Ecological

Forestry Forum

Truro - June 25, 2019





Overview of the Event

On June 25, 2019, the Department of Lands and Forestry hosted a stakeholder engagement session to provide an opportunity for forest policy stakeholders to learn about our progress on, and provide feedback related to, implementing ecological forestry in Nova Scotia. The half-day session was held at Dalhousie University's Agricultural Campus in Truro.

The Honourable Iain Rankin, Minister of Lands and Forestry, opened the day by outlining progress underway and introducing some of the academic and expert advisors involved with the project teams. The Minister then spoke to the necessary culture shift required to move to the triad model of ecological forestry, indicating that he felt is was essential that forest policy stakeholders be a part of this vitally important conversation. Notably, he also highlighted the Department's need, and commitment, to become more open and transparent in its information sharing, communications and decision making. As part of this commitment, the Minister announced his intent to create a stakeholder advisory group to, amongst other roles, assist the Department in identifying opportunities to effectively deliver on Professor Lahey's recommendations.

Minister Rankin's remarks were followed by an update by Deputy Minister Julie Towers, on the Department's progress on priority projects and how we are working with external experts to implement ecological forestry (presentation available on our Ecological Forestry Implementation website here: **novascotia.ca/natr/forestry/Forest_Review/**). Those in attendance then had an opportunity to ask the Minister and Deputy Minister questions. A recording of both Minister Rankin's and Deputy Minister Tower's remarks can be found at **novascotia.ca/natr/forestry/Forest_Review/**.

The second half of the agenda included interactive sessions to seek stakeholder input on the Department's plans to implement recommendations from the Independent Review of Forest Practices.

Stakeholders had the opportunity to participate in facilitated discussions on their choice of four out of eight key projects underway. These projects included:

- Forest Management Guide
- High Production Forestry (leg of the triad)
- Natural Disturbance Regimes
- Old Forest
- Outcomes-based Forest Management
- Reporting on the State of the Forest
- Small Scale Wood Energy Initiative
- Species at Risk Program Renewal

Participants received an overview of each project (also published on our Ecological Forestry Implementation website **novascotia.ca/natr/forestry/Forest_Review/**) and the facilitated sessions were guided by three questions to gather participant feedback:

- 1. What would be your top criteria of success for this project? (tailored question for each project)
- 2. What is the top question/concern you have about this project?
- 3. What does future engagement on this project look like to you?

Participants

Forest policy stakeholders and partners came from across the province to learn about our progress and to share their feedback with us. Invitations were sent to 208 organizations and individuals, and a total of 97 participants attended, including representatives from forest sector businesses, industry and professional associations, large and small private landowners, non-governmental organizations, academia, Mi'kmaw conservation organizations, municipalities, and individual citizens. The Department also received 8 email submissions to provide further input and feedback from participants or those unable to attend in person.

Summary

Numerous overarching and cross-cutting themes emerged throughout discussion of the eight projects. Participants spoke to the need to enable multiple uses on Crown Land and find a better balance in forest management. There was wide recognition that the eight projects are interconnected and that this may affect their design and implementation, with broad interest in establishing clear objectives that support the measurement and communication of progress toward intended outcomes.

Participants raised questions around implementation, for instance, certainty of wood supply and how the transition to ecological forestry would be facilitated, including understanding the cost implications and economics of full implementation. We also heard questions about sequencing, and about recommendations for which the Department has yet to develop a plan (Western Crown Land Planning, for instance)

Accounting for the role of biodiversity as well as the impacts on biodiversity within projects was of concern. Climate change was identified as something that would impact ecological conditions, and by extension the eight projects and their stakeholders, while also being affected by project implementation with implications for commitments toward managing carbon. There were discussions about how linkages on a landscape scale (for instance, those between private and Crown land, or populated areas and forestry activities), might affect project design.

As the Department moves forward, participants asked that we reach out to different audiences to consult and consider their concerns, and when clarifying and communicating project updates and subsequent changes. Private landowners expressed concern and uncertainty around how implementation of ecological forestry might affect them, now and later. Comments related to public trust and the need for public support called for efforts to increase awareness, education and engagement. On a related theme, participants called for projects to be science-based and informed by research, but also to balance expertise with consideration of public interest, including the different interests affected by the implementation of ecological forestry.

Regarding future engagement, participants supported early and ongoing engagement that is inclusive of diverse interests, particularly those directly affected, and includes an opportunity to engage in policy making. There was general interest in hearing from the Department how their feedback will be used.



Project-Focused Small Group Discussions

The following is a summary of what we heard from participants on June 25th. It is not meant to be an exhaustive account but an overview of the themes that were highlighted during break-out sessions on each of the projects, based on the three questions posed to participants.

Appendix A provides a full transcription of flip chart notes created for each project in the breakout sessions.

Feedback received from participants or those unable to attend in person as requested by email before the July 5th deadline has not been incorporated into the summary of small group discussions but has been organized by project. It is presented in Appendix B to this report.

This report reflects the input that has been provided to the Department. All feedback will be shared with, and considered by, project teams in their work.

Forest Management Guide (FMG)

We heard that an updated Forest Management Guide (FMG) must be operationally and economically feasible for on-the-ground operators. As part of this, clear and achievable outcomes are important for the consistent and successful implementation of the FMG. The objectives of the revised FMG should likewise be clearly defined and consider non-timber uses for the forest as well as "futureproofing" the forests to ensure sustainability. Participants expressed a need for a more user-friendly FMG, including an executive summary for private landowners that have less technical forestry knowledge and visual tools to assist understanding of the different prescriptions. Participants also expressed a desire for more flexibility in the revised FMG to allow them to deal with the variability of forested areas.

Participants expressed concern about the tight timeline of the revised FMG project and about how it would align with and inform Outcomes-Based Management and existing regulations (including Species at Risk, silviculture, etc). We also heard a desire for more training, education, and support to accompany the FMG.

We heard from participants that they would like to see the prescriptions in the FMG tested through a demonstration forest, or with volunteer help from private landowners. A diverse stakeholder panel was highlighted as an important engagement mechanism going forward. This panel could include industry and private stakeholders, academia, and environmental and community groups. Significant engagement with the Mi'kmaq was also highlighted as an important action.

High Production Forestry (HPF)

Certainty and economic sustainability were identified as important criteria for the long-term success of HPF. For this reason, site selection must be carefully considered, with participants speaking to a need to focus on value and not just volume. We also heard that there needs to be a clear definition of what treatments are included in HPF (e.g. as it may affect silviculture funding), as well as how HPF will address other forest values.

We heard that many criteria for success were reiterated as concerns: site selection, and the long-term viability of HPF areas were common themes. Participants expressed that all legs of the triad need to be designated at the same time to ensure that areas best suited to each are identified. There should also be some guarantee the HPF areas will not be reclassified. Other site identification issues include consideration of proximity to habitation and protected areas as well as adjacency issues and consideration of buffers.

Participants expressed an interest in being involved in identifying criteria and site selection. Landowners and those involved at the operational level in particular, expressed a desire to have representation on a project committee. We also heard that the Department should pursue a public communication strategy with an educational component about HPF.

Natural Disturbance Regimes (NDR)

We heard that a robust science-based approach to identifying all natural disturbance agents is an important criterion for success. Participants also shared that NDR should be linked with the Forest Management Guide to ensure that forest management emulates natural disturbances as closely as possible both for the short- and long-term, potentially with support from nutrient budget modelling (e.g. to specify how fire disturbance might be best replicated).

Participants stressed the importance of looking to the future, and how climate change will lead to changes in Natural Disturbance Agents. We heard that science must take precedence over politics in forest management decisions, and that local expertise could be leveraged to investigate Natural Disturbance Agents like fire or invasive species. Participants asked whether NDR would influence the High Production Forestry leg of the triad, and whether there would be assistance for private woodlands to incorporate NDR in their forests, for instance through restoration of forest ecosystems or through finer detail mapping of NDRs.

We heard that the Department should regularly communicate ongoing research. Participants suggested email briefings, interactive panel discussions, and opportunities for feedback as possible engagement tools.

Old Forests

Participants communicated that an effective Old Forest Policy needs clear definitions of what constitutes "Old Forest" and accounts for distinctions between softwood and hardwood, and between individual old growth trees, stands, and forests. Clear targets that reflect multiple values and objectives were also identified as important, specifically, targets for each vegetation type with the capacity to evolve as forest features are affected by climate change. Participants stressed that definitions should be easily understandable by laypersons and that there should be an educational component to share what Old Forest looks like.

Participants were concerned with representation of ecosystems, especially wetlands, and implications for climate change adaptation and mitigation. We heard concerns around "cherry-picking" specific values and that the policy could be watered down by rushing and simplification. Participants also questioned how management techniques could be used to identify and manage small sections that have old growth value, particularly on private lands.

We heard that future engagement opportunities for this project should include landowners with an interest in private land conservation. Different stakeholders should be involved in the vetting process for definitions and descriptions for use by specific audiences, including scientists, woodlot owners, forest practitioners, and the public. The Old Forest team was also told that working closely with carbon modeling teams is crucial.

Outcomes-Based Forestry

Participants identified economic values such as timber supply and quality; social and cultural values such as recreation and traditional Mi'kmaq cultural and spiritual activities; and ecological values such as mitigating and building resiliency to climate change, as key values to incorporate into a Nova Scotia Outcomes-Based model. We also heard that third party certification could play a significant role in helping to establish values and indicators, and in ensuring outcomes are being met.

A major concern that was highlighted was around how to define and prioritize outcomes and indicators that are representative, measurable, and achievable in the context of overlapping and sometimes competing objectives (e.g. ecological values and sustainable rural communities). We heard that the model must include adaptive management practices to account for the timelines of outcomes and changing forests. Participants identified public trust issues as a significant area of concern – for example, trust in the government's role, and trust that outcomes are being monitored and enforced. We also heard comments about the timing for the implementation of an Outcomes-Based model; that it cannot be implemented until many of the other policies and practices to support ecological forestry have been established.

We heard that future engagement on Outcomes-Based Forestry should take a regional approach with engagements across the province and an increased capacity for regional offices to take on engagement activities. Woodland conferences and town halls were identified as opportunities for increased engagement. Participants expressed that the Department should engage diverse stakeholders, including landowners and people who cannot come to meetings like the Ecological Forestry Forum, but who would like to be engaged directly in the policy making process.

Small Scale Wood Energy

We heard that wood supply is a critical criterion for success in this project. The supply must be local, sustainable, efficient to use, and traceable. Participants also identified the right technology at the right sites as important for a successful transition. Locations should be chosen based on geographic sourcing of wood and the opportunity to cluster wood heating projects and create economies of scale and long-term viability for investment. We heard clearly that there are environmental concerns that must be addressed. Research showing the effect of burning wood as opposed to fossil fuel, the effect on forest health, and the implications for climate change must be carefully considered and communicated to the public.

Environmental concerns were reiterated in response to the question posed to participants on their top question or concern about the project, specifically relating to air quality, Nova Scotia's carbon footprint, and how the Small Scale Wood Energy projects would support ecological forestry. Participants also voiced concerns about how Small Scale Wood Energy projects would be implemented in terms of the business model, regulations for equipment, criteria for sites chosen, and impacts of the free market, for instance regarding exports and special interests.

Participants identified groups that ought to be engaged, including private woodlot owners, experts in the industry, and atmospheric scientists. Participants also expressed a desire for more face to face engagement across the province with a project-specific focus and highlighted an important role for the Department in public education.

Species at Risk

We heard that coordination and collaboration with other levels of government, academia, and practitioners is a critical criterion for success to ensure a consistent and robust framework for protection of species at risk. Participants were divided on the role of private landowners. Some shared that the framework must include private land, while others believe that private landowners should be able to manage their land as they see fit. We clearly heard the need for more research to inform systematic classification, determination of current conditions, and ecosystem-level planning for species at risk that is both science-based, and operationally feasible. Participants indicated that objectives and outcomes must be clearly defined and enforced.

Participants raised concerns over the lack of previous action on this file, and the shortage of qualified wildlife surveyors as limiting the Department's capacity to make assessments. The impact of ATVs, clear-cuts, and climate change were identified as important factors to consider. In recognition of the economic barriers they face, we also heard that private landowners need more communication and support to help protect Species at Risk on their properties.

Participants recommended that a broad spectrum of interested parties, including the Mi'kmaq, experts, landowners, ecological groups, and the public, be involved in early and ongoing engagement around individual Species at Risk. Landowners expressed a desire to be involved, and recovery teams should include people who operate or manage the land.

State of the Forest

Participants indicated that Lands and Forestry has an important role in public outreach and education as well as an opportunity to build public trust through the dissemination of scientific findings. We heard that there ought to be regular and consistent reporting on the State of the Forest, in an easily accessible and understandable format that is written for a public audience. Participants recommended that the report should tie in with related reports and regional data to highlight trends.

We heard that it was important to clearly define the scope and intent of the State of the Forest report in order to reconcile the gap between public expectations and results. Indicators for social and economic impacts were identified as a gap. Participants also suggested that a robust State of the Forest report would be an excellent opportunity to restore trust in the Department and the information we present.

Participants were clear that Lands and Forestry must stand behind the findings of the State of the Forest report as the best available scientific data and communicate those findings widely. It is important for Lands and Forestry to strike a balance between highlevel and detailed information as well as between a larger document or smaller, more frequently issued, documents. Finally, we heard that the State of the Forest report should be built upon an adaptable framework, informed by previous report formats, and allowing for the addition or modification of criteria and indicators in the future.



Next Steps

The Ecological Forestry Forum provided an initial opportunity for stakeholders to be part of important changes in forest conservation and management. We will continue to engage with our stakeholders and the public as we make progress on this important work for healthier, more diverse forests with greater emphasis on biodiversity and ecosystem protection.

We have committed to a culture of openness, transparency and accountability at the Department of Lands and Forestry. This stakeholder session was a first step on our path to improving our engagement and information sharing practices. Plans are being developed for a long-term approach to stakeholder and public participation. Our work needs to be consultative and collaborative. To support us in delivering on this commitment, Minister Rankin announced at the Forum that the Department would be creating a stakeholder advisory group to assist the Department in its efforts to implement ecological forestry. This action echoes the 2011 Natural Resources Strategy action item to establish an external advisory panel, aligns with Professor Lahey's recommendations to improve our openness, transparency and engagement, and follows through on a recommendation of a recent consultant's report commissioned by the Department on engagement. More opportunities for future engagement will be informed by this advisory group and by what we heard from participants at this forum.

The Department thanks all participants for their participation and feedback as we work together to implement ecological forestry in Nova Scotia. We value your feedback. Further comments/feedback can be submitted at any time to:

 ${\bf Ecological Forestry} @ novascotia.ca. \\$

Appendix A – Transcripts from June 25th Stakeholder Small Group Discussions

PROJECT NAME: Forest Management Guide

What do you think an effective forest management guide needs to address to be successful?

- Alternative uses for forest-biodiversity, foraging, ecotourism
- Effective regenerating and tending activities
- Operationally and economically feasible and measurable
- Clear, achievable outcomes- what is the objective?
- Less prescriptive- room for alternatives
- User friendly
- Variability of forest conditions
- Talk to practitioners (2-way)- what is realistic?
- Clear wood supply objective
- Should match current guide- silviculture regulations and guide compatible
- Respect landowners' rights to manage their land
- Guide should have strong link to outcomes-based
- Did treatment meet objective?
- Flexibility to do user-defined prescription- to deal with variability
- Consider private landowners' objectives
- Free from policy interference
- Guide should match each leg of triad
- Mechanism/criteria for stand delineation before PTA
- Rationally tied to ecology forestry- clear on operational consideration
- Forest Management Guide too broad- needs to be more specific
- Visual tool to show all the different prescriptions
- Executive Summary and visuals for private landowners that have no forestry knowledge
- Have the objective defined
- Include sections in the guide as an introduction to managing for non-timber forest values
- Prescription based on science
- Objectives framed in terms of future proofing for industry, resources and ecological systems dependent upon them (and climate change)

- Guide is a guide- responsibility on license holder to meet objectives
- Don't create a bunch of robots
- No room for spatial component for PTA process
- Respect professional judgement
- Move away from stand boundary focus
- Make sure guide aligns with outcomes-based forest management
- Can't have Forest Management Guide independent from outcomes-based
- How biodiversity will be incorporated into the guide?
- Application on private land
- Is there anything in place to support landowner—funding, education
- Multiple guides for uses
- Link to silviculture reimbursement program on private land
- Is there a multi-aged portion?
- Responsibility for effects between landowners
- Training and education (tools for operators)
- Guide should match current silviculture regulations
- Will guide adequately assess/protected species at risk
- Who is target audience?
- Money to support new silviculture methods
- Earlier engagement with private landowners
- Do things right on crown land before private
- · Continual improvement on data capture software
- Very ambitious timeline
- Who are targeted stakeholders initially given tight timeline?
- How to measure success and tie it back to outcomes-based forestry

What does future engagement on this project look like to you?

- Cole's notes version for small private landowner and public
- How much happening on the ground
- Collaboration on success and failures
- Field tours to see what trying to do
- Create and gradually build on it
 - Continual improvement
 - Allow what is put in place to be put in practice
- Permanent research to examine successes and failures
- Diverse stakeholder panel/committee plus community groups and knowledge
- Significant engagement with the Mi'kmag
- Engage specific active stakeholders
- Consider alternative methods of receiving feedback (email not always accessible)
- Use private landowners as guinea pigs for software before its final
 - Private landowner/org. volunteers
- Demonstration forest
- Hearing back on how feedback is implemented

PROJECT NAME: High Production Forestry

Note: * is used to identify comments that were reiterated by other participants

What would be your top criteria for success in this project? What would a successful high production forestry model need to include? What would it exclude?

- Balance wood supply*
- Amount of Area dependent on types of Treatments
- Timing (Future Supply) *
- Incorporate Private Land* Forest management planning
- Linkages between Forest Practices Review Projects.
- Economics are spelled out
- Incorporate Other VEC's (Valued Ecosystem Components; values) recreation
- Rehab good sites
- Transition Plan, how do we get there?
- Stated A.A.C. (Annual Allowable Cut)
- Financial Commitment*
 - Genetics
 - Program (silvi.)
 - Overall
 - Per hectare
- Work dictates A.A.C.
- Close to mill
- Best sites
- Right species for site
- Certainty (then Best Site Selection)
- Long-term (20+ years)
- HPF Hardwood species not a barrier, E.g. Presence currently as fail for plantation Pre-commercial thinning
- Value & Cost as well as Volume*
- No political micro mgmt.
- Tenure reform
- Be strategic with respect to social acceptability
- Modern tools: LIDAR etc.
- Best Trees
- Monitor Soil, Wildlife, Water
- Scorecard (accountability), beyond timber supply
- Open up Silvi. Funding cap for large landowners
- Proximity to protected area and to habitation
- Concentrated vs. Fragmented
- High Quality Forest Products
- Sustainable yield at the site level (soil concern)
- Incorporate research Improve model
- Focus on value vs.volume

- Transparency around cost/benefit (of HPF)
- Broaden definition of HPF, beyond plantation
- HPF as part of land use planning process*
- Other land use, e.g. Areas that are suited for matrix being directed to HPF
- ID Matrix lands and lands that can be resourced to matrix, upfront

- Hard ceiling on area* (look at whole package)
- Modeling alongside criteria
- Incorporate range of VEC's upfront
- Cost implications for Crown Land Harvest
- Labour availability down the road (to do the work required)
- Considering hardwood (funding access)
 - Quality
- Best R.O.I. (certainty)
- Industrial Forestry should have different requirements for public acceptability
- Long range certainty for Independent Operators**/ (and for) HPF Leg of Triad
- TimeLine: Fibre shortage now, 2020 is 2 operating seasons away
- That HPF gets confined to poorest sites
- Need goals
- Good HPF gets reclassified as protected areas
- Over-taxing/sterilizing soil
- Economics
 - Prox to mill
 - Silvi. Investment
- Lack of Buffer zones
 - neighbours
 - Water, blow down
 - What else? Draw on science
- Volume at expense of economic value
- Assumption that volume = value
- HPF for pulpwood; Economic value of this
- Natural regeneration is not included as HPF
- All legs of Triad should happen at same time/mix across land
 - Timeline to see it coming together
- If HPF is first, may inadvertently apply to areas better suited to other legs of triad
- Biomass for electricity

What does future engagement on this project look like to you?

- Frequency
- Before policies are made
- Engaged on specific criteria*
- Engaged on site selection*
- Keep moving/sense of urgency
- General public comms. strategy/education
- Representation from operational people (on teams determining specific criteria and site selection)
- Representation from landowners (on teams determining specific criteria and site selection)
- Follow up on people's contributions.

PROJECT NAME: Natural Disturbances Regimes (NDR)

What would be your top criteria for success in this project? What are the key challenges to effective preparation of the foundational scientific paper on natural disturbances regime agents?

- Integration with FMG
- Loss of ND is accounted for
- How are NDRs accounted for in calculation of AAC (annual allowable cut)?
- NDR vs. landowners' interest how is NDR to be included in their mgmt. of forests?
- Influence of Private landowners as a group
- Take into account all factors
- Fire vs. clearcutting
 - Retention any formula
 - (FM Guide)
- Science (e.g. climate change)
- Impact of ND
- Scale
 - Micro
 - Macro
- Long Term Prediction (100 yrs.)
- Finer scale in detail mapping
- + science into modeling (include annual cut)
- Scenario planning for disturbance losses
- Budworm strategy healthy forest
- What are set points starting point (i.e. 100 yrs ago, pre-European settlement etc.) from which to guide future forest mgmt.
- Real NDs (True)
- Incorporate Nutrient budget modeling (NBM)

- How to reflect current Δ 's?
- Subsidy for restoration on private woodlands
- Access to data, including maps
- ND (e.g. Fire) harvesting? Or not on crown land?
- Paper
- ND CFMG
- Papers Challenges
- Role of Human induced fire
- Will there be more than one academic paper?
- Post fire landscape vs. Post clear cut
- Common agreement on setpoint
- Larger agreement about role of NDR of stakeholder working group
- Trust between gov. & the public
- Fire due to lack of hard wood
 - Need mixed forest
- Balance on "Value of Fibre"
- Invasive species
- Timeline of 1st paper (peer review)
- Unknown ND agents how to account for these?
- U of Ottawa's expertise vs. existing expertise why not stay local?
- Political consideration
- NDR in Intensive leg of the TRIAD?

What does future engagement on this project look like to you?

- Email briefing, feedback
- Communicate ongoing research
- # of stakeholders
- Interaction panel discussion

PROJECT NAME: Old Forests

What does the Old Forest Policy need to include in order to be effective?

- Within 125-year age softwood/hardwood/etc. age definitions. 1 age paintbrush does not work
- Include stand structure: Diversity in age; structure; ground; in definition/evaluation
- Targets for how much (%) of old growth should vary be veg type
 - Building in potential old growth stands
 - Inclusion of previously managed stands
- Re-evaluate the policy (a tool can be set aside within policy) to assess if policy is effective
- How can licensees increase the proportion of the forest to old growth? can more than 8 percent be conserved?
- Definitions:
 - Old growth tree
 - Old growth stand
 - Old growth forest
- Definition clearly recognizable when you are in an old growth stand or forest
- Operationally and cost efficient and effective
- Include old growth role as carbon sink
- Nova Scotia is the most vulnerable to climate change in Canada, possibly the World
- Old forests are most adaptable to climate change
- Old forest role and value
- Old forests are most important: use as criteria for selection in Protected Areas
- Objective is not yet clear protection? Prescription?
- What species? should edaphic species, esp. wetland like black spruce
- Restoration pathway
 - Use indicators: do both protection and prescription?
- Factors to consider
 - Policy on Crown
 - Concerned on private land rights
 - Our Nova Scotia hardwoods differ from Acadian Forest in New Brunswick
 - More carbon sequestering in mixed forest
 - Mortality of hardwood full life cycle
- Include all forest types
 - Current policy = climax forest
 - Want in new policy = wet forest/ non-traditional
 - = edaphic and non.
- Expansion of methodology
- ID old growth conditions in non-edaphic types
- Definitions non-scientific terms: Old growth, Old forest

- Consider current state of forest and what it could be
- Should be additional considerations on stands e.g. hemlock
- Good base inventory existing layer
- Share Pre-treatment Assessment findings
 - o Good record keeping of stands that are identified and scored as old growth
 - Mapping
- Inclusive of smaller stands
- Definition:
 - Old growth
 - Old forest
- Clear goals and objectives
- If disaster hits-fire/insect: what happens to the forest?
- Forests are not static, as they change what do we do?
- Chasing value of the day
- Look at/give consideration to enduring geological features
- Sharing data with public not just shape files
- Give people the ability to go see an old growth forest
- Raising awareness
- How to apply policy on 3 legs of triad? Particularly the middle leg (private and crown), how to manage for old growth characteristics
- Does old growth have to be a stand? Or can you leave old trees? Are values for old trees or only old forests?
- Write policy clearly and able to be understood technically, professionally and in laymen's terms

- Clearly communicate and educate across the province
- Types of trees that can deal with the earth's emergencies
- Hardwood vs softwood
- Once reaches 125-years can't be harvested (killed the industry)
- Look at hardwood industry 125-year cap is a concern
- Work with industry
- Just because it is a park should not mean you can't cut trees
- Ability to manage forests
- Ability to manage forests to be older
- Potential to cherry-pick specific values. Take time to get it right
- Concern that policy could be watered down
- Private landowners do not always share where Old Growth is
- Protecting Old Growth on private
- How to manage stands that contain small sections of Old Growth/that have Old Growth value. Primarily on private.
- Looking for a guide to assist private landowners to ID Old Growth/Old Forest on their properties
- Keep technical and professional. Don't water it down

- Species consideration in West.
- Will old forest ID be included in the pre-treatment assessment?
- What is old growth?
 - o Definition size, species
 - How to recognize it in operations
- Hemlock Wooley Adelgid: Role within selection criteria
- Considerations outside immediate stand
- How can we get these forests to deal with carbon sequestering?

What does future engagement on this project look like to you?

- Department lacks in long term research, evaluation and follow-ups
- Working with projects (non-department)
- Modeling and carbon modeling working together
- Identification and engagement with landowners with conservation easements or interest in private land conservation regarding old forest policy
- Develop and Vet definitions and description for use by different audiences
 - Scientists ecological criteria
 - Woodlot owners applicable and understandable
 - Forest practitioners measurable/efficient
 - Public understandable/conceptual

PROJECT NAME: Outcomes-Based Forestry

What would be your top criteria for success in this project? What are key forest values that you think need included in a Nova Scotia Outcomes-Based model? Examples: Biodiversity, Soil Health, Water quality, Recreation, Timber supply, etc.

- Certification: FSC values and indicators, SFI
- Sustainable Rural Communities
- Key Performance Indicators on Mean Annual Increment
- Mitigating climate change
- Criteria on growing wood supply
- Multi-use
- Community engagement
- Biodiversity
- Multi species
- Communication/education
- Species at risk recovery, rare priority species, not designated etc.
- Clear goals and objectives are well defined
- Timber Objective
- Climate Change Resiliency
- Landscape considerations, scale considerations, site specific considerations
- Viewscapes
- Soil quality

- Economic indicators, job/value creation
- Recreation/hiking trails
- Age/species diversity
- Water quality/quantity
- Social and cultural values
- Key indicators, Mi'kmag practicing cultural and spiritual activities on the land
- Wildfire
- Clear definition of outcomes-based forestry, that is not open to interpretation
- Timber quality
- Maximization of multiple values
- Carbon sequestration

- What criteria will be used to "score" the values
- How do we see success with what we are working on now?
- Achievability can we realistically do this/realistic goals?
- Government changes regularly
- Overlapping/competing objectives
- Well-defined measurable outcomes (simplified mgmt. guides.
- How can we achieve outcomes using silviculture?
- Timelines around outcomes can be long. How do we deal with this?
- How will it be monitored? 3rd party? Public involvement?
- Short-term political objective interferences
- How to determine targets & indicators for each identified value
- How do we develop trust around delivering outcomes?
- Misalignment between Forest Management Guide and Special Management Practices for biodiversity indicators
- Concerns around "outcomes" vs. Prescriptive approach
- Concern around abdication of government responsibility
- Intention for this to be implemented on private land?
- Timber objective?
- Lahey recommendation #21 identified 5 pre-conditions for outcomes-based forestry. Placing a priority on this project seems to be out of sequence with the pre-conditions.
- Responsibility and Accountability
- Roles and Responsibilities what happens when you don't achieve an outcome
- Long-term implementation of outcomes based. Does this align w/values of private landowners? Private landowners should be involved in conversations throughout the process.
- How do you lock down the values, throughout the whole strategic and tactical plans?
- Needs flexibility
- What does outcome-based forestry look like? Current vs future state, education
- Timelines around outcomes? And milestones?

- Prioritization of objectives
- At what scale will the objectives be set at?
- How will the results be communicated?
- Clearly defined outcomes that are unambiguous and measurable
- How do we account for changing values and forests?
 - Adaptive management
- Consideration of herbicide use

What does future engagement on this project look like to you?

- Involvement with landowners
- Forums like this in different locations for engagement
 - More localized/across the Province of Nova Scotia
- What could an engagement opportunity look like?
- More interactive sessions about outcomes-based forestry @ the woodland conferences
- More capacity for regional offices to engage community
- Involvement of stakeholders on project teams
- Multi-stakeholder panel
- Engagement of people that work in the industry but don't come to meetings (e.g. people driving trucks, work in the mill, etc.)
- How do we talk about and provide feedback on the things that Lahey didn't mention? (e.g. Biomass for electricity)
- Email to share information and elicit feedback
- Consulting with a diverse group of licensees on outcomes
- Stakeholders being engaged in policy making
- Engage stakeholders that are actively part of the process
- Interactively
- Town halls
- · Industry/private landowner engagement

PROJECT NAME: Small Scale Wood Energy

What are the most important criteria needed to effectively transition to small scale wood heat energy systems in provincial buildings?

- Desire and Leadership to do it
- Vibrant forest industry
- Security of supply
- Technical ability to work equipment
- Specific equipment information
- Design of buildings new vs retrofit
- Logistics of delivery get it there, store it, etc.

- Current infrastructure and equipment not in the province at this time big vs small scale receiver
- Going to small scale can increase costs, will need some type of subsidy to cover and make it beneficial
- Definition of what is "small scale" for the purpose of this project
- Truro and Liverpool examples of potential economies of scale and staying local. Cluster of potential operations (pool, hospital, etc.)
- Some level of engagement for project/meaningful impact need to look at HRM.
- Small Cape Breton communities with cluster of school, Hospital, government offices surrounded by forests
- Supply
 - Sustainable appropriate wood
 - Including price (being sustainable)
 - Currently a couple of inefficient burners in the province
- Selling excess energy doesn't begin to dominate
- Right technology
 - Efficient machines
 - Specifically, the use of gasification systems
- Price Dependent
- Measurable improvement in forest health, health of community
- Supply comes from sustainable source however you want to define that
- Small scale wood energy will become part of the market in Nova Scotia. Concern that it doesn't shift the market price implications if that happens
- Collaboration with other organizations doing the same things (Western Woodlot Services Cooperative
- Sourcing wood from small woodlot residuals and silviculture thinning, not cutting specifically for chipping
 - o This could include agriculture land already cleared
- Geographically sourcing not shipping from one end of the province to the other, within a specific distance
- Public education on why it is good/benefits
- High efficiency minimum standards that makes it justifiable
- Should not be a question of "how" to transition but "should" we transition. Climate change crisis.
- Should be thinking of how to down scale what we've already done (damage to environment)
- Research on carbon going into the atmosphere using wood versus fossil fuel
- Where is the wood coming from?
- Will there be a management guide on where wood will come from whole tree,
 etc. need to look at economically viable
- Make the change make sure it will work long-term and won't be a waste of money
- Make sure we are not building more capacity that we can support

- Business model owner, operate and maintain ownership?
- What are the criteria for the sites chosen types of buildings
- Regulations European equipment may not meet Nova Scotia Regulations
- How are you going to get Private sector to buy in if there is not a timber supply objective? "longevity". Not mentioned so far today.
- Small scale should be coordinated with small wood lot owners
 - Make sure it is not using quality timber for biomass
- Wood heat vs wood energy difference between the two
- Not totally convinced burning wood is the best course
- Demonstrate difference between wood vs oil. Renewable vs non-renewable
- What is the scale for individual facilities?
- Need to seek out people with vested interest in topic they are the experts
- Are the other benefits being looked at as part of this process?
- Not be added to highly inefficient systems. Close big biomass generators
- Export needs to be stopped. Need to undo the wrong to explain the benefits
- Free market impact implications these need to be understood
- Will be side-tracked by special interests may be discounted
- Will get "gobbled" up by lowest cost bidder
- Has to support ecological forestry
- Where are we going to using this Rural vs urban potential for air quality issues (smog)
- Ensure that this will not increase carbon footprint. Ensure full accounting for this is done equation takes into account all
- Emitting stored carbon monoxide and nitres oxide into the air by cutting. Study results need to be considered in decision making
- Why are we doing this?
 - Save money?
 - Economic development?
 - o More efficient?
 - Carbon footprint reduction (compared to oil)?

What does future engagement on this project look like to you?

- Provide clarity of what the project is
- Large room not ideal noise
- Dedicate a longer amount of time to each topic individual sessions for each topic
- Face to Face maintain this level of engagement
- Would like to see this brought across the province
- Regular and consistent communication with all groups involved
- Show the public the forestry behind where its going
- Showcase technology
- Multi-stakeholder round tables

- Measurable progress and doesn't get sidetracked by change of political priorities
- It is transparent
- Do it for a whole day to give more time per topic. Maximum value from input
- Connect stakeholders with concerns with stakeholders involved in topic smaller groups
- Department get partners to help with public education
- Continue having diverse groups involved
- Like to have atmospheric scientists involved in the process 0 international not local (Mary Boothe from Mass involve her)
- More time spent on each topic
- More advance information on individual topics that will be discussed at session.
 Allow people to prepare where they want to participate in in advance

PROJECT NAME: Species at Risk

What would be your top criteria for success in this project?

- There needs to be collaboration between provincially owned land and Crown land so that the same consideration is applied
 - Example: Highways go through whether there is a raptors nest or not. Need to be equally applied.
- Leverage Federal government recommitment to Species at Risk
- Ensure a strong framework to connect and facilitate collaboration with government/Academic/practitioners.
- Focus on communication data and outcomes
- Focus on framework that includes private land.
- Need a way for the public to report problems and the Department to respond
- Need transparency
- Needs to be operational and economically feasible
- Need enforcement: boots on the ground
- More integration in approach: ecological rather than species by species
- More intentional resourced systematic inventory of Species at Risk (currently relies on naturalists and amateurs to identify species at risk)
- More research as to why Species at Risk are dying. For example, why mainland moose are dying (root cause)
- More research on impacts on plants/vegetation and what to do when species at risk are found.
- Private landowners shouldn't be liable. Determine fair standard of care. Need for compensation re. testing. Landowner relies on information that they receive
- Species at risk needs to feed into Forest Management approach
- Need for inventory mapping of Species at Risk for industry and private land.
- Consideration of climate change
- Need for understanding of Species at Risk- goals and Objectives

- Need for alignment for federal and provincial work
- Need science-based approach to policy development: conservation doesn't' always = recovery
- Measurable objectives
- Good enforcement while minimizing operational economic impact
- Need clear guidelines on how to work within recovery plan
- Recovery team have broader expertise (currently have only expertise in wildlife)
 e.g. crown land license on other implementation
- Need more focus on outcomes
- Need 3rd party oversight on Species at Risk outcomes
- Need broader objectives rather than focus one species. Except in cases where we need to be specific e.g. lichens

- Need to follow through
- Lack of consultation on private land
- Lack of robust process prior to clear cuts
- Shortage of qualified lichen surveyors
- Clear pathway for Species at Risk to be incorporated in forest management
- Lack of communication with private landowners
- Need to see actual progress. We have been working on Species at Risk for 20 years but haven't seen change
- Concern over lack of action. It shouldn't require taking government to court
- Lack of goals and objectives. Need baseline data. Focus on outcomes
- Education/outreach to private woodlot owners on what they can do (Create a Coles Notes for private woodlot owners)
- Barriers to private woodlot owners: need for funding and education, recognition of economic impact
- ATVs have impact on Species at Risk. Need for more government action
- Landowners- no control on impact on dust on road. Need engagement on what's practical
- ATVs and other land users have an impact on Species at Risk
- Identify gaps and knowledge-- peer reviewed science
- More diversity among working groups for plans for Species at Risk
- Displaced animals related to forestry operations
- Balance- How recovery plan will impact landowners
- Impact of fines/compensation on landowners
- More qualified people to make assessments (surveyors)
- Need inventory of Species at Risk

What does future engagement on this project look like to you?

- Plan for engagement for private landowners
- Be clear on action items and next steps
- Ensure consideration for expertise re. level of input- some stakeholders may not have expertise and are given the same weight.
- Need early ongoing engagement
- Need active landowners involved in panels
- Need for involvement of first nations
- Include/engage landowners. Organize conversations around specific Species at Risk (e.g. turtles)
- Membership on recovery teams: include people who operate or manage the land.
- Include broad spectrum of stakeholders including broader groups- ecological groups and public

PROJECT NAME: State of the Forest

What would be your top criteria for success in this project? What would be an effective way to present information in the State of the Forest Report to make it more easily understood?

- Links to outcomes-based Forestry and Forest Management Guide
- Relatable and understandable format for the public
- Possibly produce a simplified summary document for public use
- Jurisdictional scan on reporting mechanisms
- Breakout information by regions
- More regular reporting schedule
- More consistent timelines for trends
- Coordinate with other reports
 - Registry of buyer
 - Agriculture
- More department involvement on public outreach education
- Build of public trust
- L&F need to be the ones who say it
- Timely report
- Positive public education, speak on forest health
- Develop public trust through research and science
- Easier to read and relate to
- Report on Activity to show increase and improvements
- Tie with registry of buyers and including regional data, looking at trends in Silviculture data.
- Engage the public best we can
- Report in a way the public can understand

- Include what the products are being used for and where they're going
- Opening Canopy size reporting (example)
- Better, communication of Forestry techniques proactive

- What are we reporting on?
- Reporting on Forestry and Forestry Activities?
- Gap between public expectations and results
- Don't make it a design by committee
- Clarify intent of report
- Does the report need to exist?
- An average, not an on the ground understanding
- Return to straight forward reporting mechanisms of 90's
- Lack of established credibility
- Credibility is fractured
- Cover social indicators current gap
- Good info on economic/social impacts
- More access to info, difficulty finding info
- Volume of wood chips import/export (example)
- CCFM criteria framework as a model
- Soft announcements just positive document

What does future engagement on this project look like to you?

- People want to hear from the government
- Balance of straight reporting and high-level information
- Higher level acceptance by public
- Education on forestry, increase understanding
- Engage issues head on
- Balancing forestry, environment, social economic
- Model after EGSPA reporting framework
- Smaller, more detailed document more frequently
- See a framework of report, jurisdictional examples and best practices
- Stand behind and defend findings
- Development of feedback mechanisms for report
- Getting good baseline to build from

ADDITIONAL COMMENTS: all projects

- High Production Forestry:
 - Southwest Nova has wood supply, should be milled locally (needs mill capacity)
- Small Scale Wood:
 - Has there been discussion about spraying as part of the overall process?
- State of Forest:
 - Definition of "clearcutting" & other forestry terms
 - Educate the educators re: forestry practices in state of forest report
- Forest Management Guide:
 - Use mother nature as a teacher work with it instead of dominating
 - List outcomes meant to be achieved
 - Importance of communication piece to general public about ecological forestry

Appendix B – Email Feedback

The following feedback was sent to the Department by email and was received prior to the July 5, 2019 deadline. Feedback below is presented verbatim however, to facilitate its consideration by project teams, the Department and the wider stakeholder community, this information has been organized by project. Comments pertaining to future engagement as well as general comments are found at the end of this section.

PROJECT NAME: Forest Management Guide

- Will the Forest Management Guide allow for variability? Can it be less prescriptive to allow for the very different areas we are faced with in our province? Long-term, permanent research areas would allow for true science to be presented on the efficacy of uneven-aged management.
- That trees are left to grow to maturity before being harvested...the future
- To review and update the current Pre-treatment Assessment (PTA) Process and the Forest Management Guide (FMG) to focus on long-lived, uneven-aged management species in support of the sustainable use of Nova Scotia's natural resources
- · And restoring or promoting our Acadian forest, using the PTA module.,
- Must be designed to meet goals of forest management eed to be practical prescriptions, not unworkable

PROJECT NAME: High Production Forestry

- High production forest should be weighed equal to protected lands.
- High production forests should be identified in areas of previous high production treatments (i.e. Bowater lands that were already managed well for high production forestry).
- Must include a framework to meet high levels of success for the re-establishment
 of crop trees desired in a commercial forest. This requires sites having vigorous
 land capabilities, which will meet acceptable growth rates and timber quality. As
 high production forest managers we need to utilize all the tools in the box which
 must include: Intensive plantations, vegetation management of unwanted species
 using manual and chemical methods, tree improvement techniques, fertilization,
 and pre commercial and commercial thinning treatments.

- Will the High Production Forestry sites be protected as such for long-term certainty that investment today will see fruition down the road? It is no use to identify crown land sites for high-production forestry today, spend lots of money on silviculture treatments in those areas, only for them to be identified for another use in ten years and all that investment be wasted. Once designated, High Production areas should be protected for forest management for the next 100 years (or more) to make it true to its name. As we all know, managing forests is a long-range game.
- I think silviculture has to be included to grow as much wood as possible in longerlived species (red spruce, tolerant hardwoods etc.), stands made up of shorterlived species (fir, etc.) near maturity should probably be clear-cut and replanted
- I think spraying should be excluded in all forests.
- Active harvesting and silviculture methods in promoting forest improvements and developing a healthier forest, plus promote future regeneration. Exclude the noise and make sound forestry decisions.
- Needs to have at least the same allotment as the protected areas, but also needs to be the stable portion of the supply model for the industry. If the sawmills are currently short by 200,000 GMT then we need to have enough high production forest to at least add the missing volume, sustainably over the long term.
- Key to allow use of every tool in the silviculture toolbox to allow as much wood to be grown, and harvested, once designated. Allow certification and BMP's to establish what is acceptable or not for available silvicultural tools.
- Use only best growing sites to ensure growth is truly maximised. There's no sense limiting with less productive sites requiring more area.

PROJECT NAME: Outcomes-Based Forest Management

- It is agreed that in order to maintain our goal of forest sustainability in NS we require certain outcomes for our soils, water quality, wetlands and riparian zones, wildlife habitat, aesthetics, and all aspects of biological diversity. However, we must maintain a balanced approach without sacrificing these values. For [Sender redacted for anonymity] the key area to be maintained when moving forward with an outcomes-based model is timber supply.
- In order to grow and sustain our industry we need to improve timber quality and quantity. Actively managing our Crown lands will reduce the forest's susceptibility to disease, insect infestations, and damage caused by fires, windstorms, and the ever-increasing effects of climate change.
- I think soil health is one of if not the most important factor in any healthy forest and should be a main value in the outcomes-based model.
- All levels in this model require some values in forest management, in the crown and private sector in general. Landowners should have the right to do what they feel is best for their woodlot, and their interest shall be included in any decision being made,

- Need to stop changing the plan every election cycle and dwelling on individual issues or there will never be a known outcome to derive the necessary objectives to achieve a set of outcomes.
- If government wants to steer forest development in a certain direction then government (and public) need to be prepared to share in the cost of the achievement, not just industry.
- Need to consider known outcomes from other regions.

PROJECT NAME: Small Scale Wood Heat

- It is paramount that the initial projects are a success. I have worked on this file for more than 7-years and although I'm very anxious to get started, these early projects will either green- or red-light future wood energy projects in Nova Scotia Prudence in implementing Phase 1 is of the utmost importance.
- There is a willingness amongst small-private woodlot owners to invest in wood energy projects. This willingness is tempered by providing sustainable forestry while being economically viable. A single project in a rural community is unlikely to be a viable business. Proponents of Phase 1 require confidence that additional opportunities are possible to soon cluster other projects.
- Wood energy projects/clusters need to be near forestry producing areas.
 Extended transportation of wood energy chips makes no economic or environmental sense. Equally, establishing wood heating projects in an area in hopes of developing a forest industry, lacks common sense. Phase 1 & Phase 2 projects need to be in areas that are currently producing wood.
- Consider Phase 1 projects as demonstration sites. Extra effort should be taken in selecting projects that can be showcased and leverage for Phase 2. Accessibility, aesthetics, proximity to forest producing fuel, etc. are all important in the ability to demonstrate success.
- Traceability for where fuel is from & what process produced it. Mandatory & auditable record keeping for fuel providers.
- Reporting. Dovetail the fuel wood consumption into the registry of buyers
 reporting system. This represents some challenges as individual heating projects
 will require less fuel than what triggers a registry of buyers reporting, however
 society will want to know details of how the forest materials are used and
 regenerated.
- Very practical for use of unmerchantable products
- Gives landowners with stunted, small diameter stocking an option to take management control
- Important that full tree harvesting not be eliminated as an option for harvesting; lower cost removal, scarification of ground allowing faster seed set.

PROJECT NAME: Old Forest

- Need to include industry and a range of private lot owners to determine what the desired outcome should be of an old growth policy. Eventually the forested areas within the protected areas will become old forest.
- There needs to be a clear distinction between managed uneven aged forest and protected old growth
- Old growth areas should not be limited to better sites with larger trees. A representative portion of poorer forest sites (coastal, wetlands etc.) needs to be considered as a portion to reduce the attraction to old large trees

PROJECT NAME: State of the Forest

- When the government prepares the State of the Forest report, why is it not toted as the true science of the State of our Forests widely? Stop giving environmental groups the opportunity to present their side first and then have to defend. Rather widely disperse the State of Our Forests report to schools and publicly accessible places like libraries and in the media. Make a big splash when it comes out, talk about the amount of research that goes into developing it. In a world where everyone can be an expert, we need to work harder for the actual experts to be heard!
- Can the government provide a detailed report on where we are at now? What is our starting point before we undergo all of this change? If our focus is going to change to ecological forestry with a new Forest Management Guide and all that comes with it, then we first need a detailed State of the Forest Report today to know what we're working with as a whole.

PROJECT NAME: Species at Risk

- At what point in time does the province review the existing program and policies to ensure the measures we are currently applying on the landscape to protect certain species (e.g. Mainland moose) are relevant and are achieving any results?
- Going forward we must ensure that managing species at risk needs to be based on science. Forest managers from private and Crown need to play a key role in the development of special management practices and new recovery strategies.
- Protection and enforcement of their habitat.
- Renew and update the species at risk program, more data needed on research on what the actual numbers are and whether there is a need for more species to be added to list for protection or not.
- Needs to be based on science and include private landowners and crown land managers to develop the practices and strategies
- Species at risk information is not made available to public or industry, how can gov't expect the public or industry to use it properly?

Engagement

- Build on the regional woodland conferences. Make them real opportunities for interaction between the public and DLF; hold them more frequently; stop telling woodlot owners and the public in general what policies will be imposed upon them and start inviting them to contribute to the development of policies.
- Hold sub-regional mini conferences to generate in-depth discussion of significant issues, such as techniques of selection management or how to provide for species at risk or managing for climate change, etc.
- Recent changes in the PTA process have meant that public input will be considered as part of that process, and not, as the add-on it has been in recent years. That is a step in the right direction. But it would be worth considering whether regional foresters should be encouraged to actually engage with the members of the public who try to present their views when harvest areas a publicized. Such engagement could lead to sensible compromises over harvesting plans. It would certainly recognize that members of the public who are familiar with their own neighboring forests are often much more knowledgeable about those forests than the 'experts' in Halifax, Truro and even regional offices. It would also do something to restore a capacity to connect the centre of the Department to public input at the local level.
- All of these suggestions emphasize local interaction with the Department. I think that if you really want to rebuild broad public confidence in DLF that is a very important. The big policies are vital, but if local operators, woodlot owners and the public generally have not been involved and there has been no attempt to build those policies on a broad public consensus, then events such as the Ecological Forest Forum will have very little effect.

General

- There was some validity to the reasons Minister Rankin gave for the choice of projects, but the choice itself suggested that forest production is still top of mind in the department.
- Despite the title of the forum, not a single break-out group was asked to explore the meaning and operationalization of 'ecological forestry'.
- Biodiversity has acquired a new importance, but it clearly is not the pre-eminent concern that Lahey advocates in the introduction to his review and in Recommendation 19.

- Minister Rankin referred to the challenges posed by climate change, but there
 was little evidence to suggest that DLF is giving climate change mitigation
 the priority that the dire predictions from the Intergovernmental Panel on Climate
 Change would warrant. Yet this department could do as much or more than the
 rest of the Government of Nova Scotia put together to mitigate global warming if
 it adopted just two policies:
 - (1) recognized that the maintenance of intact forests is one of the most effective ways to mitigate climate change, and
 - (2) recognized that harvesting and burning biomass to generate electricity absolutely does not create 'green energy'.
- With all changes to forest practices, it's not only important to maintaining a vibrant forest industry, it's essential. Being in one of the highest cost jurisdictions in North America, great care must be taken to ensure the industry remains. This is a key element of actually being able to afford to practices ecological forestry in Nova Scotia. No money = no management.
- Include Industry as a key stakeholder in the development of the 4 main projects Outcomes based forestry, high production forestry, forest management guides, and species at risk renewal.
- Private land changes should respect the rights of the landowners
- Maintain acceptable wood supply during transitional phases and ensure new regime satisfies the sustainable demands of the industry.
- All of these changes will have impacts to all aspects of harvesting. These costs
 cannot only be covered by harvesting contractors and markets. Landowners will
 need to share in these costs.



