of the Addendum to the Lahey Report, Dr. Robert Seymour reviewed the FMG's with respect to how well they achieved this goal – supporting ecological forestry for the matrix that *should* consist primarily of multi-aged silviculture systems. His analysis of the existing FMGs concluded that the guide “*seemingly preordains an even-aged (single-cohort) forest management paradigm in virtually all forest types.*” These deficiencies are the result of the FMGs being too heavily biased towards efficient timber production at the expense of ecological outcomes. These biases include; outdated and inappropriate definitions of stand/tree maturity and acceptable growing stock; a bias towards complete overstory removal in all forest types where advance regeneration is present, where windthrow risk is high or where a deficient level of acceptable growing stock trees are found in a stand and; overly restrictive criteria for the presence of LIT species in early successional stands. Recommendation #9 in Section 14 of the Lahey Report Addendum calls for the elimination of these biases. DLF's Discussion Paper circulated ahead of the August 20th meeting indicated that addressing these issues was a recommendation of the Lahey Report. To quote a phrase from the August 20th session, finding “true north” for EAC lies in determining how much DLF has moved forward with fixing the issues identified with the FMG's by Lahey's expert team.

Several points are concerning at this early stage of the process:

- Acknowledging that the full, revised FMG package hasn't been seen yet, based on the proposed changes discussed on August 20th it isn't clear that the deficiencies mentioned above have been addressed. Rather, the proposed revisions appear to re-classify former clearcut/overstory

removal/seed tree harvests as “salvage with retention” or “variable retention.” Unless the problems that Dr. Seymour identified are addressed in the updated guides, we can expect the guides to continue to over-prescribe heavy cuts only with more tree retention than has been the case in the past. From clearcutting to overstory removals & seed tree harvests and now to salvage cuts & variable retention. Simply not good enough.

- Dr. Seymour’s report included a list of recommended steps to fix the FMGs, some of which DLF appears to be taking into consideration (e.g. addressing natural disturbance regime issues, including irregular shelterwood as an option in the guides, increasing awareness of horizontal structure). But the proposed changes outlined on August 20th don’t make it clear that the biases towards higher removal harvests have been addressed.
- Including “Irregular Shelterwood” as an option in the guides is a good first step but this should be the predominant method of harvest in the matrix. Nova Scotia is over a decade out of step with other regions of the Acadian Forest in implementing the only silviculture system designed for ecological forestry in our forest region (more on this below). This system is highly adaptable, and as Dr. Seymour indicated during the August 20th session, most of the harvesting in the matrix *should* employ one of the many variants of the irregular shelterwood system if Nova Scotia wants to achieve ecological forestry.
- It is highly concerning that DLF doesn’t appear to be revising definitions for stand maturity and acceptable growing stock that so heavily influence decisions in favour of heavy cutting within the existing FMGs. The definitions for maturity have been called “questionable” and “a relic of a past era” by Professor Lahey’s expert team. Allowing high levels of otherwise healthy trees which do not have saw logs present to preclude multi-aged silviculture is a glaring error for a guide which must now be reoriented to achieve the goal of maintaining or restoring LIT species representation under the concept of ecological forestry on the matrix lands. These two issues must be dealt with for DLF’s revision to have any credibility.
- There remain several other missing elements when considering the conclusions and recommendations from the Lahey Report. There isn’t an explicit path to forest restoration apparent in the proposed changes and the concept of *ecosite* doesn’t appear to have been included. Section 14 outlines several key points that are aimed at reversing the trend of “Borealization” of the Acadian Forest, and these need to be incorporated when revising the FMG’s. This is important considering that the most common forest management approach in the province in the recent past has been clearcutting with little or no follow up silviculture. Many stands will be degraded with respect to LIT species representation and structural diversity and the FMG’s must orient prescribing foresters in a path of reversing this trend. It’s unlikely that the proposed “salvage with retention” and “variable retention” will accomplish this. Additionally, the Nutrient Budget Model (NBM) hasn’t been incorporated into harvest decision-making in the guides. Decisions about retention levels will be influenced by this information if the NBM is effectively included in the planning process. Also, it isn’t clear how on-going work related to Natural Disturbance Regimes (NDR’s) will impact decisions within the guide as well. Updating information on NDR’s will also influence retention levels and spatial configuration of retained structures as DLF seeks to accurately define appropriate biological legacies at the ecosite level.

- The process to update the FMG's appears rushed by an end of year deadline. Yet, as indicated in the Lahey Addendum, "in virtually all jurisdictions where the triad has been attempted, implementing meaningful changes toward ecological forestry on the dominant matrix has been the most difficult challenge." This immense challenge is complicated by the fact that, as the report notes, "long-term examples of multi-aged silviculture of the sort that would better embrace ecological forestry are uncommon in Nova Scotia... Unlike other provinces and US states, Nova Scotia has no long-term silviculture research installations that include such silvicultural systems, so some practitioners are reluctant to embrace practices that seem novel and locally untested." At the session last week one licensee even went so far as to indicate his own fear at the notion of having to implement irregular shelterwood systems on Crown lands.
- During the August 20th session, DLF staff expressed a lack of experience and prior knowledge of irregular shelterwood systems, and were unfamiliar with published research on these systems that was well known and over a decade old (additionally, information on irregular shelterwood systems and the research behind them was heavily cited in Phase Two of The Natural Resources Strategy in 2010). It remains to be seen if DLF will be able to fully embrace ecological forestry without additional training and capacity building within the staff being tasked with this important work. It's also difficult to see how DLF staff can accomplish this task when working under overly optimistic political deadlines.
- Implementing Ecological Forestry on Crown lands is not immediately dependent on revising the FMG's. There are more immediate steps that could lead to better outcomes on the ground and help improve the FMG's through increased knowledge and capacity building within the DLF staff leading the project and the licensees and professionals who will ultimately be using the tools in the field. Specifically, there is great need for some on-the-ground examples of these treatments (more on this below).
- The approach overall to implementing ecological forestry seems timid, fragmented and poorly coordinated at present. There are overlapping issues being dealt with by separate internal DLF teams engaging stakeholders through different processes. Consider that two of DLF's projects – the FMGs and Natural Disturbance Regimes (NDRs) – were both cited in section 14.3 as needing to be addressed under the context of the FMG's. How can DLF rush ahead with changes to the FMG's by year end without also addressing the NDR issues? Equally as concerning is the lack of any proposed changes to land use and landscape-level planning on Crown lands at present.

Given these concerns, the Ecology Action Centre recommends:

- Ensuring the stated biases that lead to over-prescription of high removal harvests are addressed in the revised FMG's. The FMG's themselves should be renamed "Silviculture Guides" and overall be more flexible and less prescriptive. Section 13.3.3 indicated that "the Guide in its current form is highly prescriptive and would likely benefit from relaxing many of the detailed decision criteria while keeping within clearly defined ecological sideboards." The proposed changes seem to be moving in the opposite direction than that recommended by Lahey's expert team. One approach would be to classify all potential silviculture systems as either "Restoration" or "Multi-Aged Silviculture" systems. Restoration harvests could consider stands that have lower levels of LIT species than required for traditional irregular shelterwood variants, while those that do have the required composition would fall under appropriate irregular shelterwood variants based on factors such as current stands conditions, ecosite, updated NDR's, NBM, etc.
- Re-orienting the timeline for the FMG project so that the aim is for a significant upgrade to the Interim Retention Guidelines by year end while work continues developing much-improved FMGs. Fully updating the guide in line with Lahey's recommendations requires other on-going work to be completed (ex. Integrating Nutrient Budget Model and updated Natural Disturbance Regime) and, as indicated in the Lahey Report, implementing ecological forestry on the matrix using these guides is arguably the most difficult task of all facing DLF as a result of the Lahey Report. Given the lack of experience both DLF and licensees have with these techniques, not to mention the stated industry resistance to their uptake, this is a longer-term endeavour and should not be rushed if more time is needed.
- Retaining Dr. Seymour in the near term to lead on-the-ground training for DLF staff, licensees and members of the stakeholder advisory team present on August 20th. There is an opportunity to implement these practices on the ground in the very near future and providing working examples of ecologically based harvesting is exactly what is needed right now in order to address the lack of experience with this treatment that the sector collectively has in Nova Scotia at present. This will also allow willing private landowners and private land managers to see these treatments applied to Crown lands and begin their uptake on private land as well.
- Establishing the promised Stakeholder Advisory Committee to guide implementation of the overall government response to the Lahey Report. This will help address gaps in the governments proposed actions presented above and ensure better coordination within DLF and among stakeholders.

In conclusion, the proposed changes to the Forest Management Guide are insufficient and seem to be designed to simply increase the amount of trees left behind in clearcuts under a variety of different names with some (but not enough) consideration for age classes. The underlying, but unstated, consideration/problem here seems to be more about minimizing wood supply impacts to industry than truly embracing ecological forestry and nurturing/restoring multi-aged forests that support biodiversity and fully-functioning forest ecosystems on the matrix lands. The question here is do the proposed changes achieve the Lahey goal of achieving multi-aged silviculture on the overwhelming majority of the matrix?. Based on the proposed changes, the answer is no. The proposed changes fall well short of our understanding of what the Lahey report has called for and is unlikely to meet public expectations of "Ecological Forestry". The FMG still needs a lot more work and improvement and better coordination with some of the other moving parts of Lahey Report implementation.

Thank you again for the opportunity to be engaged in this process.

Sincerely yours,



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Ecology Action Centre