



**SFI 2022 Forest Management Standard
(Section 2)**

March 1, 2021

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1. General

1.1 Scope

What the Forest Management Standard Does

The *SFI 2022 ~~15-2019~~ Forest Management Standard* promotes *sustainable forestry practices* based on 13 *Principles*, 175 *Objectives*, 4137 *Performance Measures* and 1,1401 *Indicators*. These requirements include measures to *protect* water quality, *biodiversity*, *wildlife habitat*, species at risk and *Forests with Exceptional Conservation Value*.

What the Forest Management Standard Covers

The *SFI 2022 ~~15-2019~~ Forest Management Standard* applies to any *Certified Organization* that owns or has management authority for forestlands.

Geographic Application of the Forest Management Standard

The *SFI 2022 ~~15-2019~~ Forest Management Standard* applies to organizations in the United States and Canada.

1.2 Additional Requirements

Certified Organizations with *fiber sourcing programs* (acquisition of roundwood and field-manufactured or primary-mill residual chips, pulp, and veneer to support a forest products facility), must also conform to the *SFI 2022 ~~15-2019~~ Fiber Sourcing Standard*.

Use of the *SFI ~~on-product~~ Product* labels and claims shall follow Section 65 — Rules for Use of *SFI On-Product Labels* and *Off-Product Marks* as well as ISO 14020:2000.

1.3 References

This standard incorporates, by dated or undated reference, provisions from other publications. These normative and informative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated and undated references, the latest edition of the publication applies.

Normative References

- i. ISO/IEC 17021:2015 — Conformity Assessment — Requirements for bodies providing audit and certification of management systems
- ii. ISO/IEC Guide 2:2004 Standardization and related activities — General vocabulary
- iii. Section 87 — SFI Policies
- iv. Section 109 — SFI 2015-2019 Audit Procedures and Auditor Qualifications and Accreditation
- v. Section 110 — Communications and Public Reporting
- vi. Section 143 — SFI Definitions

vii. Interpretations for the Requirements for the SFI 2022~~15-2019~~ Program
For the purposes of this standard, the relevant definitions given in ISO/IEC Guide 2:2004 apply, together with the definitions in the SFI Definitions (Section 143).

Informative References

- i. ISO 14001:2015~~04~~ Environmental Management Systems — Specification with guidance for use
- ii. PEFC ST 1003:2018~~0~~ Sustainable Forest Management Requirements, November 286, 2018~~0~~
- iii. PEFC ST 1002:2018~~0~~ Group Forest Management Certification, November 286, 2018~~0~~
- iv. Section 76 — Guidance to SFI 2022~~15-2019~~ Standards
- v. Section 98 — SFI Standards Development and Interpretations Process
- vi. Section 121 — Public Inquiries and Official Complaints
- vii. Section 132 — Optional Modules

1.4 Forest Management Standard Principles

~~SFI Program Participants~~*Certified Organizations* believe forest landowners have an important stewardship responsibility and a commitment to society, and they recognize the importance of maintaining viable commercial, family forest, and *conservation* forest land bases. They support *sustainable forestry* on forestland they **manage and** promote it on other lands. They support efforts to **safeguard, protect** private property rights, and to help all private landowners manage their forestland sustainably. In keeping with this responsibility, *Certified Organizations SFI Program Participants* shall have a written *policy* (or *policies*) to implement and achieve the following *principles*:

Commented [SFI 1]: Edit to expand beyond private forest land to reflect public forest tenures.

1. Sustainable Forestry

To practice *sustainable forestry* ~~means to~~ meeting the needs of the present **while promoting without compromising** the ability of future generations to meet their own needs by practicing a land stewardship ethic that integrates *reforestation* and the managing, growing, nurturing and harvesting of trees for useful products, **and for the provision of ecosystem services** such as the *conservation* of soil, air and water quality **and quantity, climate change adaptation and mitigation** ~~carbon~~, *biological diversity, wildlife and aquatic habitats*, recreation and aesthetics.

Commented [SFI 2]: Linkage to the new Objective 9 – Climate Change Adaptation and Mitigation

2. Forest Productivity and Health

To provide for regeneration after harvest, **and** maintain the **health and** productive capacity of the forest land base, and to *protect* and maintain *long-term forest and soil health and productivity*. In addition, to *protect* forests from economically, ~~or~~ environmentally **or socially** undesirable **impacts/levels** of wildfire, pests, diseases, *invasive exoticspecies-plants-and-animals* and other damaging agents and thus maintain and improve *long-term forest health and productivity*.

3. Protection of Water Resources

To *protect* and maintain the water quality and quantity of water bodies and *riparian areas*, and to conform with forestry *best management practices* to *protect* water quality, ~~and quantity, to~~ meet the needs of both human communities and ecological systems.

4. Protection of Biological Diversity

To manage forests in ways that *protect* and promote *biological diversity*, including animal and plant species, *wildlife habitats*, *ecologically and culturally important species*, *threatened and endangered species* (i.e., *Forest with Exceptional Conservation Values*) and *native forest cover types at multiple scales* and *ecological or natural community types*.

5. Aesthetics and Recreation

To manage the visual impacts of forest operations, and to provide recreational opportunities for the public.

6. Protection of Special Sites

To manage lands that are *ecologically*, geologically or *culturally important* in a manner that takes into account their unique qualities.

Commented [SF13]: Edit to retain P6 with edit to align with inclusion of 'ecologically important' in P4.

~~7. Responsible Fiber Sourcing Practices in North America~~

~~To use and promote among other forest landowners sustainable forestry practices that are is both scientifically credible and economically, environmentally and socially responsible.~~

Commented [SF14]: Now addressed in P. 12.

7.8. Legal Compliance

To comply with applicable federal, provincial, state, and local *forestry* and related environmental laws, statutes, and regulations.

8.9. Research

To support advances in sustainable forest management through *forestry* research, *science*, and technology.

Commented [SF15]: Edit broadens the scope of what is being considered for research.

9.10. Training and Education

To improve the practice of *sustainable forestry* through training and education *programs*.

10.11. Community Involvement and Social Responsibility, and Respect for Indigenous Rights

To broaden the practice of *sustainable forestry* on all lands through community involvement, socially responsible practices, and through recognition and respect of *Indigenous Peoples'* rights and *traditional forest-related knowledge*.

11.2. Transparency

To broaden the understanding of forest certification to the *Forest Management Standard* by documenting certification audits and making the findings publicly available.

12.3. Continual Improvement

To continually improve the practice of forest management, and to monitor, measure and report performance in achieving the commitment to *sustainable forestry*.

13.2. Responsible Fiber Sourcing

To use and promote sustainable forestry across a diversity of ownership and management types in the United States and Canada that is both scientifically credible and socially, environmentally, and economically responsible, and to avoid sourcing from controversial sources both domestically and internationally. 1.5 Forest Management Standard Objectives

Commented [SF16]: New Principle to align with new Objective which applies in the U.S., Canada and internationally.

A Summary of the *SFI 2022-2019 Forest Management Standard Objectives* follows:

Objective 1. Forest Management Planning

To ensure forest management plans include *long-term* sustainable harvest levels and measures to avoid forest conversion or afforestation of ecologically important areas.

Commented [SF17]: Conversion and Afforestation Subgroup edit.

Why it Matters: Ensures that we grow more trees than we harvest, guaranteeing that forests will last for future generations.

Commented [SF18]: Why It Matters statement – each Objective has a corresponding statement.

Objective 2. Forest Health and Productivity

To ensure *long-term* forest *productivity*, carbon storage and *conservation* of forest resources through prompt *reforestation*, *afforestation*, deploying integrated pest management strategies, *minimized* chemical use, soil *conservation*, and protecting forests from damaging agents.

Commented [SF19]: Topic now addressed in Objective 9.

Commented [SF110]: Oct 15 TG edit.

Why it Matters: Ensures that forests remain healthy and resilient which means better forest productivity including providing a reliable and renewable source of sustainably managed fiber for consumer products.

Objective 3. Protection and Maintenance of Water Resources

To *protect* the water quality and water quantity of rivers, streams, lakes, *wetlands*, and other water bodies, through meeting or exceeding best management practices.

Commented [SF111]: Forest Conservation Subgroup edit.

Why it Matters: Protects water quality and quantity helps provide safe and abundant drinking water for all.

Objective 4. Conservation of Biological Diversity

To maintain or advance ~~manage the quality and distribution of wildlife habitats and contribute to the conservation of biological diversity at the by developing and implementing stand- and landscape-level and across~~ measures that promote a diversity of types of forest and vegetation cover types habitats and successional stages including, ~~and~~ the *conservation* of forest plants and animals, ~~including aquatic species, as well as threatened and endangered species, Forests with Exceptional Conservation Value, old-growth forests and ecologically important sites.~~

Commented [SF112]: Forest Conservation Subgroup edit.

Why it Matters: Ensures that forests are managed to protect wildlife habitat and conserve biological diversity.

Objective 5. Management of Visual Quality and Recreational Benefits

To manage the visual impact of forest operations and provide recreational opportunities for the public.

Why it Matters: Ensures that the public can continue to enjoy the aesthetic values and recreation opportunities of forests.

Objective 6. Protection of Special Sites

To manage lands that are geologically or *culturally important* in a manner that takes into account their unique qualities.

Why it Matters: Protects special sites that have important geological or cultural values.

Objective 7. Efficient Use of Fiber Resources

To *minimize* waste and ensure the efficient use of fiber resources.

Why it Matters: Ensures the economic well-being of communities that live and work near forests.

Objective 8. Recognize and Respect Indigenous Peoples' Rights

To recognize and respect *Indigenous Peoples'* rights and traditional knowledge.

Why it Matters: Recognizing and respecting the *Indigenous Peoples'* rights supports relationship building and shared benefits from sustainably managed forests.

Objective 9: Climate Smart Forestry

To ensure forest management activities address climate change adaptation and mitigation measures.

Why it Matters: Ensures that SFI-certified forests make an important contribution to addressing the effects of climate change.

Objective 10. Fire Resilience and Awareness

To limit susceptibility of forests to undesirable impacts of wildfire and to raise community awareness of fire benefits, risks, and minimization measures.

Why It Matters: Ensures that forests are managed proactively relative to fire risk in the face of climate change, so that they can continue to store carbon, provide *habitat* for *wildlife*, and are a source of clean air and water while protecting public safety and human health.

Objective 119. Legal and Regulatory Compliance

To comply with all applicable laws and regulations including, international, federal, provincial, state, and local. ~~laws and regulations.~~

Why it Matters: Compliance with all laws ensures the protection of the environmental and social values of forests.

Objective 120. Forestry Research, Science and Technology

To invest in ~~forestry~~ research, science and technology, upon which sustainable forest management decisions are based, ~~and broaden the awareness of climate change impacts on forests, wildlife and biological diversity.~~

Why it Matters: -Forest research means healthier, more productive forests.

Commented [SFI13]: Forest Conservation Subgroup edit

Commented [SFI14]: The new Climate Change Objective captures the intent of this requirement.

Objective 131. Training and Education

To improve the implementation of *sustainable forestry practices* through appropriate training and education *programs*.

Why it Matters: -Training and educating foresters means forest management plans are more accurately implemented, ensuring the well-being of our forests.

Objective 142. Community Involvement and Landowner Outreach

To broaden the practice of *sustainable forestry* through public outreach, education, and involvement, and to support the efforts of *SFI Implementation Committees*.

Why it Matters: Outreach and education improves the public’s understanding of how important sustainable forestry is to local and global issues.

Objective 153. Public Land Management Responsibilities

To participate and implement sustainable forest management on *public lands*.

Why it Matters: Protects the environmental, social, and economic values of public forests.

Objective 164. Communications and Public Reporting

To increase transparency and to annually report progress on conformance with the *SFI Forest Management Standard*.

Why it Matters: Reporting the results of third-party audits increases the public’s understanding of forest certification.

Objective 175. Management Review and Continual Improvement

To promote continual improvement in the practice of *sustainable forestry* by conducting a management review and monitoring performance.

Why it Matters: Encourages continual improvement of sustainable forestry practices, a cornerstone of sustainable forestry.

1.6 SFI 2022 ~~15-2019~~ Forest Land Management Requirements

Objective 1. Forest Management Planning

To ensure forest management plans include *long-term* sustainable harvest levels and measures to avoid forest conversion or afforestation of ecologically important areas.

Commented [SFI 15]: Edit to reflect incorporating the topic of afforestation in Obj 1, moving it from Obj 2.

Performance Measure 1.1. ~~Certified Organizations Program Participants~~ shall ensure that forest management plans include *long-term* harvest levels that are sustainable and consistent with appropriate *growth-and-yield models*.

Indicators:

- 1. Forest management planning at a level appropriate to the size and scale of the operation, including:

- a. a *long-term* resources analysis;
- b. a periodic or ongoing *forest inventory*;
- c. a *land classification* system;
- d. *biodiversity* at *landscape* scales;
- e. soils inventory and maps, where available;
- f. access to and use of growth-and-yield modeling capabilities;
- g. up-to-date maps or a *geographic information system (GIS)*;
- h. recommended sustainable harvest levels for areas available for harvest; and
- i. consideration a review of non-timber issues such as (e.g., recreation, tourism, pilot projects and economic incentive *programs* to promote water *protection*, carbon storage, *bioenergy feedstock* production, or *biological diversity conservation*, or to address climate-induced ecosystem change).
- ~~j. consideration of *bioenergy feedstock* production;~~
- ~~k. consideration of pilot projects and economic incentive *programs* to promote water *protection*, carbon storage, or *biological diversity conservation*, or to address climate-induced ecosystem change).~~

Commented [SFI 16]: Edit to recognize use of G&Y modeling.

Commented [SFI17]: Edit to retain the existing requirement making the edit to replace 'review' with 'consideration' and e.g. with 'such as'.

Commented [SFI18]: Removing j. and k. in keeping with the edit above to revert to existing text for 1.1.1 i.

2. Documented current harvest trends fall within *long-term* sustainable levels identified in the forest management plan.

3. A *forest inventory* system and a method to calculate growth and yield is used to determine annual and/or periodic harvest levels.

Commented [SFI 19]: Edit to link forest inventory to harvest level determination.

4. Periodic updates of *forest inventory* and recalculation of planned harvests to account for changes in growth due to *productivity* increases or decreases, including but not limited to: improved data, *long-term* drought, fertilization, *climate change*, changes in forest land ownership and tenure, or *forest health*.

5. Documentation of forest management practices (such as: *planting*, fertilization and thinning) consistent with assumptions in harvest plans.

6. Assessment of the local or regional social, environmental, and economic effects impacts of forest management operations contained in the forest management plan, and consideration of how the results can be incorporated into the forest management plan.

Commented [SFI 20]: Edit to clarify the intended scale of the assessment.

Commented [SFI 21]: Edit addressing how the results of an assessment could be incorporated in the management plan.

Commented [SFI 22]: This was an interpretation which is now incorporated into the Standard. (Interpretation #2, Part 1).

Performance Measure 1.2. *Certified Organizations Program Participants* shall not convert one *forest cover type* to another *forest cover type*, unless type unless an assessment has been conducted to determine ecological impacts and provide appropriate justification, ied circumstances

Indicators:

1. *Certified Organizations Program Participants* shall not convert one *forest cover type* to another *forest cover type*, unless the conversion:

- a. does not convert *native forest cover types* that are rare, *ecologically important*, or ~~which that~~ put any *native forest cover types* at risk of becoming rare; ~~is in compliance with relevant national and regional *policy* and legislation related to land use and forest management;~~ and
- b. does not create significant *long-term* adverse impacts on *Forests with Exceptional Conservation Value*, *old growth forests*, *forest critical to threatened and endangered*

Commented [SFI 23]: Edit to remove "long term" as significant impacts could occur sooner than 1 economic rotation which is the definition of "long term".

Keeping "long term" could be interpreted to mean near term outcomes for maintaining native forest types and ecological function are not important.

~~species, or special sites or ecologically important non-forest eco-systems; Would not convert native forest types that are rare and ecologically significant at the landscape level or put any native forest types at risk of becoming rare; and~~
c. ~~includes objectives for long-term outcomes that support maintaining native forest cover types and ecological function; and Does not create significant long-term adverse impacts on Forests with Exceptional Conservation Value, old-growth forests, forests critical to threatened and endangered species, and special sites.~~
d. ~~is in compliance with relevant national and regional policy and legislation related to land use and forest management.~~

Commented [SFI 24]: Edit to reference to ecologically important non-forest ecosystems.

2. ~~Any proposed conversion deemed appropriate per 1.2.1, and which has considered impacts relative to scale, may be implemented subject to~~Where a Program Participant intends to convert another forest cover type, ~~an a landscape~~ assessment that considers:
- ~~a response to address forest health issues such as pests or pathogens, or proactive consideration of anticipated impacts of fire or climate change, reforestation challenges, or riparian protection needs, provided that such justification is supported by the best scientific information, credible science, Productivity and stand quality conditions and impacts which may include social and economic values;~~
 - ~~site productivity, economics, and/or stand quality. Specific ecosystem issues related to the site such as invasive species, insect or disease issues, riparian protection needs and others as appropriate to site including regeneration challenges; and~~
 - ~~ecological impacts of the conversion including a review at the site and landscape scale, as well as consideration for any appropriate mitigation measures; and~~
 - ~~appropriate consultation with local communities, Indigenous Peoples, and other stakeholders who could be affected by such activities.~~

Commented [SFI 25]: Edit clarifying that the assessment is at the landscape level.

Performance Measure 1.3. ~~Certified Organizations Program Participants~~ shall not have within the scope of their certification to this SFI Standard, forest lands that have been converted to non-forest land use.

Indicator:

1. Forest lands converted to other land uses shall not be certified to this SFI ~~Standard~~ standard. This does not apply to forest lands used for forest and wildlife management such as wildlife food plots or infrastructure such as forest roads, log processing areas, trails, etc.

Performance Measure 1.4. ~~Certified Organizations~~ shall not afforest in locations which negatively impact ~~ecologically important natural communities, threatened and endangered species, or native natural communities~~ which could be at risk of becoming rare.

Indicator:

1. Any afforestation activity must include an evaluation of the proposed site to determine the presence of:
- ~~ecologically important natural communities, or~~
 - ~~threatened and endangered species, or~~
 - ~~native natural communities which that~~ could be at risk of becoming rare.
2. Afforestation shall not occur on that location if the evaluation determines a negative impact to the presence of:
- ~~ecologically important natural communities, or~~

- b. *threatened and endangered species, or*
- c. *native natural communities which could be at risk of becoming rare.*

Commented [SFI 26]: New Performance Measure to address the topic of afforestation more thoroughly.

Objective 2. Forest Health and Productivity

To ensure *long-term forest productivity, forest health, carbon storage and conservation* of forest resources through prompt *reforestation, afforestation, deploying integrated pest management strategies, minimized* chemical use, soil *conservation*, and protecting forests from damaging agents.

Commented [SFI127]: Item now addressed in Objective 9.

Commented [SFI28]: TG edit – Oct 15.

Performance Measure 2.1. *Certified Organizations Program Participants* shall promptly reforest after final harvest.

Indicators:

1. Documented *reforestation* plans, including designation of all harvest areas for either natural, planted, or direct seeded regeneration and prompt *reforestation*, unless delayed for site-specific environmental or *forest health* considerations or legal requirements, through *planting* within two years or two *planting* seasons, or by planned *natural regeneration* methods within five years.
2. Clear criteria to judge adequate regeneration and appropriate actions to correct understocked areas and achieve acceptable species composition and stocking rates for *planting, direct seeding, and natural regeneration.*
3. *Plantings of native or non-invasive naturalized exotic tree species are preferred. In exceptional circumstances where exotic tree species are being planted, they should not increase minimize risk to native ecosystems.*
4. *Protection* of desirable or planned advanced *natural regeneration* during harvest.

Commented [SFI29]: Revised as per Tsk Group discussion. Edit recognizes that SFI-certified organizations should plant either native or naturalized tree species.

~~5. Any planned Afforestation activity should include an evaluation a plan programs that considers potential ecological impacts of the selection and planting of tree species in non-forested landscapes.~~

Commented [SFI 30]: Afforestation now has its own PM – PM 1.4.

Performance Measure 2.2. *Certified Organizations Program Participants* shall *have a program to minimize* chemical use required to achieve management *objectives* while protecting employees, neighbors, the public and the environment, including *wildlife and aquatic habitats.*

Indicators:

1. *Pest management shall be implemented through the use of integrated pest management shall be preferred.*
2. *Minimized* chemical use required to achieve management *objectives.*
3. Use of *least-toxic and narrowest-spectrum pesticides* necessary to achieve management *objectives.*
4. Use of pesticides registered for the intended use and applied in accordance with label requirements.

Commented [SFI 31]: Definition of ‘integrated pest management’ was edited to align with PEFC’s definition which is adopted from FAO. Section 13 reflects this edit.

Commented [SFI32]: Edit to improve auditability of the requirement – ‘shall be preferred’ is subjective and hard to audit.

5. The World Health Organization (WHO) type 1A and 1B pesticides shall be prohibited, except where no other viable alternative is available.
6. Use of pesticides banned under the Stockholm Convention on Persistent Organic Pollutants (2001) shall be prohibited.
7. Supervision of forest chemical applications by state- or provincially-trained or certified applicators.
8. Use of management practices appropriate to the situation, ~~for examples such as:~~
 - a. notification of adjoining landowners or nearby residents concerning applications and chemicals used;
 - b. appropriate multilingual signs or oral warnings;
 - c. control of public road access during and immediately after applications;
 - d. designation of streamside and other needed buffer strips;
 - e. use of positive shutoff and minimal-drift spray valves;
 - f. aerial application of forest chemicals parallel to buffer zones to ~~limit~~ *minimize* drift;
 - g. monitoring of water quality or safeguards to ensure proper equipment use and *protection* of streams, ~~lakes~~, and other water bodies;
 - h. appropriate transportation and storage of chemicals;
 - i. ~~use of spill response plans and chemical spill kits;~~
 - ji. filing of required state or provincial reports; and/or
 - kj. use of methods to ensure *protection* of *threatened and endangered* species.

Commented [SFI 33]: New sub indicator to reference spill prevention.

Performance Measure 2.3. ~~Certified Organizations Program Participants~~ shall implement ~~forest management~~ practices ~~which that to protect~~ and maintain forest and soil *productivity and soil health*.

Commented [SFI 34]: Task Group determined that a new term 'soil health' should be adopted to highlight values in the soil other than the soils ability to grow trees.

soil health: the continued capacity of soil to function as a vital living ecosystem that sustains plants, animals, and humans. (USDA)

Indicators:

1. Process to identify soils vulnerable to compaction, and use of appropriate methods, including the use of soil maps where available, to avoid excessive soil disturbance.
2. Use of erosion control measures to *minimize* the loss of soil and *impacts to site productivity*.
3. Post-harvest conditions conducive to maintaining site *productivity* (~~such as: e.g., limited rutting,~~ retained down woody debris *and minimized skid trails*).
4. Retention of vigorous trees during partial harvesting, consistent with scientific silvicultural standards for the area.
5. ~~Criteria-Practices~~ that address harvesting and site preparation to *protect soil productivity and soil health*.
6. Road construction, ~~and~~ skidding layout, ~~and harvest plans designed~~ to *minimize* impacts to soil *productivity and soil health*.

~~7. Protection of residual trees from material damage resulting from harvesting, stand tending, road or trail construction or construction of in woods log processing areas:~~

Commented [SFI35]: Subgroup determined that existing requirements in Obj 2, 3 & 4 meet the intent.

Performance Measure 2.4. ~~Certified Organizations Program Participants~~ shall manage ~~so as to~~ protect forests from damaging agents, such as environmentally or economically undesirable ~~levels of~~ wildfire, pests, diseases, and ~~invasive species-exotic plants and animals~~, to maintain and improve ~~long-term forest health, productivity, and economic viability~~.

Commented [SFI 36]: Edit to add clarity – some amount disturbance can be beneficial from a biodiversity perspective.

Indicators:

1. Program to protect forests from damaging agents.
2. Management to promote healthy and productive forest conditions to ~~minimize-reduce~~ ~~susceptibility~~ to damaging agents.
3. Participation in, and support of, fire and pest prevention and control programs.

Performance Measure 2.5. ~~Certified Organizations Program Participants~~ that deploy improved planting stock, including ~~varietal seedlings~~, shall use best scientific methods.

Indicator:

1. Program for appropriate research, testing, ~~evaluation~~, and deployment of improved planting stock, including ~~varietal seedlings~~.

Objective 3. Protection and Maintenance of Water Resources

To protect the water quality ~~and water quantity~~ of rivers, streams, lakes, ~~wetlands~~, and other water bodies, ~~through meeting or exceeding best management practices~~

Performance Measure 3.1. ~~Certified Organizations Program Participants~~ shall meet or exceed all applicable federal, provincial, state and local water quality laws ~~and water quantity laws and regulatory requirements, and meet or exceed all applicable federal, provincial, state, and local water quantity regulatory requirements, and meet or exceed best management practices, developed under Canadian or U.S. Environmental Protection Agency approved water quality programs.~~

Commented [SFI37]: Subgroup edit – water quantity now addressed in PM 3.2.

Commented [SFI38]: TG edit Oct 15.

Indicators:

1. Program to implement federal, ~~state~~, or provincial water quality ~~best management practices~~ during all phases of management activities.

~~2. Program to implement federal, state or provincial water quantity regulatory requirements and best management practices during all phases of management activities.~~

Commented [SFI39]: Sept 23 call – decided to move to PM 3.2 where other water protections will be address in one PM.

2. Contract provisions that specify conformance to ~~best management practices~~.
3. Monitoring of overall ~~best management practices~~ implementation.

Performance Measure 3.2. ~~Certified Organizations Program Participants~~ shall implement water, ~~wetland~~, and ~~riparian protection programs~~ ~~measures~~ based on ~~climate~~, soil type, terrain, vegetation, ecological function, harvesting system, state ~~best management practices (BMPs)~~, provincial guidelines and other applicable factors.

Commented [SFI 40]: Edit to add 'climate' to list of factors.

Indicators:

1. *Program* addressing management and *protection* of water quality and quantity of rivers, streams, lakes, *wetlands*, other water bodies and *riparian areas* during all phases of management, ~~including the layout and construction of roads and skid trails to maintain water reach, flow and quality.~~
2. Program to protect water quantity during all phases of management. Mapping of rivers, streams, lakes, *wetlands* and other water bodies as specified in state or provincial *best management practices* and, where appropriate, identification on the ground.
3. *Programs* that address wet-weather events in order to maintain water quality such as: *forest inventory* systems, identification of wet-weather tracts and definitions of acceptable operating conditions.

Commented [SFI41]: Sept 23 call – new Water Quantity indicator.

Objective 4. Conservation of Biological Diversity

To ~~maintain or advance~~ manage the quality and distribution of *wildlife habitats* and contribute to the conservation of biological diversity ~~at the~~ by developing and implementing ~~stand- and landscape-level and across~~ measures that promote a diversity of types of forest and vegetation cover types ~~habitats~~ and successional stages including ~~and the conservation of~~ forest plants and animals, ~~including aquatic species, as well as threatened and endangered species, Forests with Exceptional Conservation Value, old-growth forests, and ecologically important sites.~~

Performance Measure 4.1. Certified Organizations ~~Program Participants~~ shall conserve biological diversity.

Indicators:

1. *Program* to incorporate the conservation of native biological diversity, including native species, *wildlife habitats* and ecological community types at *stand* and *landscape* levels, ~~through the use of best scientific information including the incorporation of research results.~~
2. Development of criteria and implementation of practices, as guided by regionally based *best scientific information*, to retain *stand-level wildlife habitat* elements such as snags, stumps, mast trees, down woody debris, den trees and nest trees.
3. Program to individually and/or through cooperative efforts such as *SFI Implementation Committees*, support diversity of native forest cover types and age or size classes that enhance native biological diversity, by incorporating the results of analysis of documented diversity at *landscape* and ownership/tenure levels, to ensure the contribution of the managed area to the diversity of conditions that promote biodiversity. ~~Document diversity of forest cover types and age or size classes at the individual ownership or forest tenure level, and where credible data are available, at the landscape scale. Working individually or collaboratively to support diversity of native forest cover types and age or size classes that enhance biological diversity at the landscape scale.~~
4. Certified Organizations ~~Program Participants~~ shall individually and/or through cooperative efforts such as SFI Implementation Committees, participate in or incorporate the results of credible, relevant state, provincial, or regional *conservation* planning and priority-setting efforts to conserve biological diversity and ~~incorporate the results of~~ consider these efforts in forest management planning. ~~Examples of credible priority-setting efforts include state~~

Commented [SFI 42]: The use of “native” has been moved this sentence because it does not apply to the term or concept of “biodiversity”. Biodiversity is the variety and variability of life on Earth, typically measured as the variation at the genetic, species, and ecosystem level. As such it does not have a locality. The term “native” is better applied to species, or biota, or flora and fauna, e.g. the black spruce is a native species of the boreal forest.

Commented [SFI43]: Use of ‘native’ incorrectly included here.

Commented [SFI 44]: Guidance developed to clarify and offer examples of conditions that can affect biodiversity by virtue of condition, age and/or size classes.

Commented [SFI45]: Edit to call out option for cooperatively addressing this requirement.

Commented [SFI 46]: Edit for more specificity.

Commented [SFI 47]: Guidance developed relative to incorporating results into forest management planning.

~~and provincial~~ wildlife action plans, state forest action plans, relevant *habitat conservation* plans, ~~or provincial wildlife recovery plans,~~ Indigenous planning processes or ecoregional plans.

Commented [SFI 48]: Edit to recognize Indigenous planning processes as one of the “credible priority setting efforts”.

5. Program to address *conservation of* ~~known sites with viable occurrences of significant species of concern,~~ ecologically important species and natural communities, including those that are locally rare.

Commented [SFI 49]: Guidance developed to clarify the relationship between the new term “ecologically important” and the concept of “viable occurrences of significant species of concern”, essentially an effort to make language more clear and consistent. Guidance includes attention to species that are vulnerable and/or locally rare.

6. Identification and *protection of non-forested wetlands*, including bogs, peatlands, fens and marshes, and *vernal pools* ~~that are ecologically important of ecological significance.~~

Commented [SFI50]: Locally rare was intended to be addressed through guidance as a suggested way to determine species that are “ecologically important” in the guidance.

7. Participation in *programs* and demonstration of activities as appropriate to limit the introduction, spread and impact of *invasive species exotic plants and animals* that directly threaten or are likely to threaten *native* plant and animal communities.

Commented [SFI 51]: Edit to include peatlands.

8. Consider the role of natural disturbances, including opening size, structural retention, the use of prescribed or natural fire where appropriate, and *forest health* threats in relation to *biological diversity* when developing forest management plans.

Commented [SFI 52]: Guidance was developed to clarify the relationship between these wetland areas the concept of “natural communities”.

Commented [SFI 53]: Edit to use the new terminology.

Performance Measure 4.2. Certified Organizations Program Participants shall *protect threatened and endangered* species, critically imperiled and imperiled species, and natural communities (Forests with Exceptional Conservation Values)(FECV), and *old-growth forests.*

Commented [SFI54]: Edit to give more specificity to the Indicator. The idea that historic natural disturbance be used as more of a guide in management planning.

Indicators:

1. Program to *protect threatened and endangered* species.
2. Program to locate and *protect* known sites flora and fauna associated with viable occurrences of *critically imperiled* and *imperiled* species and ecological communities, defined also known as *Forests with Exceptional Conservation Value*. Programs for *protection* may be developed independently and/or through cooperative efforts involving *SFI Implementation Committees* and may include Certified Organization Participant-managers of SFI-certified organizations, cooperation with other *stakeholders,* or use of easements, *conservation* land sales, exchanges, or other *conservation* strategies.
3. Support of and participation in ~~plans or~~ programs for the *conservation of old-growth forests* in the region of ownership or forest tenure.

Commented [SFI55]: Deletion of *plans* made because *programs* is understood to be more action oriented and typically requires a plan to implement so is redundant.

Performance Measure 4.3. Certified Organizations Program Participants shall manage to protect *ecologically important* sites in a manner that takes into account their unique qualities.

Commented [SFI 56]: ‘to protect’ added here in the PM to strengthen the requirement for protection of ecologically important sites.

Indicators:

1. Use of information such as existing NatureServe or natural heritage data or expert advice in identifying or selecting ecologically important sites for *protection*.
2. Appropriate mapping, cataloging and management of identified ecologically important sites.

Performance Measure 4.4. Certified Organizations Program Participants shall apply knowledge gained through research, science, technology, ~~and~~ field experience, and the results

of monitoring of the effectiveness of conservation-related programs to manage *wildlife habitat* and contribute to the *conservation of biological diversity*.

Commented [SFI 57]: Edit to incorporate the results of monitoring of conservation related programs.

Indicators:

1. Collection of information on *Forests with Exceptional Conservation Value* and other *biodiversity*-related data through *forest inventory* processes, mapping, or participation in external *programs*, such as NatureServe, ~~state~~ or provincial heritage *programs*, or other ~~credible-reputable systems organizations~~. Such participation may include providing non-proprietary scientific information, time, and assistance by staff, or in-kind or direct financial support.
2. A ~~program methodology~~ to program to incorporate data collected, research results and field applications of *biodiversity* and ecosystem research into forest management decisions.
3. Individually or collaboratively participate in or support research that demonstrates clarifies the conservation outcomes resulting from management strategies.

Commented [SFI 58]: Edited language is more consistent with the examples... (organizations vs. systems).

Commented [SFI 59]: Edit to use the defined term "program".

Commented [SFI60]: Subgroup edit – *demonstrate* is more action oriented.

Objective 5. Management of Visual Quality and Recreational Benefits.

To manage the visual impact of forest operations and provide recreational opportunities for the public.

Performance Measure 5.1. ~~Certified Organizations~~ ~~Program Participants~~ shall manage the impact of harvesting on *visual quality*.

Indicators:

1. *Program* to address *visual quality management*.
2. Incorporation of aesthetic considerations in harvesting, road, landing design and management, and other management activities where visual impacts are a concern.

Performance Measure 5.2. ~~Certified Organizations~~ ~~Program Participants~~ shall manage the size, shape, and placement of clearcut harvests.

Indicators:

1. Average size of clearcut harvest areas does not exceed 120 acres (50 hectares), except when necessary to meet regulatory requirements, achieve ecological *objectives* or to respond to *forest health* emergencies or other natural catastrophes.
2. Documentation through internal records of clearcut size and the process for calculating average size.

Performance Measure 5.3. ~~Certified Organizations~~ ~~Program Participants~~ shall adopt a *green-up requirement* or alternative methods that provide for *visual quality*.

Indicators:

1. *Program* implementing the *green-up requirement* or alternative methods.

2. Harvest area tracking system to demonstrate conformance with the *green-up requirement* or alternative methods.
3. Trees in clearcut harvest areas are at least ~~3-three~~ years old or ~~5-five~~ feet (1.5 meters) high at the desired level of stocking before adjacent areas are clearcut, or as appropriate to address operational and economic considerations, alternative methods to reach the *performance measure* are utilized by the ~~Certified Organization-Program-Participant~~.

Performance Measure 5.4. ~~Certified Organizations-Program-Participants~~ shall support and promote recreational opportunities for the public.

Indicator:

1. Provide recreational opportunities for the public, where consistent with forest management *objectives*.

Objective 6. Protection of Special Sites.

To manage lands that are geologically or *culturally important* in a manner that takes into account their unique qualities.

Performance Measure 6.1. ~~Certified Organizations-Program-Participants~~ shall ~~have a program to~~ identify *special sites* and manage ~~and protect~~ them in a manner appropriate for their unique features.

Commented [SFI 61]: Edit to call out protection of special sites.

Indicators:

1. Use of information such as existing natural heritage data, expert advice or *stakeholder consultation, or consultation with Indigenous Peoples* in identifying or selecting *special sites* for *protection*.
2. Appropriate mapping, cataloging and management of identified *special sites*.

Objective 7. Efficient Use of Fiber Resources.

To *minimize* waste and ensure the efficient use of fiber resources.

Performance Measure 7.1. ~~Certified Organizations-Program-Participants~~ shall employ appropriate forest harvesting technology and in-woods manufacturing processes ~~and practices to~~ *minimize* waste and ensure efficient utilization of ~~forest resources harvested trees~~, where consistent with other *SFI Standard objectives*.

Commented [SFI 62]: Clarifying edit to expand the focus of efficient utilization beyond just "harvested trees".

Indicator:

1. *Program* or monitoring system to ensure efficient utilization, ~~which may include using~~ provisions ~~such as to ensure~~:
 - a. management of harvest residue (~~such as: e.g.,~~ slash, limbs, tops) considers economic, social and environmental factors (~~such as e.g.,~~ organic and nutrient value to future forests and the potential of increased fuels build-up) and other utilization needs;
 - b. training or incentives to encourage loggers to enhance utilization;

- c. exploration of markets for underutilized species and low-grade wood and alternative markets (such as e-g, bioenergy markets); or
- d. periodic inspections and reports noting utilization and product separation.

Objective 8. Recognize and Respect Indigenous Peoples’ Rights.

To recognize and respect *Indigenous Peoples’* rights and traditional knowledge.

Performance Measure 8.1. *Certified Organizations*~~Program Participants~~ shall recognize and respect *Indigenous Peoples’* rights.

Indicators:

1. ~~Certified Organizations~~ *Program Participants* will ~~shall develop and implement~~ ~~provide~~ a written *policy* acknowledging a commitment to recognize and respect the rights of *Indigenous Peoples*. ~~This policy shall provide reference to a program that includes:~~
 - a. ~~use of available resources and information to identify the Indigenous Peoples whose rights may be affected by the Certified Organization’s forest management activities.~~
 - b. ~~recognition of the established framework of legal, customary, and traditional rights such as outlined in:~~
 - i. ~~the UN Declaration on the Rights of Indigenous Peoples; and/or~~
 - ii. ~~federal, provincial, and state laws and regulations; and/or~~
 - iii. ~~treaties, agreements or other constructive arrangements among governments and Indigenous Peoples.~~
 - c. ~~appropriate training of personnel and contractors so that the Certified Organization is competent to fulfill their responsibilities under Objective 8 of the Forest Management Standard.~~

2. ~~The written policy shall be publicly available.~~

Performance Measure 8.2. *Certified Organizations*~~Program Participants~~ with forest management responsibilities on public lands shall confer with ~~affected~~ *Indigenous Peoples whose rights may be affected by* ~~with respect to sustainable~~ the *Certified Organization’s* forest management practices.

Indicator:

1. *Program* that includes communicating with affected *Indigenous Peoples* to enable ~~Program Participants~~ *Certified Organizations* to:
 - a. understand and respect *traditional forest-related knowledge*;
 - b. identify and *protect* spiritually, historically, or *culturally important* sites;
 - c. address the use of *non-timber forest products* of value; ~~to Indigenous Peoples in areas where Program Participants have management responsibilities on public lands;~~
 - d. *communicate through processes that respect their representative institutions, using appropriate protocols;*
 - e. *provide opportunities to review forest management plans and forest management practices; and*
 - f. *respond to Indigenous Peoples’ inquiries and concerns received.*

Performance Measure 8.3. *Certified Organizations*~~Program Participants~~ are encouraged to communicate with and shall respond to ~~local~~ *Indigenous Peoples whose rights may be affected*

Commented [SFI63]: Edit to clarify intent.

Commented [SFI64]: Decision to delete after RC discussion. Instead edit n Guidance will clarify the intent of the Indicator.

Commented [SFI65]: Edit to clarify intent.

Commented [SFI66]: Decision to delete after RC discussion. Instead edit n Guidance will clarify the intent of the Indicator.

Commented [SFI 67]: This was an interpretation which is now incorporated into the Standard. (Interpretation #1, Part 1).

Commented [SFI 68]: Guidance updated to reflect the need to share management plans in a non-technical format.

by with respect to sustainable forest management practices on ~~the Certified Organization's~~ their private lands.

Commented [SFI 69]: Edit for clarity.

Indicators:

1. *Certified Organizations Program Participants* are aware of *traditional forest-related knowledge*, such as known cultural heritage sites, the use of wood in traditional buildings and crafts, and flora that may be used in cultural practices for food, ceremonies, or medicine.
2. Respond to *Indigenous Peoples'* inquiries and concerns received.

Objective 9. Climate Smart Forestry.

To ensure forest management activities address climate change adaptation and mitigation measures.

Performance Measure 9.1—*Certified Organizations* shall individually and/or through cooperative efforts involving *SFI Implementation Committees* or other partners ~~develop a program to~~ identify and address the climate change risks to forests and forest operations and develop appropriate adaptation objectives and strategies. ~~Strategies are based on best scientific information based on analysis of available regional climate models, research, and scenario analysis.~~

Commented [SFI70]: Edit to highlight a potential role for SICs as an example of cooperative efforts.

Commented [SFI71]: Recommended edit to remove “develop a program” as PM requires more than just developing a program.

Commented [SFI 72]: Subgroup edit for clarity.

Indicators:

1. Based on *best scientific information*, ~~Certified Organizations~~ shall identify climate change risks and prioritize them based on the likelihood, nature, ~~severity and longevity~~ of their expected impact to their forest lands or forest tenures.

Commented [SFI73]: Edit to include severity of impacts in list of factors.

2. *Certified Organizations* shall develop an adaptation plan to address priority climate change risks, via effective implementation of the *SFI 2022 Forest Management Standard* requirements for which considers approaches for ~~potential adaptive management including:~~

a. periodic updates of forest inventory and recalculation of planned harvests ~~as appropriate~~ to account for changes in growth due to productivity increases or decreases, including improved data, *long-term* drought, fertilization, climate change, or *forest health*; ~~shifting southern latitude seed zones incrementally northward and upward in elevation, as appropriate, to account for predicted warming;~~

Commented [SFI74]: Edit to link the need for an inventory update with changes in G&Y where the data is adequately calibrated.

b. access to *growth and yield modeling* capabilities ~~silvicultural activities to limit the impacts from wildfire, disease or forest pests;~~ and

c. documented harvest trends within *long-term* sustainable levels identified in the forest management plan, and

d. appropriate research, testing, *evaluation*, and deployment of *improved planting stock*, including *varietal seedlings*.

Commented [SFI75]: Edit to call out existing elements in the FM Standard that help contribute to an adaptation plan.

3. *Certified Organizations* shall document how their adaptation plan objectives and strategies fit ~~within broader regional climate adaptation strategies and plans, where they exist.~~

4. ~~Certified Organizations~~ shall report annually to SFI Inc. their progress towards achieving climate change adaptation strategies and plans.

Commented [SFI76]: New Indicator for reporting progress to SFI Inc.

-Performance Measure 9.2 - *Certified Organizations shall have a program to individually and/or through cooperative efforts involving SFI Implementation Committees or other partners identify and address opportunities to mitigate for the effects of climate change mitigation associated with its forest operations on climate change.*

Commented [SF177]: Edit to remove “develop a program” as PM requires more than just developing a program.

Commented [SF178]: Edit to highlight a potential role for SICs as an example of cooperative efforts.

Commented [SF179]: Edit to add specificity to the desired outcome for PM 9.2.

Commented [SF180]: Edit Jan 12 Task Group call.

Indicators:

1. *Based on best scientific information, Certified Organizations shall identify and address opportunities to enhance the climate benefits associated with forest management operations carbon sequestration on the forests they own or manage via effective implementation of the SFI 2022 Forest Management Standard requirements considering factors such as including:*

- a. *Objective 2 – Forest Health and Productivity; Objective 10 – Fire Smart Forestry; and/or other silvicultural or operational practices to enhance the climate benefits associated with the forest operations. improved growth rates toward the enhancement of forest carbon pools (e.g., through improved seed selection, plantation survival, stocking levels, choice of species, thinning, competition reduction, fertilization), and;*
- b. *protection of forests from the impacts from more frequent of wildfire, disease, or forest pest outbreaks as per Performance Measure 2.4. Silvicultural activities to limit the impacts practices, as appropriate.*

Commented [SF181]: Edit to call out existing elements in the FM Standard that help contribute to carbon sequestration.

Commented [SF182]: Edit to address the concern that the requirement for enhanced carbon sequestration could jeopardize a Certified Organization’s ability to satisfy the requirements of regulated carbon offset protocol.

2. *Based on best scientific information, Certified Organizations shall identify and address opportunities to enhance ecosystem resilience for the forests they own or manage via effective implementation of the SFI 2022 Forest Management Standard requirements including:*

- a. *prompt reforestation or within two planting seasons or by planned natural reforestation within five years as per Indicator 2.1.1;*
- b. *adequate regeneration and appropriate actions to correct understocked areas, and*
- c. *evaluation for afforestation of areas that are not ecologically important, and*
- d. *e-protection of desirable or planned advanced regeneration during harvest and the retention of vigorous trees during partial harvest.*

Commented [SF183]: Oct 15 edit.

Commented [SFI 84]: Subgroup edit to recognized role of afforestation and new afforestation PM in Objective 1.

3. *Based on best scientific information, Certified Organizations shall develop a program to identify and address greenhouse gas emissions within their operational control.*

Commented [SF185]: Edit following Board review Oct 21 of the new Objective 9.

4. *Certified Organizations shall report annually to SFI Inc. their measures to mitigate climate change associated with forest operations.*

Commented [SF186]: Edit to clarify the scope of he requirement.

Commented [SF187]: New Indicator for reporting progress to SFI Inc.

Objective 10. Fire Resilience and Awareness.

Commented [SF188]: New objective - Fire Resilience and Awareness

To ensure forest management activities limit susceptibility of forests to undesirable impacts levels of wildfire and to raise community awareness of fire benefits, risks, and minimization prevention measures.

Performance Measure 10.1 *On the forests they own or manage, Certified Organizations shall limit susceptibility to undesirable impacts levels of wildfire, promote healthy and resilient*

forest conditions through management techniques, actions and/or policies, and support restoration of forests following wildfire damage.

Indicators:

1. Program to evaluate the risk of undesirable impacts/levels of wildfire and the role of fire on the forests they own or manage.
2. Use of stand and landscape level management techniques, actions and/or policies to promote forest health and resilience, and to mitigate the likelihood of undesirable impacts/levels of wildfire, such as, prescribed fire, cultural burning, thinning, or hazardous fuel reduction where appropriate based on risk.
3. Use of management techniques to address wildfire damage, mitigate negative impacts to water and soils, and to promote forest restoration and future forest resilience.

Performance Measure 10.2 - Certified Organizations shall individually and/or through cooperative efforts involving government agencies, SFI Implementation Committees, Project Learning Tree, or other partners, engage in efforts to raise awareness of and take action towards benefits of fire management and minimization/prevention of undesirable impacts/levels of wildfire.

Indicators:

1. Participation in, or support of, local, state, provincial, federal, or Indigenous fire management and prevention programs.
2. Participation in, or support of, programs to promote benefits of fire management, and raise awareness about the environmental, economic, and social risks of undesirable impacts/levels of wildfire to values such as carbon emissions, water quality and quantity, air quality, species habitat, public safety, and human health.

Objective 911. Legal and Regulatory Compliance.

To comply with all applicable laws and regulations including, international, federal, provincial, state, and local laws and regulations

Performance Measure 119.1. Certified Organizations/Program Participants shall comply with applicable federal, provincial, state, and local forestry and related social and environmental laws and regulations.

Indicators:

1. Access to relevant laws and regulations in appropriate locations.
2. System to achieve compliance with applicable federal, provincial, state, or local laws and regulations.
3. Demonstration of commitment to legal compliance through available regulatory action information.

Commented [SFI89]: Local: a level of elected government below state or province such as county, district, city, township, municipality, town or parish.

Commented [SFI 90]: Edit deleting "social" as it is addressed in more detail in PM 10.2.

Commented [SFI 91]: Edit to remove as it is redundant.

Performance Measure 119.2. *Certified Organizations Program Participants* shall take appropriate steps to comply with all applicable social laws at the federal, provincial, state, and local levels in the country in which the *Certified Organization Program Participant* operates.

Commented [SFI 92]: Edit to align with language used in PM 10.1.

Indicators:

1. Written *policy* demonstrating commitment to comply with social laws, such as those covering civil rights, equal employment opportunities, *gender equality, diversity inclusion*, anti-discrimination and anti-harassment measures, workers' compensation, *Indigenous Peoples'* rights, workers', and communities' right to know, prevailing wages, workers' right to organize, and occupational health and safety.
2. *Forestry enterprises* will respect the rights of workers and labor representatives in a manner that encompasses the intent of the International Labor Organization (ILO) core conventions.

Commented [SFI 93]: Alignment with PEFC requirements.

Objective 120. Forestry Research, Science and Technology.

To invest in *forestry* research, science and technology, upon which sustainable forest management decisions are based, ~~and broaden the awareness of climate change impacts on forests, wildlife and biological diversity.~~

Commented [SFI 94]: Edit to align with language used in PM 11.1.

Commented [SFI 95]: Edit to remove "forestry" here is limiting the scope of the research and redundant with the inclusion of "sustainable forest management".

Commented [SFI 96]: The new Climate Change Objective captures the intent of this requirement.

Performance Measure 120.1. *Certified Organizations Program Participants* shall individually and/or through cooperative efforts involving *SFI Implementation Committees*, associations or other partners provide in-kind support or funding for forest research to improve *forest health, productivity and* sustainable management of forest resources, and the environmental benefits and performance of forest products.

Commented [SFI 97]: Edit to align with revised Indicator 12.1.1.

Indicators:

1. Financial or in-kind support of research, *collaboratives, or knowledge transfer* to address questions *key themes* of relevance in the region of operations *as identified by Certified Organizations, local stakeholders, communities and/or Indigenous Peoples*. Examples could include, but are not limited to, ~~areas of the following topics:~~
 - a. ~~forest productivity~~ climate change adaptation and mitigation;
 - b. water quality and quantity;
 - c. biodiversity, *Forests with Exceptional Conservation Value*, and species maintenance and recovery;
 - d. *landscape ecology*;
 - e. *Indigenous traditional forest-related knowledge*;
 - f. *ecosystem services or non-timber forest products*;
 - g. ~~community issues~~ engagement;
 - h. *forest health and productivity*;
 - i. *support for Forest Inventory Analysis (FIA)*;
 - j. *SFI sponsored Conservation-Grant Program research*;
 - k. *the role of forests in the bioeconomy, and*
 - l. *or similar areas themes* which build broader understanding of the benefits and *effects impacts* of *sustainable* forest management ~~and forest sustainability or sustainable supply chains.~~

Commented [SFI 98]: Edit to better illustrate the range of potential topics for research.

Commented [SFI99]: Subgroup edit to include sustainable supply chains.

2. ~~Research on genetically modified engineered trees via forest tree biotechnology shall adhere to all applicable federal, state, and provincial regulations and~~ Ensure that knowledge gained through research is shared, to the extent possible, to positively influence sustainable forest management. ~~Consider the sharing of knowledge gained through research in appropriate formats to influence sustainable forest management.~~

Commented [SFI 100]: Edit to strengthen the requirement.

Performance Measure 120.2. ~~Certified Organizations Program Participants~~ shall individually and/or through cooperative efforts involving *SFI Implementation Committees*, associations or other partners develop, contribute to, or use national, state, provincial or regional analyses in support of their *sustainable forestry programs*.

Commented [SFI 101]: Edit to bring more specificity to the Performance Measure.

Indicator:

1. Participation, individually and/or through cooperative efforts involving *SFI Implementation Committees* and/or associations at the national, state, provincial or regional level, in the development of ~~some of the following information such as:~~
 - a. regeneration assessments;
 - b. *growth and drain* assessments;
 - c. *best management practices* implementation and conformance;
 - d. *biodiversity conservation* information for family forest owners; and
 - e. social, cultural, or economic benefit assessments; and
 - f. *landscape-scale biodiversity* assessments which clarify the contributory role of sustainable forest management.

Commented [SFI 102]: Edit to expand the list of assessments that could be considered.

Performance Measure 10.3. ~~Certified Organizations Program Participants~~ *Certified Organizations* shall individually and/or through cooperative efforts involving *SFI Implementation Committees*, associations or other partners broaden the awareness of *climate change impacts on forests, wildlife and biological diversity*.

Indicators:

1. ~~Where available, monitor information generated from regional climate models on long-term forest health, productivity and economic viability.~~
2. ~~Program Participants~~ *Certified Organizations* are knowledgeable about *climate change impacts on wildlife, wildlife habitats and conservation of biological diversity through international, national, regional or local programs*.

Commented [SFI 103]: This Performance Measure is no longer needed due to the new Climate Smart Forestry Objective.

Objective 13.1. Training and Education.

To improve the implementation of *sustainable forestry practices* through appropriate training and education *programs*.

Commented [SFI 104]: Edits to the requirements to Objective 13 will mirror those decided in the Fiber Sourcing Subgroups discussion for Fiber Sourcing Objective 6.

Performance Measure 131.1. ~~Certified Organizations Program Participants~~ shall require appropriate training of personnel and contractors so that they are competent to fulfill their responsibilities under the *SFI 2022-15-2019 Forest Management Standard*.

Indicators:

1. Written statement of commitment to the *SFI 2022-15-2019 Forest Management Standard* communicated throughout the organization, particularly to facility and woodland managers, and field foresters.

2. Assignment and understanding of roles and responsibilities for achieving *SFI 2022-2019 Forest Management Standard objectives*.
3. Staff education and training sufficient to their roles and responsibilities.
4. Contractor education and training sufficient to their roles and responsibilities.
5. *Certified Organizations* ~~Program Participants~~ shall have written agreements for the use of *qualified logging professionals*, ~~certified logging professionals (where available); and/or wood producers that have completed training programs and are recognized as qualified logging professionals and/or certified logging companies.~~

Commented [SFI105]: Edit from Logger Training Subgroup. Edit aligns with same text in Fiber Sourcing PM 3.2.2.

6. ~~Certified Organizations can choose to use the services of certified logging companies to foster improvement in wood producers. Certified Organizations shall encourage the use of certified logging companies where they are available and after consideration of other factors involved in developing contractual relationships.~~

Commented [SFI106]: Edit to align with decision in the Logger Training Subgroup discussion.

Performance Measure 13.2. *Certified Organizations* ~~Program Participants~~ shall work individually and/or *through cooperative efforts involving with SFI Implementation Committees*, logging or *forestry* associations, or appropriate agencies or others in the *forestry* community to foster improvement in the professionalism of *wood producers specific to qualified logging professionals*.

Indicators:

1. Participation in or support of *SFI Implementation Committees* to establish criteria and identify delivery mechanisms for *wood producer core* training courses *that allow individuals to attain qualified logging professional status. These criteria shall address at least the following and periodic continuing education that address:*
 - a. awareness of *sustainable forestry principles and the SFI program* ~~SFI's work across four pillars: standards, conservation, community, and education;~~
 - b. *best management practices*, including streamside management and road construction, maintenance, and retirement;
 - c. ~~reforestation, invasive exotic plants and animals, forest resource conservation, aesthetics and special sites;~~
 - d. awareness of responsibilities under the U.S. Endangered Species Act, the Canadian Species at Risk Act, *Forests with Exceptional Conservation Value (critically imperiled and imperiled species and ecological communities)*, and other measures to *protect biodiversity and wildlife habitat*;
 - e. logging safety;
 - f. U.S. Occupational Safety and Health Administration (OSHA) and Canadian Centre for Occupational Health and Safety (CCOHS) regulations, wage and hour rules, and other provincial, state, and local employment laws, and
 - g. other topics identified by ~~Certified Organizations and/or SFI Implementation Committees~~ that improve their responsibilities in meeting the SFI 2022 ~~Standards standards;~~ ~~business management;~~
 - h. ~~public policy and outreach; and~~
 - i. ~~awareness of emerging technologies;~~

Commented [SFI 107]: Logger Training Subgroup edit to call out requirements need to attain trained status.

Commented [SFI 108]: Moved to PM 13.2, Indicator 2 under continuing education requirements.

Commented [SFI 109]: Edit to call out option to recognize other topics for as Core training.

Commented [SFI 110]: Moved to continuing education – Indicator 13.2.2

2. Participation in or support of *SFI Implementation Committees* to establish criteria and identify delivery mechanisms for *wood producer* continuing education training courses that shall be taken by *qualified logging professionals* at least once every two years to maintain their status. The continuing education training course(s) shall address one or more of the following topics:

- a. awareness of *sustainable forestry principles* and ~~the SFI program~~; SFI's work across four pillars: standards, conservation, community, and education;
- a. —
- b. *best management practices*, including streamside management and road construction, maintenance, and retirement;
- c. *reforestation, invasive species management* ~~exotic plants and animals, forest resource conservation, aesthetics and special sites~~;
- d. b. awareness of rare forested *natural communities* as identified by provincial or state agencies, or by credible organizations such as NatureServe and The Nature Conservancy;
- e. transportation issues;
- f. business management;
- g. public policy and outreach;
- h. awareness of emerging technologies;
- i. logging safety; or and
- j. other topics identified by *Certified Organization* and/or *SFI Implementation Committees* that improve their responsibilities in meeting the SFI 2022 Standards; and
- k. ~~trends related to the effectiveness of the SFI Implementation Committee approved wood producer training programs.~~

Commented [SFI 111]: New Indicator to call out Continuing Education for Qualified Logging Professionals.

Commented [SFI 112]: Aligns with comment above – repetition of core topics in Continuing Education for reinforcement.

Commented [SFI 113]: Edit to call out options to recognize other topics for as Core training.

Commented [SFI 114]: Logger Training Subgroup edit. Replaced by (j).

Performance Measure 121.3. *Certified Organizations* shall work individually and/or with *SFI Implementation Committees*, logging or forestry associations, or appropriate agencies or others in the forestry community to foster improvement in the professionalism of *wood producers* specific to *certified logging companies* professionals where they exist.

13. Participation in or support of *SFI Implementation Committees* to establish criteria for recognition of logger certification *programs*, where they exist, that include:
- a. completion of *SFI Implementation Committee* recognized logger training *programs* and meeting continuing education requirements of the training *program* of key personnel;
 - b. independent in the forest verification of conformance with the logger certification *program* standards;
 - c. compliance with all applicable laws and regulations including responsibilities under the U.S. Endangered Species Act, the Canadian Species at Risk Act and other measures to *protect wildlife habitat including Forest with Exceptional Conservation Value (critically imperiled and imperiled species and ecological communities)*;
 - d. use of *best management practices* to *protect* water quality;
 - e. adherence to a logging safety *program*;
 - f. compliance with acceptable *silviculture* and utilization standards;
 - g. aesthetic management techniques employed where applicable; and
 - h. adherence to a management or harvest plan that is site specific and agreed to by the forest landowner.

- i. independent verification that each crew includes an individual who:
 - i. has completed the *SFI Implementation Committee approved wood producer training program*;
 - ii. is an owner of, employee of, or contracted by the *wood producer*; and
 - iii. has direct responsibility and is on site regularly to consistently carry out the roles and responsibilities of the *wood producer*.

Commented [SFI115]: Certified Logging Companies referenced in PM 13.1 and the definition of Certified Logging Company updated. PM removed.

Objective 14.2. Community Involvement and Landowner Outreach.

To broaden the practice of *sustainable forestry* through public outreach, education, and involvement, and to support the efforts of *SFI Implementation Committees*.

Performance Measure 14.2.1. *Certified Organizations Program Participants* shall support and promote efforts by consulting foresters, state, provincial and federal agencies, state or local groups, professional societies, *conservation* organizations, *Indigenous Peoples* and governments, community groups, sporting organizations, labor, universities, extension agencies, the *American Tree Farm System*® and/or other landowner cooperative *programs* to apply *principles* of sustainable forest management.

Indicators:

1. Support, including financial, for efforts of *SFI Implementation Committees*.
2. Support, individually and/or through cooperative efforts involving *SFI Implementation Committees*, education and outreach to forest landowners describing the importance and providing implementation guidance on:
 - a. *best management practices*;
 - b. *reforestation* and *afforestation*;
 - c. *visual quality management*;
 - d. *conservation objectives*, such as critical *wildlife habitat* elements, *biodiversity*, *threatened and endangered* species, and *Forests with Exceptional Conservation Value*;
 - e. management of harvest residue (e.g., slash, limbs, tops) considers economic, social, environmental factors (e.g., *organic*, and nutrient value to future forests) and other utilization needs;
 - f. control of *invasive species* ~~*exotic plants and animals*~~;
 - g. characteristics of *special sites*; and
 - h. reduction of wildfire risk;
 - i. use of *qualified logging professionals*, ~~and~~ *qualified resource professionals* ~~and/or~~ *certified logging companies*;
 - j. awareness of SFI, and
 - k. reporting of inconsistent practices.
3. Participation in efforts to support or promote *conservation* of managed forests through voluntary market-based incentive *programs* such as current-use taxation *programs*, *Forest Legacy Program*, *conservation* easements *federal, state, or provincial cost share programs*, or ~~the~~ *SFI Conservation Grants Program*.

Commented [SFI116]: Inclusion of Certified Logging Companies

Performance Measure 14.2.2. *Certified Organizations Program Participants* shall *individually and/or through cooperative efforts involving* ~~*membership in a SFI Implementation*~~

Committee(s) support and promote, at the state, provincial or other appropriate levels, mechanisms for public outreach, education and involvement related to sustainable forest management.

Indicator:

1. Periodic educational opportunities **for the public** promoting *sustainable forestry*, such as
 - a. field tours, seminars, websites, webinars or workshops;
 - b. educational trips;
 - c. self-guided forest management trails;
 - d. publication of articles, educational pamphlets, or newsletters; or
 - e. support for **national**, state, provincial, and local *forestry* organizations and soil and water *conservation* districts.
 - f. **engagement and support of teachers and/or students through programs such as Project Learning Tree.**

Performance Measure 142.3. ~~*Certified Organizations Program Participants*~~ shall, **individually and/or through cooperative efforts including membership in a *SFI Implementation Committee(s)***, establish, at the state, provincial, or other appropriate levels, procedures to address concerns raised by loggers, consulting foresters, employees, unions, *stakeholders*, the public or other *Certified Organizations* regarding **management practices** that appears inconsistent with the SFI ~~Standard-standards~~ principles and objectives.

Indicators:

1. Support for *SFI Implementation Committees* (e.g., toll-free numbers and other efforts) to address concerns about apparent nonconforming practices.
2. Process to receive and respond to public inquiries. *SFI Implementation Committees* shall submit data annually to *SFI Inc.* regarding concerns received and responses.

Objective 153: Public Land Management Responsibilities.

To participate and implement sustainable forest management on *public lands*.

Performance Measure 153.1. ~~*Certified Organizations Program Participants*~~ with forest *management responsibilities on public lands* shall participate in the development of *public land* planning and management processes.

Indicators:

1. Involvement in *public land* planning and management activities with appropriate governmental entities and the public.
2. Appropriate contact with local *stakeholders* over forest management issues through state, provincial, federal, or independent collaboration.

Objective 164. Communications and Public Reporting.

To increase transparency and to annually report progress on conformance with the *SFI Forest Management Standard*.

Performance Measure 164.1. A ~~Certified Organization~~~~Program Participant~~ shall provide a summary audit report, prepared by the *certification body*, to *SFI Inc.* after the successful completion of a certification, recertification, or surveillance audit to the *SFI 2022-15-2019 Forest Management Standard*.

Indicator:

1. The summary audit report submitted by the ~~Certified Organizations~~ ~~Certified Organization~~~~Program Participant~~ (one copy must be in English), shall include, at a minimum,
 - a. a description of the audit process, *objectives* and scope;
 - b. a description of substitute *indicators*, if any, used in the audit and a rationale for each;
 - c. the name of ~~Certified Organization~~ ~~Program Participant~~ that was audited, including its SFI representative;
 - d. a general description of the ~~Certified Organization's~~ ~~Program Participant's~~ forestland included in the audit;
 - e. the name of the *certification body* and *lead auditor* (names of the *audit team* members, including *technical experts* may be included at the discretion of the *audit team* and ~~Certified Organization~~~~Program Participant~~);
 - f. the dates the audit was conducted and completed;
 - g. a summary of the findings, including general descriptions of evidence of conformity and any nonconformities and corrective action plans to address them, opportunities for improvement, and exceptional ~~management practices~~; and
 - h. the certification decision.

The summary audit report will be posted on the *SFI Inc.* website (www.forests.org) for public review.

Performance Measure 164.2. ~~Certified Organizations~~ ~~Program Participants~~ shall report annually to *SFI Inc.* on their conformance with the *SFI 2022-15-2019 Forest Management Standard*.

Indicators:

1. Prompt response to the SFI annual progress report survey.
2. Record keeping for all the categories of information needed for SFI annual progress report surveys.
3. Maintenance of copies of past survey reports to document progress and improvements to demonstrate conformance to the *SFI 2022-15-2019 Forest Management Standard*.

Objective 175. Management Review and Continual Improvement.

To promote continual improvement in the practice of *sustainable forestry* by conducting a management review and monitoring performance.

Performance Measure 175.1. ~~Certified Organizations~~ ~~Program Participants~~ shall establish a management review system to examine findings and progress in implementing the *SFI 2022-15-2019 Forest Management Standard*, to make appropriate improvements in *programs*, and to inform their employees of changes.

Indicators:

1. System to review commitments, *programs*, and procedures to evaluate effectiveness.
2. System for collecting, reviewing, and reporting information to management regarding progress in achieving *SFI 20~~2215~~-2019 Forest Management Standard objectives and performance measures*; including measures to reduce the negative impacts from forest management operations.
3. Annual review of progress by management and determination of changes and improvements necessary to continually improve conformance to the *SFI 20~~2215~~-2019 Forest Management Standard*.

Commented [SFI 117]: This was an interpretation which is now incorporated into the Standard. (Interpretation #2, Part 1).