Considerations submitted to the Independent Review of Forestry Practices

Values, legislation, policy and practices

In our democratic society, we believe that shared community values are used to formulate legislation that governs the actions of citizens, organizations, industries and government. The legislation provides the broad outlines of how we should behave and what happens if our actions overstep these boundaries. Government policy documents issued by specific commissions provide the directions that we should follow. The "we" includes not only private citizens, but also private and public organizations. However, we are confronted with an array of legislation, sometimes based on differing values and stemming from periods with distinct social and environmental outlooks.

In the area that touches upon forestry practices, Nova Scotia has many pieces of environmentally friendly legislation (for example, the Environmental Goals and Sustainable Prosperity Act from 2012) and government policy documents (the 2010 report from the consultation on the Natural Resources Strategy: A Natural Balance) that recognize the multiple values forests have and that stipulate a lighter hand in the harvesting of our forests. Recognition at the federal and provincial levels of a crisis in species diversity with ever increasing numbers of species at risk, led to the federal Species at Risk Act and its provincial equivalent. Recognition of the drastic climate change facing our planet has led the federal government to insist that provinces either adopt a carbon tax or implement cap and trade policies. These policy documents suggest that considerations of ecological balance are crucial in the development of practices that affect a major portion of our natural surroundings, in this case our forest.

However, Nova Scotia also has legislation that relies upon rather different value systems such as the Forests Act from 1989. This act explicitly states that the primary aim of forest management in Nova Scotia is to enhance exploitation of our woodlands. The act is 'directed towards ... developing a healthier, more productive forest capable of yielding increased volumes of high quality products.' Provision is made for 'maintaining or enhancing wildlife and wildlife habitats, water quality, recreational opportunities and associated resources of the forest' (S. 2(e)), but the thrust of the legislation is to enhance the forest's capacity to support the harvesting and manufacturing of timber. Our provincial Department of Natural Resources sees this as the primary, if not only role, of our forests. Forestry practices promulgated by the department favour plantation forestry, even aged management, monoculture, harvesting efficiency and herbicide use to remove hardwoods. In the perspective of the Forest Act, the role of our forests as carbon sequestering machines is ignored, their role in the maintenance of habitat for species at risk is minimized, their role as an economic driver of the tourism industry is ignored and the ecological consequences of a major switch in forest ecology (from a mixed multi age Acadian forest system to a short lived even aged boreal forest) are not considered.

Based on existing legislation, government position papers and our current knowledge base, how do we identify the core values that should drive forestry practices in this era in which climate change is an overarching given? Are there alternate visions of the

importance of forests that should be integrated into the management of forestry practices? Potential candidates include the Mi'kmaq vision, a non-industrial but utilitarian vision, a conservation/restoration vision and a global warming vision. Restoration of the ecological integrity of the mixed, multi-age Acadian forests is key to the core values underlying all but the industrial forestry vision. Restoration of this ecological integrity requires changes in harvesting methods with a massive reduction in the extent of clear cutting, both on crown and private lands. The economic integrity of rural communities would benefit from the restoration of the ecological integrity of Acadian forests. Harvesting that protects the canopy with the attendant protection of soil from erosion is essential. Favouring partial harvests, outlawing whole tree harvesting, lengthening the rotational period during which trees are allowed to grow are all means by which harvesting could continue but have a markedly reduced ecological impact.

Forestry practices were recently the subject of an excellent, thorough review involving extensive consultation with stakeholders from industry, environmental groups and the general public. The results of this review, formulated in the Natural Resources Strategy, were meant to apply from 2011 to 2021. The key recommendations of this review included limiting clear cutting to 50% of harvests, prohibiting glyphosate spraying and regulating whole tree harvesting. The science concerning harvesting practices in Nova Scotia, particularly in the southwest with our poor granitic soils, has not changed since the Natural Resources Strategy was adopted. The perils of glyphosate spraying with its probable impacts on human health and demonstrated impacts on biodiversity are becoming increasingly apparent. Nonetheless, in August 2016, when most folks were enjoying the end of their summer vacation, the Liberal government pulled back from these key recommendations of the Natural Resources Strategy. No scientific justification was given for these changes, but clearly they fit the agenda of industrial forestry.

DNR has a team of foresters examining forest structure and ecology. They have carried out extensive studies of the disturbance regimes in Nova Scotia's forests. The underlying premise of this work is that harvesting forests is equivalent to natural disturbances. Clearly this premise could be debated, but as with premises of any study one accepts them and carries on. DNR argues that forests in specific areas should be harvested in a fashion equivalent to the area's natural disturbance regime. This is the basis of their much touted "ecosystem based landscape level planning". To evaluate the disturbance regimes typical of different regions, the current forest composition was evaluated and compared with historical records of forests previously in the area. Pits were dug to obtain information from soil profiles, including the presence of charcoal in the soils. Charcoal provides evidence of former fires, but cannot, without carbon dating, indicate when these fires occurred. These studies of the disturbance regimes characteristic of Nova Scotia's forests conclude that 52% of our land base is subject to infrequent or gap disturbances while 42% supports forests that presumably originated from frequent disturbances (Neily et al., 2007 citing Stewart et al. 2003[1]). Frequent disturbances are considered to be equivalent to clear cuts, whereas infrequent or gap disturbance regimes would best be replicated by selection harvesting. If DNR bases

[1] Neily, Quigley and Stewart, 2008 DNR Report Forest 2008-5

their forest harvest classification system on these disturbance regimes, as they claim, why then are more than 90% of the harvests on Crown land, throughout the province apparently irrespective of ecoregion, soil type, landscape, clear cuts?

Solutions:

Decrease clear cutting!
All of the above argues strongly for markedly reducing current levels of this destructive process.

Increase transparency and accessibility of DNR science

Much good work is done at DNR but it is extremely difficult for the public to access the information obtained by researchers at DNR. Data concerning forest stand structure and abundance is difficult to obtain and researchers have needed to resort to freedom of information requests to obtain often partially redacted data. Basic survey data of resources on Crown land should be easily accessible. Publishing in peer-reviewed journals should be the norm for government scientists and use of open access journals would facilitate public access to DNR science. As a journal editor, I understand full well the difficulties of producing reports that are appropriate for scientific journals. However, peer review of important position papers such as the evaluation of natural disturbance regimes would markedly increase their credibility.

Increase public involvement in land use planning

Currently, land use planning in DNR is extremely difficult for the public to evaluate. Crown lands are distributed throughout the province and many people's lives are directly affected by decisions made in a DNR office. Public consultation of harvest plans is only possible once almost all of the planning has been done (including the pre-treatment assessments). The online portal (Harvest Plans Map Viewer) allows the public to check where the next clear cut (oops, harvest) will be. If there are concerns, the individuals have a short period (typically 2-3 weeks) to express themselves. Queries are directed to the consortium of mill operators (WestFor). To have any impact upon the planned harvest operations, a massive community campaign with representations to MLAs, the cabinet, to the premier, to media outlets, online petitions etc. need to be raised. Sometimes, there have been adjustments in the harvest plans. This process is inherently inefficient and could be avoided if there were more meaningful consultation with communities before advancing to the pre-treatment assessments. DNR claims to have stakeholder consultations before consolidating its harvest plans, but as far as I understand, these meetings provide little concrete opportunity for discussion or modification of DNR's plans. The implication of the consortium of mill operators in the planning of harvests in southwest Nova Scotia is quite concerning. While apparently DNR maintains some say over where harvests should occur and whether pre-treatment assessments are properly done, having a consortium of industrial mills control the use of Crown lands provides a bad image at best. Significantly, public outcry over the role of WestFor in the harvest process was a major public concern that led to this independent forestry review.

Living up to our obligations to protect endangered species

Both the maintenance of healthy biodiversity and protection of endangered species rely heavily on protecting our forests. Nova Scotia's auditor general has taken the current government to task for not living up to these commitments. In his 2016 report, the Nova Scotia Auditor General criticized DNR for not meeting its responsibilities to conserve, protect and recover endangered species. He found no recovery or management plans for five of nine endangered or threatened species. The remaining plans were six months to more than seven years late. Three of five vulnerable species did not have management plans. There were no recovery teams for four of nine endangered or threatened species (listed under the provincial Endangered Species Act). Four recovery plans for these species were overdue for review. The Auditor General cited a recent study on threats to endangered species in Canada, which indicated that loss of habitat is a major risk factor for most of these species. He added that 'protection of habitat goes beyond protection of endangered species individually to that of their supporting ecosystems.'[2] The understanding of the interspecific interactions that underlie forest health is growing rapidly, and underscores the need to tread lightly on our forests as crucial complex interactions are easy to disrupt and hard to restore. The importance of multispecies interactions (between fungi, invertebrates) in favouring forest regeneration speaks strongly in favour of uneven aged management, leaving the canopy standing, and strongly against clear cutting.

Recognition of the importance of forests as agents of climate change mitigation

Forests have considerable value as carbon sequestering systems, but only if they are left standing! Although the mandate of the review is to examine forestry practices, I believe that the review needs to consider the major contribution that our forests could make in cap and trade systems. The Department of Environment has outlined the general framework of Nova Scotia's coming cap and trade market, but most aspects remain to be established. In a cap and trade market, all owners of standing forests, be they private or governmental, should be able to obtain credits for retaining standing forests. Efforts underway to inform small wood lot owners of these possibilities should be encouraged.

Consider implementing marketing boards coupled with selection management as done in mixed hardwood/conifer forests in Québec and Ontario

The selection management process for mixed hardwood/conifer forests that has been implemented in Québec and Ontario creates rural jobs and pays small wood lot owners much more for their harvested material. Tree markers, retrained harvest machine operators, monitors and inspectors cooperate to make this work. The higher fees paid to private woodlot owners are offset by higher stumpage fees on Crown lands. Large industrial landowners receive less for their logs than small wood lot owners. In these plans, subsidies paid to mills for road development and in some

[2] Nova Scotia. Auditor General. 'Report, 2016', p. 52.

cases reforestation have been ended. These jurisdictions operate on a much longer rotation (100 years) and no more than 10% of the land can be cut in any given year.

Decommission existing biomass plants

In the attempt to decrease reliance upon fossil fuels for generation of electricity, the use of forest biomass was mistakenly considered to be advantageous in many jurisdictions, including Nova Scotia. Unfortunately, generating electricity from biomass is inefficient, producing more CO_2 than coal for an equivalent production of electrical power. Biomass use for electricity generation is far from renewable, given the lengthy time required to regrow forests on our poor granitic soils. The strong public reaction against the use of biomass for power generation led to nearly 30,000 people to sign my petition 2 years ago. This reaction was one of the reasons that the Healthy Forest Coalition arose. The token reductions in response to this public outcry were not enough. The use of biomass for power generation must be stopped and existing biomass electricity plants must be decommissioned, if Nova Scotians want to be effective in our actions against climate change.

Forested landscapes are important in attracting tourists to Nova Scotia

Nova Scotia benefits considerably from tourism. Tourism brings more employment to rural areas than forest harvesting. The number of visitors from outside our province keeps growing, partly as we are seen as a safe destination. More and more industries focus upon tourism. Companies are attracting tourists by organizing back-route cycling, selling slow food culture, showcasing local foods as well as cider and wine production. All of these activities benefit from our beautiful landscape. Intensive clear cutting ruins this landscape and shocks visitors. Tourism helps scenic areas benefit from their beauty. However, mistaken actions such as the recent clear cut harvest by Northern Pulp in the Wentworth Valley can seriously impinge upon these touristic ventures. Few people want to visit clear cuts. Forestry practices must be planned and evaluated through the lens of preservation of attractive landscapes. Beauty strips are not enough!

Respectfully submitted,

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