

FSC Boreal Ontario Standards

April 30th Consensus Draft

Process supported by:
The Richard Ivey Foundation
Canada Life
Canadian Forest Service
FSC Canada
WWF Canada

Coordinated by:
World Wildlife Canada

TABLE OF CONTENTS

UNDERSTANDING THE DRAFT BOREAL ONTARIO STANDARDS & PROCESS.....3

PRINCIPLE 1: COMPLIANCE WITH LAWS AND FSC PRINCIPLES.....5

PRINCIPLE 2: TENURE AND USE RIGHTS AND RESPONSIBILITIES8

PRINCIPLE 3: INDIGENOUS PEOPLES' RIGHTS..... 10

PRINCIPLE 4: COMMUNITY RELATIONS AND WORKER'S RIGHTS..... 15

PRINCIPLE 5: BENEFITS FROM THE FOREST 21

PRINCIPLE 6: ENVIRONMENTAL IMPACT.....25

PRINCIPLE 7: MANAGEMENT PLAN 40

PRINCIPLE 8: MONITORING AND ASSESSMENT..... 44

PRINCIPLE 10: PLANTATIONS47

GLOSSARY 50

REFERENCES 55

APPENDIX A: LIST OF RELEVANT PROVINCIAL & FEDERAL LEGISLATION 56

APPENDIX B: INTERNATIONAL AGREEMENTS 60

APPENDIX C: PROPOSED HANDLING OF TENURE ARRANGEMENTS 63

APPENDIX D: BACKGROUND NOTE ON INDIGENOUS PEOPLES IN ONTARIO 65

APPENDIX E: MAP OF TREATY AREAS IN ONTARIO 67

APPENDIX F: SAMPLE RUTTING & COMPACTION STANDARD 69

APPENDIX G: LIST OF FSC PROHIBITED CHEMICALS 71

APPENDIX H: MEMBERS OF THE BOREAL ONTARIO FSC WORKING GROUP 73

APPENDIX I: EXPLANATION OF BRACKETED TEXT 74

Understanding the Draft Boreal Ontario Standards & Process

What are these standards?

These standards are the culmination of over two years of work by the Boreal Ontario FSC Working Group (see Appendix H for a list of Working Group members). In undertaking this task, the Working Group's goal was to draft practical FSC standards for Ontario's Boreal Forests that would:

- *promote healthy forest ecosystems by respecting natural patterns and processes and the variety of life supported by our forests*
- *promote northern communities and economies*
- *respect and provide for Aboriginal and treaty rights*
- *promote integrated forest use incorporating a range of users of timber and non-timber values*

In October 2001, after two years of deliberations and consensus building, the Working Group submitted the standards to a seven day field-test exercise on two Sustainable Forest Licenses in Ontario. The standards were then revised based on the field-test results. In February 2002, the Working Group met for a final four-day session in an effort to reach agreement on all outstanding differences. The Working Group made tremendous progress on resolving these differences and while some bracketed text remains in the document (see discussion below), the members have agreed, at this time, to respect these differences and to submit the standards to FSC Canada for input into the National Boreal Standards Process.

What Will Happen to the Boreal Ontario Working Group?

Those members that are interested will now be shifting their focus from the development of a draft standard for Ontario to participation in FSC's National Boreal Process. To that end, they will be working to ensure that the National Boreal Standards adequately address issues of concern in Ontario and respect the spirit and intent of what was agreed to in the draft Boreal Ontario standards. The Working Group will also play an ongoing role answering interpretation questions related to the standards that may arise from FSC Canada, forest companies, certifiers and other interested parties.

What Status do the Standards Have?

While they are not being submitted to FSC for any formal endorsement, these standards will have the status of any "draft" FSC standards. At a minimum, any certifiers conducting assessments in the Boreal region of Ontario will have to give consideration to the Standards when developing their audit checklists. In practice, and until an accepted draft of the National Boreal Standards is completed, these standards will provide critical guidance to both forest companies seeking FSC certification and certifiers conducting FSC assessments in Ontario.

These standards will also help frame a First Nations consultation process being coordinated over the next 18 months by Nishnawbe Aski Nation, Grand Treaty #3 and FSC Canada on communities expectations of forest certification.

Why is there no Principle 9?

Principle 9 has been the subject of some debate within the FSC system since its revision in January 1999 to its current wording. Within the last year and a half, significant effort has been made to provide clarification to the meaning of Principle 9 by groups such as the FSC Principle 9 Panel of Experts. Given the evolving discussion and clarification over Principle 9, the Working Group has decided to use their involvement in the National Boreal Standards Process to help regionalize the meaning of Principle 9 for Ontario.

What Does Principle 10 on Plantations Mean?

The FSC's defines plantations as:

“Forest areas lacking most of the principal characteristics and key elements of native ecosystems as defined by FSC-approved national and regional standards of forest stewardship, which result from the human activities of either planting, sowing or intensive silvicultural treatments.”

The Working Group has decided that the current levels of planting on Crown land boreal forests of Ontario are not considered to result in the establishment of “plantations” according to the FSC's definition. In other words, while planting does take place in Ontario's Boreal forests, the current focus in this standard on returning the stand to a natural condition that is suited to the eco-site means that they are not truly “plantations” in the FSC's sense of the word.

In reality, there are currently few or no “plantations” in Ontario that meet the FSC's definition of the term. In fact, the establishment of “FSC-type” plantations on Crown lands is currently not allowed in Ontario. As a result, no sub-criteria have been developed for Principle 10 as it is deemed to be not applicable at this point in time. Forests being audited for certification in the Boreal Region of Ontario must do so under the requirements of Principles 1 through 9.

However, the Province of Ontario is currently investigating allowing more intensive forest management on a limited portion of Crown forests. As a result, the Working Group recommends that Principle 10 and the issue of certifying plantations be revisited during a future revision of this standard, or during the development of a National Boreal Standard, once the provincial direction on this issue is more clear.

What does the Bracketed Text Mean?

There are seven sub-criteria (out of more than 140) within the Standard where bracketed text occurs. Quite simply, these are areas where the Working Group was not able to resolve their differences despite hard efforts to do so. The Working Group has chosen at this time to respect and accept these differences of opinion, and to pass the Standards on to FSC Canada as valuable input into the National Boreal Standards Process. To help readers and users of these Standards better understand them, Appendix I summarizes the nature and extent of the debate over those areas in the Standards where bracketed text occurs.

Want to Find Out More?

For more information on these Standards, the process followed to develop them or FSC's National Boreal Standards Process, please contact:

FSC Canada Working Group:

Marcelo Levy, Standards Coordinator
100 Broadview Ave, Suite 421
Toronto, ON., M4M 3H3
PH: 416-778-5568
FAX: 416-778-0044
Email: mlevy@fscCanada.org

Principle 1 – Compliance with laws and FSC Principles

Forest management shall respect all applicable laws of the country in which they occur, and international treaties and agreements to which the country is a signatory, and comply with all FSC Principles and Criteria.

FSC Criterion

1.1 Forest Management shall respect all national and local laws and administrative requirements.

1.1.1 The applicant is aware of and understands the legal and administrative obligations pertaining to conducting forest operations.

Examples of regional performance indicators

- Up-to-date copies of relevant legislation, regulations and administrative requirements are accessible by forest workers.
 - All forest workers display working knowledge of legislation, regulations and administrative requirements;
- **Interpretation Note:** The intent here is that both management and forest workers of the applicant (including contractors) are knowledgeable of legal requirements relevant to their job description.

1.1.2 The applicant demonstrates a good track record of compliance with relevant federal, provincial and municipal laws and regulations (see Appendix A for a list relevant laws and regulations).

Examples of regional performance indicators

- Records indicate satisfactory results in periodic compliance inspections with agencies responsible for enforcement of regulations
- Record of self compliance monitoring indicate satisfactory results

1.1.3 The applicant undertakes specific corrective actions when incidences of non-compliance are identified.

Examples of regional performance indicators

- Records indicate corrective actions taken
- Discussions with Government inspectors/compliance staff indicate corrective actions taken

FSC Criterion

1.2 All applicable and legally prescribed fees, royalties, taxes and other charges shall be paid. Examples of such fees include:

- Forest renewal trust fees
- Crown stumpage fees
- work place safety insurance board assessments,
- land use permit fees
- municipal taxes
- Goods and Services Tax

Examples of regional performance indicators

- Maintains verified financial records demonstrating that all applicable and legally prescribed fees, royalties, taxes and other charges have been paid
- The applicant is in good standing with government agencies with respect to prescribed fees, royalties, taxes and other charges.
- The applicant is in good standing with government agencies with respect to prescribed fees, royalties, taxes and other charges

FSC Criterion

1.3 In signatory countries, the provisions of all binding international agreements such as CITES, ILO Conventions, ITTA, and Convention on Biological Diversity, shall be respected.

1.3.1 The applicant is aware of and understands the legal and administrative obligations with respect to international agreements (see Appendix B for a list of binding international agreements).

Examples of regional performance indicators

- Up-to-date copies of relevant international agreements are accessible by appropriate forest workers.
- Appropriate forest workers display a working knowledge of legal obligations with respect to international agreements.

FSC Criterion

1.4 Conflicts between laws, regulations and the FSC Principles and Criteria shall be evaluated for the purposes of certification, on a case by case basis, by the certifiers and the involved or affected parties.

- **Interpretation Note:** To the best of the Working Group's knowledge at the time of drafting, there are no conflicts between this draft regional standard and any laws and regulations governing forest management in Ontario. As laws and regulations may change, the expectation is that applicants will identify and document any potential conflicts.

FSC Criterion

1.5 Forest management areas should be protected from illegal harvesting, settlement and other unauthorized activities.

1.5.1 Measures are taken to prevent illegal and unauthorized activities in the forest being audited for certification.

Examples of regional performance indicators

- Performs periodic surveillance activities
- Promotes protection of managed forest through public education and public notice
- Reports observed infraction to appropriate authorities

FSC Criterion

1.6 Forest managers shall demonstrate a long-term commitment to adhere to the FSC principles and criteria.

1.6.1 The applicant has made a publicly available written commitment to adhere to the FSC Boreal Ontario Standards for the life of the management plan for the forest being audited for certification.

Examples of regional performance indicators

- Written commitment to Boreal Ontario Standard exists for forest that is publicly available

1.6.2 A strategy exists to move other forests managed by the applicant to a management regime that is consistent with the FSC Principles and Criteria (e.g. grounded in similar management philosophies, ecological frameworks and balancing of values and objectives)

- **Interpretation Note:** The intent here is not that the company or license holder seek FSC certification on all of the forests on which it operates. Rather the intent is they have in place a strategy to ensure, over time, that their other forest operations demonstrate a similar balancing of values and objectives as contained in this standard.

Examples of regional performance indicators

- A written strategy exists

1.6.3 Applicant will require contractors undertaking forest management activities on the forest being audited for certification to comply with these standards.

Principle 2 – Tenure and Use Rights and Responsibilities

Long-term tenure and use rights to the land and forest resources shall be clearly defined, documented and legally established.

FSC Criterion

2.1 Clear evidence of long-term forest use rights to the land (e.g. land title, customary rights, or lease agreements) shall be demonstrated.

Examples of regional performance indicators

- Produces a map with clearly established and delineated boundaries or private property boundary lines;
 - Has a signed license with the Crown or establishes a contractual relationship with the landowner;
 - Land deed or legal document substantiating ownership and access and harvesting rights exist and can be produced;
 - The applicant employs techniques to ensure that forest management occurs within the area of long-term tenure;
 - Where property boundaries are not clearly delineated, consultations with adjacent land-owners shall confirm acceptance of boundary lines.
-
- **Interpretation Note:** There are varying tenure arrangements on public land in Ontario (e.g. sustainable forest licenses (SFLs) held by one company, cooperative SFLs, third party licenses). Please see Appendix C for the handling of certification under different licensing situations..

FSC Criterion

2.2 Local communities with legal or customary tenure or use rights shall maintain control, to the extent necessary to protect their rights or resources, over forest operations unless they delegate control with free and informed consent to other agencies.

-
- **Interpretation Note:** This criterion and its subcriteria deal with both legally granted use rights and the customary uses of local communities and individuals. In reality, there is a spectrum between these two and both are addressed equally here. Examples of legal and customary uses include land use permits, trapping, firewood/energy sources, berry picking, hunting and fishing, use of hiking trails and canoe routes, etc.
-
- While First Nations have Aboriginal and Treaty rights, these have been addressed separately under Principle 3.

2.2.1 Individuals with legal use rights and customary users are identified and documented.

Examples of regional performance indicators

- Contacts individuals with known legal use rights and customary users.
- Provides public notification seeking input from individuals with legal use rights and customary users.

2.2.2 Measures have been developed and implemented to respect the legal use rights and customary uses in consultation with individuals identified in 2.2.1 (see interpretation Note for Criterion 2.2 for a discussion on customary uses and legal use rights).

Examples of regional performance indicators

- Written evidence of consultation with individuals with legal use rights and customary users in advance of harvest operations.
 - Discussions with individuals with legal use rights and customary users confirm consultation occurred.
 - Evidence of measures implemented to *respect* identified legal use rights and customary uses.
- **Interpretation Note:** These legal use rights and customary uses may be constrained if they threaten the sustainability of the forest resource and the environment. Examples of such situations include restricting access to areas that:
 - contain species that are vulnerable to disturbance
 - display evidence of abuse or vandalism

FSC Criterion

2.3 Appropriate mechanisms shall be employed to resolve disputes over tenure claim and use rights. The circumstances and status of any outstanding disputes shall be explicitly considered in the certification evaluation. Disputes of substantial magnitude involving a significant number of interests will normally disqualify an operation from being certified.

- **Interpretation Note:** Requirements for dispute resolution mechanisms regarding legal use rights and customary uses are addressed under criterion 4.5. The intent of Criterion 2.3 and its sub-criteria is to address issues related to tenure disputes of substantial magnitude involving a significant number of interests.

2.3.1 There are no disputes of a substantial magnitude involving a significant number of interests related to the operations of the forest being audited for certification.

Examples of regional performance indicators

Examples of disputes of substantial magnitude may include:

- sustained road blockades by aggrieved parties/communities
- outstanding comprehensive land claims
- lawsuits regarding legal use rights and customary uses on the forest being audited for certification

- **Interpretation Note:** Due to the complexity of issues surrounding forest management and the variety of types of disputes that can arise, it is impossible to provide an exhaustive and conclusive list. The above list is intended to provide guidance to certifiers, however decisions regarding certification need to be assessed on a case by case basis.

Principle 3: Indigenous Peoples' Rights

The legal and customary rights of Indigenous Peoples to own, use and manage their lands, territories, and resources shall be recognized and respected.

For more information on Indigenous Peoples in the boreal forests of Ontario, please see Appendix D. See Appendix E for a map of Historic Treaties in Ontario.

Interpretation Note: “Affected” communities in this Principle can generally be interpreted as communities that are within or adjacent to the forest being audited for certification or communities whose traditional territories overlap with the forests’ boundaries. The word “interested” has been used in Principle 3 to recognize that some communities may not wish to get involved in forest management. However the expectation is that sincere efforts are made to get all affected communities involved. When working with communities, sincere efforts are made to include a diversity of people including women, youth and Elders

Criterion

3.1 Indigenous Peoples shall control forest management on their lands and territories unless they delegate control with free and informed consent to other agencies.

3.1.1 The applicant keeps abreast, and is able to demonstrate in the forest management plan (or supplementary documentation) a good working knowledge, of Aboriginal Peoples and their interests related to forest lands within the forest management planning area including:

- the existence of treaty areas and the obligations deriving from them;
- the nature and extent of Aboriginal and treaty rights;
- the existence of any outstanding land claims to forested areas under management;
- the location of Aboriginal communities within or affected by the planning area;
- the Aboriginal land use activities on the forest land under management;
- evolving self-government arrangements;
- agencies with responsibility for Aboriginal affairs; and
- any court action related to resource management.

Examples of regional performance indicators

The presence of maps showing Aboriginal community and treaty areas

- The presence of studies or maps on Aboriginal values and traditional land use activities
- Correspondence with relevant government departments
- Correspondence and documents on resource-related legal cases
- Correspondence and records of meetings with Aboriginal communities and PTOs on the nature of communities, their land use and rights
- Presence of copies of relevant treaties within the management area
- Written indication of satisfaction from Aboriginal people, communities and PTOs on the applicant’s understanding of their rights
- Written indication of satisfaction from Aboriginal people, communities and PTOs on the applicant’s written record of Aboriginal interests in forest land

3.1.2 Avenues for participation in the forest management planning process have been jointly established with interested, affected Aboriginal communities.

Examples of regional performance indicators

- Correspondence and records of meetings showing Aboriginal participation
- Written indication of Aboriginal participation and satisfaction in the design of their input to planning process
- Budgets showing willingness to support Aboriginal communities capacity to participate (travel expenses, honoraria, and expenses for translation of documents, technical support, advocates, translators, etc.)
- Written indication of satisfaction from Aboriginal people, communities and PTOs on their participation in forest management planning
- Demonstrated incorporation of aboriginal input into management plan
- Decisions made and concerns expressed by Aboriginal participants are recorded in writing and incorporated into the forest management plan
- Written approval of forest management plan by affected Aboriginal communities

Option A: Aboriginal Chamber's preferred option

[3.1.3 Where Aboriginal communities are interested, and in the spirit and intent of the treaties to share resources, the applicant is working towards a joint forest management agreement with the Aboriginal community.

Examples of joint management include:

- The establishment of joint or overlapping tenure arrangements
- The establishment of joint committees or boards to oversee the development and implementation of forest management plans
- Recognition of joint management systems

Examples of regional performance indicators

- Written joint management agreement signed by both parties
- Written indication of satisfaction from affected Aboriginal communities on joint management agreement.]

Option B: Industry's preferred option

[3.1.3 Where Aboriginal communities and the **applicant** are interested, the applicant is working towards a joint forest management agreement with the Aboriginal community.

Examples of joint management include:

- The establishment of joint or overlapping tenure arrangements
- The establishment of joint committees or boards to oversee the development and implementation of forest management plans
- Recognition of joint management systems.

Examples of regional performance indicators

- Written joint management agreement signed by both parties
- Written indication of satisfaction from affected Aboriginal communities on joint management agreement.]

3.1.4 The applicant has jointly established with affected interested Aboriginal communities, long-term economic benefits from forest operations, based on the principle of a moderate livelihood, harvesting-generated revenues from such operations and economic development projects including, for example, forest management planning,

GIS, silviculture, road construction, wood processing/manufacturing and related services.

Examples of regional performance indicators

- Record of number of jobs filled by Aboriginal people
- Record of job-related, training opportunities/programs available to Aboriginal communities
- Record of partnership arrangements with Aboriginal businesses
- Record of equity ownership by Aboriginal partners
- Record of legal agreements governing partnership
- Record of transfer of revenues to Aboriginal partners
- Written indication of satisfaction from Aboriginal people, communities and PTOs on revenue-sharing, economic opportunities and participation in partnership

3.1.5 A dispute resolution process has been jointly developed with affected Aboriginal communities and is being fairly implemented for addressing and resolving grievances over:

- Participation in, and issues arising from, forest management planning;
- Issues that may arise during plan implementation; and
- Design and implementation of avenues for sharing of economic benefits and management responsibilities

Examples of regional performance indicators

- Written evidence of the Aboriginal community's approval of conflict resolution process
- Written evidence of the Aboriginal community's satisfaction with the implementation of the dispute resolution mechanism
- Track record of resolving disputes to the satisfaction of parties

Criterion

3.2 Forest management shall not threaten or diminish, either directly or indirectly, the resources or tenure rights of Indigenous Peoples.

- **Interpretation Note:** Openness, a spirit of cooperation and full sharing of information in an easily understandable form are especially desirable in the planning and implementation of forestry management activities in areas of importance to Aboriginal Peoples. Land use activities protected under treaties deserve special consideration in forest management planning.

3.2.1 In cases where overlapping Aboriginal territories give rise to disputes between Aboriginal communities related to or affected by forest management activities, the applicant does not exacerbate the situation by their actions and encourages the communities to jointly resolve these differences.

3.2.2 Where an Aboriginal community has indicated that forestry operations on a particular block or site are creating a threat of serious environmental, economic or cultural impact, forestry operations are suspended or relocated until disputes are resolved.

Examples of serious threats could include:

- destruction of burial sites, spiritual sites, spawning areas, medicinal areas, etc)
- destruction of livelihood
- damage to community water supply
- severe disruption of food chain to community]

Indicators of performance

- Records of disputes
 - Policies in place to suspend or relocate operations pending dispute resolution
 - Records of suspended or relocated operations
 - Community satisfaction with handling of serious threats
- **Interpretation note:** The intent of this sub-criterion is not to give communities a veto over forest operations or to allow communities to use it in a vexatious or whimsical fashion. The intent is that this sub-criterion would only be applied in those unforeseen “emergency” situations *or situations identified during planning* that may arise during the forest management plan’s implementation.

Criterion

3.3 Sites of special cultural, ecological, economic or religious significance to Indigenous Peoples shall be clearly identified in cooperation with such peoples, and recognized and protected by forest managers.

3.3.1 An Aboriginal land use and values plan has been jointly developed by interested and affected Aboriginal communities and the **applicant**, and implemented. This plan identifies areas of special cultural, ecological, economic, spiritual/religious and other significance and outlines measures within the forest management plan to protect these values and uses (e.g. hunting, trapping, fishing and gathering) and/or compensation for Aboriginal communities and/or individuals for changes in land use activities resulting from forest management plans and operations. Any information collected for these plans is owned, stored and managed by the Aboriginal **community**.

Examples of regional performance indicators

- Written plan on Aboriginal land use and values with supporting maps
- Aboriginal values protection agreement, signed by all parties (applicant & affected communities), addressing protection, mitigation and/or compensation and confidentiality measures for Aboriginal traditional values and uses.
- Evidence of the implementation of the Aboriginal values protection agreement including evidence of change in forestry operations, if pertinent, to protect Aboriginal land uses and/or sites
- Satisfaction of community or appropriate body such as Elders committee with plan implementation and values protection
- Evidence that values and sites outlined in plan are being protected
- Written evidence of negotiations with hunters, trappers and other Aboriginal land users which is endorsed by local communities.
- Written evidence of mediation to the satisfaction of Aboriginal communities.
- Records of workshops conducted in which mutual learning on cultural perspectives occurs.

3.3.2 The applicant monitors jointly with affected Aboriginal communities the impacts of forest management activities on traditional land uses and Aboriginal values and uses this information in the spirit of continuous improvement.

Examples of regional performance indicators

- Agreement(s) with Aboriginal communities on monitoring
- Regular joint assessments on the effects of forest management activities on Aboriginal communities..
- Baseline data on, for example, wildlife habitat, wildlife numbers, numbers of traditional land users, revenues generated from traditional land-use.

Criterion

3.4 Indigenous Peoples shall be compensated for the application of their traditional knowledge regarding the use of forest species or management systems in forest operations. This compensation shall be formally agreed upon with their free and informed consent before forest operations commence.

3.4.1 At the expressed interest and willingness of Aboriginal communities and/or organizations, the applicant works cooperatively towards a shared understanding of Traditional Ecological Knowledge (TEK) and its role in forest management.

Examples of regional performance indicators

- Records of meetings and correspondence addressing Traditional Ecological knowledge
- Mutually agreed upon process, in writing, on the collection, dissemination, protection of and compensation for Traditional Ecological knowledge

3.4.2 Where it is agreeable to both Aboriginal communities and the applicant, progress is being made on integrating Traditional Ecological Knowledge into forest management planning.

3.4.3 The applicant and Aboriginal communities and/or organizations cooperating in 3.4.1 above ensure that compensation and/or honoraria, when culturally appropriate, are paid to community recognized Elders, spiritual and traditional land-users knowledge

Interpretation Note: The intent here is that appropriate representatives, as designated or delegated by the community (e.g. recognized Elders, spiritual leaders and traditional land-users) be compensated for sharing their knowledge.

Draft Principle 4: Community Relations and Worker's Rights
Forest management operations shall maintain or enhance the long-term social and economic well being of forest workers and local communities.

Criterion

4.1 The communities within, or adjacent to, the forest management area should be given opportunities for employment, training, and other services.

4.1.1 Preference is given to hiring workers from local communities.

Examples of Performance Indicators:

- The applicant makes efforts to hire within local communities
- The applicant makes efforts to hire within local Aboriginal communities
- Written hiring policy exists that emphasizes local hiring.
- Interviews with local Union representatives indicate confirm performance.
- Interviews with local First Nations, Chamber of Commerce members, *etc*, confirm performance.
- Evidence of hiring practices that emphasize local hiring.
- The employment process and the employee composition demonstrate the *applicant's* commitment to the local people.

- **Interpretation Note:** The intent here is that the applicant should make consistent efforts to hire locally to the extent that there is a local workforce available

4.1.2 Forest workers are encouraged to become residents of communities within or adjacent to the forest management area.

Examples of Performance Indicators:

- The applicant has policy in place to help employees get established within the community (e.g. providing relocation assistance if moving to local community and benefit packages that encourage workers to buy homes locally)
- Remote camps are not established within a reasonable commuting time/distance from local communities

4.1.3 Where remote camps are established, safe and sanitary living conditions are present (e.g. conditions comply with relevant legislation, such as Occupational Health and Safety Act).

Examples of Performance Indicators:

- Workers are satisfied with living conditions
- Government inspections confirm track record of compliance with regulations related to camp living conditions
- Company has a policy with respect to remote camps.
- There is no evidence of 'shacking and batching'

4.1.4 Forest workers are well trained, appropriate to their job responsibilities.

Examples of Performance Indicators:

- Formal program / policy is in place and being implemented on employee training and skills upgrading
- Employee performance evaluations include identification of training needs

4.1.5 The applicant is contributing to the quality of life in the local communities.

Examples of Performance Indicators:

- Encourages worker involvement in community (e.g. Local Citizens Committees, School Boards, Roads Committees, Recreational Groups, etc)
- Sponsorship of local events, scholarships, sports teams, etc,
- Cooperates with local schools on promotion of education about good forest stewardship

4.1.6 The applicant emphasizes the procurement of goods and services from local communities.

Examples of Performance Indicators:

- Company policy that emphasizes local procurement of goods and services
- Practices that emphasize local procurement
- Evidence of local procurement (contractual arrangements, interviews with suppliers, etc)

•

- **Interpretation Note:** The intent here is that companies should make consistent efforts to source goods and services from local communities to the extent that they are available and "reasonably" cost competitive.

4.1.7 The applicant employs a fair and open process for renewing and initiating contracts that favours goods and service providers from local Aboriginal and non-Aboriginal communities (as consistent with 4.1.6).

Examples of Performance Indicators:

- The number of contracts held by communities and businesses that have not traditionally held contracts is increasing
- Written hiring and contracting policies are publicly available
- Proportion of contracts going to goods and services providers in local communities

- Note: See Interpretation note for 4.1.6 above.

4.1.8 Total remuneration packages including wages and other benefits (health, retirement, worker's compensation, housing, food, and profit sharing) for forest workers compare favourably with prevailing standards in the industry.

Examples of Performance Indicators:

- Remuneration packages compare favourably with industry standards.

4.1.9 Management policy and practices avoid, minimize and mitigate impacts on human resources resulting from investment in technology.

Examples of Performance Indicators:

- The applicant offers retraining programs for laid-off employee
- Employee education/training programs emphasize retraining where employee functions are replaced by technology
- Employment levels over a period of time

Criterion

4.2 Forest management should meet or exceed all applicable laws and/or regulations covering health and safety of employees and their families.

Option A: Industry's preferred option

[4.2.1 The workday and workweek must comply with the Employment Standards Act.

Examples of Performance Indicators:

- Interviews with Union Representatives or workers indicate workday and workweek comply with the Employment Standards Act.

- **Interpretation Note:** Certifiers should refer to most recent Employment Standards Act.]

Option B: Social Chamber's preferred option

[4.2.1 The regular work day and work week is established at 8 hours per day and forty hours per week.

- Alternative shifts may be established and averaged over a 4-week period with the employees' agreement.
- Such shifts and work weeks shall not exceed 12 hours per day and 48 hours per week.
- Freedom from work between shifts and weekly free time requirements shall comply with the Employment and Standards Act.

Examples of Performance Indicators:

- Interviews with Union Representatives or workers indicate workday and workweek comply with the Employment Standards Act.]

4.2.2 All forest workers are covered by the Workers Safety and Insurance Board (W.S.I.B) in accordance with WSIB regulations. Where WSIB regulations do not require WSIB coverage, workers/contractors are covered by a long-term disability or accident insurance plan.

Examples of Performance Indicators:

- Company has a policy with respect to WSIB and long-term disability or accident insurance plan
- Records of employers and contractors show that all workers are covered by WSIB
- Where coverage not required by WSIB, records of employers and contractors show that workers are covered by long-term disability or accident insurance)

4.2.3 Fire suppression equipment is available at the work sites (e.g. stump to roadside) and forest workers are trained in the use of the equipment in accordance with Forest Fires Prevention Act.

Examples of Performance Indicators:

- Fire suppression equipment kept in working order and easily accessed on-site including fire extinguisher, fire fighting backpacks, pump, etc
- Workers on site are trained in use of fire suppression equipment

4.2.4 First aid and safety equipment is available and maintained on site (e.g. stump to roadside) and at least one forest worker is trained in their use.

Examples of Performance Indicators:

- Safety and first aid equipment are kept in working order and easily accessed on-site including first aid kit and stretcher
- Forest manager makes first aid course available to workers
- At least one worker on site is trained in use of safety and first aid equipment
- The applicant has pre-designated an air ambulance landing site and workers are aware of location in remote locations.

Criterion

4.3 The rights of workers to organize and voluntarily negotiate with their employers shall be guaranteed as outlined in Conventions 87 and 98 of the International Labour Organization (ILO).

4.3.1 Workers have the right to organize without interference from their employer.

Examples of Performance Indicators:

- Company's written policy recognizes workers right to organize without interference.
- Existence of an organized workforce
- No evidence of company interference such as discharging of employees related to organizing drives or coercion of employees, etc.

Criterion

4.4 Management planning and operations shall incorporate the results of evaluations of social impact. Consultations shall be maintained with people and groups directly affected by management operations

4.4.1 The workforce is meaningfully involved in forest management planning and monitoring of forest practices.

Examples of Performance Indicators:

- Workers are provided with adequate forest management information and opportunities to meaningfully participate in the decision making process in their workplace
- Workers feel that they are meaningfully involved in decision-making and their concerns listened to.
- Workers feel they able to respond effectively to the public with a sense of pride in their activities.

4.4.2 Forest workers are encouraged to report any activities that compromise the environment and are not penalized for reporting.

Examples of Performance Indicators:

- Workers are aware that the company encourages reporting of activities harmful to the environment.
- No evidence that employees have been penalized for reporting activities harmful to the environment.

4.4.3 Forest workers are not penalized for complying with relevant environmental and pollution laws and regulations.

Examples of Performance Indicators:

- Documentation and/or discussions with workers indicate that workers have not been penalized for refusing to comply with relevant statutes and regulations for the protection or polluting of the environment.
- Workers are not penalized for reporting non-compliance

4.4.4 The management plan incorporates the results of social and economic impact evaluations (as consistent with criteria 5.1.4).

Examples of Performance Indicators:

- Social and economic impact evaluations have been completed.
- There is evidence that the results of social and economic impact evaluations have influenced management planning and operations

4.4.5 Local communities, community organizations and the interested public affected by forestry activities shall be provided an opportunity to meaningfully participate in forest management planning. Applicant will document all input received and be able to demonstrate how it was addressed in forest management planning and operations.

Examples of Performance Indicators:

- Process exists and is implemented for engaging the public in forest management planning process
- Written documentation exists of input received and how it was addressed in management planning and operations.
- Review of public input received, other documents, and management plan and discussions with participants indicate that public input was given serious consideration.
- Discussions with consultation participants indicate a general level of satisfaction with the process.

4.4.6 On Crown lands, a Public Advisory Group (PAG) is used to involve and consult with the public. The PAG represents a diversity of interests and no single interest dominates the composition of committee.

Examples of Performance Indicators:

- PAG has been established for operations on Crown land.
- Composition of PAG indicates that a diversity of interests is represented and that no single interest dominates.
- Discussions with PAG members and OMNR staff indicate that no particular interests dominate composition of the group

Interpretation note: While Aboriginal people may choose to participate on PAGs, additional requirements for Aboriginal consultations are set forth in 3.1.2

4.4.7 PAGs are provided adequate and timely resources, training, access to independent expertise and information to allow them to engage meaningfully in the forest management planning process.

Examples of Performance Indicators:

- Discussions with PAG members and a review of minutes of PAG meetings and other documents indicate members satisfaction with resources and training provided and their broad involvement in management planning process.

4.4.8 The PAG is meaningfully involved in the forest management planning process and plan implementation and generally supportive of management decisions. Potential areas of involvement include:

- Participating in the design and any revisions of the PAG's terms of reference
- Helping determine gaps in representation in the PAG and the selection of new members
- Participating in the design and implementation of other public participation processes
- Serving as a bridge between the public, FMPP and operations (including communications and education)
- Participating in the design and implementation of dispute resolution processes
- Participating in the development/writing of the management plan
- Review and evaluate results of ongoing monitoring of forest operations
- Helping with resolution of conflicts with other resource uses (trapping, remote tourism, etc)

Examples of Performance Indicators:

- Documentation of input from PAG exists
- Input from PAG is reflected in management plan
- Applicant provides rationale where input from PAG is not followed in management plan.
- Discussions with PAG members and a review of minutes indicate their satisfaction with their involvement in the planning process and decisions made.

FSC Criterion

4.5 Appropriate mechanisms shall be employed for resolving grievances and for providing fair compensation in the case of loss or damage affecting the legal or customary rights, property, resources, or livelihoods of local peoples. Measures shall be taken to avoid such loss or damage.

4.5.1 There is a process in place for resolving disputes (including providing fair compensation) with other resource users and the general public that result from forest management planning and operations.

Examples of Performance Indicators:

- A formal process is in place for identifying and resolving disputes with other resource users and the general public.
- Written documentation exists showing how disputes were resolved.
- A review of documentation of past disputes and discussions with parties involved indicates a track record of resolving disputes to the satisfaction of those involved.
- Disputes or conflicts are resolved expeditiously.

4.5.2 There is a track record of successfully resolving disputes in a timely manner among resource users that result from forest management planning and operations.

Examples of Performance Indicators:

- A review of documentation of past disputes and discussions with parties involved indicates a track record of resolving disputes to the satisfaction of those involved..
- Disputes or conflicts are resolved expeditiously

PRINCIPLE # 5: BENEFITS FROM THE FOREST

Forest management operations shall encourage the efficient use of the forest's multiple products and services to ensure economic viability and a wide range of environmental and social benefits.

FSC Criterion

5.1 Forest management should strive toward economic viability, while taking into account the full environmental, social, and operational costs of production, and ensuring the investments necessary to maintain the ecological productivity of the forest.

5.1.1 Sufficient resources are available to carry out forest management activities (including planning, road building, harvesting, renewal and tending, monitoring, and mitigating of negative impacts).

Examples of Performance Indicators:

- Review of forest management budget associated with the forest being audited for certification indicates sufficient financial resources are available.
 - Forest renewal trust fund revenues meet or exceed expenditures.
 - Minimum balance maintained in forest renewal trust.
 - Forest renewal trust fund expenditures are sufficient to renew the areas harvested.
- **Interpretation Note:** The intent here is not for the applicant to have sufficient funds in place to conduct all planned forest management activities. Management plans cover 20 year horizons and organizations generally do not have cash reserves of this quantity. Rather, the intent of this sub-criterion is that the applicant has sufficient funds in place to conduct planned operations in the short term and the ability/capacity to pay for the expenses of forest management over the long-term.

5.1.2. The applicant is self-financing (at a corporate level) with the revenues generated at least covering the costs of all management activities.

Examples of Performance Indicators:

- A review of corporate reports and financial statements over the last 5 years demonstrate profitability.

5.1.3 Community-based forests (e.g. model forests, First Nations, Community Forests) and non-industrial private forests are able to demonstrate adequate cash-flow in order to cover the costs of all management activities and show progress over-time towards financial self-sufficiency.

Indicators of performance

- Existence of budgets and financial statements demonstrate adequate cash flow

5.1.4 The applicant documents and monitors the social and economic costs and benefits of forest management operations including:

- Number and nature (e.g. demographic profile) of local communities dependent upon forest being audited for certification
- Community dependence on the forest industry and non-industrial forest uses
- Number of forest workers employed or contracted on forest being audited for certification
- Number, name and location of mills receiving wood from forest being audited for certification
- Wood flows to mills receiving wood from forest being audited for certification
- Number of employees and production by products of mills receiving wood from forest being audited for certification (where available)
- Dependency of mills receiving wood from forest being audited for certification on this wood (where available)
- Success of protection measures and agreements on traditional land use and Aboriginal communities as per criterion 3.3.2
- Number of non-timber forest product commercial enterprises (where available)
- Progress on sharing in benefits of forest management with Aboriginal communities as per Criterion 3.1.4
- Employment in non-timber commercial enterprises (where available)
- Production by product of non-timber commercial enterprises (where available)

FSC Criterion

5.2 Forest management and marketing operations should encourage the optimal use and local processing of the forest's diversity of products.

5.2.1 Efforts are made to optimize fibre utilization and product value.

Indicators of performance

- Harvest statistics by species, timber type, mill destination and product type or sorting practices
- Product sorting

5.2.2 Local processing of forest products is encouraged and facilitated.

Indicators of performance

- Percent of total timber volume harvested, which is processed “locally”
- The number of “local” businesses that process timber or NTFPs from the forest.

FSC Criterion

5.3 Forest management should minimize waste associated with harvesting and on-site processing operations and avoid damage to other forest resources.

5.3.1 All merchantable and marketable timber, as defined in the Scaling Manual (OMNR 2000) shall be utilized unless left on-site to provide structural diversity and wildlife

habitat or for silvicultural reasons. Wherever possible, non-merchantable/non-marketable timber will be left standing.

Indicators of performance

- Scaling Manual standards met
- Levels of non-merchantable/non-marketable timber left standing and on site
- Levels of merchantable/marketable timber left on site

5.3.2 Roadside slash piles are minimized and where possible eliminated (unless left to meet specific habitat objectives).

Indicators of performance

- Area covered by slash piles relative to industry norms
- Area covered by slash piles is declining
- Effectiveness of measures to minimize/eliminate slash piles

FSC Criterion

5.4 Forest management should strive to strengthen and diversify the local economy, avoiding dependence on a single forest product.

5.4.1 The applicant identifies and maintains a diversity of opportunities for non-timber forest product users and enterprises.

Indicators of performance

- A list and/or map of known and potential non-timber forest products (aboriginal & non-aboriginal)
- Effectiveness of management prescriptions used to protect and maintain non-timber forest products
- Nature of relationships & communications with non-timber forest product enterprises *and users*

- **Interpretation Note:** While the definition of non-timber forest products is extremely broad, this sub-criterion should not be interpreted as requiring the applicant to identify and maintain opportunities for all possible NTFPs. The expectation is that the applicant will identify and maintain opportunities for *existing* and used NTFPs within the forest.

5.4.2 The applicant identifies and works cooperatively with interested and affected non-timber forest product users and enterprises during the forest management planning process (e.g. preparation of annual work schedule) and during ongoing operations in order to:

- identify potential conflicts between harvesting and other resource uses
- develop solutions acceptable to parties involved

Examples of performance indicators:

- Nature of relationships & communications with NTFP users and forest-based enterprises
 - Ongoing notifications and communications
 - Success in working out solutions
 - Numbers and types of “local” businesses supported by the forest
 - Levels and stability of local employment by sector and community
 - Stability of flow of NTFPs
 - Evidence that outcomes of discussions have resulted in modifications to operations satisfactory to affected parties
- - **Interpretation Note:** The expectation here is not that the applicant work out successful solutions with all NTFP users and enterprises all of the time. Rather the intent is that the applicant has a track record of successfully working out solutions and reaching agreements with NTFP users and that their relationships with these users are improving over time.

5.4.3 Forest management encourages and contributes to the development of value-added industries and products.

Performance Indicators:

- Ensures that value-added industries receive sufficient fibre
- Wood Supply Commitments direct wood to value-added industries.
- Interviews with Value-Added Industries to ensure satisfaction they are getting their wood.
- Company has a track record of examining and developing specialty and value-added products (e.g., producing multiple wood products from a single mill in order to generate highest value per cubic metre of wood)

FSC Criterion

5.5 Forest management operations shall recognize, maintain, and, where appropriate, enhance the value of forest services and resources such as watersheds and fisheries

- **Interpretation Note:** Requirements for the maintenance and protection of forest services and resources are addressed under Principle 6, criterion 6.3 and 6.5.

FSC Criterion

5.6 The rate of harvest of forest products shall not exceed levels that can be permanently sustained.

5.6.1 Harvest rates and species selection are sustainable and an outcome of analysis that is based upon:

- Credible growth and yield information (e.g. empirical data from forest unit of same type, condition and origin)
 - Planning for environmental, Aboriginal, social values, and non-timber forest products (as consistent with 3.3.1, 2.2.2, 5.4.2, P6)
 - Desired future forest condition
 - Areas available and unavailable for harvest
 - Rates and extent of natural succession
 - Success of silvicultural treatments
 - Rate and extent of natural depletion
 - Spatial location of stands and related operational constraints
- **Interpretation Note:** Industrial wood demand is also a factor to be considered, but not a determinative one.

PRINCIPLE #6: ENVIRONMENTAL IMPACT

Forest management shall conserve biological diversity and its associated values, water resources, soils, and unique and fragile ecosystems and landscapes, and, by so doing, maintain the ecological functions and the integrity of the forest.

FSC Criterion

6.1 Assessment of environmental impacts shall be completed -- appropriate to the scale, intensity of forest management and the uniqueness of the affected resources -- and adequately integrated into management systems. Assessments shall include landscape level considerations as well as the impacts of on-site processing facilities. Environmental impacts shall be assessed prior to commencement of site-disturbing operations.

6.1.1 Inventory exists of site-specific environmental/ecological values sensitive to impacts by forest operations. Examples include but are not limited to:

- Raptor nests, heroneries, moose calving areas, moose aquatic feeding areas
- Sensitive ecosites (e.g. shallow soils)
- Environmental/ecological values identified under Criterion 3.3.1
- Known occurrences of Natural Heritage Information System (NHIC) tracked species (S1-S3)
- High concentrations of medicinal plants identified and used by local Aboriginal communities.

6.1.2 Benchmarks (i.e. points of reference) of forest condition at the stand level are in place. Benchmarks include but are not limited to:

- canopy closure
- vertical stand structure
- coarse woody debris

6.1.3 Benchmarks (i.e. points of reference) of forest condition at the landscape level are in place. Benchmarks include but are not limited to:

- forest species diversity
- amount of old forest
- habitat levels for regionally selected wildlife species (as per sub-criterion 6.3.8)
- % of 2nd order watersheds disturbed by logging & natural disturbance
- active road density
- total roadless areas
- core forest areas

6.1.4 Assessments consider cross-boundary impacts of forest operations. Cross-boundary impacts include but are not limited to:

- Percentage of watersheds disturbed
- Habitat level impacts on shared adjacent caribou mosaics or marten core areas
- Impacts of forest operations (including roads) on AOCs, remote *and* roadless areas or other values on immediately adjacent lands (e.g. parks, communities, private lands, other SFLs)

•

- **Interpretation Note:** The intent of this sub-criterion is to provide information that allows the applicant to ensure that its operations do not directly impact on significant environmental values of adjacent lands or the efforts of adjacent managers to protect these values.

[6.1.5 Assessments of the environmental impacts of forestry operations on site values and forest condition benchmarks identified in 6.1.1, 6.1.2, 6.1.3. are done prior to operations. The timing of the reassessments should be appropriate to the attribute being assessed.]

-
- **Interpretation Note:** This does not imply the requirement to conduct a formal “Environmental Impact Assessment.” The appropriate timing of reassessment will depend on the anticipated timing of both the impact and the recovery of any particular value or condition. For example, water quality impacts (e.g. siltation from water crossing installation) would be monitored over a shorter period of time than changes in forest species composition at the landscape level.

6.1.6 The use of TEK in assessments is consistent with the requirements of sub-criterion 3.4.2.

6.1.7 As consistent with criterion 8.4, the findings of impact assessments are incorporated into management planning to improve practices and reduce environmental impacts.

Examples of regional performance indicators

- Evidence of adaptive management with respect to assessment findings

6.1.8 The applicant supports research on environmental impacts of forest operations.

Examples of regional performance indicators

- Financial contribution to research
- Research partnerships
- Research programs and trials

FSC Criterion

6.2 Safeguards shall exist which protect rare species and their habitats (e.g., nesting and feeding areas). Conservation zones and protection areas shall be established, appropriate to the scale and intensity of forest management and the uniqueness of the affected resources. Inappropriate hunting, fishing, trapping and collecting shall be controlled.

6.2.1 A plan is designed and implemented and relevant forest workers trained to identify known and high potential habitat for federally and provincially designated VTE species (NHIC-tracked species and communities), and regionally rare species (where available).

Examples of regional performance indicators

- Existence of plan
- Lists of designated VTE species (NHIC-tracked species and communities), and regionally rare species (where available) for the region are available to staff
- Evidence of training provided
- Relevant staff and contractors demonstrate knowledge of rare species and their habitat
- Maps depicting locations of known and high potential habitat of federally and provincially designated VTE species.

6.2.2 Identified species, communities and their habitat are managed in accordance with existing strategies or recovery plans, or protected using a precautionary approach where none are available

Examples of regional performance indicators

- Management plan or supplementary documentation outlines recovery plans for listed species known to be on forest being audited for certification
- Prescriptions consistent with recovery plans on sites of known occurrences of species
- Efforts made to ensure protection of species and habitat in absence of recovery plans

FSC Criterion

6.3 Ecological functions and values shall be maintained intact, enhanced, or restored, including:

- a) **Forest regeneration and succession.**
- b) **Genetic, species, and ecosystem diversity.**
- c) **Natural cycles that affect the productivity of the forest ecosystem.**

6.3.1 Spatial models are being used or progress being made towards their use to plan and assess forestry activities at the landscape level where practical and feasible.

Examples of regional performance indicators

- Use of spatial model
- Active investigation and testing of spatial models

- **Interpretation Note:** By spatial models, this sub-criterion is referring to both spatial allocation models (e.g. Patchworks, Stanley) as well as spatial models currently being used for wildlife habitat or landscape characterization (e.g., OWHAM, ONFIRE, LEAPII, Marten Analyst, ODAM). The expectation is that applicants will be using or making progress towards the use of these models, recognizing that applicants should not be bound to use models that are ineffective. There is also a recognition that the use of these models may not be practical or feasible for smaller operations.

6.3.2 Where the use of spatial planning models is not practical or feasible, forest condition (forest age, intact habitat, species composition, remoteness) and the results of operational activities are spatially depicted over the forest management planning period.

Examples of regional performance indicators

- Existence of time-series maps that show changes in forest condition

Age Class Distribution Sub-criterion: Consolidated Option

6.3.3 The applicant maintains a proportion of late seral stage of each forest unit consistent with the nature and variability of the pre-industrial forest condition as identified in an independent [not including representatives of MNR] peer-reviewed analysis. The analysis should be based on the best available science, using scientifically accepted methodologies. In the absence of such an analysis, 30% of late seral stages are maintained through lengthened rotations and the use of partial harvest systems. It is expected that at least half of this objective is achieved through lengthened rotations.

- **Interpretation Note:** It is the intent of this sub-criterion that the additive disturbances of harvest and fire do not reduce the proportion of older age forests below that of the pre-industrial forest. Because of the natural variation in forest parameters, it is difficult to choose a specific pre-industrial target for mature and

older forests. It is therefore incumbent upon the applicant to have an understanding of the likely pre-industrial forest condition based on credible analyses, and to model old forest objectives after this condition. While some variation from the pre-industrial condition is permissible, it should be modest, and it must be clear that the low-end of a range of variation is not specifically targeted by objectives or strategies.

Species Composition Sub-criteria

6.3.4 The pre-industrial tree species composition of the forest being audited for certification has been characterized. Examples of appropriate methods of characterizing include the use of relevant unmanaged areas of forest as benchmarks, and the use of historic survey data and stumpage records.

6.3.5 Forest units that are significantly underrepresented according to pre-industrial composition (as per analysis from 6.3.4) are being maintained and restored.

Examples of regional performance indicators

- Forest units significantly under-represented have been identified
- A restoration plan for significantly under-represented forest units has been developed and implemented
- Changes over-time in relative proportion of under-represented forest units

6.3.6 The genetic diversity of tree species is maintained during forest management through the use of natural regeneration, local collection of seeds for seedling stock and seed broadcasting, and adherence to provincial seed zone policies.

Habitat Sub-criteria

6.3.7 In areas where burned habitat is rare, the applicant avoids salvage harvesting.

- **Interpretation Note:** The intent here is that the applicant will use professional judgement in assessing the rarity of burned habitat. The goal is to ensure that some burned habitat is retained on the landscape.

6.3.8 Wildlife habitat objectives have been set for regionally selected species and adequate habitat levels are maintained.

•

Examples of regional performance indicators

- Wildlife habitat objectives for regionally selected species have been established
- Wildlife habitat regionally selected species is maintained within 20% of the average modeled natural variation

•

- **Interpretation Note:** Lists of regionally selected species are maintained by OMNR and must be used by applicants.

6.3.9 A plan exists and is implemented that maintains functional connectivity within the forest being audited for certification.

Examples of regional performance indicators:

Examples of methods to maintain connectivity include:

- Linking core areas such as protected areas, large intact forest patches (as per 6.3.10), marten core areas, caribou calving sites
- Maintaining natural corridors such as eskers and shoreline forests.

Core Forest Area Regional Sub-criterion: Environmental Chamber's Preferred Option

[6.3.10 A minimum of 20% of the forest being audited for certification is in large (at least 5000 ha) core areas of late seral stage forest.]

- **Interpretation Note:** Sub-criterion 6.3.3 also deals with late seral stage forests. The intent here is not for this sub-criterion to require an additional 20% of late seral stage forest, but that a proportion of the forest be in large, core areas. It is recognized that this sub-criterion may not be feasible for smaller management areas (e.g. private land) and that exceptions may need to be made to reflect the scale of operations. For units where these core areas do not exist due to logging history, the applicant must work towards establishing these cores over time.

Core Forest Area Regional Sub-criterion: Industry's Preferred Option

[6.3.10 A minimum of [10%] of the forest being audited for certification is in large (at least 3000ha) core areas of late seral stage forest.]

Clearcut Size Sub-criterion

6.3.11 The size and configuration of harvest blocks is determined after landscape-level objectives have been met and size-dependent impacts mitigated. Examples of size-dependent social and ecological impacts to be considered include, but are not necessarily limited to:

- Public & Aboriginal community concerns
- Concerns of forest users such as trappers
- Spatial complexity of forest type and age class
- Creation of barriers to species migration
- hydrology and water quality impacts
- Harvest and road economics
- Species silvics
- Forest fragmentation

Interpretation note: It is not the intent that these factors would all be rationalized and documented at the cut block level.

Road Sub-criteria

6.3.12 A comprehensive access management plan for the forest being audited for certification is implemented that:

1. Avoids road building in or near protected areas and candidates;
2. Describes abandonment and maintenance strategies for all roads;
3. Maintains remoteness in areas with sensitive biological or cultural values or where this is required for tourism;

Effective access restrictions to maintain remoteness include:

- Physical abandonment of roads
- Use of removable bridges
- Preference for seasonal roads
- Strong enforcement of access restrictions
- Reforestation of roads following harvest
- Gates or other obstructions

Stand/Site Focus

Riparian Areas Regional Sub-criterion: Consolidated Option

6.3.13 Shoreline forests are protected in accordance with relevant Crown standards and guidelines (e.g. OMNR Forest Management Guidelines for the Protection of Fish Habitat) with the addition of the following requirements.

- Slope dependent areas of concern (AOCs) are established (30-90 metres) around all permanent water bodies
- Roads are excluded from AOCs unless no reasonable alternatives exist (e.g. A stream crossing is required)
- [Only selective harvesting within AOCs is permitted if it is demonstrated that the shoreline values are protected]
- Buffers are consistent with outcomes of consultation with Aboriginal communities (consistent with 3.3.) and other resource users (e.g. cottagers, tourism operators, etc)
- A mandatory 15m reserve is required on [permanent] streams [and lakes, (measured from treed edge)]

Residual Structure Sub-criteria: Consolidated Option

6.3.14 Residual structures are retained consistent with relevant Provincial standards (e.g. Forest Management Guide for Natural Disturbance Pattern Emulation), guidelines and Best Management Practices with the following requirements:

- An average of at least 25 individual standing trees per ha of various ages remain standing
- At least 6 are snags or potential snags of good quality cavity trees;
- [An average of 25% of trees (in a range of 10-50%) remain standing in patches or clumps whose average diameter is as large the average diameter in the stand;]
- Where present, a minimum of 6 super-canopy trees per hectare are left standing
- A continuous supply of Coarse Woody Debris is planned for

Interpretation note: When deciding which cavity trees to leave, the focus should be on the retention of a mix of average to above-average diameter trees with existing cavities or with the potential to develop cavities. Trees with existing cavities include those with:

- Nest cavities made by woodpeckers or natural den cavities
- Trees with escape cavities
- Trees with feeding excavations

Silvicultural Systems Sub-criteria

6.3.15 Silvicultural prescriptions are developed and implemented that:

- Are consistent with soil types and forest ecosystem classification system
- Maintain the natural diversity of even and uneven aged forests
- Ensure effective and timely regeneration of harvest blocks
- Facilitate the maintenance of natural succession pathways

Examples of regional performance indicators

- Silvicultural prescriptions follow local silvicultural guidelines (e.g. Silvicultural Guide to Managing Black Spruce, Jack Pine, and Aspen on Boreal Ecosites in Ontario Book III: Ecological and Management Interpretations for Northeast Site Types)
- Identifies and manages stands targeted for uneven age forest units using silvicultural systems such as shelterwood and HARP
- Targeted stand composition and stocking levels are met

6.3.16 Natural and assisted natural regeneration (e.g. CLAAG, seed trees, HARP) shall be used preferentially where it will achieve silvicultural objectives.

Examples of regional performance indicators

- Proportion of natural and assisted natural regeneration

6.4 Representative samples of existing ecosystems within the landscape shall be protected in their natural state and recorded on maps, appropriate to the scale and intensity of operations and the uniqueness of the affected resources.

Protected Area Sub-criteria

6.4.1 Applies to public lands being audited for certification:

In the absence of the province completing its network of representative protected areas (e.g. as defined by Ontario Forest Accord Advisory Board Room-to-Grow committee), parties seeking certification on Crown land must make use of a credible gap analysis (see Interpretation Note) and defer from logging those areas that have been identified as candidate representative protected areas until such time as that feature or combination of features is protected in the province's protected areas system.

Examples of regional performance indicators

- Evidence that credible gap analysis has been used to identify candidate protected areas that complete representation
 - Map depicting candidate protected areas within the forest being audited for certification
 - Candidate protected areas are deferred from logging
- **Interpretation Note:** A gap analysis has been performed for the area of Ontario where industrial forestry is currently occurring and has the support of the Ontario Forest Accord Advisory Board. Two reports are available to guide auditors in assessing this sub-criterion:
 - 1. Combining Gap Analysis Approaches – Final Report December 2001, Room to Grow Working Group
 - 2. The Methodology for Identifying and Assessing Candidate Sites for Completing the System of Representation in the Ontario Living Legacy Planning Area, Room to Grow Task Group
 - Where multiple equivalent candidate areas are identified in the gap-analysis used, only one needs to be deferred from logging. *Candidate protected areas deferred under this sub-criterion are not to be removed from the land base when calculating AAC.*

Applies to private lands being audited for certification:

6.4.2 In an **ecodistrict** without adequate protected area representation (e.g. as defined by Ontario Forest Accord Advisory Board Room-to-Grow committee), the private landowner/manager must defer from logging an appropriate proportion of the property until representation goals are met. This proportion is determined by the landowner consistent with an accepted gap analysis and landscape ecology principles.

Examples of regional performance indicators

- Existence of gap analysis of private lands
- Evidence of deferrals of appropriate proportion

6.4.3 *Applicants encourage effective Aboriginal involvement in the identification and establishment of protected areas on the land base.*

6.4.4 Areas of natural and scientific interest (ANSIs), as identified by the MNR, are treated as High Conservation Value Forests and managed so as to protect their values and uniqueness.

Examples of regional performance indicators

- Applicant is aware of location, significance and associated values of ANSIs within the forest being audited for certification
 - Evidence that values of ANSIs are being adequately protected
- ***Interpretation Note on the Inclusion of Protected Areas in Meeting Landscape Level Habitat/Biodiversity Objectives:***
 - *Parks and Conservation Reserves can be used to meet landscape level habitat requirements subject to the following conditions:*
 - *1) Applicability of Parks and Protected Areas: Parks completely contained within the FMU can be used. Those adjacent to the FMU cannot. Digital FRI data must be available for the protected area.*
 - *2) Future Forest Condition: Successional changes within the forests within parks and conservation reserves must be modeled using a natural fire-rotation interval appropriate to the eco-region and forest types found within the protected areas. This will contrast with the very long fire-rotation intervals used in the managed forest landscape.*
 - *3) Landscape dispersion of landscape level habitat requirements: Parks and conservation reserves can contribute to meeting landscape level objectives where the following criteria are used to guide the location of the value.*
 - *include sub-watersheds mapping*
 - *meet quality criteria – e.g. species comp, age, height, stocking, condition, structure, etc,*
 - *use connectivity-dispersion criteria*
 - *use negative value adjacency criteria (to avoid conflicts with settlement, intensive recreational use, mines, roads etc. that would reduce the value of the habitat).*
 - *shapes selected should favour low edge/area ratios*
 - *4) That planning for landscape level values be done using GIS-based spatial planning tools that can project the location of landscape values over time.*

6.5 Written guidelines shall be prepared and implemented to control erosion; minimize forest damage during harvesting, road construction, and all other mechanical disturbances; and protect water resources.

Loss of Productive Forest

6.5.1 Ground Rules or Standard Operating Procedures (SOPs) are written and implemented to minimize loss of productive forest consistent with Crown Guidelines and Best Management Practices (OMNR 1997 – Forest Management Guidelines for the Protection of the Physical Environment, OMNR 1995 – Environmental Guidelines for Access Roads and Water Crossings). At a minimum, SOPs should address:

- Slash piles burning or redistribution
- Prompt regeneration of abandoned roads, landings and skid trails
- Maximum road corridor widths adhered to
- Minimization of landing sizes

Examples of regional performance indicators

- Written SOPs exist for minimizing loss of productive forest
 - SOPs are consistent with Crown Guidelines, BMPs
 - SOPs are implemented
 - Non-compliance for operations is low, declining or at zero.
 - Area of productive forested land converted to roads, landings and skid trails
 - Evidence of forest worker training for minimizing loss of productive forest
- **Interpretation Note:** Although Crown Guidelines exists for protection of the physical environment, no standards are defined. The intent of this subcriterion is to ensure that the best management practices

outlined in the guidelines are operationalized using standard operational procedures (SOPs) and followed consistently.

6.5.2 Ground Rules or Standard Operating Procedures (SOPs) that are consistent with Crown Best Management Practices (OMNR 1997 – Forest Management Guidelines for the Protection of the Physical Environment) are written and implemented to minimize rutting and compaction. These SOPs must include standards defining maximum allowable levels of rutting and compaction.

Examples of regional performance indicators

- Written SOPs exist for minimizing rutting and compaction including winter harvesting, use of brush mats, avoiding wet areas, etc
 - SOPs consistent with Crown Guidelines and BMPs
 - *SOPs include steps to identify sites sensitive to rutting and compaction*
 - Non-compliance for operations is low, declining or at zero.
 - SOPs are implemented
 - Evidence of forest worker training for identifying and operating on sensitive sites
- **Interpretation note:** There are currently no OMNR rutting and compaction “standards” for Ontario’s boreal forests that describe thresholds for acceptable levels of rutting and compaction. In the absence of a Crown standard, applicants must develop their own defensible standard for rutting and compaction. See Appendix F for a sample of a company developed standard for rutting and compaction

6.5.3 Where there has been major non-compliance with standards/SOPs identified above, efforts are made to rehabilitate sites that have been extensively rutted and compacted.

Examples of regional performance indicators

- Rehabilitation techniques such as such as loosening compacted soils, mulching exposed fine textured soils, planting species tolerant to compaction are used on extensively damaged sites.

Nutrient Loss

6.5.4 Standard operating procedures (Ground Rules) are written and implemented to minimize nutrient loss on sensitive sites consistent with Crown Guidelines and Best Management Practices (OMNR 1997 – Forest Management Guidelines for the Protection of the Physical Environment).

Examples of regional performance indicators

- Written SOPs exist for minimizing nutrient loss on sensitive sites including:
 - Use of cut-to-length or slash redispersal
 - Use of winter harvesting
 - Avoiding most sensitive sites
 - Maintenance of diversity of plants and tree species on-site
- *SOPs include steps to identify sites sensitive to nutrient loss*
- SOPs are consistent with Crown Guidelines, BMPs
- SOPs are implemented
- Non-compliance for operations is low, declining or at zero.
- Evidence of forest worker training for minimizing nutrient loss on sensitive sites

Hydrological and Watershed Impacts

6.5.5 Standard operating procedures (Ground Rules) are developed to avoid and minimize the hydrological and watershed impacts of forest management operations consistent with

Crown Guidelines and Best Management Practices (OMNR 1997 – Forest Management Guidelines for the Protection of the Physical Environment).

Examples of regional performance indicators

- Written SOPs exist for minimizing nutrient loss on sensitive sites including:
 - Harvesting no more than 50% of 2nd order watersheds during the 20 year planning term
 - Use of partial harvest systems on wet organic sites
 - High levels of retention on very dry sites
 - Use of winter harvesting
 - Avoiding most sensitive sites
- SOPs are consistent with Crown Guidelines, BMPs
- *SOPs include steps to identify sites sensitive to potential hydrological impacts*
- SOPs are implemented
- Non-compliance for operations is low, declining or at zero.
- Evidence of forest worker training for minimizing hydrological impacts

Erosion

6.5.6 Standard operating procedures (Ground Rules) are developed to avoid and minimize soil erosion during the construction and use of roads and water crossings consistent with Crown Guidelines and Best Management Practices (OMNR 1997 – Forest Management Guidelines for the Protection of the Physical Environment, OMNR 1995 – Environmental Guidelines for Access Roads and Water Crossings).

Examples of regional performance indicators

- Written SOPs exist for minimizing erosion including:
 - Avoiding haul roads and landings on steep slopes
 - Identification and flagging of all-season roads at a time that allows identification of intermittent water-bodies
 - No crossing construction during fish breeding season
 - Minimizing # of crossings
 - Use of temporary crossings
 - Proper culvert installation and inspections
 - Avoiding most sensitive sites
- SOPs are consistent with Crown Guidelines, BMPs
- *SOPs include steps to identify sites prone to erosion*
- Non-compliance for operations is low, declining or at zero.
- SOPs are implemented
- Evidence of forest worker training for minimizing erosion impacts

Monitoring

6.5.7 Monitoring of the effectiveness of SOPs for minimizing loss of productive forest, nutrient loss, rutting and compaction, hydrological and watershed impacts and erosion is conducted. Knowledge learned is used in the spirit of continuous improvement.

Examples of regional performance indicators

- Monitoring conducted
- Evidence of adaptive management with respect to SOPs
- Participates in ongoing research
- Keeps abreast of ongoing research and findings

6.6 Management systems shall promote the development and adoption of environmentally friendly non-chemical methods of pest management and strive to avoid the use of chemical pesticides. World Health Organization Type 1A and 1B and chlorinated

hydrocarbon pesticides; pesticides that are persistent, toxic or whose derivatives remain biologically active and accumulate in the food chain beyond their intended use; as well as any pesticides banned by international agreement, shall be prohibited. If chemicals are used, proper equipment and training shall be provided to minimize health and environmental risks.

6.6.1. Applicant supports and/or participates in development and adoption of environmentally friendly, non-chemical alternative methods of pest management.

Examples of regional performance indicators

- R & D expenditures
- Usage of non-chemical methods

6.6.2 The applicant avoids the use of pesticides. Pesticides are only used where their use is essential to meet silvicultural objectives and non-chemical management practices are:

- a) not available; or
- b) ineffective in achieving silvicultural objectives; or
- c) prohibitively expensive taking into account environmental and social costs, risks and benefits.

Examples of regional performance indicators

- Written supporting procedures which would reduce use of pesticides
- *Targeted spot versus broadcast application* ;
- Consideration of timing and site preparation to minimize use of pesticides;
- Silvicultural prescriptions on high risk sites (identified from Silvicultural Guides) to reduce lag time between harvest and renewal to minimize opportunity for competition to become established
- Planting large stock on high-competition sites
- Number of hectares treated annually with pesticide by forest unit or ecosite.
- Use of non-chemical alternatives
- Targets exist to phase out the use of chemical pesticides over time

6.6.3 Chemicals prohibited by the FSC under Criterion 6.6 are not used (see Appendix G for a full list)

6.6.4 When used, pesticides are applied according to an approved spray permit from the Ontario Ministry of Environment (MOE). As required by the MOE, the following conditions are met to minimize risks to health and the environment:

- only registered products are used in accordance with label directions
- public notification of planned/actual use
- pesticides are only applied/supervised by licensed applicators
- spraying buffers are used to protect values in accordance with MOE standards and other relevant regulation
- additional buffers to protect values beyond MOE requirements as agreed to with *Aboriginal* communities (*as addressed in 3.3.1*) and other resource users.

6.6.5 The public is consulted on the use of pesticides and alternatives during the forest management planning period.

Examples of regional performance indicators

- Evidence/documentation of public consultation and discussion
- Discussions with members of public or PAG verify consultation occurred

6.7 Chemicals, containers, liquid and solid non-organic wastes including fuel and oil shall be disposed of in an environmentally appropriate manner at off-site locations.

6.7.1 The applicant prevents the unintended release of chemicals, petroleum products, containers and non-organic wastes, and minimizes health and environmental risks due to their disposal.

Examples of regional performance indicators

- Forest workers are trained and familiar with appropriate waste disposal practices.
- All disposable containers and waste mentioned above are disposed of in an approved Ministry of the Environment method
- A recycling program is in place for waste products.
- Waste disposal practices are monitored.
- An emergency procedure for spills is in place to protect the environment.

6.8 Use of biological control agents shall be documented, minimized, monitored and strictly controlled in accordance with national laws and internationally accepted scientific protocols. Use of genetically modified organisms shall be prohibited.

6.8.1 Biological control agents (e.g. Bt) are only used where other non-chemical pest control methods are, or can reasonably be expected to be, ineffective. The applicant must justify and document rationale for the use of biological control agents.

Examples of regional performance indicators

- Evidence of economic need for pest control
- Evidence that non-chemical alternatives explored
- Documented rationale for use of biological control method

6.8.2 The impacts and effectiveness of biological control agent treatment are evaluated and documented.

Examples of regional performance indicators

- Documentation/evidence of monitoring of impacts and effectiveness

6.8.3 Genetically modified organisms (GMOs) are not used in forestry operations.

6.9 The use of exotic species shall be carefully controlled and actively monitored to avoid adverse ecological impacts.

6.9.1 Exotic tree species are not used for silvicultural purposes.

6.9.2 Existing stands of non-native (exotic) tree species are being restored to a natural species composition within a reasonable time frame.

Examples of regional performance indicators

- Written plan to restore stands of non-native (exotic) tree species to a natural species composition
- Timelines for implementing the written plan prevent spreading of non-native (exotic) tree species
- Exotic stands are being restored to a natural species

6.9.3 Non-native invasive plant species are not used in forestry operations (e.g. for erosion control, bank stabilization). Where seed mixes of native species are not available, only non-invasive species are used.

Examples of regional performance indicators

- Use of native seed mixes
- Evidence of efforts to procure native seed mixes
- Evidence that non-native plants used are non-invasive

6.9.4 Use of non-native plant species is monitored for efficacy and invasiveness

Examples of regional performance indicators

- Evidence of monitoring

6.10 Forest conversion to plantations or non-forest land uses shall not occur, except in circumstances where conversion:

- a) entails a very limited portion of the forest management unit; and
 - b) does not occur on high conservation value forest areas; and
 - c) will enable clear, substantial, additional, secure, long-term conservation benefits across the forest management unit.
- - **Interpretation Note:** It is the Working Group’s understanding that current common levels of boreal forest management in Ontario do not involve the establishment of “plantations” according to the FSC’s definition. The vast majority of the Ontario’s boreal would be considered to be “natural forests”. As a result, criterion 6.10 only deals with conversions to non-forested lands.

6.10.1 Forest conversion to plantations shall not occur, except in circumstances where conversion:

- a) entails a very limited portion of the forest management unit; and
- b) does not occur on high conservation value forest areas; and
- c) will enable clear, substantial, additional, secure, long-term conservation benefits across the forest management unit.

6.10.2 Forest is not converted to non-forest land (beyond that permitted for roads, trails, landings, gravel pits and camps).

Examples of regional performance indicators

- No evidence of deforestation beyond that permitted/required for roads, trails, landings, gravel pits, camps

6.10.3 Efforts are made to reestablish forest cover to areas previously converted to non-forest uses such as gravel pits, camps and abandoned roads, landings and trails.

Examples of regional performance indicators

- Abandoned camps, gravel pits are reforested within a reasonable time

PRINCIPLE #7: MANAGEMENT PLAN

A management plan -- appropriate to the scale and intensity of the operations -- shall be written, implemented, and kept up to date. The long-term objectives of management, and the means of achieving them, shall be clearly stated.

7.1.1 The management plan and supporting documentation shall include management objectives and strategies for:

- Biodiversity conservation (as consistent with the requirements of 6.2, 6.3)
- Silvicultural objectives including regeneration as consistent with the requirements of criteria 6.3 and 6.6.
- Social and economic benefits such as timber and non-timber products, recreation, benefits to local communities as consistent with requirements of 2.2.2, 3.1.4, 4.4.4, and 5.4.2.
- Protection of forest resources (soils, water, hydrology) as consistent with the requirements of sub-criteria 6.5.1-6.5.11)
- Aboriginal and non-aboriginal historical and cultural resources and traditional uses as consistent with requirements of sub-criteria 3.3.1 and 2.2.2
- Access, road-use and roadless areas as consistent with the requirements of 6.3.12.

7.1.2 The management plan and supporting documentation shall include a description of the forest resources to be managed: environmental limitations (e.g. areas identified in criterion 6.5), land use and ownership status, socio-economic conditions, and a profile of adjacent lands. This description shall address:

- Location of the forest;
- History of ownership and management of the forest, as much as reasonably can be known by the applicant;
- Aboriginal and treaty interests (as consistent with 3.1.1, etc)
- Identification of those currently responsible for managing the forest;
- A summary of communities and mills dependent upon the forest;
- A brief summary of geology, soils and eco-sites;
- An accurate and current inventory of forest resources, including forest types, tree species, age, height;
- Identification of areas with environmental limitations such as protected areas, wetlands, shallow soils, protection forest, etc as identified in 6.5 and 6.4
- A summary of the non-timber forest resources, such as wildlife, fish, food and medicinal plants, endangered species, and unique environmental features (as consistent with 3.3.1, 5.1.4, 6.2, etc)
- A summary of social and economic conditions and of historical and cultural resources (as consistent with P 3, 2, 5);
- Extent and nature of the road and trails network such as active, inactive and abandoned roads and access controls
- Landscape context such as significance of the forest with respect to:
 - local, regional and provincial fish and wildlife populations, species of concern
 - wood supply for mills within and outside the forest
 - old growth targets
 - local, regional, and provincial economy
 - Watersheds and water quantity and quality

- 7.1.3** The management plan and supporting documentation shall include a description of silvicultural systems consistent with the silvicultural related requirements in Principle 6.
- 7.1.4** The management plan and supporting documentation shall provide the rationale for the rate of annual harvest and species consistent with the requirements of Criterion 5.6.
- 7.1.5** The management plan and supporting documentation shall describe provisions for forest monitoring and assessments (as consistent with criterion 3.3.2, 8.2, 6.1.4, 6.1.5, 6.1.6 and 6.5.7).
- 7.1.6** The management plan and/or supporting documentation shall describe standard operating procedures (SOPs) and steps taken for minimizing soil compaction, erosion, hydrological and watershed impacts, nutrient loss and damage to other environmental values and AOCs consistent with the requirements in Criterion 3.3.1, and 6.5.
- 7.1.7** The management plan and supporting documentation shall include plans for the identification and protection of VTE species as consistent with 6.2 including:
- A description of protocols for identifying and recording sightings of VTE species.
 - Written prescriptions to protect the habitat of any VTE species which are known to occur in the forest.
- 7.1.8** The management plan and supporting documentation shall include maps describing the forest resource base including protected areas, planned management activities and land ownership. Various maps will be produced, made publicly available and will show:
- Location of the forest
 - Forest Resource *Inventory* (e.g. FRI maps)
 - Existing and planned primary, secondary, tertiary, maintained, restricted, inactive, and abandoned roads
 - Communities, infrastructure, forest resource inventory, parks and protected areas.
 - Values (e.g. Areas of special ecological significance including habitat of rare, threatened and endangered species, old growth; large core areas; wildlife habitat and areas with unusually high species diversity, important nesting or feeding sites or concentrations of species having significant cultural value.)
 - Past operating areas and operations for the term of the plan including mapable objectives, harvesting, and silviculture.
 - Watershed, surface water features and ground water recharge areas
 - Ecological land classification (multiple scales), meaningful landmarks, traditional uses , designated land uses, and land ownership,
 - Sites/areas where monitoring will occur during the planning period
- **Interpretation Note:** Some specific maps may not be made available due to the content of environmentally or culturally sensitive information.

7.2 The management plan shall be periodically revised to incorporate the results of monitoring or new scientific and technical information, as well as responds appropriately to changing environmental, social and economic circumstances.

7.2.1 As consistent with Criterion 8.4 and its related sub-criteria, the management plan is periodically revised to incorporate the results of monitoring or new scientific and technical information (as consistent with criteria 3.3.2, 3.4.2, 8.2, 6.1.7 and 6.5.7) and implemented.

Examples of regional performance indicators

- Evidence of scientific and technical information collection and knowledge related to the forest
 - Improvement and adequacy of scientific and technical information used in the FMP
 - A report is available which reviews the success of the previous management and recommends changes to improve practices.
 - Evidence of applicant's involvement in scientific and technical reviews, reports, and symposiums
 - Evidence of growth and yield and plantation data collection and incorporation into FMP
 - Evidence of FMP improvements in habitat modeling, fire emulation, natural succession, historic forest condition, the natural forest condition and future forest condition.
 - Evidence that practices are improving based on review of past success
 - *Evidence of the collection of information on social impacts of forest managements*
- **Interpretation Note:** A normal plan revision period is once every five years however significant departures from planned operations will normally require a plan amendment.

7.3 Forest workers shall receive adequate training and supervision to ensure proper implementation of the management plan.

Examples of regional performance indicators

- A training program is developed and in place to ensure competency and consistent and reliable implementation of the plan
- Applicant and forest workers are aware of and understand the operational requirements for implementing the plan.
- Standard operating procedures exist and workers have been provided appropriate training.
- Training records indicate that forest workers have been taught all operational requirements for implementation of the plan .
- Forest workers demonstrate appropriate level of knowledge and skill required for implementation of the approved FMP.
- Forest workers show an understanding that the plan aims to meet a variety of economic, social, environmental and Aboriginal objectives.
- Forest workers have received Aboriginal cultural awareness training.
- Workers are supervised relative to the difficulty and importance of their task.

7.4 While respecting the confidentiality of information, forest managers shall make publicly available a summary of the primary elements of the management plan.

7.4.1 *The public is provided with a summary of the management plan, and is allowed access to the complete management plan. This access is limited only by the following specific information:*

- Confidential information collected and managed by Aboriginal communities on traditional land use activities and cultural values
- Information on specific values such as listed and disturbance sensitive species that would be negatively impacted by public knowledge of their specific location
- Proprietary or confidential information on the applicant that would affect their competitiveness (e.g. costs, revenues, spatial models/software, *SOPs*, etc,

Examples of regional performance indicators

- Plan documentation made available for review
- Copies of summary maps and summary information
- Plan summary available
- Operational maps
- Values maps

PRINCIPLE #8: MONITORING AND ASSESSMENT

Monitoring shall be conducted -- appropriate to the scale and intensity of forest management -- to assess the condition of the forest, yields of forest products, chain of custody, management activities and their social and environmental impacts.

8.1 The frequency and intensity of monitoring should be determined by the scale and intensity of forest management operations as well as the relative complexity and fragility of the affected environment. Monitoring procedures should be consistent and replicable over time to allow comparison of results and assessment of change.

8.1.1 The applicant has a documented monitoring program that outlines the parameters to be monitored (consistent with the requirements of 8.2), and the frequency, intensity, procedures, rationale and responsibility for monitoring.

Examples of regional performance indicators

- Documentation of monitoring program exists
- Records of monitoring activities are available
- Monitoring procedures are understood and implemented by designated staff

8.2 Forest management should include the research and data collection needed to monitor, at a minimum, the following indicators:

- a) Yield of all forest products harvested.**
- b) Growth rates, regeneration and condition of the forest.**
- c) Composition and observed changes in the flora and fauna.**
- d) Environmental and social impacts of harvesting and other operations.**
- e) Costs, productivity, and efficiency of forest management.**

8.2.1 Forest management should include the research and data collection needed to monitor yield of all forest products harvested:

- Volume of timber by species and type
- Known types and amounts of non-timber forest products

8.2.2 Forest management should include the research and data collection needed to monitor timber growth rates, regeneration and condition of the forest including:

- Growth and yield as per 5.6
- effectiveness of forest operation prescriptions
- health (disease, insect, etc)
- proportion & distribution of forest units and ages
- natural and artificial depletion]

8.2.3 An inventory of the forest is available. The forest inventory is regularly updated and revised. The forest is re-inventoried every twenty years or on a continuous cycle (e.g. 5% re-inventoried annually).

8.2.4 Forest management should include the research and data collection needed to monitor environmental impacts as consistent with criteria 6.1, and 6.5.

8.2.5 Forest management should include the research and data collection needed to monitor environmental and social impacts of harvesting and other operations forest management consistent with the requirements of sub-criteria 3.3.2 and 5.1.4.

8.2.6 Forest management should include the research and data collection needed to monitor costs, productivity, and efficiency of forest management in order to allow an assessment of the requirements for sub-criteria 5.1.1 and 5.1.2.

8.2.7 The applicant is using or actively developing a system of permanent sample plots to that would measure both the timber and non-timber values and effects of forest management.

8.2.8 Information and knowledge gaps are regularly assessed and addressed based on an assessment of risk.

8.3 Documentation shall be provided by the forest manager to enable monitoring and certifying organizations to trace each forest product from its origin, a process known as the "chain of custody."

8.3.1 Documentation and systems are in place to enable FSC accredited certifiers to trace each forest product from its origin, a process known as the "chain of custody". The specific documentation and systems will vary with the complexity of forest operations and wood flows and will need to be determined on a case by case basis in cooperation with the certifier.

8.4 The results of monitoring shall be incorporated into the implementation and revision of the management plan.

Interpretation Note: Criterion 7.2 also requires the revision of the management plan based on monitoring results and this requirement is therefore addressed there.

8.4.1 Formal management reviews or audits are undertaken on a regular basis.

8.4.2 The applicant expeditiously and successfully carries out recommendations from independent and internal forest audits.

Examples of regional performance indicators

- Applicant prepares action plans in a timely manner'
- Applicant successfully implements audit recommendations

FSC Criterion

8.5 While respecting the confidentiality of some information, forest managers shall make publicly available a summary of the results of monitoring indicators, including those listed in Criterion 8.2.

8.5.1 For public land, reports are available to the public at *nominal cost and in a timely manner* that summarize the results of monitoring and audits of the forest being audited for certification as per Criterion 8.2.

8.5.2 The applicant assists public interest groups in the interpretation of monitoring programs and their results.

Examples of regional performance indicators

- Interests groups when requested
- Satisfaction of public interest groups with assistance on interpretation provided

Interpretation note: *The expectation is that the applicant will make reasonable efforts to assist public interest groups in the interpretation of monitoring results. Auditors are to use their professional judgment to determine reasonableness.*

PRINCIPLE # 10: PLANTATIONS

Plantations shall be planned and managed in accordance with Principles and Criteria 1 - 9, and Principle 10 and its Criteria. While plantations can provide an array of social and economic benefits, and can contribute to satisfying the world's needs for forest products, they should complement the management of, reduce pressures on, and promote the restoration and conservation of natural forests.

- **Interpretation Note:** One of the goals of forest management as contained in these standards is to sustain the forest in a condition similar to that found in nature. To do this forest managers use a host of forest renewal techniques, both natural and artificial. Typically between one half and two thirds of the area harvested in the boreal forest region of Ontario are regenerated through natural techniques.
-
- In the glossary of the FSC's Principles & Criteria, plantations are defined as:
-
- "Forest areas lacking most of the principal characteristics and key elements of native ecosystems as defined by FSC-approved national and regional standards of forest stewardship, which result from the human activities of either planting, sowing or intensive silvicultural treatments."
-
- As indicated under the Interpretation Note for Criterion 6.10 of this standard, the current levels of planting on Crown land boreal forests of Ontario are not considered to result in the establishment of "plantations" according to the FSC's definition. In other words, while planting does take place in Ontario's Boreal forests, the current focus in this standard on returning the stand to a natural condition that is suited to the eco-site means that they are not truly "plantations" in the FSC's sense of the word (i.e. forest areas lacking most of the principal characteristics and key elements of native ecosystems).
-
- There are currently few or no "plantations" in Ontario that meet the FSC's definition of the term. As a result, no sub-criteria have been developed for Principle 10 as it is deemed to be not applicable at this point in time. Forest being audited for certification in the Boreal Region of Ontario must do so under the requirements of Principles 1 through 9.
-
- That being said, at the time of drafting of these standards, the Ontario Ministry of Natural Resources is exploring options for enabling more intensive forest management (IFM) on limited portions of Crown land. The nature and extent of allowable Crown land IFM practices remain undetermined and thus it is unclear whether they will result in the establishment of "plantations" according to the FSC definition. As a result, the Working Group recommends that the issue of IFM and plantations and the drafting of Principle 10 be revisited during a future revision of this standard, or of the FSC National Boreal Standard, once the provincial direction on this issue is clearer.

10.1 The management objectives of the plantation, including natural forest conservation and restoration objectives, shall be explicitly stated in the management plan, and clearly demonstrated in the implementation of the plan.

10.2 The design and layout of plantations should promote the protection, restoration and conservation of natural forests, and not increase pressures on natural forests. Wildlife corridors, streamside zones and a mosaic of stands of different ages and rotation periods, shall be used in the layout of the plantation, consistent with the scale of the

operation. The scale and layout of plantation blocks shall be consistent with the patterns of forest stands found within the natural landscape.

- 10.3 Diversity in the composition of plantations is preferred, to enhance economic, ecological and social stability. Such diversity may include the size and spatial distribution of management units within the landscape, number and genetic composition of species, age classes and structures.**
- 10.4 The selection of species for planting shall be based on their overall suitability for the site and their appropriateness to the management objectives. In order to enhance the conservation of biological diversity, native species are preferred over exotic species in the establishment of plantations and the restoration of degraded ecosystems. Exotic species, which shall be used only when their performance is greater than that of native species, shall be carefully monitored to detect unusual mortality, disease, or insect outbreaks and adverse ecological impacts.**
- 10.5 A proportion of the overall forest management area, appropriate to the scale of the plantation and to be determined in regional standards, shall be managed so as to restore the site to a natural forest cover.**
- 10.6 Measures shall be taken to maintain or improve soil structure, fertility, and biological activity. The techniques and rate of harvesting, road and trail construction and maintenance, and the choice of species shall not result in long term soil degradation or adverse impacts on water quality, quantity or substantial deviation from stream course drainage patterns.**
- 10.7 Measures shall be taken to prevent and minimize outbreaks of pests, diseases, fire and invasive plant introductions. Integrated pest management shall form an essential part of the management plan, with primary reliance on prevention and biological control methods rather than chemical pesticides and fertilizers. Plantation management should make every effort to move away from chemical pesticides and fertilizers, including their use in nurseries. The use of chemicals is also covered in Criteria 6.6 and 6.7.**
- 10.8 Appropriate to the scale and diversity of the operation, monitoring of plantations shall include regular assessment of potential on-site and off-site ecological and social impacts, (e.g. natural regeneration, effects on water resources and soil fertility, and impacts on local welfare and social well-being), in addition to those elements addressed in principles 8, 6 and 4. No species should be planted on a large scale until local trials and/or experience have shown that they are ecologically well-adapted to the site, are not invasive, and do not have significant negative ecological impacts on other ecosystems.**

Special attention will be paid to social issues of land acquisition for plantations, especially the protection of local rights of ownership, use or access.

10.9 Plantations established in areas converted from natural forests after November 1994 normally shall not qualify for certification. Certification may be allowed in circumstances where sufficient evidence is submitted to the certification body that the manager/owner is not responsible directly or indirectly of such conversion.